State Board of Land Commissioners Open Meeting Checklist

Meeting Date: September 21, 2021

Regular Meetings

9/9/2021	Meeting Notice posted in prominent place in IDL's Boise Director's office five (5) or more calendar days before meeting.
9/9/2021	Meeting Notice posted in prominent place in IDL's Coeur d'Alene staff office five (5) or more calendar days before meeting.
9/9/2021	Meeting Notice posted in prominent place at meeting location five (5) or more calendar days before meeting.
9/9/2021	Meeting Notice emailed/faxed to list of media and interested citizens who have requested such notice five (5) or more calendar days before meeting.
9/9/2021	Meeting Notice posted electronically on IDL's public website www.idl.idaho.gov five (5) or more calendar days before meeting.
9/16/2021	Agenda posted in prominent place in IDL's Boise Director's office forty-eight (48) hours before meeting.
9/16/2021	Agenda posted in prominent place in IDL's Coeur d'Alene staff office forty-eight (48) hours before meeting.
9/16/2021	Agenda posted in prominent place at meeting location forty-eight (48) hours before meeting.
9/16/2021	Agenda emailed/faxed to list of media and interested citizens who have requested such notice forty-eight (48) hours before meeting.
9/16/2021	Agenda posted electronically on IDL's public website www.idl.idaho.gov forty-eight (48) hours before meeting.
5/6/2021	Land Board annual meeting schedule posted – Boise Director's office, Coeur d'Alene staff office, and IDL's public website www.idl.idaho.gov

Special Meetings

	Meeting Notice and Agenda posted in a prominent place in IDL's Boise Director's office twenty-four (24) hours before meeting.
	Meeting Notice and Agenda posted in a prominent place in IDL's Coeur d'Alene staff office twenty-four (24) hours before meeting.
	Meeting Notice and Agenda posted at meeting location twenty-four (24) hours before meeting.
	Meeting Notice and Agenda emailed/faxed to list of media and interested citizens who have requested such notice twenty-four (24) hours before meeting.
	Meeting Notice and Agenda posted electronically on IDL's public website www.idl.idaho.gov twenty-four (24) hours before meeting.
	Emergency situation exists – no advance Meeting Notice or Agenda needed. "Emergency" defined in Idaho Code § 74-204(2).

Executive Sessions *(If only an Executive Session will be held)*

	Meeting Notice and Agenda posted in IDL's Boise Director's office twenty-four (24) hours before meeting.
	Meeting Notice and Agenda posted in IDL's Coeur d'Alene staff office twenty-four (24) hours before meeting.
	Meeting Notice and Agenda emailed/faxed to list of media and interested citizens who have requested such notice twenty-four (24) hours before meeting.
	Meeting Notice and Agenda posted electronically on IDL's public website www.idl.idaho.gov twenty-four (24) hours before meeting.
	Notice contains reason for the executive session and the applicable provision of Idaho Code § 74-206 that authorizes the executive session.

Renee Jacobsen — September 16, 2021

Recording Secretary — Date

Idaho State Board of Land Commissioners
Brad Little, Governor and President of the Board
Lawerence E. Denney, Secretary of State
Lawrence G. Wasden, Attorney General
Brandon D Woolf, State Controller
Sherri Ybarra, Superintendent of Public Instruction

Dustin T. Miller, Secretary to the Board

NOTICE OF PUBLIC MEETING
SEPTEMBER 2021

The Idaho State Board of Land Commissioners will hold a Regular Meeting on Tuesday, September 21, 2021 in the **State Capitol, Lincoln Auditorium (WW02), Lower Level, West Wing, 700 W. Jefferson St., Boise, Idaho**. The meeting is scheduled to begin at 9:00 AM (Mountain).

The State Board of Land Commissioners will conduct this meeting in person and by virtual means. This meeting is open to the public.

Public comment will be accepted on specified agenda item(s) only.
Advanced sign up is required. See details on page 2.

Meeting will be streamed live via IPTV: https://www.idahoptv.org/shows/idahoinsession/

Members of the public may register to attend the Zoom webinar through this link:
https://idl.zoom.us/webinar/register/WN_UFPzYTv2RfeRF_FgzTF_Qw

The Governor's Stage 4 Stay Healthy Guidelines dated 5/11/2021 allows for public meetings of any size with adherence to physical distancing and sanitation requirements. Individuals are encouraged to watch online or via webinar. All in-person attendees must comply with current COVID-19 safety protocols for public gatherings in the City of Boise, including but not limited to guidance regarding face coverings and social distancing. Physical distancing measures reduce the meeting room's normal attendance capacity.[1]

[1] www.cityofboise.org/departments/mayor/coronavirus-covid-19-information/ AND www.cdhd.idaho.gov/dac-coronavirus

First Notice Posted: 9/9/2021-IDL Boise; 9/9/2021-IDL CDA

This notice is published pursuant to § 74-204 Idaho Code. For additional information regarding Idaho's Open Meeting law, please see Idaho Code §§ 74-201 through 74-208.

Public Comment Procedure

Agenda Item 2021 Grazing Rate Methodology

Public comment may be submitted in the following manner:

- Written comments were accepted through 5 PM on Friday, September 3, 3021. The comment period is now closed. Written comments received will be included in the meeting record.
- In person at the Land Board meeting.
  - Audience capacity due to physical distancing measures is limited. Participation by webinar is highly encouraged.
- By Zoom webinar during the Land Board meeting.
  - Advanced sign-up is required, *no later than Thursday, September 16, 2021 at 2 PM (MT)*.
  - Notify Renée Jacobsen (rjacobsen@idl.idaho.gov) if you wish to provide comment.
  - Complete Zoom registration:
    - https://idl.zoom.us/webinar/register/WN_UFPzYTv2RfeRF_FgzTF_Qw
    - Submit registration no later than 2:00 PM (MT) on September 16th.
- A measured amount of time will be allocated for public comment.
- Remarks will be limited to **3 minutes per individual or group representative**.
  - Groups, associations, organizations, etc. with multiple members in attendance must select one individual as spokesperson.
- The Land Board may conclude public comment at its discretion, at any time.

First Notice Posted: 9/9/2021-IDL Boise; 9/9/2021-IDL CDA

This notice is published pursuant to § 74-204 Idaho Code. For additional information regarding Idaho's Open Meeting law, please see Idaho Code §§ 74-201 through 74-208.

Idaho Department of Lands, 300 N 6th Street, Suite 103, Boise ID 83702, 208.334.0242

Idaho State Board of Land Commissioners

Brad Little, Governor and President of the Board
Lawerence E. Denney, Secretary of State
Lawrence G. Wasden, Attorney General
Brandon D Woolf, State Controller
Sherri Ybarra, Superintendent of Public Instruction

Dustin T. Miller, Secretary to the Board

State Board of Land Commissioners Regular Meeting
September 21, 2021 – 9:00 AM (MT)
Final Agenda
Capitol, Lincoln Auditorium (WW02), Lower Level, West Wing, 700 W. Jefferson St., Boise, Idaho

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The State Board of Land Commissioners will conduct this meeting in person and by virtual means. This meeting is open to the public.

Public comment will be accepted for agenda item 8 only.
Advanced sign-up is required, no later than 9/16/2021 @ 2 PM (MT). See details on page 2.

Meeting will be streamed live via IPTV: https://www.idahoptv.org/shows/idahoinsession/

Members of the public may register to attend the Zoom webinar through this link:
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1. **Department Report** – *Presented by Dustin Miller, Director*

   Trust Land Revenue
   A. Timber Sales – August 2021
   B. Leases and Permits – August 2021

   Status Updates
   C. Fire Season Report
   D. Cottage Sites Auction – Priest Lake 2021 Results

2. **Endowment Fund Investment Board Report** – *Presented by Chris Anton, EFIB Manager of Investments*

   A. Manager's Report
   B. Investment Report

[1] www.cityofboise.org/departments/mayor/coronavirus-covid-19-information/ AND www.cdhd.idaho.gov/dac-coronavirus

Consent—Action Item(s)

3. **Results of August 2021 Grazing Lease Live Auctions** – *Presented by Dustin Miller, Director*

4. **Approval of Draft Minutes** – August 17, 2021 Regular Meeting (Boise)

Regular—Action Item(s)

5. **FY2023 Department of Lands Budget** – *Presented by Debbie Buck, Financial Officer*

6. **Eastern Idaho Regional Solid Waste District Land Exchange** – *Presented by Josh Purkiss, Bureau Chief-Real Estate Services*

7. **Trident Holdings, LLC Request for Rescission and Contested Case Hearing** – *Presented by Office of the Attorney General, and Bailey Glasser, LLP*

8. **2021 Grazing Rate Methodology** – *Presented by Dustin Miller, Director*

Information

None

Executive Session

None

Public Comment Procedure – Agenda Item 8 Only

Public comment may be submitted in the following manner:

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- In person or by webinar during the Land Board meeting.
  - Advanced sign-up is required, *no later than Thursday, September 16, 2021 at 2 PM (MT)*.
  - Notify Renée Jacobsen (rjacobsen@idl.idaho.gov) if you wish to provide comment.
  - Audience capacity due to physical distancing measures is limited. Participation by webinar is highly encouraged.
  - Complete registration:
    - https://idl.zoom.us/webinar/register/WN_UFPzYTv2RfeRF_FgzTF_Qw
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- A measured amount of time will be allocated for public comment.
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  - Groups, associations, organizations, etc. with multiple members in attendance must select one individual as spokesperson.
- The Land Board may conclude public comment at its discretion, at any time.

TITLE 74
TRANSPARENT AND ETHICAL GOVERNMENT
CHAPTER 2
OPEN MEETINGS LAW

74-206. EXECUTIVE SESSIONS — WHEN AUTHORIZED. (1) An executive session at which members of the public are excluded may be held, but only for the purposes and only in the manner set forth in this section. The motion to go into executive session shall identify the specific subsections of this section that authorize the executive session. There shall be a roll call vote on the motion and the vote shall be recorded in the minutes. An executive session shall be authorized by a two-thirds (2/3) vote of the governing body. An executive session may be held:

(a) To consider hiring a public officer, employee, staff member or individual agent, wherein the respective qualities of individuals are to be evaluated in order to fill a particular vacancy or need. This paragraph does not apply to filling a vacancy in an elective office or deliberations about staffing needs in general;

(b) To consider the evaluation, dismissal or disciplining of, or to hear complaints or charges brought against, a public officer, employee, staff member or individual agent, or public school student;

(c) To acquire an interest in real property not owned by a public agency;

(d) To consider records that are exempt from disclosure as provided in chapter 1, title 74, Idaho Code;

(e) To consider preliminary negotiations involving matters of trade or commerce in which the governing body is in competition with governing bodies in other states or nations;

(f) To communicate with legal counsel for the public agency to discuss the legal ramifications of and legal options for pending litigation, or controversies not yet being litigated but imminently likely to be litigated. The mere presence of legal counsel at an executive session does not satisfy this requirement;

(g) By the commission of pardons and parole, as provided by law;

(h) By the custody review board of the Idaho department of juvenile corrections, as provided by law;

(i) To engage in communications with a representative of the public agency’s risk manager or insurance provider to discuss the adjustment of a pending claim or prevention of a claim imminently likely to be filed. The mere presence of a representative of the public agency’s risk manager or insurance provider at an executive session does not satisfy this requirement; or

(j) To consider labor contract matters authorized under section 74-206A (1)(a) and (b), Idaho Code.

(2) The exceptions to the general policy in favor of open meetings stated in this section shall be narrowly construed. It shall be a violation of this chapter to change the subject within the executive session to one not identified within the motion to enter the executive session or to any topic for which an executive session is not provided.

(3) No executive session may be held for the purpose of taking any final action or making any final decision.

(4) If the governing board of a public school district, charter district, or public charter school has vacancies such that fewer than two-thirds (2/3) of board members have been seated, then the board may enter into executive session on a simple roll call majority vote.

History:

[74-206, added 2015, ch. 140, sec. 5, p. 371; am. 2015, ch. 271, sec. 1, p. 1125; am. 2018, ch. 169, sec. 25, p. 377; am. 2019, ch. 114, sec. 1, p. 439.]

STATE BOARD OF LAND COMMISSIONERS
September 21, 2021
Trust Land Revenue

Timber Sales

During August 2021, the Department of Lands sold three endowment timber sales at auction. The endowment net sale value represents a 14% up bid over the advertised value. The East Pine Salvage sale sold on September 2nd to Woodgrain Inc. with competitive bidding from Tamarack Mill LLC and IFG Timber LLC. This is the last salvage sale resulting from the Woodhead Johnson Fire on the Payette Lakes Area. The Department of Lands also sold one Good Neighbor Authority sale at auction. The GNA net sale value represents a 197% up bid over the advertised value.

The Great Scott Salvage and Benton North Cedar Salvage sales are fire salvage sales resulting from the Cougar Rock Complex on the St. Joe and Clearwater Supervisory Areas. These are the first two salvage sales proposed for auction from these two supervisory areas. Approximately six to seven more fire salvage sales will be proposed for auction within the next two months from these two supervisory areas.

TIMBER SALE AUCTIONS								
Sale Name	**Area**	**Sawlogs MBF**	**Cedar Prod MBF**	**Pulp MBF**	**Appraised Net Value**	**Sale Net Value**	**Net $/MBF**	**Purchaser**
Trapper Shelter	CLW	8,160	90		$ 1,273,422.50	$1,541,674.30	$186.87	IFG Timber LLC
Swamp Engraver Ton	MC	5,025			$ 910,385.50	$ 910,385.50	$181.17	IFG Timber LLC
Patty Fry	POND	7,075			$ 1,846,105.50	$2,151,281.85	$304.07	PotlatchDeltic
Endowment		**20,260**	**90**	**0**	**$ 4,029,913.50**	**$4,603,341.65**	**$226.21**	
Careywood GNA Ton Salvage	GNA	1,280			$ 39,069.28	$ 116,087.00	$90.69	Vaagen Bros
Non-Endowment		**1,280**	**0**	**0**	**$ 39,069.28**	**$ 116,087.00**	**$90.69**	

PROPOSED TIMBER SALES FOR AUCTION				
Sale Name	**Volume MBF**	**Advertised Net Value**	**Area**	**Estimated Auction Date**
North Operations				
Barn Creek Cedar Salvage	310	$ 153,882	Ponderosa	9/14/2021
Barn Damage Salvage	720	$ 308,889.00	St. Joe	9/22/2021
Great Scott Salvage	810	$ 525,015.00	St. Joe	9/22/2021
White Schwartz Cedar	1,465	$ 692,048	Ponderosa	9/23/2021
Windy Bear Salvage	190	$ 49,214	Priest Lake	9/24/2021
Cedar Gap	1,700	$ 1,267,232	Priest Lake	9/30/2021
TOTALS	**5,195**	**$ 2,996,280**		

PROPOSED TIMBER SALES FOR AUCTION (continued)				
Sale Name	**Volume MBF**	**Advertised Net Value**	**Area**	**Estimated Auction Date**
South Operations				
East Pine Salvage	2,020	$ 171,694	Payette Lakes	9/2/2021
North Porters	6,760	$ 1,530,504	Clearwater	9/9/2021
Cedar Creek Salvage	510	$ 319,697	Clearwater	9/9/2021
Benton North Cedar Salvage	21,605	$ 7,198,440	Clearwater	9/9/2021
Boulder Cop Ton	6,745	$ 975,427	Payette Lakes	9/14/2021
TOTALS	**37,640**	**$ 10,195,762**		

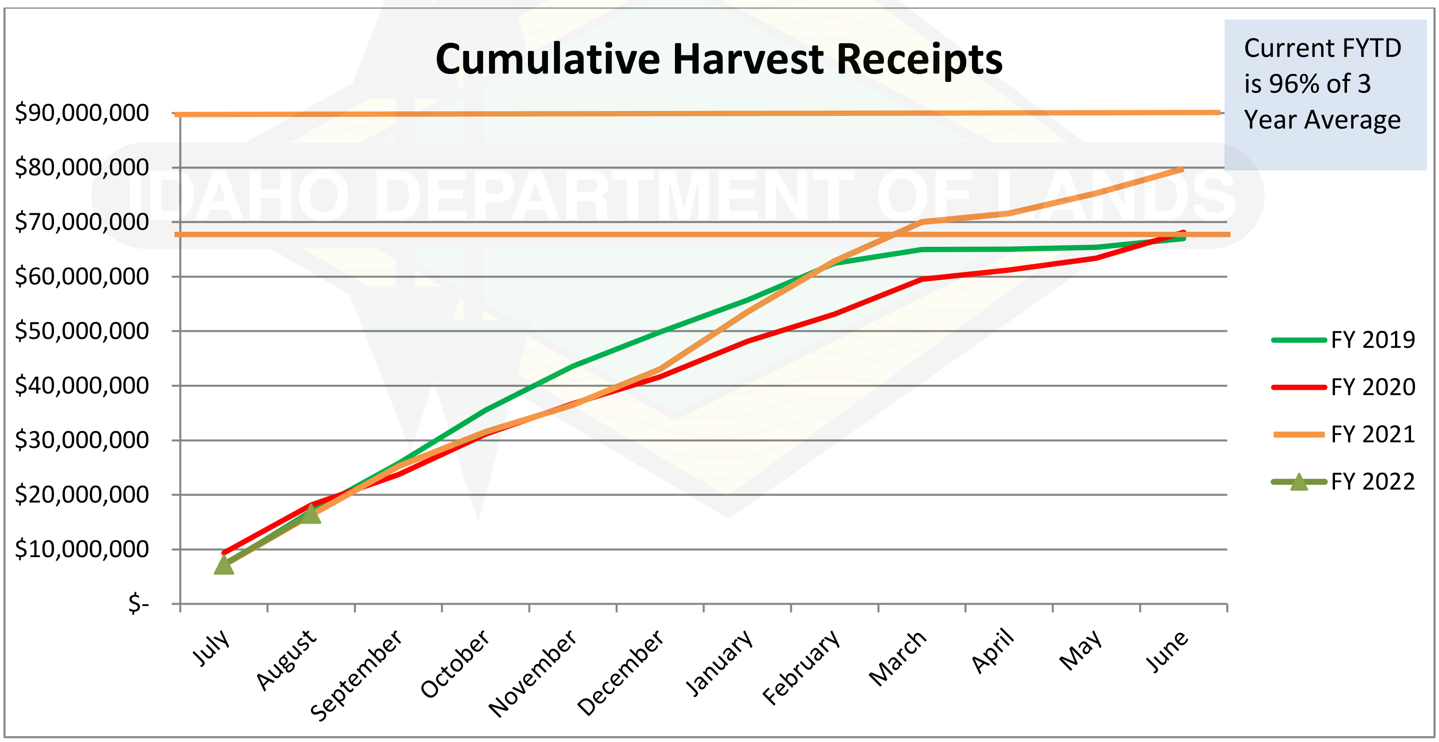
VOLUME UNDER CONTRACT as of August 31, 2021				
	Public School	**Pooled**	**Total**	**3 Year Avg.**
Active Contracts			180	179
Total Residual MBF Equivalent	328,383	207,844	536,227	555,474
Estimated residual value	$81,587,728	$57,871,497	$139,459,225	$153,611,360
Residual Value ($/MBF)	$248.45	$278.44	$260.07	$276.46

	TIMBER HARVEST RECEIPTS				
	August		**FY to date**	**September Projected**	
	Stumpage	**Interest**	**Harvest Receipts**	**Stumpage**	**Interest**
Public School	$ 5,847,792.37	$ 832,789.89	$ 10,942,283.14	$ 5,002,681.02	$ 537,874.65
Pooled	$ 2,374,605.01	$ 250,303.76	$ 5,591,757.11	$ 3,630,360.53	$ 356,403.60
General Fund	$ 1.14	$ 0.00	$ 2.58	$ 1.14	$ 0.00
TOTALS	**$ 8,222,398.52**	**$ 1,083,093.65**	**$ 16,534,042.83**	**$ 8,633,042.69**	**$ 894,278.25**

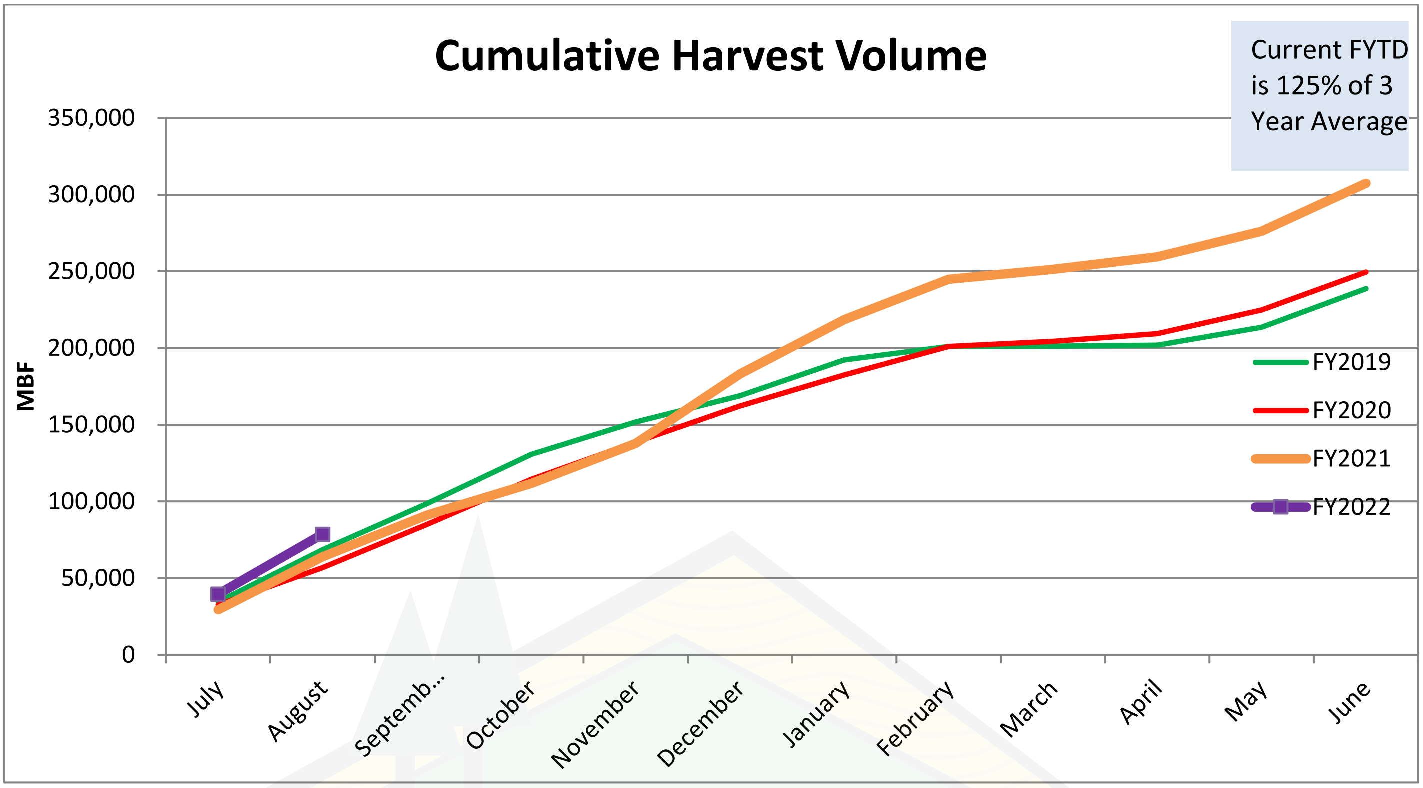
	Status of FY2021 Timber Sale Program						
	MBF Sawlog				**Number Poles**		
	Public School	**Pooled**	**All Endowments**		**Public School**	**Pooled**	**All Endowments**
Sold as of August 31, 2021	163,674	113,198	276,872		17,976	12,254	30,230
Currently Advertised	0	0	0		0	0	0
In Review	6,910	0	6,910		0	0	0
Did Not Sell[1]	0	0	0		0	0	0
TOTALS	**170,584**	**113,198**	**283,782**		**17,976**	**12,254**	**30,230**
FY2021 Sales Plan			284,238				28,810
Percent to Date			100%				105%

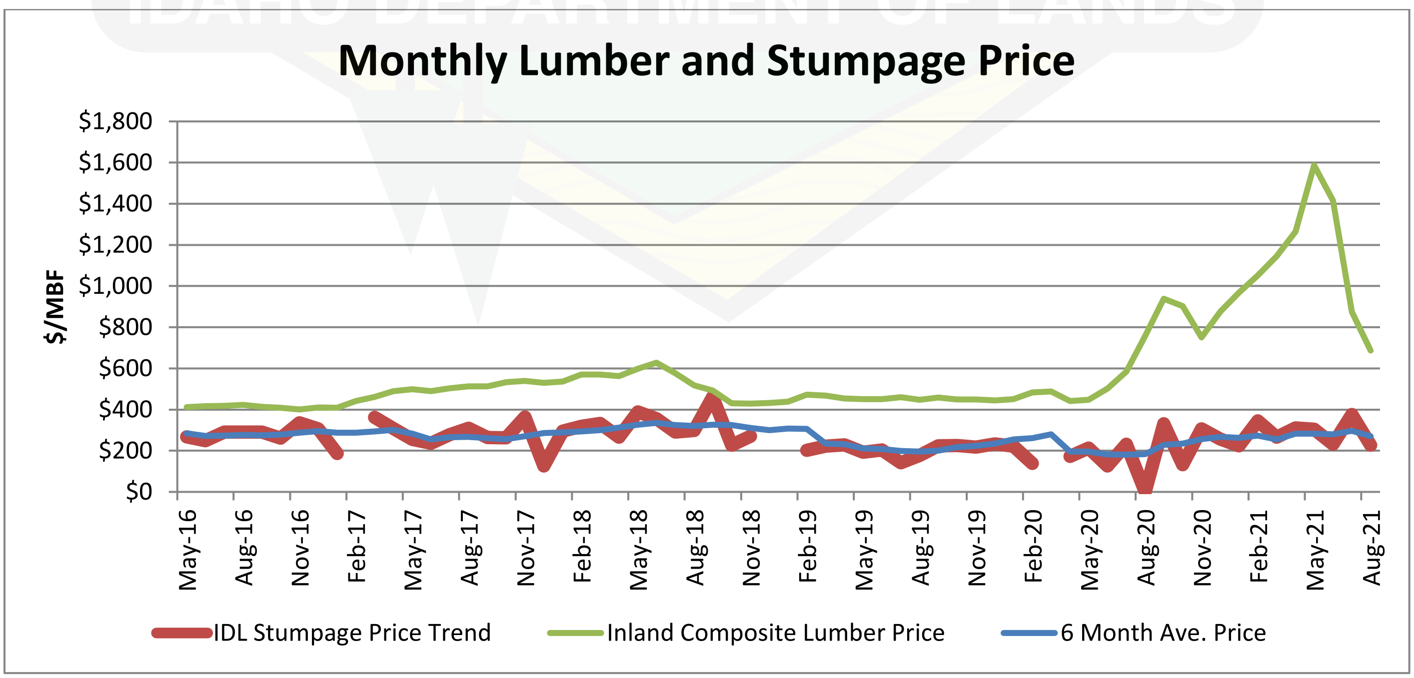
[1] After three attempts at auction.

	Status of FY2022 Timber Sale Program					
	MBF Sawlog			Number Poles		
	Public School	Pooled	All Endowments	Public School	Pooled	All Endowments
Sold as of August 31, 2021	5,363	9,021	14,384	0	0	0
Currently Advertised	23,854	11,707	35,561	13,854	4,855	18,709
In Review	27,170	4,125	31,295	4,455	0	4,455
Did Not Sell[2]	0	0	0	0	0	0
TOTALS	**56,387**	**24,853**	**81,240**	**18,309**	**4,855**	**23,164**
FY2022 Sales Plan			311,195			20,600
Percent to Date			26%			112%

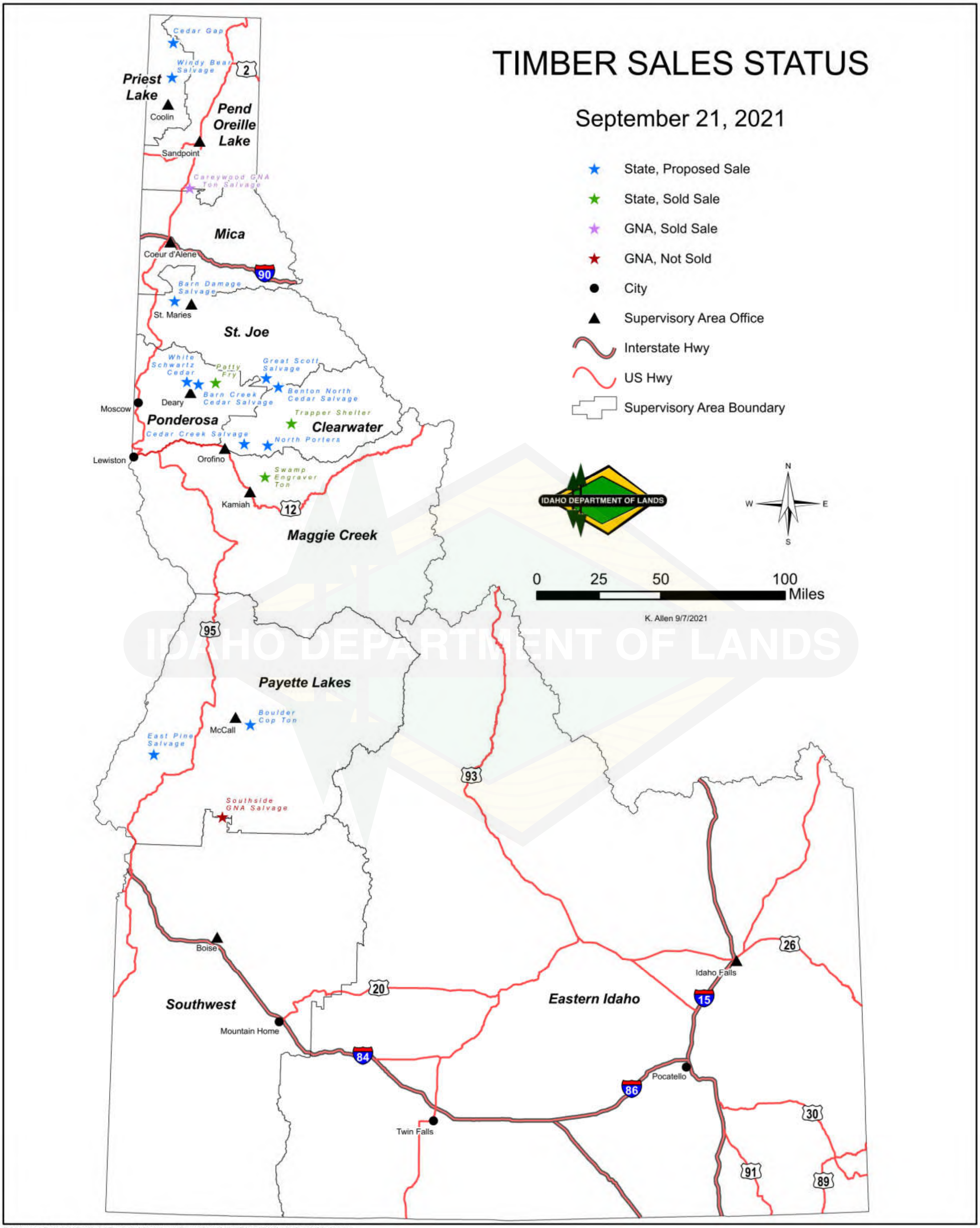


[2] After three attempts at auction.





August 2021 6-month average price is $270.14.
August 2020 6-month average price was $183.85.



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STATE BOARD OF LAND COMMISSIONERS
September 21, 2021
Endowment Transactions

Leases and Permits

FISCAL YEAR 2022 – LEASING & PERMITTING TRANSACTIONS BY MONTH – through August 31, 2021													
ACTIVITY	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**FYTD**
SURFACE													
Agriculture	-	-											0
Assignments	-	-											0
Communication Sites	-	-											0
Grazing	-	3											3
Assignments	2	-											2
Residential	1	-											1
Assignments	-	-											0
COMMERCIAL													
Alternative Energy	-	-											0
Industrial	-	-											0
Military	-	-											0
Office/Retail	-	-											0
Recreation	-	-											0
Assignments	-	-											0
OTHER													
Conservation	-	-											0
Assignments	-	-											0
Geothermal	-	-											0
Minerals	-	-											0
Assignments	-	-											0
Non-Comm Recreation	-	-											0
Oil & Gas	-	-											0
PERMITS													
Land Use Permits	9	9											18
TOTAL INSTRUMENTS	12	12	0	0	0	0	0	0	0	0	0	0	24

Real Estate

FISCAL YEAR 2022 – REAL ESTATE TRANSACTIONS BY MONTH – through August 31, 2021													
ACTIVITY	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**FYTD**
Deeds Acquired	-	-											0
Deeds Granted	-	-											0
Deeds Granted - Surplus	-	-											0
Easements Acquired	-	-											0
Easements Granted	-	-											0

Land Exchange Update

Owyhee Land Exchange - The IDL and OAG are working through the final review of the closing documents.

Idaho Forest Group - All closing documents are routed for signature and should close within the next two weeks.

Deatley - All closing documents are routed for signature and should close by the end of September.

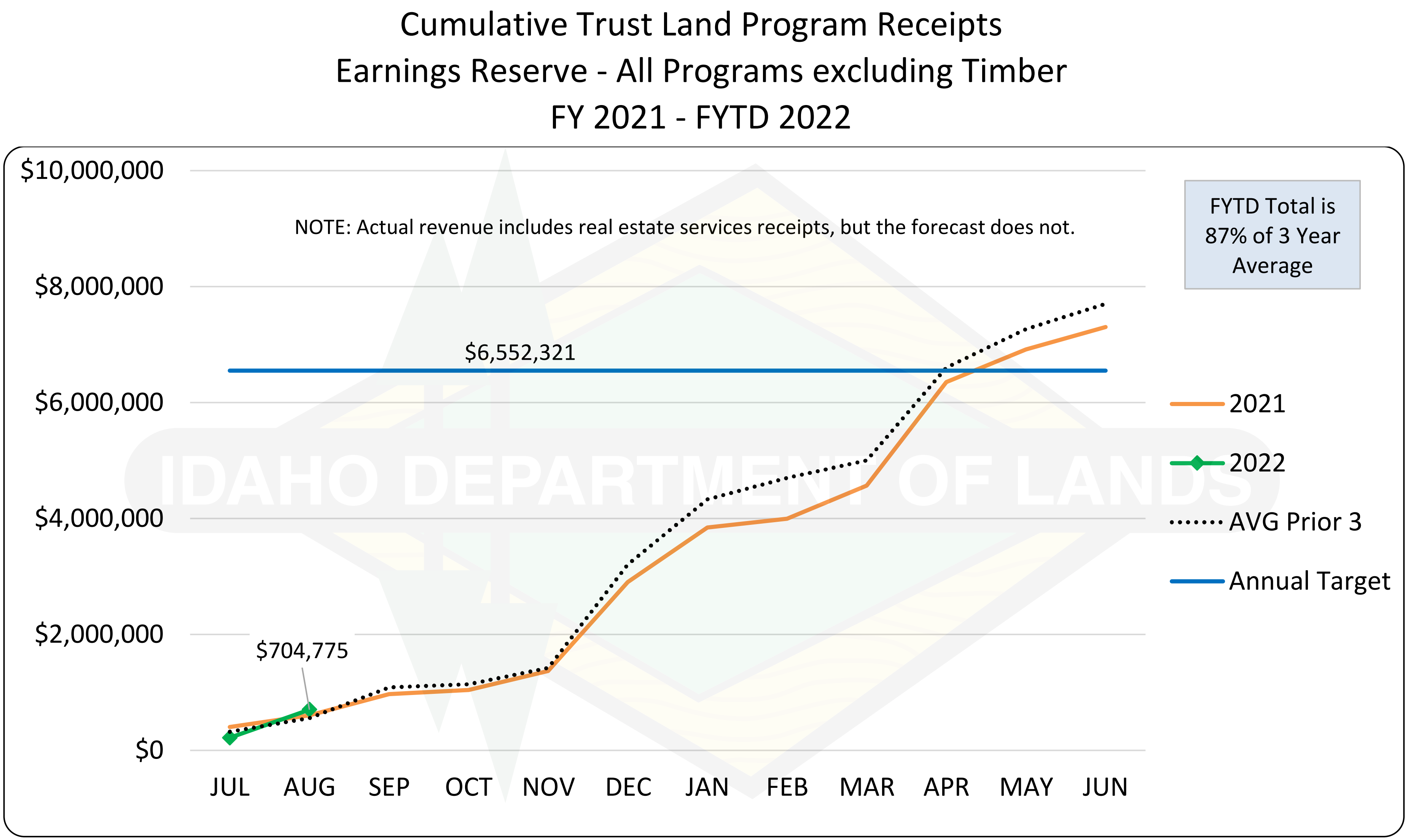
EIRSWD - Presenting to the Land Board for final approval to close. If approved, the anticipated close of escrow is the end of January 2022.

Avimor - The IDL, OAG, and representatives from Avimor are working through a number of title issues that were identified during the review.

TRUST LAND MANAGEMENT DIVISION
FY2022 GROSS REVENUE (non-timber) - ACTUAL AND FORECASTED
through August 31, 2021

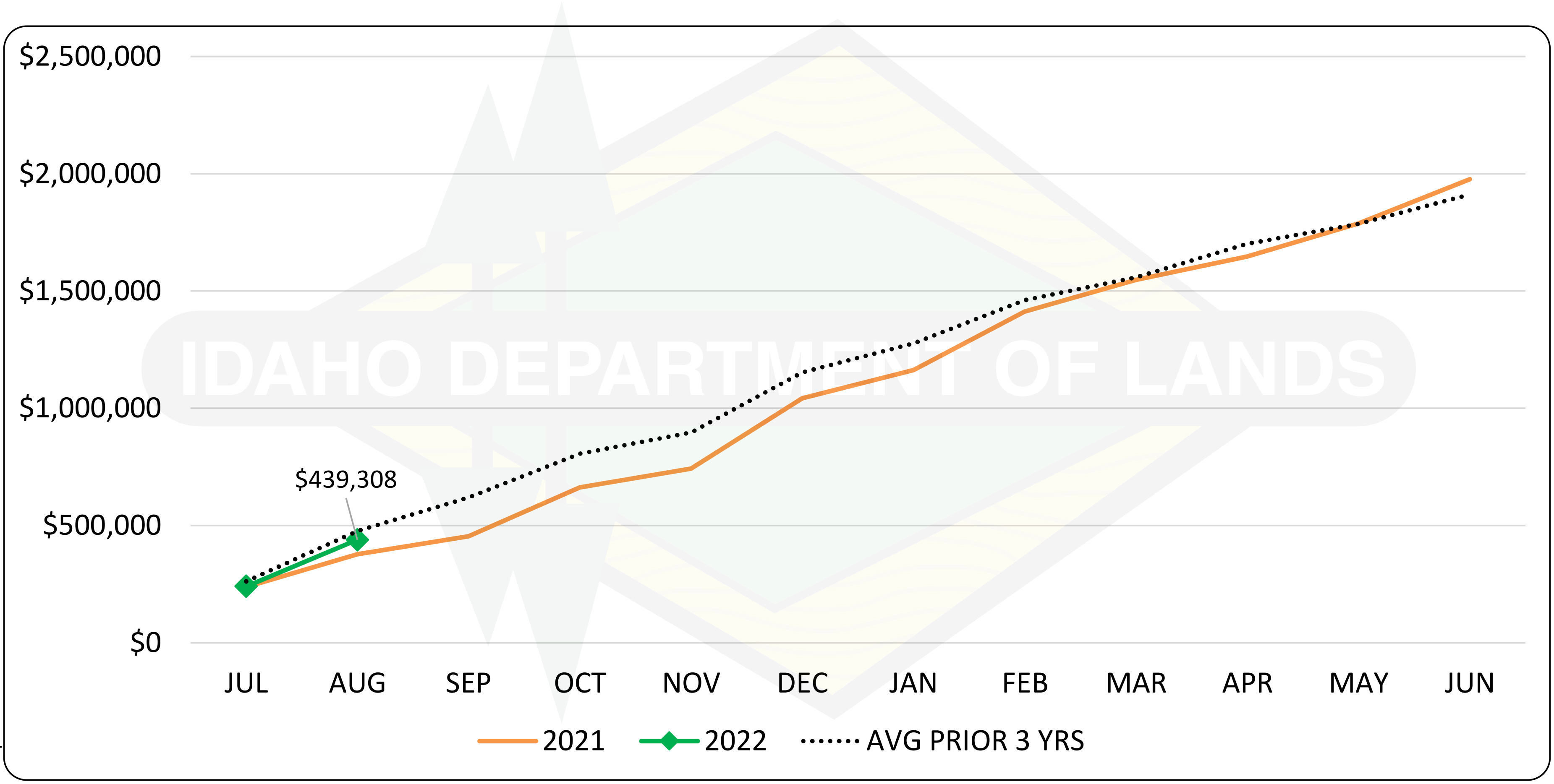
	ACTUAL RECEIPTS AS OF 08.31.2021	REVENUE EXPECTED BY 08.31.2021**	REVENUE EXPECTED BY 06.30.2022
SURFACE			
AGRICULTURE	$ 1,800	$ 2,200	$ 491,700
COMMUNICATION SITES	$ 141,798	$ 15,165	$ 1,011,000
GRAZING	$ 21,351	$ 30,000	$ 1,817,000
RESIDENTIAL	$ 325	$ 1,200	$ 1,303,345
COMMERCIAL			
COMMERCIAL ENERGY RESOURCES	$ -	$ -	$ 21,859
COMMERCIAL INDUSTRIAL	$ 17,098	$ 1,143	$ 84,967
COMMERCIAL MILITARY	$ -	$ -	$ 91,463
COMMERCIAL OFFICE/RETAIL	$ 470,278	$ 36,354	$ 923,859
COMMERCIAL RECREATION***	$ 39,073	$ 2,000	$ 531,800
OTHER			
CONSERVATION LEASES	$ -	$ -	$ 65,000
GEOTHERMAL	$ -	$ -	$ -
MINERAL	$ 2,127	$ 987	$ 105,403
NON-COMMERCIAL RECREATION	$ 10,250	$ 500	$ 98,452
OIL AND GAS LEASES	$ 465	$ -	$ 6,473
Sub Total	**$ 704,565**	**$ 89,549**	**$ 6,552,321**
*LAND SALES/RECORDS	$ -		
*REAL ESTATE SERVICES	$ 211		
Grand Total	**$ 704,775**		

* These categories are not included in the annual forecast.
** These figures are based on "normal" timing of revenue/billing throughout the year.



Cumulative Trust Land Program Receipts
Earnings Reserve - All Programs excluding Timber
FY 2021 - FYTD 2022
$10,000,000
$8,000,000
$6,000,000
$4,000,000
$2,000,000
$0
NOTE: Actual revenue includes real estate services receipts, but the forecast does not.
FYTD Total is 87% of 3 Year Average
$6,552,321
$704,775
JUL
AUG
SEP
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
2021
2022
AVG Prior 3
Annual Target
IDAHO DEPARTMENT OF LANDS

Cumulative Trust Land Permanent Fund Revenue/Royalties
(Does NOT include Land Bank Revenue)
FY2021 - FYTD 2022



STATE BOARD OF LAND COMMISSIONERS

September 21, 2021
Department Report

Subject

Fire Season Update

Background

As of September 15, Emergency Fire Suppression expenditures are estimated to be $68,000,000. The Suppression Account will recover an estimated $4,400,000 of reimbursable costs, for a net obligation of $63,600,000. The total obligation includes the 2021 contracted aircraft costs, prepositioned contract engines and crews to assist with resource scarcity. These engines are assigned across the state to boost initial attack resources.

Discussion

Currently, there are no IDL fires being managed with an Incident Management Team.

On September 2, IDL responded to the Prater Red 2 Fire, 11 miles northeast of Priest River. The fire burned in logging slash and grew to 42 acres. The fire is currently 100 percent contained and was managed by the IDL type 3 team.

As shown by the table below, fire occurrence to date for 2021 is 138 percent of the 20-year average, while the acres burned is 578 percent of the 20-year average.

Fire Season Comparison to Date

Number of Fires				
Year	**Lightning**	**Human**	**Total**	**Acres**
2018	55	183	238	7,582
2019	92	130	222	1,263
2020	49	180	229	4,225
2021	153	228	381	141,878
20 Yr. Average			**276**	**24,559**

Numbers in table are YTD for prior years and YTD for the current year.

For the past several months, weather conditions in IDL fire protection have been far warmer and drier than normal creating historically dry fuels. There is a large weather system coming into Idaho that will bring a large amount of rain with it. This will hopefully lead to a widespread reduction in fire danger.

Significant Fires Outside of IDL Protection

Character Complex
Agency/Management: Idaho Panhandle National Forest
General Location: 8 miles North of Kellogg
Acres Burned: 12,313 acres, 77 percent contained

Stateline Complex
Agency/Management: Idaho Panhandle National Forest
General Location: 22 miles southwest of Superior, MT
Acres Burned: 13,149 acres, 50 percent contained

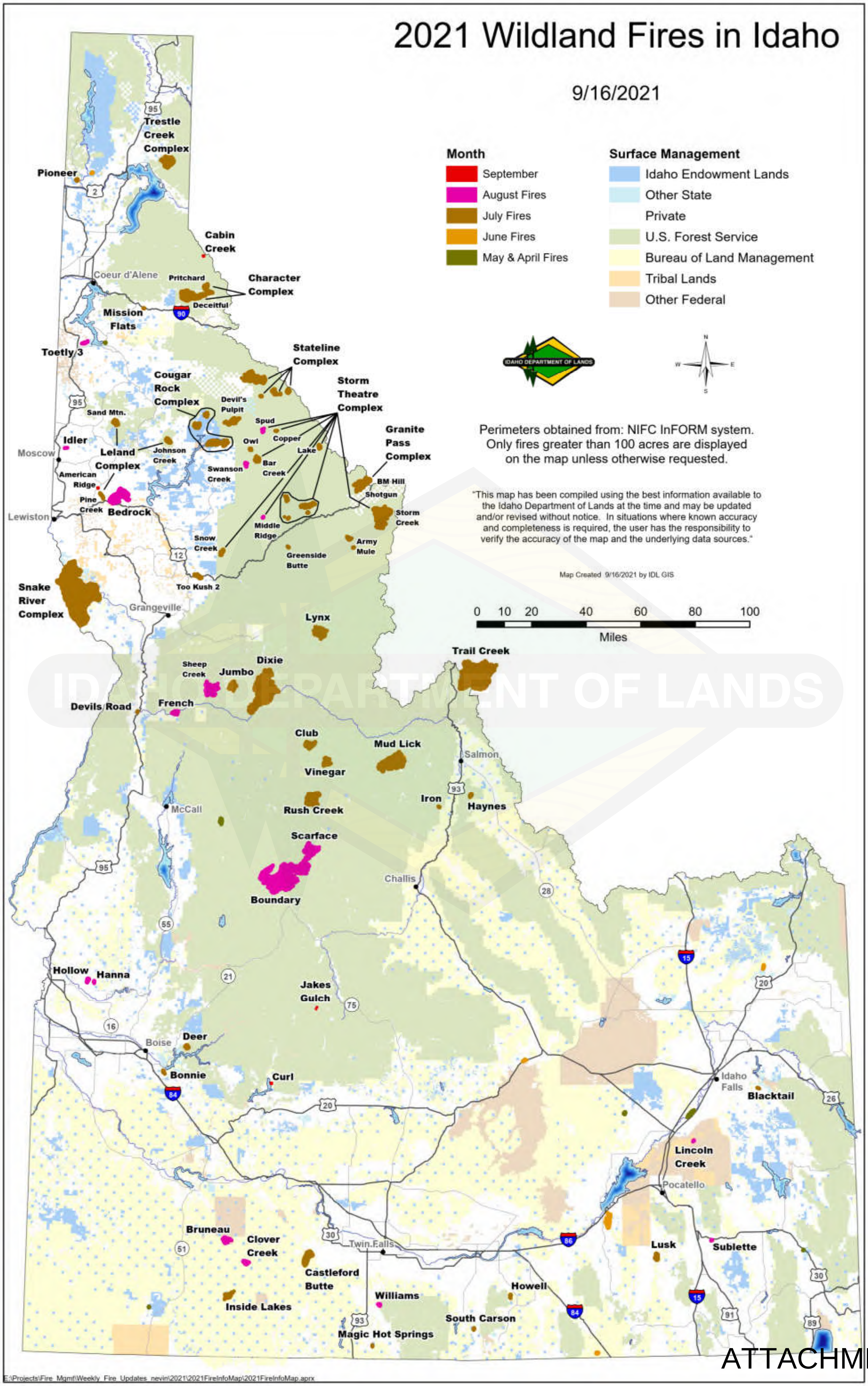
Total Acres Burned by Ownership 9/16/2021	
Surface Owner	**Acres**
Idaho Department of Lands	13,265
Other State Lands	63,762
Private	28,317
Bureau of Land Management	41,978
Other Federal	7,676
U.S. Forest Service	239,928
Total Acres	**394,926**

Only fires with perimeters in the Fire Enterprise Geospatial Portal and the IDL Lands Resource Manager system have been included in the analysis.

Fire Deficiency Warrant Spending - 2021 Fire Season YTD		
Category	**Estimated Costs**	**Notes**
Aviation Resources	$2,000,000	4 SEATS, 2 Fire Bosses, 2 Type 2 Helicopters
Prepositioned Engines	$800,000	Contract engines statewide to boost IA
Prepositioned Hand Crew	$400,000	20-person Hand Crew to boost IA
IDL Team Fires	$51,300,000	Type 2 and Type 3 Fires
IDL Non-Team Fires	$5,400,000	IDL/Assn. fires including pre-positioning
Other Suppression	$8,100,000	Reimbursable (IDL and Fire Department resources supporting non-IDL fires), Coeur d'Alene Cache, Dispatch
Total Estimate YTD	**$68,000,000**	

Attachments

1. Map – Significant Fires Throughout Idaho
2. Map – Current Fire Restrictions



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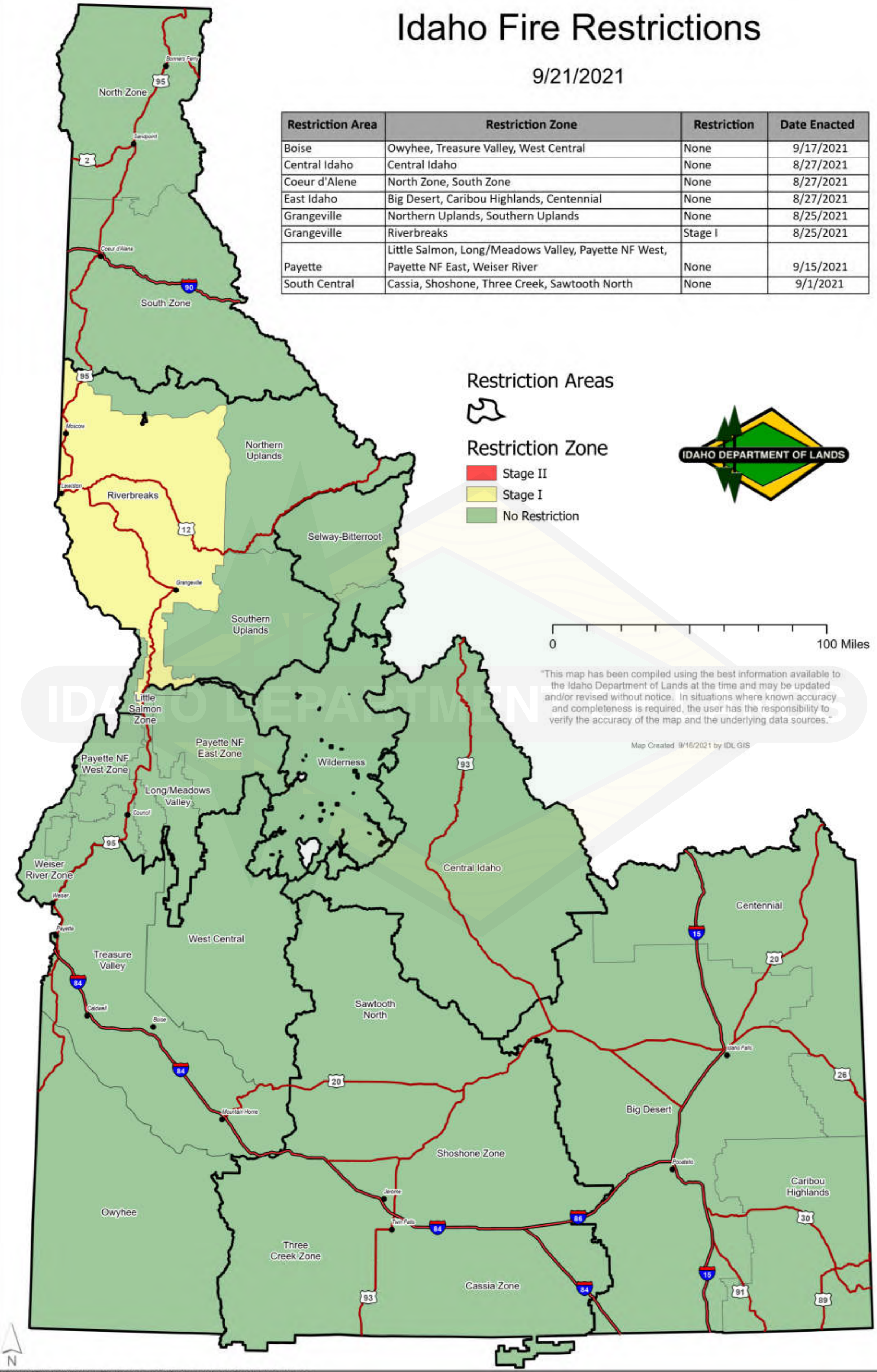
ATTACHMENT 1

Idaho Fire Restrictions

9/21/2021

Restriction Area	Restriction Zone	Restriction	Date Enacted
Boise	Owyhee, Treasure Valley, West Central	None	9/17/2021
Central Idaho	Central Idaho	None	8/27/2021
Coeur d'Alene	North Zone, South Zone	None	8/27/2021
East Idaho	Big Desert, Caribou Highlands, Centennial	None	8/27/2021
Grangeville	Northern Uplands, Southern Uplands	None	8/25/2021
Grangeville	Riverbreaks	Stage I	8/25/2021
Payette	Little Salmon, Long/Meadows Valley, Payette NF West, Payette NF East, Weiser River	None	9/15/2021
South Central	Cassia, Shoshone, Three Creek, Sawtooth North	None	9/1/2021



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ATTACHMENT 2

2021 Priest Lake VAFO/ULA Results

August 21, 2021

Priest Lake Voluntary Auction for Ownership (VAFO) Results

CS Address	Subdivision	Lot	Block	Acres	Appraised Land Value	Winning Bid	UpBid Amount	% Upbid	Winning Bidder
354 N Cape Horn Road	Powerline	1	1	1.60	$420,000	$575,000	$155,000	36.9%	non-lessee
1458 Cape Horn Road,	Woody's Point	38	1	0.74	$645,000	$645,000	$0	0.0%	lessee
76 W Horton Creek Road	Horton Creek	23	1	1.59	$499,000	$855,000	$356,000	71.3%	non-lessee
38 S Horton Creek Road	Horton Creek	17	1	1.37	$523,000	$610,000	$87,000	16.6%	lessee
218 State Cabin Road	Two Mouth Creek	11	1	1.07	$753,000	$753,000	$0	0.0%	lessee
564 State Cabin Road	Two Mouth Creek	2	1	1.86	$783,000	$1,570,000	$787,000	100.5%	lessee
61 Pinto Point Road	Pinto Point	39	1	0.72	$690,720	$690,720	$0	0.0%	lessee
572 Pinto Point Road	Pinto Point	18	1	1.08	$922,720	$922,720	$0	0.0%	lessee
42 N Eight Mile Road	Horton Creek	27	1	1.19	$765,000	$765,000	$0	0.0%	lessee
1563 W Pearl Shore (aka 5 Southshore Outlet)	Outlet Bay	5	1	1.66	$405,000	$475,000	$70,000	17.3%	lessee
Total VAFO Sales				**12.88**	**$6,406,440**	**$7,861,440**	**$1,455,000**	**22.7%**	

Priest Lake Unleased Land Auction (ULA) Results

CS Address	Subdivision	Lot	Block	Acres	Appraised Land Value	Winning Bid	UpBid Amount	% Upbid
47 Pinto Point Road	Pinto Point	40	1	0.99	$649,720	$1,525,000	$875,280	134.7%
6604 Eastshore Road	Horton Creek	1	1	0.80	$490,000	$810,000	$320,000	65.3%
310 Powerline Road	Woody's Point	5	1	1.30	$536,000	$1,000,000	$464,000	86.6%
48 E Char Lane	Woody's Point	27	1	0.91	$519,000	$715,000	$196,000	37.8%
503 Pinto Point Road	Pinto Point	21	1	0.30	$499,920	$750,000	$250,080	50.0%
441 Pinto Point Road	Pinto Point	24	1	0.35	$499,920	$500,000	$80	0.02%
Total ULA Sales				**4.65**	**$3,194,560**	**$5,300,000**	**$2,105,440**	**65.9%**

	Acres	Appraised Land Value	Winning Bid	Up Bid	% Upbid
Totatal VAFO & ULA Auction Results	**17.53**	**$9,601,000**	**$13,161,440**	**$3,560,440**	**37.1%**

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Cottage Sites Sold at Auction

2011 - 8/24/2021

Auction	Lake	Type	#Lots Offered	#Lots Sold	Reserve Lots Sold	Bid Amount	Up Bid	Up Bid Lots	Total by CY Yr	#	Bid Amount
2011 Aug. 10	Payette	ULA	2	1	$ 40,500	$ 44,550	$ 4,050	1	2011	2	$ 528,850
2011 Nov. 11	Payette	ULA	1	1	$ 484,300	$ 484,300	$ -	0			
2013 Oct. 18	Payette	VAFO	10	10	$ 3,149,000	$ 3,160,000	$ 11,000	1	2013	13	$ 5,880,000
2013 Oct. 18	Payette	ULA	3	3	$ 2,313,450	$ 2,720,000	$ 406,550	3			
2014 Apr. 5	Payette	VAFO	21	21	$ 6,034,415	$ 6,067,615	$ 33,200	3	2014	80	$ 32,971,427
2014 Aug. 28	Priest	VAFO	60	59	$ 26,771,416	$ 26,903,812	$ 132,396	2			
2015 Jan. 31	Payette	VAFO	30	28	$ 10,481,000	$ 10,489,000	$ 8,000	1	2015	94	$ 39,464,000
2015 Jan. 31	Payette	ULA	6	3	$ 2,028,000	$ 2,101,000	$ 73,000	3			
2015 Aug. 28	Priest	VAFO	38	35	$ 15,652,500	$ 15,652,500	$ -	0			
2015 Sep. 26	Priest	ULA	9	8	$ 3,950,000	$ 4,239,000	$ 289,000	2			
2015 Nov. 13	Payette	VAFO	18	17	$ 3,845,000	$ 3,887,000	$ 42,000	2			
2015 Nov. 13	Payette	ULA	4	3	$ 2,314,000	$ 3,095,500	$ 781,500	3			
2016 June 25	Priest	VAFO	41	39	$ 18,551,228	$ 18,918,228	$ 367,000	1	2016	73	$ 33,443,332
2016 Aug. 19	Payette	VAFO	25	25	$ 7,260,000	$ 7,301,500	$ 41,500	2			
2016 Aug. 19	Payette	ULA	5	5	$ 4,384,000	$ 5,304,000	$ 920,000	3			
2016 Sep. 23	Priest	ULA	4	4	$ 1,919,604	$ 1,919,604	$ -	0			
2017 June 23	Payette	VAFO	14	14	$ 7,841,000	$ 7,895,500	$ 54,500	2	2017	71	$ 35,765,332
2017 Aug. 18-19	Priest	VAFO	57	56	$ 27,331,228	$ 27,331,228	$ -	0			
2017 Aug. 18-19	Priest	ULA	4	1	$ 538,604	$ 538,604	$ -	0			
2018 June 15	Payette	VAFO	9	9	$ 3,487,500	$ 3,870,000	$ 382,500	4	2018	59	$ 29,006,124
2018 Aug 24-25	Priest	VAFO	50	49	$ 24,168,624	$ 24,794,124	$ 625,500	5			
2018 Aug 24-25	Priest	ULA	1	1	$ 342,000	$ 342,000	$ -	0			
2019 June 14	Payette	VAFO	3	3	$ 1,409,000	$ 1,670,000	$ 261,000	2	2019	37	$ 16,351,400
2019 June 14	Payette	ULA	5	5	$ 405,000	$ 1,022,000	$ 617,000	5			
2019 Aug 17	Priest	VAFO	27	27	$ 12,670,400	$ 12,670,400	$ -	0			
2019 Aug 17	Priest	ULA	3	2	$ 989,000	$ 989,000	$ -	0			
2020 Aug 15	Priest	VAFO	18	18	$ 8,697,720	$ 11,754,720	$ 3,057,000	10	2020	18	$ 11,754,720
2021 Aug 21*	Priest	VAFO	10	10	$ 6,406,440	$ 7,861,440	$ 1,455,000	5	2021	16	$ 13,161,440
2021 Aug 21*	Priest	ULA	6	6	$ 3,194,560	$ 5,300,000	$ 2,105,440	5			
*Pending Close		**Totals**		**463**	**$ 206,659,489**	**$ 218,326,625**	**$11,667,136**	**65**	**$205,165,185**		

Cottage Sites Sold by Lake						
	Payette Lake			Priest Lake		
	Total	VAFO	ULA	Total	VAFO	ULA
Lots	148	127	21	315	293	22
	$ 44,340,615		**$14,771,350**		$ 145,886,452	$ 13,328,208
	$59,111,965				**$159,214,660**	
				Total		
				Total	VAFO	ULA
				463	420	43
					$ 190,227,067	$ 28,099,558
					$218,326,625	

Monthly Report to the Board of Land Commissioners

Investment performance through August 31, 2021

Month: **1.5%** ***Fiscal year:*** **3.0%**

Stocks spent most of August drifting higher and seemingly ignored headwinds including the spread of the Delta variant, global supply chain constraints, China's regulatory crackdown and the implications of the U.S. withdrawal from Afghanistan. The healthy performance from stocks reflects dissipating worries about the outlook for global growth. Following the Jackson Hole Symposium, Federal Reserve Chair Jerome Powell said the economy has now met the test of "substantial further progress" toward the Fed's inflation objective and the labor markets have made "clear progress." He said the Fed could begin reducing the monthly bond purchase program this year and indicated they aren't in a hurry to begin raising interest rates thereafter.

Status of endowment fund reserves

Distributions for FY2022 and FY2023 are well secured.

Significant actions of the Endowment Fund Investment Board

None.

Compliance/legal issues, areas of concern

Material deviations from Investment Policy: None.

Material legal issues: None.

Changes in board membership or agency staffing: None.

Upcoming issues/events

EFIB Board Meeting – November 16, 2021

816 West Bannock Street :: Suite 301 :: Boise, Idaho 83702 p: 208.334.3311 f: 208.334.3786 www.efib.idaho.gov

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IDAHO ENDOWMENT FUND INVESTMENT BOARD

INVESTMENT REPORT

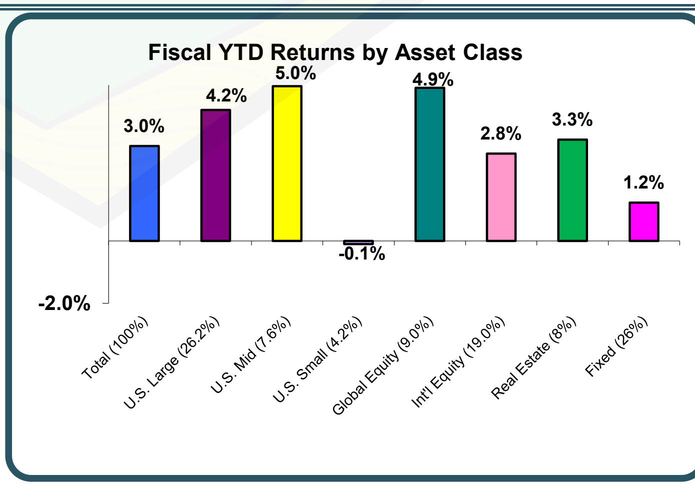
Preliminary Report (Land Grant Fund) | **August 31, 2021**

	Month	FYTD
Beginning Value of Fund	**$ 3,141,713,071**	**$ 3,093,456,423**
Distributions to Beneficiaries	(7,464,708)	(14,929,416)
Land Revenue net of IDL Expenses	7,220,143	19,238,826
Change in Market Value net of Investment Mgt. Expenses	48,941,118	92,643,791
Current Value of Fund	**$ 3,190,409,624**	**$ 3,190,409,624**

Gross Returns	Current Month	Calendar Y-T-D	Fiscal Y-T-D	One Year	Three Year	Five Year	Ten Year
Total Fund	**1.5%**	**13.1%**	**3.0%**	**24.5%**	**13.5%**	**12.7%**	**10.8%**
*Total Fund Benchmark**	*1.6%*	*10.8%*	*2.3%*	*19.3%*	*11.9%*	*11.3%*	*10.1%*
Total Fixed	**-0.1%**	**0.4%**	**1.2%**	**2.0%**	**5.8%**	**3.4%**	**3.2%**
85% BB Agg, 15% TIPS	*-0.2%*	*0.0%*	*1.2%*	*0.7%*	*5.7%*	*3.3%*	*3.2%*
Total Equity	**2.4%**	**19.1%**	**3.7%**	**36.8%**	**17.3%**	**17.0%**	**14.0%**
38% R3 19% Ax 9% AC	*2.5%*	*16.6%*	*3.1%*	*30.1%*	*14.9%*	*15.2%*	*13.1%*
Domestic Equity	**2.6%**	**21.0%**	**3.9%**	**39.7%**	**18.0%**	**18.7%**	**16.6%**
Russell 3000 (R3)	*2.9%*	*20.4%*	*4.6%*	*33.0%*	*17.9%*	*18.0%*	*16.2%*
Global Equity	**2.0%**	**17.6%**	**4.9%**	**30.6%**	**18.1%**	**15.7%**	**10.9%**
MSCI ACWI (AC)	*2.5%*	*15.9%*	*3.2%*	*28.6%*	*14.3%*	*14.3%*	*11.3%*
Int'l. Equity	**2.1%**	**16.1%**	**2.8%**	**33.9%**	**15.5%**	**14.1%**	**8.5%**
MSCI ACWI ex-US (Ax)	*1.9%*	*9.4%*	*0.2%*	*24.9%*	*9.4%*	*9.9%*	*6.6%*
Real Estate			**3.7%**	**6.6%**	**6.1%**	**5.8%**	
			3.7%			*5.3%*	

* Benchmark:38% Russell 3000 19% ACWI ex-US 9% AC 26% BB Agg. 8% ODCE

	Mkt Value	Allocation
Domestic Equity	**$ 1,241.0**	**38.9%**
Large Cap	852.5	26.7%
Mid Cap	254.6	8.0%
Small Cap	133.8	4.2%
Global Equity	**305.1**	**9.6%**
Int'l Equity	**614.4**	**19.3%**
Fixed Income	**796.8**	**25.0%**
Real Estate	**202.7**	**6.4%**
Cash	**30.0**	**0.9%**
Total Fund	**$ 3,190.4**	**100.0%**



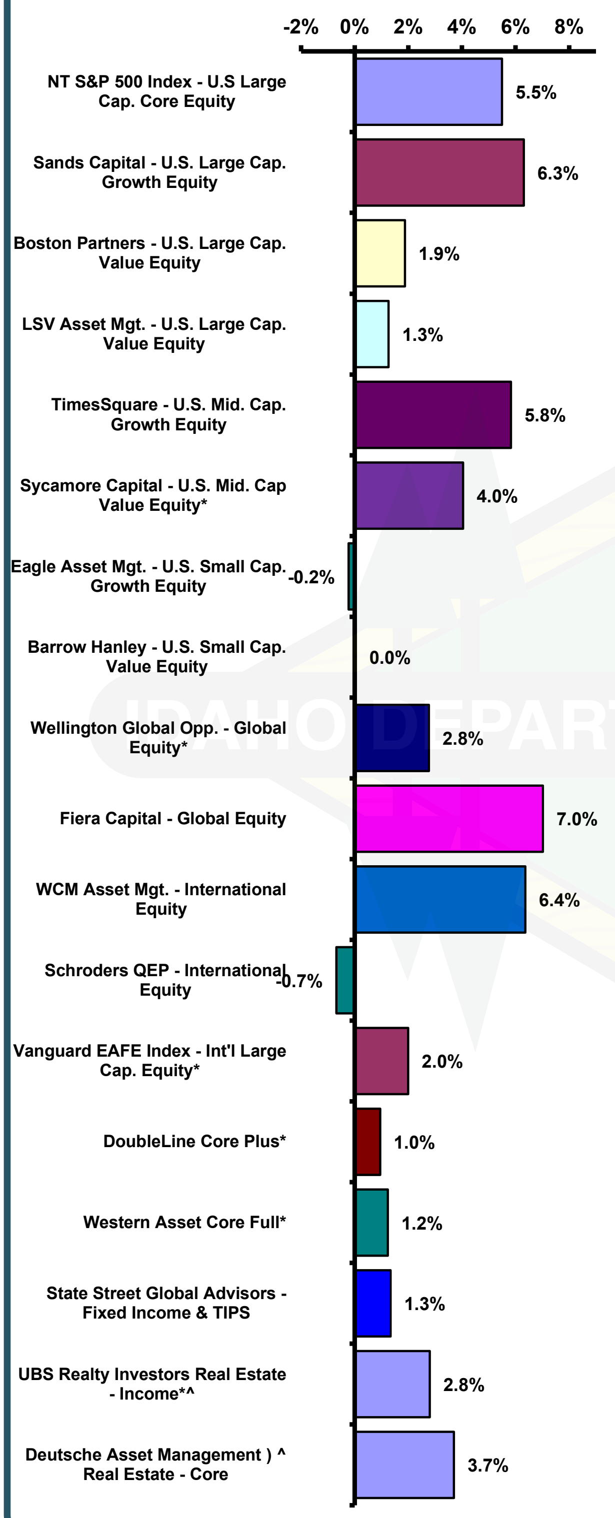
Endowment Fund Staff Comments:

Stocks spent most of August drifting higher and seemingly ignored headwinds including the spread of the Delta variant, global supply chain constraints, China's regulatory crackdown and the implications of the U.S. withdrawal from Afghanistan. The healthy performance from stocks reflects dissipating worries about the outlook for global growth. Following the Jackson Hole Symposium, Federal Reserve Chair Jerome Powell said the economy has now met the test of "substantial further progress" toward the Fed's inflation objective and the labor markets have made "clear progress." He said the Fed could begin reducing the monthly bond purchase program this year and indicated they aren't in a hurry to begin raising interest rates thereafter.

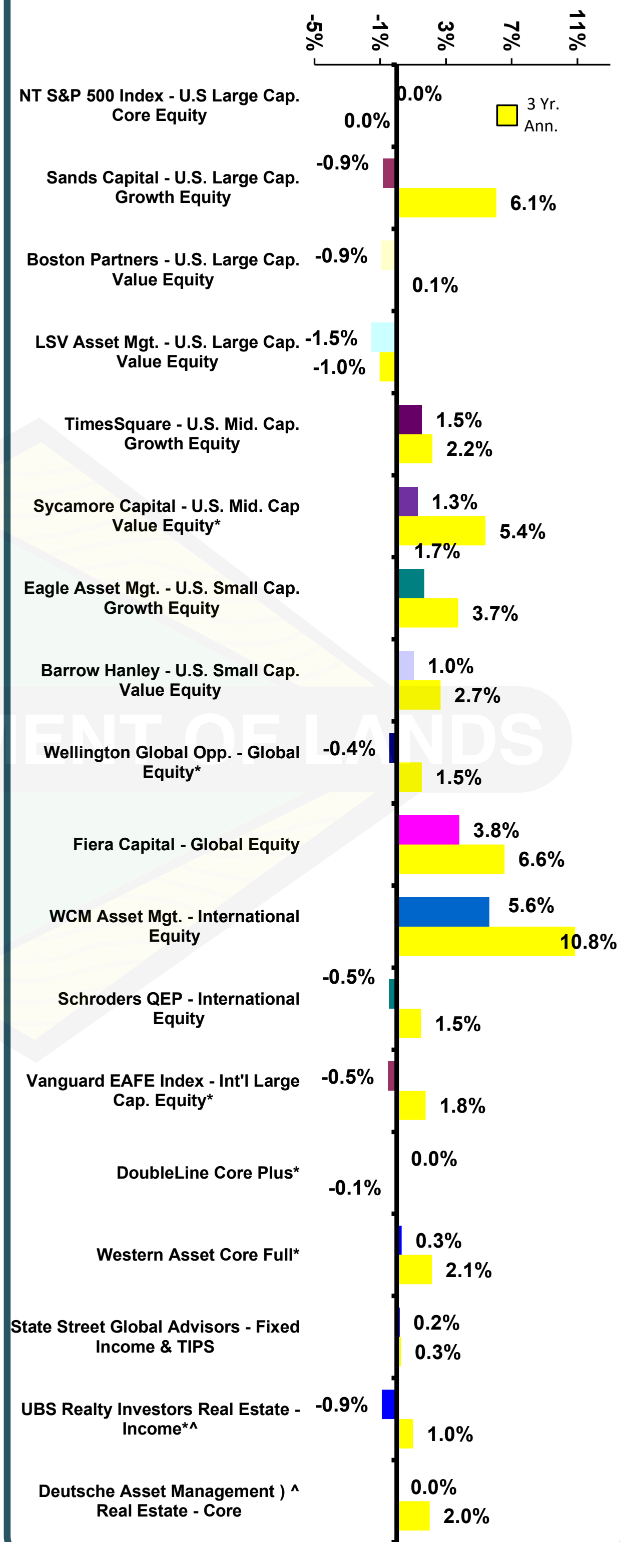
August 31, 2021

INVESTMENT REPORT

FYTD Manager Returns



Manager Relative Returns Fiscal YTD and 3-Yr Ave*



*ITD return used when manager has less than 3 years. ^ Most recent valuation.

STATE BOARD OF LAND COMMISSIONERS
September 21, 2021
Consent Agenda

Subject

Results of August 2021 Grazing Lease Live Auctions

Question Presented

Shall the Land Board direct the Department to award leases to the high bidders at the live auctions?

Background

During the open application period for expiring grazing leases G700072, G700092, and G700070, the Idaho Department of Lands (Department) received two applications for each lease. In accordance with IDAPA 20.03.14.105.01, when two or more eligible applicants apply to lease the same state endowment trust land, the Department shall hold a live auction. Department staff conducted the live auctions and determined the high bidder for each lease in accordance with existing statutes, rules, and procedures.

Discussion

Three live auctions were held in the Jerome Field Office on August 18, 2021. The premium bid for the auction of lease G700072 was $10,850; the premium bid for lease G700092 was $15,200; and the premium bid for lease G700070 was $8,200. All three leases are offered on 20-year terms. Lease G700070 will be issued as a conservation lease. Attachment 1 is a summary of the results of the live auctions.

The Department informed all auction participants they had 20 days from the date of the auction to file an appeal with the State Board of Land Commissioners (Land Board). The 20-day appeal period has expired, and no appeals were received by the Department.

According to IDAPA 20.03.14.106, a review and approval of live auction results by the Land Board is required prior to lease issuance. Idaho Code § 58-310(4) provides that the Land Board has the right to reject any and all bids made at the live auctions when there has been fraud or collusion, or for any reason, which in the judgment of the Land Board justifies the rejection of the bids. The Department completed the lease auction process in accordance with existing statutes, rules, and procedures and did not observe any indication of fraud or collusion related to this process.

Recommendation

Direct the Department to award grazing leases to Russell Pharris (G700072) and Sawtooth Valley Outfitters (G700092); and a conservation lease to Western Watersheds Project (G700070).

Board Action

Attachments

1. Summary of August 2021 Grazing Live Auctions

Summary of August 2021 Grazing Live Auctions

Supervisory Area	Lease Number	Endowment	Lease Term (Years)	AUMs	Acres	Improvement Value	# of Participants	# of Bids	High Bid Amount	High Bid per Year, per AUM	Effective 2021 AUM Rate*	High Bidder
Eastern - Jerome	G700072	PS	20	27	63.88	$0.00	2	73	$10,850.00	$20.09	$27.16	Russell Pharris
Eastern - Jerome	G700092	PS	20	39	72.28	$0.00	2	73	$15,200.00	$19.49	$26.56	Sawtooth Valley Outfitters
Eastern - Jerome	G700070	PS	20	112	620.00	$0.00	2	48	$8,200.00	$3.66	$10.73	Western Watersheds Project
								Total :	**$34,250.00**			

* Effective 2021 AUM Rate is calculated by adding the 2021 AUM Rate ($7.07) and the High Bid per Year, per AUMs.

2021: 18%, or 3 out of 17 expiring grazing leases went to live auction
10 Year Average: 7% of expiring grazing leases go to live auction

ATTACHMENT 1

Idaho State Board of Land Commissioners

Brad Little, Governor and President of the Board
Lawerence E. Denney, Secretary of State
Lawrence G. Wasden, Attorney General
Brandon D Woolf, State Controller
Sherri Ybarra, Superintendent of Public Instruction

Dustin T. Miller, Secretary to the Board

Be it remembered, that the following proceedings were had and done by the State Board of Land Commissioners of the State of Idaho, created by Section Seven (7) of Article Nine (IX) of the Constitution.

Draft Minutes
State Board of Land Commissioners Regular Meeting
August 17, 2021

The regular meeting of the Idaho State Board of Land Commissioners was held on Tuesday, August 17, 2021 in the Capitol, Lincoln Auditorium (WW02), Lower Level, West Wing, 700 W Jefferson St., Boise, Idaho, and via webinar. The meeting began at 9:00 a.m. The Honorable Governor Brad Little presided. The following members were in attendance:

Honorable Governor Brad Little
Honorable Secretary of State Lawerence Denney
Honorable Attorney General Lawrence Wasden
Honorable State Controller Brandon Woolf
Honorable Superintendent of Public Instruction Sherri Ybarra

For the record, the Governor's Stage 4 Stay Healthy Guidelines, dated 5/11/2021, allowed for public meetings of any size with adherence to physical distancing and sanitation requirements. All Land Board members were present at the physical meeting location.

[Editor's note: the Discussion portions, if any, for all agenda items are written in first-person format. This is not a verbatim transcript.]

1. Department Report – *Presented by Dustin Miller, Director*

Trust Land Revenue

A. Timber Sales – July 2021
B. Leases and Permits – July 2021

Discussion: None.

Status Updates

C. Fire Season Report

Discussion:

Governor Little: Director, some of us have a passing interest in the state budget. What do you think the tab is going to be for all these fires by the end of the year?

Director Miller: Governor, Land Board members, it is tough to pinpoint; without a lot of relief in sight, I could estimate that cost doubling by the end of fire season. Early July is when fire season came on strong; there has not been much relief, so six weeks in we are already at $50 million. If conditions stay this way, hot and dry, no relief in sight over the next six weeks, we could be spending another $40-50 million.

Governor Little: Have we got 40 in the bank?

Director Miller: Governor, our balance in deficiency warrants is about $37 million.

Governor Little: So we are going to have a $60 million supplemental request.

Director Miller: Governor, that is likely, yes.

Governor Little: Just put them all out, Josh. [*laughter*]

Attorney General Wasden: What does it require to put them all out as the Governor suggests?

Director Miller: You can put all kinds of resources out there and that certainly helps, but a change in weather conditions, season ending events, is really what is needed. We need the fall rains and the early snowfalls later in the fall to help create some season ending events to put these fires out. There are resource shortages; I have talked about this in the past. Trying to fill handcrew orders is a big issue not only for us but for other agencies trying to procure resources. Aviation is an issue given the smoke layer over the state. A lot of days the aviation resources are not used given the conditions and low visibility. Aviation is a big cost but it is a broad component of our fire suppression program.

Attorney General Wasden: What other assets may be helpful? We are spending right now $50 million, and a potential $100 million, not quite doubling but almost doubling the number of fires in the three-year period. What other resources could we expend at the outset that may reduce that $50-100 million cost?

Director Miller: Governor, General Wasden, certainly more resources would be helpful. That is a story that many agencies like our counterparts at the feds could also say. Additional engines, strategically placed in locations to shorten that response time; additional bodies to form qualified handcrews would be welcomed in our program as a way to help jump on these fires and suppress them quickly, decrease that response time. We talked at length about building out our engine captains and creating more fireline leadership. It is in important safety thing for us; we want to ensure that we have qualified individuals in fireline leadership, in those engine captain positions, to lead folks safely onto the fireline, but to also assist in providing that quick and efficient initial attack. Recruitment and retention are also big components that we are trying to improve. The engine captain position is one thing we talked about, creating more of that path to permanency, as well as looking at firefighter compensation, trying to get closer to what some of the federal agencies are paying. I really appreciate the Land Board supporting our legislation to bring forward in the next legislative session to provide additional hazard pay to our firefighters on the fireline. Every little bit helps with our recruitment and retention.

Controller Woolf: Any type of impact with students going back to school right now and what type of impact is that?

Director Miller: Governor and Mr. Controller, there is, especially those three-month employees, many of them have taken off for school. Maybe Josh, in his presentation, could mention what percentage that is. The good thing is that we have permanent employees within the Department that have fireline qualifications that step up and help staff engines. They may be foresters or folks that work in Lands and Waterways, or any other place in the agency that will jump in and help out. The three-month positions, that is certainly tough for us to lose those firefighters to school right when we are in the thick of it.

Controller Woolf: Several of our neighboring states have different concepts of how they are working with the logging industry to shut that down during this time. I really appreciate that we can have our logging industry, the haulers, everyone that is involved there out in the woods, because they have the resources, they are eyes on the ground. What are your thoughts of us continuing to keep our logging industry going during this time?

Director Miller: Governor, Mr. Controller, those resources are important to us especially when we are in Stage II fire restrictions up north; everybody is being extra cautious. The loggers have moved to hoot owl hours to do their log hauling at strategic times in the early morning hours to lessen the risk of any unplanned ignitions. I know the Governor has been keen on utilizing those logging contractors to help suppress fires and we do that frequently. In fact, a number of these fires we could not get a handle on without the assistance of the timber industry and the loggers utilizing that logging equipment. We engage with them under contracts in short order to get them on the fireline to create defensible space for our firefighters and build fireline for us…huge resource assets for us and we want to continue to encourage their participation in fire.

Governor Little: Director, the federal government did a change in policy about a week ago, all fires are going to be suppressed, and then all the monsoonal moisture we had in Arizona, New Mexico and southern Utah freed up a lot of particularly big aerial assets. Had those fires in New Mexico and Arizona continued, what is the magnitude of how bad the problem would have been, because that freed up a lot of federal resource and other state resources?

Josh Harvey: Good morning, Governor, thanks for that question. Any time any part of the nation sees a decrease in fire activity that increases the resource availability. With those monsoonal moistures down in the southwest, they were able to shift a lot of aircraft up this way and we put it to use when smoke conditions allowed them to fly. We had some real struggles the last couple of weeks. There were days the aircraft were not able to fly at all; at most we get 2-3 hours of operating time out of those aircraft. Back to Mr. Controller's question regarding our seasonal workforce, we usually anticipate up to 30% of our workforce goes back to school with our seasonal folks.

Controller Woolf: A follow-up on that, Governor. Is there anything more that we can assist with, maybe the Governor working with the Board of Education, is there anything more we can coordinate with the universities to make that transition easier for them as they transition back?

Mr. Harvey: A number of years ago when I was a seasonal, I got a two or three week deferment prior to going back to school and I took that opportunity as well as many of my colleagues did. Some of our folks elect not to simply because of the level of the courses that they are in. Being two to three weeks behind in college is pretty hard to catch up on. But that might be an option.

Secretary of State Denney: Josh, how does our pay for the line firefighters compare to the forest service and BLM? Are we a training ground for firefighters for those agencies?

Mr. Harvey: That is a great question, Mr. Secretary and Governor. Historically, we have seen that our firefighters do, after a couple of seasons, tend to go to the green side. They pay a bit higher wage than we are able to pay for our firefighters. The last couple of years, with Land Board support, we have been able to bring that pay up a little but we are still competing with those agencies.

Governor Little: I was up and looked at the Snake River Complex; the Clearwater Timber Protective, and your team, what they did there it is a miracle that no houses were lost in that fire. That was 109,000 acres at a time when there were no extra resources and I think your fire boss had been on the line for 24 days when you gave me the tour, which is not protocol we should incorporate, but the rest of the team was off. If you look at the statistics, we are way below average; I hate to even say this, probably jinx us, but we are way below average acres because we have not had any of those big, massive range fires. The state has been hit really hard but your team and those guys have done a magnificent job. Some of those fires probably would have been ones that we would let go, and I think the Mud Lick Fire was going to be let go, and I think they are even going to try and get it out. That is all good news but it is not without plenty of hard work; please from the Land Board express that back to your team in the field.

Mr. Harvey: I will do that, thank you Governor. I am sure some of them are watching right now, so I appreciate it.

Governor Little: They are supposed to be fighting fire. [*laughter*]

Mr. Harvey: Some of them are on mandatory days off. Thank you.

D. Land Revenue Forecast

Discussion:

Governor Little: One of the questions is on attachment 1, I assume that is a typo; you have 2024 in there twice.

Director Miller: Governor, that is a typo.

Governor Little: And then, do you have a Monte Carlo exercise to where you say if timber prices are x, it will be y; do you have a way to where the low number will be at this Random Lengths' timber price and the high number will be at the other one?

Bill Haagenson: Thank you. I would not call it anything as fancy or as sophisticated as a Monte Carlo model, Governor, but we do look at timber under contract, the prices of that timber under contract, and what we expect to be harvested in each year understanding that if there is, for example, two years left on a timber sale contract, 100% of that could be harvested in the first year, or the second year, or anything in between. We try to make judgments on what that will look like, and that is what results in this range that is perhaps a little wider than we would like it to be, but we think there is the chance that you could be at either the bottom or the top of that depending on level of activity in the woods during the next fiscal year.

Governor Little: Bill, does this reflect the Board's adoption of the higher cut off of the FAMP? It would be interesting to know when we voted for that and did that, what the numbers would be had we not done that.

Mr. Haagenson: Governor and members of the Board, it does reflect adoption of the new Forest Asset Management Plan. We know that our timber offered will go up about 33% from where it was by the time we get to full implementation in 2025. We expected at that time – if stumpage prices are consistent – we expected the revenue to increase over $20 million as a result of that. You are starting to see that reflected in the forecast; as we reach implementation in those out years, the range on the graph goes up.

E. Resource Protection and Assistance Report

Discussion:

Governor Little: Eric, on the abandoned mine funding and fund balance I think once before you cautioned us that we are going to have to do something. What is something?

Eric Wilson: Governor, members of the Land Board, we currently get 1/3 of the state's mine license tax and it is important to remember that is a net tax, not a gross tax. There has been a lot of permitting actions and construction going on in the larger mines, especially the phosphates, the last several years, so we have not actually collected a lot of mine license tax. There are some remedies for our declining revenues but I think all of them involve legislation. We could run legislation to increase our share of the mine license tax; I've modeled that out and that alone is not going to be a long-term fix. Some other source of revenue is going to be needed or the mine license tax fund balance, barring any new mines opening up and paying into that, will continue to decline over the next few years.

Governor Little: Eric and Dustin, for a future meeting, have a presentation on our path forward here. You have already notified us a couple of times that we are going to have a problem here and rather than wait until we have a problem, plan something proactively. Other Board members may have thoughts on it, but my inclination is for you to give us a couple options about what we ought to do going forward.

Attorney General Wasden: Governor, it would also be appropriate to have a plan to communicate this to the legislature – the pro-temp, the speaker, and the relevant committee chairs – at least keeping them informed along the way as we are developing this policy. Open, transparent communication with them about the problem and the potential solutions would be a good idea.

Consent—Action Item(s)

2. **Strategic Plan FY2022-FY2025** – *Presented by Dustin Miller, Director*

Recommendation: Direct the Department to submit its FY2022-FY2025 Strategic Plan to the Division of Financial Management by August 27, 2021.

Discussion:

Controller Woolf: Director, on page 2, the very top IT one from Dan Raiha, it talks about completing a core M1 files implementation – M1 is a documentation – then it says complete purchasing go live. The purchasing go live, is that just completing the core M process or is that having to do with any other procurement items? I have some interest in that if that is tied with our LUMA project as that moves forward.

Donna Caldwell: Thank you for that question. We have worked very closely with the LUMA team. This is our M-Files, this is our electronic content management process that we use. They have worked on making sure that we know exactly which part of the procurement process is done within the M-Files in the document management system versus what goes in through the LUMA system. We have worked with that group and have not duplicated efforts.

3. **Disclaimer of Interest Request DI600258-Frank and Sandra Fenton, Payette River** – *Presented by Eric Wilson, Bureau Chief-Resource Protection and Assistance*

   Recommendation: Direct the Department to issue Disclaimer of Interest DI600258 for one parcel totaling 0.456 acres of the former bed of the Payette River to Frank and Sandra Fenton following their payment to the Department of the remaining processing fee of $300.

   Discussion: None.

4. **Approval of Draft Minutes** – July 20, 2021 Regular Meeting (Boise)

Consent Agenda Board Action: A motion was made by Attorney General Wasden that the Land Board adopt and approve the Consent Agenda. Controller Woolf seconded the motion. The motion carried on a vote of 5-0.

Information

Background information was provided by the presenters indicated below. No Land Board action is required on the Information Agenda.

5. **Fire Program 3-Year Development** – *Presented by Josh Harvey, Bureau Chief-Fire Management*

   Discussion:

   Superintendent Ybarra: I can sympathize with you on the pay adjustment for the firefighters especially when you mentioned how you are losing folks to McDonald's. The education arena is seeing the same thing, so I commend you on that part of the plan. My question is, and I think you answered it already, these resources are needed because we are also having an unprecedented year; not only did you plan for what you need but also moving forward you recognize this is not going to stop, right?

   Mr. Harvey: That is correct, Madam Superintendent.

   Superintendent Ybarra: Then my second question is, when we see Debbie come up and talk about the enhancements to the budget next, is there going to be a connection from your plan to those budget enhancements?

   Mr. Harvey: I believe that is going to be a decision made by our executive staff, but…

Director Miller: There are components that were included in the FY23 requests from the Department; not everything you see here, but certain components. For instance, 5 engine captain positions as well as some other things that are not listed here are included in the FY23 request that Debbie will present.

Controller Woolf: Mr. Harvey, last year we approved, and the legislature approved, a request for 12 temporary 8-month fire bosses; how successful was recruiting and filling those positions?

Mr. Harvey: We are actively recruiting those positions right now. When the approval to hire those positions came out, most folks that were qualified already had positions for this season, if they were seasonal. We made the decision that since fire season kicked off as early as it did and as fast as it did, we pushed that hiring to this fall when many of our potential candidates will be laid off and they will be available for the application and interview process.

Attorney General Wasden: Thank you for your presentation. My understanding is that this StarFire report was commenced in 2018, completed in 2019, we are now in 2021. First of all, I do not think it predicted the significance of the fire season we have had this year…

Mr. Harvey: It did not.

Attorney General Wasden: …and as a consequence, we have not yet achieved what the StarFire report says we need to have as resources.

Mr. Harvey: That is correct.

Attorney General Wasden: I am asking for confirmation that we are already behind the eight ball so to speak, that even if we fulfilled all of these requests, a new report would say we need even more. Would you agree with that?

Mr. Harvey: I would have to agree with that, yes sir.

Attorney General Wasden: Okay. I am intrigued by the recommendation, three years ago, that we have 10 engine captains and yet we do not have them, and I think in your comments you were saying that response time…we get an engine out the door in two minutes and it is a 40-minute response time; there is a significant amount of increased cost that is associated with those 38 minutes. If we had additional engines strategically placed – I think you mentioned we do not have one in eastern Idaho, or significantly fewer than we need – that is a significant cost. This year we are spending…we are right now at $50 million and we may be at $100 million; how much of that $100 million could we have reduced had we spent the money on appropriate number of engine captains. I am asking, off the top of your head, what would the difference in cost be?

Mr. Harvey: That is a hard number to extrapolate. The way I look at it is an increase in our percentage of success. Currently we are charged with keeping 94% of all our fires at 10 acres or less. Say we bump that up 1% or 2%: take away 2% of $50 million. That is the best way I can correlate that to you. There is also the possibility we have fires like the Cougar Rock Complex that is well over $10 million in and of itself. The potential is that if the engine capabilities were there, that may not have happened at all. That is a very extreme example considering the location of that incident, but there are fires every year that escape that initial attack because there are not enough initial attack resources to respond.

Attorney General Wasden: It seems to me that we may be stepping over dollars to pick up pennies in a sense. That is, you consider $3 million ($2.8 million additional request under the StarFire report), an additional $100 million, or whatever the number is; if you just use those numbers that is 30 years of $3 million a year. Now I know that is not an accurate representation because you are going to have fires, but we are not improving that, we are actually going the other direction in terms of the potential fire increases and the number of fires. I am wondering are we actually stepping over dollars in order to pick up pennies in terms of what we are preparing for our fires. And I am just asking for a philosophical answer.

Mr. Harvey: I think every step that we can take to increase our seasonal workforce and provide that high-level of fireline leadership…when they show up on the fire, an experienced firefighter knows the resources they need to respond to that incident, and they are cost effective with it. When I show up on an incident, I am going to know whether or not I need a very large air tanker at $50,000 a drop, whereas one of our younger firefighters may not realize that they could get away with just a small helicopter and some bucket work. That is a critical piece in saving money and being efficient in the long run. It truly does come down to our ability to respond en masse to as many incidents as possible. When we have a real lightning event…I was the fire warden on the St. Joe for many years; there was a couple of years where I had 50 starts in one day. There is no way that it would be economically feasible for me to maintain 50 engines on the St. Joe district. Some of those were going to get away. But I think if we can pick off a few more of those fires on any given weather event, we are going to overall save the state money.

Attorney General Wasden: Recognizing that this StarFire report has been out for three years approximately, identified resource needs, has the Department made a budget request for the identified needs and if not, why not?

Mr. Harvey: Well, COVID played a big part into this the last couple of years. It did; it played a big part into it. I believe we were under the direction, when COVID initially came out, for no additional requests. That took a significant amount of time away from us. And then last year was the start of this when we requested the 12 permanent engine bosses, so this is us moving forward with that. Unfortunately COVID, like with many other things, has really put a speed bump into what our plan was.

Attorney General Wasden: Again, we are really behind the eight ball.

Mr. Harvey: I feel we are, yes sir.

Controller Woolf: Mr. Harvey, back on slide 4, you talked about risk analysis of the assessed versus the unassessed. The fire risk origin and the acres burned on the unassessed far outweigh that of the assessed. Other input or direction from the Star report to what we can do about that, or any other recommendations from you and the Department on that line?

Mr. Harvey: The unassessed threat that is there…to paint a little bit better picture, those are typically rangelands, ag lands. Once we get down into that time of the year where they are cutting stubble, the accidental fires in a wheat field, the Snake River Complex – lightning hitting grasslands that do not have any timber on it – they just move so fast. It is really hard to initial attack those, but they are always a direct threat to timberlands. That is where the threat and the risk come from.

Governor Little: Josh, was that Fish and Game ground where most of those fires started? Is Fish and Game ground non-assessed?

Mr. Harvey: If it does not have timber on it, it is not. That assessment is for endowment timberlands and private timberlands only.

Regular—Action Item(s)

6. FY2023 Department of Lands Budget Enhancements – *Presented by Debbie Buck, Financial Officer*

Recommendation: Direct the Department to include the enhancement requests as outlined in Attachment 1 in the Fiscal Year 2023 budget proposal due on September 1, 2021.

Discussion:

Governor Little: Debbie you said there was $87,000 that was GNA; where does the money come from for GNA? Do we take that out of the timber proceeds off that?

Ms. Buck: Off of the GNA sale.

Governor Little: Okay, in essence, it is the same as earnings reserve or dedicated, just out of another pot of money.

Ms. Buck: It is. The only caveat is it is attached to the forest that it was earned off.

Controller Woolf: On your decision units 2 and 4 dealing with the fire business billing system, why did you not include them together?

Ms. Buck: They are in two separate decision units because the system is extremely critical and that is one of our top priorities. If, for whatever reason, we did not get the FTE, we have some back up plans where we could still get somebody on staff, using a temporary. We wanted to separate them in case there was any question on what we could get and not get.

Controller Woolf: Not necessarily tied to the budget request, but decision unit 7 is talking about your licensing. The ITS conversion, or switching over to ITS as a whole, is Department of Lands set on a schedule to transition at some point? And when is that?

Ms. Buck: Unofficially, we are not on the FY23 list; we have not had that official notification. My understanding is there is only one more year after FY23; by default we should be on FY24.

Controller Woolf: Just to clarify, the ongoing general fund base reduction will help reduce our total overall general fund request, is that correct?

Ms. Buck: Yes. That was a two-part strategic thing that the agency was doing. One, now that the GNA program is self-sufficient it no longer relied on that, and the second part is that helped the agency reduce our request to get us under this $3.1 cap that is in the budget manual.

Controller Woolf: Thank you, that is a very critical point; make sure that is highlighted.

Governor Little: Dustin, the Hannah Flats GNA process that was going forward and then it got held up. We have been talking about Hannah Flats forever for a GNA project and then the courts got involved in it. Do we forecast that or do we not count that money until it comes in the bank?

Ms. Buck: Mr. Governor, I do not count it until it gets in the bank.

Governor Little: Craig does though.

Craig Foss: Yes, we do forecast all the timber sales that are in that program. We have notified the purchasers. There are two different timber sales associated, Hannah Flats and Thin Lamb. We have notified them of the legal standing and that those projects are on hold. We will have to absorb that lost revenue in the program, and we can absorb that; we have other timber sales. I think you just saw a couple of salvage sales that came up we were not planning on, so there are other sales that bring about revenue. There are also appropriated funds that come into the Good Neighbor program aside from timber sale revenue.

Governor Little: The state has damages because that was held up. Everybody was on board on Hannah Flats until a federal judge held it up. We will have standing to tap the federal government on the shoulder and say, look we are losing revenue. Maybe before the next Land Board meeting, we can have that discussion. Hopefully by then it will be resolved.

Attorney General Wasden: Debbie, thank you for being here. I wondered if we could bring up on the screen the last page of the StarFire report, page 9. I want to talk about this in conjunction to our budget request. The first item there, 10 engine captains, $540,000 ongoing, and there is an X at fiscal year 23 which would be the current year that we are now talking about, correct?

Ms. Buck: Correct.

Attorney General Wasden: But it appears to me in budget unit 1, we are not making a request for 10 engine captains, we are making a request for 5 which is only half of what the StarFire report, which is now three years old, said that we needed. Am I understanding that correctly?

Ms. Buck: Yes, that is correct. We are requesting 5 of that 10 number.

Attorney General Wasden: If we are not asking for 10, why is that?

Ms. Buck: I want to make two comments. One is last year, during the legislative session, we had quite a bit of our fire requests on the general fund and then they were moved to our dedicated fund. I think Josh's presentation made it really clear our dedicated fund comes from assessments on people's forested land, and it was a struggle to have those moved over onto that funding source when our firefighting efforts are both assessed land and unassessed land. That was one piece that was under consideration when we were building the budget was how much can we have end up on our dedicated account and still be true to the people who have paid those assessments. The second piece that went into the construction, we worked really hard to follow the budget development manual guidance which really could not get us to the 10. Now, with that said, I am here at the pleasure of the Board; this is the recommendation and we can move accordingly.

Director Miller: General Wasden, just to add on that if I could. Debbie is right on, there was that shift in JFAC to move those engine boss positions off of the general fund to dedicated, puts a strain on our dedicated funds and I believe, Josh and Debbie, that puts us in a deficit spending situation there, so there was that concern. Optically, too, we are very cognizant of the FTE growth, and every agency should be, and looking at the budget manual, discussions with DFM, it was decided to move forward with 5 for now and have future discussions about that. I know there was some concern with the legislature last year with the FTE count which was unfortunate. You see on the screen 10 engine captains is what we need to ultimately get in our program.

Attorney General Wasden: I appreciate the position that you are in and the requirements that you have. Let me also state how much respect I have for the Governor and the tremendous pressure he is under in terms of the budget. But as I see this, just this way of explanation, we have pressure not to increase the number of FTEs, but we also have fires that are increasing in intensity and frequency and volume, and we are not seeming to address that issue, which is of concern to me. I recognize that on this screen it says 10 engine captains, there is an X by fiscal year 23 and we are not making that request, but I do not see another X there to say when we are going to be asking for these 10. And at the point at which we ask, have we fallen so far behind that we have to ask for another 10. That is my concern with regard to that one. I would like to turn attention to the pay adjustment firefighters, $250,000 ongoing, and there is an X at fiscal year 23. Are we making that request in our current budget?

Ms. Buck: Of the top three items on this list, we are asking for 5 of line 1 and that is all that is in the budget as it stands currently.

Attorney General Wasden: What you have told me is no, we have not asked for the pay adjustment for firefighters. Correct?

Ms. Buck: That is correct.

Attorney General Wasden: The same would apply then to the 10 seasonal firefighters, $250,000 ongoing, we have not made a request for that.

Ms. Buck: That is correct.

Attorney General Wasden: And we have not made a request for any of the other items, those that have an X in fiscal year 24 nor those that are in fiscal year 25. So we have a three-year StarFire report commencing in 2018, it is now 2021, and we are looking to FY2025 which is 7 years after the StarFire report is created, and we have not asked for any of that stuff with the exception of half of the number of fire engine bosses. Am I understanding that correctly?

Ms. Buck: Yes.

Governor Little: But that does not include the fire bosses that we did last year, because you are talking about new over and above.

Ms. Buck: Yes, this would be…

Governor Little: That we cannot find, that do not exist right now.

Ms. Buck: This 10 here would be in addition to the 10 that we received last year, for a total of 20 when we get there. With this request and last year we will be at 15.

Governor Little: Josh, last year was that number 20 and you moved it to 10 predicated on what we did last year?

Mr. Harvey: Governor, last year was 12. This year is an additional 10. We are currently recruiting for the previously approved 12.

Governor Little: Right, but the StarFire report, did it say 22 and you moved it?

Mr. Harvey: The StarFire report kicked out a financial analysis, is basically what it was. With that financial analysis and indications, through the risk assessment, through the response times, and the response zones, it left it to the fire managers to make determinations on where our biggest resource needs were, what the qualifications were that we needed to be able to move our fire program up in our abilities, and that $2.8 million that it kicked out was what it recommended that we invest into the program.

Governor Little: Was the StarFire report agnostic on whether they be state employees, or private employees, contract, custom?

Mr. Harvey: It did not distinguish between the types of resources.

Governor Little: So if we hired 100 fire bosses privately that were not state employees, it would not matter.

Mr. Harvey: I think that it would because there is a certain amount of training and education that has to go into that. If we were to bring on private individuals, without the experience and the qualifications that come with the experience, the ability for those individuals on the ground to make decisions…

Governor Little: That is all part of how you write the contract; the contract is that we want these qualifications, we are going to contract for people to meet these qualifications. They would not necessarily have to be a Department of Lands employee; they could be a private employee that is doing that. Is that true?

Mr. Harvey: It is partly true. Currently as it is, a contract individual cannot be an incident commander on a State of Idaho fire, they have to be an employee.

Governor Little: Good point. No question about incident command. But of course what percent of the incident commanders are state employees because we always default to stage 2, or incident 1 and 2, they are the ones that are here from Maine.

Mr. Harvey: Right. All of the states carry some level of those qualifications and for individuals to get to that type 2 level, type 1 level takes many years. It has taken me 20 years to become a type 1 safety officer. With these engine captains, an expectation would be that they would be at least minimally qualified as an I.C. type 4 and we would be addressing the type 3 management level with our fire management officers.

Attorney General Wasden: Thank you very much. And let me say Governor, I am very sensitive to the requirements that you have and I am very sympathetic, but here is my question – if we do not go down the route of acquiring the FTEs and the funding, we cannot hire people. Even if we are having hiring difficulties now, we cannot hire them if we do not have the available resources and the available FTE approvals. My concern is that saying well, we cannot hire them just does not answer the question of do we need approval to go out and find those folks. I am asking for your comments and thoughts about that.

Mr. Harvey: Absolutely. You miss 100% of the shots you do not take. So if we do not try, we do not get them.

Secretary of State Denney: Josh, can you tell us that in this budget presentation you will get the resources you need to do your job?

Mr. Harvey: These are definitely huge improvements over where we are right now, yes sir. The part that I cannot account for is how fast our state is growing.

Secretary of State Denney: That is not the question I asked you. Is there enough in this budget for you to be able to do what you think you need to do to protect these resources?

Mr. Harvey: One response I would have for that, it starts a chain of other events. Our facilities currently do not have the capacity to hold the number of engines and personnel that I think that we need. We are already at capacity within many of our districts in our fire facilities. But this is a huge step in the right direction and I think we will see a gain in our ability to catch fires smaller right now. But I think there is a much longer-term plan that has to be in place and that we have to continue pursuing moving forward.

Secretary of State Denney: But if we do not start that process at some point, how are we ever going to get there? I know that COVID was a setback, but it did not set back the need, the fires.

Mr. Harvey: Correct. COVID actually took away a lot of our resources.

Attorney General Wasden: What I took from your answer to the Secretary's really valid question was this budget proposal is very helpful, but if you had a budget proposal that included all 10 engines and all of the other things that are on that screen, would that be an enhancement that would help you fight fires?

Mr. Harvey: That would help us very much, yes sir. It is going to take us a while to implement the Cottonwood Fire Protection District, that takes a significant amount of time, probably a 2 to 3-year maybe even 4-year process. The rest of that stuff, we could start recruiting for that right away.

Attorney General Wasden: And if you delay the Cottonwood project, it is even further down the line than if you start today.

Mr. Harvey: That is correct.

Director Miller: Governor, General Wasden, I appreciate the conversation here. Certainly the need is presented before you and we have been strategic working through the process, the budgeting process, to meet certain requirements. Everything on here is implementable with current capacity probably with the exception of standing up the Cottonwood Fire Protection District. The sooner we could act on most of this, the better. With the Cottonwood Fire Protection District, that centers around the ongoing talks and negotiations with our federal partners regarding the master agreement and the statewide offset agreement on how we cover acreage. I think we have a year extension so those conversations will be ongoing but standing up this Cottonwood Fire Protection District has been a big part of the conversation. Because of those ongoing talks, I think that one is just a little bit further out, Governor and General Wasden, but everything else on here with our current capacity I think we would be able to implement.

Attorney General Wasden: Thank you Director, I appreciate that. The discussion is now centered around the current capacities, but it does not appear to me that the demand is being reduced, that is the fires, and we are predicting greater demand for those resources and unless we address that now, the demand is going to continue to grow and we are going to get further and further behind the eight ball. To say we should not ask for things now because we only have current capacities, we have to increase that capacity in order for us to address the increasing risk of fire. Why is that important? From my perspective, it is we have an asset that has to produce money and it is burning up and going up in smoke. We need to do something to address that.

Superintendent Ybarra: For myself, as a Land Board member, that is what I was getting at earlier when I asked if your budget enhancements were going to match your plan. But the more we talk about this…the Governor brought up a good point: what did you get last year. This kind of looks like this is the end. As Land Board members we are concerned about how you are working towards that. When the Director said he is comfortable that we can get there, I cannot see it, like the Attorney General said, looking at this piece of paper. We are trying to help you, not hurt you and stop your budget process that is due September 1st. But I think if we saw on here what you got as far as the bosses went, plus what you are asking for this year and what are you going to do in the future…right now when I do not see the Xs on fiscal year 24 and 25, to me there is no plan to correct that moving forward. I understand that we have to balance the purse for the State of Idaho and asking for it all at once is probably not a good idea. But if we as Land Board members could see what you are moving towards, I would be much more comfortable with that. I cannot speak for everybody else, but where I was coming from is I see your 3-year plan, but I cannot see that connected as we move forward.

Mr. Harvey: Thank you for that, Madam Superintendent, members of the Land Board. The fire program review that is identified in '25 will be another analysis conducted to help inform us on what effect this truly had through modeling, through analysis, that will help drive what we look at for the ongoing future. I do not want to step into futuring this out willy-nilly based on gut experience and feelings; I want to add that level of expertise into a long-term plan.

Superintendent Ybarra: I appreciate that; I think if we knew that you are going to re-evaluate and that might change, that would be helpful, but that we are working towards that goal, that next year we are not going to show up and have a budget in front of us as Land Board members, like the Attorney General said, especially me as the educator, looking at our profits going up in smoke. That concerns me; with change and things that happen like COVID, I just need to see that we are moving towards that. That might change; maybe we will not see the unprecedented year that we are seeing. It looks like we have a goal we are not working towards. That was the sticking point earlier when I said if we are listening to budget enhancements, I hope they are tied to what you are telling us because that is a safety issue, it is a money issue, it is a big deal.

Governor Little: Was that a question that Josh needs to respond to?

Superintendent Ybarra: No, Governor, I was just responding to his…I do not want to stick us in a box and then we do not ask for it next year. I think if you said we were re-evaluating that, we would all understand.

Attorney General Wasden: Josh, you mentioned that the fire program review, the X in fiscal year 25, is to measure whether this helped our fire situation. But if we have not added those elements, then that analysis is nonsensical. I am concerned that we are not adding the elements that allows us to analyze it and end up with an answer that says yeah, we did something or we did not do something. Am I off base there?

Mr. Harvey: Mr. Attorney General, no you are not. You are absolutely correct.

Secretary of State Denney: Josh, you brought up another interesting comment. You said that you do not have any place to put the equipment if you buy it; what is the backlog on that building and the need there? Is there a huge backlog there as well?

Mr. Harvey: I am going to defer that question. That is not in my wheelhouse. *[laughter]*

Craig Foss: Thanks, Josh. Governor, Secretary, a couple of things just to clarify before I get to that. The 12 engine boss positions that we were granted during the last legislative session, we advertised for those 12. We conducted interviews and hired 2 of those positions and we ran into fire season. We made the decision that all of those folks are out on the ground; we are not doubtful that we can fill those, but all those folks are out on the ground working and the last thing we needed to do was pull them in, as well as our staff, to conduct interviews. So the decision was made to delay that interview process, but it was not due to an inability to recruit for those positions. We believe we have those skill sets onboard. I got a sense maybe there was a little confusion there and I wanted to make sure that was clear. Just as we feel these positions that we have…what we asked Josh to do was conduct that StarFire analysis, based on everything you know, if it says you need to add this much to your preparedness budget, what specifically would that look like to get us to where we need to go as an agency, to have a reputable, confident firefighting organization: fire prevention, preparedness, and suppression organization in Idaho. That is what he has prepared here. We started out looking at 5 years; we squished it to three. Honestly, this year did influence that and what we are facing. That is what we asked Josh to do. The questions around budget get into what we as a state agency compared to any state agency have to face. We want to be respectful of that process. When we are asked to put together a budget, and we are told that there are some restrictions on amounts that we can increase, we feel we have to be respectful of that, and that is what Debbie presented. The go between is, this is the honest to God need. What she presented is in conformity with the guidelines we were given; if you feel it should be something different that is entirely up to you. This is Josh's best estimate and we have done a ton of discussion around this internally. Other than that I would say let us all pray for rain *[laughter]*, because that is the only thing that is going to get us through this fire season, and the continued outstanding work by our folks in terms of jumping on these fires early.

Getting back to your question about facilities, that is a different number than we have talked about here. We have made facilities requests in the past and we recognize how difficult that is. St. Maries is a really good example. St. Maries is a busy forest protective district; we have needs in St. Maries. It is also one of our biggest timber baskets so we have a lot of seasonal timber staff as well as fire staff there. We have been trying to get a new office in St. Maries for a number of years; that has not worked out and that cost just continues to go up. We had some internal conversations about our infrastructure needs. The conversation we had was $5 million a year for the next 5 years to get at our infrastructure needs across the state. We did not make a formal request for that, and again we recognize the challenges that the state faces with regard to that; everybody is in difficult situations. That is the internal conversation we had, not a formal request.

Governor Little: Debbie, you have done a great job. *[laughter]*

Ms. Buck: Thank you, sir.

Board Action: A motion was made by Attorney General Wasden that the Land Board direct the Department to include the enhancement requests as outlined in Attachment 1 in the FY2023 budget proposal due on September 1, 2021, with the following addition that the Department include all of the requests as outlined on page 9 of the Fire Program 3-Year Development presentation [see agenda item 5]. Secretary of State Denney seconded the motion. For the record, Governor Little recused himself from this vote. The motion carried on a vote of 4-0.

Additional Discussion:

Governor Little: There you go Debbie; you have a lot of re-writes to do. One of the questions is what is dedicated, what is general, what is federal, what is personnel costs. When the Department works up their budget recommendations, they have to have that detailed to submit both to DFM and to the legislature, and I assume that will have to come back to the Board. Is that correct?

Ms. Buck: Mr. Governor, I will come back in September with all of those details of what we actually submitted.

Governor Little: Just a reminder, other than the legislature, Department of Lands got the largest increase of any budget agency last year.

Attorney General Wasden: May I just make the comment that I appreciate the Department's sensitivity to the limitations that they have, the political sensitivity, the need to work with the legislature. I am also very cognizant of their willingness to work with your office and DFM and live within the confines of that. I very much appreciate the difficulty that you face, and I appreciate your leadership as our Governor, so I do not want any of my actions today to be interpreted as critical in any way, but I also believe that we will not get anything if we do not ask for anything and that is what I am trying to get us to.

7. Endowment Fund Investment Board Report – *Presented by Chris Anton, EFIB Manager of Investments*

A. Manager's Report
B. Investment Report

Discussion:

Chris Anton: The endowment fund was up 1.4% during the month of July. The new fiscal year started off on a positive note as strong consumer demand drove up corporate profits. It was a very strong, outstanding profit and quarterly reporting season for the second quarter. Through yesterday [August 16th] the fund is up 2.1%. Despite evidence that the U.S. economy continues to strengthen and recent inflationary pressures, concerns over the Delta variant increased demand for safe-haven government bonds which generated positive returns and lower yields for fixed income, so both stocks and bonds were up during the month of July. The one area that suffered in the market was Chinese stocks. They suffered losses as their economy showed signs of slowing and as investors have become increasingly concerned about human rights abuses and dramatic regulatory tightening that has come at the expense of shareholders. In my report, I note that there were no significant actions taken by the Investment Board; I should however bring to the attention of the Land Board the Governor's plan to appoint three new directors. They were invited to our Investment Board meeting last week and began their orientation. Those three new members are Brian Yeargain, Joe Forney, and Bob Donaldson who will be replacing Dean Buffington, Gary Mahn and Warren Bakes.

C. FY2023 Distributions and Transfers

Recommendation: The Endowment Fund Investment Board recommends that the Land Board increase the earnings reserve target for Public School from 6 to 7 years; increase beneficiary distributions from $88.1 million in fiscal 2022 to $100.3 million in fiscal year 2023; transfer $486.4 million from earning reserves into permanent funds and treat the transfers as additions to the gain benchmark. The distributions and transfers for each beneficiary are outlined in more detail in the attached document.

Discussion:

Mr. Anton: I will move to attachment 1 in section C. During this meeting we also approve beneficiary distributions and transfer of excess reserves back into the permanent fund and also the decision whether or not to make those transfers permanent. I will start on page 2 of the PowerPoint and just provide an overview of our distribution policy. First of all the Land Board adopted a policy where we distribute 5% of the 3-year average value of each permanent fund; the exception is 7% for State Hospital. It is important to keep in mind as I go through these numbers today, we had a very strong year and we had very strong earnings; when we talk about the distributions, we are only including one year with significant growth of the fund in that calculation. Unless the market drops off considerably the next two years, you will also see strong distributions in the next two years. The policy also calls that we maintain earnings reserves at their target levels based on years of beneficiary distributions and consider transferring any excess reserves back to the permanent fund.

So how did the year turn out? The endowment fund generated a 29.7% return, which is a 27.4% real return, net of 2.3% inflation; expressed in dollars, we had investment gains of about $716 million. Those returns pushed all of the permanent funds above their inflation-adjusted gain benchmark. IDL, as you heard earlier, had a very strong year as well; generated $59.5 million in net revenue in fiscal '21 and we ended the year with $149.7 million in timber presold, so we have strong backlog going into the new fiscal year. When you combine those two, the outstanding investment with outstanding operational performance and strong timber revenue, we are in the enviable position where we have significant excess reserves and also the ability to make material increases to beneficiary distributions in fiscal '23. Page 4 shows the level of earnings reserves expressed in years based on '22 distributions. You can see that almost every fund has earnings reserves almost double the target levels at the end of the fiscal year.

Moving to page 5, this is where we begin to outline our recommendation. First of all, you can see a history of distributions starting in 2017 where we were at $63.2 million; in the current fiscal year we plan to make distributions of $88.1 million, and I am recommending here today that we increase distributions in fiscal '23 to $100.3 million. That is an increase of 13.9%. That increase also assumes that we increase the earnings reserve level for the Public School fund from 6 years to 7 years to make it consistent with all of the other funds. I am also recommending that we transfer $486.4 million from earnings reserves into the permanent fund and to make those part of the permanent fund so those will help enhance and grow distributions going forward.

Page 6 provides that same recommendation but provides it in detail for each of the beneficiaries. I am pleased to be here today to offer that recommendation to increase target earnings reserve levels to 7 [years] for Public School, to increase beneficiary distributions from $88,076,500 in fiscal '22 to $100,315,000 in fiscal '23, and to transfer $486,409,000 from the earnings reserve fund into the permanent fund and make that a permanent addition to the gain benchmark. With that, I will stand for any questions.

Governor Little: You know, compared to some of these other people, you have a lot of good news.

Mr. Anton: Yeah, it is fun to have good news. It will not always be that way.

Attorney General Wasden: I am particularly sensitive to the issues surrounding the earnings reserve level, the history there, and its long-term arguments and so forth. I am intrigued that there is a proposal to increase it from 6 years to 7 years. I am actually in favor of that, but I am curious as to why and why now because we went through this in 2018 and the answers were well, we increase the others to 7, we keep Public School at 6, that is sufficient. I am interested in knowing what was the analysis that says why and why now.

Mr. Anton: Governor and Mr. Attorney General, first of all let me explain why it is at 6 years while the others are at 7. If you think about Public School, they own more land than any other endowment fund, which allows the Department of Lands to manage the harvest process more consistently so the land in the Public School fund provides a more consistent source of revenue than it does in the other funds. That being said, as the endowment…

Attorney General Wasden: …and as a result, it is reduced risk in comparison to those that have smaller parcels, is that what you are telling me?

Mr. Anton: Yes, that is correct. Reduced risk and volatility of that source of funding. That being said, over time the endowment fund has grown. We have also sold the cabin sites which provided a nice, steady source of revenue into the fund. So the revenue that is generated from the Public School fund is more consistent than the others, but it is less important in terms of driving the overall variability of the fund and the land together. It is less of a factor than it was in the past. I think there is some merit in making it consistent. The other thing is once we move funds from the earnings reserve into the permanent fund, they are permanent and we cannot move them back. The Land Board can change it at a future point to reduce those reserves, if they want, but once they are in there, they are permanent. Today we stand in the enviable position where we can provide very large distributions. We can add a small cushion to make it consistent with the other funds and do so without penalty. I should also note that the Public School fund is the most visible fund, probably one of the funds that is the most important to keep consistent going forward. It is the only fund where the statutes indicate that if the fund is below water for 10 years, the legislature has to make it whole; the others do not have that. An argument could be made that the fund should have more reserves. You may say, well they are not going to be underwater for 10 years, but if we had a period of high inflation – remember the permanent fund has to grow at the rate of inflation at a minimum – if we had a period of high inflation and significant losses we could be in that position; hopefully we will not, but we could be. I think it is warranted to have the cushion in the Public School fund and to protect ourselves going forward.

Attorney General Wasden: Thank you. Just a comment so that someone reading the record at some point in the future will understand what that reserve fund is for, it is a shock absorber account so to speak; it absorbs the market risk, the variability in the returns so that we can have a steady pay out to the beneficiaries. At least that is my understanding of it and I wanted to verify that with you.

Mr. Anton: Governor, Mr. Attorney General, that is exactly the purpose of the earnings reserve is to provide that buffer to protect us when markets are down, to protect us when land revenue is down, so that we can still make consistent distributions to the beneficiaries.

Attorney General Wasden: And in fact, particularly in schools since they are budgeting, they have to have consistency in what is coming to them so they can count on that. The one time monies, the up and down fluctuation, actually is very difficult for them as the beneficiary to use those monies. That is also my understanding, I am asking for confirmation.

Mr. Anton: You may want to redirect that question to Superintendent Ybarra, but yes that is my understanding.

Superintendent Ybarra: Yes, that is correct, Attorney General. Chris and I had that conversation about stability; it is really hard if you are going to get $100 one month and the next month $20. That is really a very small analogy, but it is really hard to count on that for schools. Chris you and I may want to talk about this offline, but the preliminary numbers are a little different than what I am seeing right here. I just want to make sure I have those numbers right.

Board Action: A motion was made by Attorney General Wasden that the Land Board adopt the recommendation by the Endowment Fund Investment Board that is increase the earnings reserve target for Public School from 6 to 7 years; increase beneficiary distributions from $88.1 million in FY2022 to $100.3 million in FY2023; transfer $486.4 million from earnings reserves into permanent funds and treat the transfers as additions to the gain benchmark. The distributions and transfers for each beneficiary are outlined in more detail in the regular agenda report. Controller Woolf seconded the motion. The motion carried on a vote of 5-0.

8. DeAtley Land Exchange – *Presented by Zane Lathim, Program Specialist-Real Estate*

Recommendation: Approve the exchange and direct the Department to complete and close the as-proposed DeAtley land exchange.

Discussion:

Governor Little: Why is it classified as a donation?

Mr. Purkiss: Governor, in this situation the land DeAtley owns is worth more money. There is $27,000 of additional value coming to the endowments that he is gifting to us.

Board Action: A motion was made by Attorney General Wasden that the Land Board approve the exchange and direct the Department to complete and close the as-proposed DeAtley land exchange. Controller Woolf seconded the motion. The motion carried on a vote of 5-0.

Executive Session

None

There being no further business before the Land Board, at 11:14 a.m. a motion to adjourn was made by Attorney General Wasden. Controller Woolf seconded the motion. The motion carried on a vote of 5-0.

STATE BOARD OF LAND COMMISSIONERS
September 21, 2021
Regular Agenda

Subject

Fiscal Year 2023 Idaho Department of Lands (Department) Budget Request

Question Presented

Shall the Land Board approve the Department's FY2023 budget request as submitted to Division of Financial Management (DFM) and Legislative Services Office (LSO) on Tuesday, August 31, 2021?

Discussion

The budget was developed in accordance with guidelines provided by the DFM that prescribe 1% change in employee compensation (CEC), 24% variable benefit rate, and $11,650 health benefit per full-time employee for the agency. The request includes an additional 20.44 FTE bringing the agency's total FTEs to 359.26.

On August 17, 2021 the Land Board approved the Department's FY2023 enhancement decision units (Attachment 1) and asked the Department to add additional enhancement decision units based on the fire bureau's three-year plan for the fire program.

With the additions outlined in Attachment 2, the Department's FY2023 total budget request by funding source is as follows:

FUND TYPE	AMOUNT
General Fund	$9,247,628
Earnings Reserve Fund	$31,426,652
Federal Funds	$8,998,630
Other Dedicated Funds	$20,623,041
TOTAL REQUEST	**$70,295,951**

The FY2023 budget request reflects the following changes above the maintenance level appropriation:

FUND TYPE	$ CHANGE	% CHANGE
General Fund	$2,173,928	30.7%
Earnings Reserve Fund	$1,115,352	3.7%
Federal Funds	$11,030	0.1%
Other Funds	$2,915,941	16.5%

Recommendation

Approve the Department's FY2023 budget request as submitted to Division of Financial Management and Legislative Services Office on Tuesday, August 31, 2021.

Board Action

Attachments

1. Approved Board Memo – August 17, 2021
2. Revised Fire Enhancements Decision Units

STATE BOARD OF LAND COMMISSIONERS
August 17, 2021
Regular Agenda

Subject

Fiscal Year 2023 Department of Lands Budget Enhancements

Question Presented

Shall the Land Board Direct the Department to include the enhancement requests as outlined in Attachment 1 in the Fiscal Year 2023 budget proposal due on September 1, 2021?

Background

The Idaho Department of Lands (Department) is requesting concurrence on the proposed FY2023 Enhancement Decision Units. Pursuant to Idaho Code § 67-3502, agencies must submit their budget request to the Division of Financial Management (DFM) and the Legislative Services Office (LSO) by September 1, 2021. The Land Board briefing and meeting schedules prevent the Department from having the full budget request ready for the August meeting. The complete budget will be presented for Land Board approval at its September meeting.

Discussion

The Department is asking for consideration of the attached decision units. The proposed decision units align with the strategic goals that are detailed in the Department's strategic plan document. The strategic plan is organized around four major Department-wide goals: (1) Financial Stewardship – Maximize returns though prudent management of resources and funds, (2) Customer Focus – Exemplary professional service to all customers, (3) People – A high performing workforce, and (4) Process – Effective policies, procedures, and systems to drive informed decision making.

The Department is developing a budget submission for FY2023 that includes enhancements that will further efforts to meet these Department goals. In Attachment 1, the Department's proposed enhancements for the FY2023 budget are listed in order of priority.

ATTACHMENT 1

The enhancements in the Department's budget request reflect the following increases over the FY2022 ongoing appropriation:

	Increase from FY2022 Base Budget	
Fund Type	**Ongoing & One Time Requests Combined**	**Ongoing Requests Only**
General Fund	$346,300 (4.9%)*	$343,300 (4.9%)*
Earnings Reserve Fund	$455,975 (1.5%)	$216,975 (0.7%)
Lands Dedicated Fund	$1,473,125 (8.3%)	$120,925 (0.7%)
Federal Funds	$0 (0%)	$0 (0%)

**After the $250,000 general fund base reduction in GNA that the Department is requesting, the net percent general fund increase from the FY2022 base budget is approximately 1.4% rather than the 4.9% displayed above.*

The Department received authorization from DFM to submit the budget with an additional $346,300 in general funds requested above the 3.1% cap.

Throughout the rest of the budgeting submission process, the Department will follow DFM guidelines.

Recommendation

Direct the Department to include the enhancement requests as outlined in Attachment 1 in the Fiscal Year 2023 budget proposal due on September 1, 2021.

Board Action

A motion was made by Attorney General Wasden that the Land Board direct the Department to include the enhancement requests as outlined in Attachment 1 in the FY2023 budget proposal due on September 1, 2021, with the following addition that the Department include all of the requests as outlined on page 9 of the Fire Program 3-Year Development presentation [see agenda item 5]. Secretary of State Denney seconded the motion. For the record, Governor Little recused himself from this vote. The motion carried on a vote of 4-0.

Attachments

1. FY2023 Enhancement Decision Unit Requests

STATE BOARD OF LAND COMMISSIONERS DIRECTOR SEAL DEPT. OF LANDS IDAHO

Department of Lands - Fire Enhancements - Updated Requests to Meet 3-Year Plan Resource Needs

FY2023 Budget

Item #	Resource Need Outlined in 3-Year Plan	Land Board Presentation - August, 17, 2021				Actual Budget Request - August 31, 2021				NOTES
		FTE Requested	Estimated Funds	Ongoing or One time	Fund Type	FTE Requested	Funds Requested	Ongoing or One time	Fund Type	
1	Qty 10 - 0.83 Engine Captains	8.3	$ 540,000	Ongoing	GF	8.3	$ 545,358	All Ongoing	GF	
2	Pay Adjustment for Seasonal Firefighters	0.0	$ 250,000	Ongoing	GF	0.0	$ 499,977	All Ongoing	GF	
	Qty 10 - New Seasonal Firefighters + $25,200 OE for fuel, training, supplies	0.0	$ 250,000	Ongoing	GF					
3	Qty 3 - Fire Management Officers + $26,000 OE and CO for training, supplies, PC	3.0	$ 300,000	Ongoing	GF	3.0	$ 422,899	$299,899 Ongoing/$9,000 One Time	GF	
	Vehicles for FMOs (above)(vehicles not specifically identified on presentation)	0.0				NA		$114, 000 One Time	WERF-DED	
4	Establish Cottonwood Fire Protection District - Personnel Cost	TBD	$ 750,000	Ongoing	GF	7.81	$ 700,000	Ongoing	GF	We do not have capacity to immediately build all engines that will eventually be needed to fully support the Cottonwood district. One Type 5 engine will be built in FY2023. This request also includes two WERF funded pickup trucks to support the district. Five additional engines will be requested in future years.
	Establish Cottonwood Fire Protection District - $49,500 OE and CO for fuel, training, supplies	0.0	$ -				$ 49,500	$35,500 Ongoing/$14,000 One Time	GF	
	Establish Cottonwood Fire Protection District - Engines	0.0	$ 750,000	One Time	WERF-DED	0.0	$ 235,000	One Time	WERF-DED	
5	Qty 5 - Strategic Engine Initial Attack Modules - Personnel Cost	0.0	$ 275,000	Ongoing	GF	0.0	$0.00	Ongoing	GF	We do not have capacity to build the engines needed to stand up these strategic modules in FY2023.
	Qty 5 - Strategic Engine Initial Attack Modules - Engines	0.0	$ 575,000	One Time	WERF-DED	NA	$0.00	One Time	WERF-DED	
6	Qty 6 - Seasonal Firefighters - Northern Booster Crew	0.0	$ 80,000	Ongoing	GF	0.0	$ 80,000	Ongoing	GF	
7	Fire Program Review in FY2025	0.0	$ 250,000	One Time	GF	0.0	$0.00	NA	NA	One Time funds will not be needed until approximately FY2025 for the study.

Totals from Land Board Presentation:

11.3 ++	$	2,695,000	**General Fund**
	$	1,325,000	**Dedicated WERF Fund**
	$	4,020,000	**Total**

Totals to be Submitted in Budget Request:

19.1	$	2,183,734	**General Fund**
	$	349,000	**Dedicated WERF Fund**
	$	2,532,734	**Total**

ATTACHMENT 2

STATE BOARD OF LAND COMMISSIONERS
September 21, 2021
Regular Agenda

Subject

Final approval of the Eastern Idaho Regional Solid Waste District (EIRSWD) Land Exchange

Question Presented

Shall the Land Board authorize the Department to complete the proposed EIRSWD land exchange?

Background

The Department received an application for a land exchange from the EIRSWD in December 2020. The EIRSWD proposes exchanging approximately 1,220 acres of land adjacent to endowment land that it is under contract to purchase (Proponent's Land) for 985 acres of endowment land (Endowment Land) located 18 miles to the northeast. Both properties are in Madison County.

On January 19, 2021, the State Board of Land Commissioners (Land Board) unanimously approved the Department's request to proceed with due diligence (Attachment 1).

Upon receiving approval from the Land Board, the Department completed the due diligence analysis required for the EIRSWD land exchange. The due diligence documents include financial analysis, encumbrance review, public comment, Member of the Appraisal Institute (MAI) appraisals, review MAI appraisals, an environmental site assessment (ESA) on the Proponent's Land, and surveys of both properties. The independent third-party analysis was completed by the Land Board's Agricultural Advisor, Henri Lemoyne, of Lemoyne Realty, Inc. The analysis completed by Mr. Lemoyne (Attachment 2) recommends the land exchange and notes, "[w]hen all things are considered it is my conclusion that the State of Idaho will obtain an overall benefit from the pending transaction over the anticipated long holding period."

Discussion

The Endowment Land proposed for exchange consists of approximately 985 acres located in Madison County (Attachment 3) and was appraised by H. Scott Calhoun, MAI, with a value of $1,940,000. As part of the appraisal, Mr. Calhoun determined that the highest and best use is dryland agricultural.

The Endowment Land includes land currently leased for farming by Norvue Farms (David and Blair Crapo). The lessee's preference is to maintain the existing lease; the EIRSWD is offering a lease agreement with similar terms which will allow the lessee to continue their farming operations without interruption after the exchange is completed. The lessee expressed concerns about the operation of the solid waste site and how it will affect their farm operation.

The Proponent's Land consists of 1,220 acres in Madison County, is contiguous to other existing endowment lands (Attachment 4) and was also appraised by Mr. Calhoun. The Proponent's Land was valued at $2,250,000 and has a highest and best use as dryland agriculture and seasonal grazing. Portions of the Proponent's Land are currently enrolled in the Conservation Reserve Program, with the enrollment expiring in 2026.

Access to the Proponent's Land is along Mud Springs Road and Jeppesen Road, which are under the jurisdiction of Madison County. However, a title commitment exception refers to a United States Forest Service (USFS) easement as the primary access. As part of the closing process, the Department will confirm that the access is legal and feasible.

The ESA completed on the Proponent's Land includes a recommendation to mitigate three Recognized Environmental Conditions (REC) found. Two of the RECs have already been mitigated by the Proponent. The final REC involves analyzing some discolored soil to determine if it is contaminated. If so, it will be removed and disposed of according to EPA regulations prior to closing. The Department will require certification that all RECs have been remediated as a condition of closing.

The Proponent's Land is improved with several dilapidated structures that will be of no value to the endowment. The structures include two residential dwellings, a barn, workshop, some silos, and various other small sheds and outbuildings typical of a rural farmstead. If this land exchange is approved by the Board, the EIRSWD will demolish all the structures to the satisfaction of the Department prior to closing.

A vicinity map (Attachment 5) shows the location of the Endowment Land, the Proponent's Land, and other existing endowment lands.

Benefits of the exchange to the endowment include:

- Return on Asset (ROA): The analysis completed as part of the due diligence process indicates that the initial benefit to the endowments is an increase of 235 acres, and an additional $310,000 in appraised value will be donated to the endowments. The annual income produced by the Proponent's Land will take three to five years to reach the existing level.
- Block up Endowment Land: There is a net gain of 235 acres added to a large block of endowment land by completing the exchange.

Additional considerations:

- Counties Support: The county commissioners of Madison, Fremont, and Teton counties are highly supportive of the land exchange and the regional landfill (Attachment 6).

- Regional Taxpayer Benefit: This project will directly benefit the taxpayers of Madison, Fremont, Clark, Teton, and Bonneville counties by reducing landfill costs and consolidating services regionally. It will also provide a convenience and time saving element to taxpayers because of its centralized location.
- DEQ and EIPH Support: The Department of Environmental Quality (DEQ) and Eastern Idaho Public Health (EIPH) both support the proposed land exchange and regional landfill (Attachment 7).
- Public Notice: The public outreach was extensive and included certified mailings to lessees and neighboring landowners, open houses, and public meetings by the both the Department and EIRSWD. The consensus is that they are not excited by a landfill in the area, but they acknowledge the need for a landfill. Many of the local lessees and farmers are concerned about impacts to the Good Agricultural Practices (GAP) program administered by the United States Department of Agriculture (USDA). During the outreach, a comment was received from Sandy Edwards, who is the GAP representative for many of the farms in the area. Her comment details the concerns of impacts to the GAP program for the neighboring farmers. The EIRSWD's intent and efforts to date have been to mitigate these concerns. The parties have had subsequent meetings and the EIRSWD has taken steps to include the lessees and/or their representatives in the design process of the site.

Recommendation

Approve the exchange and direct the Department to complete and close the as-proposed EIRSWD land exchange.

Board Action

Attachments

1. January 19, 2021 Approved Memo
2. EIRSWD Land Exchange Agricultural Advisor Final Report
3. Map of Endowment Land
4. Map of Proponent's Land
5. Land Exchange Vicinity Map
6. Madison, Fremont, and Teton Counties Letters of Support
7. DEQ and EIPH Letters of Recommendation

STATE BOARD OF LAND COMMISSIONERS
January 19, 2021
Regular Agenda

Subject

Request approval to proceed with due diligence for the Eastern Idaho Regional Solid Waste District Land Exchange.

Question Presented

Shall the Land Board authorize the Department to proceed with due diligence for the proposed land exchange?

Background

The Idaho Department of Lands (Department) was first contacted by the Eastern Idaho Regional Solid Waste District (Proponent) on October 23, 2019. The Department received an application (Attachment 1) for a land exchange from the Proponent in December 2020. The Proponent is proposing an exchange of approximately 1,200 acres of land that it is under contract to purchase, depicted with a blue outline and cross hatching (Attachments 2 and 3). That land would be exchanged for 1,200 acres of endowment land located 18 miles to the northeast, depicted with a red outline and cross hatching (Attachments 2 and 4). If the exchange is completed, the Proponent will build a regional landfill that will serve Madison, Fremont, Clark, and Jefferson counties. Area staff and IDL leadership have reviewed the proposal and believe it warrants further formal evaluation via the due diligence process.

Both the endowment land and the Proponent's land are located in Madison County. The Proponent's land is adjacent to existing endowment land and would consolidate endowment land.

Discussion

This proposed land exchange would increase the annual revenue to the endowments and would add to an existing block of 12,300 acres of endowment land.

Specific benefits of the exchange to the endowment include:

- Return on Asset: While a return on asset (ROA) cannot be finalized until due diligence work is completed, it is anticipated that the long-term ROA for the exchange will be higher based on an increase of annual revenue to the Public School Endowment.
- Real Estate Contribution Value: The Proponent is open to contributing 200 additional acres to the Public School Endowment, estimated at $413,000.

ATTACHMENT 1

- Lease Revenues: The Proponent anticipates continuing the existing lease on the endowment land with the lessee and would be willing to direct these annual revenues to the Public School Endowment for a fixed term.
- Conservation Reserve Program (CRP) Revenues: A portion of the Proponent's land is currently under the federal CRP and generates $33,300 annually. Upon completion of the exchange, the Public School Endowment will receive the income during the remaining term of the CRP lease.

The Department has received letters of recommendation from Madison County Commissioners, Fremont County Commissioners, Teton County Commissioners, Eastern Idaho Public Health, and Idaho Department of Environmental Quality (Attachment 5).

Upon Land Board approval, the next steps for the land exchange would be for the Department to perform due diligence consistent with the following (also listed in Attachment 6):

- Order a preliminary title report to review the legal descriptions and the current exceptions to title on the properties.
- Review the Phase 1 Environmental Site Assessment provided by the Proponent.
- Verify that the Proponent's property has legal access.
- Review the existence of any endangered species at the Proponent's property. The presence of threatened/endangered species can significantly reduce the value of the Proponent's property.
- A real estate appraisal will be completed by a Member of the Appraisal Institute (MAI) appraiser to determine the market value for both properties. Appraisals will be reviewed by a second MAI appraiser to verify the report meets Uniform Standards of Professional Appraisal Practice (USPAP).
- A Land Board approved farmland advisor will review the reports and make a recommendation to approve or deny the exchange.
- Review the record of survey provided by the Proponent.

Based on the review of the due diligence, the Department leadership will approve or terminate the land exchange for further consideration. If Department leadership approves the land exchange, it will be brought back to the Land Board for final approval to proceed.

Recommendation

Direct the Department to proceed with due diligence for the Eastern Idaho Regional Solid Waste District land exchange proposal.

Board Action

A motion was made by Attorney General Wasden that the Land Board adopt the Department recommendation that is approve due diligence on this transaction. Controller Woolf seconded the motion. The motion carried on a vote of 5-0.

Attachments

1. Eastern Idaho Regional Solid Waste District Application
2. Proposed Land and Endowment Land Map
3. Proposed Land for Exchange Map
4. Existing Endowment Land Map
5. Letters of Recommendation
6. Due Diligence Checklist

LeMoyne Realty, Inc.
Henri LeMoyne
P.O. Box 5225
Twin Falls, ID 83303
henri@lemoynerealty.com
Phone: (208)420-0874

August 16, 2021

Kevin Graham

Idaho Department of Lands

kgraham@idl.idaho.gov

Dear Mr. Graham,

Please accept this letter as my Final report as an Ag Advisor to the Idaho Department of Lands relative to the adequacy of the due diligence documentation and the anticipated benefit to the State of Idaho Endowment Fund with relation to the proposed exchange between Madison County, Idaho, et al and the State of Idaho.

In my Preliminary Ag Advisor Report dated July 6, 2021 issues related to the legal descriptions used in various reports and a survey were described and I asked that those issues be addressed. After reviewing the legal description in the updated title report and the updated appraisal report as well as reviewing the updated survey it appears to me that they now match. It is not my assignment to offer an opinion as to the validity of the appraisers opinion of value for either property he appraised. From my perspective the issues raised relative to the land appraised, insured and surveyed seems to have been resolved.

I also asked that you give consideration to the possible effects on the Parkinson property relative to title exceptions 23 & 24 in the first title commitment. In your July 28, 2021 email to me you provided the following information;

Legal access: Access is discussed on page 18 of the appraisal. We have assurance from EIRSWD that access is public. Additionally, IDL Land Records has the access listed as public road system.

My comments were intended to raise the issue of legal access to you so that you and the Idaho Department of Lands could make an informed decision. It appears to me that you and the Department have considered this issue. It has been noted that the updated title commitment still contains exceptions 23 and 24. It would be better in my opinion if the title company would remove those exceptions however from my perspective in this instance if you have considered the issues and accepted any risks associated I feel that my duty has been served by bringing them to your attention.

In my Preliminary Report title exception 27 dealing with oil and gas leases were noted. In you email you provided me with the following;

Other items:

Oil and gas lease: IDL looked into Exception 27 that there are oil and gas leases encumbering the property and is of no concern as the leases are from the state.

Again as you and the IDL have considered these issues and accepted them I feel that my duty has been served by bringing them to your attention.

Exception 25 in the original title commitment was brought to your attention in my preliminary report. I note that this exception is still contained in the updated title commitment. It is still my opinion that this exception should be removed from the an updated title commitment so that it is not reflected in the title policy. In my view it was my assignment to comment on the due diligence. Having done so in relation to exception 25 it is the decision of the IDL to deal with whether or not it should be accepted as an exception to title.

In the preliminary report I noted other title exceptions that may be of interest to you and IDL. To date I have not received the documents that I requested from the title company. On the surface these were not of concern to me but again having brought them to your attention I feel that I have done my duty with respect to this assignment relative to those title exceptions.

The Preliminary Ag Advisor Report also discussed issues raised in the Phase 1 Environmental Assessment. The Phase 1 Environmental Site Assessment recommendations were included in my preliminary report in order to bring them to your attention and receive assurance from you that the recommendations would be followed. I accept your email as assurance that the recommendations will be followed and that closing will not occur until the items listed have been satisfied. Following is an excerpt from you email describing IDL's intentions relative to those recommendations.

8.0 Recommendations:

Debris: The fuel tanks, drums and farm dump debris will be removed prior closing and language set forth with require this action prior to possession.

At closing all prior year taxes should be paid so that they are not a lien on the property IDL acquires. Also, the current years taxes should be prorated and paid from for the same reason. My thoughts regarding taxes relate to the county and state not losing the tax funds that are owed. I doubt that the State of Idaho would actually be liable for the tax but governmental entities should be paid amounts owed in my view.

Final Conclusions:

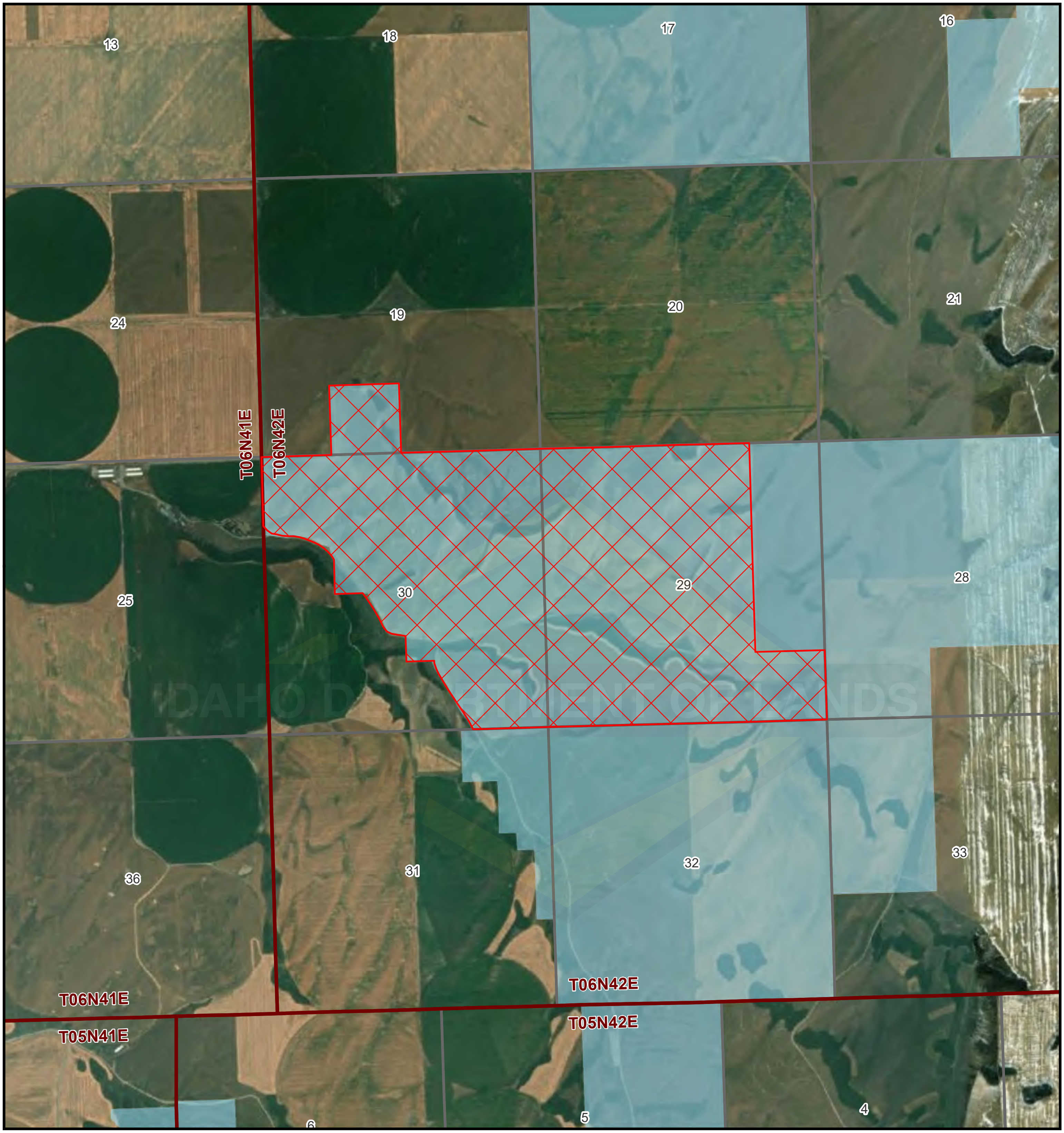
I have noted the value conclusions of the two properties appraised by H. Scott Calhoun and find that he estimated the value of the present land owned by the Endowment to be $1,940,000. His opinion of value of the Parkinson land that the Endowment expects to take title to was $2,250,000. Clearly the appraiser feels that the value the Endowment will gain from the exchange is substantial. I have also considered the potential income from the Parkinson Farm which the Endowment likely will be receiving in relation to what the Endowment has been receiving from the currently owned land. Since the Parkinson farm has been in CRP for quite a few years it is expected that it will take a few years for it to return to full productive capacity. Heath Hancock of IDL's Idaho Falls region indicated that he felt the lease rate, on a per acre basis, for the Parkinson Farm over the long term would be comparable to other farms in its vicinity. The current lease on the Endowment land (Norvue Farms lease) includes irrigated land however the water right and irrigation equipment belong to the tenant not the State of Idaho.

When all things are considered it is my conclusion that the State of Idaho will obtain an overall benefit from the pending transaction over the anticipated long holding period.

Respectfully submitted,

Henri LeMoyne

Idaho Real Estate Broker



IDL to Dispose
Township
Section
County
Endowment Land
Private

EIRSWD LEX
IDL to Dispose

Madison County

8/26/2021

Disclaimer:
This map has been compiled using the best information available to the Idaho Department of Lands at the time and may be updated and/or revised without notice.
In situations where known accuracy and completeness is required, the user has the responsibility to verify the accuracy of the map and the underlying data sources.

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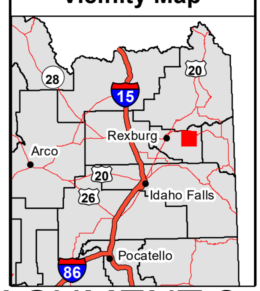
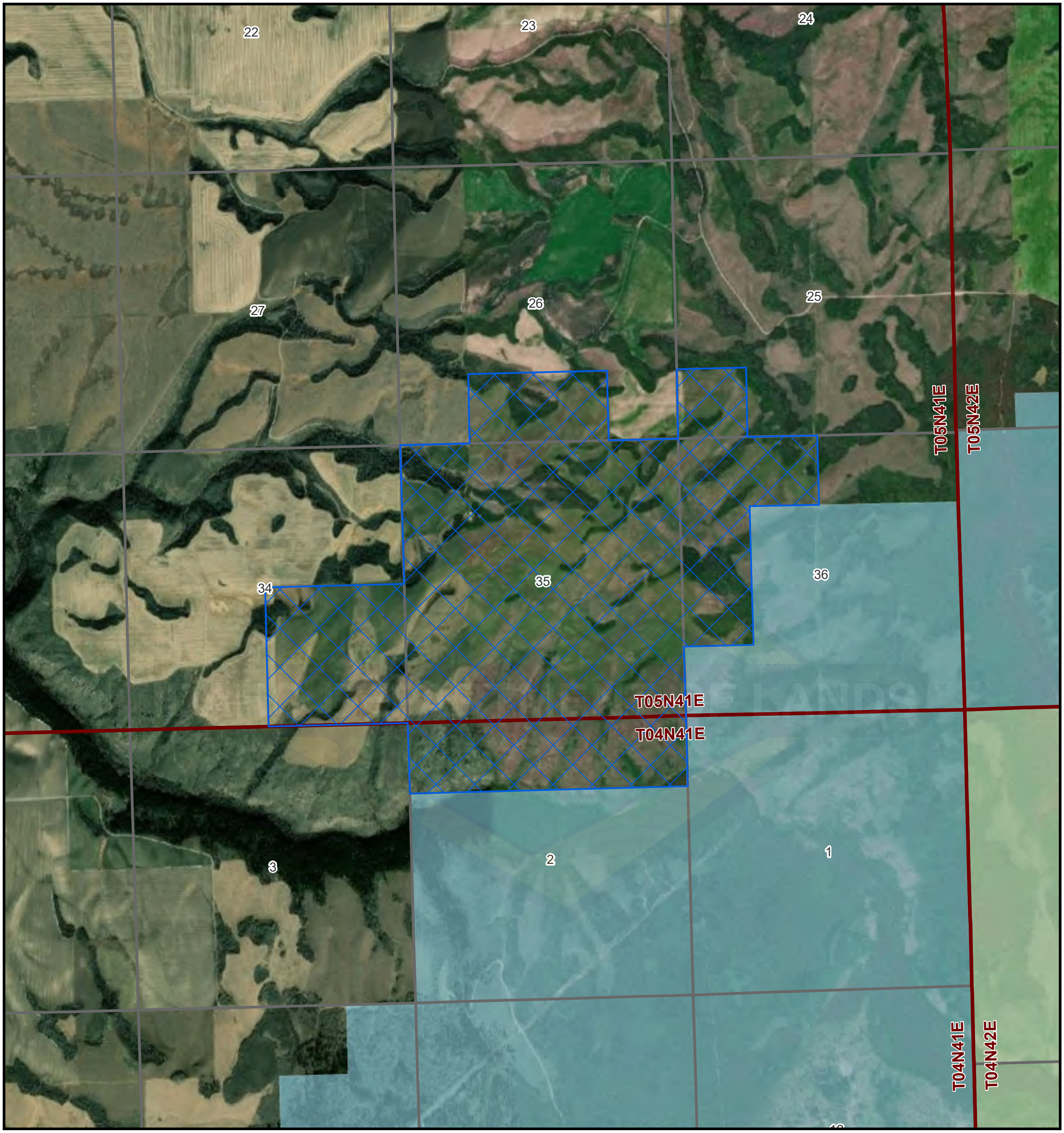


ATTACHMENT 3



IDL to Acquire
Township
Section
County

Endowment Land
U.S. Forest Service
Private

EIRSWD LEX
IDL to Acquire

Madison County

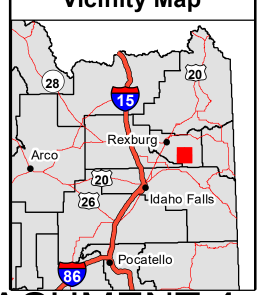
8/26/2021

N W E S

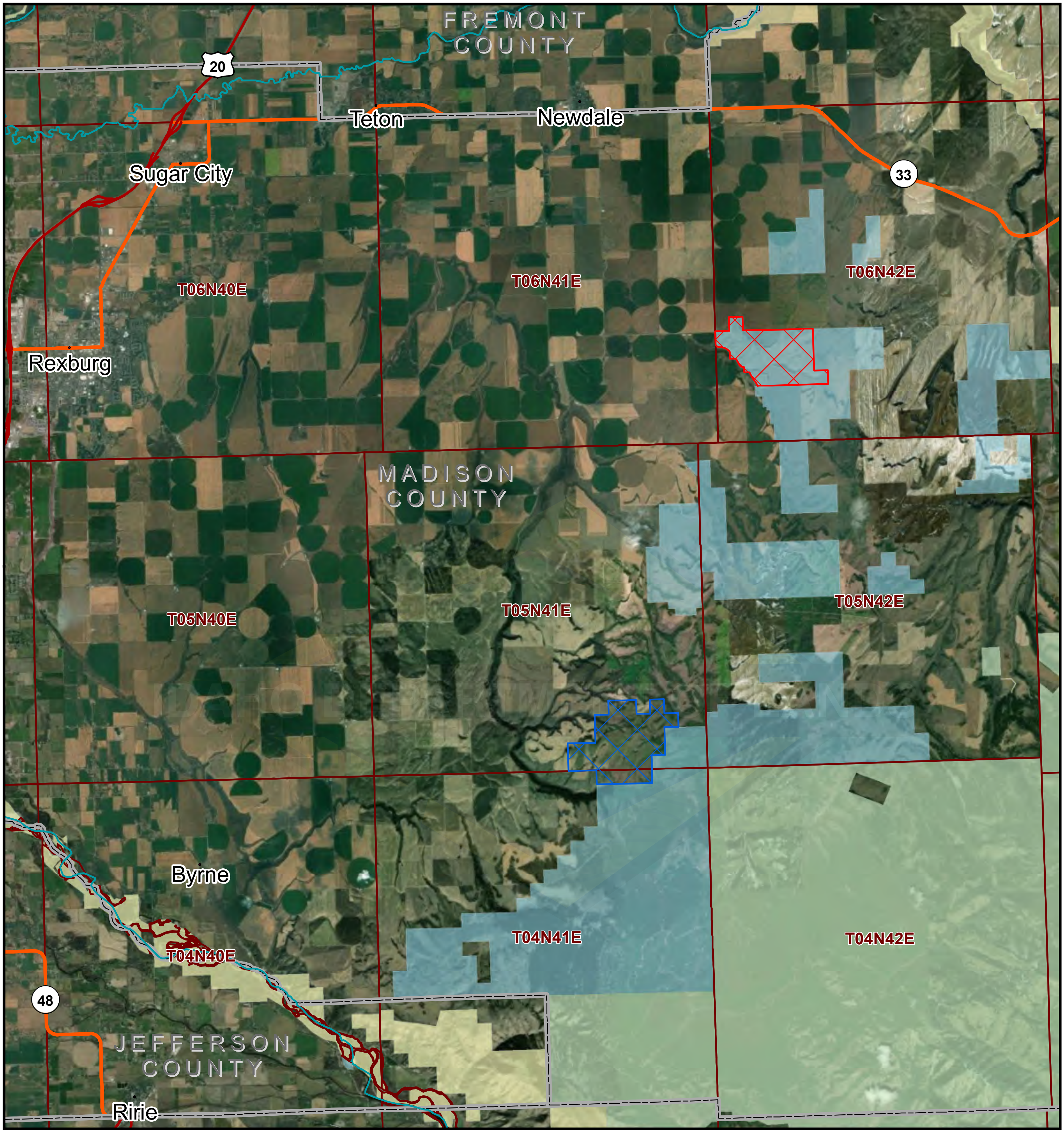
0 0.5 1 Miles

Disclaimer:
This map has been compiled using the best information available to the Idaho Department of Lands at the time and may be updated and/or revised without notice.
In situations where known accuracy and completeness is required, the user has the responsibility to verify the accuracy of the map and the underlying data sources.

Vicinity Map



ATTACHMENT 4



IDL to Acquire
IDL to Dispose
Township
County
US Highway
State Highway
Endowment Land
Bureau of Land Management
U.S. Forest Service
Bureau of Reclamation
Private

EIRSWD LEX Overview

Madison County

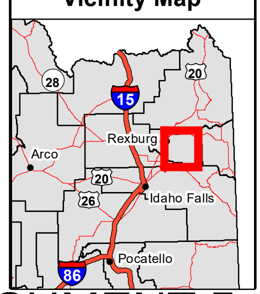
8/26/2021

N W E S

0 2 4 Miles

Disclaimer:
This map has been compiled using the best information available to the Idaho Department of Lands at the time and may be updated and/or revised without notice.
In situations where known accuracy and completeness is required, the user has the responsibility to verify the accuracy of the map and the underlying data sources.

Vicinity Map



ATTACHMENT 5

Telephone (208) 359-6200
Fax (208) 356-8396

P.O. Box 389 / 134 E Main
Rexburg, ID 83440

June 28, 2021

Re: Letter of Support: Eastern Idaho Regional Solid Waste District (EIRSWD) Land Exchange

To: Honorable Idaho State Land Board and Idaho Department of Lands

As a founding member of the EIRSWD who has been actively seeking to establish a regional solid waste solution for our county for many years. The BOCC of Madison County would encourage the State Land Board to approve the proposed land exchange.

We understand the proposed land exchange will bring significant benefit to the state's endowment lands and Madison County is committed to making sure this is the case. We also see that the proposed exchange will block up endowment lands with other adjacent endowment lands.

The County considers the proposed location an ideal location for a landfill for its central location and topographical orientation of natural valleys, soil content and environmental and regulatory considerations. The BOCC were on location when Department of Environmental Quality (DEQ) and the Department of Fish & Game (DFG) staff conducted a physical site visit. This included digging necessary trenches to view soils and depths.

The County's understanding is that both the DEQ and DFG are supportive of this application for its regionalization efforts for Eastern Idaho citizens and Idaho's air, land and water resources. We understand the State Land Board's prime directive of adding value to the endowment lands. The proposed exchange certainly adds value and will also be a significant regional solution to the areas solid waste needs. We appreciate your consideration of the District's land exchange proposal.

Sincerely,

Tom Smith

Todd Smith Commission Chairman

ATTACHMENT 6

Fremont County Commission
151 West 1st North
St. Anthony, ID 83445

DATE: June 14, 2021
TO: Honorable Idaho State Land Board and Idaho Department of Lands
FROM: Fremont County Board of County Commissioners (BOCC)
RE: Eastern Idaho Regional Solid Waste District (EIRSWD) Land Exchange Letter of Support

As a founding member of the EIRSWD who has been actively seeking to establish a regional solid waste solution for our county for many years, the BOCC of Fremont County would encourage the State Land Board to approve the proposed land exchange.

We understand the proposed land exchange will bring significant benefit to the state's endowment lands and Fremont County is committed to making sure this is the case. We also see the proposed exchange will block up endowment lands with other adjacent endowment lands.

The County considers the proposed location as an ideal location for a landfill use for its central location, topographical orientation of natural valleys, soil content and environmental and regulatory considerations. The BOCC were on location when Department of Environmental Quality (DEQ) and the Department of Fish & Game (DFG) staff conducted a physical site visit. This included digging necessary trenches to view soils and depths. The County's understanding is that both the DEQ and DFY are supportive of this application for its regionalization efforts for Easter Idaho citizens and Idaho's air, land and water resources.

We understand the State Land Board's prime directive of adding value to the endowment lands. The proposed exchange certainly adds value and will also be a significant regional solution to the areas solid waste needs. We appreciate your consideration of the District's land exchange proposal.

Sincerely,

Jordon Stoddard, Chairman

Blair Dance, Commissioner

Scott Kamachi, Commissioner

12/30/2020

To:	Idaho Department of Lands (IDL)
From:	Teton County Board of County Commissioners (BOCC)
Re:	Eastern Idaho Regional Solid Waste District (EIRSWD) Land Exchange Letter of Support

---

Teton County is supportive of the proposed EIRSWD land exchange with the IDL and endorses the efforts of the District to establish a regional landfill service for the northeast Idaho region.

Teton County has been in communications with the District for many years now and is aware of its efforts to establish a regional solid waste facility in Madison County. Though not a member of the District at this time, Teton County applauds the efforts of the District and sees the central location, economies of scale and other positives as potential future benefits for our citizens. We also understand that the proposal adds value to the endowment lands of the state and is supported from an environmental and regulatory perspective by the State Departments of Environmental Quality, Fish & Game and Eastern Idaho Public Health District.

We appreciated the IDL and State Land Board's consideration of the land exchange proposal and would encourage the Board to be supportive of this long-term regional solution.

Sincerely,

Cynthia J. Riegel

Cindy Riegel
Teton Board of County Commissioner Chair

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 N Hilton Street, Boise, ID 83706
(208) 373-0502

Brad Little, Governor
Jess Byrne, Director

December 8, 2020

Subject: Regionalization and the Eastern Idaho Regional Solid Waste District

To Whom it may Concern:

The Idaho Department of Environmental Quality (DEQ), Solid Waste Program, supports efforts to regionalize solid waste services and disposal, especially in rural and less populated areas of the state. We support such efforts because greater resources can be brought to bear, resulting in better designed and operated facilities, more professional and dedicated solid waste facility staff and employees, and better environmental outcomes.

Regionalization opportunities are rare because it necessarily involves multiple counties to work together and share funds and resources. Opportunities are also limited because suitable solid waste disposal sites are difficult to locate due to logistical, public perception, and environmental factors. The Counties involved in the development of the Eastern Idaho Regional Solid Waste District appear to have made significant and difficult progress toward cooperatively managing a solid waste district and identifying a suitable location for a new regional facility.

DEQ hydrology and solid waste staff have visited the proposed facility location and, at the present time, without the benefit of full information that will be provided with a siting application, it appears to satisfy the siting conditions. It also appears to meet the various county's respective needs logistically, and the remote proposed facility location does not presently appear to be causing contentiousness or conflict.

The DEQ Solid Waste Program will continue to provide input and support for these regionalization efforts for the benefit of East Idaho citizens and for Idaho's air, land, and water resources. Please contact me if you have any questions regarding the benefits of regionalization and the importance of regionalization projects such as this.

Best regards,

Matthew Beeter
Solid Waste Program Manager
Idaho Department of Environmental Quality
(208) 373-0121

Eastern Idaho
Public Health
Prevent. Promote. Protect.

ENVIRONMENTAL HEALTH DIVISION
1250 Hollipark Drive
Idaho Falls, ID 83401
OFFICE 208-523-5382
FAX 208-528-0857

September 24, 2020

Josh Purkiss
Idaho Department of Lands
300 North 6th Street
Suite 103
Boise, ID 83702

RE: LETTER OF RECOMMENDATION

Dear Mr. Purkiss:

I am pleased to have been requested to write a Letter of Recommendation for the Eastern Idaho Regional Solid Waste Landfill. Eastern Idaho Public Health (EIPH) believes the regional landfill will be an asset to the counties that use the facility.

EIPH is responsible for daily operational inspections of landfills in the eight (8) counties in eastern Idaho. The cost of operating and maintaining a landfill is quite expensive and labor costs are high. With the collaborative effort of all the counties that take part in the Eastern Idaho Regional Solid Waste District (EIRSWD), sharing the costs will lessen the burden. This, in turn, will help the EIRSWD to have the funding required to meet all its regulatory requirements.

We believe the EIRSWD is committed to operating a state of the art landfill that will be protective to the environment and safely dispose of the waste generated by the public it serves. In addition, the proposed location (currently state lands) is a desirable location since it is centrally located to the four (4) main counties it will serve.

I am again pleased to write this letter for the EIRSWD. If you should have any questions, please contact me. My direct line is (208) 533-3127.

Sincerely,

Kellye Johnson, REHS
Environmental Health Administrator

CC: Geri Rackow, EIPH- District Director
Nathan Taylor, EIPH- EH Supervisor
Jon Weber, EIRSWD- President
Pat Brown, Idaho Department of Lands

IDAHO STATE LAND BOARD

EASTERN IDAHO WASTE DISTRICT LAND EXCHANGE

Presented by: Cameron Arial, District Municipal Advisor

September 21st, 2021

Benefit to Region

- Over next 40yrs this regional solution will significantly save tax payers.*
- Regional solid waste solution
  - Status Quo – Individual counties running own landfills
    - Failing liners, regulatory issues
    - Insufficient size to address growth
  - Regional solution – One landfill for the northeastern region
    - One central location
    - New state-of-the-art operation that is regulatorily compliant
    - Room to expand to meet regional growth demand
    - Consolidated operations that is cost effective
- DEQ and EIPH supported
- Madison, Fremont, Clark, Bonneville, and other Counties supported
- Bingham and Teton considering joining

*Projections based on assumptions that include operating costs, additional revenue, and inflation

Next Steps

- The District appreciates the Board's consideration and if granted, will work to finalize the exchange and continue with the regional solid waste project.
- Questions?

THANK YOU!

BAILEY GLASSER LLP
800 West Main Street
Suite 1406
Boise, ID 83702
Tel: 208.342.4411
Fax: 208.342.4455

Nicholas A. Warden
nwarden@baileyglasser.com

DEPT. OF LANDS
SEP 07 2021
BOISE, IDAHO

September 7, 2021

Via Hand Delivery

Dustin T. Miller, Director
State Board of Land Commissioners
Idaho Department of Lands
Real Estate Services Bureau
300 N. 6th Street, Suite 103
PO Box 83720
Boise, ID 83720-0050

Re: *Application for Land Exchange from Trident Holdings, LLC*
Request for Rescission and Contested Case Hearing

Dear Director Miller:

I write on behalf of Trident Holdings, LLC ("Trident"). Trident's request for land exchange was denied on August 10, 2021. Trident requests that the State Board of Land Commissioners rescind that denial, exercise the authority granted to it under Idaho Code § 58-122, and hold a contested case hearing in order to aid the Board in further consideration of Trident's requested exchange.

In support of this request for rescission and contested case hearing, Trident offers several documents enclosed herewith. These documents chronicle several concerns related to the process by which Trident's request for land exchange has been assessed, inaccuracies and peculiarities within the calculation underlying the denial of Trident's requested exchange, and recently uncovered evidence indicating preexisting and sustained bias against Trident's request by those within the Department of Lands tasked with its assessment.

Please note that Trident's interpretation of applicable statutes and regulations concludes that the denial of its requested land exchange is a final agency action subject to judicial review. Trident was therefore compelled by the rapid approach of statutory deadlines despite contrary preference to file a petition for judicial review in order to preserve all available rights and remedies. However, Trident will seek to stay judicial review during the pendency of your consideration of this request and ongoing informal efforts toward mutually agreeable resolution.

Thank you, in advance, for your consideration.

Sincerely,

Nicholas A. Warden

enc: Ex. 1 - Letter from Trident in Response to Exchange Denial
Ex. 2 - Public Comment from Joshua Purkiss Advocating Against Public Land Exchange
Ex. 3 - Joshua Purkiss Idaho Rivers United Membership
Ex. 4 - Letter from Idaho Rivers United Advocating Against Trident Exchange
Ex. 5 - Joshua Purkiss Land Appreciation Spreadsheet

EXHIBIT 1

September 7, 2021

Trident, LLC Request for Rescission and Contested Case Hearing

PRESERVE
McCALL

August 13, 2021

The Honorable Brad Little
Governor of Idaho
700 W. Jefferson St.
Ste 228
Boise, ID 83720

Re: Preserve McCall Land Exchange Application

Dear Governor Little,

This letter, also sent by separate address to each of your fellow Land Commissioners, is in response to the August 10, 2021, letter from Bill Haagenson to Alec Williams rejecting Trident Holdings LLC's "Preserve McCall" application for a land exchange surrounding Payette Lake in Valley County. Enclosed is a copy of that letter along with comments regarding its contents and the flawed data it includes. Preserve McCall has concerns regarding the Idaho Department of Lands' ("IDL") refusal to process Preserve McCall's application and, without exception, we disagree with the misled reasons that IDL staff gave for the dereliction of their duty as well as the bizarre factual assertions IDL's letter contains regarding the Preserve McCall proposal.

Specifically, we request you address the unexplainable 915% increase in IDL's estimated land value—from roughly $40 million in March to between $366 million and $488 million now—by inquiring about IDL's value assertions, examining the process failures outlined below, and redirecting IDL to commission an independent third-party appraisal and split costs with applicants.

We are asking for your help to bring transparency and accountability to this process.

Application and Silence

Preserve McCall submitted its application to IDL on February 8, 2021, and immediately upon submission, requested an audience with IDL staff. Preserve McCall's request was in response to a directive by Scott Phillips, IDL's Policy and Communications Chief, to get in touch with him immediately following the application's submission to ensure that all parties were following its progress and were synchronized in tracking its advance. For weeks following the application's submission, Preserve McCall made numerous attempts to schedule further discussions and received no response from IDL.

PRESERVE
McCALL

On March 16, 2021, the Idaho State Board of Land Commissioners (the "Land Board") resolved to have IDL process land exchange applications and hire third-party experts as necessary, sharing the cost of these experts with applicants. Since that meeting, IDL has rejected every opportunity to process Preserve McCall's application according to its Land Board mandate.

One Meeting, No Numbers

Finally, on July 7, 2021, IDL staffer Josh Purkiss reached out to Preserve McCall's legal counsel to discuss a question Mr. Purkiss had regarding legal descriptions in the schedules attached to the exchange application. During that discussion, Mr. Purkiss expressed concern that the valuation proposed by Preserve McCall and IDL's own internal valuation were off by multiples. Mr. Purkiss cited values given to IDL by Mark Bottles, the auctioneer seeking to sell the islands in Payette Lake to private parties. We requested a meeting between IDL staff and Preserve McCall staff to discuss preliminary work Preserve McCall had performed to obtain values for the identified parcels, as well as additional raw data that the IDL may want in its consideration of the application. IDL staff and Preserve McCall staff held a conference on July 14, 2021. The highlights from that meeting are as follows:

1. In the planning of this conference, IDL staff expressed concern regarding being seen with associates of Preserve McCall and was wary to meet in person.

2. IDL staff, specifically Jim Elbin, expressed a personal grievance with Preserve McCall's overall approach to its application in that Preserve McCall did not first meet with him in order to learn his opinion of what should become of endowment lands surrounding Payette Lake. This fact was surprising in light of the fact that Preserve McCall had held numerous meetings with Ryan Montoya, a staffer who is no longer with IDL, throughout the year prior to submitting its application.

3. IDL staff asserted that it was not inclined to continue processing Preserve McCall's application because of a disparity in value between the endowment lands and the the timberlands Preserve McCall proposes to exchange. IDL did not have a number for the value it asserted for the endowment lands, but stated if it did, it would be somewhere between $120 million and $160 million. Despite spending months prior to this conversation on the Payette Endowment Land Strategy ("PELS"), which concluded in a value very close to what Preserve McCall set forth in its application, staff now reversed course, stating that the PELS value was intended for leasing only and not for disposition. This fact directly contradicts months of work staff did in valuing these lands for disposition according to PELS. Mr. Purkiss supported his assertions with the fact that Mark Bottles believes various of these parcels, including at least the islands and Parcel G, actually have values into the tens of millions. Staff also stated that it had no way to know true value without an appraisal. Mr. Purkiss summarized that the Preserve McCall application did not pass his smell test, and that his smell test was enough for denying the application.

PRESERVE
McCALL

4. Having established that the parties were facing a gap between believed values, Preserve McCall proposed a second meeting to review information in possession of each party (comparable sale values from IDL, and a broker's opinion of value from Preserve McCall), as well as to discuss the scope of an appraisal to be commissioned by IDL and paid for by Preserve McCall.

5. It is worth noting that it has since come to our attention that IDL had received its recommendation from Mason, Bruce & Girard ("MB&G") prior to our first meeting. Despite that firm's making clear that an analysis could not take place without additional specific information regarding the exchange parcels, all of which Preserve McCall had available, IDL did not request any of this data. When Preserve McCall offered additional information, IDL staff stated that additional information was unnecessary to their analysis, or that they somehow already had it. Confoundingly, it appears IDL did not provide this information to their advisors, in particular MB&G.

6. Before this meeting ended, the parties scheduled a follow up meeting for the afternoon of July 20, 2021, at the Hoff Building in Boise. IDL postponed that meeting to an unnamed future time.

On July 22, 2021, Mr. Purkiss called Preserve McCall's legal counsel and stated that IDL would not meet with Preserve McCall to discuss the application until it has completed its analysis. Mr. Purkiss had no explanation for how IDL would complete its analysis without the data it said it required, but said that the mandate to no longer meet with Preserve McCall came from "management."

IDL, the "Business"

On August 10, 2021, Bill Haagenson sent the enclosed letter to Preserve McCall rejecting its application. On August 11, 2021, Preserve McCall's legal counsel had a telephone meeting with Mr. Purkiss and Mr. Elbin regarding the contents of the letter and Preserve McCall's surprise at the values and assertions contained in the letter. Specifically, we pointed out that both of IDL's third-party contractors requested additional information and an appraisal, both of which Preserve McCall offered to IDL. Instead, the only raw data IDL provided to these consultants was the information it fabricated on its own. We pointed out that IDL's comparable sales values were clearly wildly different from the endowment lands Preserve McCall proposes to exchange. During this discussion, Mr. Elbin repeated his personal objections to the approach Preserve McCall had taken to submit its application, stating that Preserve McCall should have sat down with Mr. Purkiss and Mr. Elbin prior to initiating any discussion with Land Board staff, who, according to Mr. Elbin, "don't know our process." Mr. Elbin represented that Land Board members, through their staff, had each approved IDL's rejection of Preserve McCall's application and IDL's $366 million to $488 million valuation of the Payette area lands, stating, "It has been fully vetted throughout IDL leadership, land board staff, and land board members." Clearly, this action would require a duly-noticed meeting of the Land Board and cannot be made

PRESERVE
McCALL

on the fly. Mr. Elbin then denied that the Land Board had directed IDL to work with Preserve McCall on hiring third-party experts and stated that the Preserve McCall application was "shoved down our throat." Despite the clear language of the Land Board's motion, staff stated that the Land Board's instruction simply was not their process, and that IDL was not obliged to proceed as the Land Board directed. Instead, staff asserted that IDL is really a business and must be run as one. Mr. Purkiss pointed out specifically that he did not like the public scrutiny that this process had brought to IDL's work, and also did not appreciate the political nature of the application process.

Request for Appraisal

In summary, I ask that you read our comments to IDL's letter closely. Please take note of the odd mathematical contortions IDL endures to justify its political decision. Preserve McCall still seeks to pay for an appraisal of the Payette endowment lands, but in the interest of transparency and fairness, this appraisal must be commissioned by IDL.

We invite the Land Board and IDL to participate in this process in order to establish a reliable baseline of value for these parcels. We hope you will rescind this letter from IDL and address these issues with IDL staff at the August Land Board meeting. We would be more than happy to present at that time if that is your request. Preserve McCall looks forward to discussing where this process fell short and how to best address the many challenges facing the Land Board and residents of Valley County in the management and disposition of these lands.

We are eager to get back on track with our efforts to maximize endowment returns, address the area's need for local housing, and create Idaho's largest park.

Sincerely,

Alec Williams

Alec Williams

Cc: Mr. Zach Hauge, Chief of Staff
Ms. Bobbi-Jo Meuleman, Deputy Chief of Staff and Director of Intergovernmental Affairs
Mr. Brady Hall, General Counsel to the Governor
Mr. Sam Eaton, Director of Policy, Assistant Legal Counsel
Mr. Nate Fisher, Jr., Special Assistant, Intergovernmental Affairs
Mr. Dustin Miller, Director, Idaho Department of Lands
Mr. Scott Phillips, Policy and Communication Chief, Idaho Department of Lands

Enclosure: Letter from Bill Haagenson to Alec Williams dated August 10, 2021, with proponent's comments

TRUST LAND MANAGEMENT DIVISION
REAL ESTATE SERVICES BUREAU
300 N. 6th Street, Suite 103
POBox83720
Boise, ID 83720-0050
Phone (208) 334-0200
Fax (208) 334-3698

IDAHO DEPARTMENT OF LANDS
DUSTIN T. MILLER, DIRECTOR
EQUAL OPPORTUNITY EMPLOYER

STATE BOARD OF LAND COMMISSIONERS
Brad Little, Governor
Lawerence E. Denney, Secretary of State
Lawrence G. Wasden, Attorney General
Brandon D. Woolf, State Controller
Sherri Ybarra, Sup't of Public Instruction

August 10, 2021

Mr. Alec Williams 802 W. Bannock St,Ste. 207
Boise, ID 83702

Re: Trident Holdings LLC Proposed land Exchange ApplicationDear Mr. Williams:

On February 8, 2021the Idaho Department of Lands ("IDL") received Trident Holdings LLC's ("Trident") application for a land exchange associated with approximately 21,378 acres of state endowment land (Endowment land) located around Payette lake in Valley County, Idaho. Trident proposed to trade 21,248 acres of timberland located in four different counties ("Proponent's l and ") for the EndowmentLand.

IDL staff has reviewed the proposed exchange, and recommends rejecting the application based on thefollowing factors:

1. Even after assigning higher market value to the Proponent's land than the comparable transactions justify, the market value of the Endowment land far exceeds the value of the Proponent's land.
2. The Endowment Land is appreciating at a rate that exceeds the appreciation of the proponents' land, more than offsetting any potential revenue gains from the exchange.
3. The exchange would not block up endowment ownership; instead, it would likely increase management cost and complexity.
4. The exchange would not significantly improve access to endowment lan ds; in the case of someof the proponent's parcels, the cost of access would likely increase.
5. Third-party advisors do not support proceeding with the potential exchange.

Based on the data provided, I concur with IDL's recommendation, and IDL is denying your request for aland exchange.

Respectfully,

Bill Haagensen

Bill Haagensen
Deputy Director of the Department of lands

Sent Certified Mail - Return Receipt Requested - 7016 1370 0000 2329 2959

"Working Lands, Trusted Stewards"

PM: We are unaware how IDL came to this value of 21,378 acres. Preserve McCall's application contains 20,250.079 acres of endowment lands.

PM: IDL's value estimates are wrong for a very simple, but avoidable reason. They used infrastructure-served comps, then multiplied those high per acre values by the total 21,000 bare land acreage. One can validate this is true by the asking: what are the development costs IDL assumes will create this $488m of gross land value? No development costs are shown in this letter.

For relevant context on IDL's $488m valuation: Park City plus The Canyons resorts combined sold for $487m in 2014. That high value is because the owners had already invested significant capital into their land and businesses. IDL is assuming in Valley County that those development costs have already been paid to provide the types of roading, infrastructure, and services (which exist for their comps) across all 21,000 Payette acres. That's obviously not reality.

PM: How was IDL able to verify the appreciation on the proponents lands without knowing what's on them? Refusing stand level inventory information offered by the proponent makes this assertion impossible.

On the Payette side, IDL used three years of residential growth in McCall, capturing just the COVID rise and none of the historical McCall growth rates longer term, for existing neighborhood properties (not larger acreage listings) and assumes those new high growth rates will continue in perpetuity. That is, to say the least, not industry practice.

To help understand the scale of impropriety in using these appreciation rates, when applied to IDL's own estimated land values, here is a breakdown of how long it will take IDL's gross bare land value estimate for Payette to surpass Idaho's 2020 GDP of $74.08 billion using these growth rates:

IDL's gross land value estimates	IDL's appreciation rates	Years until Payette bare land surpasses Idaho's $74B GDP
$ 488,458,800.00	28%	20.3
$ 488,458,800.00	24%	23.3
$ 488,458,800.00	13%	41.1
$ 488,458,800.00	11%	48.1
$ 488,458,800.00	6%	86.2
$ 366,344,100.00	28%	21.5
$ 366,344,100.00	24%	24.7
$ 366,344,100.00	13%	43.4
$ 366,344,100.00	11%	50.9
$ 366,344,100.00	6%	91.1

PM: The very purpose for proposing dozens of different parcels in North Idaho adjacent to existing endowment timberlands was to block up those already disparate endowment parcels that already have high management costs and complexity, but also higher timber revenues. This is not a new characteristic created by this exchange that would afflict the endowment, but rather an existing problem (unmentioned in this letter from IDL) that our exchanges help mitigate. Referring to these new disparate parcels as "increasing management costs" is untrue. Management costs are higher across disparate properties, but that's not a characteristic this exchange creates, but rather improves.

One way to prove this would be to show what the cost estimates on each side for the exchange really are. Why are no numbers shown on what those management costs are, for either side of the exchange's parcels?

61% of proposed timberland parcels are adjacent to endowment lands.

PM: Analyzing adjacency (what IDL performed here) is not the same as improving legal or physical access to existing endowment lands. When we have offered to share legal and physical access information that would benefit other endowment parcels with IDL, we have been told that information is unnecessary.

Does not identify which parcels would increase access costs. We are unaware of these increases.

PM: The third-party advisors said they were unable to make final recommendations without full information. That information was offered by the proponent, and rejected by IDL. Third-party advisors DO recommend, however, conducting an independent third-party appraisal. Neither third party advisor validated, nor mentioned in their letters, the $366-488m land values suggested by IDL. Why not?

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IDAHO DEPARTMENT OF LANDS
DUSTIN T. MILLER, DIRECTOR
EQUAL OPPORTUNITY EMPLOYER

MEMORANDUM

TO: Dustin Miller, Director of the Department of Lands **FROM:** Joshua Purkiss, Real Estate Services

Bureau Chief **DATE:** July 28, 2021

SUBJECT: Trident Land Exchange Review and Recommendation

Summary

The Idaho Department of Lands ("IDL") received an application for a land exchange from Trident Holdings LLC ("Trident") dated February 8, 2021, in which Trident proposes to exchange ±21,378 acres ofendowment land ("Endowment Land") for ±21,241 acres of privately-owned timberland. This memo responds to the application and summarizes the analysis completed, including the following: a study of the fee simple market value, revenue produced off the land, consolidation of state endowment land, potential long-term appreciation, creating access, and third-party analyses.

IDL's Real Estate Services ("RES") Bureau recommends rejection of the proposed exchange based onfactors identified during this review:

1. Even after assigning higher value to the land Trident is proposing to exchange to the State ("Proponent's Land") than the comparable transactions justify, the value of the EndowmentLand far exceeds the value of the Proponent's Land.
2. The Endowment Land is appreciating at a rate that exceeds the appreciation of the Proponent'sLand, more than offsetting any potential revenue gains from the exchange.
3. The exchange would not block up endowment ownership; instead it would likely increasemanagement cost and complexity.
4. The exchange would not significantly improve access to endowment lands; in the case of someof the Trident parcels, the cost of access would likely increase.
5. Third-party advisors do not support proceeding with the potential exchange.

Analysis

Market Value: The Real Estate Services Bureau has arrived at an estimated value for the EndowmentLand (Table 1) as well as the Proponent's Land; however, there was not a formal appraisal on either property. This analysis values the endowment land at $366,344,100 and the Proponent's Land at
$74,343,500. With this in mind, the methods used to arrive at the estimated values were conservative when valuing the Endowment Land and generous when valuing the Proponent's Land. Examples of thisinclude attributing an average discount of twenty-five percent (25%) to the Endowment Land for

PM: PM offered numerous times to pay for an appraisal, and indeed has in hand a broker's opinion of value, which IDL never requested.

PM: Why is the Department using "generous" and "conservative" methods of valuation?

They should use fair, economically sounds assumptions on both side of the valuation.

PM: Why is developer's profit considered in bare land value? A profit would only be possible after significant capital was invested to bring infrastructure to the land. No profit can be considered if required costs are not considered.

developer's profit that would be associated with a transaction of this size, and crediting the proponent'sown estimated value of their land with an additional thirty-five million dollars ($35mil) based on the comparable sales. IDL's estimate of the Proponent's Land is one hundred eighty-nine percent (189%) of the value estimated by Trident.

If the potential exchange were to proceed, IDL would not expect that to be the final value of the Proponent's Land. IDL used this generous approach to valuation to ensure that Trident's application wasgiven fair consideration. In addition, the RES Bureau's analysis was reviewed by CenturyPacific LLC to verify the RES Bureau's approach for establishing land values on a large scale.

Tier Maps: (Attachment 1) Both Payette Lake and the City of McCall are the primary drivers for designating recreation or residential use as the highest and best uses of the Endowment Land. Each concentric tier on the tier maps represents market behavior based upon economies of scale and purchasing power. The lands proposed for exchange include ±21,378 acres of Endowment Land in andaround Payette Lake and McCall and ±21,241 acres of timberland in Benewah, Clearwater, Latah, and Shoshone counties.[1]

Market Conditions: (Attachment 2) Research from 2016-2020 Payette Lake Sales Catalogs, average upland land values from 2013-2020, direct sale/resale activities, MLS, information obtained from other real estate professionals, and data from the Valley County Assessor's Office were used to analyze the McCall market conditions. Currently, Valley County is experiencing eleven percent (11%) to thirteen percent (13%) per annum appreciation overall, while the McCall land neighborhood area is experiencingsubstantially higher appreciation of twenty-four percent (24%) to twenty-eight percent (28%) per year.

Analysis Summary: (Attachment 3) Seventy-four (74) recent, nearby closed sales were used to bracket each tier by lake frontage (calculated by Front Foot) and upland areas (calculated by acreage) ranging from one (1) acre up to two thousand two hundred (2,200) acres. The mean and median were calculatedfor each tier or band. For each tier, primary weight was given to the median, as the median is less affected by outliers and skewed data. For these reasons, it makes it a better option than the mean as a measure of central tendency.

Proponent's Timberlands: For the central/northern Idaho timberlands, IDL used thirty-three (33) closed sales ranging from ten (10) to one thousand six hundred (1,600) acres in size from Benewah, Clearwater,Latah, Idaho, Lewis, Kootenai, and Shoshone counties. The mean and median were calculated, and primary weight was given to the high-end (above central tendency) as a cautious and fair approach to the valuation. Additionally, the developer's profit was not attributed to the unpurchased Proponent's timberlands, which also favors the proponent.

Developer's Profit: Developer's profit was estimated at twenty-five percent (25%) given the uncertainties of this large-scale proposal and was discounted from the estimated total price because ofanticipated future revenues, holding costs, expenses, and risk.

[1] The land proposed for exchange is not currently owned by Trident, and the application did not include a copy ofany options to purchase or other evidence of Trident's ability to acquire the land.

PM: If the additional $35 million is based upon comparable sales, then it is not "additional," but actual.

PM: Please elaborate on this.

Why is it assumed that this valuation is not true market value?

Should the same assumption not be applied to the estimate of the Payette lands?

PM: Biased language.

PM: If IDL does not expect comparable sales to reflect the actual value of the land in a transaction, then why does it use them to price the land for a transaction?

PM: The tiers do not take into account topography, terrain, distance from infrastructure, etc. The tiers are solely based on distance from the lake. In this case, a parcel a mile up a hill near North Beach gets the same valuation as a parcel next to the airport.

PM: Annual appreciation is affected by paucity of supply, which is controlled by IDL.

PM: This represents the 2020/21 surge.

This is a national trend fueled by record low interest rates and COVID demand for recreation-based property. This is not a sustainable rate of growth and should be normalized over a longer period of time, as IDL has not done here.

PM: Weighted average would be the correct method to determine value.

PM: This is meaningless if the data set does not accurately reflect the subject that it is meant to represent.

PM: Why would a developer's profit be considered on Timberland?

PM: This is completely meaningless. The 25% profit does not take into account the investment in roading, infrastructure, utilities, costs to subdivide, etc. that would need to be incurred in order to realize any value from sales.

Where is IDL's estimate of those costs? That is critical to valuing pre-infrastructure bare land, and provided nowhere in this document.

PM: How does this impact the ability to value the land?

Why has IDL also deliberately not requested these materials, instead insisting when offered that they have everything they need to evaluate this exchange.

Table 1: Estimated Land Value

	Tier Unit Ranges by Highest & Best Use	Unit Sizes	Estimated Unit Value	Estimated Gross Value	Developer's Risk	Estimated Current Value
Tier 1	Average front foot lots	11,750	**$12,000**	$141,000,000	25%	$105,750,000
MIN	$9,262					
AVG	**$13,248**					
MEDIAN	**$12,497**					
MAX	**$17,412**					
	Large FF lots & Islands	15,384	**$1,700**	$26,152,800	25%	$19,614,600
MIN	$982					
AVG	**$1,782**					
MEDIAN	**$1,724**	Acres				
MAX	**$2,641**	21,378				
Tier 2	1 - 4.99 acre lots	1,766	**$72,000**	$127,152,000	25%	$95,364,000
MIN	**$10,185**					
AVG	**$72,124**					
MEDIAN	**$72,314**					
MAX	**$170,807**					
Tier 3	5 - 39.99 acre lots	1,713	**$20,000**	$34,260,000	25%	$25,695,000
MIN	**$7,882**					
AVG	**$22,180**					
MEDIAN	**$20,213**					
MAX	**$43,709**					
Tier 4	40 - 2,000 acre timbered lots	17,766	**$9,000**	$159,894,000	25%	$119,920,500
MIN	**$1,048**					
AVG	**$12,286**					
MEDIAN	**$9,108**					
MAX	**$35,985**					
Total				$488,458,800		**$366,344,100**
Proponent Timberland	Large Timber Tracts Central Idaho	21,241	**$3,500**	$74,343,500	0%	$74,343,500
MIN	$532					
AVG	**$2,452**					
MEDIAN	**$2,324**					
MAX	**$5,241**	Acres				
Total		21,241		$74,343,500		**$74,343,500**

* Assuming all lots are sold and all approvals are in place.

Revenue and Appreciation: The RES Bureau worked with IDL's Payette Lakes Supervisory Area office toproduce an estimated annual revenue report and compared that to the average revenue per acre produced on endowment land in the IDL area offices that would absorb the Proponent's Land into theirmanagement. In addition, IDL applied an annual appreciation of six percent (6%) based on the 2021 Appreciation Study ("Study") completed by IDL's Certified General Appraiser ("CGA"), Kevin Graham. Inthe Study, land within proximity of Payette Lake has an annual appreciation of twenty-four percent (24%) to twenty-eight percent (28%) since 2013. Valley County shows eleven percent (11%) to thirteen

PM: Please clarify unit metric, it jumps from feet to sq. feet to acres.

PM: If this unit metric is linear feet this represents 2.2 miles. That suggests that the majority of this lakefront valuation concerns properties discussed in the following comment.

PM: A large portion of this 2.2 miles is the county road on the Northeast quadrant of the lake. This land is without a doubt undevelopable if the road does not get moved. The costs associated with moving the road has not been factored in. If the future owner of the land cannot move the road, they would need to put a home up onto the granite cliff and would not have direct waterfrontage, and thus should not be valued as direct waterfront as it is now.

Highlighted area of concern bordered yellow, shown also below.

The other large portion of this is the land to the east of Warren Wagon Road (west side of the lake). Again, the land here is not developable and is unusable for a private land owner. There is no feasible way to move this road, to unlock shoreline. Both these stretches of land should be valued differently than home sales with private, groomed beaches (as it currently is being)

These are straightforward mistakes, but together they add $105m to IDL's estimated land value.

PM: The min/max difference is a staggering $160,622 per acre which indicates that 1) the comps do not justly reflect the entirety of the land that it is being applied to or 2) the land it is being applied to should be further broken down into more specific tiers.

PM: The min/max difference is a staggering $35,827 per acre which indicates that 1) the comps do not justly reflect the entirety of the land that it is being applied to or 2) the land it is being applied to should be further broken down into more specific tiers.

PM: The min/max difference is a staggering $34,937 per acre which indicates that 1) the comps do not justly reflect the entirety of the land that it is being applied to or 2) the land it is being applied to should be further broken down into more specific tiers.

PM: If the weighted average is used with the same data set (which is incorrect) the total value is $296,600,491.

This value is overinflated by $69,743,609 because the median was used incorrectly, instead of a weighted average.

PM: Please elaborate. There is time and capital required to be invested to obtain all approvals, and to service & plat sellable lots.

percent (13%) appreciation over the same period. To remain consistently conservative in the modeling, IDL used eleven percent (11%). However, IDL used eleven percent (11%) and six percent (6%) to analyzethe sensitivity of the model at various percentages of appreciation.

The timberland in north and central Idaho has historically appreciated at a rate similar to the national inflation rate. For this model, the IDL used both six percent (6%) and eleven percent (11%) appreciationto be aggressive in adding value to the Proponent's Land.

In order to estimate the net gain or loss to the endowments, the RES Bureau calculated the potential appreciation in value for both the proponent and endowment land at 6% and 11% over ten years (Table4). The additional revenue generated on the proponent's land (Table 3) was then combined with the estimated appreciation of proponent's land.

A summary of the Endowment Land Estimated Gross Revenue (Table 2), Proponent's Land EstimateGross Revenue (Table 3), and Potential Income & Appreciation (Table 4) follow:

Table 2: Endowment Land Estimated Gross Revenue

Payette Lands Annual Revenue

Asset	Activity	Endowment	Acres	Annual Revenue	Rent per Ac
	Communication	PS	0.25	$10,227.00	$40,908.00
	Recreation	Mixed	1,105.00	$1,000.00	$0.90
	Recreation	Mixed	625.00	$9,000.00	
	Recreation	Mixed		$600.00	
	Recreation	Mixed		$2,500.00	
	Recreation	Mixed	19.85	$1,000.00	$50.38
	Grazing	Mixed		$1,750.00	
	Grazing		3,258.00	$742.31	$0.23
	Mineral	Mixed		$7,500.00	
	Mineral			$30,100.00	
Timber Harvest					
	Primary base		13,000.00	$715,000.00	$55.00
	2nd Base		8,000.00	$0.00	$ -
TOTAL				$779,419.31	

PM: To be clear, this statement means the following. IDL believes it is "conservative" to adopt a higher long-term appreciation rate for its Payette bare lands than the S&P 500 Index has achieved over its entire 95-year history (10%). That is not industry practice.

PM: Why are expenses not factored in? The Land Board directed IDL in 2014 to provide area-level profitability metrics that shared expense figures. Excluding those expense figures, not knowing profits, and citing only revenues, is not best practice.

Can the market bear 4% of the new market value?

If the market is priced out, the new, actual revenue will be far lower. Has that assessment been performed?

Why did revenue change from PELS?

Table 3: Proponent's Land Estimated Gross Revenue

Proponent's Land Revenue Proposed for LEX

Asset	Activity	Acres	Annual Revenue	Rent per Ac
	Timber Harvest	21,241.00	$2,178,689.37	$102.57
TOTAL			$2,178,689.37	

Expected Gross Revenue Increase

Asset	Acres	Annual Revenue
Endowment Land Revenue	21,378.00	$779,419.31
Trident Revenue	21,241.00	$2,178,689.37
Gross Income Benefit for the Endowment		$1,399,270.06

Table 4: Summary of Potential Income and Appreciation

6% Appreciation of Lands with Additional Revenue

Asset	Acres	Totals
10 Year Appreciation of Endowment Land at 6%	21,378.00	$237,254,308.96
10 Year Appreciation of Trident Land at 6%	21,241.00	$59,313,577.24
10 Years of Trident Additional Revenue		$15,628,049.10
Loss to Endowment*		$162,312,682.63

11% Appreciation of Lands with Additional Revenue

Asset	Acres	Totals
10 Year Appreciation of Endowment Land at 11%	21,378.00	$551,826,295.82
10 Year Appreciation of Trident Land at 11%	21,241.00	$137,956,573.96
10 Years of Trident Additional Revenue		$15,628,049.10
Loss to Endowment*		$398,241,672.77

*Deducting the proponent's ten years of appreciation and gross income benefit from the ten years ofendowment appreciation reveals a loss to the endowment if exchange is completed.

Consolidation of Endowment Lands: The RES Bureau worked with IDL's GIS team to review the potentialof the proposed exchange for blocking additional lands with existing endowment timberlands. The analysis concluded that only 9,450 acres of the proposed 21,241 acres have a common boundary with existing endowment timberlands.

The McCall area land is almost entirely blocked up, except for small portions like the islands, etc. The Proponent's Land proposed for exchange offers little in the way of blocking up existing endowment timberlands. In short, the result of this exchange would be a net loss of almost 12,000 acres of blocked-up endowment land.

PM: This analysis does not factor in any portfolio level benefits such as increasing allowable cut, legal and physical access, reduced haul times, or reallocation of land bank funds toward higher returning EFIB investments, etc. Where is that analysis? These figures, along with all relevant assumptions were provided by Trident in November of 2020. Where is IDL's estimates of those same components of economic value?

PM: How has IDL valued proponents timberland revenue without review of the inventory and stocked areas?

Trident provided to IDL in July 2021 year 1 endowment net cash of $6.43m, and average annualized net cash over the project total of $2.89m using the actual proponent land data which IDL still lacks, and has turned down when offered.

PM: An artificially high basis as a starting point obviously inflates these numbers into the future.

PM: "Loss" is a misnomer. Even under IDL's conclusions, the Endowment does not lose money.

PM: PM estimates that 61% of its proposed timberlands are adjacent to existing endowment lands.

PM: "Entirely blocked up" is meaningless where these parcels make very little revenue and pose a fire risk to the surrounding community.

PM: Yes, the McCall area lands are blocked up. The asset is already unprofitable, but the fact that it is blocked up doesn't turn it profitable.

IDL recognizes that roughly half of the proponents lands are adjacent to existing endowment landholdings. Yet, mere adjacency is not the method of determining legal and physical access unlocked by this exchange.

That analysis was provided to IDL in July 2021. Where is IDL's version of the same analysis?

In addition, approximately 7,000 acres of the Proponent's Land are in a remote drainage (St. Joe) that would create a burden on the local area office to manage. Exchanging into this land makes no financialsense in the context of reducing management expenses and increasing overall efficiency.

Improving Access: The RES Bureau reviewed the Proponent's Land for additional access created by theexchange. There is no recognized net benefit of access to the endowments. In fact, the land in the St. Joe drainage would create additional cooperative road cost-share liabilities for the endowments with the United States Forest Service and private industrial landowners.

Third-Party Review: The final part of the RES Bureau's analysis involved independent third-party reviewsby the Land Board's Timberland Advisor, Mason Bruce and Girard ("MB&G"), and the Land Board's Commercial Real Estate Advisor, CenturyPacific LLLP.

Roger Lord, a CGA with MB&G, completed a review of Trident's proposal as presented to IDL (Attachment 4) with a scope of evaluating based on blocking up, improving access, and increasingrevenue. His conclusion and rationale are as follows:

> "I recommend that the State of Idaho not pursue the proposed land exchange" and "In my opinion,there are better strategies for addressing issues surrounding the Payette Lake endowment lands that would provide a significantly more net benefit to the endowment than the proposed exchange."
>
> 1. The land proposed is less desirable and potentially worth less than the endowment land.
> 2. The exchange would foreclose on future leasing opportunities for the endowments.
> 3. The exchange would further fragment, not create larger blocks of endowment land.

CenturyPacific LLLP's principal, Michael Finch, completed a final review (Attachment 5) of the application and the analysis completed by the RES Bureau. The scope that was provided to CenturyPacific LLLP varied from the MB&G's because the RES Bureau sought an analytical review of theanalysis compiled by IDL as well as a review of the application. Michael Finch concluded "...CenturyPacific does not support pursuing the proposed exchange." His opinion was informed by thefollowing:

1. Trident does not provide evidence of the ability to acquire the land they are proposing in theexchange.
2. The Department's "rough order of magnitude value of the Endowment Property proposed for exchange, categorizes property sale data from closed, competitive sales...Based on the analysis provided, the data suggest the value of the Endowment Property is in excess of $300,000,000- an order of magnitude value equal to four times the estimated approximate value of the TridentProperty."
3. McCall-area real estate market is set to appreciate faster than the Trident Property.
4. The resources and complexities of a land exchange this large would require significant resourcesfrom IDL and the Attorney General's offices.

PM: What is the estimated cost difference between managing these particular 7,000 acres that IDL cites as burdensome, versus the cost of maintaining the ~21,000 Payette acres?

Why is that Payette cost still left out of this analysis?

We offered to provide IDL in July 2021 an analysis of mill distance and mill pricing competitiveness of these St. Joe's lands, along with a comparison of those same metrics for the Payette area lands. We still have that data. It shows how IDL earns more stumpage from its St. Joe lands than from the Payette area lands. Why did IDL selectively note one aspect but not the other?

What burden is created that IDL does not already endure?

PM: When IDL is open to receiving the relevant access information, rather than just looking at adjacency on a map, we are eager to provide that information.

PM: This analysis was based on these factors, but never based upon value, since IDL never analyzed value.

PM: They drew this conclusion, in their own statements, according to the valuation work performed by IDL. Hence qualifiers like "potentially" that explain why MB&G is uncomfortable restating IDL's $366-488m valuation.

What is MB&G's assessment of the Payette value?

How much less? MB&G never had a reliable value

PM: Is IDL proposing to similarly increase lease rates in the McCall area by 915% as well? This analysis was based on these factors, but never based upon value, since IDL never analyzed value.

PM: Which leasing opportunities does this proposal foreclose?

PM: The exchange deliberately combines existing North Idaho fragmentation, by design.

PM: Not a legitimate reason for a negative recommendation. Unfortunately, that same evidence was rejected by IDL as unnecessary. Finch only reviewed IDL's already flawed data. Garbage in, garbage out.

PM: This is the IDL citing Michael Finch citing IDL. This is what is commonly known as a circular reference. Why did Michael Finch not feel comfortable providing his own value assessment?

Is largescale timber acreages not one of Mr. Finch's areas of expertise?

PM: What appreciation rate does IDL suggest Mr. Finch using? Or is he again restating that IDL's numbers are higher.

PM: What are these estimated costs? The resources identified exist for this very purpose.

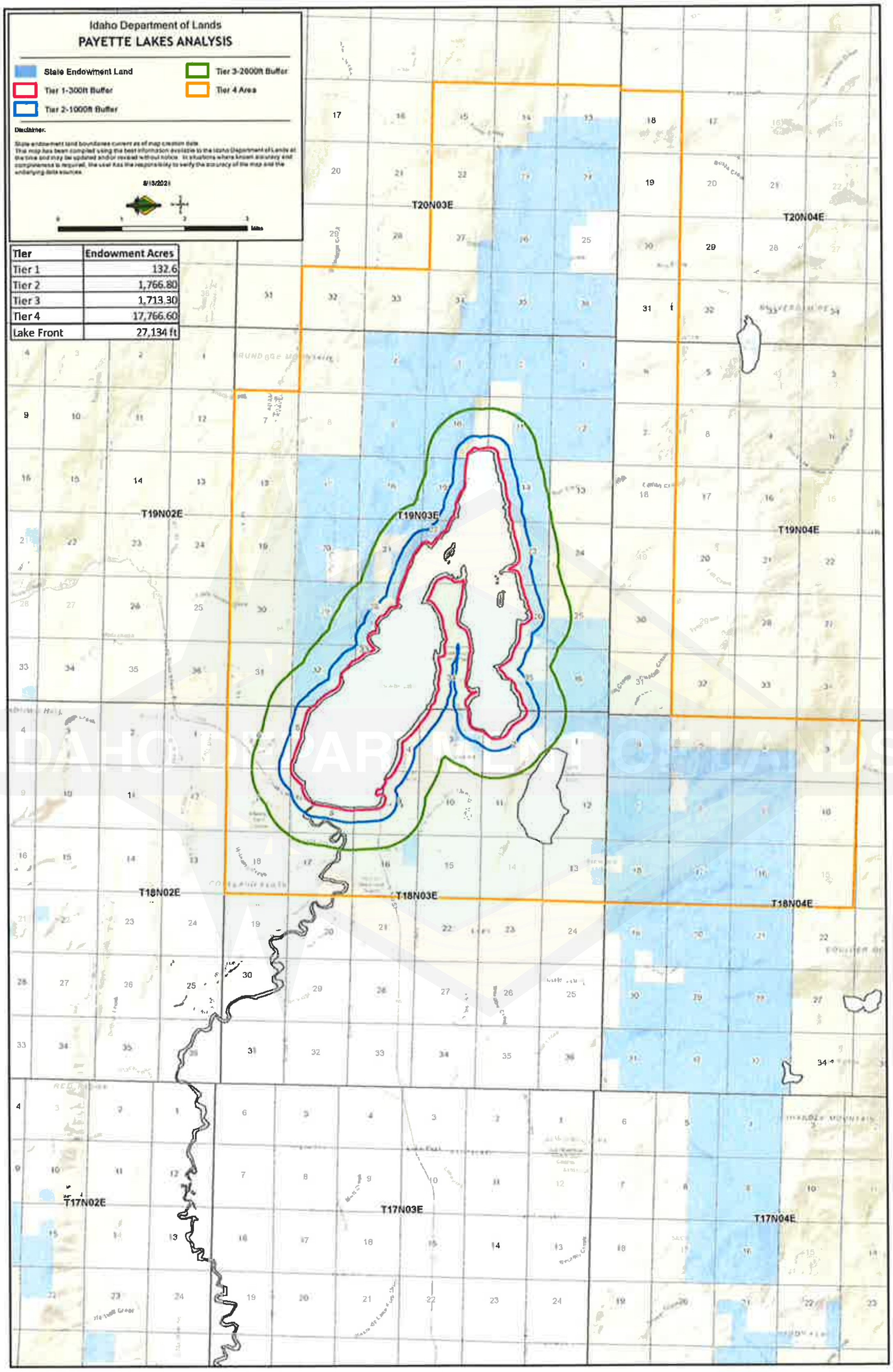
Recommendation

The RES Bureau recommends denial of the Trident Holdings, LLC land exchange application based on thefacts presented in this memorandum.

Attachments

1. Tier Maps
2. Market Condition Analysis
3. Comparable Sales
4. MB&G Review
5. CenturyPacific LLLP Review

CC/EC: Jim Elbin –Trust Land Division AdministratorBill Haagenson – Deputy Director



Tier	Endowment Acres
Tier 1	132.6
Tier 2	1,766.80
Tier 3	1,713.30
Tier 4	17,766.60
Lake Front	27,134 ft

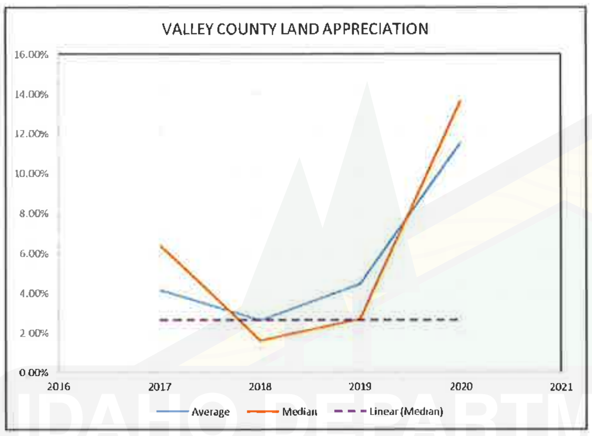
Josh,

As requested, I have researched IDL Mass Appraisals, 2016-2020 Payette Lake Sales Catalogs, average appraised upland land values from 2013-2020, direct sale/resale activities, and data fromthe Valley County Assessor's Office to determine the McCall market conditions. After looking intothis further, it seems the historical data, which predates the 2008-2009 great recession is unreliableand is not demonstrated.

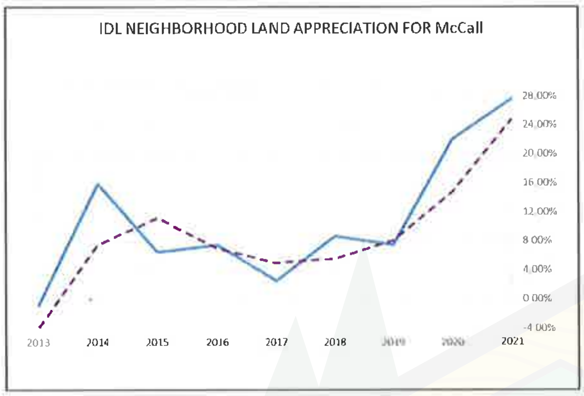
Idaho and Boise led the nation for the second year in a row for home price appreciation, accordingto the Federal Housing Finance Agency, for the year ending Sept. 30, 2020. Statewide, prices rose14.4%. In Boise, they jumped 16.4%. Affluent refugees from California and people others who cannow work remotely are all contributing to a boom in house and land sales in the McCall area, including New Meadows, Donnelly and Cascade. **Sales of homes and lots in 2020 reached levels not seen since the real estate boom of the 2000s, according to local Realtors and sales reports.**

PM: Good reasoning for normalized pricing methods.

The first table has been developed from Valley County Assessor's Office data and other data sets.As can be seen, since 2017, the entire **Valley County** land appreciation experienced a slight decline in 2018, however, is showing very strong growth from about **11% to 13%.**



The second table below is presented from data gathered by Valley County Assessor's Office dataand other published sources and has been selected from neighborhoods located in the areas where IDL lands are. I believe it is important to focus on this timeline as it best represents the specific location of the **IDL transition properties** and is the most current information (2013- present). The moving average trend and current land appreciation shows a current range from **24% to 28% appreciation** for these IDL land classes. It should be noted the balance of 2021 is forecasted.



Based upon the interviews, preceding data, and discussion, since 2010 the market has been increasing, 2011-2014 were correction years and in 2015 the values came back in line with 2010 at $3.2 billion in inventory. A conclusion can be made that the McCall market area has experiencedprevious stabilization with sharp current market increases.

Sincerely,

Kevin Graham, CGA-2836

Tier 1: Payette Lakefront Sales					
Sale	Date of Sale	Location	Land Value	FF	$/FF
1	9/6/2019	2131 East Side Drive	$1,250,000	71.79	$17,412
2	8/1/2019	901 Wagon Wheel Road	$1,800,000	157.50	$11,429
3	7/1/2019	2010 University Lane	$1,092,000	70.00	$15,600
4	6/28/2019	No. of 2260 Payette Drive	$1,808,750	104.97	$17,231
5	6/28/2019	2260 Payette Drive	$1,400,000	81.01	$17,282
6	6/21/2019	626 Ruby Street	$1,305,000	80.00	$16,313
7	6/14/2019	2168 Payette Drive	$1,243,000	101.87	$12,202
8	4/15/2019	1504 McCall Avenue	$1,100,000	100.00	$11,000
9	11/1/2018	1678 Forest Lawn Street	$930,000	53.90	$17,254
10	8/7/2018	1838 Warren Wagon Road	$935,000	60.00	$15,583
11	5/31/2018	2554 Warren Wagon Road	$750,000	60.00	$12,500
12	2/9/2018	1882 Warren Wagon Road	$1,890,000	181.02	$10,441
13	6/15/2018	2107 Water Lily Lane	$1,194,000	98.68	$12,100
14	6/15/2018	2109 Water Lily Lane	$1,064,000	85.14	$12,497
15	6/15/2018	2244 Payette Drive	$725,000	58.03	$12,494
16	10/25/2017	149 E. Lake	$1,255,000	135.50	$9,262
17	9/26/2017	2406 Sharlie Lane	$840,000	70.00	$12,000
18	9/11/2017	2077 Turkey Lane	$810,000	60.00	$13,500
19	8/3/2017	1882A Warren Wagon Road	$1,475,000	99.00	$14,899
20	10/19/2016	1926 Warren Wagon Road	$1,305,000	105.00	$12,429
21	8/23/2016	1882 Warren Wagon Road	$2,775,000	284.00	$9,771
22	8/16/2016	2012 Payette Drive	$1,395,000	102.94	$13,552
23	8/17/2016	2020 Payette Drive	$1,290,000	113.73	$11,343
24	8/18/2016	2030 Payette Drive	$872,000	77.00	$11,325
25	8/19/2016	2104 Payette Drive	$1,570,000	106.00	$14,811
26	5/19/2016	1924 Warren Wagon Road	$1,135,000	82.41	$13,773
27	11/17/2016	2060 Warren Wagon Road	$1,625,000	118.27	$13,740
28	11/15/2015	2029 Plymouth Ct.	$590,000	49.20	$11,992
29	5/24/2016	1630 E. Lake St.	$1,098,000	96.00	$11,438
30	10/28/2015	2365 Northshore Dr.	$1,086,700	100.00	$10,867
31	10/9/2015	2051 Plymouth Ct.	$905,000	64.97	$13,930
32	9/2/2015	2336 Warren Wagon Road	$940,000	60.00	$15,667
33	11/16/2015	990 Syringa Way	$1,300,000	100.09	$12,988
		Minimum	$590,000	49.20	$9,262
		Maximum	$2,775,000	284.00	$17,412
		Mean	$1,234,953	96.61	$13,246
		Median	$1,194,000	96.00	$12,497

PM: What are the sources of these land values? Does not tie with the 2021 Valley County Tax Assessors Valuations.

These sales are lakefront home sales that have built structures on them:

EX: #2 – 901 Wagon Wheel is a 5 bed / 4.5 bath home that sold for $4.6mm. How is the department extracting land value?

Tier 1: Payette Lakefront Sales (Larger Lots and Islands)					
Sale	Date of Sale	Location	Sales Price	FF	$/FF
1	10/25/2018	312 Warren Island Shores, Hope, ID	$850,000	492.94	$1,724
2	8/25/2016	Lots 2 & 3, Warren Island, Hope, ID	$523,000	198	$2,641
3	11/26/2014	NNA Memaloose Island, Hope, ID	$4,800,000	4890	$982
		Minimum	$523,000	198.0	$982
		Maximum	$4,800,000	4890.0	$2,641
		Mean	$2,057,667	1860.3	$1,782
		Median	$850,000	492.9	$1,724

PM: Weighted Average: $1,106 per FF

Tier 2: Payette Upland Sales (1 - 4.99 acres)							
Sale	Date of Sale	Location	Sales Price	Lot Size (Acres)	$/Acre	Lot Size (SF)	$/SF
1	10/7/2020	Lot 18 Bitterroot Court	$ 98,500	1.34	$ 73,507	58,370	$ 1.69
2	12/29/2020	TBD Pine Terrace Drive	$ 93,000	1.44	$ 64,583	62,726	$ 1.48
3	11/8/2019	1426 Veronica Lane	$ 95,000	1.49	$ 63,956	64,704	$ 1.47
4	4/2/2021	58 Pearson Lane	$ 175,000	1.73	$ 101,156	75,359	$ 2.32
5	2/11/2021	TBD Sundance Drive	$ 109,900	1.87	$ 58,770	81,457	$ 1.35
6	10/26/2020	1753 Club Hill Boulevard	$ 217,000	1.96	$ 110,714	85,378	$ 2.54
7	1/28/2021	13774 Raptor Loop	$ 140,000	2.00	$ 70,000	87,120	$ 1.61
8	4/28/2021	TBD Whitefield Lane	$ 163,000	2.07	$ 78,744	90,169	$ 1.81
9	9/25/2020	69 Sundance Drive	$ 164,900	2.16	$ 76,343	94,090	$ 1.75
10	11/12/2020	26 Moonbeam Circle	$ 194,900	2.20	$ 88,591	95,832	$ 2.03
11	4/19/2021	TBD Harrington Place	$ 235,100	2.35	$ 100,043	102,366	$ 2.30
12	4/19/2021	TBD Harrington Place	$ 235,100	2.35	$ 100,043	102,366	$ 2.30
13	9/28/2020	TBD Stockton Drive	$ 175,000	2.42	$ 72,314	105,415	$ 1.66
14	1/8/2021	TBD Rogers Lane	$ 74,900	2.49	$ 30,080	108,464	$ 0.69
15	1/8/2021	TBD Blackhawk Lake Drive	$ 200,000	2.53	$ 79,051	110,207	$ 1.81
16	7/15/2020	53 Sundance Drive	$ 144,000	2.79	$ 51,613	121,532	$ 1.18
17	4/29/2021	L14 Blackhawk Lake Drive	$ 550,000	3.22	$ 170,807	140,263	$ 3.92
18	7/17/2020	14106 Penne Lane Road	$ 119,000	4.13	$ 28,814	179,903	$ 0.66
19	8/26/2019	447 Boydstun St	$ 48,500	4.76	$ 10,185	207,436	$ 0.23
20	3/11/2021	25 Smylie Lane	$ 139,900	5.16	$ 27,112	224,770	$ 0.62
21	3/1/2021	1705 Chris Lane	$ 301,333	5.18	$ 58,172	225,641	$ 1.34
		Minimum	$ 48,500	1.34	$ 10,185	$ 58,370	$ 0.23
		Maximum	$ 550,000	5.18	$ 170,807	$ 225,641	$ 3.92
		Mean	$ 174,954	2.65	$ 72,124	$ 115,408	$ 1.66
		Median	$ 163,000	2.35	$ 72,314	$ 102,366	$ 1.66

PM: Below are a few examples of why most of the comps provided by IDL over-inflate the value. These sales are in infrastructure served subdivisions. The value the developer created by bringing infrastructure to the homesite is reflected in the sale price. This cannot be justly applied to the upland acreage.

PM: Completely flat, infrastructure site on valley floor, not a comp for upland bare land acreage.

https://www.zillow.com/homedetails/58-Pearson-Ln-McCall-ID-83638/243188635_zpid/

PM: Road and infrastructure served; in white cloud subdivision.
https://www.landandfarm.com/property/1_87_Acres_In_Valley_County-10655239/

PM: In King Pines Estates.

PM: Duplicate entry?

PM: Located in infrastructure-served subdivision.

PM: Waterfront lot; not comparable for upland acreage.

PM: Weighted Average: $66,037 per acre

Tier 3: Payette Upland Sales (5 - 39.99 acres)

Sale	Date of Sale	Location	Sales Price	Lot Size (Acres)	$/Acre	Lot Size (SF)	$/SF
1	11/6/2020	13739 Grouse Knoll Place	$ 167,500	6.05	$ 27,686	263,538	$ 0.64
2	3/1/2021	13915 Farm to Market Road	$ 330,000	7.55	$ 43,709	328,878	$ 1.00
3	8/31/2020	TBD Longview Road	$ 150,000	9.36	$ 16,026	407,722	$ 0.37
4	12/15/2020	Lot 2 Ashton Ridge Place	$ 299,000	9.73	$ 30,730	423,839	$ 0.71
5	8/26/2019	TBD Crowley Lane	$ 270,000	10.00	$ 27,000	435,600	$ 0.62
6	1/31/2020	TBD Potter Lane	$ 169,500	12.00	$ 14,125	522,720	$ 0.32
7	11/12/2020	TBD Silver Fox Spur	$ 150,000	19.03	$ 7,882	828,947	$ 0.18
8	6/18/2020	3731 West Mountain Road	$ 300,000	20.92	$ 14,340	911,275	$ 0.33
9	9/16/2020	3737 West Mountain Road	$ 360,000	22.64	$ 15,901	986,198	$ 0.37
10	3/22/2021	2070 Bear Basin Road	$ 976,000	40.00	$ 24,400	1,742,400	$ 0.56
		Minimum	$ 150,000	6.05	$ 7,882	$ 263,538	$ 0.18
		Maximum	$ 976,000	40.00	$ 43,709	$ 1,742,400	$ 1.00
		Mean	$ 317,200	15.73	**$ 22,180**	$ 685,112	$ 0.51
		Median	$ 284,500	11.00	**$ 20,213**	$ 479,160	$ 0.46

PM: Below are a few examples of why the comps provided by IDL do not accurately reflect the Payette Upland parcels.

Subdivided sales on the valley floor are not legitimate comps for granite cliff side.
https://www.realtor.com/realestateandhomes-detail/Grouse-Knoll-Pl_McCall_ID_83638_M13699-79644#photo6

PM: This property is level, has a well dug, and septic approval:
https://www.realtor.com/realestateandhomes-detail/13915-Farm-to-Market-Rd_McCall_ID_83638_M97763-39416#photo0

PM: Located on valley floor; creek running through property:
https://www.estately.com/listings/info/lot-2-ashton-ridge-place

PM: Located next to existing homes. Paved road access:
https://www.landsofamerica.com/property/10-acres-in-Valley-County-Idaho/7170539/

PM: Located on valley floor:
https://www.estately.com/listings/info/tbd-potter-lane--1

PM: Located on valley floor.

PM: Located on valley floor.
https://www.landandfarm.com/property/22_64_Acres_in_Valley_County-10541077/

PM: Direct access to bear basin, electric served:
https://www.realtor.com/realestateandhomes-detail/2070-Bear-Basin-Rd_McCall_ID_83638_M14073-86793

PM: Weighted Average: $20,168 per acre.

Tier 4: Payette Upland Sales (40 - 2,000 acres)							
Sale	Date of Sale	Location	Sales Price	Lot Size (Acres)	$/Acre	Lot Size (SF)	$/SF
1	4/30/2021	Stockton Ct -1800	$ 3,270,000	91	$ 35,985	3,958,297	$ 0.83
2	6/14/2019	Paddy Flat Road	$ 3,420,000	2,235	$ 1,530	97,356,600	$ 0.04
3	4/10/2019	Hail Reservoir	$ 495,000	57	$ 8,695	2,479,871	$ 0.20
4	12/27/2019	West Valley Rd	$ 11,000,000	733	$ 15,013	31,916,412	$ 0.34
5	3/24/2021	Woodland Drive	$ 2,000,000	68	$ 29,542	2,949,012	$ 0.68
6	10/12/2019	Brook Dr	$ 750,000	45	$ 16,794	1,945,390	$ 0.39
7	7/7/2020	Fish Lake Rd	$ 460,000	140	$ 3,286	6,098,400	$ 0.08
8	8/20/2020	Knob Hill Dr - 1800	$ 900,000	95	$ 9,521	4,117,727	$ 0.22
9	10/9/2019	Paddy Flat Road	$ 2,075,000	1,980	$ 1,048	86,248,800	$ 0.02
10	11/25/2019	West Mountain Rd	$ 389,836	270	$ 1,444	11,762,942	$ 0.03
	40+ acres	Minimum	$ 389,836	44.66	$ 1,048	$ 1,945,390	$ 0.02
		Maximum	$ 11,000,000	2235.00	$ 35,985	$ 97,356,600	$ 0.83
		Mean	$ 2,475,984	571.24	$ 12,286	$ 24,883,345	$ 0.28
		Median	$ 1,450,000	117.27	$ 9,108	$ 5,108,063	$ 0.21

PM: PINCH CREEK RANCH; adjacent to existing school; home development; sold with conceptual design plans in place; served by existing infrastructure.

This should only be applied to the Deinhard 80 acres, not contributed to the 17,776 of forested acres further from the lake and town:
https://www.estately.com/listings/info/tbd-stockton-ct

PM: Underlying land of Blackhawk Lake, Infrastructure served; with 1,320 Feet of waterfront and existing dock rights. https://images1.loopnet.com/d2/kj4v24vAITASYog_giwlIx5F1-5rjZsWHLUxrctrGDQ/document.pdf

PM: Land adjacent to Whitetail, Owned by SHORE LODGE WHITETAIL LLC

PM: PINCH CREEK RANCH; adjacent to school; home development; sold with conceptual design plans in place;

This should only be applied to the Deinhard 80 acres, not contributed to the 17,776 of forested acres further from the lake and town.

PM: Waterfront property along the Payette River; not a comp for uphill acreage:
https://payetteriverwalk.org/?page_id=399

PM: Adjacent to Whitetail:
https://www.estately.com/listings/info/tbd-fish-lake-road

PM: Located on valley floor.

PM: Located on valley floor.

PM: Weighted average= $4,338 per acre.

Failing to use a weighted average, in just this Tier IV comp set alone, mistakenly creates $57,804,102 of value after developer discount.

If Sale 1,4,5 and 6 are removed, weighted average= $1,621 per acre → $21,602,091 value after developer profit factor.

PM: A relevant analysis of comparable sales without comparison of age, inventory, site index and distance to market is not industry practice.

Forests are long term investments PNW forest capital appreciation is less than 3% over twenty years. EBITDA growth in PNW is nearly flat (see NCREIF).

Industry practice is not to look at young trees when also looking at shorter term timber price trends unlikely to affect them.

If this is really what IDL believes timberlands are worth, why have they failed to acquire forest properties for three years?

Timberland Comparables

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
County	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Location	[illegible]	[illegible]	Marble Cre	Pritchard	Pinehurst	Canyon Cre	Spooky	[illegible]	Hwy 11	Orofino	Weippe	Deary	Emida	Emida	Kamiah	Kendrick
Sale Date	[illegible]/2013	12/13/2012	[illegible]/2012	[illegible]/2011	11/10/2010	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/2015	[illegible]	[illegible]/2015	[illegible]/2013	[illegible]	[illegible]	Listing
Sale Price	$4,814,000	$505,000	$82,000	$128,000	$41,600	[illegible]	$175,000	[illegible]	[illegible]	$507,250	$806,000	$565,840	$464,000	$647,000	[illegible]	$3,750,000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Adj Sale Price	$6,120,277	[illegible]	[illegible]	$156,522	$57,853	[illegible]	[illegible]	[illegible]	$65,012	[illegible]	[illegible]	[illegible]	[illegible]	$729,243	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Listing
Adj Sale Price	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$461,282	[illegible]	Listing
Acres	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
$/Acre	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	[illegible]	[illegible]	Sale C	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
County	[illegible]	Benewah	Benewah	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Benewah	Benewah	[illegible]	[illegible]	[illegible]	[illegible]		
Location	[illegible]	[illegible]	St. Maries	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
Sale Date	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
Sale Price	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
Adj Sale Price	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$97,500	$93,000	$53,000	$125,000	$70,000	$50,000	$53,622	$75,071	$181,500		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Min	[illegible]
Adj Sale Price	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Max	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	mean	[illegible]
$/Acre	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	median	[illegible]

Price Per Acre Adjusted For Time

According to data on institutional timberland investments from the National Council of Real Estate Investment Fiduciaries (NCREIF)

In mid-1997, timberland values averaged $1,00[illegible] per acre, with 1-year total returns of 14.2%. Of this, about 7.1% from appreciation and 7.1% from income. In mid-2007, timberland values averaged $1,500 per acre, with 1 year total returns of 11.5%. Of this, about 3.8% from appreciation and 7.7% from income. As of mid-2017, timberland values average $1,823 per acre, with 1-year returns of 3.3%. Of this, about 0.7% from appreciation and 2.6% from income.

97-07	7%
07-17	4%
17 present	1%

Memo

MASON BRUCE & GIRARD
Insights. Ideas. Integrity.

To: Joshua Purkiss, Real Estate Services Bureau Chief, Idaho Dept. of Lands
From: Roger Lord, Timberland Advisor to IDL
Date: July 13, 2021
Re: Review and Recommendations Regarding the Proposed Trident Land Exchange

In accordance with the Scope of Work provided to me, I have performed a review of due diligence documents related to the proposed Trident Holdings LLC Land Exchange.

The proposed value-for-value exchange would trade 21,378± acres of state-owned property surroundingPayette Lake near McCall, for 21,240± acreage of mid-rotation industrial timberland in Benewah, Clearwater, Latah, and Shoshone Counties. At this time, there are no appraisals of either property.

PM: PM has offered an appraisal, as MB&G recommends.

I reviewed the following documents:

- The Trident Holdings LLC Land Exchange Application dated 2/8/2021.
- Maps of the proposed exchange lands in Benewah, Clearwater, Latah, and Shoshone Counties.

The proposed exchange is difficult to evaluate precisely using the evaluation criteria because the applicant has only provided a basket of possible exchange parcels with no property data other than acreage, maps, and legal description. It would not be known until late in the exchange process, after completion of appraisals, precisely which parcels the endowment would receive in the exchange. It should also be pointed out that the applicant doesn't own the proposed exchange parcels, nor have they provided any proof that they have secured rights to acquire the parcels from the current owner(s) or have sufficient capital.

PM: All of this information is in Trident's possession and has been offered to IDL many times, but has been refused by IDL every time.

PM has and offered this additional information to IDL.

Based on my review of the documents and evaluation of the proposed exchange, I recommend that theState of Idaho *not* pursue the proposed land exchange. My recommendation is based on the following evaluation of the decision criteria outlined in the Scope of Work:

- **Will the proposed land exchange provide desirable land for less desirable land?**

  I believe there is a high risk that the State would ultimately be disadvantaged by pursuing the proposed exchange. One risk is that the value of the highly-developable lands surrounding Payette Lake would be diluted by appraising them in bulk form, combined with a large acreage of lower- valued, adjacent timberland. It is the nature of land markets that larger blocks of land sell at lower unit values than smaller blocks, other things being equal. The value of the "higher and better use" lands (e.g., lands with lake front or lake views/access or proximity to town) would be maximized by

PM: If the appraisal is actually done correctly, the land would be broken into more than 4 tiers, based on many factors other than distance to the waterline. If these lands are not already subdivided, the cost to do so and then ACCESS these new, smaller lots must be factored in.

marketing it in relatively small acreage pieces over a period of time and at a pace that the market can absorb without materially discounting the value. From a fiduciary standpoint, this would be a superior approach to exchanging it in a bundle with a large block commercial/recreational timberland. While an appraisal could differentiate areas of different highest and best uses to a degree, it would in my opinion be inevitable that discounting of the highest value lands in the appraisal would prevent the endowment from maximizing capture of the full value of the lands.

PM: If IDL really believes the values it supplied to be true, why are they not now revising PELS to outline auction schedules for the entirety of the 20,000 Payette acres over time, as this letter suggests they now should?

Secondarily, it is not at all clear that the land gained in the exchange would be more desirable than that which would be given up. Some of the proposed exchange parcels appear to be in areas of relatively low productivity (e.g., some of the Clearwater and Latah County parcels) and other areas are remote and have steep, rugged topography (e.g., the St. Joe drainage south of Avery).

PM: Not based on any data. Trident has tried to provide this information to IDL, but been repeatedly refused.

What is MB&G own estimate of the Payette acreage value?

- **Will the proposed land exchange provide possible future lease revenue for the endowment?**

  It does not appear that the lands that would be acquired have lease potential except perhaps for somegrazing in the western-most lands, but income from this would be minimal.

PM: N. Idaho timberlands are, by design, primarily valuable for their timber sales, not leasing activity.

- **Will the proposed land exchange block up endowment lands?**

  Overall, the exchange further fragments rather than blocks up endowment lands. The exchange would give up the very large contiguous block of endowment lands around Payette Lake for an unknown number of small parcels scattered across four counties. Although some of the parcels proposed to transfer to the State are adjacent to existing endowment land, many are not. For example, much of the proposed land in Shoshone County is in a checkerboard ownership with national forest many milesfrom the closest endowment lands.

PM: We provided each parcel, its size, description, maps, and ownership information to IDL. Why is even the number of parcels unknown to MB&G?

- **Will the proposed land exchange provide overall long-term revenue to the endowment?**

  The applicant's claim is that it will, but it is impossible to know without specific data about the properties to be added to the endowment in the exchange, and that isn't made available.

PM: What is MB&G assessment of the analysis on exactly these points that we provided in our November 2020 presentation to the Land Board? Was he shared that information by IDL? We also shared with IDL in an in-person meeting with IDL staff in July 2021. Did IDL share those documents with MB&G?

- **Will the proposed land exchange overall, benefit the endowment?**

  In my opinion, there are better strategies for addressing issues surrounding the Payette Lake endowment lands that would provide significantly more net benefit to the endowment than the proposed exchange.

Conclusion:

I recommend that the State of Idaho not pursue the proposed land exchange for the reasons cited.

CENTURYPACIFIC, LLLP
REAL ESTATE INVESTMENT BROKERS ▪ ADVISORS ▪ ASSET MANAGERS

MICHAEL E. FINCH
PRINCIPAL

MEMORANDUM

DATE: July 27, 2021

TO: Mr. Josh Purkiss, Bureau Chief, Idaho Department of Lands (IDL)

FROM: Michael E. Finch

RE: Trident Holdings LLC Land Exchange Application

SUMMARY

Thank you for the opportunity to review select information in connection with the proposedland exchange between Trident Holdings LLC (Trident) and the State Board of Land Commissioners (Land Board). As outlined in Trident's land exchange application (February8, 2021), Trident is proposing to exchange ±21,241 acres of property identified as "forest" land in Benewah, Clearwater, Latah, and Shoshone Counties (Trident Property) for ±21,378 acres of land in and around Payette Lake under the control of the Land Board (Endowment Property).

The concept of a land exchange as a vehicle to facilitate the maximization of long-term valueto Land Board constituents has obvious value. Concept aside, the proposed Trident exchange appears problematic for two primary reasons: i) material difference in value; and
ii) net long-term value to the State of Idaho. Based on CenturyPacific's review of the information provided, it appears the Endowment Property has a value well in excess of thatof the Trident Property. Due to the dynamic and maturing nature of the real estate market surrounding Payette Lake, even if the proposed exchange was a "like for like" exchange at present, it is possible (perhaps likely) that the Endowment Property will appreciate faster than the Trident Property. At this juncture, CenturyPacific is of the opinion that the proposed land exchange is not in the best interest of the Land Board.

PM: Was the information provided IDL's own value estimates?

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MICHAEL.FINCH@CENTURYPACIFICLP.COM
4841-7701-5539v.1 -

INFORMATION & DISCUSSION

The opinion summarized above is informed by the following:

- Trident Holdings LLC Exchange Application (redacted; dated as received February8, 2021), accompanying cover letter from Preserve McCall, and related enclosures (schedules, maps and notes related to the proposed exchange transaction). Of note,footnote 2 of Attachment 3 discloses that Trident does not own the proposed exchange parcels in fee and will acquire preceding the closing of the proposed exchange. Based on the information provided, it is not clear if Trident has the unilateral right to acquire all of the proposed exchange properties.

- Analytical summary of McCall-area property transactions and corresponding graphical exhibit, prepared by IDL. The summary, intended to provide a rough order of magnitude value of the Endowment Property proposed for exchange, categorizes property sale data from closed, competitive sales. The data is categorizedby location and lot area and organized to arrive at i) average values for waterfront lots, and ii) average values for upland lots tranched in concentric distances around Payette Lake. Given the large scale of the proposed exchange, the material cost of a formal, parcel-discrete appraisal, and what appears to be a reasonable level of precedent data, IDL's analytical approach efficiently provides for "order of magnitude" values based on high-level property characteristics. Based on the analysis provided, the data suggest the value of the Endowment Property is in excess of $300,000,000 – an order of magnitude value equal to <u>four times</u> the estimated approximate value of the Trident Property.

- Analytical value summary of closed large timber tract transactions in central Idaho(Shoshone, Benewah, Kootenai, Clearwater, Lewis, Latah and Idaho Counties) prepared by IDL. Assuming an average fair market value of $3,500/acre, the estimated value of the Trident Property is approximately $75,000,000. Based on review of the information provided, there appears to be a material difference in value between the Trident Property and the Endowment Property. While many open questions remain related to this proposed land exchange – the apparent difference in value does not appear to represent a true "like-for-like" exchange.

- Unlike the Trident Property, the nature of the Endowment Property – specifically, the intermediate- and long-term highest and best use of the property – is varied. Given the continuing maturity of the McCall-area real estate market, Endowment Property values appear poised to appreciate faster over that of the Trident Property.As such, based on the information provided, the anticipated long-term value of the Endowment Property is greater than that of the Trident Property.

- In the event the Land Board determines owning the Trident Property is a desired strategic addition to the portfolio and the apparent material gap in assemblage valueis satisfactorily addressed, the scale of the proposed exchange should be approachedwith caution. Due to the scale of the proposed exchange, small value fluctuations have the potential to be magnified – resulting in potentially material value impacts

PM: Reviewing incomplete information; redacted version of the presentation and no access to the additional information Trident shared with IDL in July.

Why is IDL's advisor receiving <u>redacted</u> copies of our application?

PM: This valuation of proponent's lands is also far higher than the applicant indicates (a 67%+ increase). Perhaps that helps display exactly why actually appraising both sides of the transaction would be so useful.

PM: Taints the analysis with IDL's incorrect conclusions.

4841-7701-5539v.1

to the parties. In addition to potential issues related to value, the complexity of a transaction of this scale will likely require a significant investment of IDL and AGstaff and consultant resources.

ADDITIONAL INVESTIGATION & CONSIDERATIONS

For the reasons identified in this memorandum, based on the available information, CenturyPacific does not support pursuing the proposed exchange. Should the Land Boardelect to pursue the proposed exchange, CenturyPacific strongly recommends additional investigation, including:

1. Appraisals: In the event the apparent value gap is reconciled and the Land Board wishes to pursue the exchange, consider confirming property values with appraisalsby independent, MAI-certified professionals – including appraiser peer review of alldraft appraisals prior to finalizing values.
2. Title review: All title matters (access, encumbrances, restrictions, rights, etc.) shouldbe vetted to the AG's satisfaction.
3. Survey: IDL should consider obtaining boundary surveys for all exchangeproperties.
4. Environmental Evaluations: At a minimum, Phase I environmental site assessmentsshould be conducted on all exchange properties.
5. Alternative Approaches to Divestiture: If the Land Board determines that a broad divesting of the Payette Lake properties is in the best interest of the endowment constituents, an evaluation of various divestiture strategies should be evaluated toensure maximization of net sales proceeds (e.g. land exchange, large-scale public auction, public auction of select properties, capital-length term ground leasing of commercial property, etc.).

PM: What investment of IDL and AG time will need to be made that isn't part of their scope of work?

PM: We wholeheartedly agree. IDL's estimate of Payette Land Value has fluctuated 915% in five months. An independent appraisal seems a logical way to resolve the mistakes pointed out in this document. Indeed, this was the March direction of the Land Board that we wish to help IDL fund and pursue.
Even Finch asserts that additional information and an appraisal are necessary.

PM: We agree. This is another area of direction from the Land Board in March to IDL that we wish to help IDL fund and pursue.

PM: Divesting of the entire 21,000 acre Payette area was avoided in PELS due to the far lower IDL estimated land value (~$40m) being capable of meeting the required rate of return for those upland lands. Is IDL now recommending this new, far larger divestment strategy? It seemingly must.

4841-7701-5539v.1

EXHIBIT 2

September 7, 2021

Trident, LLC Request for Rescission and Contested Case Hearing

Enclosure 1

**JOSH PURKISS COMMENTS TO MCCALL CITY COUNCIL
FROM JULY 9, 2020, MEETING**

(Please see enclosed.)

			Sincerely and respectfully, Brigid Lawrence
428	David Sanchez	4 Deerwood Dr	As a Idaho resident I oppose the privatization of the 28,000 public acres around Payette Lake which Trident Holdings LLC submitted a proposal to privatize. Thank you
429	Stephen Vikla	2837 NW 11th Ave meridian ID 83646	In regards to transferring public lands around Payette and Little Payette lake into private lands, I think that would be a precedent in the wrong direction, setting an example that some of our most pristine public lands are "for sale". As an Idaho resident, one of my favorite places to visit is McCall, hopefully you will do the right thing and continue to make it a great city.
430	Douglas Rudeen	612 W. Thatcher Street, Boise	The economics of what Trident are proposing don't make sense without overdevelopment of these lands. Please don't let them do this.
431	Conor Marcus	883 E Knoll Ct Eagle, ID	I do not approve of the privatization of public lands in and around the beautiful town of McCall and Lake Payette. If this land becomes private, it will only be to the benefit of a few (mostly out of state individuals) and detriment to generations of Idahoans. It would be a major mistake to give this land to private hands.
432	Joshua Purkiss	2324 W. Jefferson St, Boise ID 83702	Please don't support trading public land.
433	Ryan Battin	1515 w victory rd	I do not approve of the privatization of land around McCall and Payette lake. And also no lives matter till black lives matter.
434	Lauren Whipps	2315 N 28th St Boise, ID	I don't want to see gorgeous Lake Payette and the surrounding town of McCall taken over by private interests. This currently public land should remain in public hands for Idahoans like myself to continue to enjoy free from restrictions. Any move towards privatization is a very slippery slope and threatens the rights of Idahoans to Idaho's amazing public lands.
435	Shane Williams	690 s Clearwater ln #302 boise Idaho 83712	Keep the land surrounding payette lake in the hands of the public. If you turn McCall into the next sun valley you will be losing the support of local residents and idaho tourists. We love our public lands for the freedom of what they offer. Dont make the same mistake as the state of idaho did concerning the wilks brothers.
436	Erinn Della	2209 N Payette Drive McCall ID 83638	Do NOT participate in the land swap. Keep Payette Lake Public Lands PUBLIC

EXHIBIT 3

September 7, 2021

Trident, LLC Request for Rescission and Contested Case Hearing

Enclosure 2

EXCERPT OF SUPPORTERS OF IDAHO RIVERS UNITED WITH JOSH PURKISS LISTED AS "RIVER DEFENDER"

(Please see enclosed.)

Chuck Reese

Cindy & Scott Rawlings

Cindy Fisher

Claire Casey

Clara Comer

Clint and Tracey Frahler

Collin Todd

Colter's Creek Winery

Connally & Charley Penley

Craig Soelberg

Darius Semmens

Dave Green

David Branch

David Koeppen

David Monsees

david sias

Jonathan and Stephanie Marvel

Joseph Canterino

Joseph M. Bowers

Joseph Slaughter

Joshua Jacobs-Velde

Joshua Mackie

Joshua Purkiss

Judy & Steve Meyer

June Heilman

karen mebane

Karen Pederson

Katherine Baxter

Katherine Farmer

Kathryn Reynolds

Kay Hummel

Kelly Thompson

Kenneth Koenig

Maurice & Leslie Hornocker

Megan West

Melissa Harris

Michael Beckwith

Michael Guryan

Michael Seaman

Michelle Francesco

Miller Family Fund

Mountain Village Resort

Nancy Budge

Nancy Taylor

Natalie Shellworth

Nathan Todd

Noah Hartford

Pam and Kirk Ebertz

Pam Wissenbach

Pat Durland

Susan and Joseph Daly

Susan Troppmann

Tamarack Resort

Taylor Barton

Terri and Cosmo Corigliano

Terry and Delores Maret

Terry Smith

The Grove Hotel

The Modern Huntsman

Thomas Bartel

Thomas Besser

Thomas K. Welty

Thomas Ryan

Tim Holdsworth

TIM THOMAS

Tom and Janette Von Alten

EXHIBIT 4

September 7, 2021

Trident, LLC Request for Rescission and Contested Case Hearing

Enclosure 3

IDAHO RIVERS UNITED STATEMENT
IN OPPOSITION TO TRIDENT LAND EXCHANGE APPLICATION

(Please see enclosed.)

The 28,000 Acre Payette Lake Land Transfer: What it means for Public Lands & Payette Lake

Stephen Pfeiffer July 31, 2020

A 28,000 acre swath of State-managed lands surrounding Payette Lake is in jeopardy of falling into private hands. Trident Holdings LLC is proposing a land exchange with the State of Idaho in order to acquire these forestlands, which provide important public recreation opportunities, wildlife habitat, and clean water benefits for the area. The land, managed by Idaho Department of Lands (IDL), encompasses much of the northern shoreline of the lake and extends southward along Little Payette Lake as well.

At the heart of the issue is the Idaho constitutional mandate that State endowment lands must operate at a maximum possible economic return. Trident Holdings has argued in their proposal that by purchasing this land and the State purchasing private timberland of equal value in North Idaho, a higher net revenue would result. The company has also said that its approach will include continued public access and ensure the natural benefits of the area remain.

However, Trident Holdings is a development company. First and foremost, its proposal will include building homes, condos, and infrastructure along the iconic Payette Lake shore. Development of this scale along the lake and nearby waterways will jeopardize the recreational and natural values of the land and the clean water benefits that this intact forest provides.

After pausing all leases in the McCall area in June, the State Land Board met on July 21st to hear from Trident representatives as well as the public. The

State faces a tricky choice in determining how best to proceed. However, it needs to consider the wide-ranging benefits this tract of land has and will have far into the future for the next generation of Idahoans. The qualities of this area support the economy and way of life for local residents and make McCall the special place it is for so many of us.

This process promises to be a drawn-out one, meaning there is still an opportunity to let the State Land Board know that this deal is a bad one for the Payette Lake area. Push the Idaho government to find a better solution that ensures these lands remain open to the public and intact for years to come.

For contact information visit https://www.idl.idaho.gov/contact-us/.

EXHIBIT 5

September 7, 2021

Trident, LLC Request for Rescission and Contested Case Hearing

Enclosure 4

PURKISS PAYETTE LANDS APPRECIATION SPREADSHEET

(Please see enclosed.)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Net Gain/Loss
Payette Endowment Land Value	$ 300,000,000.00										
Appreciation 11%	$ 333,000,000.00	$ 369,630,000.00	$ 410,289,300.00	$ 455,421,123.00	$ 505,517,446.53	$ 561,124,365.65	$ 622,848,045.87	$ 691,361,330.92	$ 767,411,077.32	$ 851,826,295.82	$ 551,826,295.82
Appreciation 6%	$ 318,000,000.00	$ 337,080,000.00	$ 357,304,800.00	$ 378,743,088.00	$ 401,467,673.28	$ 425,555,733.68	$ 451,089,077.70	$ 478,154,422.36	$ 506,843,687.70	$ 537,254,308.96	$ 237,254,308.96
1%	$ 336,330,000.00	$ 339,693,300.00	$ 343,090,233.00	$ 346,521,135.33	$ 349,986,346.68	$ 353,486,210.15	$ 357,021,072.25	$ 360,591,282.97	$ 364,197,195.80	$ 367,839,167.76	$ 34,839,167.76
Trident Proposed Land Value	$ 75,000,000.00										
Appreciation 11%	$ 83,250,000.00	$ 92,407,500.00	$ 102,572,325.00	$ 113,855,280.75	$ 126,379,361.63	$ 140,281,091.41	$ 155,712,011.47	$ 172,840,332.73	$ 191,852,769.33	$ 212,956,573.96	$ 137,956,573.96
Appreciation 6%	$ 79,500,000.00	$ 84,270,000.00	$ 89,326,200.00	$ 94,685,772.00	$ 100,366,918.32	$ 106,388,933.42	$ 112,772,269.42	$ 119,538,605.59	$ 126,710,921.93	$ 134,313,577.24	$ 59,313,577.24
1%	$ 84,082,500.00	$ 84,923,325.00	$ 85,772,558.25	$ 86,630,283.83	$ 87,496,586.67	$ 88,371,552.54	$ 89,255,268.06	$ 90,147,820.74	$ 91,049,298.95	$ 91,959,791.94	$ 8,709,791.94

Trident Proposed Additional Revenue											
Net Revenue Gain Through Exchange	$ (1,399,270.06)										
Annual Inflation to Revenue 2%	$ (1,427,255.46)	$ (1,455,800.57)	$ (1,484,916.58)	$ (1,514,614.91)	$ (1,544,907.21)	$ (1,575,805.36)	$ (1,607,321.46)	$ (1,639,467.89)	$ (1,672,257.25)	$ (1,705,702.40)	$ (15,628,049.10)

$ 24,337,841.04

Presentation to the Idaho State Board of Land Commissioners

Tuesday, September 21, 2021

PRESERVE McCALL

Summary of Economic Benefits

$6,431,730

year-one net cash flow from an exchange

>

$779,419

*current existing revenue**

**Before expenses*

A fair, transparent alternative to a contested case:

1. Rescind IDL's August 10th letter due to the errors presented here
2. Have IDL's own, existing outside timber advisor value the benefits of an exchange to the endowment and unbiasedly process the application
3. Commission an independent, qualified 3rd party appraisal

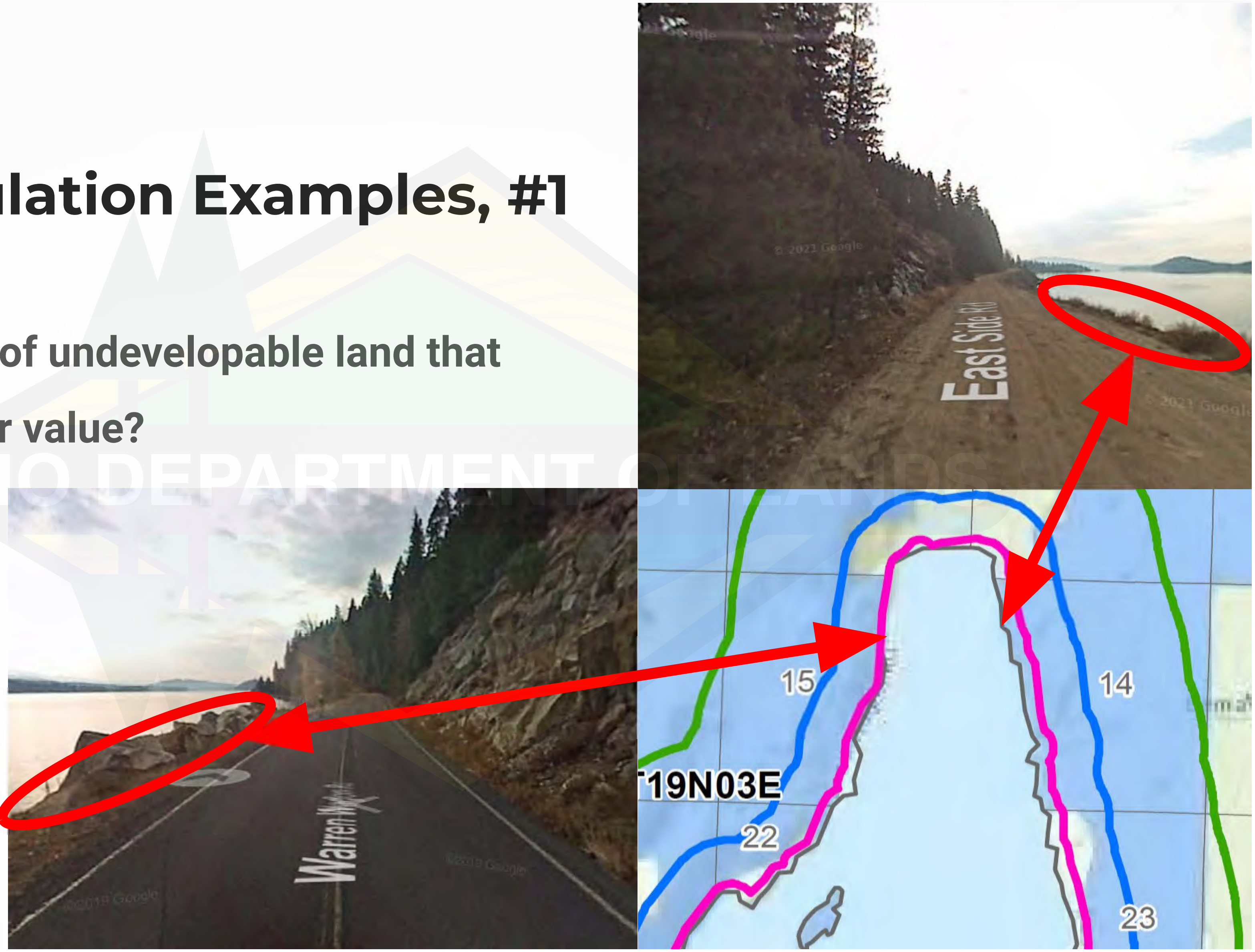
Without an accurate valuation, it is impossible for the Land Board to make an informed investment choice that satisfies its fiduciary duty.

01

Miscalculations in IDL’s August 2021 Valuation

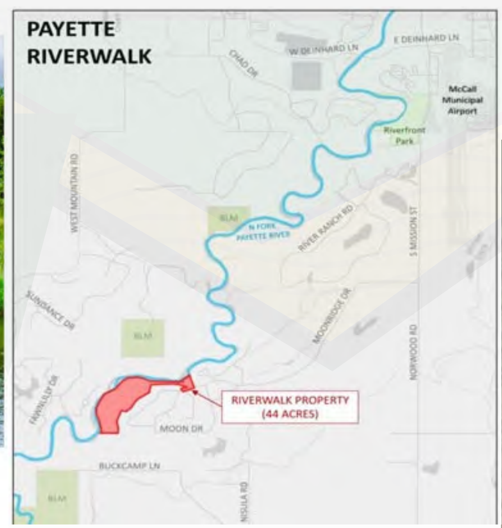
Miscalculation Examples, #1

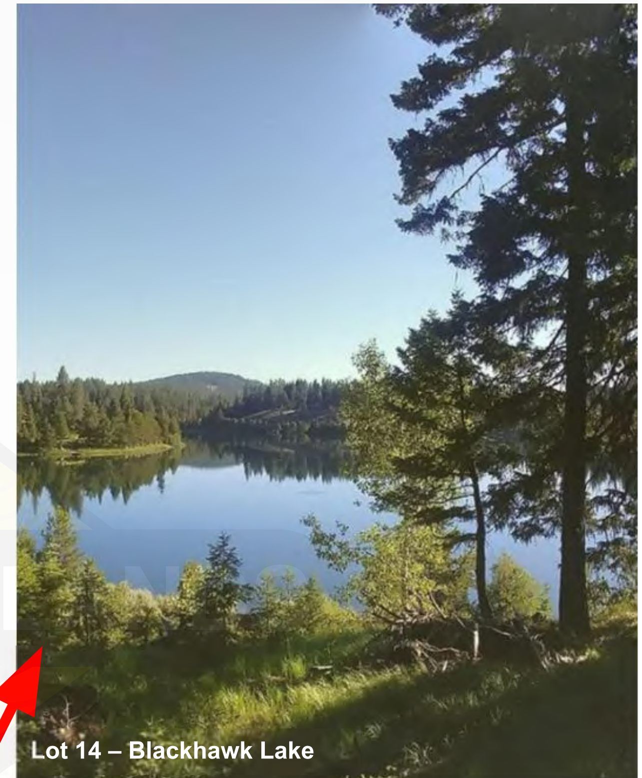
$141 million of undevelopable land that has no timber value?



Miscalculation Examples, #2

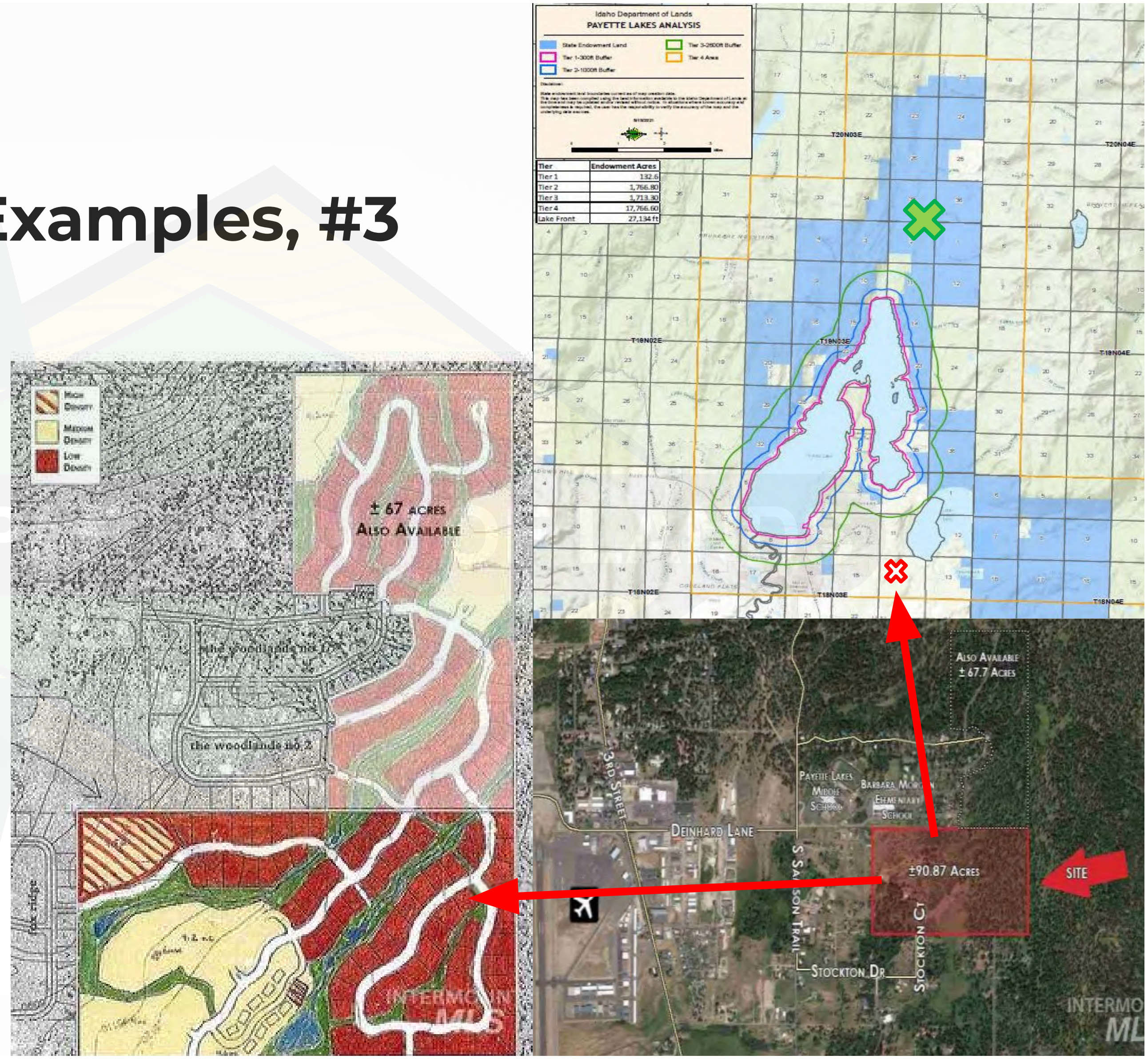
Using waterfront comps to value non-waterfront uphill acres





Miscalculation Examples, #3

Infrastructure-served sales in town were used to value unimproved bare land miles from town



Miscalculation Examples, #4

Failed to use weighted average of comp set

By failing to use a weighted average to determine the per acre value that applied to exchange lands, smaller lot sales had more impact on the data than should have been allowed.

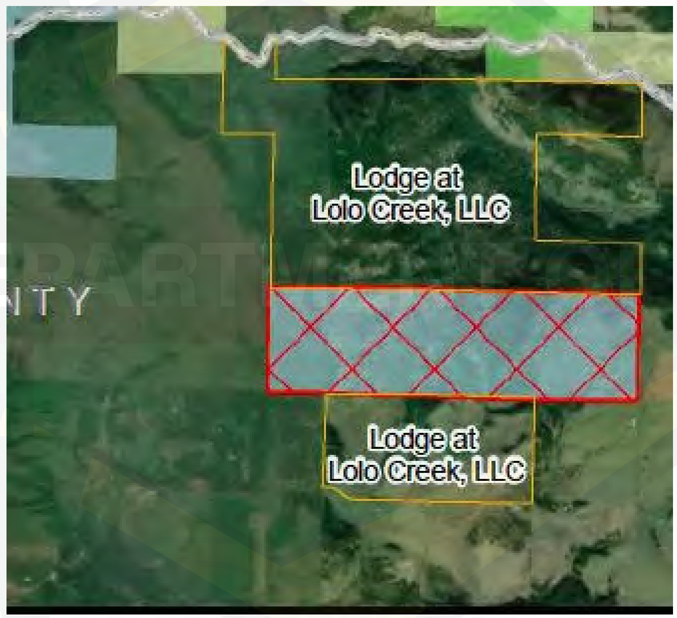
Miscalculation Examples, #5

Failed to subtract the development costs necessary to create lots

This cost is estimated to be $200.0m - $348.6m for a far smaller development footprint than what even IDL's letter outlines.

IDL did not back out the costs needed to run infrastructure and subdivide the land into smaller, more absorbable lots. There was no regard for the capital required to create the lot sales that were used to determine the valuation of the Payette Lands. IDL also never discounted those potential future profits, after the large up-front expenses, back to the present.

Why didn’t IDL use this same approach in the DeAtley Land Exchange last month?



DeAtley Land Exchange

11/12/2020

Summary of Miscalculations

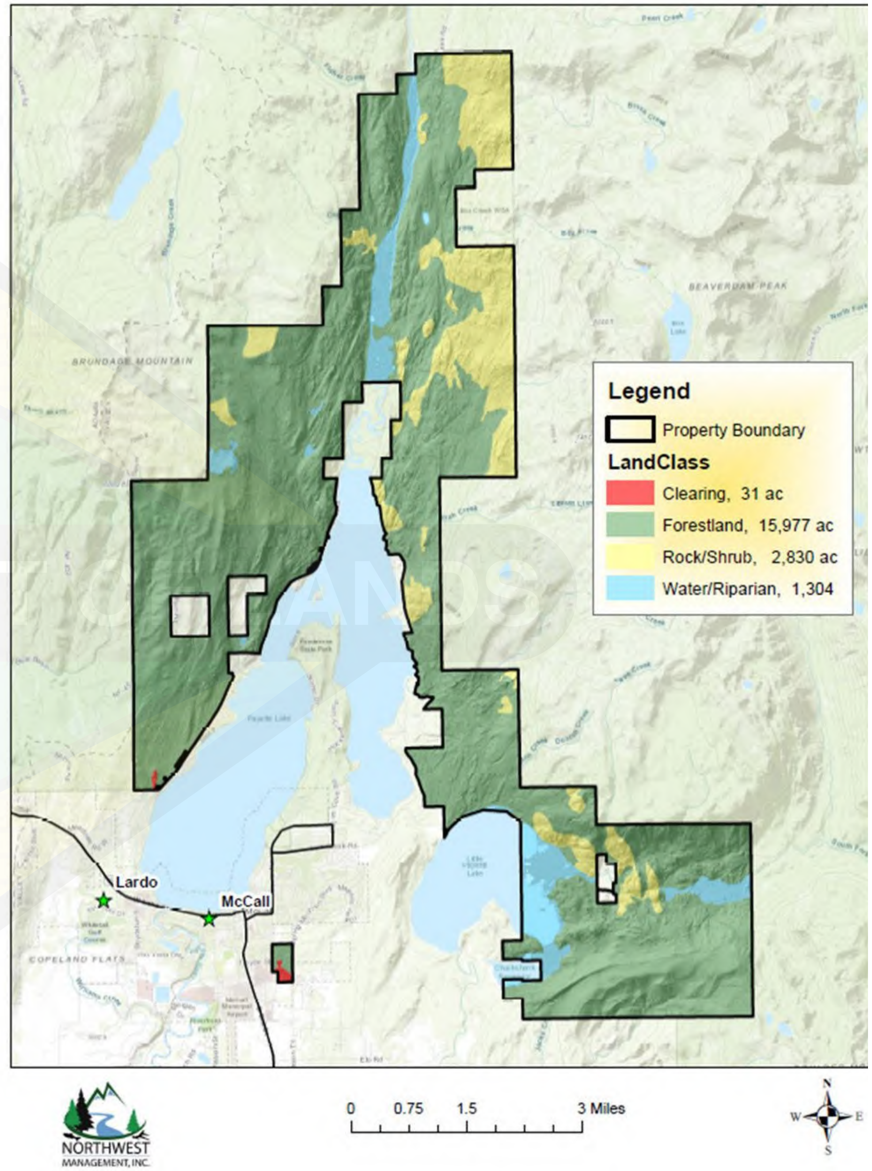
- Counting “lakefront” where no usable lakefront exists
- Using waterfront comps to value non-waterfront acres
- Using platted, infrastructure-served comps to value unimproved bare land
- Failing to normalize appreciation rates
- Failing to use weighted averages
- Failing to subtract the development costs necessary to create individual lots
- Failing to consider <u>any</u> portfolio-level benefits

02

Appropriate Valuations of Payette Parcels

Valuation of Payette Lands Based On Land Classification Method

Parcel	Acreage	Estimated Value	Value per Acre
Clearing	31	$676,188	$21,813
Forestland	15,977	$41,540,200	$2,600
Rock/Shrub	2,830	$1,344,250	$475
Water/Riparian	1,304	$619,400	$475
Total / Weighted Average	**20,142**	**$44,180,038**	**$2,193**



Valuation of Payette Lands Based On PELS

Parcel	Acreage	Value	Value As-Is Per Acre
Cougar Island	14	$4,795,000	$337,438
Shellworth Island	13	$2,400,000	$182,788
Dienhard (Parcel A)	20	$1,150,000	$57,500
Dienhard (Parcel B)	60	$595,000	$9,917
Parcel E - Eastside Drive	167	$400,000	$2,395
Parcel G - Grove	29	$9,700,000	$329,484
Parcel H - E Eastside Dr. to tip	986	$1,560,000	$1,582
Parcel I - Tip	2,042	$570,000	$279
Parcel J - W Warron Wago to Simplot	939	$880,952	$938
Parcel L - Warron Wagon West	1,058	$3,040,000	$2,873
Remaining Timberland	14,893	$14,148,368	$950
Total	**20,222**	**$39,239,320**	**$1,940**

Valuation of Payette Lands Based On Broker's Opinion

Parcel	Avg Price	Avg price per Acre
Cougar Island	$3,565,000	$304,962
Shellworth Island	$3,622,000	$306,949
East Half Payette Forestland	$13,474,706	$1,109
West Half Payette Forestland	$17,137,064	$2,162
Pilgrims Cove Lake Lots	$3,185,989	$2,076,104
Pilgrims Cove Off Lake Lots	$790,148	$653,177
Deinhard	$1,125,000	$15,000
Total	**$42,899,906**	**$2,126**

Value Conclusions Reached by Suitable Methods

Land Classification Value (current):	**$44,180,038**
IDL's Valuation for PELS (March 2021):	**$39,239,320**
Brokers Opinion of Value (Avg.Price, December 2020):	**$42,899,906**
MAX:	**$44,180,038**

IDL's exchange rejection letter (August 2021): $488,000,000

Difference in Valuation -- Warrants an Appraisal?

04

Financial Benefits to the Endowment of the Proposed Exchange

Summary of Economic Benefits

- $6.4 million to the endowment in year 1
- No down time required, as there would be with lot sales
- Significant portfolio-level benefits

$6.4 million for the Endowment in Year 1

		YEAR 1		PROJECT TOTAL		
Exchange Financial Benefits	**Acres Contributing**	**Net Cash Flow**	**Net Cash Return on Exchange Assets**	**Average Annualized Net Cash Flow**	**Net Cash Return on Exchange Assets**	**Net Present Value**
Annuity Net Revenues (acquired North Idaho timberlands)	21,243	$3,085,756	7.86%	$1,467,217	3.74%	$39,246,252
Immediate Allowable Cut Benefit (existing endowment's mature primary forests)	Existing Endowment primary forest acres (over 80 years old)	$362,787	0.92%	$149,612	0.38%	$4,446,604
Improve Legal and Physical Access (existing endowment lands)	4,360	$2,028,745	5.17%	$317,800	0.81%	$8,500,767
Portfolio Reallocation to Callan-Targeted Non-Timber Assets (see separate economic analysis)	N/A	$951,442	2.43%	$954,442	2.43%	$27,650,353
Total		$6,428,730	16.38%	$2,889,071	7.36%	**$79,843,976**

Summary of Economic Benefits

$6,431,730

year-one net cash flow from an exchange

>

$779,419

*current existing revenue**

**Before expenses*

Scenario Analysis

Beginning year	2021
Years of analysis	80

Scenario	Hold	Development	Land Exchange
Net Present Value (NPV)	$22,534,703	$47,281,010	$79,843,976
Internal Rate of Return (IRR)	1.31%	4.19%	4.53%
Payback Period (Years)	71.11	24.23	33.04
Risk (Standard Deviation)	3.32%	8.18%	3.36%
Risk-Adjusted Return (Sharpe Ratio)	0.03	0.36	0.99

Scenario Analysis: Summary

Exchange

=

Lowest Risk

Lowest Cost

Immediate Income

PELS Parcels	Acres	PELS Values	Gross Return %	Current Revenue	New Values	Gross Return %	New Target Revenue (4%)
		IDL's March $39.2M Land Value			**IDL's August $488.5M Land Value**		
Tier I: 1 - 5 Year Transition	34	$ 5,945,000	1.0%	$ 61,190	$ 73,991,463	0.1%	$ 2,959,659
Tier II: 5 - 10 Year Transition	73	$ 2,995,000	0.4%	$ 11,070	$ 37,275,766	0.0%	$ 1,491,031
Tier III: 10 - 20 Year Transtion	196	$10,100,000	0.1%	$ 14,167	$ 125,704,588	0.0%	$ 5,028,184
Tier IV: Transition Not Planned (**the Hillsides**)	5,025	$ 6,050,952	3.4%	$ 203,768	$ 75,310,141	0.3%	$ 3,012,406
Exchange Acres Within PELS	5,329	$25,090,952	1.2%	$ 290,195	$ 312,281,959	0.1%	$ 12,491,278
Exchange Acres Outside PELS	14,893	$14,155,300	3.1%	$ 435,778	$ 176,176,841	0.2%	$ 7,047,074
Total Exchange Area	20,222	$39,246,252	1.8%	$ 725,973	$ 488,458,800	0.1%	$ 19,538,352

3.0%+ return

below 3.0% return

05

The Path Forward

A fair, transparent alternative to a contested case:

1. Rescind IDL's August 10th letter due to the errors presented here
2. Have IDL's own, existing outside timber advisor value the benefits of an exchange to the endowment and unbiasedly process the application
3. Commission an independent, qualified 3rd party appraisal

Tuesday, September 21, 2021

PRESERVE McCALL

Table of Contents

Background

The Preserve McCall team has prepared the following presentation in response the August 10, 2021, letter from Bill Haagenson to Alec Williams rejecting Trident Holdings LLC's "Preserve McCall" application for a land exchange surrounding Payette Lake in Valley County. The rejection of the proposal was based on the Idaho Department of Lands' ("IDL") valuation of the Payette exchange lands being between $366 and $488 million. This new valuation is 915% to 1,220% above the earlier $39 million estimated value IDL used to recommend certain land transition decisions in the Payette Endowment Lands Strategy ("PELS"), presented to and adopted by the Land Board in March.

This presentation aims to help focus the conversation on the errors in the analysis and highlight the need to obtain an independent third-party appraisal to reach an accurate valuation of these bare lands.

Without an accurate valuation, it is impossible for the Idaho State Board of Land Commissioners to execute on its constitutional fiduciary duty to the Endowment Fund.

01

Principal Mistakes in IDL's August 2021 Valuation

Summary of Mistakes

IDL's August 10th, 2021, analysis erred in:

- Counting Eastside Drive "lakefront" where no usable lakefront exists
- Using waterfront comps to value non-waterfront acres
- Using platted, infrastructure-served subdivision comps to value unimproved bare land
- Failing to normalize appreciation rates
- Failing to use weighted averages
- Failing to subtract the development costs necessary to create individual lots
- Failing to consider <u>any</u> portfolio-level benefits

Note: Proponent's August 13th response letter points out other serious errors not included here.

Examples of Mistakes, #1

Valued Eastside Drive as "lakefront" where no usable lakefront exists (up to a $141m error)

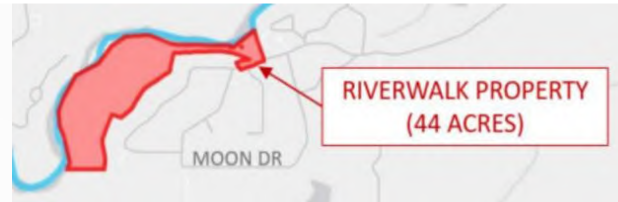
The narrow rock wall that lies on the lake side of East Side Drive and Warren Wagon Road is not developable. In order to compare this stretch of land to lakefront comps, the cost to move a county road and bring infrastructure (power, water, gas) must be factored in. The granite topography of this land also makes building extremely difficult and costly, which negatively impacts land value.

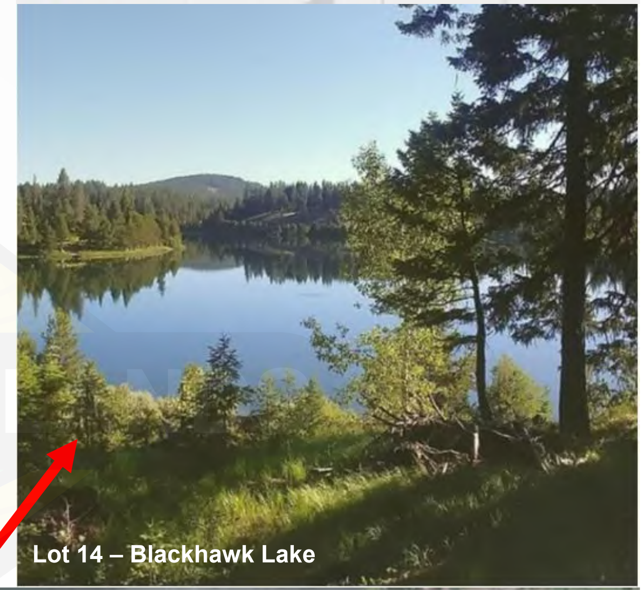
Examples of Mistakes, #2

Using waterfront comps to value non-waterfront uphill acres

As detailed in our response to IDL's Aug. 10th Letter, there were several instances of applying waterfront sales to non- waterfront acres. Examples include but are not limited to:

- *Blackhawk Lake Lot 14 (Tier 2, #17)*
- *Pre-subdivided land for the entire Blackhawk development (Tier 4, #3)*
- *44 acres along Payette River (Tier 4, #6)*



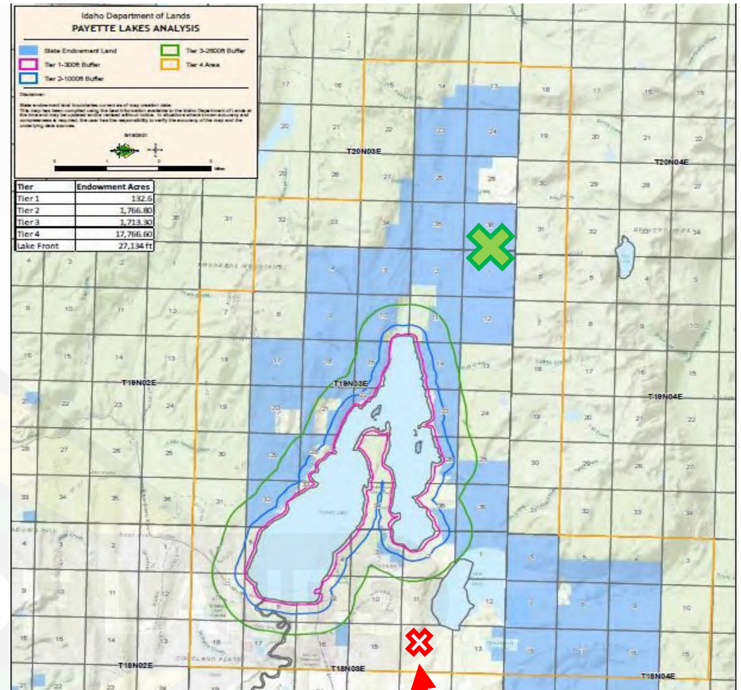


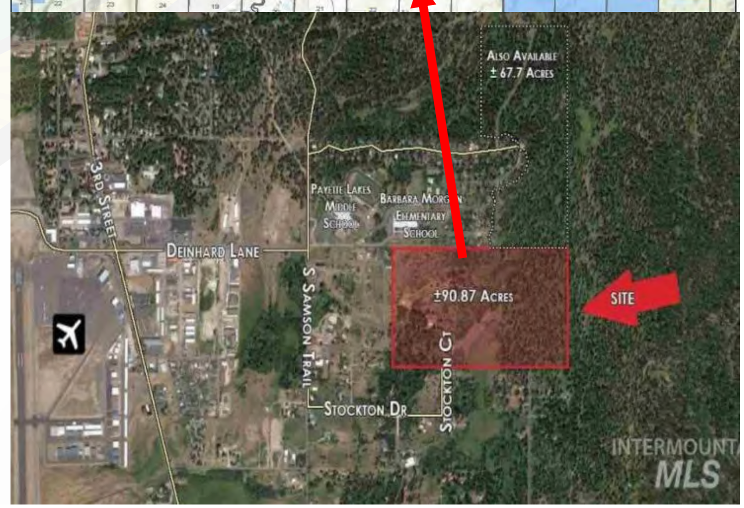
Examples of Mistakes, #3

Infrastructure-served, in town sales used to value unimproved bare land miles from town

Sales #1 and #5 that were used in the valuation of tier 4 (17,776 acres of upland timberland) are located in town, adjacent to the middle and elementary school. The parcels sold for a combined $5,270,000 ($33,144 per acre) with conceptual design documents in progress.

Why is the land near the green "X" on the tier map (top right image) being valued the same as an infrastructure served town parcel (the red "X")?





Examples of Mistakes, #4

Failed to use weighted average of comp set

By failing to use a weighted average to determine the per acre value that was applied to exchange lands, smaller lot sales had more impact on the data than should have been allowed.

Using IDL's tier 4 as an example:

- *Five (5) out of the ten (10) listed comps were sales under 100 acres. Only two (2) sales were large scale transactions (1,500+ acres). The data set is skewed to smaller lot sales that typically trade at higher per acre valuations than large scale transactions. This is clear manipulation of a data set for a desired outcome.*
- *If the weighted average of the tier 4 comps is $4,338 per acre rather than $9,108 per acre, translating to a $57.8 million difference in value when applied to the 17,776 acres. This delta does not contemplate the error of including in-town, infrastructure-served comps (#1, 4, 5 and 6) as detailed on the previous page – removing these would result in a revised weighted average of $1,621 per acre, in line with the applicant's Broker's Opinion.*

Examples of Mistakes, #5

Failed to subtract the development costs necessary to create lots

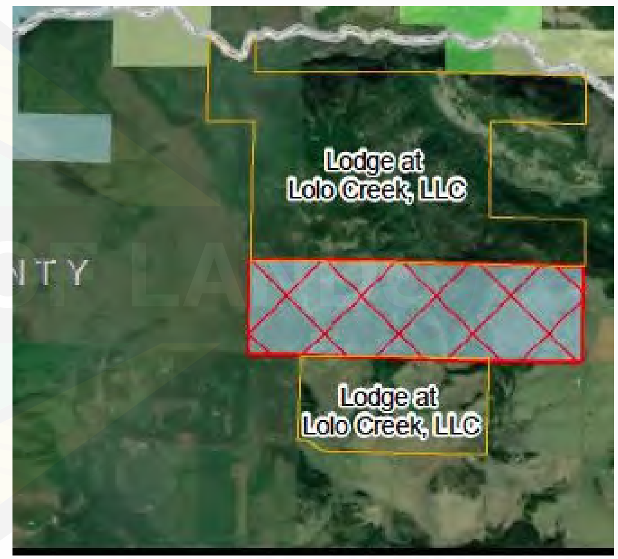
This cost is estimated to be $200.0m - $348.6m for a smaller development footprint than what even IDL's letter contemplates. (see Economic Analysis in Appendix)

In many instances, outlined in detail in Trident's August 13th analysis of IDL's August 10th letter, IDL used smaller acreage, infrastructure served sale comps to value the raw land included in the exchange. At no point did IDL back out the costs needed to run infrastructure and subdivide the land into smaller, more absorbable lots. There was no regard for the capital required to create the lot sales that were used to determine the valuation of the Payette Lands. IDL also never discounted those potential future profits, after the large up-front expenses, back to the present.

Why didn't IDL use this same approach in the DeAtley Land Exchange last month?

Had IDL employed the same approach, they would have modeled the Lolo Lodge's use of **and capital investment into** the endowment property, then ignored that same investment in arriving at a higher land value than exists today.

Why were the two exchanges processed differently?



DeAtley Land Exchange
11/12/2020

02

Appropriate Valuations of Payette Parcels

Value Conclusions Reached by Suitable Methods

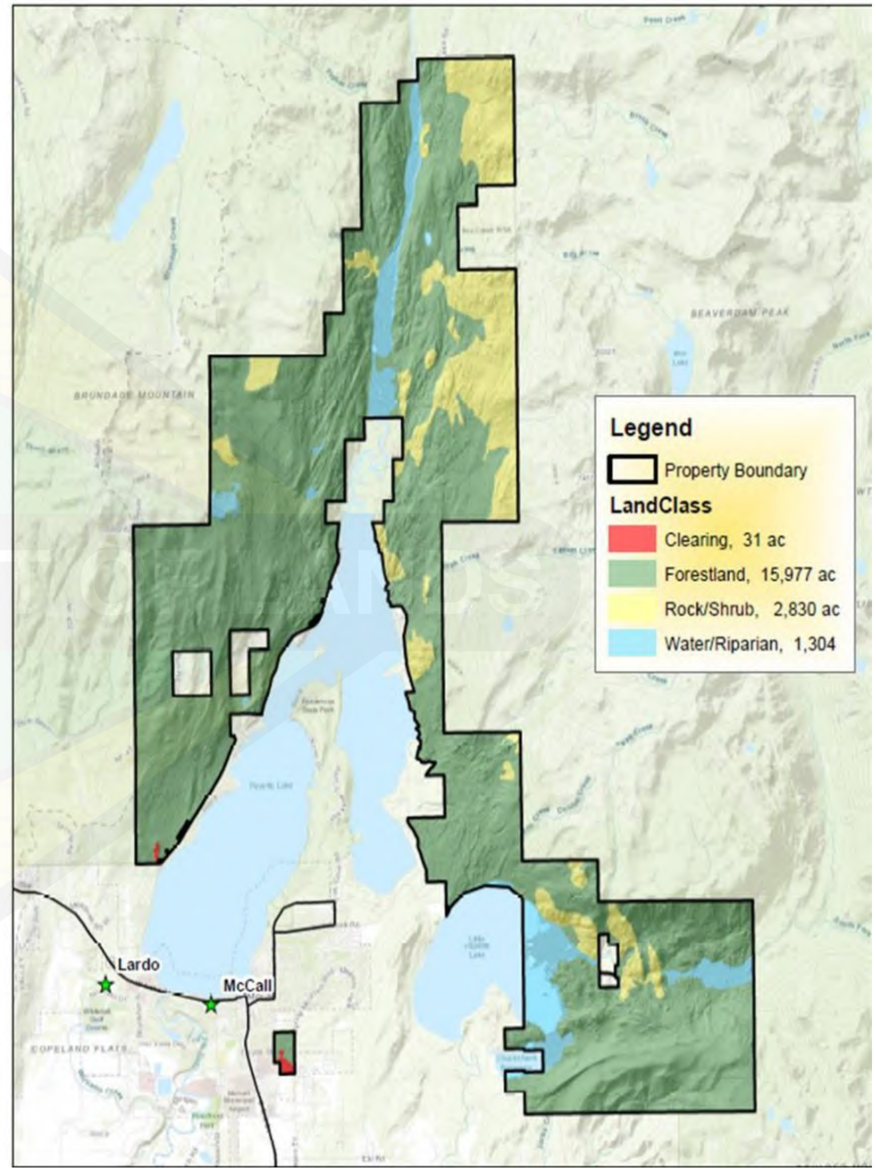
Land Classification Value (current):	$44,180,038
IDL's Valuation for PELS (March 2021):	$39,239,320
Brokers Opinion of Value (Avg.Price, December 2020):	$42,899,906
MAX:	**$44,180,038**
IDL's exchange rejection letter (August 2021):	**$488,000,000**

Difference in Valuation -- Warrants an Appraisal?

Valuation of Payette Lands Based On Land Classification Method

- The Payette Lakes Parcels are defined by four distinct land classifications that have unique values ascribed to them
- Only 79.3% of the Payette Lakes land is defined as forestland and thus able to produce potential revenue as timberland

Parcel	Acreage	Estimated Value	Value per Acre
Clearing	31	$676,188	$21,813
Forestland	15,977	$41,540,200	$2,600
Rock/Shrub	2,830	$1,344,250	$475
Water/Riparian	1,304	$619,400	$475
Total / Weighted Average	**20,142**	**$44,180,038**	**$2,193**



Valuation of Payette Lands Based On PELS

Parcel	Acreage	Value	Value Per Acre	Source
Cougar Island	14	$4,795,000	$337,438	PELS
Shellworth Island	13	$2,400,000	$182,788	PELS
Dienhard (Parcel A)	20	$1,150,000	$57,500	PELS
Dienhard (Parcel B)	60	$595,000	$9,917	PELS
Parcel E - Eastside Drive	167	$400,000	$2,395	PELS
Parcel G - Grove	29	$9,700,000	$329,484	PELS
Parcel H - E Eastside Dr. to tip	986	$1,560,000	$1,582	PELS
Parcel I - Tip	2,042	$570,000	$279	PELS
Parcel J - W Warron Wago to Simplot	939	$880,952	$938	PELS
Parcel L - Warron Wagon West	1,058	$3,040,000	$2,873	PELS
Remaining Timberland	14,893	$14,148,368	$950	Parcel J with price premium
Total	**20,222**	**$39,239,320**	**$1,940**	

Valuation of Payette Lands Based On Broker's Opinion

Parcel	Acreage	Normalized Value	Value per Acre	Market Value (Q4 2020)	Value per Acre	Avg Price	Avg price per Acre	Source
Cougar Island	12	$3,565,000	$304,962	$3,565,000	$304,962	$3,565,000	$304,962	Not including cottage site
Shellworth Island	12	$3,622,000	$306,949	$3,622,000	$306,949	$3,622,000	$306,949	
East Half Payette Forestland	12,149	$11,201,699	$922	$15,747,712	$1,296	$13,474,706	$1,109	
West Half Payette Forestland	7,927	$14,993,130	$1,891	$19,280,997	$2,432	$17,137,064	$2,162	
Pilgrims Cove Lake Lots	2	$3,185,989	$2,076,104	$3,185,989	$2,076,104	$3,185,989	$2,076,104	
Pilgrims Cove Off Lake Lots	1	$790,148	$653,177	$790,148	$653,177	$790,148	$653,177	
Deinhard	75	$1,125,000	$15,000	$1,125,000	$15,000	$1,125,000	$15,000	
Total	**20,177**	**$38,482,966**	**$1,907**	**$47,316,846**	**$2,345**	**$42,899,906**	**$2,126**	

Valley County Tax Assessor

Selection of comparable, large tract timberland located within Valley County

The weighted average value per acre of timber land per the county assessor is $142 per acre

TIMBER COMPS - TAX ASSESSOR

Parcel #	Acres	Land Use	Legal Description	2021 Land Valuation	Per Acre	Owner
RP 16N04E110005	640.00	106 Productivity Forest Land	ALL SECTION 11 T16N R4E MEDIUM CLASS TIMBER	76,800.00	$120	DF Development LLC
RP 16N04E040006	561.33	106 Productivity Forest Land	ALL OF SECTION 4 LESS W/2NW T16N R4E MEDIUM CLASS TIMBER	67,360.00	$120	DF Development LLC
RP 16N04E090005	640.00	106 Productivity Forest Land	ALL SECTION 9 T16N R4E MEDIUM CLASS TIMBER	76,800.00	$120	DF Development LLC
RP 16N04E030005	642.48	106 Productivity Forest Land	ALL SECTION 3 T16N R4E MEDIUM CLASS TIMBER	77,098.00	$120	DF Development LLC
RP 16N04E020005	642.48	106 Productivity Forest Land	ALL SECTION 2 T16N R4E MEDIUM CLASS TIMBER	77,098.00	$120	DF Development LLC
RP 16N04E100006	400.00	106 Productivity Forest Land	S/2NE4; NE4 NE4; NW4; N/2SW4; NW4 SE4 S10 T16N R4E MEDIUM	48,000.00	$120	DF Development LLC
RP 16N04E150005	640.00	106 Productivity Forest Land	ALL SECTION 15 T16N R4E MEDIUM CLASS TIMBER	76,800.00	$120	DF Development LLC
RP 17N04E210004	261.31	106 Productivity Forest Land	NE; N/2NW; N/2SE S21 T17N R4E MEDIUM CLASS TIMBER	30,574.00	$117	DF Development LLC
RP 17N02E232405	160.00	106 Productivity Forest Land	NW4 S23 T17N R2E GOOD CLASS TIMBER	36,480.00	$228	SOULEN LIVESTOCK CO
RP 17N02E140155	280.00	106 Productivity Forest Land	W/2NENE; W/2NE; E/2 NW; E/2 SW; W/2NW SE S14 T17N R2E GOOD	63,840.00	$228	SOULEN LIVESTOCK CO
RP 17N02E231205	278.40	106 Productivity Forest Land	SW4 NE4; SW4; NW4 SE4; SW4 SE4 S23 T17N R2E	62,791.00	$226	MCCALL ASSOCIATES LLC
RP 17N02E220005	356.80	106 Productivity Forest Land	E/2; PT. SE4SW4, LYING EAST OF VALLEY COUNTY LINE S22 T17N	81,350.00	$228	MCCALL ASSOCIATES LLC
RP 17N02E150005	319.90	106 Productivity Forest Land	E/2 S15 T17N R2E	72,937.00	$228	MCCALL ASSOCIATES LLC
RP 18N02E260006	478.30	106 Productivity Forest Land	N/2; N/2S/2 S26 T18N R2E MEDIUM CLASS TIMBER	57,396.00	$120	DF Development LLC
RP 17N02E260005	480.00	106 Productivity Forest Land	NE4; S/2 S26 T17N R2E GOOD CLASS TIMBER	56,160.00	$117	WEST MOUNTAIN LLC
Total / Weighted Average	**6,781**			**$961,484**	**$142**	

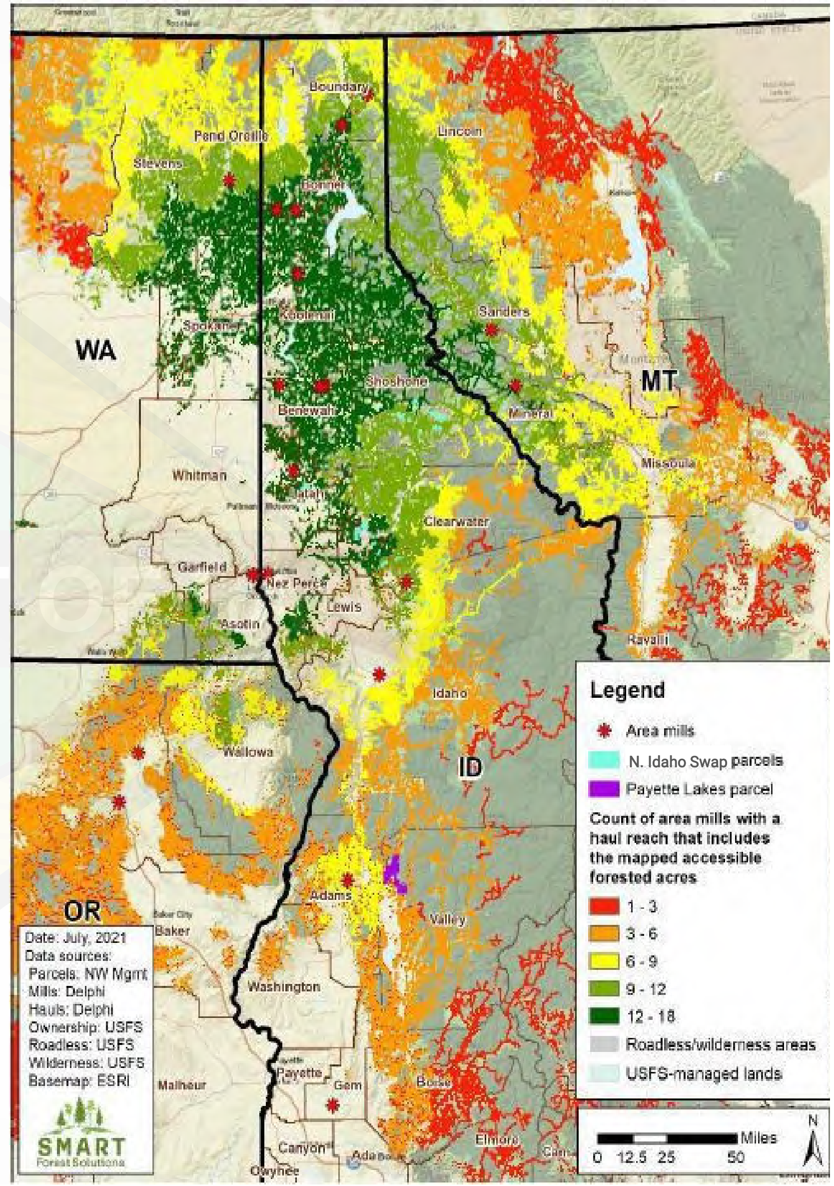
Key Value Considerations IDL Overlooked

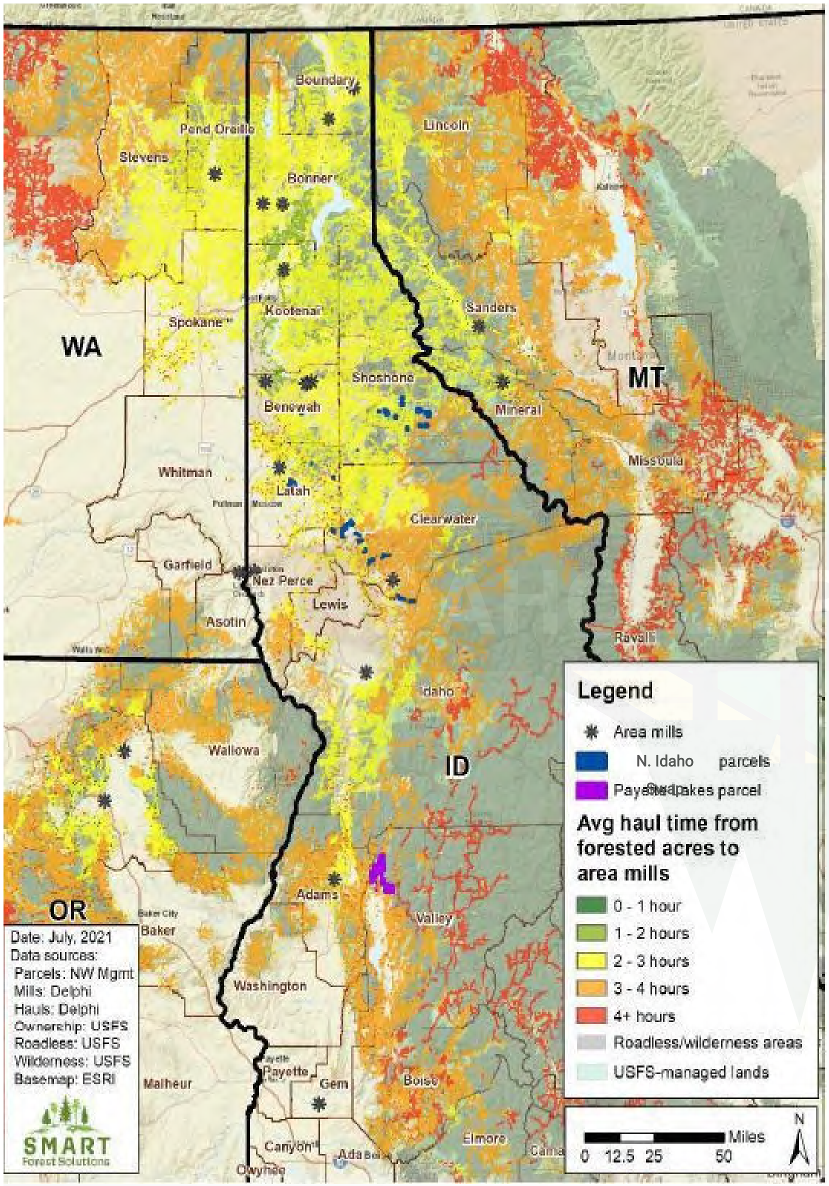
- Proximity to mills and the impact on competitive pricing
- Land classification and topography of the Payette Parcels
- Biological and Economic Productivity
- Value stipulated to segments of the land through PELS
- Brokers opinion of value of Payette Parcels
- Valuation of large-tract timber parcels as determined by the Valley County Tax Assessor
- Use of a proper comp set

Competitive Market Pressure

This heat map relates the overlapping procurement circles of individual mills (they vary in size) competing for timber volume. The map depicts the number of mills that are likely to compete for timber volume at any given place. This is a measure of competitive market pressure.

- The number of competing mills across North Idaho (9-18 mills) exceeds the mills competing in the vicinity of Payette Lakes (3-6 mills).
- This increase in market depth accounts for the higher market prices of North Idaho compared to Payette Lakes.
- When assessing the forest land value in markets with limited market depth, like Payette Lakes, in using an income approach it is not unusual to apply a higher interest rate when computing discounted cash flows (DCF) due to perceived higher risk should any single mill shut down, reducing the net present value of the DCF.





Proximity to Mills

In looking at average haul distance, the proposed Northern Idaho Swap Parcels are better positioned with respect to mills than the Payette Lakes Parcels. Payette Lakes average haul falls in the 3-4 hour haul range, while the Northern Idaho tracts are a mix of 2-3 and 3-4 hour average hauls.

The haul advantage for the Northern Idaho parcels grows when the underlying analytics are considered. For the Northern Idaho parcels' mills are more evenly distributed, while for Payette Lakes a single mill, the Tamarack Mill, is very close, with the remaining mills quite distant. The Payette Lakes haul average is as low as it is because of the Tamarack Mill's proximity.

When a single mill has a strong freight advantage compared to all other competing mills it allows it to REDUCE the price it is willing to pay for delivered logs, using its freight advantage as a "market shield." This accounts in part for the lower market prices in the Payette Lakes region producing a lower payment for Endowment timber.

Biological and Economic Productivity

Forest Products (Species)	Delivered Log Prices		Percent Species		N ID compared to Payette Lakes adjusted for Species Mix
	N ID Market Area	Payette Lakes Market Area	N ID Market Area	Payette Lakes Market Area	
Douglas-fir, W Larch	444	418	33%	24%	37%
True Firs & W Hmlck	412	377	46%	24%	92%
W White Pine	342	328	1%	0%	N/A
Ponderosa Pine	340	328	6%	42%	-85%
Spruce	383	371	2%	1%	8%
Red Cedar	884	928	8%	4%	134%
Lodgepole Pine	398	371	3%	5%	-35%
Sub-alpine Fir	348	299	0%	0%	N/A
AVERAGE	444	427	456	386	18%
Avg. first 10 year delivered log price w/o escalation**			526	***	
non-escalated average throughout the DCF			444	***	

NOTES
*2015 TPO data. For N ID: Benewah, Clearwater, Latah, and Shoshone counties.
For McCall to Grangeville: Adams and Valley counties.
** While there is not a large Red Cedar component throughout the duration of the harvest plan, it represents 11% of harvested log volume during first 10 years, higher than the four-county average reported by USFS's Timber Products Output data for 2015.
*** Both averages from DCF include sales revenue from hewsaw and pulpwood sales converted to MBF

Biological Productivity	Site Index	Site Productivity
		Cubic Feet per Acre per Year
Payette Lakes Forest Land	51	75
North Idaho Exchange Forest Land	79	135
North Idaho Increase Compared to Payette Lakes	54%	81%

A common measure of site productivity in forestry is site index. The proposed North Idaho Exchange acres average site index is 54% greater than the estimated average site index on the Payette Lakes forest land.

A forested property's capability to grow timber can also be measured in cubic feet of wood volume grown per acre per year. This metric corresponds to site index, but it is not 1:1, and it is influenced by other factors, such as species mix. The North Idaho Exchange lands have a 81% higher site productivity than the Payette Lakes lands.

The market areas are also different. As seen on the following slides, the North Idaho market has more participants, and those participants are more equally distributed with respect to the proposed acreages, than is true for the Payette Lakes property. This results in a slightly higher price (approximately 4%) paid by mills for delivered logs in North Idaho.

The market value difference becomes greater when the harvested/delivered volume is adjusted for species mix, increasing to an 18% advantage for the North Idaho market. The effect of these two factors on timberland valuation is multiplicative (i.e. North Idaho is 114% greater than Payette Lakes) rather than additive (North Idaho 99% greater than Payette Lakes).

With IDL's values increasing $440m (12x) in 5 months, why not get an appraisal?

Given the discrepancy in valuation within IDL's own estimates, the applicant seeks to have a third-party appraiser assess the parcels with the following considerations:

- Current August 2021 market conditions
- Land as currently zoned today
- Land as access currently exists today
- Mineral and water rights as is

Given the unique nature of this asset, the appraiser should possess the following qualifications:

- Experience in inland NW valuing young and mid-rotation timberlands using income approach
- Experience in valuing real estate in proximity to recreational communities

03

Project and Community Outreach Update

Growing team to execute vision.

Our Team

Kristen Knapp joined the team in April 2021 as Director of Finance. Kristen most recently worked at HFF / JLL in the real estate capital markets advisory group. There she focused on debt placement, structured finance and joint ventures, with a concentration on large scale development projects. During her time with the firm, she underwrote over $13 billion in asset value and closed over $4 billion in financing volume. Kristen lives in Boise.

Kylee Hatfield joined the team in May 2021 as Community Relationship Manager. Kylee spent the last 20 years focused on community health in Adams and Valley Counties. She spent the majority of her time in a community relations role, advocating for local residents to ensure their concerns were addressed by proper planning. Kylee is a longtime West Central Idaho resident, with family roots dating to 1870.

Community Council

The Preserve McCall Community Council is composed of Valley County community members and leaders who share a love for McCall and the surrounding lands.

The goal of the council is to advise the Preserve McCall team on key planning decisions and address community needs. Members were selected to represent the diverse viewpoints, concerns, and values of the residents and visitors of Valley County.

The Community Council will meet monthly to collaborate on the ongoing process, proposed changes to the plan, and how these decisions impact the broader community needs.

Preserve McCall has created a coalition made up of local stakeholder, residents, second homeowners and business owners in the McCall community to oversee business activity and cutting revenue disbursement.

GERRY IKOLA – IKOLA LOGGING

CHAIRMAN OF PRESERVE MCCALL COMMUNITY COUNCIL

Preserve McCall Organizational Structure

PRESERVE MCCALL

Working Forest Trust

- Managed soley for forest health
- Reduced fire risk
- Stabilize local timber industry
- Aids water quality and conservation

LAND MANAGEMENT

Park Expansion

- Transfers land to Ponderosa Park
- Enhanced access
- Comprehensive plan for recreational growth
- Supports IDPR funding statewide

ACCESS + PRESERVATION

Community Council

- Oversees planning for park and housing
- Distributes logging revenue to community through grants

OVERSIGHT + COMMUNITY ENGAGEMENT

Trident Holdings

- Funds park donation through creation of limited development
- Bonding capacity creates park infrastructure
- Creation of local, workforce housing

FUNDING AND EXECUTION

Best-in-class team of experts

Partners and Consultants

Trident has assembled a world class team to bring the Preserve McCall vision to life. The team consists of accomplished architects, engineers, foresters, economists, legal advisors and conservationists.

PRESERVE MCCALL

Master Planning Architect — HART HOWERTON

Civil Engineer — SHERWOOD DESIGN ENGINEERS

Forestry Advisor — SMART FOREST SOLUTIONS

Conservation Advisor — BENCHMARK ADVISORS Conservation Strategies

Outreach Update

Since Preserve McCall's presentation to the Land Board last November, the following community outreach efforts happened:

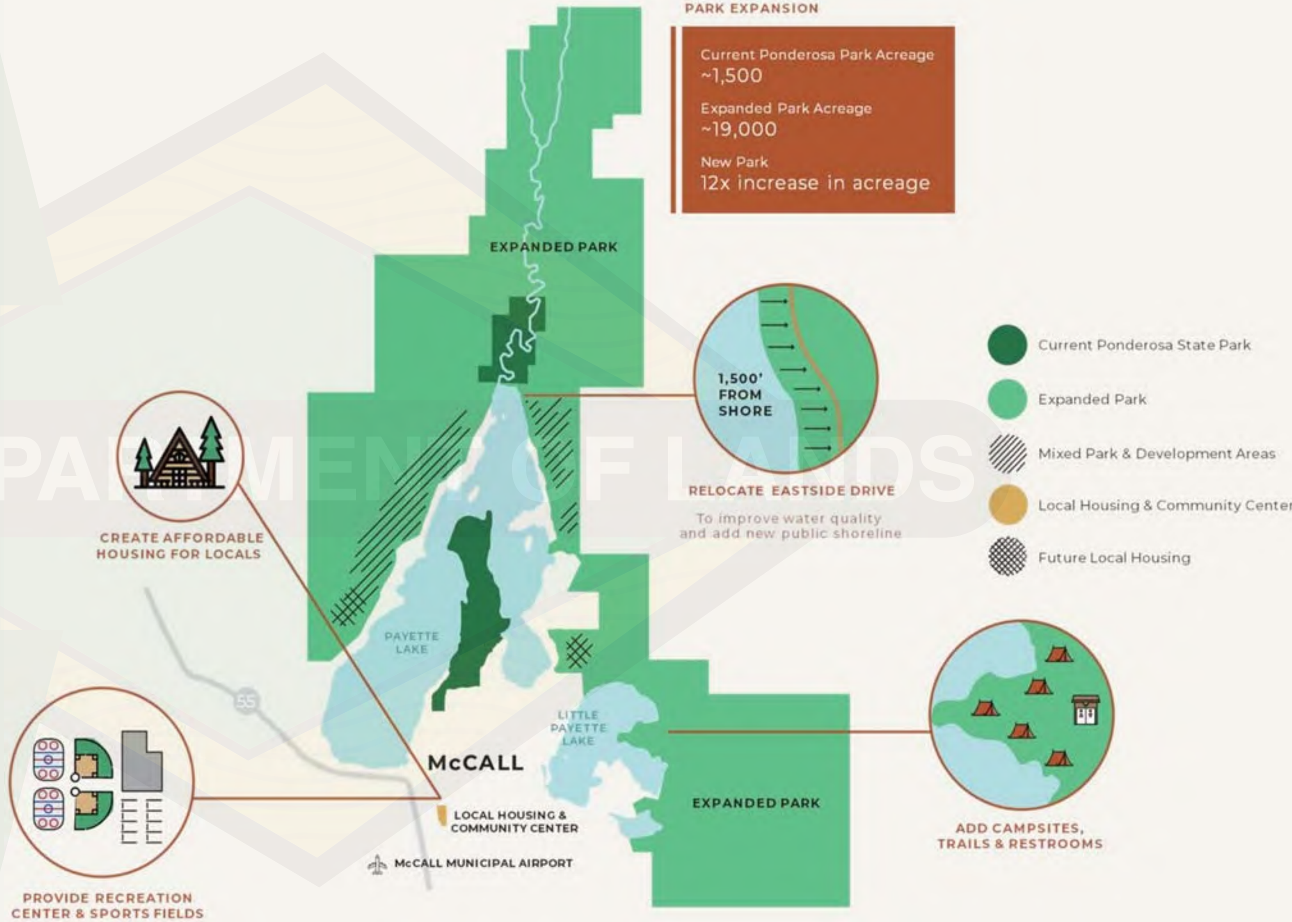
- Held 800+ meetings with local area residents, employers, homeowners, and families; one-on-one or in small groups
- Hired full-time community relationship manager to foster communication and help incorporate local input
- Opened new office space in McCall to host community meetings
- Conducted two statistically significant polls of area voters to incorporate key concerns
- Presented second project update to the Valley County Commission, to include local housing plans
- Met with Clearwater and Shoshone County representatives on PILT payment structure
- Formed the Preserve McCall Community Council to provide additional input in land planning and direct future cutting proceeds toward community needs
- Worked with the Valley County Farm Bureau to understand and incorporate farmers' water use priorities
- Presented to the Idaho Recreation Council to begin drafting the Park Agreement to protect existing recreational uses
- Significant local education on the Endowment and PELS

Polling Results

71%

OF RESIDENTS FAVOR EXPANSION OF PONDEROSA STATE PARK

*Poll conducted December 12-14, 2020
N= 250 adults in Valley & Adams County Margin of error +/- 6.5%.



Polling Results

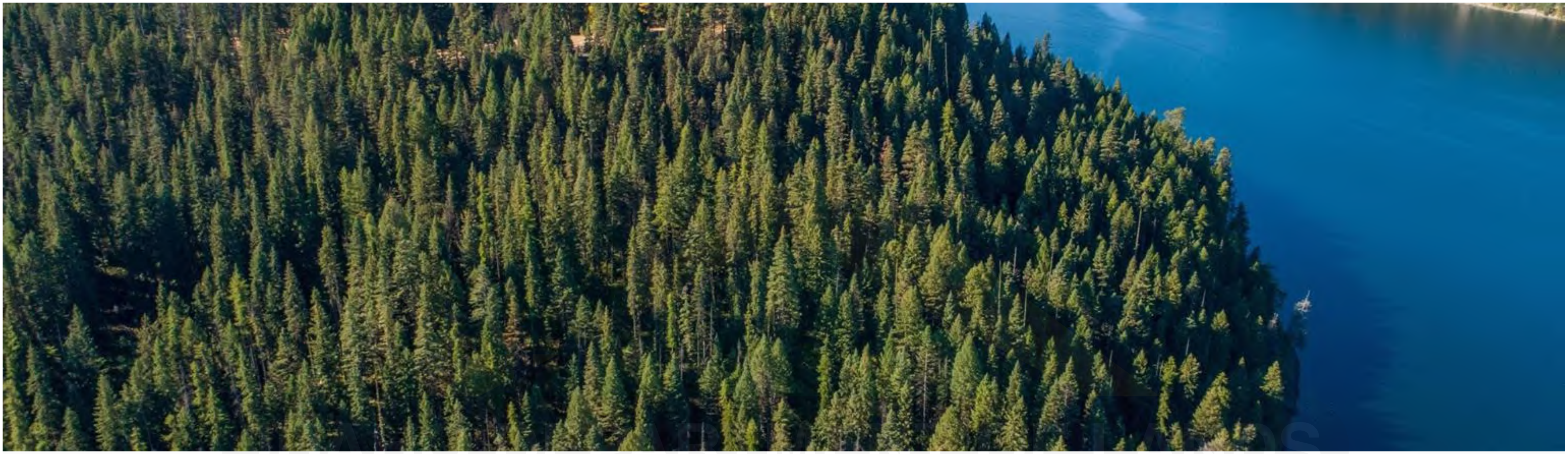
Polling was performed by GS Strategies in December 2020.

Key Takeaways

- By a 6-to-1 ratio, residents support a permanent solution that preserves public access to most of the endowment lands under discussion over a piecemeal solution that leaves future disposition of these lands unresolved.
- Area residents overwhelmingly appreciate their access to outdoor recreation and are equally concerned about protecting their access to public lands.

Greatest Concern: Which represents the greatest challenge facing your community?	
Housing Prices	49.6%
Jobs	23.2%
Traffic and Roads	8.3%
Public Education	4.9%
Internet Access	4.0%
Recreation Access	2.4%
Child Care	2.0%

Please see appendix for full polling results



3a

Working Forest Plan

Working Forest Plan Mission

1

Enhance, sustain and invest in the forest health of the Payette Lakes Parcels

2

Minimize the risk of catastrophic wildfire

3

Enhance access for non-motorized and motorized recreation

4

Provide on going timber harvest revenue for reinvestment within the lands, park, and surrounding community

Payette Lakes Working Forest Trust

- Board Governance:

  ALC, Community Council, IDPR, and Independent Foresters
- The working forest easement would co-exist with public access
- Fifty-year forest plan renewed every seven years
- Honors the original industry that allowed Idahoans to prosper in this area
- August 2021 forest inventory, roads and trails assessment, and fire hazard assessment are completed
- Cutting proceeds will be reinvested into the land and community with guidance from the Community Council



Proceeds from the Working Forest

After Preserve McCall fulfills the PILT obligation to the North Idaho counties, the remaining available cashflow rendered from the working forest will be distributed at the governance of the Community Council.

The flow of funds is outlined to the right. The objective is to reinvest the capital in the community and the land.

Annual Payette Working Forest Cutting Revenue

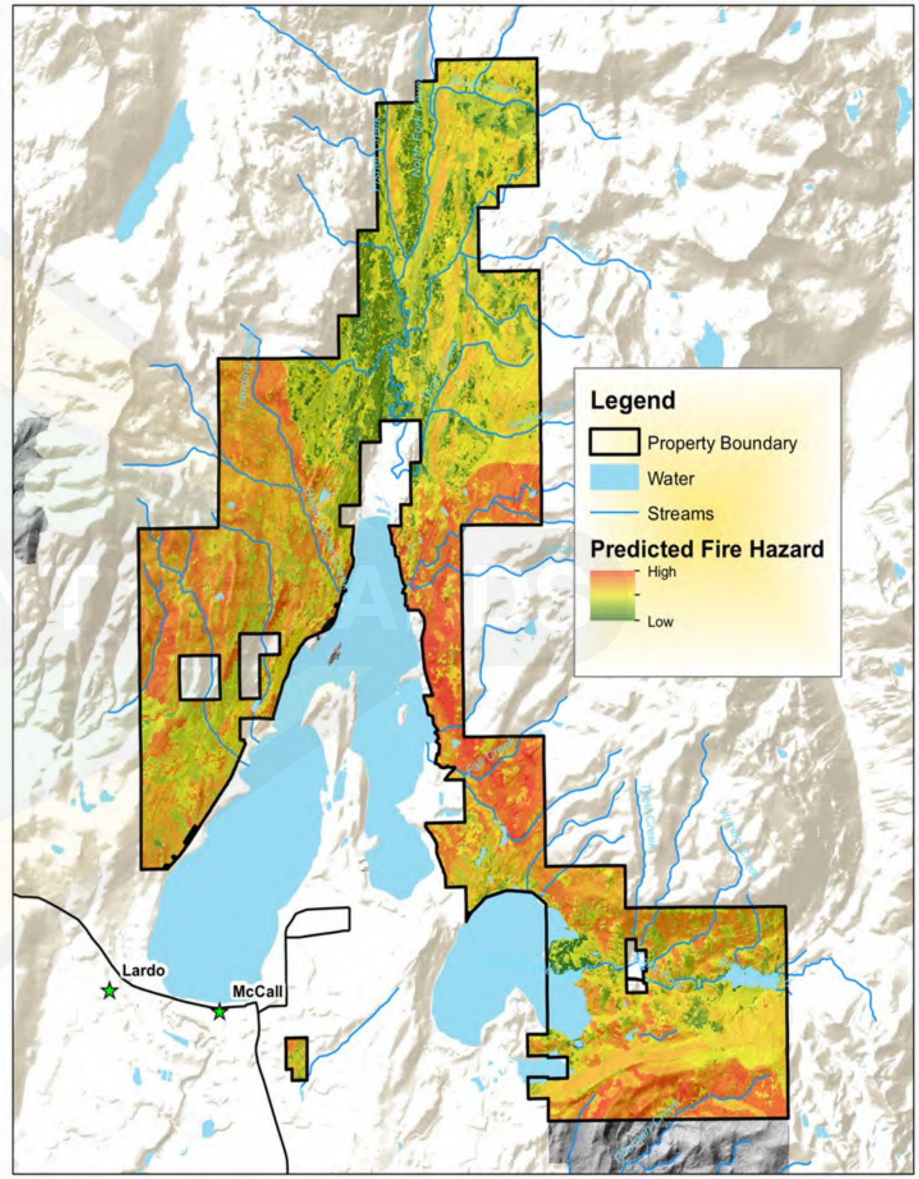
Proceeds — Fixed, Replicated PILT Payments
10-year annuity at ***above*** current tax amounts and Year 10 lump sum to approximate a follow-on perpetuity

Remaining Available Proceeds — Fixed Community Investment Budget

Remaining Available Proceeds — Investment in new park lands (roading, signage, infrastructure, planting, etc.)

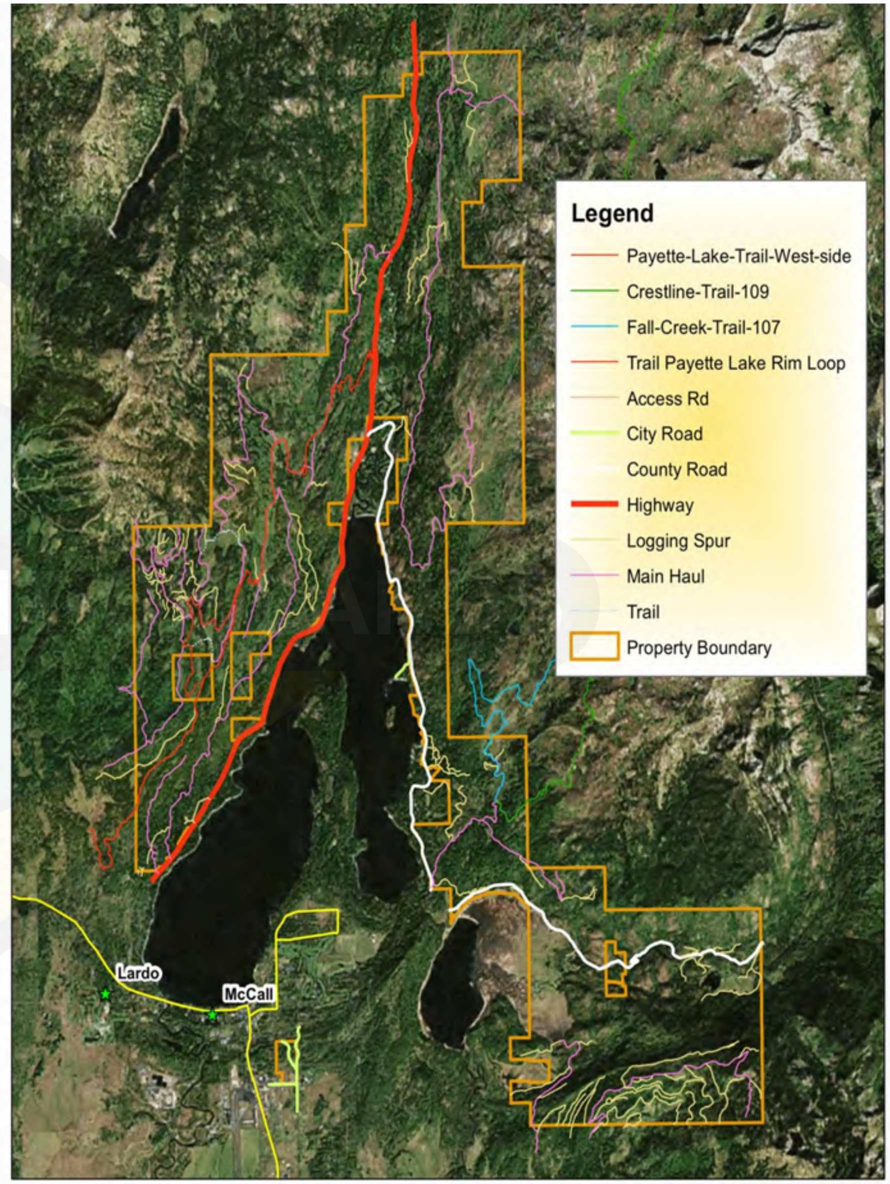
Forest Management Critical

- The majority of the land in the Payette Lakes Parcels is classified as a high fire risk
- The area on the east side of the lake, near Tamarack Bay and Paradise Point, pose severe risk for existing homeowners
- Given the age, density and topography of the Payette Lakes Parcels, a fire in this area could be catastrophic for the entire community
- Working Forest Easement Acreage: 15,976 acres
- Working Forest 2020 LIDAR Individual Tree
    - Inventory Total = 171 million board feet



Symbiotic Logging and Recreation

- Honor the Idaho legacy of logging and recreation on our lands
- Investment in existing roads is needed to unlock meaningful public access to a majority of the landscape
- There are significant improvements that can be made to actually increase recreational access
- Non-motorized and motorized trail networks can grow
- Opportunities for new recreational opportunities



3b

PILT for North Idaho Counties

North Idaho PILT Payments

County	Square Miles	# of Parcels
Benewah	1.8	1
Clearwater	12.1	15
Latah	5.3	3
Shoshone	13.3	12

Ongoing cutting revenues from today's Valley County endowment properties will fund escrow payments to replace lost tax revenues for North Idaho counties affected by the Preserve McCall land exchange, as today's privately owned North Idaho timberlands become new untaxed, income-generating endowment land assets.

Idaho endowment lands are untaxed by county governments. The Land Board's singular fiduciary duty constitutionally prohibits paying payments-in-lieu-of-taxes (PILT) to counties from the education endowment's coffers. Nonetheless, private timberlands in North Idaho are often attractive acquisitions for the endowment, and IDL obtains these properties two ways: through direct purchase using Land Bank funds (of which ~$130m are currently available) or through land exchanges with private parties. Private parties may choose to provide PILT payments if they wish, although it is uncommon.

The Preserve McCall project exchanges 20,000 endowment acres in Valley County for 22,000 income-producing private acres spread across the four North Idaho counties. The table indicates the affected counties and private acreage totals. While the Valley County endowment properties do not spin off sufficient income from logging operations to meet the endowment's 3.5% required rate of return on assets, they do yield sufficient revenue to cover more than the county tax bills these North Idaho properties currently owe each year. That means ongoing cutting in Valley County is likely capable of replicating more than these lost tax payments, if the endowment acquires these North Idaho acres through the only channel (land exchanges) and with a partner (Preserve McCall) that can do so.

North Idaho PILT Payments

Other North Idaho Considerations: Importantly, this exchange reduces pressure on the Idaho Department of Lands (IDL) to purchase North Idaho properties elsewhere, since the exchange event provides the endowment these lands directly. There i's no need to auction lands, then place sale proceeds stagnant in the Land Bank fund, then incur the very real deal risk to purchase North Idaho property before funds legally expire in five years (a recent challenge for IDL). PILT is also impossible within IDL's traditional cash acquisition process. Replacing non-Idahoan corporate timberland owners in North Idaho with the state's education endowment also keeps timber sale dollars within Idaho.

PILT Payment Structure: To provide long term certainty, the PILT payments would provide 10 years' worth of annuity payments to each county **exceeding** existing tax obligations, then provide a year 10 lump sum amount to approximate an ongoing perpetuity payment thereafter to reduce counties' reliance on a perpetual third party.

By working with a PILT-paying private partner through a land exchange, the endowment can own the North Idaho timberlands it seeks, without depriving North Idaho counties of expected future tax payments. IDL cannot accomplish this same outcome through traditional land acquisition routes.

04

An Exchange's Financial Benefits to the Endowment

Summary of Economic Benefits

$6.4 million for the Endowment in Year 1

- $6.4 million to the endowment in year 1
- No down time required, as there would be with lot sales
- Significant portfolio-level benefits

		YEAR 1		PROJECT TOTAL		
Exchange Financial Benefits	**Acres Contributing**	**Net Cash Flow**	**Net Cash Return on Exchange Assets**	**Average Annualized Net Cash Flow**	**Net Cash Return on Exchange Assets**	**Net Present Value**
Annuity Net Revenues (acquired North Idaho timberlands)	21,243	$3,085,756	7.86%	$1,467,217	3.74%	$39,246,252
Immediate Allowable Cut Benefit (existing endowment's mature primary forests)	Existing Endowment primary forest acres (over 80 years old)	$362,787	0.92%	$149,612	0.38%	$4,446,604
Improve Legal and Physical Access (existing endowment lands)	4,360	$2,028,745	5.17%	$317,800	0.81%	$8,500,767
Portfolio Reallocation to Callan-Targeted Non-Timber Assets (see separate economic analysis)	N/A	$951,442	2.43%	$954,442	2.43%	$27,650,353
Total		$6,428,730	16.38%	$2,889,071	7.36%	**$79,843,976**

Scenario Analysis: Summary

Exchange

=

Lowest Risk

Lowest Cost

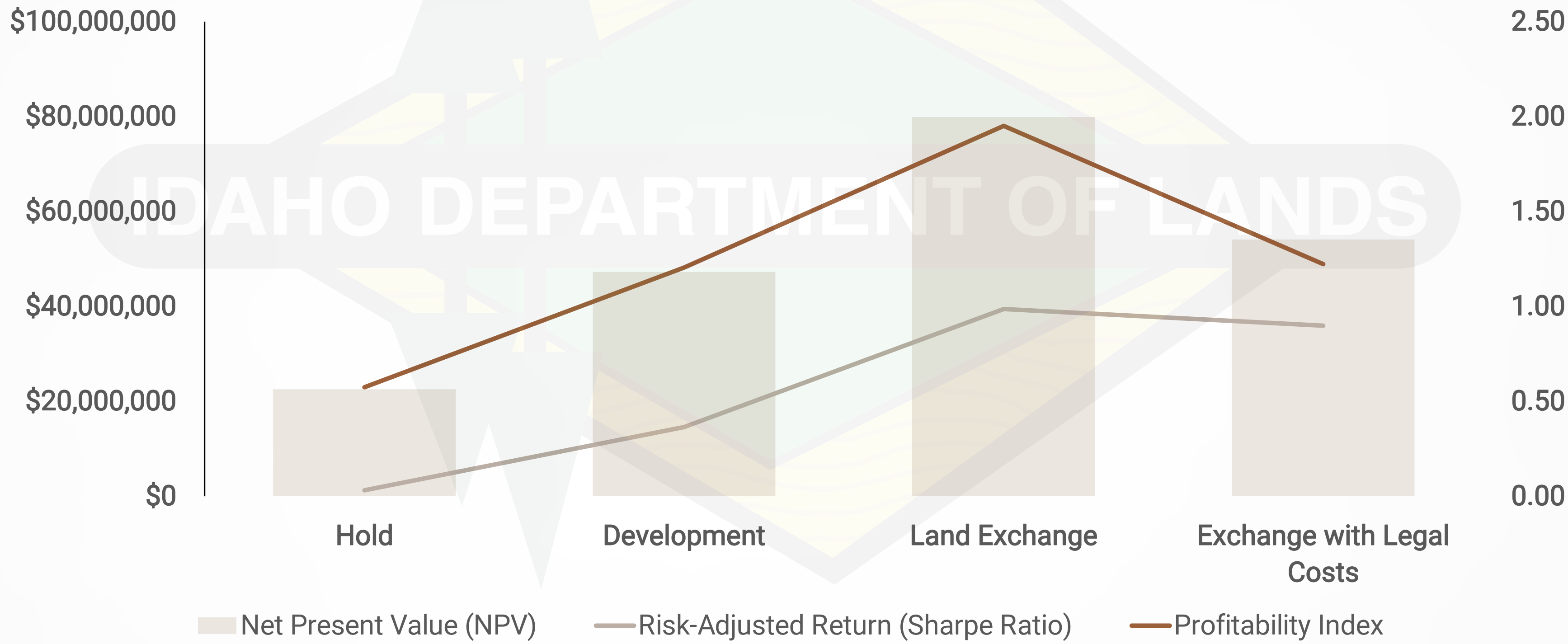
Immediate Income

Scenario Analysis

Beginning year	2021
Years of analysis	80

Scenario	Hold	Development	Land Exchange	Exchange with Legal Costs
Timberland disposition yr.	2100	2100	2100	2100
Residential disposition yr.	2023	2023	n/a	n/a
Development disposition yr.	n/a	2021 - 2080	n/a	n/a
Net Present Value (NPV)	$22,534,703	$47,281,010	$79,843,976	$54,099,004
Internal Rate of Return (IRR)	1.31%	4.19%	4.53%	4.23%
Payback Period	71.11	24.23	33.04	28.71
Profitability Index	0.57	1.20	1.95	1.22
Risk-Free Rate - Real (One-Year T-Bill)	1.21%	1.21%	1.21%	1.21%
Risk (Standard Deviation)	3.32%	8.18%	3.36%	3.36%
Risk-Adjusted Return (Sharpe Ratio)	0.03	0.36	0.99	0.90

Scenario Analysis



Scenario Analysis: Summary

While McCall admittedly has high property values, the endowment achieves higher returns, sooner returns, and lower risk by translating all of the appraised land value in McCall into an equally valued, but more profitable timber asset that produces approximately $6 million in Year 1.

Investing hundreds of millions of dollars of endowment cash into funding high risk real estate development, catered to second homeowners in one mountain community, with capital costs now but profits far in the future, is ***a less attractive fiduciary path in terms of profits after expenses, timing of cash flows, and risk***.

Trident does not have the option to exchange an unprofitable, but high valued land asset into a profitable, and equally high valued land asset. **The Endowment does.**

05

The Path Forward

Steps toward an Impartial, Transparent Process Moving Forward

1. Rescind IDL's August 11th letter due to the mistakes presented

2. Have IDL's own, existing outside timber advisor value the benefits of an exchange to the endowment

3. Commission an appraisal from a qualified, independent third party

These three actions will

- end judicial review of IDL's analysis & process to date
- quantify the financial benefits to the endowment
- ensure a value-for-value exchange decision

06

Appendix

Appendix Documents

1. PELS Valuation Comparison Table
2. Economic Analysis of an Exchange
3. Forest Land Productivity Detail
4. Brokers Opinion of Value
5. Architect Prepared Site Study for Workforce Housing
6. Polling Results
7. IDL Records Requests Results
8. Trident Letter to Land Board

01 Appendix Document

PELS Valuation Comparison Table

OVERVIEW | Idaho Department of Lands' (IDL's) Payette Endowment Land Strategy (PELS) and new August 2021 land valuation estimates

PELS divides landholdings into tiers for transitioning & disposing wherever revenue falls below target returns (which according to IDL is most all tracts). The more remote hillside (Tier IV) parcels' ability to meet their required rates of return (in green) saved them from transition in March 2021 at a $39.2m valuation (shown on the left). However, the new estimated land values included in IDL's August 2021 letter ($366.3m - 488.4m, shown on the right) would compel transitioning ***all*** parcels for failing to provide the $14.6m - 19.5m of revenue now required for that much land value.

CONCLUSION: As land value estimates inflate, more PELS parcels become subject to transition for falling below the required return.

IDL | Payette Endowment Lands Strategy	Acreage		PELS' Estimated Land Values *[IDL in March 2021: $39.2m]*						New Estimated Land Values *[IDL in August 2021: $366.3 - $488.4m]*					
PELS Parcels within Exchange Area	Acres	Classification	PELS Est. Land Value	Current Revenue	Mgmt. Expense	PELS Target Revenue	Current Shortfall	Gross Return %	$366m Value	Gross Return %	New Target Revenue (4%)	$488m Value	Gross Return %	New Target Revenue (4%)
Tier I: 1 - 5 Year Transition														
Parcel A - Deinhard Commercial	20	Commercial	1,150,000	28,750	(282)	69,000	(40,250)	2.50%	10,734,674	0.27%	429,387	14,312,899	0.20%	572,515.95
Parcel M - Cougar Island	14.2	Residential	4,795,000	32,440	(201)	191,800	(159,360)	0.68%	44,758,923	0.07%	1,790,357	59,678,564	0.05%	2,387,143
	34.2		***$ 5,945,000***	***$ 61,190***	***$ (483)***	***$ 260,800***	***$ (199,610)***	***1.03%***	***$ 55,493,597***	0.11%	***$ 2,219,744***	***$ 73,991,463***	0.08%	***$ 2,959,659***
Tier II: 5-10 Year Transition														
Parcel B - Deinhard Residential	60	Res./Timber	595,000	-	(847)	23,800	(23,800)	0.00%	5,554,027	0.00%	222,161	7,405,369	0.00%	296,215
Parcel F - Shellworth Island	13.1	Residential	2,400,000	11,070	(185)	96,000	(84,930)	0.46%	22,402,798	0.05%	896,112	29,870,397	0.04%	1,194,816
	73.13		***$ 2,995,000***	***$ 11,070***	***$ (1,032)***	***$ 119,800***	***$ (108,730)***	***0.37%***	***$ 27,956,825***	0.04%	***$ 1,118,273***	***$ 37,275,766***	0.03%	***$ 1,491,031***
Tier III: 10 - 20 Year Transtion														
Parcel E - Eastside Drive	167	Timberland	400,000	14,167	(2,356)	16,000	(1,833)	3.54%	3,733,800	0.38%	149,352	4,978,400	0.28%	199,136
Parcel G - Grove	29.4	Timberland	9,700,000	-	(415)	388,000	(388,000)	0.00%	90,544,641	0.00%	3,621,786	120,726,189	0.00%	4,829,048
	196.4		***$ 10,100,000***	***$ 14,167***	***$ (2,772)***	***$ 404,000***	***$ (389,833)***	***0.14%***	***$ 94,278,441***	0.02%	***$ 3,771,138***	***$ 125,704,588***	0.01%	***$ 5,028,184***
Tier IV: Transition Not Planned														
Parcel H - East of Eastside Drive to Tip	985.8	Timber/Grazing	1,560,000	48,739	(13,910)	62,400	(13,661)	3.12%	14,561,819	0.33%	582,473	19,415,758	0.25%	776,630
Parcel I - Tip	2,042	Timberland	570,000	28,257	(28,813)	22,800	5,457	4.96%	5,320,664	0.53%	212,827	7,094,219	0.40%	283,769
Parcel J - West Warren Wagon to Simplot	939	Timberland	880,952	28,135	(13,249)	35,238	(7,103)	3.19%	8,223,246	0.34%	328,930	10,964,328	0.26%	438,573
Parcel L - Warren Wagon West	1,058	Timbeland	3,040,000	98,637	(14,928)	121,600	(22,963)	3.24%	28,376,877	0.35%	1,135,075	37,835,836	0.26%	1,513,433
	5,024.8		***$ 6,050,952***	***$ 203,768***	***$ (70,900)***	***$ 242,038***	***$ (38,270)***	***3.37%***	***$ 56,482,606***	0.36%	***$ 2,259,304***	***$ 75,310,141***	0.27%	***$ 3,012,406***
TOTALS														
PELS Parcels within Exchange Area	**5,328.6**		**$ 25,090,952**	**$ 290,195**	**$ (75,186)**	**$ 1,026,638**	**$ (736,443)**	**1.16%**	**$ 234,211,469**	**0.12%**	**$ 9,368,459**	**$ 312,281,959**	**0.09%**	**$ 12,491,278**
Value per Acre			*$4,709 per acre*						*$43,954 per acre*			*$58,605 per acre*		
REMOTE tier IV parcels: H, I, J, and L	**5,024.8**		**$ 6,050,952**	**$ 203,768**	**$ (70,900)**	**$ 242,038**	**$ (38,270)**	**3.37%**	**$ 56,482,606**	**0.36%**	**$ 2,259,304**	**$ 75,310,141**	**0.27%**	**$ 3,012,406**
Value per Acre			*$1,204 per acre*						*$11,241 per acre*			*$14,988 per acre*		
Non-PELS Exchange Acres	**14,893.0**		**$ 14,155,300**	**$ 435,778**	**$ (210,141)**	**$ 566,212**	**$ (130,434)**	**3.08%**	**$ 132,132,631**	**0.33%**	**$ 5,285,305**	**$ 176,176,841**	**0.25%**	**$ 7,047,074**
Value per Acre			*$950 per acre*			**		$ -	*$8,872 per acre*			*$11,829 per acre*		
Total Exchange Area	**20,221.6**		**$ 39,246,252**	**$ 725,973**	**$ (285,327)**	**$ 1,569,850**	**$ (843,877)**	**1.85%**	**$ 366,344,100**	**0.20%**	**$ 14,653,764**	**$ 488,458,800**	**0.15%**	**$ 19,538,352**
Value per Acre			*$1,941 per acre*	*		**			*$18,116 per acre*			*$24,155 per acre*		

ALL NUMBERS ARE PUBLIC IDL/PELS FIGURES

LEGEND:
- ***3.0%+ return***
- ***below 3.0% return***

** Total exchange area income estimate based on IDL's $9.1m 10-year timber revenue estimate for 28,000 acre vicinity, reduced pro rata to applicant's current 20,221.6 acre area*

*** Assumed 4.0% target return for Non-PELS acres*

NOTE: IDL's $1,411,000 annual management expense for the Payette District's 100,000 acre timber management area suggests a $14.11 per acre management expense. This expense is not shown in the gross revenue figures or return rates above.

OTHER CONSIDERATIONS: Under Idaho's constitution, selling this much land in separate parcels requires different buyers/developers to acquire each tract (ID Constitution Art. IX, §8). That disposition strategy functionally prevents a holistic development plan coming from the private sector as well. PELS makes no commitments to permanent public access, nor does it provide any public or state park lands. PELS also disposes of 11,120 ft. (87.2%) of the endowment's 12,756 feet of remaining lakefront, leaving only 1,637 ft. By contrast, the Preserve McCall plan provides at least 7,700 ft. (4.7x more) of shoreline for permanent public use. Development and infrastructure costs necessary to achieve these new, higher estimated land values outlined in August were not published by IDL.

02 Appendix Document

Economic Analysis of an Exchange

PRESERVE McCALL

Preserve McCall exchange maximizes Endowment investment performance

The endowment's best investment strategy in Valley County is to exchange the entire appraised market value of its underperforming endowment lands there into similarly appraised market value timberlands, but which can provide it significant new annual income and other economic benefits.

The *Preserve McCall* exchange:

1. Increases the larger endowment's allowable timber harvesting,
2. Reallocates unused land bank funds toward higher returning equities/bonds while still following Callen's allocation targets, and
3. Improves legal and physical access to existing endowment properties.

The Idaho Department of Lands ("IDL") estimates the Year 1 revenues from holding its Payette lands as $779,419 ***before expenses***. *Preserve McCall* projects the Year 1 net cash flow ***after expenses*** to the endowment from exchanging these lands as $6,431,730; and the average annualized net cash flow at $2,889,071. We present all assumptions, analysis, and data sources of this net cash flow in the accompanying schedule.

$<u>6,431,730</u> year-one net cash flow from an exchange > $<u>779,419</u> year-one revenue

IDL's August 10th letter to Trident Holdings and *Preserve McCall* suggests IDL may instead develop the endowment's 21,000 acres near McCall itself. **The main reason why IDL should not become a developer is because it requires between <u>$200,029,309 and $348,631,360</u> of development capital expenditures to fully build out 2,400 lots on 1,200 acres of property.** IDL faces another three obstacles in undertaking development itself, atop the obvious fact that IDL is a state agency, not a developer.

	Challenges for IDL as a developer	Exchange overcomes these challenges
1	Real estate development on hillsides has 2.5x higher investment risk than exchanging asset values for timber.	Exchanging into profitable timberlands with additional endowment benefits has the lower underlying risk level of timber.
2	That risk level gets multiplied by $200-350m of development expenses, using existing endowment cash, to create lots.	An exchange requires no cash investment.
3	Profits are decades in the future.	$6.4m of net cash flow begins in Year 1.

Conclusion:

Having the endowment incur several hundred million dollars of development costs to create higher land values, then discounting those profits back decades to the present is not as compelling as earning $6.4 million of net cash flow from an exchange immediately.

PRESERVE McCALL

Exhibit 1: An exchange's economic benefits to the larger Endowment

The majority of the exchange's net cash flow come from how the new lands interact with the existing endowment portfolio. This table shows those value sources, taken from the paper *Economic Benefits to Idaho Endowment Beneficiaries,* provided to IDL on July 14th:

			Year One		Project Total		
	Exchange Financial Benefits	**Acres Contributing**	**Net Cash Flow**	**Net Cash Return on Exchange Assets**[a]	**Average Annualized Net Cash Flow**[b]	**Net Cash Return on Exchange Assets**	**Net Present Value**[c]
I	**Annuity Net Revenues** ***(acquired North Idaho timberlands)***	21,243	$3,085,756	7.86%	$1,467,217	3.74%	$39,246,252
II	**Immediate allowable cut benefit** ***(existing endowment's mature primary forests)***[d]	Existing endowment primary forest acres (over 80 years old)	$362,787	0.92%	$149,612	0.38%	$4,446,604
III	**Improve legal and physical access** ***(existing endowment lands)***[e]	4,360	$2,028,745	5.17%	$317,800	0.81%	$8,500,767
IV	**Portfolio reallocation to Callan-targeted non-timber assets** ***(see separate economic analysis)***	N/A	$954,442	2.43%	$954,442	2.43%	$27,650,353
	Total		**$6,431,730**	**16.39%**	**$2,889,071**	**7.36%**	**$79,843,976**

Exhibit 2: Scenario analysis

Development can be profitable. It is of course more profitable for those who already specialize in it. But when looking at the risk-adjusted returns (profitability divided by volatility), development, while still profitable, does not beat converting land asset value into an even more profitable (~$6m of incremental Y1 cash flow), but less risky (60% lower standard deviation) investment. Here are the scenarios' performance metrics:

Scenario	Hold	Development	Land Exchange
Timberland disposition yr.	2100	2100	2100
Residential disposition yr.	2023	2023	n/a
Development disposition yr.	n/a	2021 - 2080	n/a
Net Present Value (NPV)	$22,534,703	$47,281,010	$79,843,976
Internal Rate of Return (IRR)	1.31%	4.19%	4.53%
Payback Period	71.11	24.23	33.04
Profitability Index	0.57	1.20	1.95
Risk-Free Rate - Real (One-Year T-Bill)	1.21%	1.21%	1.21%
Risk (Standard Deviation)	3.32%	8.18%	3.36%
Risk-Adjusted Return (Sharpe Ratio)	0.03	0.36	0.99

For IDL to develop lots on 1,200 acres would require **between <u>$200,029,309</u> and <u>$348,631,360</u>** of infrastructure expense to build out 2,400 lots, according to the third party analysis. When those costs are deducted from revenues, projecting 40 lots per year get developed for 60 years, and those returns get discounted to today using a normalized appreciation rate of 3.56%, the IRR, NPV, and risk-adjusted returns underperform an exchange. If IDL's higher COVID-fueled 6-11% rates are used, returns lower further.

Of course, if IDL pursues the even more aggressive development path defined in its August 10th letter—*developing all 20,000 of these hillside acres into individual infrastructure served lots*—then the total infrastructure costs will far exceed what is presented here. Partly for that reason, IDL developing Endowment lands contradicts current Land Board investment policy and successive Callan Report recommendations.

PRESERVE MCCALL

Exhibit 3: Lot development assumptions

Below are the development cost assumptions for the scenario analysis that we shared with IDL in July 2021, so that IDL could compare with their own internal development cost assumptions.

Scenario 2 – Lot Development	
Timing Assumptions	
Begin Year - Development	2021
End Year - Development	2080
Disposition year - Timberland	2100
Acres developed/year	20
Total acres developed	1,200
Valuation	
Residential value/acre - base	$185,000
Residential appreciation rate	3.56%
Development cost per acre (lower bound)	$166,691
Development cost growth rate	3.00%
Total acres developed	1,200

Development Budget - Assumptions	Per Lot (as applicable)		Per 2,400 Lot Development	
	Lower Bound	Upper Bound	Lower Bound	Upper Bound
Septic system/lot	$25,000	$50,000	$60,000,000	$120,000,000
Well water/lot	$30,000	$45,000	$72,000,000	$108,000,000
Community Wells (fire)	$500,000	$1,000,000	$500,000	$1,000,000
Community underground pipe	$2,900,000	$4,000,000	$2,900,000	$4,000,000
Overhead power lines (15-mile development)	$13,700,000	$19,000,000	$13,700,000	$19,000,000
Roadways/lineal foot	$110	$200	$3,394,827	$6,187,600
Engineering Fees	$100,000	$300,000	$100,000	$300,000
TOPOS	$50,000	$100,000	$50,000	$100,000
SWPPP	$150,000	$300,000	$150,000	$300,000
Traffic Control	$200,000	$350,000	$200,000	$350,000
Permits	$50,000	$100,000	$50,000	$100,000
Overhead/Staff Costs	$120,000	$240,000	$28,800,000	$57,600,000
General Contractor Costs	$18,184,483	$31,693,760	$18,184,483	$31,693,760
Total Development Cost			**$200,029,309**	**$348,631,360**
Acres Developed			1,200	1,200
Total Development Cost per Acre			$166,691	$290,526
Total Development Cost per Lot			$83,346	$145,263

Trident Holdings LLC - Proposed Land Exchange
July 2021 - Update Summary

Background

The July 2021 Trident Holdings – Proposed Land Exchange report has been provided to update the analysis based on the submitted Trident Holdings application. Since the October 2020 Trident Holdings presentation to IDL staff, the final Land Exchange application has undergone various adjustments. Most notably, the actual Payette Lakes timberland acreage has been reduced from ~28,000 acres to 20,11.26 timberland acres and 87.34 parcel acres – for a total of 20,221.60 acres included in the application. The residential parcels include Cougar Island (14.21 acres), Shellworth Island (13.13 acres) and the Deinhard Residential parcel (60.0 acres). The application includes the Deinhard Commercial parcel (20.0 acres). The application excludes various residential parcels that were captured within the IDL Payette Endowment Lands Strategy ("PELS") release – Syringa Park, White Pine Residential, and Lick Creek. These parcels were included in "PELS" but are not included in the Trident application.

The release of the internal IDL Payette Endowment Lands Strategy ("PELS"), presented December 2020, was used as the primary source to value the Payette Lakes assets. The PELS release estimated the likely value of lands, subject to PELS, that are included in this application (i.e., all the PELS parcels except for Parcels "C", "D", and "K") as $25,090,952.00. This number represents the total PELS estimated valuation of $53,080,952.00, less the estimated values for Parcels "C", "D", and "K" ($21,750,000.00; $6,000,000.00; and $240,000.00 respectively) which are not included in the exchange application. PELS ascribed an estimated value for Parcels H, I, J, and L (the larger, uphill timberland acreages around Payette Lake totaling 5,025 acres) of a combined $6,050,952.00. This represents a $1,204 per-acre. The Trident application includes an additional 14,893.02 acres similar in similar nature to the larger, uphill, remote timberland acres. A vale of $950.47 per acre was assigned to the remote timberland acres. Trident's application includes the 5,328.58 acres within PELS (excluding "C", "D", and "K") to which IDL ascribes $25,090,952.00 of value; plus, another 14,893.02 acres (GIS calculated) as valued above, would imply an IDL estimated valuation for the entire 20,221.60 acres (GIS calculated - 17,083.35 legal acres), contained in this application of **$39,246,251.52.**

Trident notes this merely for context. It is based only on publicly available information released by IDL. Any exchange will be subject to appraisals of both endowment lands and the applicant's lands as required by governing law and by IDL policies. Further, these estimated valuations are in no way whatsoever the basis for the exchange. Rather, they simply aim to show the similar approximated value ranges of both the endowment lands (as viewed by IDL) and the applicant's lands. Anecdotally, a recent Brokers Price Opinion was conducted and valued the set of Payette Lakes assets in the range of $37.1 million - $45.9 million.

The "PELS" release has been utilized to calculate the forecasted revenues from the Payette Lakes lands. In order to establish the net return figures for Part III – Payette Lakes - Asset Valuation Scenario Analysis, the timber management and administrative costs from the Idaho Department of Lands Payette District and McCall Economic Impact Area Financial Information were utilized. In order to maintain prudent long-term timber forecasting, the 10-year projected harvest volumes for the Payette Lakes region were adjusted downward following the 10-year period to analyze the realistic long-term harvest volumes.

Results[1]:

- The Proposed Land Exchange Net Present Value has decreased from **$107,287,697 to $79,843,976** - attributed simply to the fact the size of the exchange has decreased from ~28,000 acres to 20,221.60 acres.
- The per acre value of the exchange has increased from $3,831 per acre to $3,948 per acre - due to the more attractive return prospects of the North Idaho Exchange lands and increased value from the Legal and Physical access effect. The target lands in Northern Idaho largely border existing IDL managed timberland.
- Put simply, the Exchange has become more attractive now that target lands have been identified and further diligence on their performance characteristics has been undertaken.

[1] All cited financial rates of return and dollar values are in real terms, that is exclusive of inflation, unless otherwise stated. For those not acquainted with financial concepts, the "real" distinction does not include inflationary effects. This methodology has been conducted to maintain consistency with the target real rates of return from the Idaho Department of Lands.

Trident Holdings LLC - Proposed Land Exchange
Economic Benefits to Idaho Endowment Beneficiaries

Authors: Dave New, Tom Montzka & Brent Lawson

Overview

Trident Holdings LLC (Trident) of Boise, Idaho proposes to work with the Idaho Department of Lands (IDL) to undertake a land and timber asset exchange of financially underperforming Idaho endowment lands in the Payette Lake area. The proposed exchange involves Trident acquiring designated "timberlands" from IDL endowment lands and a small number of unleased residential lots in Valley County, Idaho. These lands will be concurrently exchanged by IDL for 21,243 acres of Trident owned commercial timberlands in North Idaho that exceed IDL's return threshold of 3.5 %. These North Idaho timberlands will become new endowment timberlands.

Research Focus

Smart Forest Solutions® was asked to perform an economic analysis of the proposed Trident Holdings LLC land asset exchange under the Idaho Constitution, the State Board of Land Commissioner's (Land Board) Statement of Investment Policy - Idaho Land Grant Endowments (SIP), and recent subcommittee findings and recommendations.

Summary of Findings

- Research indicates the "economically impaired" Endowment lands subject to this exchange (20,221.60 acres in Valley County) are significantly underperforming the State's desired long-term return on asset target of 3.5%, contrary to the Idaho Constitution and Land Board Policy. Given publicly available IDL data, the Payette Lakes assets are currently returning a gross return of 1.89% - significantly below the net return threshold of 3.5% for IDL timberland assets.
- Using publicly released IDL data, the Payette Lakes region total revenue is $787,201 per annum. When extrapolating the cost structures from the Payette Lakes Supervisory Area Financials, the net return for all timber harvesting and residential/commercial leasing activity is $452,655 – a net return of 1.15%.
- Timberland harvest activity and revenues are the key drivers to the Payette Lakes asset returns.
    - When using the 10-year Payette Lakes harvest projections, from the Two-Page Payette Lakes Supervisory Area Financials, the timber net returns account for 82% of the total net returns from all asset classes (residential, commercial, non-timber timberland acreage leasing).
    - The figures provided from IDL state harvest volumes at $9.1 million for 28,000 acres, the current Payette Lakes timberland assets are estimated to return $32.50 per acre.[2] Extrapolating the per acre return figures on the 20,114 acres included in the Land Exchange application, returns $653,713 annually. The costs are estimated at $14.11 per acre – for a total cost of $283,812 – for a net timberland return of $369,901, or a 0.94% net return.[3]
    - Using a more prudent, long-term harvest volume approach which stabilizes long-term harvest forecasts, the Payette Lakes timberland assets are calculated to produce a $124,759 net return – or a 0.32% net return on timberland assets.
- No matter how you analyze the Payette Lakes region assets – the timberlands are clearly underperforming the 3.5% real rate of return mandated by the Idaho Constitution and Land Board.

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[2] Estimated gross revenue of $9.1 million over 10-years = $910,000 annually for 28,000 acres = $32.50/acre.

[3] Return figures are calculated with an asset value assumed at $39.2 million.

- Despite the existing IDL Valley County timberlands producing an underperforming rate of return, the assets do possess a positive market value. The proposed transaction permits exchanging the underperforming timberland assets' market value, a value that cannot be otherwise realized by trust beneficiaries, for timberlands that meet or exceed the 3.5% threshold.
- **This represents a net present value swing from $6.1 million[4] to $79.8 million, an aggregate realizable value swing of $73.7 million to trust beneficiaries.**
    - Northern Idaho – Annuity Net Revenues - The proposed exchange is estimated to generate more than $1,467,217 per annum of net revenues from timber operations in Northern Idaho.
    - Immediate Allowable Cut Effect - The North Idaho timberlands predominantly consist of young and mid-rotation timber stands. In addition to the positive returns on the North Idaho timberlands themselves, acquisition of this acreage offers the potential to increase timber revenues from existing endowment forests for several decades. IDL's policy manages endowment timberlands to a non-declining statewide timber harvest. Thus, buying young and mid-rotation trees enables the State to harvest more of its existing, older portfolio now. This benefit is estimated at $4.4 million of present value and $149,612 annually - the incremental value increases the total exchange value from $39.2 million to $43.6 million.
    - Improve Physical and Legal Access - The proposed exchange will improve physical and legal accessibility to approximately 4,360 acres of existing North Idaho endowment lands. Improving this access makes it possible to harvest endowment lands that are currently chessboard challenged and so largely inaccessible for purposes of revenue generation from timber harvest. This will increase Endowment land values for these properties, estimated at $8.5 million of present value - increasing the total benefit of the exchange to $52.2 million.
    - Portfolio Reallocation Benefit – Due to the fact the exchange provides the endowment with profitable lands for minimal cost, less Land Bank Reserve funds are needed to be allocated toward land purchases to achieve the Callan target allocations. More funds are able to be invested in higher-returning, non-timber instruments like equities. This benefit is conservatively estimated at $27.6 million – increasing the total exchange net present value to trust beneficiaries to $79.8 million.
- IDL's potential alternatives do not offer comparable returns. Neither a campaign to auction various smaller high-value parcels piecemeal nor a strategy of using only Land Bank funds to buy North Idaho timberlands outright (while retaining the Payette Lakes underperforming, low returning assets) would replicate the proposed exchange's accretive value and return prospects.
- Trident has developed plans upon execution of the exchange to deed lands approximating 17,000 acres to Idaho State Parks Department. This would create a working forest easement over approximately 16,500 acres - meeting many of the requested needs of the community for conservation and public access, while bringing additional employment and housing to the county. Trident also developed a long-term escrow fund structure to address tax-based concerns of Northern Idaho counties.

Exchange Proposal Alignment to Policy and Objectives

The proposed exchange explicitly supports the Idaho State Board of Land Commissioners Statement of Investment Policy and the Idaho Department of Lands Forest Asset Management Plan Goals and Objectives: As outlined in the July 17, 2018, SIP (p. 2), "Article IX, Section 8 of the Idaho Constitution includes the following restrictions regarding the sale of lands:

- All land must be disposed of via public auction.

[4] The Payette Lakes NPV calculations utilize the long-term timber harvest forecasting methodology and current PELS residential and commercial revenue divided by the target rate of return (3.5%).

- A maximum of 100 sections (64,000 acres) of state lands may be sold in any year.
- A maximum of 320 acres may be sold to any one individual, company, or corporation.
- No state lands may be sold for less than the appraised price.
- Granted or acquired lands may be exchanged on an equal value basis with other lands subject to certain restrictions.
- Forest and certain other land may not be sold per Idaho Code § 58-133, which states, "All state-owned lands classified as chiefly valuable for forestry, reforestation, recreation, and watershed protection are reserved from sale and set aside as state forests."

The SIP also defines the Board's asset allocation objectives, including those for increasing timberland assets.

Exchange Why Proposal Alignment to Policy and Objectives (continued)

The policy further defines land asset objectives explicitly, including the role of such assets in reducing overall volatility of endowment investment revenue and therefore the level of the Endowment Earnings Reserve, as follows (text selected from SIP p. 13-16): "VII. Asset Class Policies for Land Assets

A. Investment Objective for the Land Assets

The primary objective for the Land Assets is the generation of maximum long-term return at a prudent level of risk using traditional land grant asset types. The Land Assets diversify the Financial Assets given the low correlations of timberland and rangeland to public capital markets. The Land Assets also lower the volatility of the total investment portfolio considering timberland and rangeland returns have historically exhibited lower volatility than equity asset classes. During periods of negative financial returns, Land Assets can provide a positive revenue stream to help maintain Earnings Reserves and stable Endowment distributions.

Investment objectives are long-term return objectives. The investment objective for the land portfolio recognizes that timberland is a primary driver of the overall return for land and that income from timberland and, to a lesser degree, all other lands are the primary generator of investment returns. The individual investment objectives for timberland, rangeland, and farmland reflect the long-term investment characteristics (return, correlation, and volatility) compared to other asset classes. Investment objectives also consider the existing base of land holdings along with management constraints, notably sales restrictions, acreage limitations, and the rent-setting and leasing processes. The return objectives should not be viewed in isolation but in relationship to one another.

The Land Assets are managed to achieve a real net return target of at least 3% over a long-term holding period (Land Assets Return Objective). The Land Assets Return Objective includes both income and appreciation, is net of all asset level expenses and fees, net of internal management costs (e.g., the cost of IDL management), net of all fees and costs of program management (e.g., legal and audit), and net of inflation as measured by the Consumer Price Index. While the Land Assets Return Objective includes both income and appreciation, the return is expected to be generated primarily from income.

New timberland acquisitions shall be subject to a thorough due diligence process (by IDL or a land advisor, consistent with the established governance structure) to determine the following:

- If the expected financial return generated by income exceeds the minimum hurdle rate of 3.5% real net;
- Whether the return profile is sufficient relative to the risk taken, including an analysis of the transaction in terms of long-term financial return and risk to the Endowment;
- Whether the transaction would facilitate improved management or improve the overall Endowment land ownership pattern in the area;

- The existence of any potential risks, including but not limited to environmental or title-related issues.

Parcels posing any significant risk as described in the due diligence analysis and those not meeting the minimum hurdle rate shall be avoided. The presence of minerals including sand and gravel can enhance the net return from timberland. Land Bank funds used for acquisition can only to be used on behalf of the endowment from which the funds originated. The minimum return requirement for new investments will be reviewed and updated as necessary based on the Strategic Reinvestment Plan."

Payette Lakes Forest and Recreational Lake Lot Land Assets

IDL, on behalf of the endowment beneficiaries, manages approximately 105,022 acres of forested lands within the IDL Payette Lakes Supervisory Area.

Of the total, over 27,000 acres in the IDL Payette Lake's Supervisory Area are designated as "secondary forests."[5] This means these lands are economically impaired due to legal or physical access, low forest productivity, or Land Board aesthetic management policies limiting timber harvesting and road construction. By statute forested lands cannot be sold for other purposes and can only be exchanged for other forested lands.[6]

By Land Board Policy and IDL forest management plans, endowment secondary forest lands within the Payette Lakes viewscape have undergone limited or minimal harvesting for decades.[7]

2020 Payette Lakes Endowment Forest Lands Real Rates of Return

The potential exchange of these forested lands for forests capable of meeting the Land Board's policy objective of 3.5% per annum real rate of return on timberland assets is viable and a financially sound opportunity. This represents a potential land exchange of up to 20,114.26 forested acres (GIS Calculated) and 107.34 acres of platted lots – for a total of 20,222 gross Payette Lakes acres.

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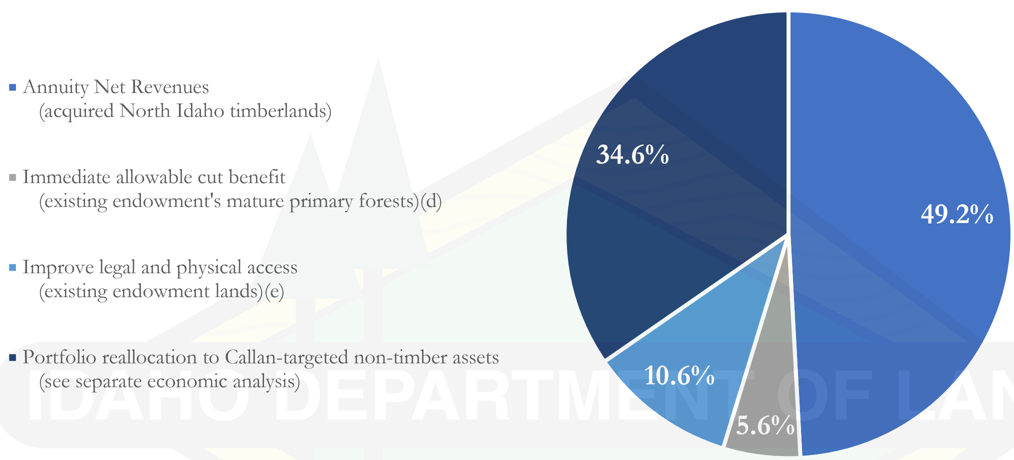
[5] IDL 2007 Forest Asset Management - MANAGEMENT GUIDELINES FOR ENDOWMENT TRUST FOREST LANDS WITHIN THE SECONDARY BASE

[6] Idaho Code § 58-133 requires that all state-owned lands classified as chiefly valuable for forestry, re-forestation, recreation, and watershed protection be reserved from sale and set aside as state forests. Timberland can be exchanged but only for other timberland.

[7] IDL 2014-2019 Timber Sale Annual Reports

Table 1: Estimated Financial Benefits Summary - Trident Holdings Proposed Exchange[8]

	Exchange Financial Benefits	Acres Contributing	Year One: Net Cash Flow	Year One: Net Cash Return on Exchange Assets[(a)]	Project Total: Average Annualized Net Cash Flow[(b)]	Project Total: Net Cash Return on Exchange Assets	Net Present Value[(c)]
I	**Annuity Net Revenues** ***(acquired North Idaho timberlands)***	21,243	$3,085,756	7.86%	$1,467,217	3.74%	$39,246,252
II	**Immediate allowable cut benefit** ***(existing endowment's mature primary forests)***[(d)]	Existing endowment primary forest acres (over 80 years old)	$362,787	0.92%	$149,612	0.38%	$4,446,604
III	**Improve legal and physical access** ***(existing endowment lands)***[(e)]	4,360	$2,028,745	5.17%	$317,800	0.81%	$8,500,767
IV	**Portfolio reallocation to Callan-targeted non-timber assets** ***(see separate economic analysis)***	N/A	$954,442	2.43%	$954,442	2.43%	$27,650,353
	Total		**$6,431,730**	**16.39%**	**$2,889,071**	**7.36%**	**$79,843,976**



Northern Idaho Target Exchange Timberlands

Trident Holdings and IDL have valued purchase contracts with private forest owners of mid-rotation forest lands adjacent or in proximity to Endowment lands. These operable forest lands reside within four counties in western north central and northern Idaho. Market prices for fully accessible and operable mid-rotation (pole size) forests within these counties ranged from $1,200-$1,800 per acre in 2020. The proposed exchange lands are highly productive mid-rotation forest lands adjacent or in proximity to existing endowment forests. Potential real cash returns on these timberlands at current market prices range from 3.6-3.9% per annum, exceeding the Land Board's asset class target of 3.5% real cash returns.

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[8] (a) Net cash return calculations based off a $39.2 million total exchange value. The total Exchange Value is subject to change as IDL conducts internal appraisals.
(b) The average annualized net cash flow figure is calculated via the Equivalent Annual Annuity Approach (EAA). The EAA is defined as: C=(R x NPV)/(1-(1+r)^-n), where C=equivalent annuity cash flow, NPV = net present value, r = interest rate per period, n = number of periods. In simple terms, the equivalent annual annuity approach is one of two methods used in capital budgeting to compare mutually exclusive projects with unequal lives. The EAA approach calculates the constant annual cash flow generated by a project over its lifespan if it was an annuity. When used to compare projects with unequal lives, an investor should choose the one with the higher EAA.
(c) Discount Rate for benefits i-iii is the 3.5% real net return target for timberlands. Discount rate for benefit iv is the endowment's 3.17% real weighted average portfolio return, excluding timberland return. Real forecasted rates of return were adjusted using Callan's inflation projections of 2.25%.
(d) Straight Arrow Consulting Discounted Present Value at 100% of Potential Estimated Allowable Cut Effect ("ACE"). The table provided in the appendix provides an estimated range for this effect, suggesting the benefit could range from $2.2 to $4.0 million on an NPV basis.
(e) Straight Arrow Consulting Discounted Present Value calculations at the conservative valuation of $1,950/acre for the valuation of North Idaho timberlands. The provided NPV is at the low end of the $7.1 million to $11.0 million range.

Log prices by species and product for two market areas: Idaho Panhandle prices north of the St. Joe Divide and Idaho Panhandle prices south of the St. Joe Divide. The nominal five-year average was used as a per unit value starting point (see Table 2). The per unit delivered log price, logging cost, and hauling cost compound annual growth rates for purposes of evaluating potential property returns was 0.15%, 0.00%, and 0.00%, respectively. This resulted in an average annual stumpage realization escalation of 0.23% over the next 80 years, the period used to compute timberland value; specific stumpage realization varied over time based on species mix, harvest type mix, and distance from markets.

Table 2. Recent Idaho Panhandle Delivered Log Prices

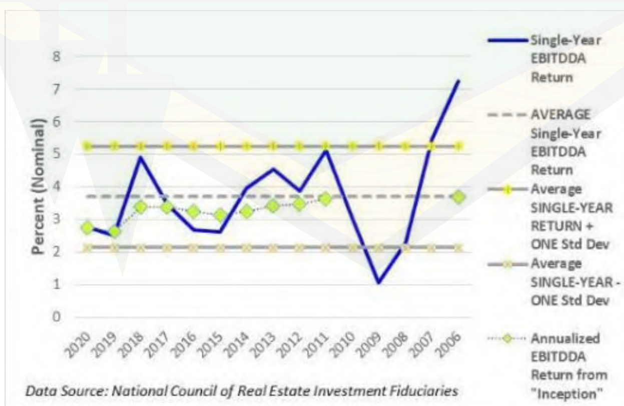
2016-2020 Idaho Panhandle NOMINAL Delivered Log Prices

Tree Species / Product	Units	North of St. Joe Divide					South of St. Joe Divide				
		2020	Three-Year		**Five-Year**		2020	Three-Year		**Five-Year**	
		Average	Average	High	**Average**	High	Average	Average	High	**Average**	High
Douglas fir/W Larch	$/MBF	384	389	402	**387**	402	444	439	502	**437**	502
Grand fir/W Hemlock	$/MBF	377	382	395	**375**	395	406	410	520	**403**	520
W White Pine	$/MBF	364	345	375	**339**	375	NA	357	380	**358**	380
Ponderosa Pine	$/MBF	300	294	312	**294**	312	338	347	385	**341**	385
Spruce	$/MBF	366	361	395	**368**	395	368	381	430	**379**	430
Red Cedar	$/MBF	775	759	1,000	**823**	1,050	844	907	1,162	**916**	1,162
Lodgepole Pine	$/MBF	372	375	395	**373**	395	378	390	450	**392**	450
Subalpine fir	$/MBF	374	382	395	**375**	395	NA	410	520	**403**	520
Hewood	$/GT	50	50	55	**49**	55	51	50	50	**50**	50
Pulpwood	$/GT	31	30	34	**29**	34	37	37	35	**35**	35

Source: Northwest Management Inc.

SMART Forest Solutions' analysis of 2020 PNW trends in commercial timberlands cash returns on assets and Idaho market region's timber prices strongly supports the Land Board's investment policy to significantly increase the endowment's acreage of working forests.

Figure 1. Survey of Returns on Timberlands Investments in the Pacific Northwest



Additional, Significant Benefits of Endowment Timberlands Acquisition

1) Immediate Allowable Cut Effect ("ACE") - IDL, in constructing its forest asset management plans, explicitly seeks to minimize the risk of declines in annual distributions to endowment beneficiaries and, by extension, minimize the total endowment earnings reserve. To achieve this, IDL Forest Asset Management Plans maintain a non-declining timber harvest policy. Given the age class structure of the endowment's forests, acquiring mid-rotation forests would facilitate near-term increases in timber harvests on existing mature IDL timber being temporarily retained to achieve the non-declining timber harvest policy. IDL forest asset management planning during 2007-2008 identified improvements in real rates of return on investment of 0.15-

0.47% through such acquisitions. Moreover, timber harvest net cash receipts of the acquiring supervisory areas would rise by +$149,000 per annum over the 80-year period (commencing immediately) by purchasing the proposed 21,243 acres of mid-rotation forests This benefit could be substantially higher but the size of the benefit depends in large part on how IDL would implement it amongst its districts with respect to where the proposed North Idaho timberlands are situated.

2) Improve Legal & Physical Access - In 2007 IDL identified approximately 245,000 acres of "secondary" endowment forests. Trident Holdings has identified approximately 4,360 acres of existing Endowment forests for which physical or legal access is improved by the timberland parcels Trident has an option to acquire in Northern Idaho. Because many of these existing IDL acres either lack or have only limited access many have mature timber and so providing economic access to them provides a substantial benefit. SMART Forest Solutions has performed a cursory analysis of this benefit and conservatively estimated a value of $8.5 million, or approximately $1,950 per acre.

3) Portfolio reallocation to Callan-Targeted non-timber assets – The portfolio reallocation benefit utilizes the Land Exchange assets to fill the Land Bank Reserve Funds' allocation to Timberland assets, and in course, allows a greater percentage of the Reserve funds to be invested in higher yielding securities – primarily equities. This simple, yet powerful feature, provides the Land Board the opportunity to follow Callan's expert portfolio allocation recommendations while simultaneously increasing their exposure to equity positions. [A more detail analysis is provided in Section 2 of this report.]

Conclusion

It is the author's expert opinion that Trident Holding's proposed land exchange provides far superior financial returns to endowment beneficiaries over a Land Bank expenditure-only strategy.

Trident Holdings' proposed lands exchange will significantly improve financial returns to endowment beneficiaries while also supporting the economic growth of Valley County, Idaho. SMART Forest Solutions and Trident Holdings look forward to working with the Idaho Department of Lands staff to implement this proposed exchange.

Trident Holdings – Proposed Land Exchange
Benefits to the Endowment's Performance and Asset Allocation

Authors: Brent Lawson[9] and David New[10]

Executive Summary

In 2014 the Idaho Department of Lands, the Endowment Investment Board and their advisors, the Callan Group, completed the *Asset Allocation and Governance Review - Idaho Board of Land Commissioners* report[11]. This report is the foundation for the Land Board's *2018 Strategic Investment Policy*[12]. The 2014 report outlines the strategy for the endowment and EFIB target asset allocations. Trident Holdings' proposed timberland exchange allows the endowment to more quickly achieve the Callan recommended portfolio allocation targets, and in following those recommendations, simultaneously increase equity investments.

When assuming a $128.79 million Land Bank Reserve, an estimated $39.25 million timberland exchange[13], and maintaining the Callan recommended asset allocation, the land exchange implicitly increases the total available assets for investment to $168.03 million. The land exchange is accretive to the overall portfolio as the endowment will only be required to invest an additional $26.37 million in timberlands (plus the $39.25 million land exchange) to meet the target allocation (39%). The Land Bank Reserve will now have the capacity to invest the remaining $128.79 million as recommended by Callan's portfolio allocations[14], excluding the timberland allocation which has already been filled. The endowment will achieve the benefits of the 3.45% forecasted real compounded return[15] (Callan Projected Returns, adjusted for inflation) on the newly acquired timberland assets (both land exchange and non-land exchange[16]) while simultaneously increasing equity exposure at their higher forecasted rates of return (Broad US – 5.35% and Global ex-US – 5.55%, real compounded returns).

Increase in Year-One Forecasted Portfolio Return, ex-IDL Timberland	$954,442
Present Value of Exchange's Accretive Value to Portfolio, ex-IDL Timberland*	$27,650,353
Increase in Year-One Portfolio Forecasted Return	$1,483,189
Present Value of Exchange's Accretive Value to Portfolio*	$38,231,467
Difference in Year-10 Real Portfolio Value after Land Exchange	$57,536,496

**Discount rate equals the portfolio, ex-IDL timberland real forecasted rate of return of 3.17%. The updated 80-year DCF valuation differs from the perpetuity valuation at 3.17% discount rate. Real forecasted rates of return were adjusted using Callan's inflation projections of 2.25%. This maintains consistency with the real returns in the report.*

With the proposed land exchange, the endowment portfolio receives profitable lands for negligible cost[17], needs to buy less lands with its Land Bank funds to achieve Callan's target allocations, and therefore has more funds to invest in equity instruments. When following the Callan asset allocation guidelines, after adding the additional timberland investments, the Land Bank Reserve Portfolio may increase its equity investments as follows:

[9] Yale University, B.A. in Economics
[10] Purdue University, B.A. in Forestry Science
[11] Asset Allocation and Governance Review Idaho Board of Land Commissioners. Janet Becker-Wold, Sally Haskins, James Van Heuit, October 17, 2014
[12] Statement of Investment Policy. Idaho Land Grant Endowments, July 2018
[13] This estimated exchange value is leverages the IDL's Payette Endowment Lands Strategy ("PELS"), presented in December 2020. Any exchange will be subject to appraisals of both endowment lands and the applicant's lands as required by governing law and by IDL policies. Further, these estimated valuations are in no way whatsoever the basis for the exchange. Rather, they simply aim to show the similar approximated value ranges of both the endowment lands (as viewed by IDL) and the applicant's lands.
[14] Asset Allocation and Governance Review Idaho Board of Land Commissioners. Janet Becker-Wold, Sally Haskins, James Van Heuit, October 17, 2014. Table 4: Endowment Asset Allocation (Financial and IDL) – 6/30/2014.
[15] Ibid. Table 1: Callan Capital Market Projections: Projected Returns and Risks.
[16] The Portfolio Return, ex-IDL Timberland does not include the incremental returns on the delta between the IDL Timberland allocation in Scenario 1 ($50.3mm) and Scenario 2 ($65.6mm), or $15.3mm in additional value. Using the 3.45% forecasted IDL Timberland rate of return on this incremental value yields an additional $528,747 of forecasted return, which is not captured in this analysis.
[17] These costs will include, among other transaction costs, the costs for due diligence and appraisal.

Without Land Exchange	Equity Investment Allocation ($)	$54,616,518
With Land Exchange	Equity Investment Allocation ($)	$71,259,590
Increase	Equity Investment Allocation ($) *(+ %)*	$16,643,071 *(+13%)*

Trident Holdings' land exchange provides the opportunity for the endowment to achieve several aims at once. This exchange speeds the Land Board's ability to follow and achieve Callan's expert-recommended allocation strategy, and in doing so, allocate significantly more funds to equities (per Callan's percentage targets).

Exhibit 1: Endowment Allocation (6/2014)[18]

Asset Class	Allocation ($ mm)	Allocation (%)
Domestic Equity	902	31%
Int'l Equity	349	12%
EFIB Fixed	469	16%
IDL Timberland	1,152	39%
IDL Grazing Land	61	2%
Cash	17	1%
Portfolio	2,950	100%

Exhibit 2: Callan Projected Returns[19]

Asset Class	Uncompounded Return	Compounded Return	Real Return
Broad US	9.15	7.60	5.35
Global ex-US	9.80	7.80	5.55
EFIB Bonds	3.06	3.00	0.75
Real Estate	7.35	6.20	3.95
Private Equity	13.55	8.50	6.25
IDL Timberland	6.25	5.70	3.45
IDL Grazing Land	3.50	3.30	1.05
Cash Equivalents	2.00	2.00	0.90
Inflation	2.25	2.25	

[18] Asset Allocation and Governance Review Idaho Board of Land Commissioners. Janet Becker-Wold, Sally Haskins, James Van Heuit, October 17, 2014
[19] Ibid.

Exhibit 3: Summary Results of Portfolio Analysis[20]

Without Land Exchange	Equity Investment Allocation ($)	$54,616,518
With Land Exchange	Equity Investment Allocation ($)	$71,259,590
Increase	Equity Investment Allocation ($) *(+ %)*	$16,643,071 *(+13%)*
Without Land Exchange	Equity Investment Forecasted Y1 Return ($)	$2,952,457
With Land Exchange	Equity Investment Forecasted Y1 Return ($)	$3,852,148
Increase	Equity Investment Forecasted Y1 Return ($)	$899,690
	Discount Rate (Equity portfolio WA rate of return)[21]	5.41%
NPV of Accretive Value to <u>Equities</u> from Exchange-enabled Reallocation		$16,643,071
Without Land Exchange	Portfolio Forecasted Y1 Return ($), ex-IDL Timberland Return[22]	$3,132,133
With Land Exchange	Portfolio Forecasted Y1 Return ($), ex-IDL Timberland Return	$4,086,575
Increase	Portfolio Forecasted Y1 Return ($), ex-IDL Timberland Return	$954,442
	Discount Rate (ex-IDL portfolio WA rate of return)	3.17%
NPV of Accretive Value to <u>ex-IDL Portfolio</u> from Exchange-enabled Reallocation		$27,650,353
Without Land Exchange	Total Portfolio Forecasted Y1 Return ($)	$4,867,288
With Land Exchange	Total Portfolio Forecasted Y1 Return ($)	$6,350,477
Increase	Additional Total Portfolio Forecasted Y1 Return ($)	$1,483,189
	Discount Rate (portfolio WA rate of return)	3.88%
NPV of Accretive Value to <u>Portfolio</u> from Exchange-enabled Reallocation		$38,231,467

[20] The analysis assumes land exchange occurs in Q1 2022. The analysis reflects return estimates for 2022. The land exchange assumes no costs for the endowment (see footnote v) and the basis in the Exchange timberlands are $0.
[21] WA – weighted average rate of return. This is the total portfolio rate of return weighting each asset class return by the portfolio weight of each asset class.
22 The ex-IDL Timberland return is the portfolio return excluding the timberland asset class portfolio return. This was conservatively excluded to avoid double counting the timberland returns from the annuity cash flow streams calculated on the Exchange Lands.

Exhibit 4: One-Year Asset Allocation Impacts | With & Without Land Exchange

Scenario 1 - Without Land Exchange

Land Bank Reserve	$128,791,950

Asset Class	% Allocation	$ Allocation	One-year compounded return (%)	One-Year forecasted portfolio value ($)	One-year forecasted return ($)
Broad US	31%	$39,379,776	5.35%	$41,486,594	$2,106,818
Global ex-US	12%	$15,236,743	5.55%	$16,082,382	$845,639
EFIB Bonds	16%	$20,475,737	0.75%	$20,629,305	$153,568
Real Estate	0%	$0	3.95%	$0	$0
Private Equity	0%	$0	6.25%	$0	$0
IDL Timberland	39%	$50,294,348	3.45%	$52,029,503	$1,735,155
IDL Grazing Land	2%	$2,663,156	1.05%	$2,691,119	$27,963
Cash Equivalents	1%	$742,191	-0.25%	$740,335	($1,855)
	100%	$128,791,950	3.78%	$133,659,238	$4,867,288

One-Year Forecasted Gain	**$4,867,288**
One-Year Forecasted Rate of Return	**3.78%**

Scenario 2 - With Land Exchange

Land Bank Reserve	$128,791,950
Land Exchange Assets	$39,246,252
Total Investable Assets	$168,038,202

Asset Class	% Allocation	Land Exchange	Available assets - % allocation	Available assets - $ allocation	Total allocation	One-year compounded return (%)	One-Year forecasted portfolio value ($)	One-year forecasted return ($)
Broad US	31%		40%	$51,379,816	$51,379,816	5.35%	$54,128,636	$2,748,820
Global ex-US	12%		15%	$19,879,774	$19,879,774	5.55%	$20,983,101	$1,103,327
EFIB Bonds	16%		21%	$26,715,226	$26,715,226	0.75%	$26,915,390	$200,364
Real Estate	0%		0%	$0	$0	3.95%	$0	$0
Private Equity	0%		0%	$0	$0	6.25%	$0	$0
IDL Timberland	39%	$39,246,252	20%	$26,374,090	$65,620,342	3.45%	$67,884,244	$2,263,902
IDL Grazing Land	2%		3%	$3,474,688	$3,474,688	1.05%	$3,511,172	$36,484
Cash Equivalents	1%		1%	$968,356	$968,356	-0.25%	$965,935	($2,421)
	100%	$39,246,252	100%	$128,791,950	$168,038,202	3.88%	$174,388,678	$6,350,477

One-Year Forecasted Gain	**$6,350,477**
One-Year Forecasted Rate of Return	**3.78%**
One-Year Delta in Portfolio Return, ex-Land Exchange Timberland Return ($)	**$954,442**
Discount rate (portfolio return, ex-Timberland return)	**3.17%**
Net Present Value (NPV) of Accretive Value to Portfolio, ex-IDL Timberland, from Land Exchange-enabled Reallocation	**$27,650,353**

Exhibit 5: Ten-Year Forecasted Endowment Performance | With & Without Land Exchange[23]

Scenario 1 - Without Land Exchange

				1	2	3	4	5	6	7	8	9	10
Asset Class	% Allocation	$ Allocation	Compounded real return	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Broad US	31%	$39,379,776	5.35%	$41,486,594	$43,706,127	$46,044,404	$48,507,780	$51,102,946	$53,836,954	$56,717,231	$59,751,603	$62,948,314	$66,316,048
Global ex-US	12%	$15,236,743	5.55%	$16,082,382	$16,974,954	$17,917,064	$18,911,461	$19,961,047	$21,068,885	$22,238,208	$23,472,429	$24,775,149	$26,150,169
EFIB Bonds	16%	$20,475,737	0.75%	$20,629,305	$20,784,025	$20,939,905	$21,096,954	$21,255,182	$21,414,595	$21,575,205	$21,737,019	$21,900,047	$22,064,297
Real Estate	0%	$0	3.95%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Private Equity	0%	$0	6.25%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
IDL Timberland	39%	$50,294,348	3.45%	$52,029,503	$53,824,521	$55,681,467	$57,602,477	$59,589,763	$61,645,610	$63,772,383	$65,972,530	$68,248,583	$70,603,159
IDL Grazing Land	2%	$2,663,156	1.05%	$2,691,119	$2,719,375	$2,747,929	$2,776,782	$2,805,938	$2,835,401	$2,865,172	$2,895,257	$2,925,657	$2,956,376
Cash Equivalents	1%	$742,191	-0.25%	$740,335	$738,485	$736,638	$734,797	$732,960	$731,127	$729,300	$727,476	$725,658	$723,843
Portfolio	100%	$128,791,950		$133,659,238	$138,747,486	$144,067,408	$149,630,252	$155,447,836	$161,532,572	$167,897,499	$174,556,314	$181,523,406	$188,813,893
% Gain				3.78%	3.81%	3.83%	3.86%	3.89%	3.91%	3.94%	3.97%	3.99%	4.02%

Ten-Year Forecasted Real Gain without Land Exchange	**$60,021,943**

Scenario 2 - With Land Exchange

				1	2	3	4	5	6	7	8	9	10
Asset Class	% Allocation	$ Allocation	Compounded real return	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Broad US	31%	$51,379,816	5.35%	$54,128,636	$57,024,518	$60,075,330	$63,289,360	$66,675,341	$70,242,472	$74,000,444	$77,959,468	$82,130,299	$86,524,270
Global ex-US	12%	$19,879,774	5.55%	$20,983,101	$22,147,663	$23,376,859	$24,674,274	$26,043,696	$27,489,122	$29,014,768	$30,625,087	$32,324,780	$34,118,805
EFIB Bonds	16%	$26,715,226	0.75%	$26,915,590	$27,117,457	$27,320,838	$27,525,744	$27,732,187	$27,940,179	$28,149,730	$28,360,853	$28,573,559	$28,787,861
Real Estate	0%	$0	3.95%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Private Equity	0%	$0	6.25%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
IDL Timberland	39%	$65,620,342	3.45%	$67,884,244	$70,226,250	$72,649,056	$75,155,448	$77,748,311	$80,430,628	$83,205,484	$86,076,074	$89,045,698	$92,117,775
IDL Grazing Land	2%	$3,474,688	1.05%	$3,511,172	$3,548,040	$3,585,294	$3,622,940	$3,660,981	$3,699,421	$3,738,265	$3,777,517	$3,817,181	$3,857,261
Cash Equivalents	1%	$968,356	-0.25%	$965,935	$963,520	$961,111	$958,708	$956,312	$953,921	$951,536	$949,157	$946,784	$944,417
Portfolio	100%	$168,038,202		$174,388,678	$181,027,448	$187,968,488	$195,226,475	$202,816,828	$210,755,742	$219,060,227	$227,748,156	$236,838,302	$246,350,390
% Gain				3.78%	3.81%	3.83%	3.86%	3.89%	3.91%	3.94%	3.97%	3.99%	4.02%

Ten-Year Forecasted Real Gain with Land Exchange	**$117,558,440**
Ten-Year DELTA: Real Portfolio Return with Land Exchange ($)	**$57,536,496**

[23] Ten-Year Forecasted Gain with Land Exchange is calculated as the difference between the portfolio ending value with the additional value of Land Exchange assets versus the original Endowment funds available ($128.8 mm).

Trident Holdings LLC – Proposed Land Exchange
Asset Valuation - Scenario Analysis

Authors: Brent Lawson[i] & Spencer Klingman[ii]

Objective

The purpose of the report is to quantitatively estimate and analyze the profitability of the Idaho Endowment's timberland and residential holdings in the Payette Lakes region. Considering the Endowment land holdings, constitutional mandates, and relevant topics discussed in Land Board meetings, the following long-term management strategies have been identified and thus examined in this analysis:

I. **Hold** – Idaho Department of Lands (IDL) and the Endowment continue ownership and management of the existing timberland holdings and sell the remaining residential lots (cottage sites).
II. **Development** – The IDL staff undertakes a residential development process internally by installing necessary infrastructure - roads, power, septic systems, water utilities, traffic control, planning and zoning – to sell the feasible residential acreage.
III. **Land Exchange** – The IDL executes the proposed Trident Land Exchange by acquiring higher income producing timberland assets in northern Idaho and in course reduces administrative costs on the Payette Lakes region assets.
IV. **Land Exchange with Legal Costs & Time Delays** – The Land Exchange scenario (item III above) with additional legal costs and time delays caused by the IDL exchange process, dragging initial cash flows from the subject project. To be abundantly clear, time delays and legal costs are not as a result of Trident Holdings seeking to delay or impede its own exchange, but rather, of outside parties seeking to do so.

Scenario analyses of this nature provide the reader with a modest understanding of profitability related to the various opportunities available to Idaho's Endowment. We recognize the insufficiency of long-term forecasting models; nevertheless, we believe the analysis can be directionally useful. Numerous forecasting methodologies accepted in the real estate investment industry have been employed in this analysis. At every junction, conservative assumptions have been made related to base-line acre values, income returns, growth rates, development costs, and inflation expectations. In course, it is our belief that the resulting profitability estimates are sensible and prudent in nature.

Methodology

For the avoidance of doubt, we have described the methodologies exercised in this scenario analysis below.

I. **Net Present Value (NPV)** – The NPV metric, described as a monetary value, represents the present value of future cash flows minus the scenario's initial cash outlay. The present value is derived from discounting the future cash flows by a rate representing the aggregate opportunity cost of the institution contemplating the scenario. The discount rate for the NPV metric has been assumed at the Endowment portfolio asset-weighted real return forecast of 3.78%[iii]. Note, this differs from the Timberland asset class hurtle of 3.5% real return.
II. **Internal Rate of Return (IRR)** – The IRR metric, described as a percentage value, represents the discount rate that results in the sum of the present value of cash flows equal to the initial scenario outlay. Put simply, the IRR represents the discount rate necessary to render an NPV of zero. This metric is less subjective than NPV as no discount rate on the future cash flows are assumed. Instead, this metric provides the implied discount rate representing the institution's return on investment.
III. **Payback Period** – The Payback Period, described as a year count, calculates the time it takes for the initial scenario outlay to be recovered through cash flows generated by the same scenario. This metric is simple and intuitive. It provides the reader with a time estimate on profitability and is a strong indicator of liquidity.
IV. **Profitability Index** – The Profitability Index, described as a ratio, represents the value received in exchange for one unit of currency invested in any given scenario. This is also commonly referred to as the "benefit-cost" ratio. It provides the reader with an estimate of profitability for every dollar invested.
V. **Sharpe Ratio** – The Sharpe Ratio describes the anticipated excess return of the scenario relative to the risk-free rate of return for every unit of risk assumed. Risk is measured as the standard deviation of the relevant return drivers for each specific scenario.

While each methodology provides the reader with a meaningful profitability metric representing any given scenario, consideration of all relevant methodologies and an appreciation for the respective strengths of each provides the reader with a more holistic, comprehensive evaluation.

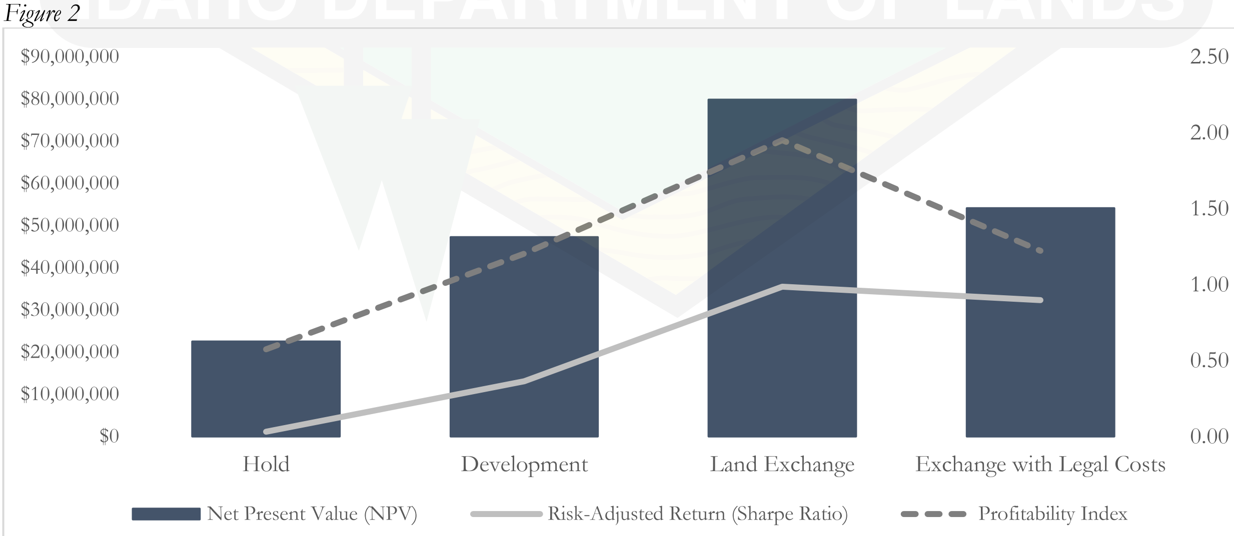
Summary of Results

Figure 1 demonstrates the Net Present Values, Internal Rates of Return, Payback Period, Profitability Index, and Sharpe Ratios for each of the four strategies analyzed. Figure 2 illustrates the positive correlation observable between the various profitability metrics as it relates to any given scenario.

Figure 1

Scenario Analysis				
Beginning year	2021			
Years of analysis	80			
Scenario	**Hold**	**Development**	**Land Exchange**	**Exchange with Legal Costs**
Timberland disposition yr.	2100	2100	2100	2100
Residential disposition yr.	2023	2023	n/a	n/a
Development disposition yr.	n/a	2021 - 2080	n/a	n/a
Net Present Value (NPV)	$22,534,703	$47,281,010	$79,843,976	$54,099,004
Internal Rate of Return (IRR)	1.31%	4.19%	4.53%	4.23%
Payback Period	71.11	24.23	33.04	28.71
Profitability Index	0.57	1.20	1.95	1.22
Risk-Free Rate - Real (One-Year T-Bill)	1.21%	1.21%	1.21%	1.21%
Risk (Standard Deviation)	3.32%	8.18%	3.36%	3.36%
Risk-Adjusted Return (Sharpe Ratio)	0.03	0.36	0.99	0.90

Figure 2



Model Assumptions

The following model assumptions are included in all four scenarios:

I. **Timing** - The analysis begins as of January 1, 2021, and analyzes an 80-year period, with December 31, 2100, as the terminal year. An 80-year period of analysis was selected to reduce the appreciated terminal value of timberland assets. By extending the assumed terminal values, the primary drivers of the discounted cash flow (DCF) analysis are derived from timberland annual net incomes and disposition of key residential properties (existing cottage sales and/or development parcel sales).

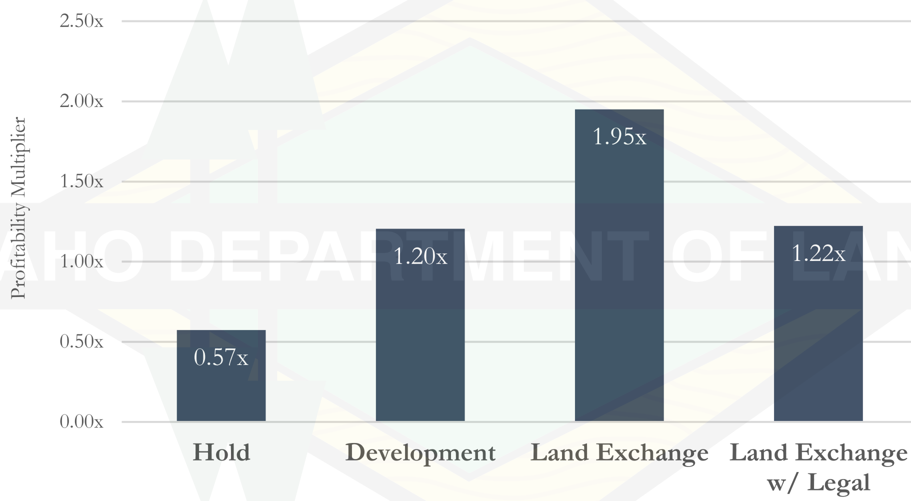
II. **Real Returns** – All appreciation rates, growth rates and return metrics are stripped of the Callan Inflation assumption of 2.25%[iv] to provide real rates of return. This methodology was adopted to maintain consistency with real rates of return analyzed in the Phase I Economic Report[v] and the Endowment's real portfolio rate of return of 3.78%[vi].

III. **Discount Rate** – The Endowment Fund real return for timberland assets of 3.50% was utilized as the discount rate. This discount rate accurately reflects the Endowment's timberland asset allocation and Callan's projected returns. To provide additional color on the sensitivity of the discount rate, NPV results are analyzed with various discount rates ranging from 2.5% - 4.5% in Exhibits A, B and C.

IV. **Internal Rate of Return (IRR)** - The current value of the Payette Lakes timberland and residential land holdings are approximated at $39,246,252[vii]. This value was derived as a function of 20,221.60 gross acres (GIS calculated) multiplied by the various per acre valuations from the "PELS" release. The figure was used as the initial investment for all scenarios. Although the Endowment will not incur this acquisition expenditure (the Endowment currently owns the assets), an assumption on current value is necessary for the profitability analysis.

Figure 3 reveals one the key metrics - the Profitability Index - in plain form. The Profitability Index, or the Multiplier, expresses the value received in exchange for one unit of currency invested. This demonstrates the expected value from each scenario given the assumed initial investment of $39.246 million. We view this as a simple representation of the magnitude of difference between the available strategies presented to the Endowment.

Figure 3



In an effort to address questions regarding the Payette Lakes Endowment land valuations, we have presented the following sensitivity tables for NPV, IRR, Sharpe Ratio, and the Profitability Index. We currently assess the Payette Lakes timberland assets at an acre-weighted valuation of $1,506 per acre for the 20,114.26 acres (with additional value of $8,940,000 on the residential and commercial lots included in the proposed land exchange). However, the below tables allow the reader to adopt their own timberland valuation methodology, as reflected by the Payette Lakes value per acre. This additional optionality allows the reader to attribute their personal views and analyze the associated profitability metrics for each scenario.

Δ Appraisal Value	$/acre	Total $	NPV Hold	Development	Land Exchange	Land Exchange w/ Legal
-$500	$1,007	$29,189,122	$21,951,921	$46,704,313	$73,748,925	$49,433,029
$0	$1,507	$39,246,252	$22,534,703	$47,281,010	$79,843,975	$54,099,004
$500	$2,007	$49,303,381	$23,117,485	$47,857,707	$85,380,430	$58,764,978
$1,000	$2,507	$59,360,511	$23,700,268	$48,434,405	$90,420,474	$63,430,952
$1,500	$3,007	$69,417,640	$24,283,050	$49,011,102	$95,018,669	$68,096,926
$2,000	$3,507	$79,474,770	$24,865,832	$49,587,799	$99,222,939	$72,762,900
$2,500	$4,007	$89,531,899	$25,448,614	$50,164,496	$103,075,432	$77,428,875

Δ Appraisal Value	$/acre	Total $	IRR Hold	Development	Land Exchange	Land Exchange w/ Legal
-$500	$1,007	$29,189,122	2.04%	5.82%	6.07%	4.78%
$0	$1,507	$39,246,252	1.31%	4.19%	4.53%	4.23%
$500	$2,007	$49,303,381	0.95%	3.24%	3.68%	3.86%
$1,000	$2,507	$59,360,511	0.72%	2.61%	3.11%	3.58%
$1,500	$3,007	$69,417,640	0.58%	2.18%	2.69%	3.36%
$2,000	$3,507	$79,474,770	0.47%	1.85%	2.35%	3.19%
$2,500	$4,007	$89,531,899	0.39%	1.61%	2.07%	3.04%

Δ Appraisal Value	$/acre	Total $	Sharpe Ratio Hold	Development	Land Exchange	Land Exchange w/ Legal
-$500	$1,007	$29,189,122	0.25	0.56	1.45	1.06
$0	$1,507	$39,246,252	0.03	0.36	0.99	0.90
$500	$2,007	$49,303,381	-0.08	0.25	0.73	0.79
$1,000	$2,507	$59,360,511	-0.15	0.17	0.57	0.70
$1,500	$3,007	$69,417,640	-0.19	0.12	0.44	0.64
$2,000	$3,507	$79,474,770	-0.22	0.08	0.34	0.59
$2,500	$4,007	$89,531,899	-0.25	0.05	0.26	0.55

Δ Appraisal Value	$/acre	Total $	Multiplier Hold	Development	Land Exchange	Land Exchange w/ Legal
-$500	$1,007	$29,189,122	0.75x	1.60x	2.39x	1.45x
$0	$1,507	$39,246,252	0.57x	1.20x	1.95x	1.22x
$500	$2,007	$49,303,381	0.47x	0.97x	1.67x	1.08x
$1,000	$2,507	$59,360,511	0.40x	0.82x	1.48x	0.99x
$1,500	$3,007	$69,417,640	0.35x	0.71x	1.34x	0.92x
$2,000	$3,507	$79,474,770	0.31x	0.62x	1.22x	0.86x
$2,500	$4,007	$89,531,899	0.28x	0.56x	1.13x	0.82x

Note: "Multiplier" defined as NPV divided by total cash outlays.

Scenario Assumptions

Scenario One: Hold

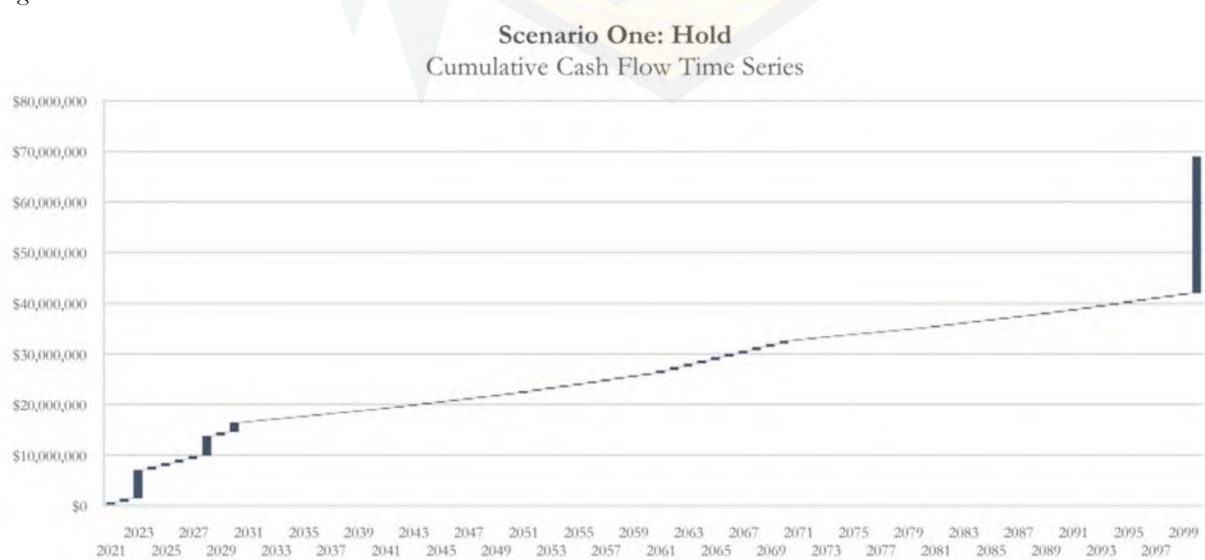
The Hold scenario assumes the Endowment maintains ownership and the current management plan for the Payette Lake assets. As per the Payette Lakes Supervisory area, we project the Hold strategy will generate $124,759 in net operating income (NOI) per annum from the Endowment Impact Area forests - timber activity. We project the Endowment Impact Area non-timber revenues from timberland acreage (Communication, Recreation, Grazing and Mineral lease) will generate -$3,138 in net income per annum. The total revenue is $47,069. However, using the annual administrative expense at $2.50 per acre on the 21,000 acres of timberland's non-timber returns, equals $50,207 in annual administrative expenses. Finally, we project the Endowment Impact Area – lease activity from non-timberland to generate $43,442 in net income per annum. Each of these revenue generating activities are maintained throughout the hold period, until the assumed disposition of the residential and commercial assets given the timing of the tiered transition plan from PELS.

Given the current endowment of residential lots included in the Land Exchange proposal[viii], the Hold scenario assumes IDL will pursue the disposition of Cougar Island – 14.21 acres in 2023. The model further assumes IDL will sell Shellworth Island – 13.13 acres and Deinhard Residential - 60 acres in 2028. The timing for dispositions was directly as a function of the PELS tiered transition plan. The valuations for each residential and commercial parcel were directly from the IDL PELS valuation figures. Furthermore, the Trident research team analyzed the IDL cottage site sales in the McCall area using a seven-year regression analysis, then extrapolated for the remaining IDL residential sites as of 2020. The predictive value for entitled and infrastructure-served non-lake front parcels was estimated at ~$200,000 per acre. Free market transaction per square foot and per acre values over 2013-2019 were also analyzed to cross check the rationale behind the predictive value estimates from the cottage site dispositions. In course, we confirmed the historical sales in the open market corroborate IDL's valuation - the valuation figures were roughly in line.

The residential values are appreciated at the five-year historical McCall residential appreciation rate of 1.31% real, or 3.56% nominal[ix]. We utilized the historical growth rate as a simple proxy based on 2015-2020 free-market transactions[x]. We view the long-term residential growth rates as a reasonable, yet generous assumption. The most recent five-year period represents a rather aggressive residential bull market. We recognize historical valuations are not indicative of future results as by definition, the future is unknown. We do not attempt to adjust long-term trends in this analysis and suggest the methodology fairly represents long-term valuations.

The analysis assumes the timberland acreage will be held for eventual sale. The timberland holdings of 21,242 acres were assigned a valuation of $1,506 per acre (acre-weighted), given conversations with appraisers and forestry consultants[xi]. It is critical to note, these valuations are subject to change upon the official IDL appraisal work. The roughly 5,000 non-viewshed timberland acres are forecasted to grow at the 20-Year NCREIF Appreciation Index - compounded annual growth rate (CAGR) of 3.66% nominal, or 1.41% real[xii]. Given discussions with forestry consultants, we suggest the 15,026 viewshed timberland acres are impaired timberlands, thus are not expected to appreciate at the same rate. We have ascribed a 0.0% nominal growth rate (-2.25% real) to the viewshed acres[xiii]. The NCREIF Earnings before Interest, Taxes, Depreciation, Depletion, and Amortization (EBITDDA)[xiv] Index returns are excluded from long-term timberland asset growth rates as the annual earnings are reflected in the annual cash flow modeling figures as presented above. The terminal value of the Endowment's 5,000 non-viewshed timberland holdings in 2100, assuming the 3.66% NCREIF Appreciation Index growth rate is $4,569 per acre (real). The terminal value of the 15,026 viewshed acres, assuming the 0.0% nominal growth rate is $250 per acre (real). To clarify, the terminal value does not suggest the IDL disposes of the timberland assets. The terminal value simply represents the timberland value in perpetuity. Due to the nature of discounting over 80-years, the terminal values of the timberland assets are not significant drivers to the NPV analysis.

Figure 4



With the exception of years 2023, 2028, 2030 and 2100, where upon the residential, commercial, and timberland assets are assumed to be sold, the Hold scenario generates modest positive cash flow due to the lower timber productivity and high timber management and lease administration costs. This return profile is considered particularly risky given the majority of years are anitcipated to be slightly productive, thus placing a disproportionate reliance on only a few events which may or may not materialize to expectation. Further critical thought should be given to the prospects of the terminal valuations in the year 2100. If there is even the potential for the related timberland acres to be unproductive, the terminal value estimated will suffer a considerable loss of value.

Scenario Two: Development

In the Development scenario, the same assumptions for Payette Lakes timberland assets and existing residential sales are maintained as in Scenario One. The scenario analyzes the returns if the Idaho Department of Lands staff undertakes the residential development project internally. The development project is scaled throughout the analysis period, meaning, we assume the Endowment will develop 20 acres per year for the next 60 years (2021-2080). Anecdotally, we have learned the Endowment recently applied to develop 120 acres into 140 residential properties. If we assume the project will take 5 years to complete, this equates to 24 acres per year. We suggest the 20 acres per year development pace is a prudent assumption. In the Scenario Two analysis, the development project yields 1,200 total acres, or 5.93% of the 20,221 acres in the proposed Land Exchange. Developing 1,200 acres of currently classified timberlands into residential properties is a reasonable assumption given the size of the McCall and greater Idaho residential markets. The "absorption rate", or the rate at which new homes sell in a specific market over a period of time, will be the primary constraint in a development project of this scale. We believe the pace of development and total acreage developed is in-line with the market's current capacity to absorb new housing.

The analysis assumes the IDL staff will develop only the necessary infrastructure to sell bare land residential properties (horizontal development). This does not include the construction of homes or improvements (vertical development). The infrastructure expenses include, but are not limited to, roads, retainer walls, community wells, neighborhood water lines, fire hydrants, power lines, individual domestic wells, individual septic systems, TOPOS engineering, traffic control, permits, zoning, safety & compliance standards (fire and emergency systems), IDL staff salaries and general contractor expenses. In conversations with community architects and residential development firms, infrastructure costs for a development of this scale would cost roughly $166,691 per acre on the low end and $290.526 per acre on the high end[xv]. We assume 0.5 acre lots, resulting in 2,400 IDL-developed units over the 60-year period. The development costs are $83,346 per unit on the lower bound and $145,263 per unit on the upper bound. Due to the scaled development approach, infrastructure development costs are appreciated at a 3.00% nominal growth rate, or 0.75% real growth rate. The all-in development costs, including the inflationary effects, over 60 years is $251,450,634. This may be a considerable expense for the Endowment to incur from the Endowment's current, and future, cash assets.

The Endowment would take a substantial risk incurring the development costs on an investment in a residential real estate market, which has historically been volatile in nature. Residential development risk is analyzed using a proxy as defined by a 50% weight to the average rolling three-year standard deviation of McCall residential market and a 50% weight to the average rolling three-year standard deviation of USA Framing Lumber prices. The proxy's standard deviation is 8.18% (Lumber – 5.80% and Residential 10.56%)[xvi]. Therefore, the significant investment is concentrated on a risk that is not guaranteed to produce the forecasted returns (demonstrated below). In other words, the Endowment would be making a capital-intensive investment on risk factors that have been volatile in nature. The expected payout from the development is far from guaranteed.

It is worth noting, these development costs would require resources to be allocated away from traditional Endowment Fund portfolio investments, notably domestic and international equities. Finally, residential developments of this scale and nuance require specialized expertise and significant coordination. The required time investment and long, but relatively shallow learning curve associated with development, may not be in the best interests of IDL staff. Such an undertaking would likely compete with current IDL staff responsibilities to the Endowment and beneficiaries.

Once developed, the analysis assumes residential acres will be sold at valuations of $185,000 per acre – for the non-lake front horizontally developed parcels. This is a prudent assumption given the Endowment's non-lake front cottage site median sale was $4.33 per square foot, or ~$188,000 per acre. The feasibility of continued lake-front property development is a serious concern due to the lack of availability of lake front parcels – most of the lake front parcels have been sold through cottage site auctions. We assume all development acres will be non-lake front and in the viewshed timberland acreage. The per acre valuations are appreciated at the same 3.56% McCall residential nominal growth rate, or 1.31% real, through the development period (as outlined above). In addition to the 1,200 development acres, the remaining residential and commercial assets are assumed to be sold in 2023, 2028, and 2030 at the same valuations as outlined in Scenario One.

The timberland terminal value methodology is the same as outlined in Scenario One, besides the 1,200 developed acres are subtracted from the viewshed timberland acres.

Figure 5

Holding Endowment lands for eventual residential development through internal efforts appears attractive at first glance; however, the feasibility of implementation, concentrated development risk, magnitude of capital expenses and overall inferior long-term returns demonstrates the development approach to be less attractive than the Land Exchange alternative. As exemplified by a lower Sharpe Ratio, the IDL Development scenario also offers lower risk-adjusted returns to the Endowment.

Scenario Three: Land Exchange

The proposed Land Exchange, primarily outlined in Part I of this report[xvii], thoughtfully addresses the economic benefits of the Land Exchange to the Endowment. The Exchange Lands in northern Idaho are assumed to deliver a $1,467,217 average annualized net cash flow on the 21,243 proposed timberland acres[xviii]. Over the long run, we believe timberland cash flow modeling to conservative and prudent in nature given the long-term timber prices.

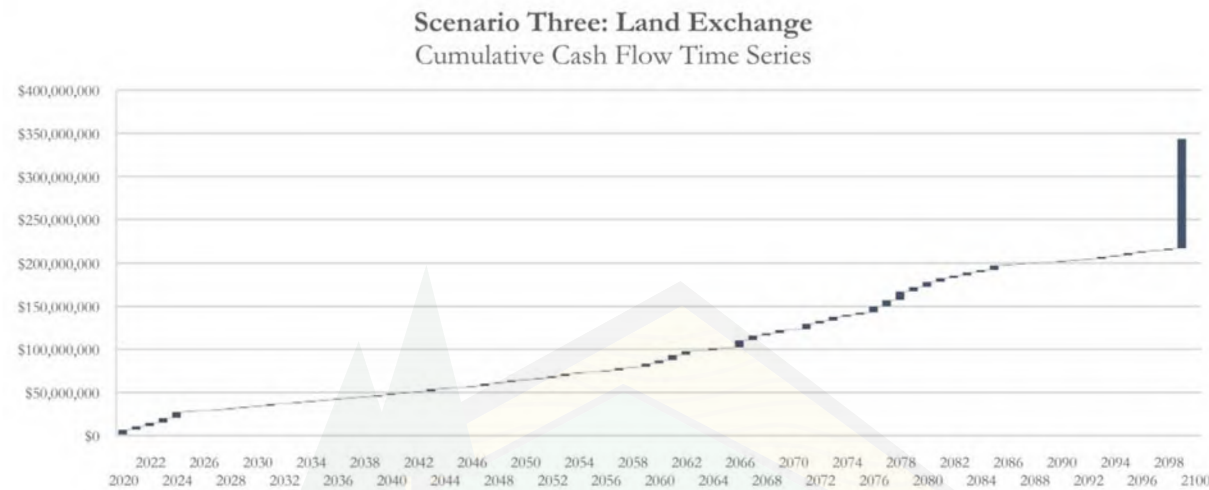
The immediate allowable cut effect ("ACE") for the Endowment portfolio resulting from the acquisition of northern Idaho exchange assets is conservatively estimated at an average annualized value of $149,612. This immediate cut effect creates value for the Exchange scenario at varying times throughout the investment period. The Idaho Department of Lands management policy is written to maintain a non-declining harvest. In other words, the policy forces the management practices to delay harvesting timber stands today in order to maintain a consistent harvest volume in the future. This effect is modeled using 80-year cash flow projection by Straight Arrow Consulting, an independent consulting practice based in Boise, Idaho. The addition of young stands of timber in essence, "fills the gap" for future harvest volumes and therein, allows additional older stands to be harvested today. This creates an opportunity to harvest additional high-quality, mature timber today and generating a near-term benefit for the IDL timberland portfolio.

The improved legal and physical access effect for the northern Idaho timber assets affects 4,360 acres with varying valuations throughout the hold period. We view this as a conservative assumption given our understanding of proposed north Idaho exchange lands. The physical access benefit offers an average annualized return of $317,800 to beneficiaries.

Finally, the portfolio reallocation to Callan-targeted non-timber assets is projected at $954,442 per annum. This assumption will be held throughout the entire analysis period, as the portfolio will continue to yield these benefits as asset allocations perform. The growth of the portfolio reallocation is in-line with the Endowment's forecasted portfolio real rate of return, excluding the Timberland allocation of 3.17% real[xix].

Timberland assets are assigned a bare land valuation of $982 per acre (acre-weighted) for 21,242.91 acres –a total bare land valuation of $20.866 million. Note, this valuation does not include the cash flow generation from the timber stands, but rather the bare land valuation of exchange assets. The methodology calculates the cash flow generation component of Northern Idaho timberlands at $18.379 million – for a total North Idaho Timber valuation of $39.2 million. Note, as the valuation estimates are conducted by the internal IDL appraisals, the total size of the exchange and final acreage count may change in unison. The Land Exchange scenario also includes the assumption that the Endowment will hold timberland assets in perpetuity after 2100. The methodology includes a long-term bare land appreciation rate of 4.50% nominal – or 2.25% real – for a terminal value of $5,825 per timberland acre – or $123.741 million. Due to the compounding nature of the discount rate over 80 years, the terminal values for timberland assets are not significant drivers to the NPV analysis.

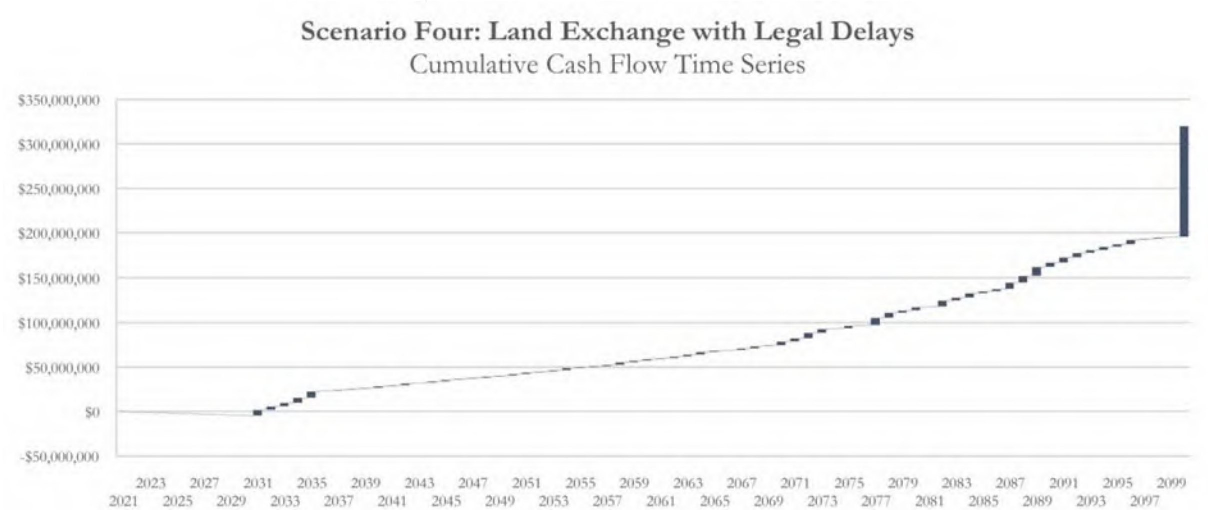
Figure 6



Scenario Four: Land Exchange with Legal Costs & Time Delays

The final scenario assumes the proposed Land Exchange (same assumptions as Scenario Three), with the addition of significant legal costs and time delays as result of the IDL internal process. It is critical to note, the legal delays are a result of litigation or other delaying tactics to prevent or slow the execution of an exchange – NOT a result of Trident litigation. This scenario assumes legal costs to be $500,000 per year, for a ten-year exchange process. The analysis maintains the Payette Lakes annual average operating cash flow from the timber revenue, non-timber revenue from timberland, and non-timberland lease revenue, until the Land Exchange is executed. This effect slightly offsets the negative cash flows through the 10-year delay process. Despite the $5 million in legal expenses and the 10-year time delay, both considered unlikely and without known reasons, the "delayed" Land Exchange nevertheless proves more attractive relative to any other Endowment alternatives (holding of IDL-developing in house).

Figure 7



Conclusion

The scenario analysis suggests the execution of the Land Exchange proposal creates the greatest value for the Endowment relative to any currently available alternative. When comparing the Land Exchange opportunity to the Hold scenario, the Land Exchange offers $57.3 million greater value to the Endowment. When comparing the Endowment's most aggressive strategy, Development, to the Land Exchange, the net present value of the Land Exchange still exceeds the alternative by $32.5 million. Even assuming extensive legal costs and time delays for the execution of the Land Exchange, the "bear case", Land Exchange scenario still exceeds the Hold alternative by $31.5 million and the Development alternative by $6.8 million.

The Land Exchange strategy dramatically increases annual cash flow distributions for Endowment beneficiaries, while simultaneously reducing concentrated risk profiles in residential markets and development processes. The Land Exchange's annual cash flow distributions inherently diversify the risk profile of the Endowment. In the Hold and Development scenarios, the majority of the success of each project rests on the success of the residential and commercial real estate sales (existing acreage and development acreage). In any asset class, or portfolio management opportunity set, an investment thesis of this nature creates an isolated, concentrated risk profile that generates less attractive risk-adjusted returns. Put plainly, to undertake the Hold or Development scenario, the Endowment would be placing a focused bet on a residential real estate market, which has traditionally been considered a secondary market.

Furthermore, by undergoing development internally, the Endowment, by constitution, would need to reclassify the Payette Lake holdings into the Real Estate asset class. This forces the Endowment to purchase additional timberland investments from their Land Bank Reserve funds to maintain the Callan recommended asset allocations. The residential development would require a substantial undertaking, drawing extensive staff costs, consultant fees, and raw material costs. This may be viewed as counter to the highest and best use of IDL staff time.

In conclusion, the proposed Land Exchange provides the Endowment an attractive opportunity to achieve the 3.50% real rate of return on the same market value of assets in Northern Idaho, while simultaneously smoothing annual cash flow distributions, diversifying the investment risk profile, and providing long-term land appreciation value. Through this analysis, the net present value calculations, complemented by other industry standard profitability metrics, quantitatively proves how no other Endowment alternative creates as much value on a nominal and risk-adjusted basis to the portfolio's beneficiaries as the proposed Land Exchange.

Exhibits

Exhibit A: Scenario One: Hold - NPV Analysis - Discount Rate & Years of Analysis

Years	Discount rate 2.5%	3.0%	3.50%	4.0%	4.5%
20	$16,559,531	$16,128,598	$15,717,278	$15,324,395	$14,948,855
40	$19,995,838	$19,111,790	$18,310,897	$17,582,573	$16,917,775
60	$22,843,714	$21,381,850	$20,123,464	$19,032,273	$18,079,161
80	$27,905,024	$24,870,978	$22,534,703	$20,702,729	$19,239,284

Exhibit B: Scenario Two: Development - NPV Analysis - Discount Rate & Years of Analysis

Years	Discount rate 2.5%	3.0%	3.50%	4.0%	4.5%
20	$27,692,204	$26,704,612	$25,770,313	$24,885,711	$24,047,491
40	$41,818,755	$38,942,228	$36,387,210	$34,109,946	$32,073,263
60	$56,009,582	$50,102,629	$45,181,395	$41,052,908	$37,565,090
80	$60,455,316	$53,154,324	$47,281,010	$42,500,815	$38,565,887

Exhibit C: Scenario Three: Land Exchange - NPV Analysis - Discount Rate & Years of Analysis

Years	Discount rate 2.5%	3.0%	3.50%	4.0%	4.5%
20	$38,609,097	$38,066,201	$37,547,769	$37,052,172	$36,577,918
40	$54,162,605	$52,484,719	$51,000,724	$49,682,371	$48,505,923
60	$77,690,505	$71,728,905	$66,926,990	$63,033,282	$59,853,627
80	$102,474,029	$89,467,149	$79,843,976	$72,641,884	$67,185,701

Exhibit D: Scenario Four: Land Exchange with Legal Costs - NPV Analysis - Discount Rate & Years of Analysis

Years	Discount rate 2.5%	3.0%	3.50%	4.0%	4.5%
20	$19,722,501	$18,349,562	$17,071,554	$15,881,419	$14,772,667
40	$34,398,798	$31,076,994	$28,125,636	$25,496,511	$23,148,420
60	$50,937,582	$44,009,238	$38,257,032	$33,448,617	$29,401,657
80	$83,319,674	$66,627,895	$54,099,004	$44,574,314	$37,236,232

Exhibit E: Scenario Specific Model Assumptions

Model - Inputs	
Timing	
Base year	2021
Years of analysis	80
Disposition year - Timber	2100
Terminal year of analysis	2100
Begin Date	12/31/2020
End Date	12/31/2100
Metrics	
Inflation	2.25%
Discount rate**	3.50%

Scenario 1 - Hold	
Acreage Assumptions	
Timberland – Non-viewshed acres	5,000
Timberland - Viewshed acres	15,114
Timberland - Total acres	20,114.26
Commercial - Total acres	20.00
Residential - Lake front acres (Cougar Island)	14.21
Residential - Lake front acres (Shellworth Island)	13.13
Residential-Non- Lake front acres (Deinhard)	60.00
Residential - Total acres	87.34
Project - Total acres	20,221.60
Disposition Timing Assumptions	
Disposition Year - Residential - Cougar Island	2023
Disposition Year - Residential - Shellworth Island	2028
Disposition Year - Residential - Deinhard	2028
Disposition Year - Commercial	2030
Disposition Year - Timberland	2100
Payette Lakes Operating Assumptions	
Endowment Impact Area forests timber revenues - acres	20,114
Endowment Impact Area forests timber revenues - return/acre	$6.20
Endowment Impact Area forests timber revenues as annual NET cash	$124,759
Nominal growth rate	2.25%
Endowment Impact Area non timber revenues from Timberland - acres	20,114
Endowment Impact Area non timber revenues from Timberland - $/acre	-$0.16
Endowment Impact Area non timber revenues from Timberland - NET cash	-$3,138
Nominal growth rate	2.25%
Endowment Impact Area Lease NET Revenue from Commercial & Residential assets - acres	47.34
Endowment Impact Area Lease NET Revenue from Non-Timberland assets - $/acre	$1,524
Endowment Impact Area Lease NET Revenue from Non-Timberland assets - NET cash	$72,142
Nominal growth rate	2.25%
Cash Flow Summary - Year 1	
Timberland - Timber net cash	$124,759
Timberland - Non-timber net cash	-$3,138
Non-timber - net cash	$72,142
	$193,763

Scenario 1 - Hold	
Residential Valuation	
Lake Front - Cougar Island - Value/acre (future sales)	$337,438^
Lake Front - Shellworth Island - Value/acre (future sales)	$182,788^
Non-Lake Front - Deinhard - Value/acre (future sales)	$9,917^
Residential appreciation rate	3.56%
Commercial Valuation	
Commercial - acres	20.0
Commercial - value/acre	$57,500
Commercial appreciation rate	3.56%
Timberland Valuation	
Timber price index - appreciation rate (Footnote: “+”)	3.66%
Timber total index - appreciation rate	8.75%
Timber viewshed acreage - appreciation rate	0.00%

Scenario 2 – Development	
Timing Assumptions	
Begin Year - Development	2021
End Year - Development	2080
Disposition year - Timberland	2100
Disposition year - Residential (existing)	2023
Acres developed/year	20
Total acres developed	1,200
% Of acres developed	5.93%
Valuation	
Residential value/acre - base	$185,000
Residential appreciation rate	3.56%
Development cost per acre (lower bound)	$166,691
Development cost growth rate	3.00%
Total acres developed	1,200
Total Development CapEx (Today's $)	-$200,029,309
Total Development CapEx (Inflation)	-$251,450,634
Development Cost per acre	See 'Development Budget Assumptions'

Scenario 4 - Land Exchange w/ Legal Costs	
Hours legal work/annum	1,000
Hourly rate	$500
Total legal costs per year	$500,000
Beginning year	2021
Ending year	2030
Total time delay	10

Development Budget - Assumptions				
		Per Unit	**Per 2,400 Unit Development**	
	Lower Bound	Upper Bound	Lower Bound	Upper Bound
Septic system/lot	$25,000	$50,000	$60,000,000	$120,000,000
Well water/lot	$30,000	$45,000	$72,000,000	$108,000,000
Community Wells (fire)	$500,000	$1,000,000	$500,000	$1,000,000
Community underground pipe	$2,900,000	$4,000,000	$2,900,000	$4,000,000
Overhead power lines (15-mile development)	$13,700,000	$19,000,000	$13,700,000	$19,000,000
Roadways/lineal foot	$110	$200	$3,394,827	$6,187,600
Engineering Fees	$100,000	$300,000	$100,000	$300,000
TOPOS	$50,000	$100,000	$50,000	$100,000
SWPPP	$150,000	$300,000	$150,000	$300,000
Traffic Control	$200,000	$350,000	$200,000	$350,000
Permits	$50,000	$100,000	$50,000	$100,000
Overhead/Staff Costs	$120,000	$240,000	$28,800,000	$57,600,000
General Contractor Costs	$18,184,483	$31,693,760	$18,184,483	$31,693,760
Total Development Cost			$200,029,309	$348,631,360

Acres	1,200	1,200
Total Development Cost per Acre	$166,691	$290,526
Total Development Cost per Unit	$83,346	$145,263

Footnotes: Model Assumptions
*Callan inflation assumptions.
**Discount rate utilized is the forecasted real return of the Endowment's timberland portfolio (Callan recommended asset allocations).
***Model input assumptions run through each scenario.
Footnotes: Scenarios
+Portfolio One-year expected return as the growth rate for the Portfolio reallocation to Callan Targets (real)
+The 20-year compounded annual growth rate (CAGR) of the NCREIF Index was selected as the appropriate timberland appreciation rate.
We believe this rate most accurately reflects the stabilized appreciation of institutional grade timberland investments.
The beginning 10-12 years of the Index reflects a much higher price appreciation rate due to the immature institutional industry and lack of competition. The more recent 20-year perspective serves as a directionally useful proxy in the long-term price appreciation of timberland asset values.
^ Represents Payette Endowment Lands Strategy ("PELS") directly provided by the IDL in the December 2020 release.

Exhibit F: IDL - Payette Endowment Lands Strategy

IDL | Payette Endowment Lands Strategy (PELS)	**Acreage**			
Tiers and Parcels Slated for Transition	**Acres**	**Classification**	**Est. Value**	**"PELS" Est. Value($)/acre**
Tier I: 1 - 5 Year Transition				
Parcel A - Deinhard Commercial	20	Commercial	1,150,000	*$57,500*
Parcel K - Syringa Park **	3.58	Residential	240,000	*$67,039*
Parcel M - Cougar Island	14.21	Residential	4,795,000	*$337,438*
	37.79		***$ 6,185,000***	
Tier II: 5-10 Year Transition				
Parcel B - Deinhard Residential	60	Residential/Timber	595,000	*$9,917*
Parcel C - White Pine Residential**	56.1	Residential/Timber	21,750,000	*$387,701*
Parcel F - Shellworth Island	13.13	Residential	2,400,000	*$182,788*
	129.23		***$ 24,745,000***	
Tier III: 10 - 20 Year Transtion				
Parcel D - Lick Creek**	37.71	Timberland	6,000,000	*$159,109*
Parcel E - Eastside Drive	167	Timberland	400,000	*$2,395*
Parcel G - Grove	29.44	Timberland	9,700,000	*$329,484*
	234.15		***$ 16,100,000***	
Tier IV: Transition Not Currently Planned				
Parcel H - East of Eastside Drive to Tip	985.8	Timber/Grazing	1,560,000	*$1,582*
Parcel I - Tip	2,042	Timberland	570,000	*$279*
Parcel J - West Warren Wagon to Simplot	939	Timberland	880,952	*$938*
Parcel L - Warren Wagon West	1,058	Timbeland	3,040,000	*$2,873*
	5,025		***$ 6,050,952***	
TOTALS				
Totals across all Tiers	**5,425.97**		**$ 53,080,952**	
Returns on Estimated Asset Value				

*** Not included in the Preserve McCall land exchange proposal*

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[i] Real Asset Investment Consultant, Yale University Economics
[ii] CPA, Westchester Group Investment Management, Inc. – Finance Director
[iii] Asset Allocation and Governance Review Idaho Board of Land Commissioners. Janet Becker-Wold, Sally Haskins, James Van Heuit, October 17, 2014
[iv] Asset Allocation and Governance Review Idaho Board of Land Commissioners. Janet Becker-Wold, Sally Haskins, James Van Heuit, October 17, 2014

[v] SFS Phase I Economic Report, Smart Forest Solutions (included in materials)
[vi] Asset Allocation and Governance Review Idaho Board of Land Commissioners. Janet Becker-Wold, Sally Haskins, James Van Heuit, October 17, 2014
[vii] SFS Phase I Economic Report, Smart Forest Solutions.
[viii] Payette Cottage Sites Info 3-3-2020 & Payette Endowment Lands Strategy ("PELS") presentation, December 2020.
[ix] McCall Residential Housing market analysis – per square foot valuations, per acre valuations, growth rates, and standard deviation calculations were calculated by the Endowment's historic residential cottage site sales information.
[x] Valley County RealQuest Sales: SFR & Residential sales data from 2015-2020, annual observations.
[xi] Smart Forest Solutions – Forestry Consultant
[xii] NCREIF Northwest Timberland Values: 20-year analysis, quarterly observations.
[xiii] Smart Forest Solutions – Forestry Consultant
[xiv] EBITDDA – The Earnings before Interest, Tax, Depreciation, Depletion, and Amortization accounts for the natural pest and disease effects of timber management.
[xv] Road construction is the greatest unknown. Road design was based on "flat designs", excluding the need for massive fills or bridges. A design of 26 feet width, 12" of base pit run, 4" of gravel, and a 2.5" mat of asphalt was utilized.
[xvi] McCall Residential Historical Sales: Valley County RealQuest Sales Data – years 2015-2020, annual observations. Lumber Price: UNECE USA Framing Lumber – years 2000-2019, monthly observations - http://www.unece.org/forests/output/prices.html.
[xvii] SFS Phase I Economic Report, Smart Forest Solutions - Eliminated expenses from this exchange are likely much greater than this, because this estimated reduction is based only on the 12,000 acres IDL identifies as secondary forest around Payette Lake, not the full administrative expense for the entire encumbered exchange area.
[xviii] SFS Phase I Economic Report, Smart Forest Solutions - Precise valuations and acreage counts will be concretely established at a later date.
[xix] Asset Allocation and Governance Review Idaho Board of Land Commissioners. Janet Becker-Wold, Sally Haskins, James Van Heuit, October 17, 2014. – Portfolio weighted compounded real returns equals 3.78%.

03 Appendix Document

Forest Land Productivity Detail

Forest Land Productivity Detail

Comparison of Payette Lakes Forest Land vs. North Idaho Forest Land Productivity						
Counties	Acres-Weighted FIA Averages			Acreage Distribution	Site Index and Productivity Data adjusted to Exchange Acreage Distributions	
	Ownership	FIA-based Site Index for PL and CI; Specific Site Index Data for NI	FIA-based Productivity per Acre per Year *Cubic Feet per Acre per Year*		Site Index	Productivity per Acre per Year
Payette Lakes (PL) vicinity - Data measured on IDL lands within 20 miles of McCall						
ALL	IDL	49	76	100%	51	75
Adams	IDL	48	78	5%		
Valley	IDL	51	75	95%		
Central Idaho (CI) Region						
ALL	IDL	50	72	100%	51	72
Adams	IDL	48	73	5%		
Valley	IDL	52	71	95%		
North Idaho (NI) Region (Specific to Exchange Acreage)						
ALL	Private	79	135	100%	79	135
Benewah	Private	73	120	6%		
Clearwater	Private	81	141	38%		
Latah	Private	80	139	16%		
Shoshone	Private	78	132	41%		
Maximum of Payette Lakes and Centrial Idaho Region					51	75
North Idaho Region					79	135
Percentage Difference between North Idaho and Payette Lakes					54%	**81%**

04 Appendix Document

Brokers Opinion of Value

December 13, 2020

Mr. David New
Smart Forest Solutions
Boise, Idaho 87312

Subject: Broker Price Opinion for the Idaho Department of Lands 20,177 Acres of Payette Lake Forestlands and Lake properties in Pilgrim Cove and Cougar and Shellworth Islands

Executive Summary

Executive Summary Table

Broker Price Opinions	Market Value (Normalized Market) Total $'s	Market Value (4th Quarter 2020 Market) Total $'s
East Half Payette Lake Forestland (12,149 acres)	$11,201,699	$15,747,712
$ Value/Acre	$922	$1,296
West Half Payette Lake Forestlands (7,927 acres)	$14,993,130	$19,280,997
$ Value/Acre	$1,891	$2,432
East and West Half Payette Lake Forestlands Combined (20,076 acres)	$26,194,829	$35,028,709
$ Value/Acre	$1,305	$1,745
Deinhard 75 acres	$1,125,000	$1,125,000
$Value/ Acre	$15,000	$15,000
Total Value of Forestlands (20,151 acres)	$27,319,829	$36,153,709
$Value/Acre	$1,356	$1,794
Payette Lake Properties		
IDL Pilgrim Cove Lake Lots (3 lots = 1.5346 acres)	$3,185,989	$3,185,989
$Value/Acre	$2,075,583	$2,075,583
IDL Pilgrim Cove Off Lake Lots (3 lots = 1.2097 acres)	$790,418	$790,418
$ Value/Acre	$653,400	$653,400
IDL Cougar & Shellworth Island Lots (11.69 & 11.88 =23.57 acres)	$7,187,000	$7,187,000
$ Value/Acre	$614,799	$614,799
Total Payette Lake Property Value (26.31 acres)	$11,163,407	$11,163,407
$ Value/Acre	$424,303	$424,303
Total Value of Forestlands and Payette Lake Properties	$38,483,236	$47,317,116
$ Value/Acre (20,177 acres)	$1,907	$2,345

Broker Price Opinion Methodologies

The author spent three days (October 13-15, 2020) touring both the East Half of the Lake Timberlands (8,341 forested/3,808 non-forested = 12,149 acres), and the West Half of the Lake Timberlands (6,305 forested/1,622 non-forested = 7,927 acres*) by ATV and 4WD Pickup where access roads were open to each and not gated either by private owners or the State of Idaho. Where the author was not able to see the timber stands/terrain up close and personal. I relied on aerial maps provided to me by Northwest Management's Vaiden Bloch and the OnX map database for the area.

I separated the analysis by the East and West Half acreages due to identifiable differences in stand structures, species and geography. The East Half acreage is drier, rockier and steeper (72% cable logging vs. West Half 51 % cable logging) with a predominant Ponderosa pine/Douglas fir overstory located in mostly unroaded terrain. Without physically mapping and measuring new road construction miles to access and harvest the timber resource, I assumed that each section of timberland (640 acres) would require 4.5 miles of new road construction to minimally access and manage the harvestable timberlands. Throughout my career (40 years managing logging operations in Idaho), it was common to locate and build approximately 6 miles of new logging roads/timberland section. So accordingly, I included 4.5 miles of new road construction @$30,000/mile for logging cost purposes to determine the net stumpage value for the harvested and leave tree stands on each half of the lake (East half=12,149 acres/West half=7,927 acres).

This Broker Price Opinion is based upon the highest and best use of the land under the existing Valley County Zoning designations, lack of existing infrastructure (roads, sewer, water) and development costs.

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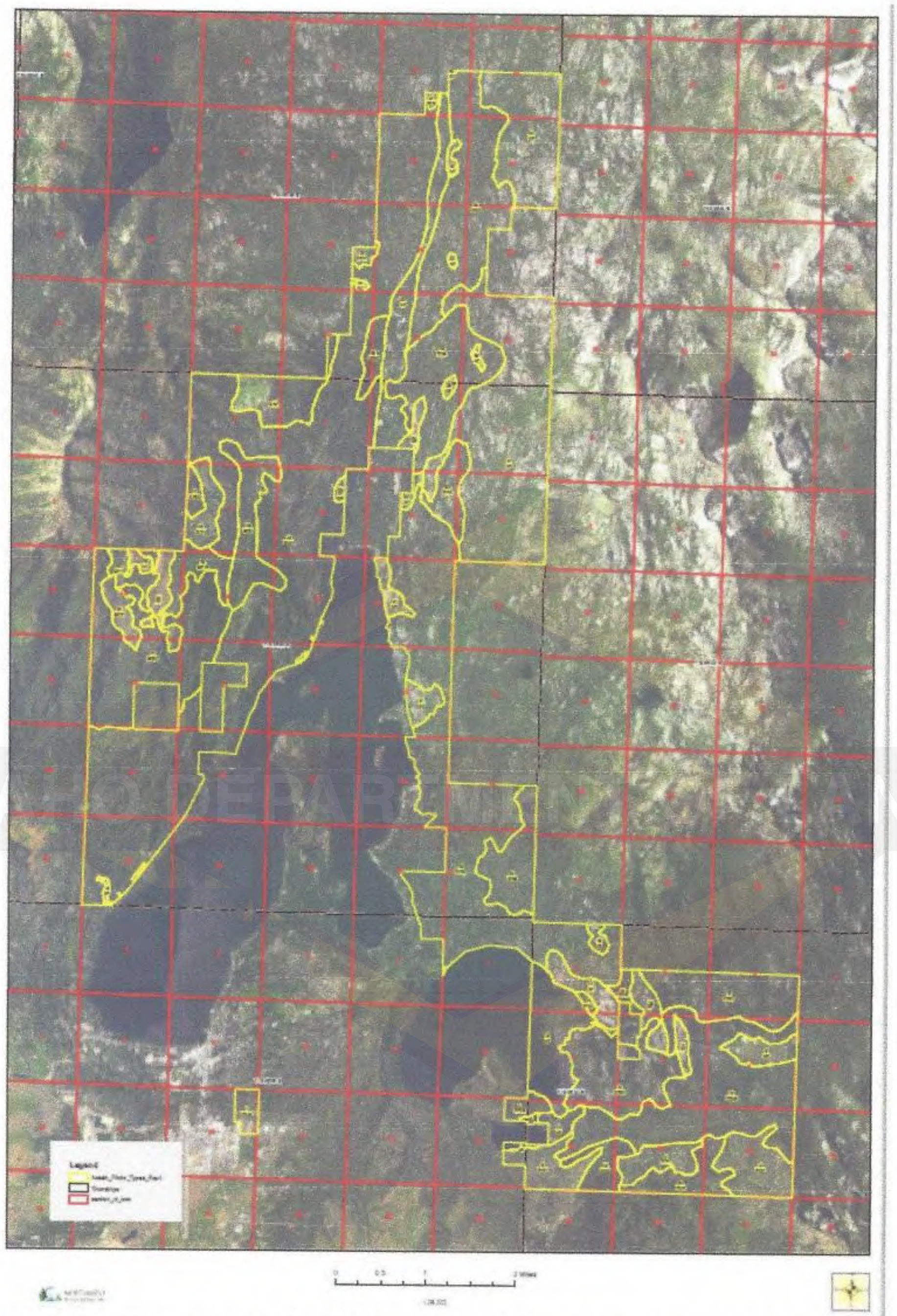
East and West Half Timberlands Map



East Half of the Lake Timberlands (8,341 forested/3,808 non-forested = 12,149 acres)

The East Half of the Lake timberlands are characterized by largely mature Ponderosa pine/Douglas fir timber types north of Little Payette Lake with significant ingrowth of tolerant grand fir and spruce. East of and South of Little Payette Lake (Lick Creek Drainage) is a Ponderosa pine climax habitat type but with large stands of grand fir and spruce in the Lick Creek basin and prevalent on the north slopes of Lakes Ridge. Referring to the map above, approximately 8,341 acres of the East Half Payette Lake timberlands are forested leaving 3,808 acres which are not. Allowing for openings and previous IDL timber harvests, I estimate the forested acres total volume is approximately 15 mbf/acre totaling 125,115 mbf. I recommend harvesting approximately 7 mbf/acre of grand fir/spruce ingrowth including merchantable ladder fuel trees leaving mature, wind firm Pondersoa, Larch and Douglas fir trees subject to spacing guidelines per leave tree of 20 to 30' or approximately 70 to 100 trees/acre.

Typical East Half Timber Stand

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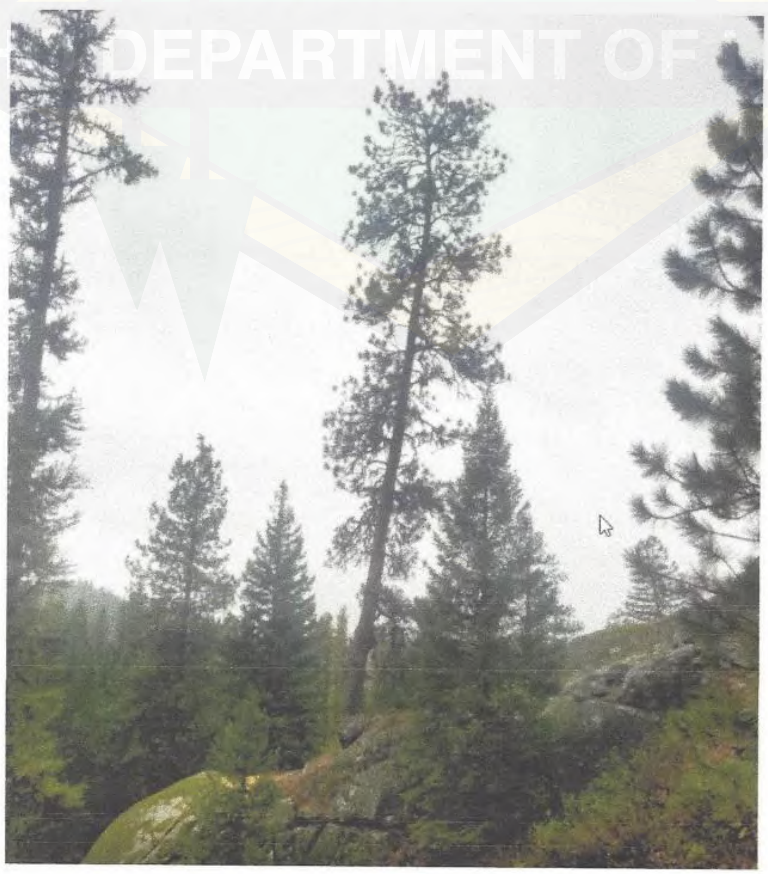
Typical Lakes Ridge Timber Stand

Lick Creek Basin

Typical East Half Terrain and Ponderosa pine Survivor



East Half of Payette Lake Forestland Value

The author called and talked with log buyer representatives at Idaho Forest Group in Grangeville, Idaho and Evergreen Forest Products in Tamarack, Idaho regarding 4th quarter delivered log prices paid at both mill destinations. Because current log markets are so strong, I requested delivered log prices from each of them representative of "normal" log markets. The table below estimates the current timberland value harvesting the timber using current pricing and "normalized" delivered log pricing.

4th Quarter 2020 Log Pricing

Trident East Half of Lake Timberlands (8,341 forested/3,808 non-forested = 12,149 acres)

Species	DF/Larch	GF	Ponderosa	Spruce	Total		
Estimated Total Merchantable Volume (KCB Occular Estimate)	31,280	18,770	68,800	6,265	125,115		125,115
Real estate, sanitation & hazard reduction harvest	24,600	17,830	10,320	5,640	58,390		58,390
Delivered Log $/mbf (current markets 4th quarter/2020)	$475	$450	$400	$400	$447		66,725
Gross Delivered Log Value (Total $'s)	$11,685,000	$8,023,500	$4,128,000	$2,256,000	$26,092,500		
Delivered Logging Cost ($/mbf) to Evergreen Forest Products	$281	$281	$281	$281	$281		
Road Construction/reconstruction cost ($/mbf)	$44	$44	$44	$44	$44		
Slash treatment	$4	$4	$4	$4	$4		
Net Delivered Logging Cost ($/mbf)	$329	$329	$329	$329	$329		
Net Delivered Logging Cost (Total $'s)	$8,093,400	$5,866,070	$3,395,280	$1,855,560	$19,210,310		
Timber Harvest Value					$ 6,882,190		$117.87
Timberland Bareland Value (Site index 70/medium) = $120/acre*					$ 1,000,920		
Total value as is where is with Real estate, sanitation & hazard reduction harvest					$ 7,883,110		
$/acre value as is where is from a real estate, sanitation & hazard reduction harvest					$ 649		
Total $ value of unharvested trees left for aesthetic purposes					$ 7,864,602		
Total $ Value of the East Half of Payette Lake 12,149 acres as timberland					**$15,747,712**		
Total value/acre					**$ 1,296**		

"Normalized" Log Pricing

Trident East Half of Lake Timberlands (8,341 forested/3,808 non-forested = 12,149 acres)

Species	DF/Larch	GF	Ponderosa	Spruce	Total
Estimated Total Merchantable Volume (KCB Occular Estimate)	31,280	18,770	68,800	6,265	125115
Real estate, sanitation & hazard reduction harvest	24600	17830	10320	5640	58390
Delivered Log $/mbf (current markets 4th quarter/2020)	$425	$400	$400	$400	$411
Gross Delivered Log Value (Total $'s)	$10,455,000	$7,132,000	$4,128,000	$2,256,000	$23,971,000
Delivered Logging Cost ($/mbf) to Evergreen Forest Products	$281	$281	$281	$281	$281
Road Construction/reconstruction cost ($/mbf)	$44	$44	$44	$44	$44
Slash treatment	$4	$4	$4	$4	$4
Net Delivered Logging Cost ($/mbf)	$329	$329	$329	$329	$329
Net Delivered Logging Cost (Total $'s)	$8,093,400	$5,866,070	$3,395,280	$1,855,560	$19,210,310
Timber Harvest Value					$4,760,690
Timberland Bareland Value (Site index 70/medium) = $120/acre*					$1,000,920
Total value as is where is with Real estate, sanitation & hazard reduction harvest					$5,761,610
$/acre value as is where is from a real estate, sanitation & hazard reduction harvest					$474
Total $ value of unharvested trees left for aesthetic purposes					$5,440,089
Total $ Value of the East Half of Payette Lake 12,149 acres as timberland					**$11,201,699**
Total value/acre					**$922**

Variance between 4th Quarter & "Normalized" Log Pricing Timberland Market Values

Trident East Half of Lake Timberlands (8,341 forested/3,808 non-forested = 12,149 acres)

Values	4th quarter 2020 log pricing	Normalized log pricing	Value Variance
Timber Harvest Value	$6,882,190	$4,760,690	$2,121,500
Timberland Bareland Value (Site index 70/medium) = $120/acre	$1,000,920	$1,000,920	$0
Total value as is where is with Real estate, sanitation & hazard reduction harvest	$7,883,110	$5,761,610	$2,121,500
$/acre value as is where is from a real estate, sanitation & hazard reduction harvest	**$649**	**$474**	$175
Total $ value of unharvested trees left for aesthetic purposes	$7,864,602	$5,440,089	$2,424,513
Total $ value of East Half of Lake (12,149 acres) as Timberland	**$15,747,712**	**$11,201,699**	$4,546,013
Total value/acre	**$1,296**	**$922**	$374

As the above variance table shows, there is a $4.5 million difference between current log markets and log markets under more normal market conditions. **The East Half of Payette Lake 12,149 acres of timberlands is valued between $11.2 million ($922/acre) in normalized log markets to $15.75 million ($1,296/acre) in current log markets a $4.55 million variance.**

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West Half of Payette Lake Forestland Value (6,305 forested/1,622 non-forested = 7,927 acres)

The West Half of Payette Lake timberlands is primarily a mature stand of Ponderosa pine and Douglas fir occupying the relatively drier and lower elevations. As elevation increases (above 6,000') the predominant species change to spruce and grand fir. The State of Idaho has implemented a more aggressive forest management strategy on these 7,927 acres with relatively more harvest resulting in a mix of spruce leave tree cutting units with a number of recently clear cut stands in the upper NW portion of their ownership. The West Half of Payette Lake forestlands have deeper soils, better tree growth, higher volumes per acre (18 mbf/acre vs. 15 mbf/acre) and lower logging costs due to a lower cable logging % (51% vs. 72%) and a closer truck haul to Evergreen Forest Products at Tamarack (3.5 trips/day vs. 3 trips/day). While the West Half Payette Lakes timberland acres are generally more accessible from the existing road network, a combination of locked State of Idaho gates and private inholdings (Teddy Bear Trust) prevented a completely thorough firsthand look at all the acres.

The recommended harvest plan for the West Half of Lake timberlands is a sanitation/salvage of the firs and merchantable ladder fuel trees favoring Ponderosa pine, larch and Douglas fir as leave trees on a 20 to 30' spacing resulting in approximately 70 to 100 mature trees/acre remaining post-harvest.

4th Quarter Log Pricing Delivered to Evergreen Forest Products at Tamarack

Trident West Half of Lake Timberlands (6,305 forested/1,622 non-forested = 7,927 acres)							
Species	DF/Larch	GF	Ponderosa	Spruce	Total		
Estimated Total Merchantable Volume (KCB Occular Estimate)	34,047	17,024	45,396	17,024	113,490		113,490
Real estate, sanitation & hazard reduction harvest	22,470	10,880	2,285	8,500	44,135		44135
Delivered Log $/mbf (current markets 4th quarter/2020)	$475	$450	$400	$400	$451		69,355
Gross Delivered Log Value (Total $'s)	$10,673,250	$4,896,000	$914,000	$3,400,000	$19,883,250		
Delivered Logging Cost ($/mbf) to Evergreen Forest Products	$255	$255	$255	$255	$255		
Road Construction/reconstruction cost ($/mbf)	$30	$30	$30	$30	$30		
Slash treatment	$4	$4	$4	$4	$4		
Net Delivered Logging Cost ($/mbf)	$289	$289	$289	$289	$289		
Net Delivered Logging Cost (Total $'s)	$6,493,830	$3,144,320	$660,365	$2,456,500	$12,755,015		
Timber Harvest Value					$7,128,235		$161.51
Timberland Bareland Value (Site index 70/medium) = $120/acre*					$951,240		
Total value as is where is with Real estate, sanitation & hazard reduction harvest					$8,079,475		
$/acre value as is where is from a real estate, sanitation & hazard reduction harvest					$1,019		
Total $ value of unharvested trees left for aesthetic purposes					$11,201,512		
Total $ value of West Half of Payette Lake 7,927 acres as timberland					**$19,280,987**		
Total value/acre					**$2,432**		

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Normalized Log Pricing Delivered to Evergreen Forest Products at Tamarack

Trident West Half of Lake Timberlands (6,305 forested/1,622 non-forested = 7,927 acres)							
Species	DF/Larch	GF	Ponderosa	Spruce	Total		
Estimated Total Merchantable Volume (KCB Occular Estimate)	34,047	17,024	45,396	17,024	113490		113,490
Real estate, sanitation & hazard reduction harvest	22,470	10,880	2,285	8,500	44,135		44135
Delivered Log $/mbf (current markets 4th quarter/2020)	$425	$400	$400	$400	$413		69,355
Gross Delivered Log Value (Total $'s)	$9,549,750	$4,352,000	$914,000	$3,400,000	$18,215,750		
Delivered Logging Cost ($/mbf) to Evergreen Forest Products	$255	$255	$255	$255	$255		
Road Construction/reconstruction cost ($/mbf)	$30	$30	$30	$30	$30		
Slash treatment	$4	$4	$4	$4	$4		
Net Delivered Logging Cost ($/mbf)	$289	$289	$289	$289	$289		
Net Delivered Logging Cost (Total $'s)	$6,493,830	$3,144,320	$660,365	$2,456,500	$12,755,015		
Timber Harvest Value					$5,460,735		$123.73
Timberland Bareland Value (Site index 70/medium) = $120/acre*					$951,240		
Total value as is where is with Real estate, sanitation & hazard reduction harvest					$6,411,975		
$/acre value as is where is from a real estate, sanitation & hazard reduction harvest					$809		
Total $ value of unharvested trees left for aesthetic purposes					$8,581,155		
Total $ value of West Half of Payette Lake 7,927 acres as timberland					$14,993,130		
Total value/acre					$1,891		

Variance between 4th Quarter & "Normalized" Log Pricing Timberland Market Values

Trident West Half of Lake Timberlands (6,305 forested/1,622 non-forested = 7,927 acres)

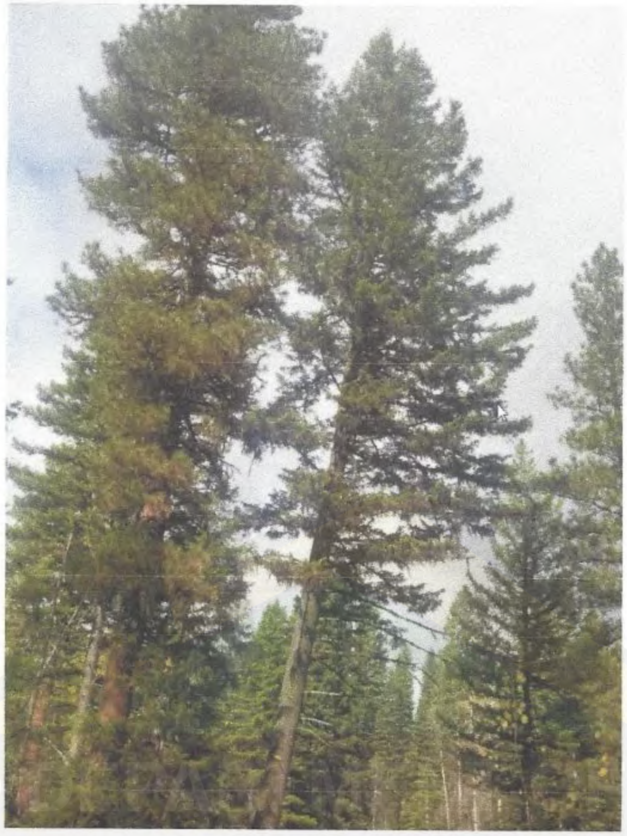
Values	4th quarter 2020 log pricing	Normalized log pricing	Value Variance
Timber Harvest Value	$7,128,235	$5,460,735	$1,667,500
Timberland Bareland Value (Site index 70/medium) = $120/acre	$951,240	$951,240	$0
Total value as is where is with Real estate, sanitation & hazard reduction harvest	$8,079,475	$6,411,975	$1,667,500
$/acre value as is where is from a real estate, sanitation & hazard reduction harvest	**$1,019**	**$809**	$210
Total $ value of unharvested trees left for aesthetic purposes	$11,201,512	$8,581,155	$2,620,357
Total $ value of West Half of Lake (7,927 acres) as Timberland	**$19,280,987**	**$14,993,130**	**$4,287,857**
Total value/acre	**$2,432**	**$1,891**	**$541**

The West Half of Lake Timberlands have a market value of $15.0 million ($1,891/acre) in normal markets and market value of $19.0 million ($2,432/acre) in current 4th quarter log markets, a variance of approximately $4.3 million.

Typical West Half Timber Stand

West Half of Lake Viewshed Harvesting Challenges

Classic Leave Tree choice Ponderosa pine vs. Douglas fir



Combined Market Value of the East and West Half of Payette Lake Timberlands

East (12,149 acres) & West (7,927 acres) Combined = 20,076 Acres

Values	4th quarter 2020 log pricing	Normalized log pricing	Value Variance
Timber Harvest Value	$14,010,425	$10,221,425	$3,789,000
Timberland Bareland Value (Site index 70/medium) = $120/acre	$1,952,160	$1,952,160	$0
Total value as is where is with Real estate, sanitation & hazard reduction harvest	$15,962,585	$12,173,585	$3,789,000
$/acre value as is where is from a real estate, sanitation & hazard reduction harvest	**$795**	**$606**	$189
Total $ value of unharvested trees left for aesthetic purposes	$19,066,114	$14,021,244	$5,044,870
Total $ value of East Half & West Half of Lake (12,149 acres) as Timberland	**$35,028,699**	**$26,194,829**	$8,833,870
Total value/acre	**$1,745**	**$1,305**	$440

In my opinion and according to the recommended harvest plans I based my market value estimates upon, the East and West Half of the Payette Lake Timberlands combined results in

a market value of $26.2 million in normalized markets (approximately $1,300/acre) and $35.0 million (approximately $1,750/acre) in current 4th quarter log markets.

Deinhard 75 Acres

The total value of the 75-acre Dienhard property as timberland is between $159,200 to $2,123/acre. However, the property's higher and better use is in some type of development. The author researched the Intermountain MLS for "sold" development properties in the market area selecting six properties meeting the development criteria with a median sold value of $9,705/acre for a 45-acre parcel size. The sold value range for these six properties was $5,600 to $15,000/acre. In my opinion, the Dienhard property has a market value near the top of the sold value range of $15,000/acre or $1,125,000.

Broker Price Opinion Methodologies

I walked the Dienhard 75 acres on Wednesday, October 14, 2020 to assess the timberland value of the property "as is, where is" (see map below).

Community Parcel | Aerial

The existing stand in the 40 acre north half of the property is predominately a mature Ponderosa pine stand with significant ingrowth of mature Douglas fir, larch, white fir and some spruce. The south half (35 acres) is primarily non merchantable Ponderosa pine with some current commercial use: soil storage, cell tower plus several old dump sites which should be inspected by an environmental engineer before any Trident acquisition. Idaho Department of Lands (IDL) has essentially managed this property similar to Ponderosa State Park to the North due to the proximity of residential developments along the North and West boundaries of the property. The author noticed at least one, maybe several neighbors mowing the IDL property and using it as an extension to their backyards. Established use by the neighbors of this state endowment land is intensive.

Commercial Development Examples

Cell Tower

Residual Dumping

The timber stand has an approximate total net volume of 20 mbf/acre with most of the volume fire resistant Ponderosa pine. To preserve the forest stand, minimize wild fire spread between residential neighborhoods and provide an aesthetically desirable dominant fire and wind resistant trees for a future upscale residential development, an immediate harvest of all Douglas fir/larch and white fir/spruce is recommended now. Tree spacing of approximately 30'/tree remaining will mean some Ponderosa pine will be harvested but the removal emphasis should be the harvest of merchantable firs (7 inch dbh with at least one 16' log), then larch/spruce and last Ponderosa pine for spacing reasons. It is extremely important to also cut and lop all non-merchantable trees that are ladder fuel hazards.

Forestland Value

The author called and talked with log buyer representatives at Idaho Forest Group in Grangeville, Idaho and Evergreen Forest Products in Tamarack, Idaho regarding 4th quarter delivered log prices paid at both mill destinations. Because current log markets are so strong, I requested delivered log prices from each of them representative of "normal" log markets. The table on the following page estimates the current timberland value harvesting the timber using current pricing and "normalized" delivered log pricing.

Timberland Value 4th Quarter Delivered Log Prices at Evergreen Forest Products

Deinhard 75 acres					
Species	DF/Larch	GF	Ponderosa	Spr/Lpp	Total
Estimated **Total** Merchantable Volume on 40 acres (KCB Occular Estimate)	160	40	550	50	800
Real estate, sanitation & hazard reduction harvest	160	40	150	50	400
Delivered Log $/mbf (**current markets 4th quarter/2020**)	$450	$430	$400	$425	$426
Gross Delivered Log Value (Total $'s)	$72,000	$17,200	$60,000	$21,250	$170,450
Delivered Logging Cost ($/mbf) to Evergreen Forest Products	$219	$219	$219	$219	
Road Construction/reconstruction cost ($/mbf)	$3	$3	$3	$3	
Slash treatment	$4	$4	$4	$4	
Net Delivered Logging Cost ($/mbf)	$226	$226	$226	$226	$226
Net Delivered Logging Cost (Total $'s)	$36,160	$9,040	$33,900	$11,300	$90,400

Timber Harvest Value	$80,050
Timberland Bareland Value (Site index 70/medium) = $120/acre*	$9,000
Total value as is where is with real estate, sanitation & hazard reduction harvest	$89,050
$/acre value as is where is from a real estate, sanitation & hazard reduction harvest	**$1,187**
Total $ value of unharvested trees left for aesthetic purposes	$80,000
Total $ value of Middle of McCall 75 acres as timberland	$169,050
Total value/acre	**$2,254**

Timberland "Normalized"** Delivered Log Prices at Evergreen

Deinhard 75 acres					
Species	DF/Larch	GF	Ponderosa	Spr/Lpp	Total
Estimated **Total** Merchantable Volume (KCB Occular Estimate)	160	40	550	50	800
Real estate, sanitation & hazard reduction harvest	160	40	150	50	400
Delivered Log $/mbf (normalized 4th quarter log prices)	$425	$400	$400	$400	$410
Gross Delivered Log Value (Total $'s)	$68,000	$16,000	$60,000	$20,000	$164,000
Delivered Logging Cost ($/mbf) to Evergreen Forest Products	$219	$219	$219	$219	
Road Construction/reconstruction cost ($/mbf)	$3	$3	$3	$3	
Slash treatment	$4	$4	$4	$4	
Net Delivered Logging Cost ($/mbf)	$226	$226	$226	$226	$226
Net Delivered Logging Cost (Total $'s)	$36,160	$9,040	$33,900	$11,300	$90,400

Timber Harvest Value	$73,600
Timberland Bareland Value (Site index 70/medium) = $120/acre*	$9,000
Total value as is where is with real estate, sanitation & hazard reduction harvest	$82,600
$/acre value as is where is from a real estate, sanitation & hazard reduction harvest	**$1,101**
Total $ value of unharvested trees left for aesthetic purposes	$76,600
Total $ value of Middle of McCall 75 acres as timberland	$159,200
Total value/acre	**$2,123**

*Bareland value as defined by the Idaho Tax Commission for "Good" timberland in Zone 3 (see Idaho's Forest Tax law in attachments).

**Normalized delivered log prices reflect log prices adjusted for unusually high or low delivered log markets.

Value Variance Between 4th Quarter & Normalized Delivered Log Pricing

The following table displays the Forestland value variance between 4th quarter 2020 delivered log pricing and "normalized" delivered log pricing:

Deinhard 75 Acres Value Variance Between 4th Quarter & Normalized Delivered Log Pricing

Values	4th quarter 2020 log pricing	Normalized log pricing	Value Variance
Timber Harvest Value	$80,050	$73,600	$6,450
Timberland Bareland Value (Site index 70/medium) = $120/acre	$9,000	$9,000	$0
Total value as is where is with Real estate, sanitation & hazard reduction harvest	$89,050	$82,600	$6,450
$/acre value as is where is from a real estate, sanitation & hazard reduction harvest	$1,187	$1,101	$86
Total $ value of unharvested trees left for aesthetic purposes	$80,000	$76,600	$3,400
Total $ value of Deinhard 75 acres as timberland	$169,050	$159,200	$9,850
Total value/acre	$2,254	$2,123	$131

Final Opinion of Timberland Value

My Broker Price Opinion for the Deinhard 75 Acre timberland value is predicated upon "normalized" delivered log values. Current 4th quarter delivered log values are at all-time highs and not sustainable in commodity markets. **Therefore, the total value of the timberland is $159,200 or $2,123/acre a per/acre basis.**

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Developed Value of the Dienhard 75 Acres

The location of this property in the middle of the City of McCall indicates higher and better use of the acreage is either commercial or residential development. The author identified six "sold" comparables of commercial/residential properties ranging in size from 40 to 141 acres with average per acre sold values of $5,600 to $15,625/acre.

CMA Summary Report

Land Summary Statistics

	High	Low	Average	Median
LP	LP: $1,500,000	$249,900	$742,043	$739,180
SP	SP: $1,400,000	$225,000	$664,833	$597,500

Land - Sold

Number of Properties: 6

Num	MLS #	Status	Area	Price	# Acres	DOM	LP	LP/# Acres	SP	SP/# Acres
1	98721342	Sold	Horseshoe Bend - 1400	$225,000	40.000	266	$249,900	$6,247.50	$225,000	$5,625.00
2	98777903	Sold	Horseshoe Bend - 1400	$269,000	40.000	9	$269,000	$6,725.00	$269,000	$6,725.00
3	98754102	Sold	Donnelly-Tamarack - 1805	$475,000	45.490	29	$695,000	$15,278.08	$475,000	$10,441.86
4	98765033	Sold	McCall - 1800	$720,000	46.080	115	$783,360	$17,000.00	$720,000	$15,625.00
5	98760374	Sold	McCall - 1800	$900,000	94.530	115	$955,000	$10,102.61	$900,000	$9,520.79
6	98713274	Sold	Adams County - Other - 1925	$1,400,000	141.570	589	$1,500,000	$10,595.47	$1,400,000	$9,889.10
Avg				$664,833	67.95	187	$742,043	$10,991.44	$664,833	$9,637.79
Min				$225,000	40.00	9	$249,900	$6,247.50	$225,000	$5,625.00
Max				$1,400,000	141.57	589	$1,500,000	$17,000.00	$1,400,000	$15,625.00
Med				$597,500	45.79	115	$739,180	$10,349.04	$597,500	$9,704.95

In my opinion, the centralized location in the center of the City of McCall strongly suggests the property's market value is at the higher range of Sold comparables or $15,000/acre for a total market value of $1,125,000.

Conclusion

The total value of the 75-acre Deinhard property as timberland is valued at $159,200 to $2,123/acre. **The developed value for 75 acres in the middle of McCall vs. the timberland value in today's market exceeds the timberland value by at least $13,000/acre for a total market value of $1,125,000.**

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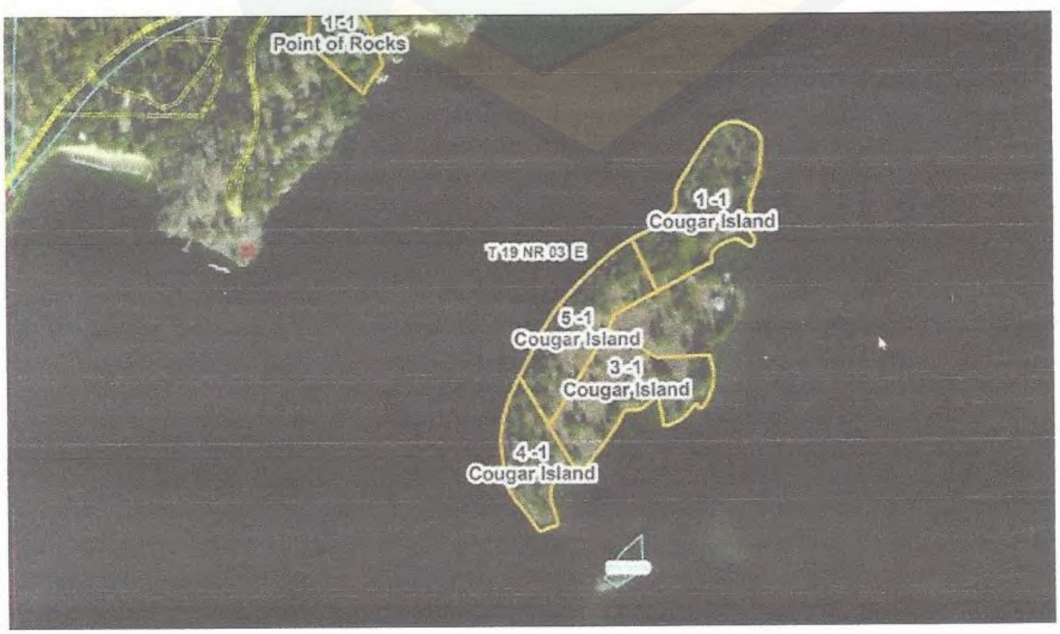
Current Market Value for the Payette Lake Properties (6 Pilgrim Cove Lots, 4 Cougar Island Lots (11.69 acres) and Shellworth Island (11.88 acres)

Pilgrim Cove Lots

Cougar Island Lots (11.69 acres)



Shellworth Island (11.88 acres)

The author reviewed a variety of market information to determine the current market value for the Pilgrim Cove Lots (3 lake and 3 off lake lots), the Cougar Island Lots (4 undeveloped lots) and Shellworth Island (11.88 acres).

The Idaho Department of Lands (IDL) has been the dominant seller of Payette Lake Lots through 2019, but not in 2020. This year, IDL had one auction of Payette Lake Lots planned for the 4 of 5 unleased lots on Cougar Island. An island owned by the State endowments in the north portion of Payette Lake subdivided by IDL in 2014. The auction was held but there were no bidders at the reserved prices.

Absent comparable lake lot sales in 2020 from the Multiple Listing Service (MLS) and given the highly active IDL leased lake lot auctions through 2019 (all public information). The author chose to use Valley County's Assessor information found on the Valley County's Parcel Map to compare lake lot values to off lake lot values including establishing a lot value appreciation rate from the rate of lot land value change between 2019 to 2020.

Beginning 2020 Valley County Assessor Pilgrim Cove Lot Values

Valley Co. Assessor Pilgrim Cove Lake Frontage Lots (2020 Valley Co. Assessor)

Lot ID	Lot Size (Acres)	2020 Assessed Value	Per Ace	Per Square Foot	Per Lake Front Foot
2087 Rainbow Ln.	0.4489	$946,871	$2,109,314	$48.42	$13,230
2095 Rainbow Ln.	0.8897	$1,109,081	$1,246,579	$28.62	$0
2099 Water Lilly Ln.	0.9539	$1,015,075	$1,064,131	$24.43	$0
2101 Water Lilly Ln.	0.372	$865,174	$2,325,737	$53.39	$12,825
2103 Water Lilly Ln.	0.3647	$800,890	$2,196,024	$50.41	$13,095
2105 Water Lilly Ln.	0.406	$921,456	$2,269,596	$52.10	$12,960
2107 Water Lilly Ln.	0.6649	$1,266,104	$1,904,202	$43.71	$12,837
2109 Water Lilly Ln.	0.5748	$1,137,896	$1,979,638	$45.45	$13,365
Totals	4.6749	$8,062,547	$15,095,221	$346.53	$78,312
Average	**0.58436**	**$1,007,818**	**$1,886,903**	**$43.32**	**$13,052**
			2019 Assessed Value	Variance	
2087 Rainbow Ln.	0.4489	$946,871	$890,760	$56,111	
2095 Rainbow Ln.	0.8897	$1,109,081	$1,043,629	$65,452	
2099 Water Lilly Ln.	0.9539	$1,015,075	$908,201	$106,874	
2101 Water Lilly Ln.	0.372	$865,174	$773,210	$91,964	
2103 Water Lilly Ln.	0.3647	$800,890	$715,758	$85,132	
2105 Water Lilly Ln.	0.406	$921,456	$866,851	$54,605	
2107 Water Lilly Ln.	0.6649	$1,266,104	$1,131,522	$134,582	
2109 Water Lilly Ln.	0.5748	$1,137,896	$1,016,942	$120,954	
Totals	4.6749	$8,062,547	$7,346,873	$715,674	**9.74%**

Broker Price Opinion for the Year-end 2020 Pilgrim Cove Lake Lots

Year-end 2020 Market Value for Trident/Pilgrim Cove IDL Lake Frontage Lots

Lot ID	Lot Size (Acres)	2020 Broker Price Opinion Value	Per Ace	Per Square Foot
White Pine Heights 1-1	0.59	$1,224,582	$2,075,563	$47.65
Cove Replat 2-3	0.4723	$980,304	$2,075,595	$47.65
Cove Replat 2-4	0.4723	$980,304	$2,075,595	$47.65
Totals	1.5346	$3,185,189	$2,075,583	$47.65
Average	**0.5115**	**$1,061,730**	**$2,075,583**	**$47.65**

In my opinion, the three IDL Pilgrim Cove Lake lots have a year-end 2020 market value of $3.2 million applying a market appreciation rate of 9.74% from the beginning of 2020.

Beginning 2020 Valley County Assessor Pilgrim Cove Off Lake Lots

2020 Valley County Assessor Off Lake Lot Values				
Lot ID	Lot Size (Acres)	2020 Assessed Value	Per Ace	Per Square Foot
2088 John Alden Rd.	0.2572	$114,854	$446,555	$10.25
2084 John Alden Rd.	0.2144	$98,003	$457,104	$10.49
2080 John Alden Rd.	0.2729	$106,638	$390,759	$8.97
2076 John Alden Rd.	0.2757	$107,019	$388,172	$8.91
Totals	1.0202	$426,514	1,682,589	$38.63
Average	**0.25505**	**$106,628.50**	**420,647**	**$9.66**
John Alden Road (2019 Auction)Cove Replat 2-7	0.38	$160,000	$421,053	$10
John Alden Road (2019 Auction)Cove Replat 4-7	0.25	$142,000	$568,000	$13
John Alden Road (2019 Auction)Cove Replat 6-7	0.25	$199,000	$796,000	$18
Totals	0.88	$501,000	$1,785,053	$47
Average	**0.29**	**$167,000**	**$595,018**	**$14**

Broker Price Opinion for the Year-end 2020 Pilgrim Cove Off Lake Lot Values

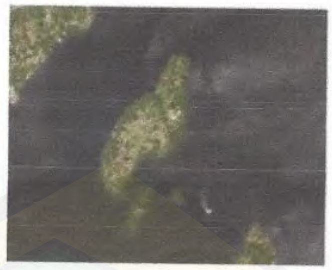
Year-end 2020 IDL Off Lake Lot Values				
Lot ID	Lot Size (Acres)	2020 Broker Price Opinion Value	Per Ace	Per Square Foot
White Pine Heights 2-1	0.6228	$406,938	$653,400	$15.00
Cove Replat 1-4	0.3615	$236,204	$653,400	$15.00
Cove Replat 3-4	0.2254	$147,276	$653,400	$15.00
Totals	1.2097	$790,418	$653,400	$15.00
Average	**0.4032**	**$263,473**	**$653,400**	**$15.00**

In my opinion, the three Off Lake Pilgrim Cove lots have a year-end 2020 market value of $790,400 based upon a market appreciation rate of 41% between 2019 and 2020.

Market Value of the Cougar and Shellworth Acreage

The author's efforts to discover market comparables for island lots on Payette Lake in south central Idaho failed. That said, IDL's real estate firm, Corbett Bottles in Boise scheduled auctioning these four Cougar Island lots on November 1, 2020 conducting an appraisal process to establish a "reserve price" for each of the four lots scheduled for auction (see below).

Big Cougar Island Flyer & Lot Details



To nominate individual lots for Auction, please review the sample **Application Form** and contact Emily Mueller (208) 377-5700, emily@markbottles.com for more information.
Application fee (Appraisal and Title Commitment deposit) for individual Lot is $3,000.

Lots to be sold subject to reserve price of 2020 appraised value. The bid price at auction will be for the LOT(S) ONLY. The cost of improvements (if any), as well as an appraisal fee, an administrative fee, a non-refundable closing deposit in the amount of $50,000 per lot, and a title insurance deposit will be due from the high bidder on auction day.

2020 Appraised Values:

- Lot 1 Blk 1 = $1,200,000 – Unleased
- Lot 3 Blk 1 = $900,000 – Unleased
- Lot 4 Blk 1 = $900,000 – Unleased
- Lot 5 Blk 1 = $750,000 – Unleased

The unique challenges of building a lake home on these islands due to the limited use season (ice free lake months April - November), boat only access (plus helicopter) with off-the-grid power & heat options required for a residence limits the marketplace to bidders willing to lease or purchase these uniquely situated island properties. I believe a market for these lots does exist, but the fact these island lots were auctioned but no one bid in these market conditions means the marketing targeted the wrong audience or the reserve pricing was too high. Lacking market evidence, I used the Corbett Bottles average reserve pricing/square foot to determine the market value of the Island acreage shown in the tables that follow:

Cougar Island Lot Values (2020 Corbett/Bottles Appraised Value)			
Lots	Sq. Ft.	Value/Sq. Ft.	Total Value
Lot 1-1	151,153	$8	$1,200,000
lot 3-1	145,926	$6	$900,000
Lot 4-1	84,070	$11	$900,000
Lot 5-1	128,066	$6	$750,000
Total	509,215	$7	$3,750,000
Acres	11.6900		
Value/acre	$320,788		

Broker Price Opinion for the Cougar Island Lots (11.69 acres) is $3,565,000

Cougar Island Lot Values (2020 Broker Price Opinion)			
Lots	Sq. Ft.	Value/Sq. Ft.	Total Value
Lot 1-1	151,153	$7	$1,058,071
lot 3-1	145,926	$7	$1,021,482
Lot 4-1	84,070	$7	$588,490
Lot 5-1	128,066	$7	$896,462
Total	509,215	$7	$3,564,505
Acres	11.6900		
Value/acre	$304,920		

Broker Price Opinion for Shellworth Island (11.88 acres) is $3,622,000

Shellworth Island			
Acres	Sq. Ft.	Value/Sq. Ft.	Total Value
11.88	517,493	$7	$3,622,450

In my opinion, the Cougar and Shellworth Island properties have a 2020 market value of $7.187 million with an average value/acre of $305,000 or $7/sq. foot per foot.

Summary

The author employed a variety of sources to determine the $38,483,000 to $47,317,000 market value of the 20,177 acres of forest lands and offer my opinion of the year-end 2020 market value of $11,163,000 for the 26.31 acres of Lake properties in Pilgrim Cove, Cougar and Shellworth Islands . My sources included Evergreen Forest Products in Tamarack, Idaho, Idaho Forest Group, Grangeville, Idaho, the Valley County Assessor website and parcel map, the Intermountain MLS and Corbett/Bottles Realty to document current log, timberland and lake acreage values.

The Broker Price Opinion year-end 2020 market values are summarized in the following Executive Summary Table:

Executive Summary Table

Broker Price Opinions	Market Value (Normalized Market) Total $'s	Market Value (4th Quarter 2020 Market) Total $'s
East Half Payette Lake Forestland (12,149 acres)	$11,201,699	$15,747,712
$ Value/Acre	$922	$1,296
West Half Payette Lake Forestlands (7,927 acres)	$14,993,130	$19,280,997
$ Value/Acre	$1,891	$2,432
East and West Half Payette Lake Forestlands Combined (20,076 acres)	$26,194,829	$35,028,709
$ Value/Acre	$1,305	$1,745
Deinhard 75 acres	$1,125,000	$1,125,000
$Value/ Acre	$15,000	$15,000
Total Value of Forestlands (20,151 acres)	$27,319,829	$36,153,709
$Value/Acre	$1,356	$1,794
Payette Lake Properties		
IDL Pilgrim Cove Lake Lots (3 lots = 1.5346 acres)	$3,185,989	$3,185,989
$Value/Acre	$2,075,583	$2,075,583
IDL Pilgrim Cove Off Lake Lots (3 lots = 1.2097 acres)	$790,418	$790,418
$ Value/Acre	$653,400	$653,400
IDL Cougar & Shellworth Island Lots (11.69 & 11.88 =23.57 acres)	$7,187,000	$7,187,000
$ Value/Acre	$614,799	$614,799
Total Payette Lake Property Value (26.31 acres)	$11,163,407	$11,163,407
$ Value/Acre	$424,303	$424,303
Total Value of Forestlands and Payette Lake Properties	$38,483,236	$47,317,116
$ Value/Acre (20,177 acres)	$1,907	$2,345

This Broker Price Opinion is not intended to be an appraisal of the market value of the property, and that if an appraisal is desired, the services of a licensed or certified appraiser should be obtained.

Best regards,

Kevin Boling
Forester/Associate Broker
Idaho AB #38221

Attachments:

Idaho's Forest Tax Brochure
Exhibits 1-3 & 6

Idaho's Forest Tax Law

Forest landowners with at least five acres but less than 5,000 acres statewide have a choice between two tax systems: a **Productivity Tax** system or a **Bare Land and Yield Tax (BL&Y)** system. These two tax systems provide Idaho's 34,000 owners of small woodlands with property tax options which recognize their diverse ownership goals.

Forest landowners with tracts of 5,000 acres or more statewide are taxed under the Productivity Tax system.

Forest landowners with less than five acres are assessed at the property's market value.

The Two Tax Systems

The **Productivity Tax** system is a property tax based on the ability of the land to produce an annual income from wood products. Idaho is divided into four Forest Value Zones as shown on the accompanying map. Within these zones, forestland is graded as Poor, Medium, or Good based on its ability to produce wood fiber. The appropriate growth rates are shown in the table below:

Productivity Class	Avg. Board Ft. Per Acre	
	Zones 1 & 2	Zones 3 & 4
Poor	125	125
Medium	225	213
Good	350	320

The forest landowner will pay property taxes amounting to about 1% of the productivity values shown on the accompanying chart of forestland values for 2020. The yield tax does not apply to timber harvested from land in this option.

The **Bare Land and Yield Tax** system requires that the landowner pay a yearly tax based on the present value of his bare forestland plus a 3% yield tax on the stumpage value at the time of harvest. Within each of the four Forest Value Zones, land is again graded as either Poor, Medium, or Good.

2020 Forestland Value and Stumpage Value Zones in Idaho

Zone 1
Land Grade

Good	Med.	Poor	
$172	$120	$ 70	Bare Land & Yield
$600	$329	$148	Productivity

Zone 2
Land Grade

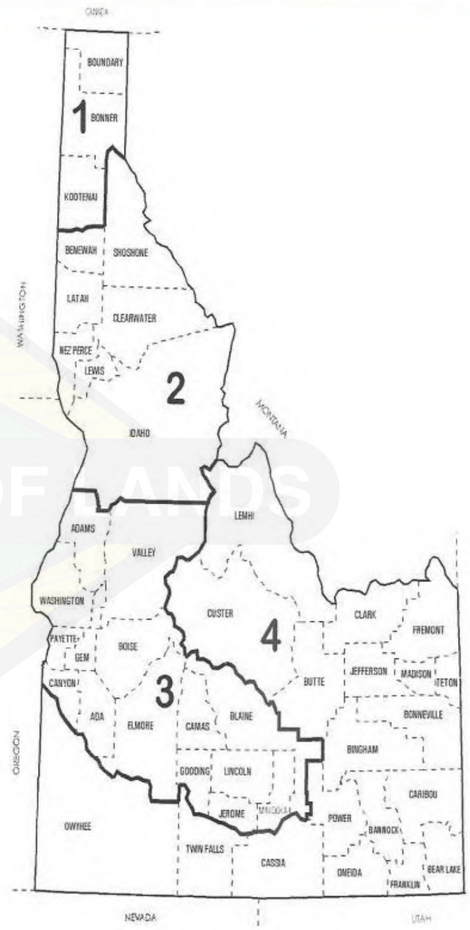
Good	Med.	Poor	
$172	$109	$ 56	Bare Land & Yield
$549	$298	$134	Productivity

Zone 3
Land Grade

Good	Med.	Poor	
$117	$ 74	$ 39	Bare Land & Yield
$228	$120	$ 49	Productivity

Zone 4
Land Grade

Good	Med.	Poor	
$ 90	$ 58	$ 29	Bare Land & Yield
$227	$125	$ 61	Productivity



The Bare Land Values to be used in each zone are shown on the accompanying chart of forestland values and represent per acre figures. The forest landowner will pay about 1% of these figures each year in property taxes. When harvesting timber, a landowner will pay a 3% yield tax on the stumpage value of the timber harvested in addition to the annual property tax. The party receiving the logs or forest products is required to provide the Idaho Department of Lands with a report listing the quantity, species, and source of the logs or products cut. The yield tax payment will be due to the county treasurer at the same time as the property tax payment.

Deferred Taxes

Lands that are designated by the landowner under the BL&Y system are subject to a **recapture of deferred taxes,** if the use of the property changes. An example would be when the use of the land changes from forestland to a subdivision. A deferred tax is also due if the land is sold, and the new owner removes or changes the designation. If you are the new owner of forestland and maintain this designation, you accept the liability for deferred taxes incurred by the previous landowner. The deferred taxes may be assessed for up to a total of 10 years. Any yield tax paid during a deferred tax period will be allowed as a credit against the deferred tax.

Choosing a Tax Option

If you have more than five acres but less than 5,000 acres of forestland, you will want to choose the system that best fits your circumstances. An owner of a small woodland may prefer the **Bare Land and Yield Tax** system, because it provides a lower yearly property tax and defers some of the tax obligation until the time of harvest. The BL&Y system might also appeal to a forest landowner who has heavily cut over woodland and does not expect to harvest trees for a long time. Owners who receive income from their forestland annually may prefer the **Productivity Tax** system, with a higher land value, but no yield tax at the time of harvest.

Designation Deadline

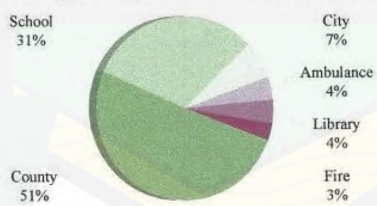
Forest landowners with ownership of from five to 5,000 acres have the right to choose between two forest tax systems. Designation forms are available at the county assessor's office. If no choice is made, the forestland will be assessed at its full market value. Once the forest landowner chooses one of the forest tax systems, the designation must remain in effect until the end of a designation period. The current designation period ends in December 2022. For more information, see chapter 17, title 63 of the Idaho Code. You can also contact the county assessor where your land is located or the Forest Tax Administrator, Idaho State Tax Commission, at (208) 334-7737.

When filling out the designation form, remember that:

(1) Proof of active management to enhance growth of timber for future harvest is required, and

(2) The designation form (FT-101) must be signed by all the owners of the property.

Boundary County Forest Tax Distribution 2019



The distribution may vary in other counties.

This brochure was prepared by the Idaho State Tax Commission. It does not provide comprehensive explanations of Idaho tax laws or rules. Specific questions should be addressed to the Tax Commission or a qualified tax practitioner.

Costs associated with this publication are available from the Idaho Tax Commission in accordance with section 60-202 Idaho Code.

EBR00104
02-18-2020

Idaho's Forestland Taxation Law

2020

FT-104

EBR00104_02-18-2020

Exhibit #1

Pilgrim Cove Lake Lot Comparables

Valley Co. Assessor Pilgrim Cove Lake Frontage Lots for 2020

Lot ID	Lot Size (Acres)	2020 Assessed Value	Per Ace	Per Square Foot	Per Lake Front Foot
2087 Rainbow Ln.	0.4489	$946,871	$2,109,314	$48.42	$13,230
2095 Rainbow Ln.	0.8897	$1,109,081	$1,246,579	$28.62	$0
2099 Water Lilly Ln.	0.9539	$1,015,075	$1,064,131	$24.43	$0
2101 Water Lilly Ln.	0.372	$865,174	$2,325,737	$53.39	$12,825
2103 Water Lilly Ln.	0.3647	$800,890	$2,196,024	$50.41	$13,095
2105 Water Lilly Ln.	0.406	$921,456	$2,269,596	$52.10	$12,960
2107 Water Lilly Ln.	0.6649	$1,266,104	$1,904,202	$43.71	$12,837
2109 Water Lilly Ln.	0.5748	$1,137,896	$1,979,638	$45.45	$13,365
Totals	4.6749	$8,062,547	$15,095,221	$346.53	$78,312
Average	**0.58436**	**$1,007,818**	**$1,886,903**	**$43.32**	**$13,052**
			2019 Assessed Value	**Variance**	
2087 Rainbow Ln.	0.4489	$946,871	$890,760	$56,111	
2095 Rainbow Ln.	0.8897	$1,109,081	$1,043,629	$65,452	
2099 Water Lilly Ln.	0.9539	$1,015,075	$908,201	$106,874	
2101 Water Lilly Ln.	0.372	$865,174	$773,210	$91,964	
2103 Water Lilly Ln.	0.3647	$800,890	$715,758	$85,132	
2105 Water Lilly Ln.	0.406	$921,456	$866,851	$54,605	
2107 Water Lilly Ln.	0.6649	$1,266,104	$1,131,522	$134,582	
2109 Water Lilly Ln.	0.5748	$1,137,896	$1,016,942	$120,954	
Totals	4.6749	$8,062,547	$7,346,873	$715,674	**9.74%**

Year-end 2020 Market Value for Trident/Pilgrim Cove IDL Lake Frontage Lots				
Lot ID	Lot Size (Acres)	2020 Broker Price Opinion Value	Per Ace	Per Square Foot
White Pine Heights 1-1	0.59	$1,224,582	$2,075,563	$47.65
Cove Replat 2-3	0.4723	$980,304	$2,075,595	$47.65
Cove Replat 2-4	0.4723	$980,304	$2,075,595	$47.65
Totals	1.5346	$3,185,189	$2,075,583	$47.65
Average	**0.5115**	**$1,061,730**	**$2,075,583**	**$47.65**

2087 Rainbow Lane

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: RP006540040040

EFF. DATE: 4/10/2018

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
2087 RAINBOW LN

OWNER
WILLIAMS FAMILY REVOCABLE LIVING TRUST

MAILING ADDRESS

9290 E THOMPSON PEAK PARKWAY LOT 462
SCOTTSDALE AZ 85255

TAX DISTRICT
015-0000

LEGAL DESCRIPTIONS
COVE REPLAT, STATE SUBDIVISION, LOT 4, BLOCK 4

NEIGHBORHOOD
539852 Payette Lakefront ES2

PROPERTY CLASS - USE
537 Res Impr on Cat 15

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE
08/09/2017	WILLIAMS CHARLES H	407822

ASSESSMENT HISTORY

ASSESS DATE	1/1/2020	01/01/2019	1/1/2018
CHANGE REASON	01- Revaluat	01- Revaluat	01- Revaluat
LAND	946871	890760	829622
IMPROVEMENTS	1407246	1248582	1150638
TOTAL	2354117	2139342	1980260

LAND DATA

LAND TYPE:

Payette Lakefront

LEGAL ACRES
0.4489 $946,871/0.4489=
$2,109,314 per Ac.

SQ FT
19554 $946,871/19,554=$48.42
per Sq. Ft.

FRONTAGE
71.57 $946,871/71.57=$13,230 per Frt. Ft.

2095 Rainbow Lane

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: RP00196001032A

EFF. DATE: 9/23/2009

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
2095 RAINBOW LN

OWNER
CORBEIL FAMILY TRUST

MAILING ADDRESS
C/O PIPER FIELD

3112 SYCAMORE DR
BOISE ID 83703

TAX DISTRICT
015-0000

LEGAL DESCRIPTIONS
AMENDED PLAT FOR PILGRIM COVE SUBDIVISION
LOT 32 BLOCK 1 & TAX NO. 132 IN

GOV'T. LOT 1 S3 T18N R3E

NEIGHBORHOOD
539852 Payette Lakefront ES2

PROPERTY CLASS - USE
537 Res Impr on Cat 15

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE

ASSESSMENT HISTORY

ASSESS DATE	1/1/2020	01/01/2019	1/1/2018	01/01/2017	01/01/2016
CHANGE REASON	01- Revaluat	01- Revaluat	01- Revaluat	01- Revaluat	02- Assessme
LAND	1109081	1043629	969625	891901	891901
IMPROVEMENTS	231292	209822	182292	181030	210435
TOTAL	1340373	1253451	1151917	1072931	1102336

LAND DATA

LAND TYPE:

Payette Lakefront

Buffer

LEGAL ACRES

0.8897 $1,109,081/0.8897=$1,246,579 per Ac.

SQ FT

38755 $1,109,081/38,755=$28.62 per Sq. Ft.

FRONTAGE

2099 Water Lilly Lane

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: RP00196001034A

EFF. DATE: 9/23/2009

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
2099 WATER LILLY LN

OWNER
KLOSS QUARTERS LLC

MAILING ADDRESS

2451 N SUNVIEW LN
BOISE ID 83702

TAX DISTRICT
015-0000

LEGAL DESCRIPTIONS
AMENDED PLAT FOR PILGRIM COVE SUBDIVISION
LOT 34 BLOCK 1 AND TAX NO. 148 IN

GOV'T. LOT 1 S3 T18N R3E

NEIGHBORHOOD
539852 Payette Lakefront ES2

PROPERTY CLASS - USE
537 Res Impr on Cat 15

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE
02/21/2020	KLOSS JOHN G	426960

ASSESSMENT HISTORY

ASSESS DATE	1/1/2020	01/01/2019	1/1/2018	01/01/2017	01/01/2016
CHANGE REASON	01- Revaluat	01- Revaluat	01- Revaluat	01- Revaluat	02- Assessme
LAND	1015075	908201	843944	776729	776729
IMPROVEMENTS	887540	836754	773092	720701	789435
TOTAL	1902615	1744955	1617036	1497430	1566164

LAND DATA

LAND TYPE:

Payette Lakefront

Buffer

LEGAL ACRES
0.9539 $1,015,075/0.9539=$1,064,131 Ac.

SQ FT
41551 $1,015,075/41,551=$24.43 pe Ft.

FRONTAGE

2101 Water Lilly Lane

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: RP00196001035B

EFF. DATE: 10/4/2012

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
2101 WATER LILLY LN

OWNER
MOONEY JUSTIN E

MAILING ADDRESS

MOONEY CARSON A

PO BOX 4150
KETCHUM ID 83340

TAX DISTRICT
015-0000

LEGAL DESCRIPTIONS
AMENDED PLAT FOR PILGRIM COVE SUBDIVISION
LOT 35; TAX NO. 122 IN LOTS 40 &42

BLOCK 1 AND TAX NO 8 IN GOVT LOT 8 S34 T19N
R3E

NEIGHBORHOOD
539852 Payette Lakefront ES2

PROPERTY CLASS - USE
537 Res Impr on Cat 15

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE
07/14/2020	WALLER CHERI MOONEY	430146
07/31/2017	WALLER GERALD A	407616
07/31/2017	MC SUN LLC	407615

ASSESSMENT HISTORY

ASSESS DATE	1/1/2020	01/01/2019	1/1/2018	01/01/2017	01/01/2016
CHANGE REASON	01- Revaluat	01- Revaluat	01- Revaluat	01- Revaluat	02- Assessme
LAND	865174	773210	721327	663488	663488
IMPROVEMENTS	1001511	922724	864206	810778	848835
TOTAL	1866685	1695934	1585533	1474266	1512323

LAND DATA

LAND TYPE:

Payette Lakefront

LEGAL ACRES
0.372 $865,174/0.372=$2,325,737 per acre

SQ FT
16204 $865,174/16,204=$53.39 per Sq.Ft.

FRONTAGE
67.46 $865,174/67.46=$12,825 per Frt. Ft.

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: RP006540020010

EFF. DATE: 3/27/2017

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
2103 WATER LILLY LN

OWNER
ZIMMER FAMILY TRUST

MAILING ADDRESS

2244 N LONGVIEW PL
BOISE ID 83702

TAX DISTRICT
015-0000

LEGAL DESCRIPTIONS
COVE REPLAT, STATE SUBDIVISION, LOT 1, BLOCK 2

NEIGHBORHOOD
539852 Payette Lakefront ES2

PROPERTY CLASS - USE
537 Res Impr on Cat 15

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE
10/17/2016	ZIMMER EDWARD E	401809

ASSESSMENT HISTORY

ASSESS DATE	1/1/2020	01/01/2019	1/1/2018	01/01/2017
CHANGE REASON	01- Revaluat	01- Revaluat	01- Revaluat	01- Revaluat
LAND	800890	715758	668400	614859
IMPROVEMENTS	741512	638839	585306	514332
TOTAL	1542402	1354597	1253706	1129191

LAND DATA

LAND TYPE:

Payette Lakefront

LEGAL ACRES
0.3647 $800,890/0.3647=$2,196,024/Acre

SQ FT
15886 $800,890/15,886=$50.41 per Sq.

FRONTAGE
61.16 $800,890/61.16=$13,095 per F

2105 Water Lilly Lane

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: RP00196001037C

EFF. DATE: 9/23/2009

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
2105 WATER LILLY LN

MAILING ADDRESS

3474 N VERDANT PLACE
STAR ID 83669

LEGAL DESCRIPTIONS
AMENDED PLAT FOR PILGRIM COVE SUBDIVISION
LOT 37 BLOCK 1 AND TAX NO'S. 2 & 3

OWNER
WARNER JOHN R

WARNER KATIE M

TAX DISTRICT
015-0000

NEIGHBORHOOD
539852 Payette Lakefront ES2

PROPERTY CLASS - USE
537 Res Impr on Cat 15

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE
12/27/2019	OLSON ALFERD C	425829

ASSESSMENT HISTORY

ASSESS DATE	1/1/2020	01/01/2019	1/1/2018	01/01/2017	01/01/2016
CHANGE REASON	01- Revaluat	01- Revaluat	01- Revaluat	01- Revaluat	02- Assessme
LAND	921456	866851	767665	706064	706064
IMPROVEMENTS	535493	528464	506880	463151	414270
TOTAL	1456949	1395315	1274545	1169215	1120334

LAND DATA

LAND TYPE:

Payette Lakefront

LEGAL ACRES
0.406 $921,456/0.406=$2,269,596 per Ac.

SQ FT
17685 $921,456/17,685=$52.10 per Sq.Ft.

FRONTAGE
71.1 $921,456/71.1=$12,960 per Frt.Ft.

2107 Water Lilly Lane

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: RP006540010020

EFF. DATE: 2/5/2019

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
2107 WATER LILLY LN

MAILING ADDRESS

199 N CAPITAL BLVD APT 802
BOISE ID 83702

LEGAL DESCRIPTIONS
COVE REPLAT, STATE SUBDIVISION, LOT 2, BLOCK 1

OWNER
CHRISTENSEN MCCORD

CHRISTENSEN AMY

TAX DISTRICT
015-0000

NEIGHBORHOOD
539852 Payette Lakefront ES2

PROPERTY CLASS - USE
537 Res Impr on Cat 15

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE

ASSESSMENT HISTORY

ASSESS DATE	1/1/2020	01/01/2019
CHANGE REASON	01- Revaluat	01- Revaluat
LAND	1266104	1131522
IMPROVEMENTS	386040	389473
TOTAL	1652144	1520995

LAND DATA

LAND TYPE:

Payette Lakefront

LEGAL ACRES
0.6649 $1,266,104/0.6649=$1,904,202 per Ac.

SQ FT
28963 $1,266,104/28,963=$43.71 per Sq.Ft.

FRONTAGE
98.68 $1,266,104/98.68=$12,837 per Frt.Ft.

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: RP006540010010

EFF. DATE: 2/5/2019

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
2109 WATER LILLY LN

OWNER
DAVISON SCOTT H & ANNE SHEA FAMILY TRUST AGREEMENT

MAILING ADDRESS

260 MAPACHE DR
PORTOLA VALLEY CA 94028

TAX DISTRICT
015-0000

LEGAL DESCRIPTIONS
COVE REPLAT, STATE SUBDIVISION, LOT 1, BLOCK 1

NEIGHBORHOOD
539852 Payette Lakefront ES2

PROPERTY CLASS - USE
537 Res Impr on Cat 15

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE

ASSESSMENT HISTORY

ASSESS DATE	1/1/2020	01/01/2019
CHANGE REASON	01- Revaluat	01- Revaluat
LAND	1137896	1016942
IMPROVEMENTS	29380	346863
TOTAL	1167276	1363805

LAND DATA

LAND TYPE:

Payette Lakefront

LEGAL ACRES
0.5748 — $1,137,896/0.5748=$1,979, Acre

SQ FT
25038 — $1,137,896/25,038= $45.45/Sq. Ft.

FRONTAGE
85.14 — $1,137,896/85.14=$13,36 foot

WP Heights 1-1

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: XR006670010010 **PARENT ID:** **EFF. DATE: 1/1/2015 00:00:00**

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
NULL

OWNER
STATE OF IDAHO

MAILING ADDRESS

PO BOX 83720
BOISE ID 83720

TAX DISTRICT
070-0000

LEGAL DESCRIPTIONS

NEIGHBORHOOD
0 Exempt Properties

PROPERTY CLASS - USE

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE

ASSESSMENT HISTORY

ASSESS DATE
CHANGE REASON
LAND
IMPROVEMENTS
TOTAL

LAND DATA

LAND TYPE:

Market Value

LEGAL ACRES
0

SQ FT
25704 = $1.871 mil

FRONTAGE

cove replat 2-3

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: XR006540040020 **PARENT ID:** **EFF. DATE: 2/27/2017 00:00:00**

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
2093 RAINBOW LN

OWNER
STATE OF IDAHO

MAILING ADDRESS

PO BOX 83720
BOISE ID 83720

TAX DISTRICT
070-0000

LEGAL DESCRIPTIONS

NEIGHBORHOOD
0 Exempt Properties

PROPERTY CLASS - USE

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE
11/13/2014	STODDARD CLARK	

ASSESSMENT HISTORY

ASSESS DATE
CHANGE REASON

LAND
IMPROVEMENTS
TOTAL

LAND DATA

LAND TYPE:

Market Value

LEGAL ACRES
0

SQ FT
20573 = $ 1.1 mil

FRONTAGE

53.47/ sq. ft.

Cove replat 2-4

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: XR006540040020 **PARENT ID:** **EFF. DATE: 2/27/2017 00:00:00**

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
2093 RAINBOW LN

OWNER
STATE OF IDAHO

MAILING ADDRESS

PO BOX 83720
BOISE ID 83720

TAX DISTRICT
070-0000

LEGAL DESCRIPTIONS

NEIGHBORHOOD
0 Exempt Properties

PROPERTY CLASS - USE

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE
11/13/2014	STODDARD CLARK	

ASSESSMENT HISTORY

ASSESS DATE
CHANGE REASON
LAND
IMPROVEMENTS
TOTAL

LAND DATA

LAND TYPE:

Market Value

LEGAL ACRES
0

SQ FT
20573 @ 53-30
=$1.1 mil

FRONTAGE

Exhibit #2

Pilgrim Cove "Off" Lake Comparables

Year-end 2020 IDL Off Lake Lot Values				
Lot ID	**Lot Size (Acres)**	**2020 Broker Price Opinion Value**	**Per Ace**	**Per Square Foot**
White Pine Heights 2-1	0.6228	$406,938	$653,400	$15.00
Cove Replat 1-4	0.3615	$236,204	$653,400	$15.00
Cove Replat 3-4	0.2254	$147,276	$653,400	$15.00
Totals	1.2097	$790,418	$653,400	$15.00
Average	**0.4032**	**$263,473**	**$653,400**	**$15.00**

2088 John Alden Road

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: RP001960040210

EFF. DATE: 9/23/2009

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
2088 JOHN ALDEN RD

OWNER
HOBSON CINDY

MAILING ADDRESS

10153 W SILVERKING CT
BOISE ID 83709

TAX DISTRICT
015-0000

LEGAL DESCRIPTIONS
AMENDED PLAT FOR PILGRIM COVE SUBDIVISION
LOT 21 BLOCK 4

NEIGHBORHOOD
511300 East Payette Lake influenced

PROPERTY CLASS - USE
537 Res Impr on Cat 15

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE
09/21/2020	STUBBLEFIELD DELL W	432556

ASSESSMENT HISTORY

ASSESS DATE	1/1/2020	01/01/2019	1/1/2018	01/01/2017	01/01/2016
CHANGE REASON	01- Revaluat	01- Revaluat	01- Revaluat	01- Revaluat	02- Assessme
LAND	104449	114854	118598	72150	72089
IMPROVEMENTS	96789	113724	95918	96744	81887
TOTAL	201238	228578	214516	168894	153976

LAND DATA

LAND TYPE:

Excellent

LEGAL ACRES
0.2572 $114,854/0.2572=$446,555 per Ac.

SQ FT
11203 $114,854/11,203=$10.25 per Sq.Ft.

FRONTAGE

2084 John Alden Road

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: RP006540200010

EFF. DATE: 11/25/2014

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
2084 JOHN ALDEN RD

MAILING ADDRESS

2072 SILVERCREEK LN
BOISE ID 83706

LEGAL DESCRIPTIONS
COVE REPLAT, STATE SUBDIVISION, LOT 1, BLOCK 20

OWNER
SHOEMAKER FREDRIC V

SHOEMAKER WENDELINE

TAX DISTRICT
015-0000

NEIGHBORHOOD
511300 East Payette Lake influenced

PROPERTY CLASS - USE
537 Res Impr on Cat 15

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE
05/06/2014	SHOEMAKER FREDRIC V	384659

ASSESSMENT HISTORY

ASSESS DATE	1/1/2020	01/01/2019	1/1/2018	01/01/2017	01/01/2016
CHANGE REASON	01- Revaluat	01- Revaluat	01- Revaluat	01- Revaluat	02- Assessme
LAND	98003	109746	113724	65044	64988
IMPROVEMENTS	111944	108257	91518	92305	88260
TOTAL	209947	218003	205242	157349	153248

LAND DATA

LAND TYPE:

Excellent

LEGAL ACRES
0.2144 $98,003/0.2144=$457104 per Ac.

SQ FT
9339 $98,003/9,339=$10.43 per Sq. Ft.

FRONTAGE

2080 John Alden Court

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: RP006540200020

EFF. DATE: 4/11/2018

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
2080 JOHN ALDEN RD

MAILING ADDRESS

5705 OHARA CT
BOISE ID 83703

LEGAL DESCRIPTIONS
COVE REPLAT, STATE SUBDIVISION, LOT 2, BLOCK 20

OWNER
BOND CHARLES EDWARD

SALLADAY-BOND TONI LOUISE

TAX DISTRICT
015-0000

NEIGHBORHOOD
511300 East Payette Lake influenced

PROPERTY CLASS - USE
537 Res Impr on Cat 15

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE
07/31/2017	SALLADAY TONI R	407601

ASSESSMENT HISTORY

ASSESS DATE	1/1/2020	01/01/2019	1/1/2018
CHANGE REASON	01- Revaluat	01- Revaluat	01- Revaluat
LAND	106638	116568	120234
IMPROVEMENTS	69888	67392	56463
TOTAL	176526	183960	176697

LAND DATA

LAND TYPE:

Excellent

LEGAL ACRES
0.2729 $106,638/0.2729=$390,759

SQ FT
11887 $106,638/11,887=$8.97 per Sq.Ft.

FRONTAGE

2076 John Alden Road

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: RP006540200030

EFF. DATE: 3/12/2014

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
2076 JOHN ALDEN RD

OWNER
DREWS KEVIN J & JULIE B FAMILY TRUST

MAILING ADDRESS

2320 N 30TH ST
BOISE ID 83703

TAX DISTRICT
015-0000

LEGAL DESCRIPTIONS
COVE REPLAT, STATE SUBDIVISION, LOT 3, BLOCK 20

NEIGHBORHOOD
511300 East Payette Lake influenced

PROPERTY CLASS - USE
537 Res Impr on Cat 15

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE
06/11/2014	DREWS KEVIN	385316
11/21/2013	DREWS JULIE BONN	381959

ASSESSMENT HISTORY

ASSESS DATE	1/1/2020	01/01/2019	1/1/2018	01/01/2017	01/01/2016
CHANGE REASON	01- Revaluat	01- Revaluat	01- Revaluat	01- Revaluat	02- Assessme
LAND	107019	116867	120518	75095	69748
IMPROVEMENTS	452228	438791	375981	356992	369394
TOTAL	559247	555658	496499	432087	439142

LAND DATA

LAND TYPE:

Excellent

LEGAL ACRES
0.2757 $107,019/0.2757=$388,172

SQ FT
12009 $107,019/12,009=$8.91 per Sq.Ft.

FRONTAGE

wrights 2-1

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: XR006670010020 **PARENT ID:** **EFF. DATE: 1/1/2015 00:00:00**

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
NULL

OWNER
STATE OF IDAHO

MAILING ADDRESS

PO BOX 83720
BOISE ID 83720

TAX DISTRICT
070-0000

LEGAL DESCRIPTIONS

NEIGHBORHOOD
0 Exempt Properties

PROPERTY CLASS - USE

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE

ASSESSMENT HISTORY

ASSESS DATE
CHANGE REASON

LAND

IMPROVEMENTS

TOTAL

LAND DATA

LAND TYPE:

Market Value

LEGAL ACRES
0

SQ FT
27129 = $729,000

FRONTAGE

cove replat 1-4

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: XR006540040010 **PARENT ID:** **EFF. DATE: 2/27/2017 00:00:00**

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
NULL

OWNER
STATE OF IDAHO

MAILING ADDRESS

PO BOX 83720
BOISE ID 83720

TAX DISTRICT
070-0000

LEGAL DESCRIPTIONS

NEIGHBORHOOD
0 Exempt Properties

PROPERTY CLASS - USE

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE

ASSESSMENT HISTORY

ASSESS DATE
CHANGE REASON

LAND

IMPROVEMENTS

TOTAL

LAND DATA

LAND TYPE:

Market Value

LEGAL ACRES
0

SQ FT
15746 = 433,000

FRONTAGE

Cove Replat 3-4

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: XR006540040030 **PARENT ID:** **EFF. DATE: 2/27/2017 00:00:00**

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
NULL

OWNER
STATE OF IDAHO

MAILING ADDRESS

PO BOX 83720
BOISE ID 83720

TAX DISTRICT
070-0000

LEGAL DESCRIPTIONS

NEIGHBORHOOD
0 Exempt Properties

PROPERTY CLASS - USE

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE

ASSESSMENT HISTORY

ASSESS DATE
CHANGE REASON
LAND
IMPROVEMENTS
TOTAL

LAND DATA

LAND TYPE:

Market Value

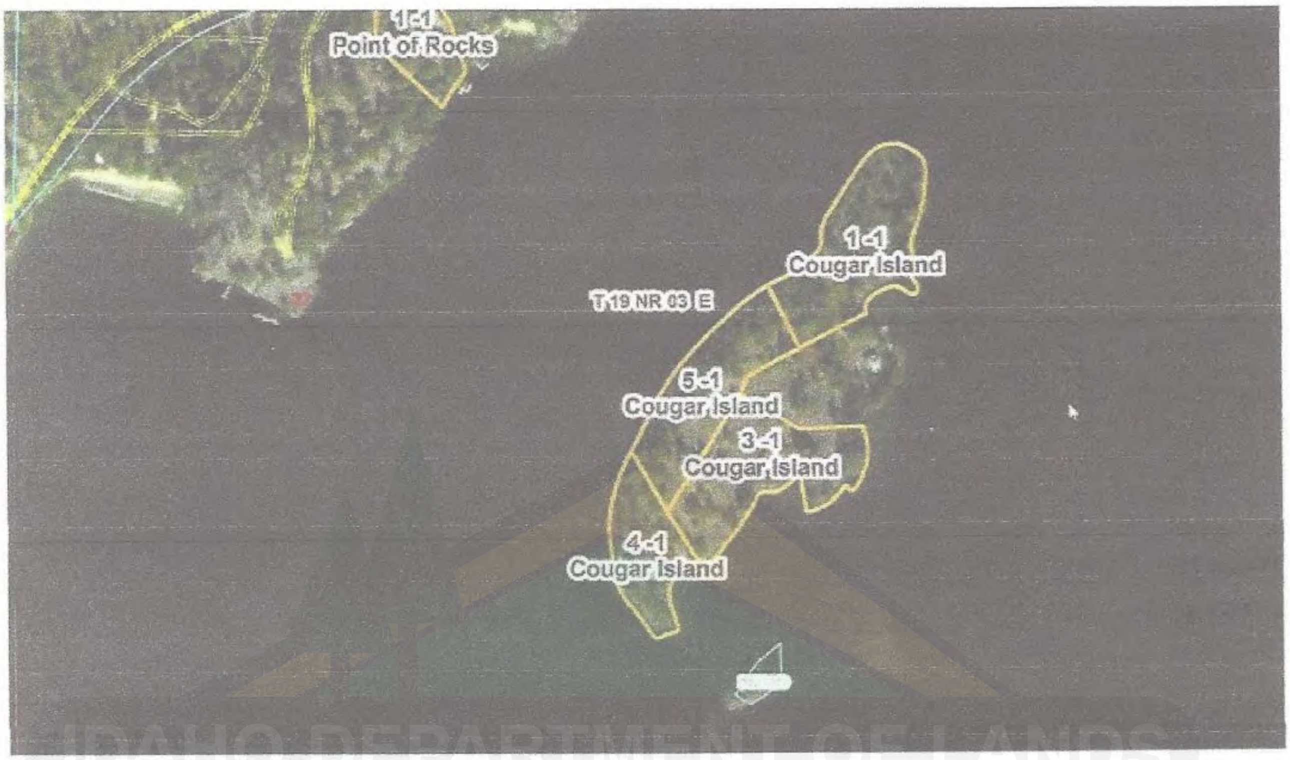
LEGAL ACRES
0

SQ FT
9818 @ 22.50/sq.ft

FRONTAGE = 220,000

Exhibit #3

Cougar Island Comparables



Cougar Island Lot Values (2020 Corbett/Bottles Appraised Value)

Lots	Sq. Ft.	Value/Sq. Ft.	Total Value
Lot 1-1	151,153	$8	$1,200,000
lot 3-1	145,926	$6	$900,000
Lot 4-1	84,070	$11	$900,000
Lot 5-1	128,066	$6	$750,000
Total	509,215	$7	$3,750,000
Acres	11.6900		
Value/acre	$320,788		

Exhibit #3

Cougar Island Lots Appraisal Values

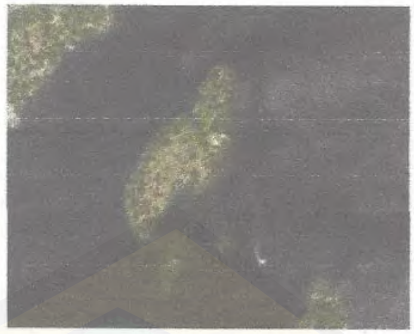
PAYETTE LAKE LOTS ELIGIBLE FOR NOMINATION

2020 PAYETTE LAKE "BIG COUGAR ISLAND" LOTS ELIGIBLE FOR NOMINATION AT AUCTION

Idaho Department of Lands – Payette Lake, ID

4 Lots on Big Cougar Island, McCall, now eligible for nomination for Live Public Auction, late Fall 2020.

Big Cougar Island Flyer & Lot Details



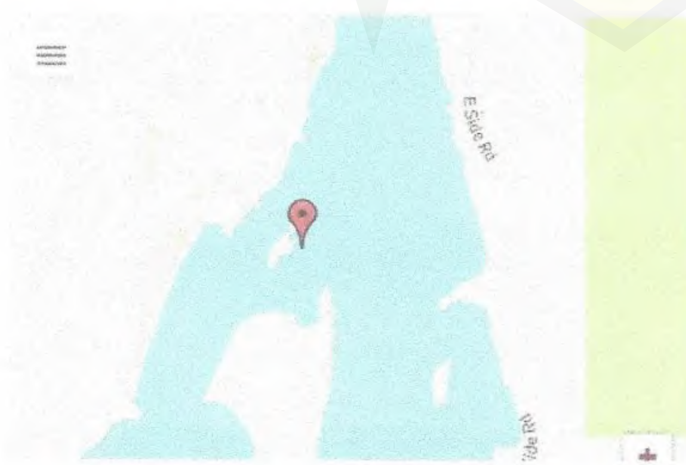
To nominate individual lots for Auction, please review the sample **Application Form** and contact **Emily Mueller** (208) 377-5700, **emily@markbottles.com** for more information.
Application fee (Appraisal and Title Commitment deposit) for individual Lot is $3,000.

Lots to be sold subject to reserve price of 2020 appraised value. The bid price at auction will be for the LOT(S) ONLY. The cost of improvements (if any), as well as an appraisal fee, an administrative fee, a non-refundable closing deposit in the amount of $50,000 per lot, and a title insurance deposit will be due from the high bidder on auction day.

2020 Appraised Values:

- ✔ Lot 1 Blk 1 = $1,200,000 – Unleased
- ✔ Lot 3 Blk 1 = $900,000 – Unleased
- ✔ Lot 4 Blk 1 = $900,000 – Unleased
- ✔ Lot 5 Blk 1 = $750,000 – Unleased

Please contact Emily at (208) 377-5700 with any questions you may have.



VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: XR006650010030 **PARENT ID:** **EFF. DATE: 2/13/2015 00:00:00**

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
5 BIG COUGAR ISLAND

OWNER
STATE OF IDAHO

MAILING ADDRESS

PO BOX 83720
BOISE ID 83720

TAX DISTRICT
070-0000

LEGAL DESCRIPTIONS

NEIGHBORHOOD
0 Exempt Properties

PROPERTY CLASS - USE

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE

ASSESSMENT HISTORY

ASSESS DATE
CHANGE REASON
LAND
IMPROVEMENTS
TOTAL

LAND DATA

LAND TYPE:

Market Value

LEGAL ACRES
0

SQ FT
145926

FRONTAGE

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: XR006650010040 **PARENT ID:** **EFF. DATE: 2/13/2015 00:00:00**

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
10 BIG COUGAR ISLAND

OWNER
STATE OF IDAHO

MAILING ADDRESS

PO BOX 83720
BOISE ID 83720

TAX DISTRICT
070-0000

LEGAL DESCRIPTIONS

NEIGHBORHOOD
0 Exempt Properties

PROPERTY CLASS - USE

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE

ASSESSMENT HISTORY

ASSESS DATE
CHANGE REASON

LAND
IMPROVEMENTS
TOTAL

LAND DATA

LAND TYPE:

Market Value

LEGAL ACRES
0

SQ FT
84070

FRONTAGE

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: XR006650010050 **PARENT ID:** **EFF. DATE:** 2/13/2015 00:00:00

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
15 BIG COUGAR ISLAND

OWNER
STATE OF IDAHO

MAILING ADDRESS

PO BOX 83720
BOISE ID 83720

TAX DISTRICT
070-0000

LEGAL DESCRIPTIONS

NEIGHBORHOOD
0 Exempt Properties

PROPERTY CLASS - USE

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE

ASSESSMENT HISTORY

ASSESS DATE
CHANGE REASON

LAND

IMPROVEMENTS

TOTAL

LAND DATA

LAND TYPE:

Market Value

LEGAL ACRES
0

SQ FT
128066

FRONTAGE

VALLEY COUNTY ASSESSORS: GENERAL PROPERTY SUMMARY

PARCEL ID: **XR006650010010** **PARENT ID:** **EFF. DATE:** **2/13/2015 00:00:00**

REAL ESTATE INQUIRY

PHYSICAL ADDRESS
20 BIG COUGAR ISLAND

OWNER
STATE OF IDAHO

MAILING ADDRESS

PO BOX 83720
BOISE ID 83720

TAX DISTRICT
070-0000

LEGAL DESCRIPTIONS

NEIGHBORHOOD
0 Exempt Properties

PROPERTY CLASS - USE

SALE HISTORY

SALE DATE	GRANTOR	DEED REFERENCE

ASSESSMENT HISTORY

ASSESS DATE
CHANGE REASON
LAND
IMPROVEMENTS
TOTAL

LAND DATA

LAND TYPE:

Market Value

LEGAL ACRES
0

SQ FT
151153

FRONTAGE

Exhibit #6

Building Development Market Value Comparables

CMA Summary Report

Land Summary Statistics

	High	Low	Average	Median
LP	$1,500,000	$249,900	$742,043	$739,180
SP	$1,400,000	$225,000	$664,833	$597,500

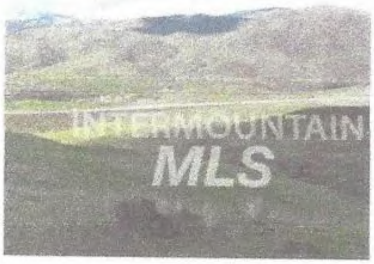
Land - Sold

Number of Properties: 6

Num	MLS #	Status	Area	Price	# Acres	DOM	LP	LP/# Acres	SP	SP/# Acres
1	98721342	Sold	Horseshoe Bend - 1400	$225,000	40.000	266	$249,900	$6,247.50	$225,000	$5,625.00
2	98777903	Sold	Horseshoe Bend - 1400	$269,000	40.000	9	$269,000	$6,725.00	$269,000	$6,725.00
3	98754102	Sold	Donnelly-Tamarack - 1805	$475,000	45.490	29	$695,000	$15,278.08	$475,000	$10,441.86
4	98765033	Sold	McCall - 1800	$720,000	46.080	115	$783,360	$17,000.00	$720,000	$15,625.00
5	98760374	Sold	McCall - 1800	$900,000	94.530	115	$955,000	$10,102.61	$900,000	$9,520.79
6	98713274	Sold	Adams County - Other - 1925	$1,400,000	141.570	589	$1,500,000	$10,595.47	$1,400,000	$9,889.10
Avg				$664,833	67.95	187	$742,043	$10,991.44	$664,833	$9,637.79
Min				$225,000	40.00	9	$249,900	$6,247.50	$225,000	$5,625.00
Max				$1,400,000	141.57	589	$1,500,000	$17,000.00	$1,400,000	$15,625.00
Med				$597,500	45.79	115	$739,180	$10,349.04	$597,500	$9,704.95

MLS Full Detail (6 of 10)

Checked All Email Share Save Print Export Customize Correction Actions Listing 1 of 6



MLS #	98721342	Asking Price	$249,900
Class	Land	Status	Sold
Type	Building Lots	Land Size	20 Acres - 40 Acres
Area	Horseshoe Bend - 1400	# Acres	40.000
Address	Parcel 19 Summit Ridge Rd.	Lot Size	X
City	Horseshoe Bend	Price/Acre	$6,247.50
Zip	83631		For Sale

REMARKS

Dry graze land with a perfect knoll for a dwelling. Lots of privacy with a panoramic view. Less than 1/2 hour from Boise. Small town living. Approx. a half mile south of Horseshoe Bend on Old Hwy 55.

AGENT REMARKS

Listing agent is managing partner of LLC. For more info and maps call Ilene at 208-377-2121 Tues. thru Friday at the Boise Office or 208-462-3250 Sat.,Sun and Monday at Terrace Lakes Office. Buyer/Buyers agent to verify all info presented herein.

Agent Hit Count: Client Hit Count:

GENERAL Confidential: This view may only be distributed to IMLS members. Any violation subject up to a $500 fine.

Listing Date	3/8/2019	List Agent - Phn	Ilene Johnson - Voice: 208-577-1557	/ Fax: 208-377-2309	
Expiration Date		List Office - Phn	ERA West Wind Boise - Main: 208-377-2121	/ Fax: 208-377-2309	
DOM / CDOM	266 / 266	Co-List Agent			
Cable TV?	No	Owner/Main/Alt.	/ /		
Cov & Restrict?	Yes	Agent Email	ILENEJ@MINDSPRING.COM		
Curb & Gutter?	No	Co-Op Agent $/%	% 3.00 Variable Rate? No	Short Sale Rate	
Flood Ins Req?	No	Selling Agt to Prsnt?	No	Listing Service	Full Service
Improv. Dist?	No	Original Price	$249,900	Zoning	
Irrigation?	No	County	Boise		
Irrigation Dist?	No	School District	Horseshoe Bend School District #73		
Irrig Dist Name		Grade School	Horseshoe		
MH Allowed?	Yes	Jr High	HorseShoJr		
Foundation Req?	Yes	Sr High	Horseshoe Bend		
Paved Street?	Yes	Electric	Available		
Phone Lines?	Yes	Fenced			
Sidewalks?	No	Gas	Propane		
Survey Avail?	Yes	Land Use	Single, Farm & Ranch		
View?	Yes	Site Features	sloping, excellent Knoll		
Waterfront?	No	Subdivision	Webster Ranch		
Wtr Shrs Avail?		Type of Ownership	Fee Simple	Date of Ownership	
Water Deliv?		Cross Street	Hwy 55 in Horseshoe Bend		
Mineral Rights?	Unknown	Virtual Tour	/		

Directions Hwy 55 to Horseshoe Bend, then turn left at bottom of hill, property about 1/2 mile up the hill.

Legal Lot 19 Tax 98 Websters Ranch #2

FEATURES Printed/Emailed By: 558123 Kevin Boling

DOCS ON FILE Survey/Plat

Home Saved Property Searches Land
Criteria Map Search **MLS Full Detail (6 of 10)**

Checked All Email Share Save Print Export Customize Correction Actions Listing 2 of 6 BACK REPORTS

MLS # **98777903**
Class **Land**
Type **Building Lots**
Area **Horseshoe Bend - 1400**
Address **35 Lorraine**
City **Horseshoe Bend**
Zip **83629**

Asking Price **$269,000**
Status **Sold**
Land Size **20 Acres - 40 Acres**
Acres **40.000**
Lot Size X
Price/Acre **$6,725.00**
For Sale

REMARKS

Panoramic views for days over the foothills, downtown views of Horseshoe Bend, and views of the Payette River. This 40 acre lot is just north of Boise, 15 miles into downtown Eagle. 40x60 shop with oversized garage door for your RV. and a Partially finished platform to build out a studio. Paved Road Frontage on Old Hwy 55

AGENT REMARKS

Agent is part owner of the property.

Agent Hit Count: Client Hit Count:

GENERAL **Confidential: This view may only be distributed to IMLS members. Any violation subject up to a $500 fine.**

Listing Date	**8/19/2020**
Expiration Date	
DOM / CDOM	**9 / 9**
Cable TV?	
Cov & Restrict?	**Yes**
Curb & Gutter?	**No**
Flood Ins Req?	**No**
Improv. Dist?	**No**
Irrigation?	
Irrigation Dist?	**No**
Irrig Dist Name	
MH Allowed?	**No**
Foundation Req?	
Paved Street?	**Yes**
Phone Lines?	
Sidewalks?	**No**
Survey Avail?	
View?	**Yes**
Waterfront?	**No**
Wtr Shrs Avail?	
Water Deliv?	
Mineral Rights?	**Unknown**

List Agent - Phn	**Teia Golden - Main: 208-616-2646 / Fax: 208-342-3309**
List Office - Phn	**Windermere Real Estate Professionals - Main: 208-343... / Fax: 208-342-3309**
Co-List Agent	
Owner/Main/Alt.	/ /
Agent Email	**teia@windermere.com**
Co-Op Agent $/%	**% 3.00**
Variable Rate?	**No**
Short Sale Rate	
Selling Agt to Prsnt?	**No**
Listing Service	**Full Service**
Original Price	**$269,000**
Zoning	**Residential**
County	**Boise**
School District	**Horseshoe Bend School District #73**
Grade School	**Horseshoe**
Jr High	**HorseShoJr**
Sr High	**Horseshoe Bend**
Electric	**Available**
Fenced	
Gas	**None**
Land Use	**Single**
Site Features	**Shop**
Subdivision	**Webster Ranch II**
Type of Ownership	**Fee Simple**
Date of Ownership	
Cross Street	**Summit Ridge**
Virtual Tour	**Branded Virtual Tour 1 / Unbranded Virtual Tour 1**

Directions **N on Hwy 55, left on Old Hwy 55 also called Summit Ridge Rd, right on a gravel road with no name**
Legal **Exhibit A**

FEATURES **Printed/Emailed By: 558123 Kevin Boling**

DOCS ON FILE

Home Saved Property Searches Land
Criteria Map Search **MLS Full Detail (6 of 10)**

Checked All Email Share Save Print Export Customize Correction Actions Listing 3 of 6

MLS #	**98754102**	Asking Price	**$695,000**
Class	**Land**	Status	**Sold**
Type	**Building Lots**	Land Size	**Over 40 Acres**
Area	**Donnelly-Tamarack - 1805**	# Acres	**45.490**
Address	**560 W Roseberry Rd**	Lot Size	**Irreg** X **Irreg**
City	**Donnelly**	Price/Acre	$ **15,278.08**
Zip	**83615**		**For Sale**

REMARKS

DEVELOPMENT PROPERTY in the growth path of Donnelly. Zoned multi use of Commercial and Residential this 45.5 acres is prime for development. This property is located on the main road to Tamarack Resort. Prepaid sewer hookups - 33 EDUs.

AGENT REMARKS

Agent Hit Count: Client Hit Count:

GENERAL **Confidential: This view may only be distributed to IMLS members. Any violation subject up to a $500 fine.**

Listing Date	**1/10/2020**	List Agent - Phn	**Michelle Basye - Voice: 208-630-4702**		/ **Fax: 208-634-9922**
Expiration Date		List Office - Phn	**Brundage Realty - Main: 208-630-4702**		/ **Fax: 208-634-9922**
DOM / CDOM	**29** / **29**	Co-List Agent			
Cable TV?		Owner/Main/Alt.	/		/
Cov & Restrict?	**No**	Agent Email	**michelle@brundagerealty.com**		
Curb & Gutter?		Co-Op Agent $/%	**% 3.00** Variable Rate? **No**	Short Sale Rate	
Flood Ins Req?	**No**	Selling Agt to Prsnt?	**No**	Listing Service	**Full Service**
Improv. Dist?	**No**	Original Price	**$695,000**	Zoning	
Irrigation?		County	**Valley**		
Irrigation Dist?	**No**	School District	**McCall-Donnelly Joint District #421**		
Irrig Dist Name		Grade School	**Donnelly**		
MH Allowed?	**No**	Jr High	**McCall Donnelly**		
Foundation Req?		Sr High	**McCall Donnelly**		
Paved Street?	**Yes**	Electric	**Installed**		
Phone Lines?		Fenced	**Partial**		
Sidewalks?		Gas	**None**		
Survey Avail?	**Yes**	Land Use	**Other**		
View?		Site Features			
Waterfront?		Subdivision	**0 Not Applic.**		
Wtr Shrs Avail?		Type of Ownership	**Fee Simple**	Date of Ownership	
Water Deliv?		Cross Street			
Mineral Rights?		Virtual Tour	/		

Directions **HWY 55, West on Roseberry Road,1/2 mile on north side.**
Legal **DONNELLY ACREAGE TAX NO'S 117 AND 118 IN S/2 SW S10 T16N R3E**

FEATURES **Printed/Emailed By: 558123 Kevin Boling**
DOCS ON FILE **Survey/Plat**

MLS Full Detail (6 of 10)

Checked All Email Share Save Print Export Customize Correction Actions Listing 4 of 6

MLS #	98765033	Asking Price	$783,360
Class	Land	Status	Sold
Type	Building Lots	Land Size	Over 40 Acres
Area	McCall - 1800	# Acres	46.080
Address	TBD West Mountain Road	Lot Size	X
City	McCall	Price/Acre	$17,000.00
Zip	83638		For Sale

REMARKS

Beautiful 46 acres just minutes west of McCall. Land consists of rolling grass and mature Pine Trees. Great views of the surrounding Mountains of McCall. The 46 acres has been split into 2, 20+/- acres. See listings 98765117 and 98765114. Power will be put in by Seller when sold. Go to Valley County Website for permitted and Conditional use for property under Building, Chapter 3, and Title 9-1-10 for Definitions. Build your home or Subdivide.

AGENT REMARKS

Owner/Agent

Agent Hit Count: Client Hit Count:

GENERAL Confidential: This view may only be distributed to IMLS members. Any violation subject up to a $500 fine.

Listing Date	4/28/2020	List Agent - Phn	Steven L Caven - Voice: 208-283-7918	/ Fax: 208-938-0754	
Expiration Date		List Office - Phn	Silvercreek Realty Group - Main: 208-377-0422	/ Fax: 208-377-1187	
DOM / CDOM	115 / 115	Co-List Agent			
Cable TV?		Owner/Main/Alt.	/ /		
Cov & Restrict?	No	Agent Email	slcaven@msn.com		
Curb & Gutter?		Co-Op Agent $/%	% 3.00	Variable Rate? No	Short Sale Rate
Flood Ins Req?	No	Selling Agt to Prsnt?	No		Listing Service: Full Service
Improv. Dist?	No	Original Price	$1,010,250		Zoning
Irrigation?		County	Valley		
Irrigation Dist?		School District			
Irrig Dist Name		Grade School			
MH Allowed?	Yes	Jr High			
Foundation Req?	No	Sr High			
Paved Street?		Electric	Available		
Phone Lines?		Fenced	None		
Sidewalks?		Gas	None		
Survey Avail?	Yes	Land Use	Single, Recreation		
View?	Yes	Site Features			
Waterfront?		Subdivision	0 Not Applic.		
Wtr Shrs Avail?		Type of Ownership	Fee Simple	Date of Ownership	
Water Deliv?		Cross Street			
Mineral Rights?	No	Virtual Tour	/		

Directions: W. Lake, S. on Boydstrum, Right on W. Valley, Left on Wisdom, Right on W. Valley/W. Mountain to lots

Legal: See Attached Exhibits A, B and C

FEATURES Printed/Emailed By: 558123 Kevin Boling

DOCS ON FILE Survey/Plat, Lengthy Legal Description

MLS #	**98760374**
Class	**Land**
Type	**Building Lots**
Area	**McCall - 1800**
Address	**TBD HWY 55**
City	**McCall**
Zip	**83638**
Asking Price	**$955,000**
Status	**Sold**
Land Size	**Over 40 Acres**
# Acres	**94.530**
Lot Size	X
Price/Acre	**$10,102.61**

For Sale

REMARKS

Approx 95 AC close proximity to McCall in the "OPPORTUNITY ZONE". OPPORTUNITY ZONE FUND is a new Tax Reduction Fund for investors to take advantage of one of the best capital gains tax reduction programs of a generation. This property is priced right for a great mixed use development with an extension of residential on the East side and Commercial along Highway 55 (approx 1295 feet of frontage). There are several access points for the development: 70 ft off of Rogers Lane, 70 feet off of Chase Lane.

AGENT REMARKS

Possible one or two accesses from Hwy 55 or Knob Hill road. Just minutes from downtown Mccall. If you are not interested in Development property, this Ranch has great history for cattle with 53 inches of irrigation.

Agent Hit Count: Client Hit Count:

GENERAL **Confidential: This view may only be distributed to IMLS members. Any violation subject up to a $500 fine.**

Listing Date	**3/13/2020**	List Agent - Phn	**Michelle Basye - Voice: 208-630-4702** / **Fax: 208-634-9922**
Expiration Date		List Office - Phn	**Brundage Realty - Main: 208-630-4702** / **Fax: 208-634-9922**
DOM / CDOM	**115** / **115**	Co-List Agent	
Cable TV?		Owner/Main/Alt.	/ /
Cov & Restrict?	**No**	Agent Email	**michelle@brundagerealty.com**
Curb & Gutter?		Co-Op Agent $/%	**% 2.50** Variable Rate? **No** Short Sale Rate
Flood Ins Req?	**No**	Selling Agt to Prsnt?	**No** Listing Service **Full Service**
Improv. Dist?	**No**	Original Price	**$955,000** Zoning
Irrigation?	**Yes**	County	**Valley**
Irrigation Dist?	**No**	School District	
Irrig Dist Name		Grade School	
MH Allowed?	**Yes**	Jr High	
Foundation Req?	**Yes**	Sr High	
Paved Street?		Electric	**Available**
Phone Lines?		Fenced	
Sidewalks?		Gas	**None**
Survey Avail?		Land Use	**Single, Farm & Ranch**
View?	**Yes**	Site Features	
Waterfront?		Subdivision	**Non Applicable**
Wtr Shrs Avail?		Type of Ownership	**Fee Simple** Date of Ownership
Water Deliv?		Cross Street	
Mineral Rights?		Virtual Tour	/

Directions **South on Hwy 55 after Rogers Lane right before Knob Hill Dr**

Legal **WEST PART OF TAX NO. 47 IN SE4 S33 T18N R3E;E. PT. TAX NO. 47 IN SW4; E. 70' OF AMD TAX NO. 10 IN SW4SW4 S3...**

FEATURES **Printed/Emailed By: 558123 Kevin Boling**

DOCS ON FILE **Survey/Plat**

Home Saved Property Searches Land
Criteria New Search MLS Full Detail (6 of 10)

Checked All Email Share Save Print Export Customize Correction Actions Listing 6 of 6 BACK REPORTS

MLS #	98713274	Asking Price	$1,500,000
Class	Land	Status	Sold
Type	Recreation	Land Size	Over 40 Acres
Area	Adams County - Other - 1925	# Acres	141.570
Address	TBD Zim's Road	Lot Size	X
City	New Meadows	Price/Acre	$10,595.47
Zip	83654		

For Sale

REMARKS

Natural hot water at 130°. Sub-irrigated pasture ranch with some timber. Minutes from McCall, ID, with large pond, spring, and shop. Close to National Forests, streams, and rivers for hunting, fishing, and recreation. Seller has an estimated $1,000,000 of gravel on land. Old foundation of home built over geothermal hot water for possible heat. Seller prefers cash, open to offer of owner carry with strong down or possible trade -- make offer. Shown to pre-approved/prequalified buyers only. BTVAD.

AGENT REMARKS

Submit all offers to John Knipe john@knipeland.com AND transactiondesk@knipeland.com.

Agent Hit Count: Client Hit Count:

GENERAL Confidential: This view may only be distributed to IMLS members. Any violation subject up to a $500 fine.

Listing Date	11/26/2018	List Agent - Phn	John Knipe - Voice: 208-345-3163	/ Fax: 208-344-0936	
Expiration Date		List Office - Phn	Knipe Land Company - Main: 208-345-3163	/ Fax: 208-344-0936	
DOM / CDOM	589 / 589	Co-List Agent			
Cable TV?		Owner/Main/Alt.	/ /		
Cov & Restrict?		Agent Email	john@knipeland.com		
Curb & Gutter?		Co-Op Agent $/%	% 2.50 Variable Rate? No	Short Sale Rate	
Flood Ins Req?	No	Selling Agt to Prsnt?	Yes	Listing Service	Full Service
Improv. Dist?	No	Original Price	$1,500,000	Zoning	
Irrigation?	Yes	County	Adams		
Irrigation Dist?		School District			
Irrig Dist Name		Grade School			
MH Allowed?	Yes	Jr High			
Foundation Req?	Yes	Sr High			
Paved Street?		Electric	Installed		
Phone Lines?		Fenced			
Sidewalks?		Gas	None		
Survey Avail?		Land Use	Farm & Ranch, Recreation		
View?		Site Features			
Waterfront?		Subdivision	Non Applicable		
Wtr Shrs Avail?		Type of Ownership	Fee Simple	Date of Ownership	
Water Deliv?		Cross Street			
Mineral Rights?		Virtual Tour	Branded Virtual Tour 1 /		

Directions North of New Meadows to Zim's Rd. Left on Zim's Rd to Zim's Hot Springs. Property is directly across

Legal T20N R1E SEC 26 E2NE4 NE4SE4 TAX #1701 IN W2E2 141.57 AC

FEATURES Printed/Emailed By: 558123 Kevin Boling

DOCS ON FILE

05 Appendix Document

Architect Prepared Site Study for Workforce Housing (Deinhard)

Presented to the Valley County Commission, 09 August 2021

Note: Planning efforts like this are an example of high-cost, pre-entitlement work IDL would need to fund and perform to become a lot developer.

Preserve McCall | Deinhard Parcel

Local Housing Initiative Concept Studies

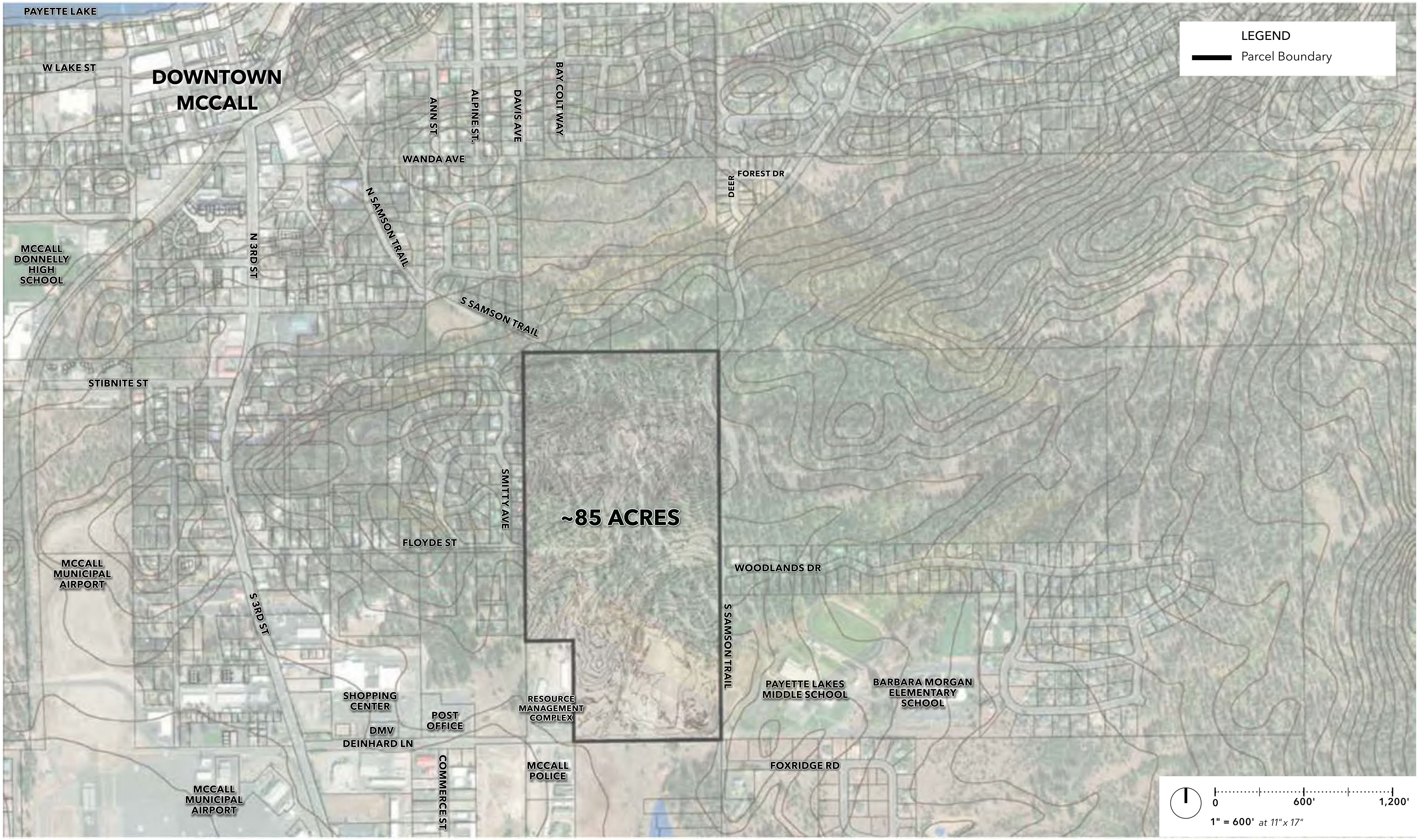
AUGUST 9, 2021

PRESERVE McCALL

HART HOWERTON

Table of Contents

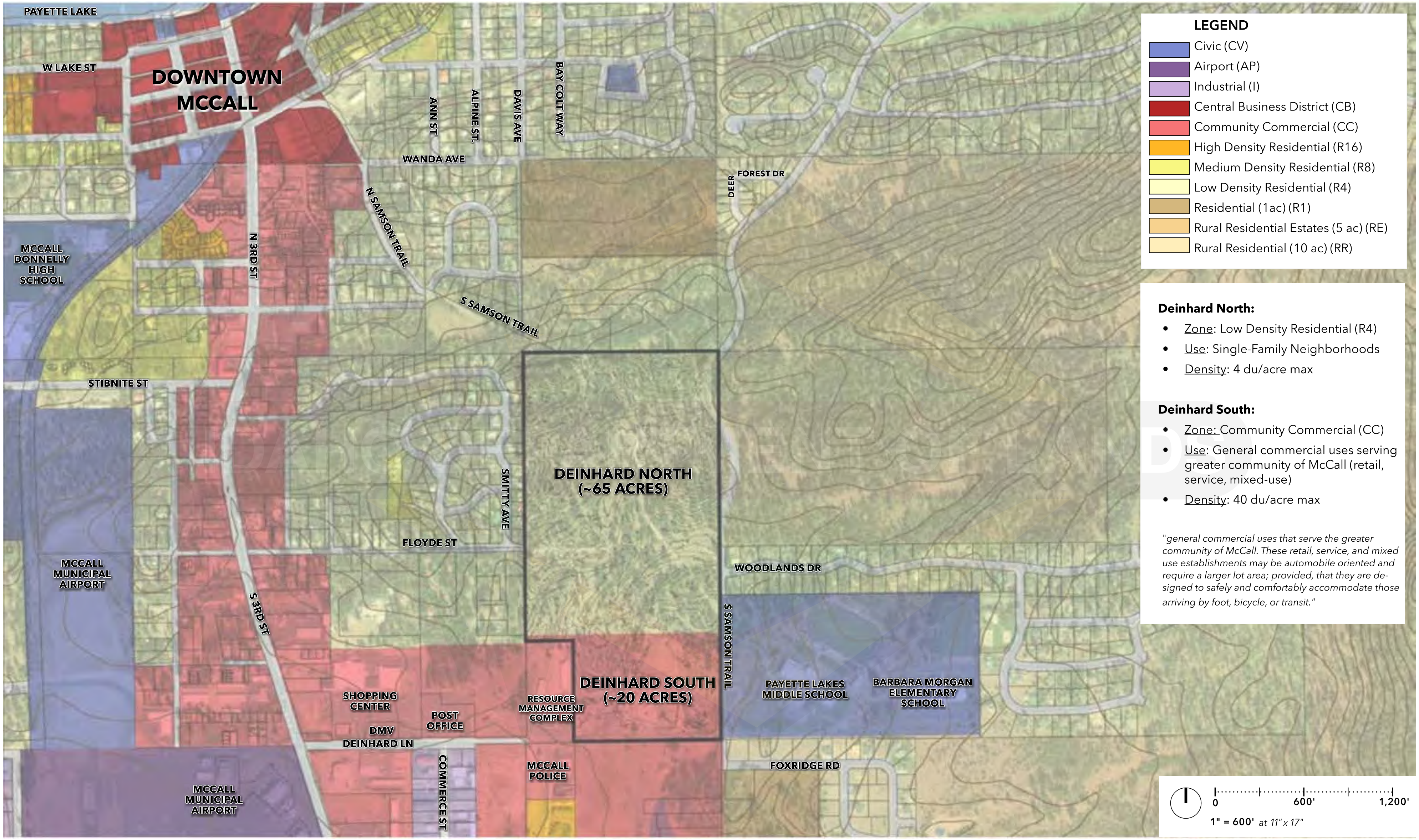
Existing Conditions



Existing Conditions | Aerial

Preserve McCall August 6, 2021

HART HOWERTON



Existing Conditions | Zoning & Context

Preserve McCall August 6, 2021

Surrounding Community

Frequent Use

- Trails & Open Space
- Payette Lakes Middle School
- Barbara Morgan Elementary
- Ridley's Family Market
- Local Residential
- USPS
- Legend Cross Fit
- Automotive & Tire Shops

Less Frequent Use

- Valley County DMV
- McCall Municipal Airport
- Lodging (Holiday Inn, Best Western, Super 8, RV Park, etc.)
- Resource Management Complex

BARBARA MORGAN ELEMENTARY

PAYETTE LAKES MIDDLE SCHOOL

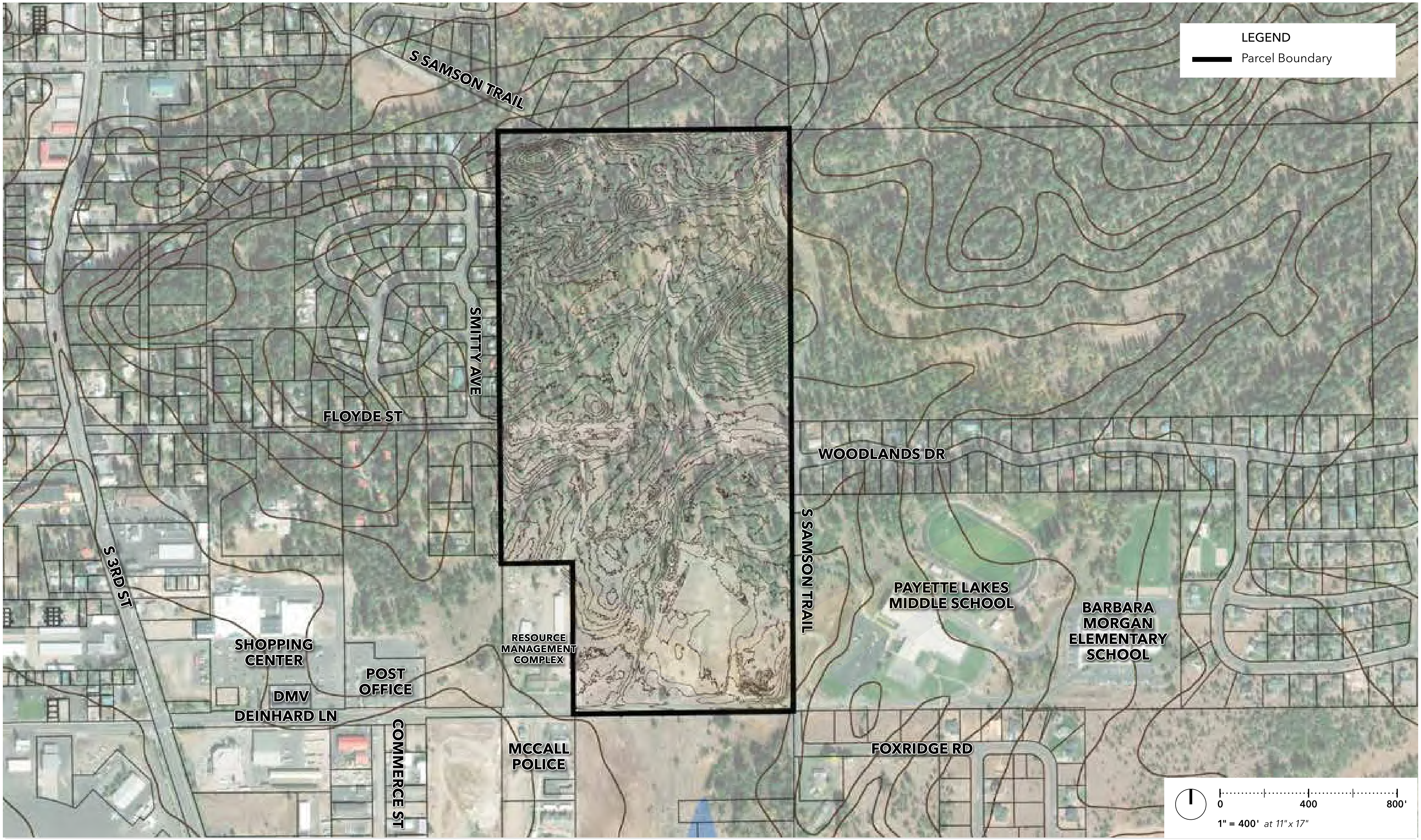
SURROUNDING HOUSING


DEINHARD LANE LOOKING NE


DEINHARD LANE LOOKING NW


S SAMSON DRIVE LOOKING NORTH

Site Context | Street View



Site Context | Aerial

Preserve McCall August 6, 2021

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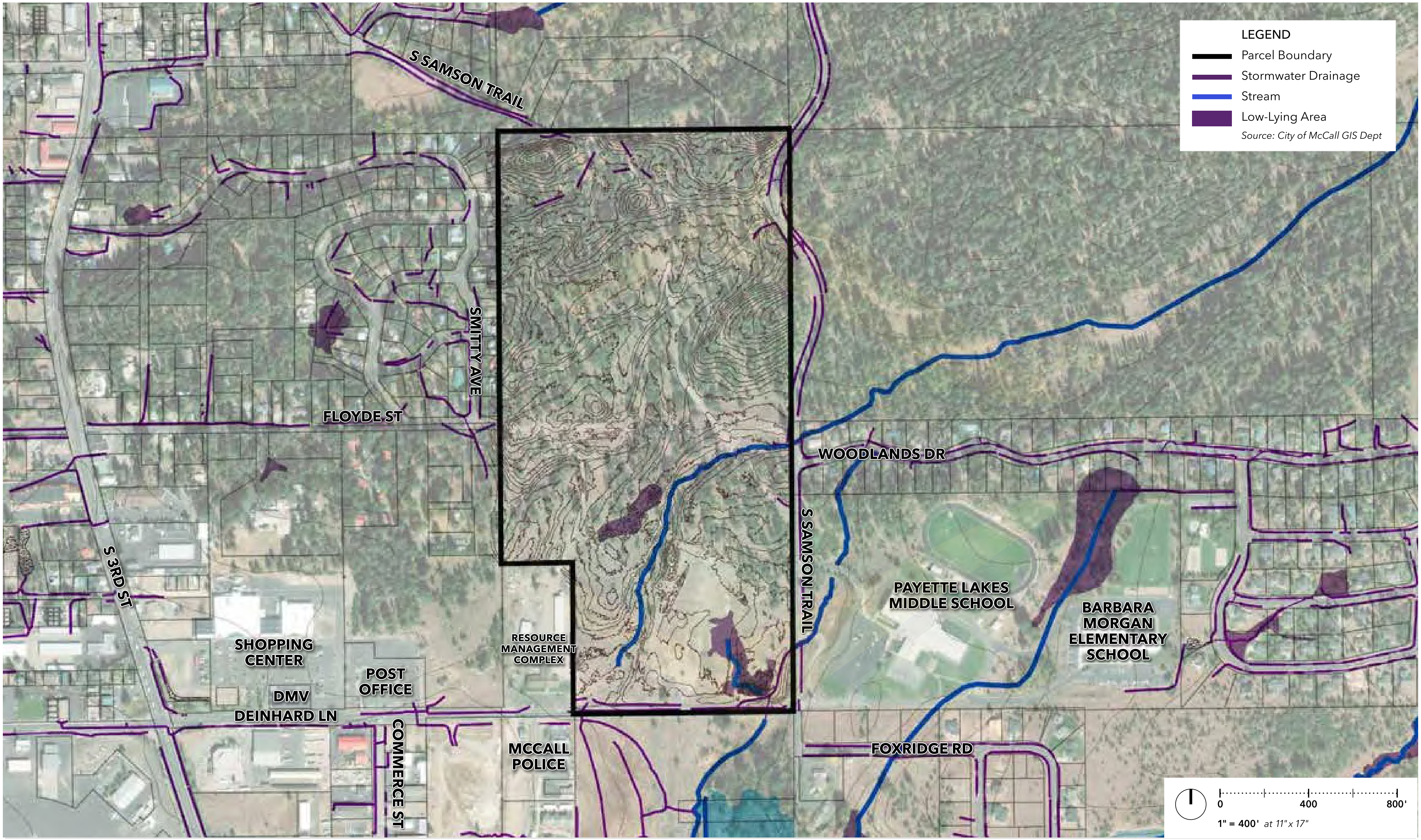

Site Context | Hydrology

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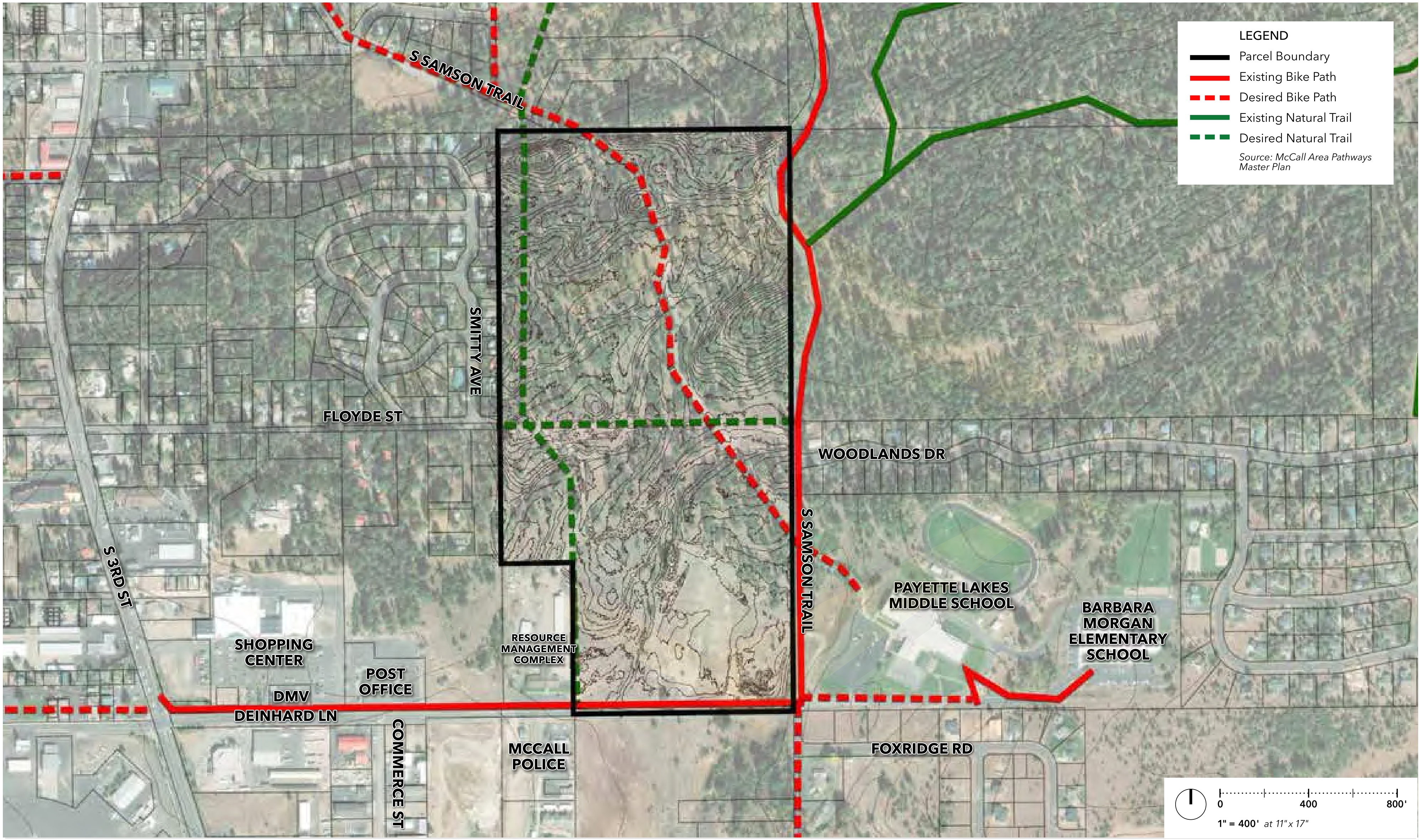

Site Context | Pathways

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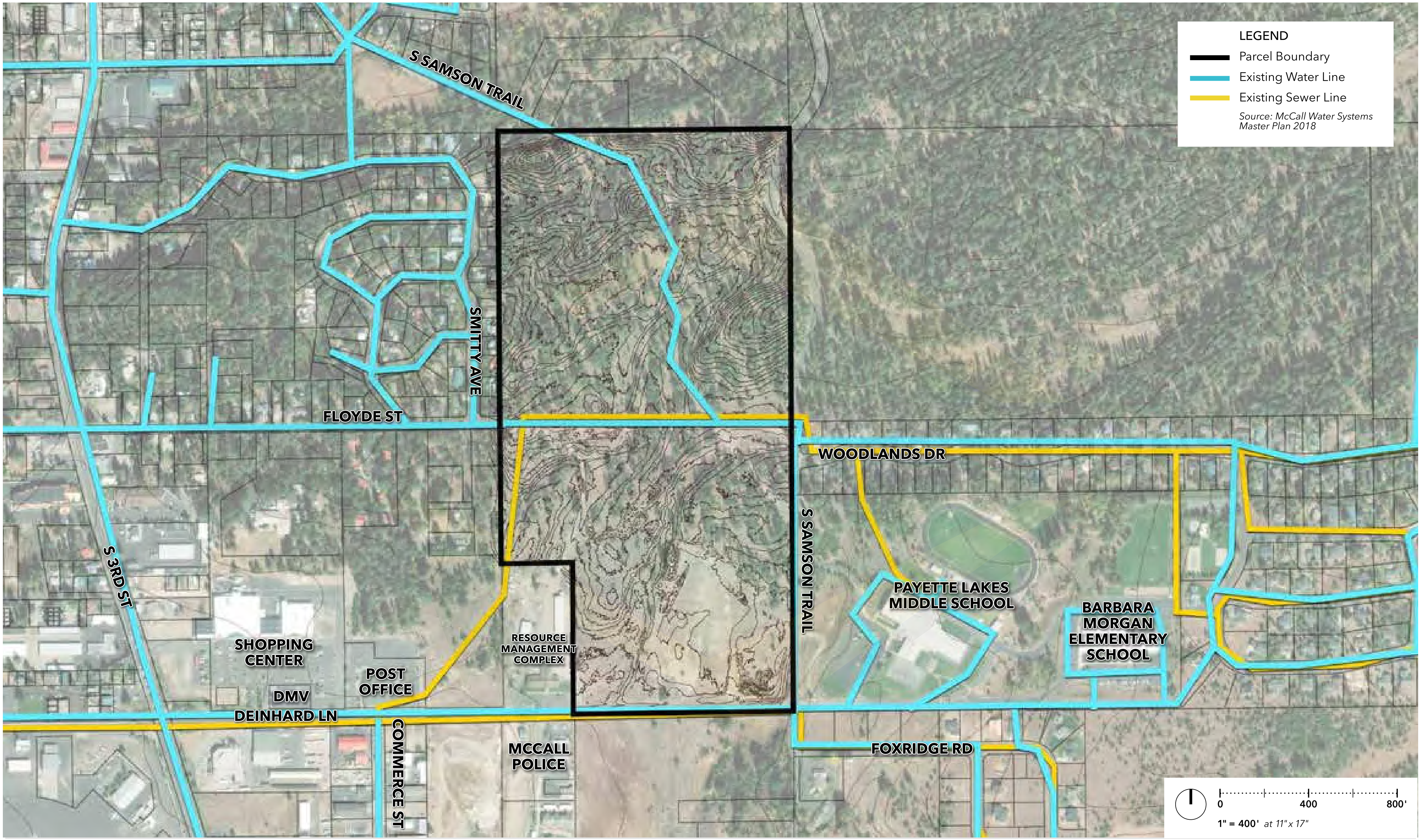

Site Context | Utilities

Preserve McCall August 6, 2021

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Vision

Deinhard Community Parcel

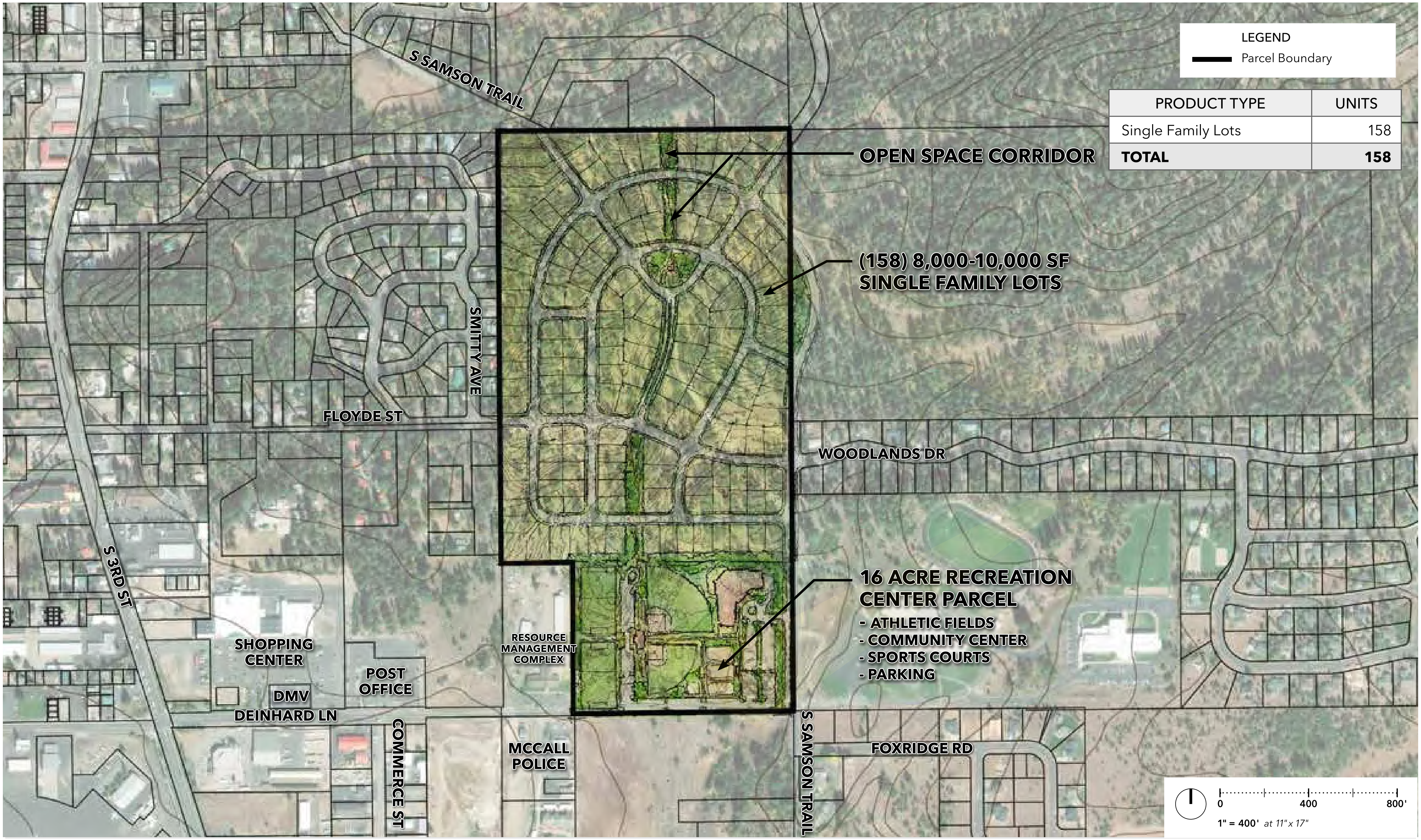
Vision

Respond to the current needs of the McCall community by providing local recreational, social, and residential offerings aligned with the spirit and character of McCall.

Program. A locally-targeted residential community, recreational and community center, and buildings to accommodate an assisted living facility.

- A range of densities from single family to low-rise apartment buildings
- Deed-restricted housing to support local residents
- Maximum height of three stories
- A community & recreational center
- Winter and summer use programming for outdoor recreational spaces
- A concept for an assisted living facility - 40 to 75 units organized around a social hub - linked to the community center and housing
- Open space integration & connections
- Complementary use to support the adjacent middle schools and other community entities
- Possible retail integration that could include a café or other community infrastructure

Concept Design

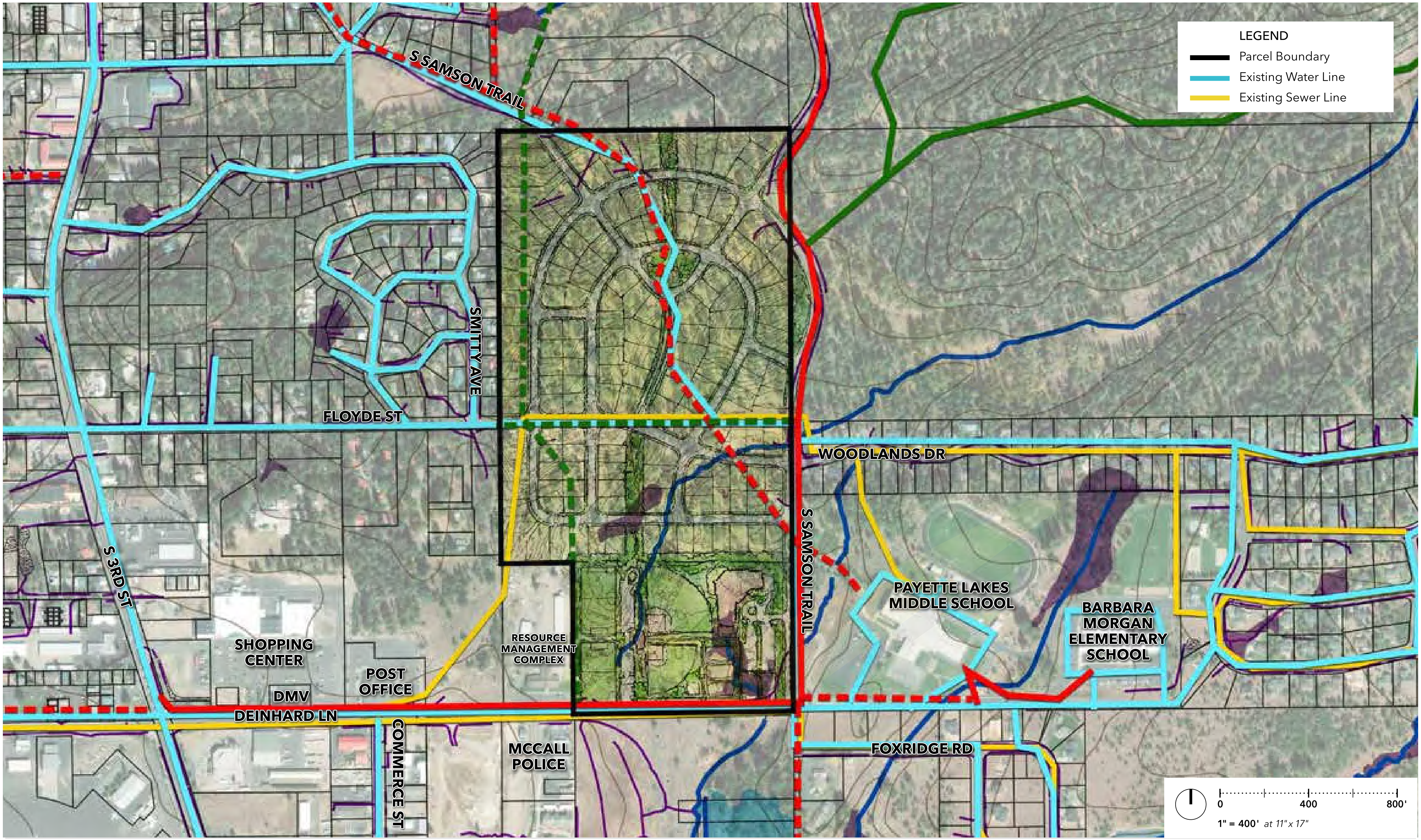


PRODUCT TYPE	UNITS
Single Family Lots	158
TOTAL	**158**

Concept Design | Initial Plan

Preserve McCall August 6, 2021

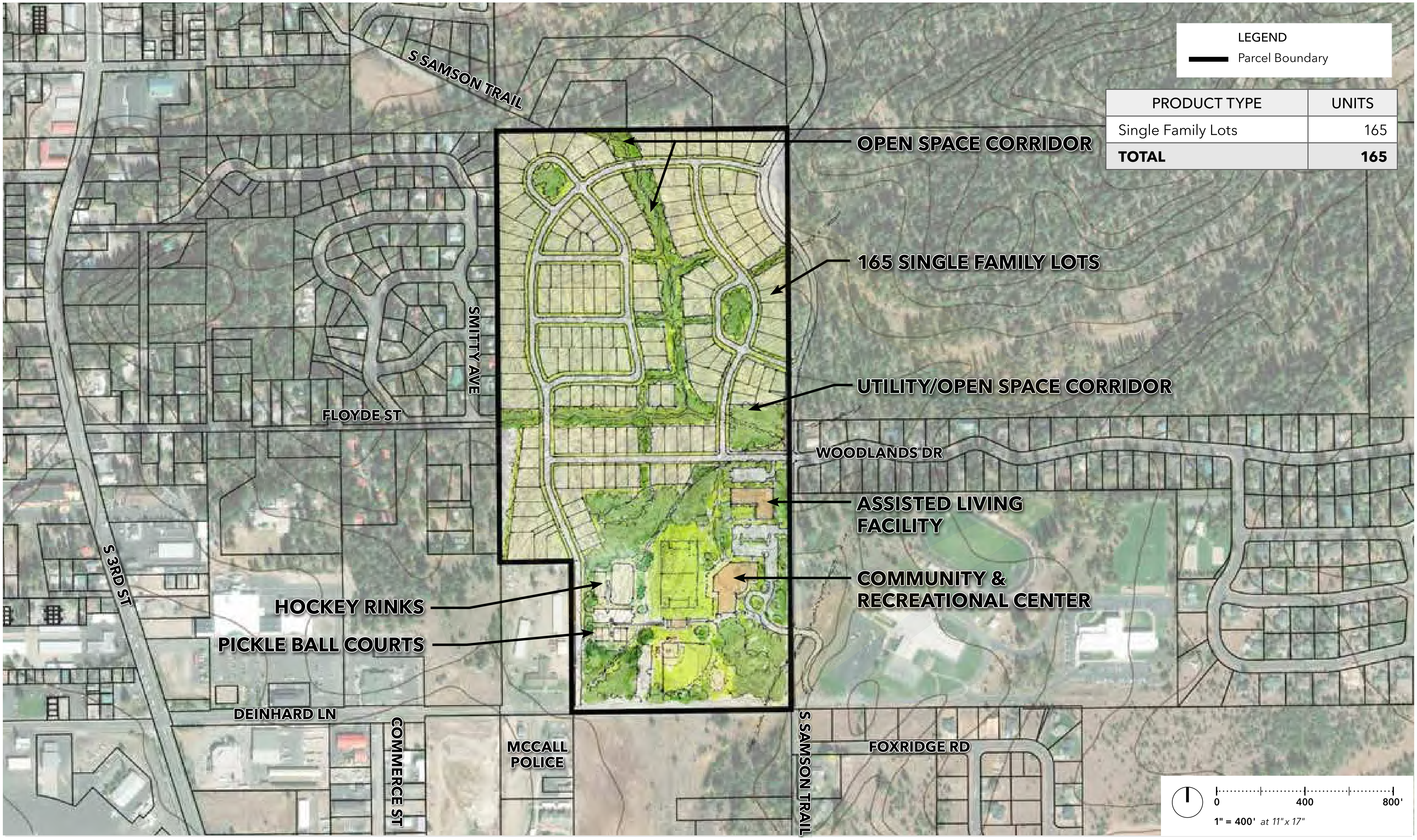
HART HOWERTON



Concept Design | Initial Plan w/ Combined Constraints

Preserve McCall August 6, 2021

HART HOWERTON



PRODUCT TYPE	UNITS
Single Family Lots	165
TOTAL	**165**

Concept Design | Low-Density Option

Preserve McCall August 6, 2021

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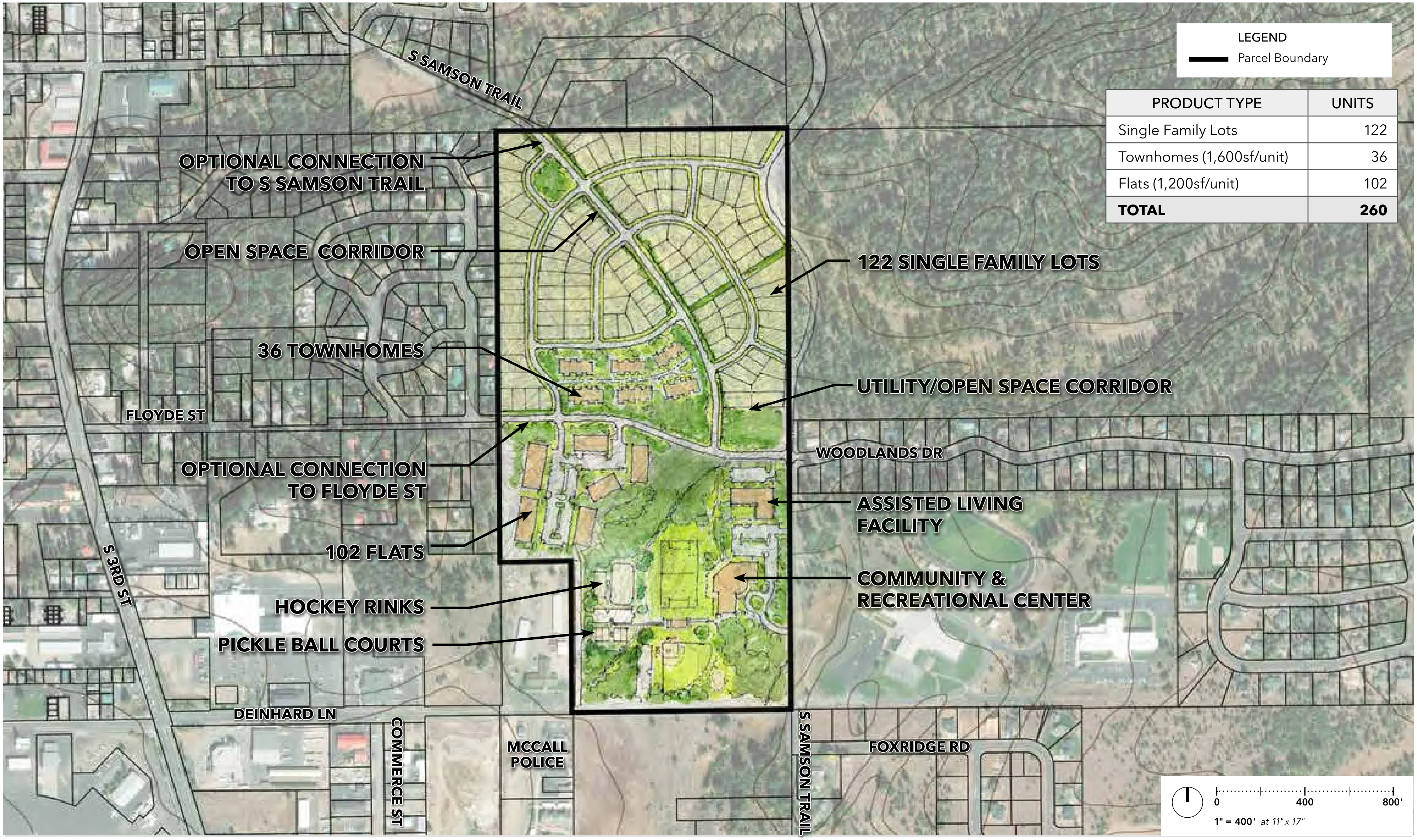

PRODUCT TYPE	UNITS
Single Family Lots	122
Townhomes (1,600sf/unit)	36
Flats (1,200sf/unit)	102
TOTAL	**260**

Concept Design | High-Density Option

Preserve McCall August 6, 2021

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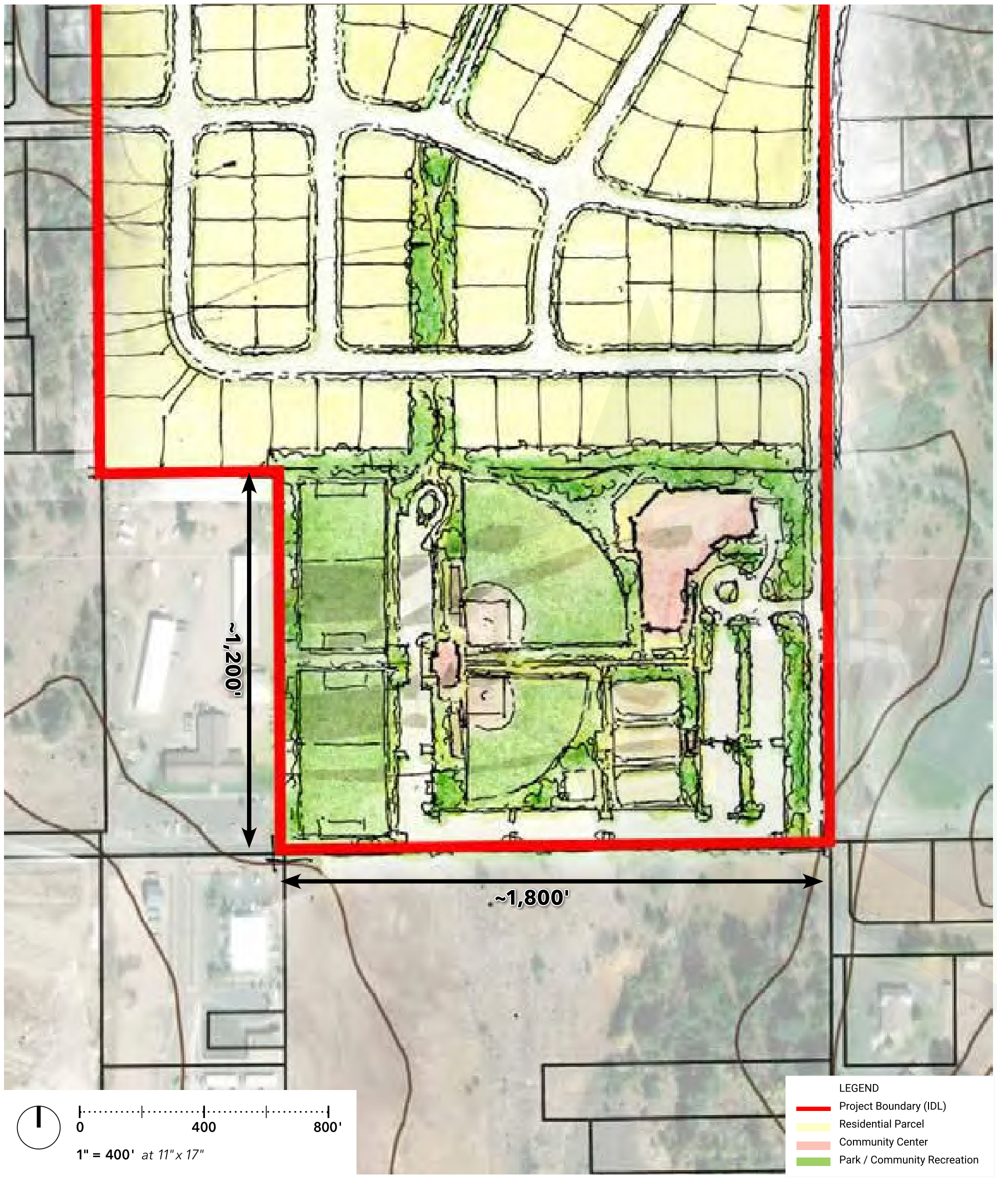
Scale Comparisons



Durango, CO Recreation Center

Breckenridge, CO Recreation Center

Avon, CO Recreation Center

Community Center | Scale Comparisons

Preserve McCall August 6, 2021

Riverhouse Pocket Neighborhood

Homes organized around a communal Green, which provides an active lawn and gathering space for residents.

- 1.37 Acres
- 8 Cottages, 4 ADUS
- Cottage (1200sf), ADU (400sf)
- Open floor plan with 12'-17' ceilings
- Extra large, two car garages
- 2,1kW solar energy system

River House | Site Plan

Preserve McCall August 6, 2021

HART HOWERTON

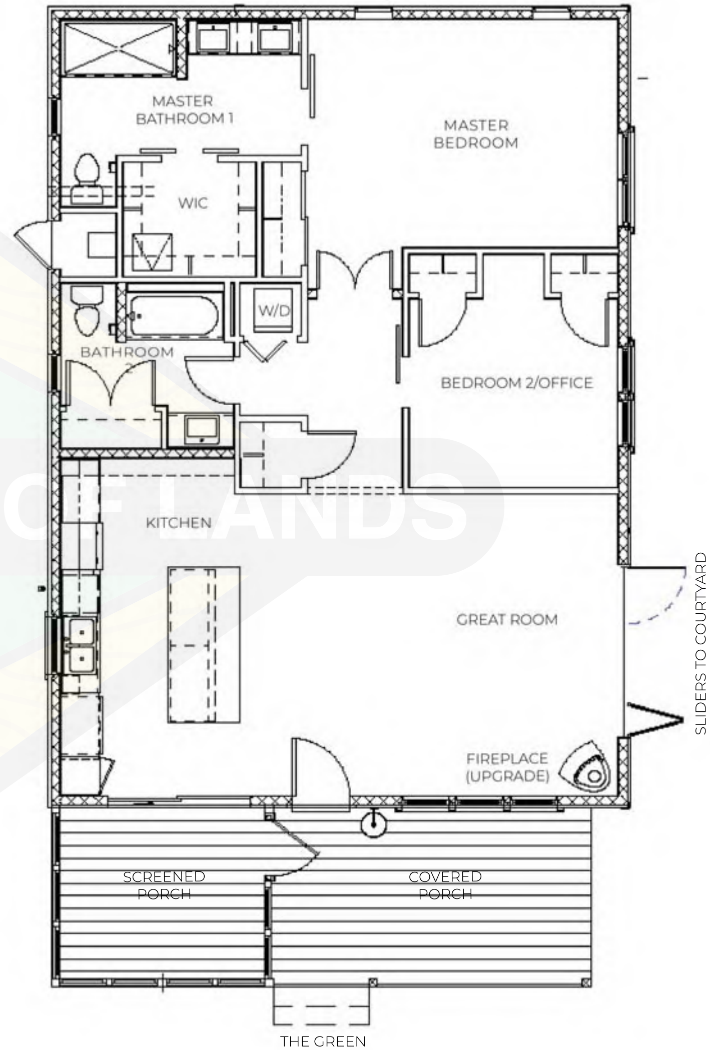
River House | Site Plan

Preserve McCall August 6, 2021

HART HOWERTON

THE CITRUS COTTAGE

LOT 3 - PLAN 1 - 109 Kennedy Lane
2 Bedrooms, 2.5 Bathrooms, 1250 SQFT
300 SQFT Covered Porch
6179 SQFT Lot



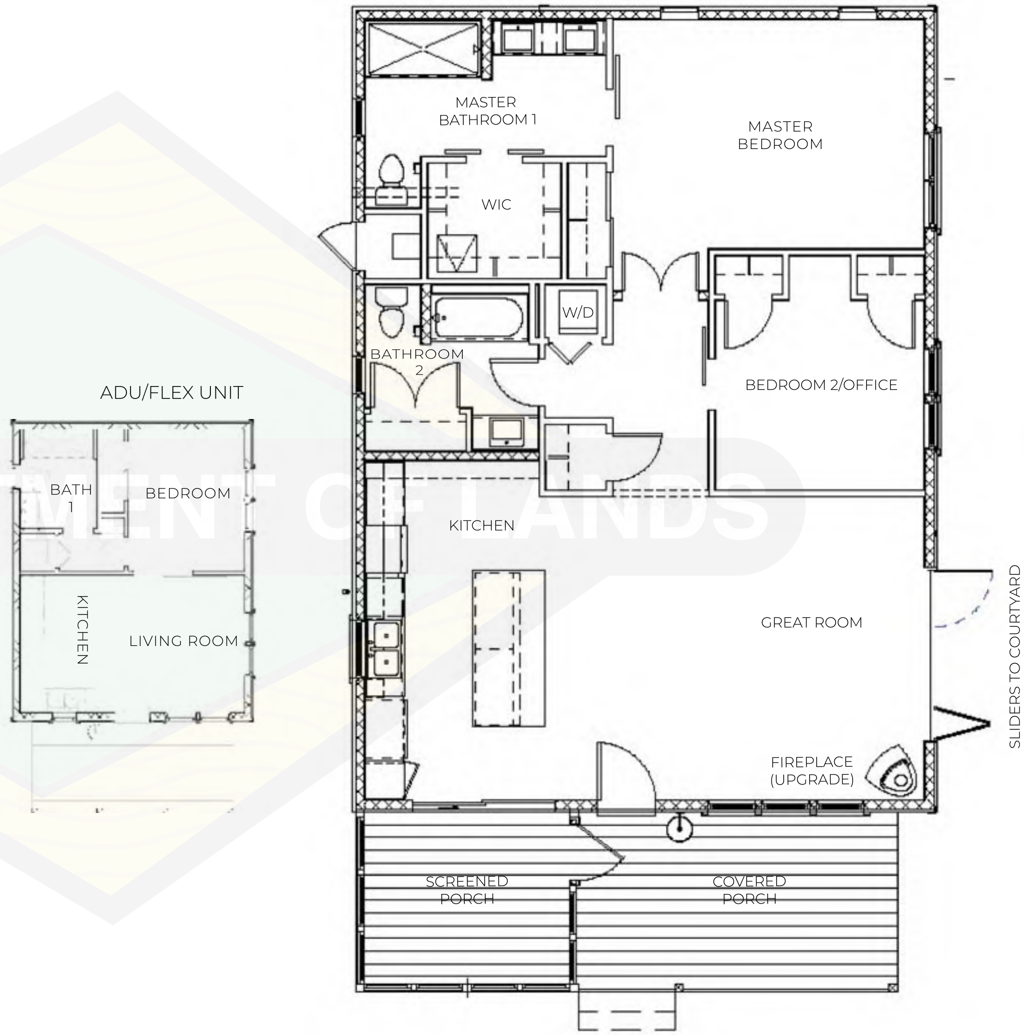
River House | Citrus Cottage

Preserve McCall August 6, 2021

HART HOWERTON

THE COURTYARD COTTAGE

LOT 5 - PLAN 1 - 105 + 103 Kennedy Lane
2 Bedrooms, 2 Bathrooms, 1250 SQFT
300 SQFT Covered Porch
Flex Studio (ADU):
1 bedroom, 1 bathroom, 500 SQFT
7457 SQFT Lot



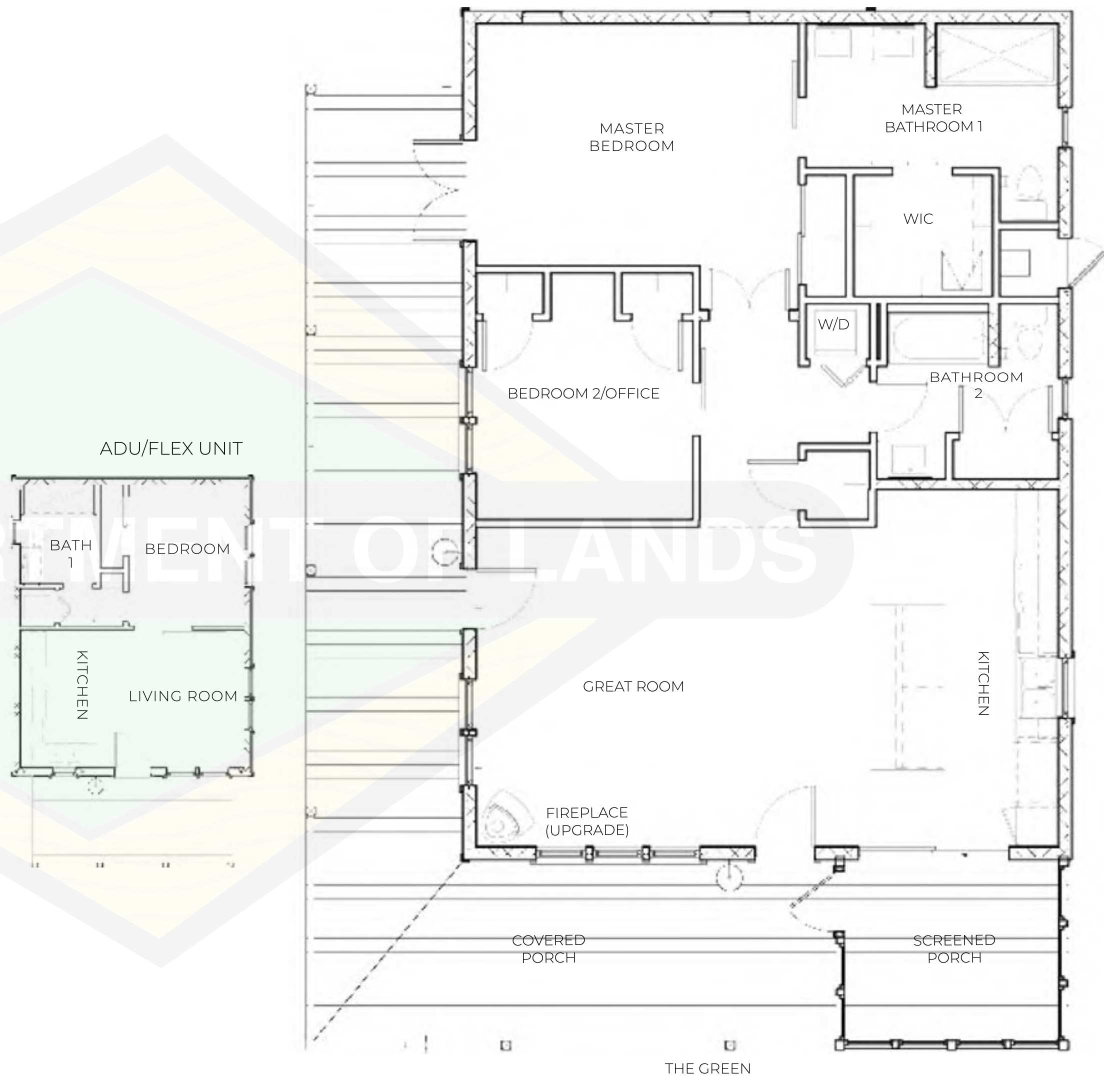
River House | Courtyard Cottage

Preserve McCall August 6, 2021

HART HOWERTON

THE FIG COTTAGE

LOT 6 - PLAN 1 - 119 + 125 Kennedy Lane
2 Bedrooms, 2 Bathrooms, 1250 SQFT
600 SQFT Covered Porch
Flex Studio (ADU):
1 bedroom, 1 bathroom, 500 SQFT
7981 SQFT Lot

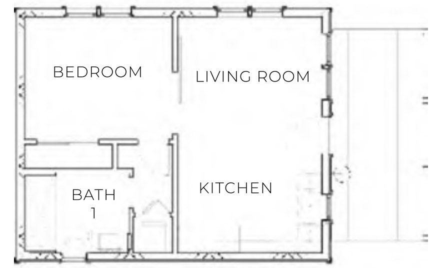


River House | Fig Cottage
Preserve McCall August 6, 2021

HART HOWERTON

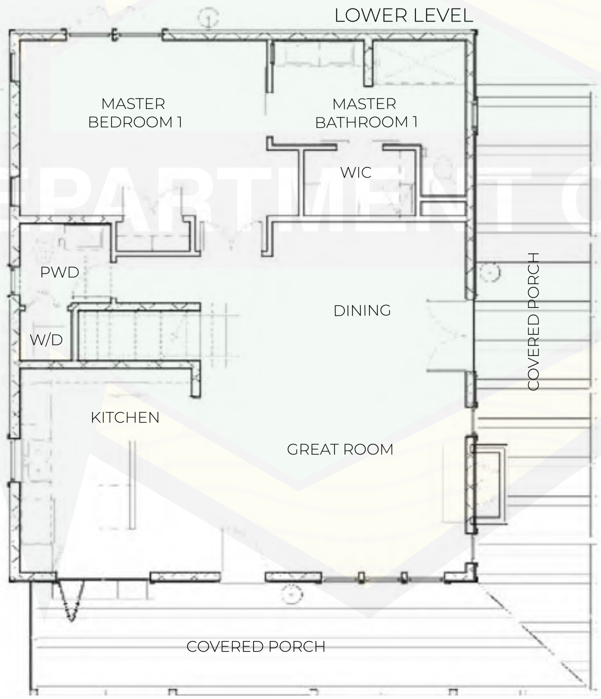
THE GREEN HOUSE

LOT 1 - PLAN 2 - 117 + 115 Kennedy Lane
Main House:
2 Bedrooms, 2.5 Bathrooms, 1750 SQFT
Bonus Loft
600 SQFT Covered Porch
Flex Studio (ADU):
1 bedroom, 1 bathroom, 500 SQFT
7018 SQFT Lot



ADU/FLEX UNIT

LOWER LEVEL



THE GREEN

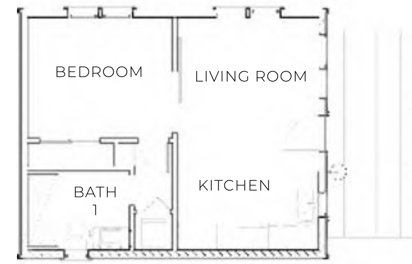
UPPER LEVEL

VIEWS OF THE GREEN
AND THE RUSSIAN RIVER

HART HOWERTON

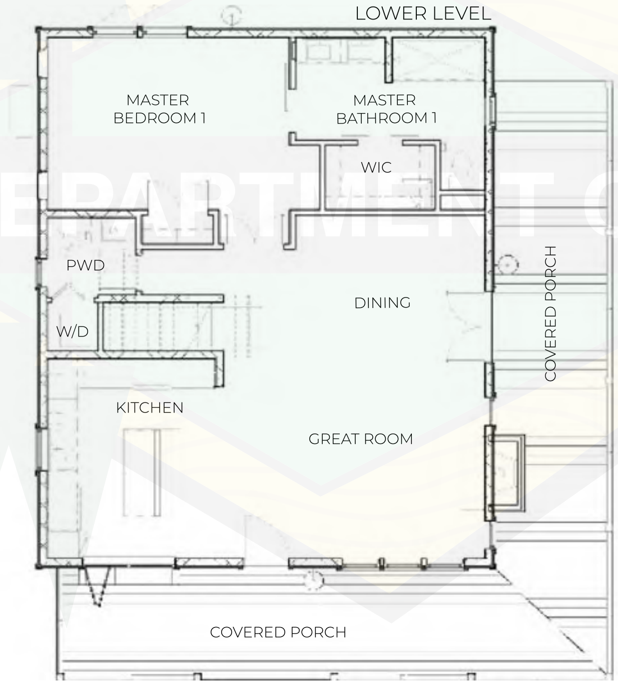
THE RIVER HOUSE

LOT 2 - PLAN 2 - 111 + 101 Kennedy Lane
Main House:
2 Bedrooms, 2.5 Bathrooms, 1750 SQFT
Bonus Loft
600 SQFT Covered Porch
Flex Studio (ADU):
1 bedroom, 1 bathroom, 500 SQFT
8273 SQFT Lot



ADU/FLEX UNIT

LOWER LEVEL



THE GREEN

UPPER LEVEL

VIEWS OF THE GREEN

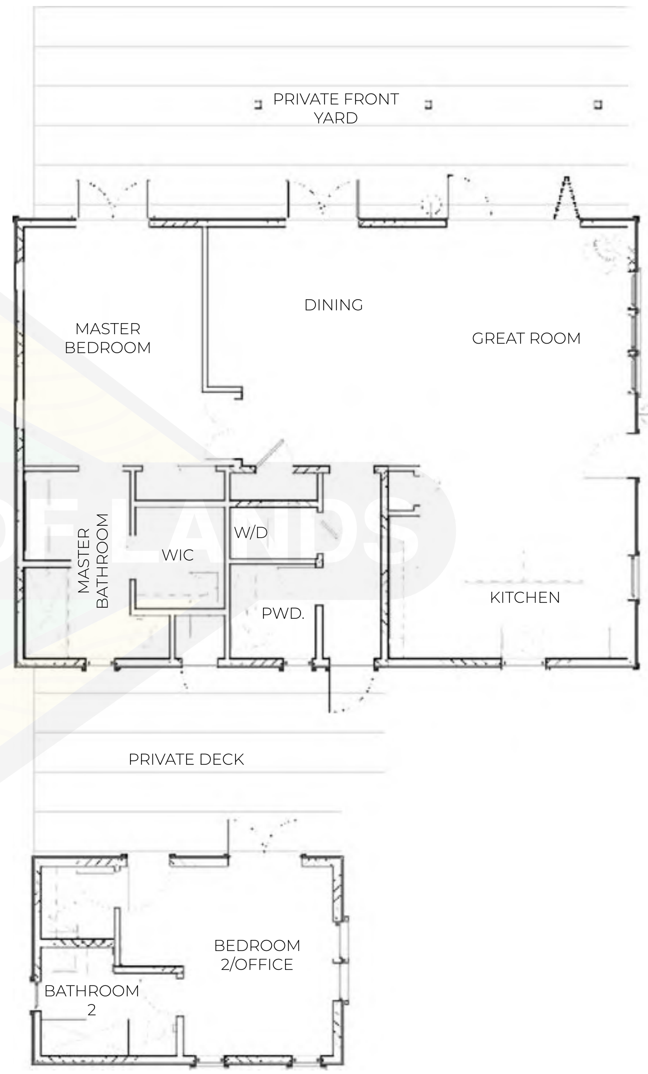
River House | River House

Preserve McCall August 6, 2021

HART HOWERTON

THE TERRACE COTTAGE

LOT 8 - PLAN 3 - 123 Kennedy Lane
2 Bedrooms, 2.5 Bathrooms, 1533 SQFT
6,338 SQFT Lot



River House | Terrace Cottage

Preserve McCall August 6, 2021

HART HOWERTON

Appendix

Permitted Uses:

- Accessory Use, residential
- Accessory Dwelling Unit (including guest houses)
- Dwelling Unit (local, principal)

Admin Permit Required:

- Accessory Structure
- Dwelling (STR, <20p occupancy)
- Public Parks, Recreation Areas, Easements, Trails
- Temporary Living Quarters

Conditional Use Permit Required:

- Agricultural Structure
- Camp
- Care Center
- Church
- Clinic
- Club, Lodge, Social Hall
- Convenience Store
- Dwelling (multi-family or rooming house)
- Foster Home
- Skilled Nursing Facility
- Professional Office
- RV Park
- Restaurant, Retail
- Retirement or Assisted Living Home
- School

Setbacks

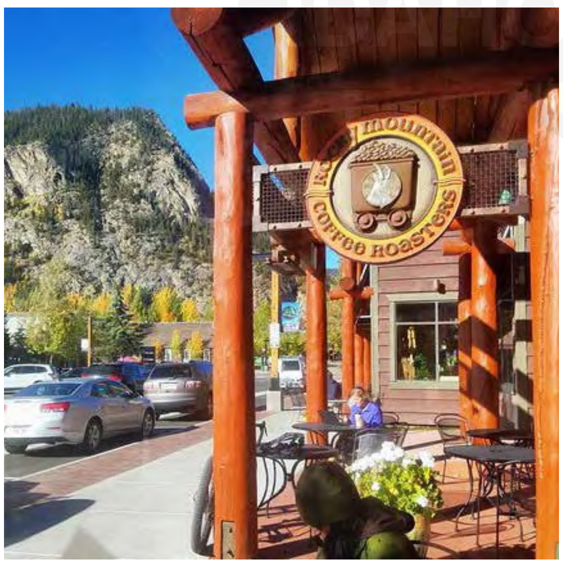
- Any PL on Collector Street: 25'-0"
- Front PL on Minor/Private Street: 20'-0"
- Front PL w/ Alley Garage: 15'-0"
- Interior Side PL: 3'-0"
- Rear PL: 7'-0"
- Side PL on Minor/Private Street: 15'-0"
- Alley: 3'-0"

Dimensional Standards:

- Min Property Size: 10,000sf
- Min Street Frontage: 75'-0"
- Max Height: 35'-0"
- Min Between Buildings: 10'-0"
- Max Single-Family Unit Size: 10,000sf

Design Standards:

- Complement natural landscape
- Responsive to site conditions, views, and existing vegetation
- Porches, balconies, decks, & terraces
- McCall Style: local natural building materials, roof overhangs, covered porch/entry, segmented windows
- Natural looking exterior materials (composite decking, cement, plaster, stucco, masonry, etc.)
- Hipped, pitched, shed, gabled roofs
- Earthy warm hues (exterior walls)
- Accent colors (max of 2)
- Snow considerations



Permitted Uses:

- Agricultural or garden
- Indoor amusement or recreation
- Bar, Brewpub, Nightclub
- Care Center
- Medical Clinic
- Club or Social Hall
- Dwelling Unit (single family, local, or accessory)
- Dwelling (multi-family or rooming house)
- Hotel or motel
- Off-street parking facility
- Professional service or office
- Public Parks, Easements, Trails
- Research & Development
- Restaurants & Retail
- Retirement / Assisted Living Home
- School
- Studio

Admin Permit Required:

- Outdoor amusement or recreation
- Dwelling Unit (seasonal)

Conditional Use Permit Required:

- Convention Facility
- Drive-Up Window Service
- Public Service Facility
- RV Park

Setbacks

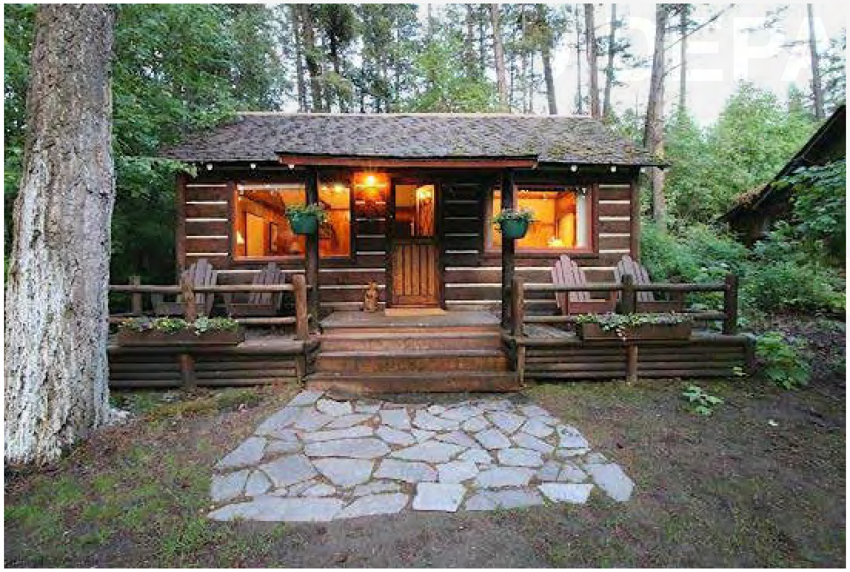
- Front Setback: 5'-0"
- Side Street Setback: 5'-0"
- Interior Side Setback: 0'
- Rear Setback: 10'-0"
- Alley Setback: 3'-0"

Dimensional Standards:

- Min Property Size: 3,000sf
- Max Lot Coverage: 80%
- Max Structure Height: 50'-0"
- Min Street Frontage: 30'-0"
- Max Building Footprint: 40,000sf
- Shopping Center: 100,000sf

Deinhard South | Community Commercial Zoning (CC)




Concept Design | Low Density Residential Character

06 Appendix Document
Polling Results

GS STRATEGY GROUP

PRESENTED BY:

Justin Vaughn, Ph.D.

Vice President

PROJECT MANAGER:

Tyler Holden

PROJECT DETAILS

Conducted December 14-18, 2020

N = 250 Adults in Valley & Adams Counties

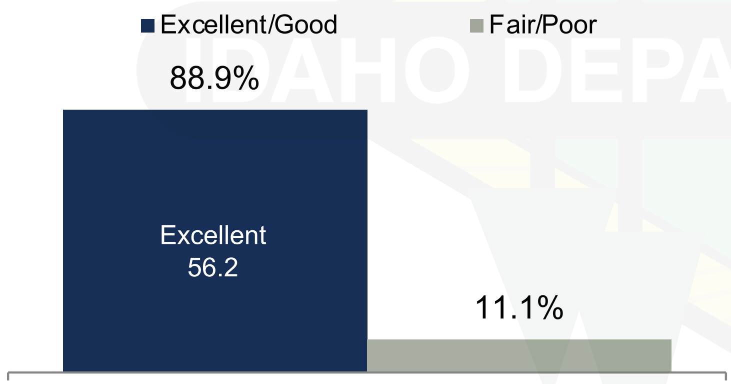
Margin of Error: +/- 6.15%

Key Takeaways

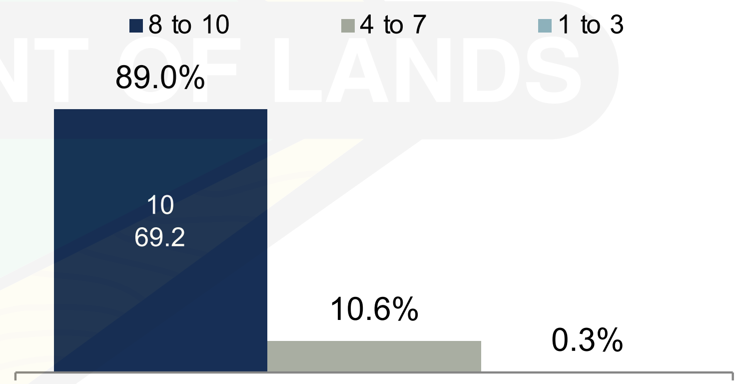
- Area residents overwhelmingly appreciate their access to outdoor recreation and are equally concerned about protecting their access to public lands.
- One way of protecting this access – the proposed expansion of Ponderosa State Park – garners great support among residents, with nearly 3/4 in favor of expansion.
- By a 6-to-1 ratio, residents support a permanent solution that preserves public access to most of the endowment lands under discussion over a piecemeal solution that leaves future disposition of these lands unresolved.
- Idaho's Department of Parks and Recreation has an overwhelmingly favorable image among these residents and can be considered a trusted partner in managing the lands gifted to them in the proposed Ponderosa State Park expansion.
- Affordable housing dominates public policy concerns in the region. The extent to which Preserve McCall's proposed solution to managing these endowment lands alleviates this problem for current community members will be value-added.

Demand for Protected Public Access

Access to Outdoor Recreation
Please tell me whether you would rate access to outdoor recreation in your community for each of the following as excellent, good, fair, or poor.



Protecting Access to Public Land
On a scale of 1 to 10 with 1 being not at all concerned and 10 being highly concerned, please indicate how concerned you are about protecting access to public lands?



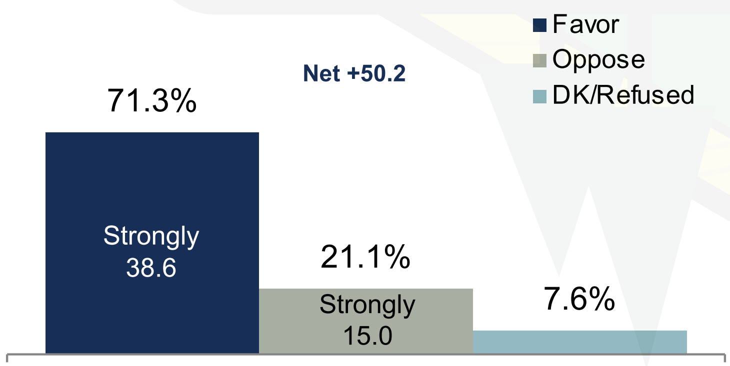
GSSG

Some numbers may be off +/- .1% due to rounding.

How to Protect Public Access

Expanding Ponderosa State Park

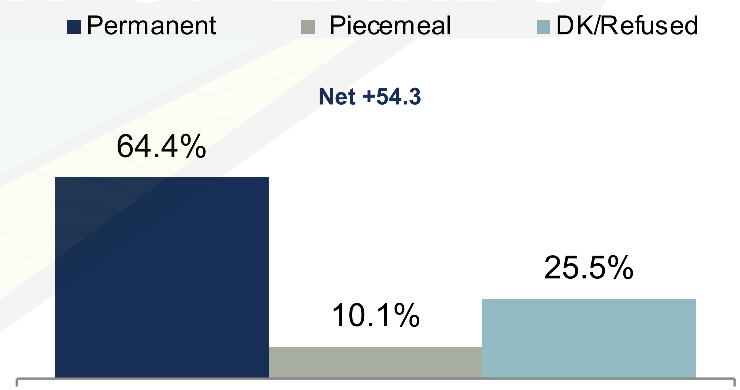
Ponderosa State Park is one of the most popular parks in Idaho. Some have suggested expanding the park to accommodate growing interest and preserve nearby lands. Would you favor or oppose expanding Ponderosa State Park?



Permanent Conservation or Piecemeal Distribution

Two plans for handling the state endowment land in Valley County have been proposed. Which of these plans would you favor?

- A plan that permanently conserves public access to 90% of the land, funded by limited development of the remaining 10%, which would include affordable housing for locals and the workforce.
- A plan that takes a piecemeal approach that immediately auctions 400 acres nearest Payette Lake to the highest bidder, leaves unresolved what to do with the remaining 28,000 acres, and neither expands Ponderosa Park nor permanently guarantees future public access anywhere.



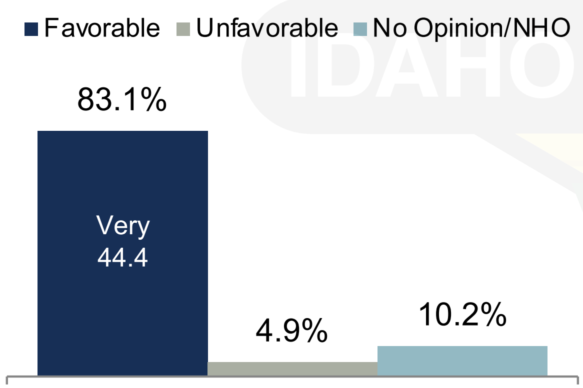
GSSG

Some numbers may be off +/- .1% due to rounding.

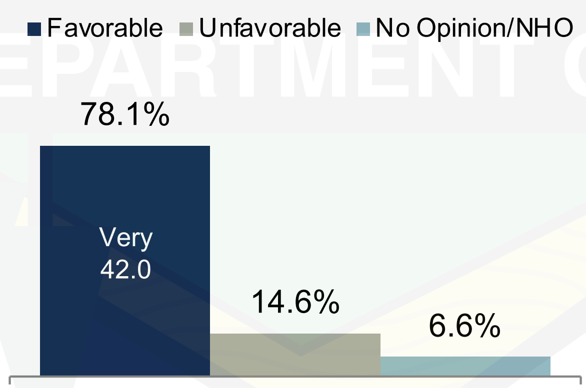
Trusted Stewards of Public Access

Please tell me whether you have a favorable or unfavorable opinion of each of the following people or groups.
If you have no opinion or have never heard of them, just say so.

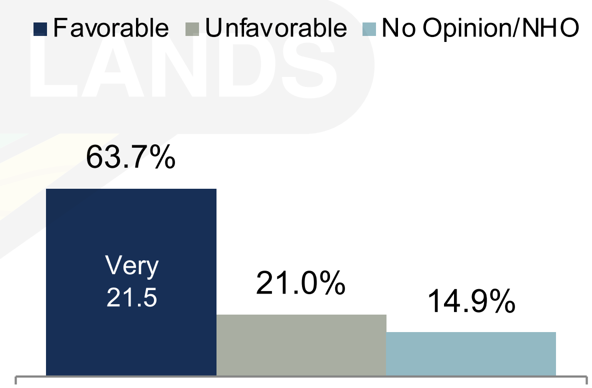
Idaho Department of Parks and Recreation



Idaho Department of Fish and Game



Idaho Department of Lands



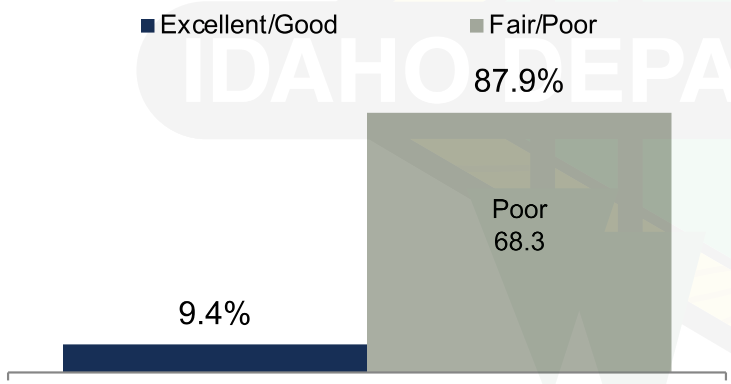
GSSG

Some numbers may be off +/- .1% due to rounding.

Affordable Housing Challenges Dominate

Availability of Affordable Housing

Please tell me whether you would rate the availability of affordable housing in your community for each of the following as excellent, good, fair, or poor.



Greatest Concern

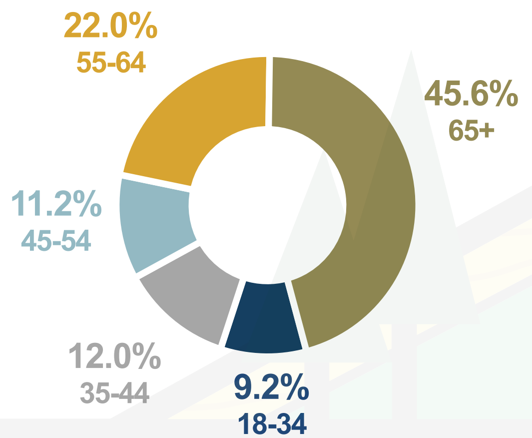
Which represents the greatest challenge facing your community?

	Overall
Housing prices	49.6%
Jobs	23.2%
Traffic and roads	8.3%
Public education	4.9%
Internet access	4.0%
Recreation access	2.4%
Child care	2.0%

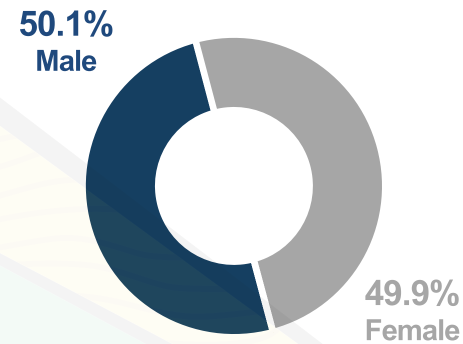
Some numbers may be off +/- .1% due to rounding.

Audience Profile

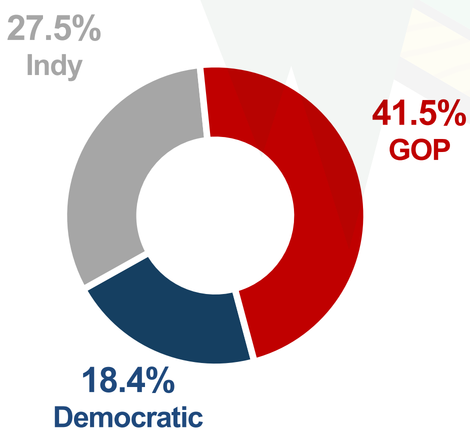
Age



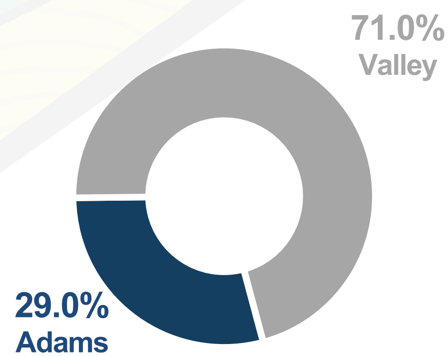
Gender



Party



County



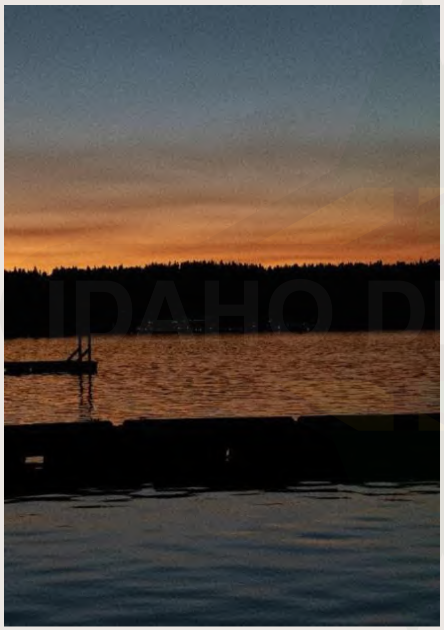
GSSG

Some numbers may be off +/- .1% due to rounding.

THANK YOU!

GS STRATEGY GROUP

PRESERVE McCALL



07 Appendix Document

IDL Records Requests Results

From: Roger Lord
To: Kevin Graham
Subject: Invoice
Date: Friday, July 16, 2021 9:51:00 AM
Attachments: image001.png
Invoice 29292.pdf

Hi Kevin,

Here is the invoice for the DeAtchley and Trident Exchange due diligence reviews.

Regards,

Roger Lord, ACF
President, Sr. Appraiser

MASON, BRUCE & GIRARD, INC.
707 SW Washington Street, Suite 1300 | Portland, OR 97205
O: 503-224-3445 | D: 503-417-5432 | M: 503-488-0694
www.masonbruce.com

Mason, Bruce & Girard, Inc.

Natural Resource Consultants

www.masonbruce.com

July 15, 2021

To:	Idaho State Department of Lands	Invoice:	29292
		Reference:	RGL
	Attn: Kevin Graham	MB&G Project:	0103201-IDL Timberland Advisory Services
	300 N. 6th Street	Client Job / Project:	19-413
	Boise, ID. 83720	Client Contract:	N/A
		Expiration Date:	

For Professional Services rendered.

Project Manager, Roger Lord

Derek Schlicke, Billing Contact

Trident Exchange

Employee	Job Classification	Hours	Rate	Total
Roger G Lord	Prinicipal	3.25	200.00	650.00
		3.25		$ 650.00

DeAtley Exchange

Employee	Job Classification	Hours	Rate	Total
Roger G Lord	Prinicipal	5.00	200.00	1,000.00
		5.00		$ 1,000.00

TOTAL LABOR COST(S):	$ 1,650.00
TOTAL DIRECT EXPENSE(S):	$ -
TOTAL DUE THIS INVOICE:	**$ 1,650.00**

707 SW Washington, Suite 1300, * Portland, OR 97205-3035 * Phone: 503-224-3445 * Fax: 503-224-6524

LAW OFFICE OF
DAVID ARKOOSH

MEMORANDUM

Date: Friday, August 27, 2021

To: Brody Aston

cc: Client

From: David Arkoosh

Re: Trident Land Exchange Application Process Concerns

Upon review of the enclosed materials, it is clear that IDL's discretion in performance of its delegated duties has been tainted by obvious bias on the part of its staff, specifically Josh Purkiss. As reflected by the enclosed, Mr. Purkiss' direct personal advocacy, as well as his advocacy through affiliation with and financial support of political actors such as Idaho Rivers United, in opposition to Trident's application preclude fair and open consideration that Trident's application deserves. Even a superficial review of the enclosed spreadsheet authored by Mr. Purkiss reveals that he advocated for a predetermined position (i.e. PELS lands must be worth exactly $300 million) as opposed to analyzing a citizen's land exchange application in a fair and unbiased manner by using land values provided by independent third-party appraisers. These records also undermine Mr. Purkiss' bemoaning of the political nature of the land exchange process in our very few discussions with him prior to IDL's August 10 letter containing his distorted recommendations. Clearly, he relished the opportunity to participate in the political aspects of the process.

Enclosures:

Josh Purkiss Comments to McCall City Council from July 9, 2020, Meeting
Excerpt of Supporters of Idaho Rivers United with Josh Purkiss Listed as "River Defender"
Idaho Rivers United Statement in Opposition to Trident Land Exchange Application
Purkiss Payette Lands Appreciation Spreadsheet

ked/DHA

802 W. Bannock Street, Suite 303
PO Box 2817
Boise, Idaho 83701

david@arkooshlaw.com
(208) 350-6630

Enclosure 1

JOSH PURKISS COMMENTS TO MCCALL CITY COUNCIL FROM JULY 9, 2020, MEETING

(Please see enclosed.)

			Sincerely and respectfully, Brigid Lawrence
428	David Sanchez	4 Deerwood Dr	As a Idaho resident I oppose the privatization of the 28,000 public acres around Payette Lake which Trident Holdings LLC submitted a proposal to privatize. Thank you
429	Stephen Vikla	2837 NW 11th Ave meridian ID 83646	In regards to transferring public lands around Payette and Little Payette lake into private lands, I think that would be a precedent in the wrong direction, setting an example that some of our most pristine public lands are "for sale". As an Idaho resident, one of my favorite places to visit is McCall, hopefully you will do the right thing and continue to make it a great city.
430	Douglas Rudeen	612 W. Thatcher Street, Boise	The economics of what Trident are proposing don't make sense without overdevelopment of these lands. Please don't let them do this.
431	Conor Marcus	883 E Knoll Ct Eagle, ID	I do not approve of the privatization of public lands in and around the beautiful town of McCall and Lake Payette. If this land becomes private, it will only be to the benefit of a few (mostly out of state individuals) and detriment to generations of Idahoans. It would be a major mistake to give this land to private hands.
432	Joshua Purkiss	2324 W. Jefferson St, Boise ID 83702	Please don't support trading public land.
433	Ryan Battin	1515 w victory rd	I do not approve of the privatization of land around McCall and Payette lake. And also no lives matter till black lives matter.
434	Lauren Whipps	2315 N 28th St Boise, ID	I don't want to see gorgeous Lake Payette and the surrounding town of McCall taken over by private interests. This currently public land should remain in public hands for Idahoans like myself to continue to enjoy free from restrictions. Any move towards privatization is a very slippery slope and threatens the rights of Idahoans to Idaho's amazing public lands.
435	Shane Williams	690 s Clearwater ln #302 boise Idaho 83712	Keep the land surrounding payette lake in the hands of the public. If you turn McCall into the next sun valley you will be losing the support of local residents and idaho tourists. We love our public lands for the freedom of what they offer. Dont make the same mistake as the state of idaho did concerning the wilks brothers.
436	Erinn Della	2209 N Payette Drive McCall ID 83638	Do NOT participate in the land swap. Keep Payette Lake Public Lands PUBLIC

Enclosure 2

EXCERPT OF SUPPORTERS OF IDAHO RIVERS UNITED WITH JOSH PURKISS LISTED AS "RIVER DEFENDER"

(Please see enclosed.)

Chuck Reese

Cindy & Scott Rawlings

Cindy Fisher

Claire Casey

Clara Comer

Clint and Tracey Frahler

Collin Todd

Colter's Creek Winery

Connally & Charley Penley

Craig Soelberg

Darius Semmens

Dave Green

David Branch

David Koeppen

David Monsees

david sias

Jonathan and Stephanie Marvel

Joseph Canterino

Joseph M. Bowers

Joseph Slaughter

Joshua Jacobs-Velde

Joshua Mackie

Joshua Purkiss

Judy & Steve Meyer

June Heilman

karen mebane

Karen Pederson

Katherine Baxter

Katherine Farmer

Kathryn Reynolds

Kay Hummel

Kelly Thompson

Kenneth Koenig

Maurice & Leslie Hornocker

Megan West

Melissa Harris

Michael Beckwith

Michael Guryan

Michael Seaman

Michelle Francesco

Miller Family Fund

Mountain Village Resort

Nancy Budge

Nancy Taylor

Natalie Shellworth

Nathan Todd

Noah Hartford

Pam and Kirk Ebertz

Pam Wissenbach

Pat Durland

Susan and Joseph Daly

Susan Troppmann

Tamarack Resort

Taylor Barton

Terri and Cosmo Corigliano

Terry and Delores Maret

Terry Smith

The Grove Hotel

The Modern Huntsman

Thomas Bartel

Thomas Besser

Thomas K. Welty

Thomas Ryan

Tim Holdsworth

TIM THOMAS

Tom and Janette Von Alten

Enclosure 3

IDAHO RIVERS UNITED STATEMENT
IN OPPOSITION TO TRIDENT LAND EXCHANGE APPLICATION

(Please see enclosed.)

The 28,000 Acre Payette Lake Land Transfer: What it means for Public Lands & Payette Lake

Stephen Pfeiffer July 31, 2020

A 28,000 acre swath of State-managed lands surrounding Payette Lake is in jeopardy of falling into private hands. Trident Holdings LLC is proposing a land exchange with the State of Idaho in order to acquire these forestlands, which provide important public recreation opportunities, wildlife habitat, and clean water benefits for the area. The land, managed by Idaho Department of Lands (IDL), encompasses much of the northern shoreline of the lake and extends southward along Little Payette Lake as well.

At the heart of the issue is the Idaho constitutional mandate that State endowment lands must operate at a maximum possible economic return. Trident Holdings has argued in their proposal that by purchasing this land and the State purchasing private timberland of equal value in North Idaho, a higher net revenue would result. The company has also said that its approach will include continued public access and ensure the natural benefits of the area remain.

However, Trident Holdings is a development company. First and foremost, its proposal will include building homes, condos, and infrastructure along the iconic Payette Lake shore. Development of this scale along the lake and nearby waterways will jeopardize the recreational and natural values of the land and the clean water benefits that this intact forest provides.

After pausing all leases in the McCall area in June, the State Land Board met on July 21st to hear from Trident representatives as well as the public. The

State faces a tricky choice in determining how best to proceed. However, it needs to consider the wide-ranging benefits this tract of land has and will have far into the future for the next generation of Idahoans. The qualities of this area support the economy and way of life for local residents and make McCall the special place it is for so many of us.

This process promises to be a drawn-out one, meaning there is still an opportunity to let the State Land Board know that this deal is a bad one for the Payette Lake area. Push the Idaho government to find a better solution that ensures these lands remain open to the public and intact for years to come.

For contact information visit https://www.idl.idaho.gov/contact-us/.

Enclosure 4

PURKISS PAYETTE LANDS APPRECIATION SPREADSHEET

(Please see enclosed.)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Net Gain/Loss
Payette Endowment Land Value	$ 300,000,000.00										
Appreciation 11%	$ 333,000,000.00	$ 369,630,000.00	$ 410,289,300.00	$ 455,421,123.00	$ 505,517,446.53	$ 561,124,365.65	$ 622,848,045.87	$ 691,361,330.92	$ 767,411,077.32	$ 851,826,295.82	$ 551,826,295.82
Appreciation 6%	$ 318,000,000.00	$ 337,080,000.00	$ 357,304,800.00	$ 378,743,088.00	$ 401,467,673.28	$ 425,555,733.68	$ 451,089,077.70	$ 478,154,422.36	$ 506,843,687.70	$ 537,254,308.96	$ 237,254,308.96
1%	$ 336,330,000.00	$ 339,693,300.00	$ 343,090,233.00	$ 346,521,135.33	$ 349,986,346.68	$ 353,486,210.15	$ 357,021,072.25	$ 360,591,282.97	$ 364,197,195.80	$ 367,839,167.76	$ 34,839,167.76
Trident Proposed Land Value	$ 75,000,000.00										
Appreciation 11%	$ 83,250,000.00	$ 92,407,500.00	$ 102,572,325.00	$ 113,855,280.75	$ 126,379,361.63	$ 140,281,091.41	$ 155,712,011.47	$ 172,840,332.73	$ 191,852,769.33	$ 212,956,573.96	$ 137,956,573.96
Appreciation 6%	$ 79,500,000.00	$ 84,270,000.00	$ 89,326,200.00	$ 94,685,772.00	$ 100,366,918.32	$ 106,388,933.42	$ 112,772,269.42	$ 119,538,605.59	$ 126,710,921.93	$ 134,313,577.24	$ 59,313,577.24
1%	$ 84,082,500.00	$ 84,923,325.00	$ 85,772,558.25	$ 86,630,283.83	$ 87,496,586.67	$ 88,371,552.54	$ 89,255,268.06	$ 90,147,820.74	$ 91,049,298.95	$ 91,959,791.94	$ 8,709,791.94
Trident Proposed Additional Revenue											
Net Revenue Gain Through Exchange	$ (1,399,270.06)										
Annual Inflation to Revenue 2%	$ (1,427,255.46)	$ (1,455,800.57)	$ (1,484,916.58)	$ (1,514,614.91)	$ (1,544,907.21)	$ (1,575,805.36)	$ (1,607,321.46)	$ (1,639,467.89)	$ (1,672,257.25)	$ (1,705,702.40)	$ (15,628,049.10)
											$ 24,337,841.04

From: Roger Lord
To: Kevin Graham
Subject: RE: reference request
Date: Friday, May 21, 2021 1:12:41 PM
Attachments: image001.png

Thanks, Kevin. I think hearing that from a sister agency will carry a lot of weight.

- **Roger**

From: Kevin Graham <kgraham@idl.idaho.gov>
Sent: Friday, May 21, 2021 12:01 PM
To: Roger Lord <rlord@masonbruce.com>
Subject: RE: reference request

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Great. I will I will look forward to the questionnaire and give you a stellar rating. You have tremendously helped IDL and have outperformed and over delivered on every detail. You have been available during Land Board meetings, provided several different disciplines, from appraisal, review, to entire project wide transactions and everything in between.

I'm still working on the SOW for the Trident proposal. There will be more to come on this shortly.

Thanks,
Kevin

From: Roger Lord <rlord@masonbruce.com>
Sent: Friday, May 21, 2021 12:48 PM
To: Kevin Graham <kgraham@idl.idaho.gov>
Subject: RE: reference request

Hi Kevin,

No, DSL will send the questionnaire to you and ask that you send it back to them completed. I am not certain they'll actually check references but assume they will. It will be within the next couple of weeks.

Any news on the Trident scope of work?

Thanks,

- **Roger**

From: Kevin Graham <kgraham@idl.idaho.gov>
Sent: Friday, May 21, 2021 11:45 AM

To: Roger Lord <rlord@masonbruce.com>
Subject: RE: reference request

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Roger,

Absolutely, I will. Do I send the questionnaire back to you?

Kevin

From: Roger Lord <rlord@masonbruce.com>
Sent: Friday, May 21, 2021 11:17 AM
To: Kevin Graham <kgraham@idl.idaho.gov>
Subject: reference request

Hi Kevin,

I'd like to ask a favor. I am submitting a proposal to Oregon Dept. of State Lands to appraise the Elliott State Forest and would appreciate you agreeing to serve as a reference. DSL would send you a short questionnaire (attached) at some point in the next 2 weeks and ask for a response. Please let me know if you'd be willing and able to do this.

Thanks,

Roger Lord, ACF
President, Sr. Appraiser

MASON, BRUCE & GIRARD, INC.
707 SW Washington Street, Suite 1300 | Portland, OR 97205
O: 503-224-3445 | D: 503-417-5432 | M: 503-488-0694
www.masonbruce.com

08 Appendix Document

Trident Letter to Land Board

PreserveMcCall.com | info@PreserveMcCall.org

PRESERVE McCALL

Summary of August 10, 2021 Letter from IDL

This paper summarizes Bill Haagenson's letter denying Trident Holdings LLC's *Preserve McCall* land exchange application, along with the principal errors and omissions IDL made in coming to its denial decision which, in each instance, improperly biased the analysis against Trident.

Summary of IDL's letter:

Provision from IDL's Letter (***what IDL did***)	**Industry Best Practice** (***what IDL should have done***)
IDL's high land values forget to include the development costs that create those values. Yet, IDL's comps have had these development costs (e.g. infrastructure costs) incurred already.	a. Industry practice incorporates costs. b. If IDL wishes to use only comps with development costs already incurred, they should then subtract those costs from land values, and discount those future profits back to today to determine net present value. c. Otherwise, IDL should select comps with similar characteristics to the property at issue (i.e. large acreage hillside comps that lack infrastructure near resort communities).
Tier IV includes the 18,000 remote uphill acres away from the lake and roads, but comprise the majority of the Payette exchange area. IDL's comps for Tier IV are infrastructure served smaller parcels mostly under 150 acres, parcels with approved design plans, parcels next to schools, and two waterfront parcels, one with docking rights. All comps are on the flat valley floor.	Do not use waterfront, infrastructure served, small acreage parcels on the valley floor with approved design plans included in the purchases as comps for 18,000 remote hillside acres that lack infrastructure. Instead, use comps with similar characteristics. Multiplying these dissimilar comps by 18,000 hillside acres improperly overinflates Tier IV value by $96.8 million alone.
IDL included 2.2 miles of existing roads as "lakefront property", overinflating estimated land value by $105.8 million. These road sections are sandwiched between cliff walls and the shoreline, with no developable space between, so no usable shoreline exists there.	Industry practices does not do this. If, as Trident has proposed, some road relocations are considered, then the large costs of relocating roads onto granite hillsides are also considered in the profitability analysis.
IDL assumes recent high appreciation rates will continue in perpetuity.	Industry practice assumes appreciation rates normalize to long term trends.
IDL provided third-party advisors IDL's own valuations; asked the advisors whether at those valuations an exchange made sense; then relied on those recommendations as validation of IDL's denial. This is known as "circular reporting."	IDL should have asked the third party advisors to produce their own valuations and, if those valuations significantly differ from IDL's, commission an independent appraisal. MB&G recommends getting an appraisal for this reason.
IDL's lead advisor through the diligence process (Century Pacific's Michael Finch) had no timber valuation experience.	Use advisors with timber experience when a majority of the exchange involves timberlands.
IDL did not use weighted averages in determining comparable per acre comp values. Instead, IDL used median values, thereby overweighting smaller, less representative parcels.	Industry practice uses weighted averages, to avoid overweighting less representative parcel sizes. This one error alone overinflates total Payette land value by $69.7 million.
In valuing proponents' timberlands, IDL rejected the data Trident offered on age, inventory, site index, and distance to market as "unnecessary."	Industry practice uses stand data to determine the value of the timber atop timberlands.

These errors are not industry best practice. An independent, third party appraisal by a qualified appraiser familiar with these land asset types would avoid these errors. Trident's response letter asks IDL to commission an appraisal. That response letter also outlines how IDL's flawed process allowed these errors to occur in the first place.

PRESERVE McCALL

August 13, 2021

The Honorable Brad Little
Governor of Idaho
700 W. Jefferson St.
Ste 228
Boise, ID 83720

Re: Preserve McCall Land Exchange Application

Dear Governor Little,

This letter, also sent by separate address to each of your fellow Land Commissioners, is in response to the August 10, 2021, letter from Bill Haagenson to Alec Williams rejecting Trident Holdings LLC's "Preserve McCall" application for a land exchange surrounding Payette Lake in Valley County. Enclosed is a copy of that letter along with comments regarding its contents and the flawed data it includes. Preserve McCall has concerns regarding the Idaho Department of Lands' ("IDL") refusal to process Preserve McCall's application and, without exception, we disagree with the misled reasons that IDL staff gave for the dereliction of their duty as well as the bizarre factual assertions IDL's letter contains regarding the Preserve McCall proposal.

Specifically, we request you address the unexplainable 915% increase in IDL's estimated land value—from roughly $40 million in March to between $366 million and $488 million now—by inquiring about IDL's value assertions, examining the process failures outlined below, and redirecting IDL to commission an independent third-party appraisal and split costs with applicants.

We are asking for your help to bring transparency and accountability to this process.

Application and Silence

Preserve McCall submitted its application to IDL on February 8, 2021, and immediately upon submission, requested an audience with IDL staff. Preserve McCall's request was in response to a directive by Scott Phillips, IDL's Policy and Communications Chief, to get in touch with him immediately following the application's submission to ensure that all parties were following its progress and were synchronized in tracking its advance. For weeks following the application's submission, Preserve McCall made numerous attempts to schedule further discussions and received no response from IDL.

PRESERVE McCALL

On March 16, 2021, the Idaho State Board of Land Commissioners (the "Land Board") resolved to have IDL process land exchange applications and hire third-party experts as necessary, sharing the cost of these experts with applicants. Since that meeting, IDL has rejected every opportunity to process Preserve McCall's application according to its Land Board mandate.

One Meeting, No Numbers

Finally, on July 7, 2021, IDL staffer Josh Purkiss reached out to Preserve McCall's legal counsel to discuss a question Mr. Purkiss had regarding legal descriptions in the schedules attached to the exchange application. During that discussion, Mr. Purkiss expressed concern that the valuation proposed by Preserve McCall and IDL's own internal valuation were off by multiples. Mr. Purkiss cited values given to IDL by Mark Bottles, the auctioneer seeking to sell the islands in Payette Lake to private parties. We requested a meeting between IDL staff and Preserve McCall staff to discuss preliminary work Preserve McCall had performed to obtain values for the identified parcels, as well as additional raw data that the IDL may want in its consideration of the application. IDL staff and Preserve McCall staff held a conference on July 14, 2021. The highlights from that meeting are as follows:

1. In the planning of this conference, IDL staff expressed concern regarding being seen with associates of Preserve McCall and was wary to meet in person.

2. IDL staff, specifically Jim Elbin, expressed a personal grievance with Preserve McCall's overall approach to its application in that Preserve McCall did not first meet with him in order to learn his opinion of what should become of endowment lands surrounding Payette Lake. This fact was surprising in light of the fact that Preserve McCall had held numerous meetings with Ryan Montoya, a staffer who is no longer with IDL, throughout the year prior to submitting its application.

3. IDL staff asserted that it was not inclined to continue processing Preserve McCall's application because of a disparity in value between the endowment lands and the the timberlands Preserve McCall proposes to exchange. IDL did not have a number for the value it asserted for the endowment lands, but stated if it did, it would be somewhere between $120 million and $160 million. Despite spending months prior to this conversation on the Payette Endowment Land Strategy ("PELS"), which concluded in a value very close to what Preserve McCall set forth in its application, staff now reversed course, stating that the PELS value was intended for leasing only and not for disposition. This fact directly contradicts months of work staff did in valuing these lands for disposition according to PELS. Mr. Purkiss supported his assertions with the fact that Mark Bottles believes various of these parcels, including at least the islands and Parcel G, actually have values into the tens of millions. Staff also stated that it had no way to know true value without an appraisal. Mr. Purkiss summarized that the Preserve McCall application did not pass his smell test, and that his smell test was enough for denying the application.

4. Having established that the parties were facing a gap between believed values, Preserve McCall proposed a second meeting to review information in possession of each party (comparable sale values from IDL, and a broker's opinion of value from Preserve McCall), as well as to discuss the scope of an appraisal to be commissioned by IDL and paid for by Preserve McCall.

5. It is worth noting that it has since come to our attention that IDL had received its recommendation from Mason, Bruce & Girard ("MB&G") prior to our first meeting. Despite that firm's making clear that an analysis could not take place without additional specific information regarding the exchange parcels, all of which Preserve McCall had available, IDL did not request any of this data. When Preserve McCall offered additional information, IDL staff stated that additional information was unnecessary to their analysis, or that they somehow already had it. Confoundingly, it appears IDL did not provide this information to their advisors, in particular MB&G.

6. Before this meeting ended, the parties scheduled a follow up meeting for the afternoon of July 20, 2021, at the Hoff Building in Boise. IDL postponed that meeting to an unnamed future time.

On July 22, 2021, Mr. Purkiss called Preserve McCall's legal counsel and stated that IDL would not meet with Preserve McCall to discuss the application until it has completed its analysis. Mr. Purkiss had no explanation for how IDL would complete its analysis without the data it said it required, but said that the mandate to no longer meet with Preserve McCall came from "management."

IDL, the "Business"

On August 10, 2021, Bill Haagenson sent the enclosed letter to Preserve McCall rejecting its application. On August 11, 2021, Preserve McCall's legal counsel had a telephone meeting with Mr. Purkiss and Mr. Elbin regarding the contents of the letter and Preserve McCall's surprise at the values and assertions contained in the letter. Specifically, we pointed out that both of IDL's third-party contractors requested additional information and an appraisal, both of which Preserve McCall offered to IDL. Instead, the only raw data IDL provided to these consultants was the information it fabricated on its own. We pointed out that IDL's comparable sales values were clearly wildly different from the endowment lands Preserve McCall proposes to exchange. During this discussion, Mr. Elbin repeated his personal objections to the approach Preserve McCall had taken to submit its application, stating that Preserve McCall should have sat down with Mr. Purkiss and Mr. Elbin prior to initiating any discussion with Land Board staff, who, according to Mr. Elbin, "don't know our process." Mr. Elbin represented that Land Board members, through their staff, had each approved IDL's rejection of Preserve McCall's application and IDL's $366 million to $488 million valuation of the Payette area lands, stating, "It has been fully vetted throughout IDL leadership, land board staff, and land board members." Clearly, this action would require a duly-noticed meeting of the Land Board and cannot be made

PRESERVE
McCALL

on the fly. Mr. Elbin then denied that the Land Board had directed IDL to work with Preserve McCall on hiring third-party experts and stated that the Preserve McCall application was "shoved down our throat." Despite the clear language of the Land Board's motion, staff stated that the Land Board's instruction simply was not their process, and that IDL was not obliged to proceed as the Land Board directed. Instead, staff asserted that IDL is really a business and must be run as one. Mr. Purkiss pointed out specifically that he did not like the public scrutiny that this process had brought to IDL's work, and also did not appreciate the political nature of the application process.

Request for Appraisal

In summary, I ask that you read our comments to IDL's letter closely. Please take note of the odd mathematical contortions IDL endures to justify its political decision. Preserve McCall still seeks to pay for an appraisal of the Payette endowment lands, but in the interest of transparency and fairness, this appraisal must be commissioned by IDL.

We invite the Land Board and IDL to participate in this process in order to establish a reliable baseline of value for these parcels. We hope you will rescind this letter from IDL and address these issues with IDL staff at the August Land Board meeting. We would be more than happy to present at that time if that is your request. Preserve McCall looks forward to discussing where this process fell short and how to best address the many challenges facing the Land Board and residents of Valley County in the management and disposition of these lands.

We are eager to get back on track with our efforts to maximize endowment returns, address the area's need for local housing, and create Idaho's largest park.

Sincerely,

Alec Williams

Cc: Mr. Zach Hauge, Chief of Staff
Ms. Bobbi-Jo Meuleman, Deputy Chief of Staff and Director of Intergovernmental Affairs
Mr. Brady Hall, General Counsel to the Governor
Mr. Sam Eaton, Director of Policy, Assistant Legal Counsel
Mr. Nate Fisher, Jr., Special Assistant, Intergovernmental Affairs
Mr. Dustin Miller, Director, Idaho Department of Lands
Mr. Scott Phillips, Policy and Communication Chief, Idaho Department of Lands

Enclosure: Letter from Bill Haagenson to Alec Williams dated August 10, 2021, with proponent's comments

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IDAHO DEPARTMENT OF LANDS
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STATE BOARD OF LAND COMMISSIONERS
Brad Little, Governor
Lawerence E. Denney, Secretary of State
Lawrence G. Wasden, Attorney General
Brandon D Woolf, State Controller
Sherri Ybarra, Sup't of Public Instruction

August 10, 2021

Mr. Alec Williams 802 W. Bannock St,Ste. 207
Boise, ID 83702

Re: Trident Holdings LLC Proposed land Exchange ApplicationDear Mr. Williams:

On February 8, 2021the Idaho Department of Lands ("IDL") received Trident Holdings LLC's ("Trident") application for a land exchange associated with approximately 21,378 acres of state endowment land (Endowment land) located around Payette lake in Valley County, Idaho. Trident proposed to trade 21,248 acres of timberland located in four different counties ("Proponent's l and ") for the EndowmentLand.

IDL staff has reviewed the proposed exchange, and recommends rejecting the application based on thefollowing factors:

1. Even after assigning higher market value to the Proponent's land than the comparable transactions justify, the market value of the Endowment land far exceeds the value of the Proponent's land.
2. The Endowment Land is appreciating at a rate that exceeds the appreciation of the proponents' land, more than offsetting any potential revenue gains from the exchange.
3. The exchange would not block up endowment ownership; instead, it would likely increase management cost and complexity.
4. The exchange would not significantly improve access to endowment lan ds; in the case of someof the proponent's parcels, the cost of access would likely increase.
5. Third-party advisors do not support proceeding with the potential exchange.

Based on the data provided, I concur with IDL's recommendation, and IDL is denying your request for aland exchange.

Respectfully,

Bill Haagensen

Bill Haagensen
Deputy Director of the Department of lands

Sent Certified Mail - Return Receipt Requested - 7016 1370 0000 2329 2959

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PM: We are unaware how IDL came to this value of 21,378 acres. Preserve McCall's application contains 20,250.079 acres of endowment lands.

PM: IDL's value estimates are wrong for a very simple, but avoidable reason. They used infrastructure-served comps, then multiplied those high per acre values by the total 21,000 bare land acreage. One can validate this is true by the asking: what are the development costs IDL assumes will create this $488m of gross land value? No development costs are shown in this letter.

For relevant context on IDL's $488m valuation: Park City plus The Canyons resorts combined sold for $487m in 2014. That high value is because the owners had already invested significant capital into their land and businesses. IDL is assuming in Valley County that those development costs have already been paid to provide the types of roading, infrastructure, and services (which exist for their comps) across all 21,000 Payette acres. That's obviously not reality.

PM: How was IDL able to verify the appreciation on the proponents lands without knowing what's on them? Refusing stand level inventory information offered by the proponent makes this assertion impossible.

On the Payette side, IDL used three years of residential growth in McCall, capturing just the COVID rise and none of the historical McCall growth rates longer term, for existing neighborhood properties (not larger acreage listings) and assumes those new high growth rates will continue in perpetuity. That is, to say the least, not industry practice.

To help understand the scale of impropriety in using these appreciation rates, when applied to IDL's own estimated land values, here is a breakdown of how long it will take IDL's gross bare land value estimate for Payette to surpass Idaho's 2020 GDP of $74.08 billion using these growth rates:

IDL's gross land value estimates	IDL's appreciation rates	Years until Payette bare land surpasses Idaho's $74B GDP
$ 488,458,800.00	28%	20.3
$ 488,458,800.00	24%	23.3
$ 488,458,800.00	13%	41.1
$ 488,458,800.00	11%	48.1
$ 488,458,800.00	6%	86.2
$ 366,344,100.00	28%	21.5
$ 366,344,100.00	24%	24.7
$ 366,344,100.00	13%	43.4
$ 366,344,100.00	11%	50.9
$ 366,344,100.00	6%	91.1

PM: The very purpose for proposing dozens of different parcels in North Idaho adjacent to existing endowment timberlands was to block up those already disparate endowment parcels that already have high management costs and complexity, but also higher timber revenues. This is not a new characteristic created by this exchange that would afflict the endowment, but rather an existing problem (unmentioned in this letter from IDL) that our exchanges help mitigate. Referring to these new disparate parcels as "increasing management costs" is untrue. Management costs are higher across disparate properties, but that's not a characteristic this exchange creates, but rather improves.

One way to prove this would be to show what the cost estimates on each side for the exchange really are. Why are no numbers shown on what those management costs are, for either side of the exchange's parcels?

61% of proposed timberland parcels are adjacent to endowment lands.

PM: Analyzing adjacency (what IDL performed here) is not the same as improving legal or physical access to existing endowment lands. When we have offered to share legal and physical access information that would benefit other endowment parcels with IDL, we have been told that information is unnecessary.

Does not identify which parcels would increase access costs. We are unaware of these increases.

PM: The third-party advisors said they were unable to make final recommendations without full information. That information was offered by the proponent, and rejected by IDL. Third-party advisors DO recommend, however, conducting an independent third-party appraisal. Neither third party advisor validated, nor mentioned in their letters, the $366-488m land values suggested by IDL. Why not?

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DUSTIN T. MILLER, DIRECTOR
EQUAL OPPORTUNITY EMPLOYER

MEMORANDUM

TO: Dustin Miller, Director of the Department of Lands **FROM:** Joshua Purkiss, Real Estate Services Bureau Chief **DATE:** July 28, 2021

SUBJECT: Trident Land Exchange Review and Recommendation

Summary

The Idaho Department of Lands ("IDL") received an application for a land exchange from Trident Holdings LLC ("Trident") dated February 8, 2021, in which Trident proposes to exchange ±21,378 acres ofendowment land ("Endowment Land") for ±21,241 acres of privately-owned timberland. This memo responds to the application and summarizes the analysis completed, including the following: a study of the fee simple market value, revenue produced off the land, consolidation of state endowment land, potential long-term appreciation, creating access, and third-party analyses.

IDL's Real Estate Services ("RES") Bureau recommends rejection of the proposed exchange based onfactors identified during this review:

1. Even after assigning higher value to the land Trident is proposing to exchange to the State ("Proponent's Land") than the comparable transactions justify, the value of the EndowmentLand far exceeds the value of the Proponent's Land.
2. The Endowment Land is appreciating at a rate that exceeds the appreciation of the Proponent'sLand, more than offsetting any potential revenue gains from the exchange.
3. The exchange would not block up endowment ownership; instead it would likely increasemanagement cost and complexity.
4. The exchange would not significantly improve access to endowment lands; in the case of someof the Trident parcels, the cost of access would likely increase.
5. Third-party advisors do not support proceeding with the potential exchange.

Analysis

Market Value: The Real Estate Services Bureau has arrived at an estimated value for the EndowmentLand (Table 1) as well as the Proponent's Land; however, there was not a formal appraisal on either property. This analysis values the endowment land at $366,344,100 and the Proponent's Land at $74,343,500. With this in mind, the methods used to arrive at the estimated values were conservative when valuing the Endowment Land and generous when valuing the Proponent's Land. Examples of thisinclude attributing an average discount of twenty-five percent (25%) to the Endowment Land for

PM: PM offered numerous times to pay for an appraisal, and indeed has in hand a broker's opinion of value, which IDL never requested.

PM: Why is the Department using "generous" and "conservative" methods of valuation?

They should use fair, economically sounds assumptions on both side of the valuation.

PM: Why is developer's profit considered in bare land value? A profit would only be possible after significant capital was invested to bring infrastructure to the land. No profit can be considered if required costs are not considered.

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developer's profit that would be associated with a transaction of this size, and crediting the proponent'sown estimated value of their land with an additional thirty-five million dollars ($35mil) based on the comparable sales. IDL's estimate of the Proponent's Land is one hundred eight-nine percent (189%) of the value estimated by Trident.

If the potential exchange were to proceed, IDL would not expect that to be the final value of the Proponent's Land. IDL used this generous approach to valuation to ensure that Trident's application wasgiven fair consideration. In addition, the RES Bureau's analysis was reviewed by CenturyPacific LLC to verify the RES Bureau's approach for establishing land values on a large scale.

Tier Maps: (Attachment 1) Both Payette Lake and the City of McCall are the primary drivers for designating recreation or residential use as the highest and best uses of the Endowment Land. Each concentric tier on the tier maps represents market behavior based upon economies of scale and purchasing power. The lands proposed for exchange include ±21,378 acres of Endowment Land in andaround Payette Lake and McCall and ±21,241 acres of timberland in Benewah, Clearwater, Latah, and Shoshone counties.[1]

Market Conditions: (Attachment 2) Research from 2016-2020 Payette Lake Sales Catalogs, average upland land values from 2013-2020, direct sale/resale activities, MLS, information obtained from other real estate professionals, and data from the Valley County Assessor's Office were used to analyze the McCall market conditions. Currently, Valley County is experiencing eleven percent (11%) to thirteen percent (13%) per annum appreciation overall, while the McCall land neighborhood area is experiencingsubstantially higher appreciation of twenty-four percent (24%) to twenty-eight percent (28%) per year.

Analysis Summary: (Attachment 3) Seventy-four (74) recent, nearby closed sales were used to bracket each tier by lake frontage (calculated by Front Foot) and upland areas (calculated by acreage) ranging from one (1) acre up to two thousand two hundred (2,200) acres. The mean and median were calculatedfor each tier or band. For each tier, primary weight was given to the median, as the median is less affected by outliers and skewed data. For these reasons, it makes it a better option than the mean as a measure of central tendency.

Proponent's Timberlands: For the central/northern Idaho timberlands, IDL used thirty-three (33) closed sales ranging from ten (10) to one thousand six hundred (1,600) acres in size from Benewah, Clearwater,Latah, Idaho, Lewis, Kootenai, and Shoshone counties. The mean and median were calculated, and primary weight was given to the high-end (above central tendency) as a cautious and fair approach to the valuation. Additionally, the developer's profit was not attributed to the unpurchased Proponent's timberlands, which also favors the proponent.

Developer's Profit: Developer's profit was estimated at twenty-five percent (25%) given the uncertainties of this large-scale proposal and was discounted from the estimated total price because ofanticipated future revenues, holding costs, expenses, and risk.

[1] The land proposed for exchange is not currently owned by Trident, and the application did not include a copy ofany options to purchase or other evidence of Trident's ability to acquire the land.

PM: If the additional $35 million is based upon comparable sales, then it is not "additional," but actual.

PM: Please elaborate on this.

Why is it assumed that this valuation is not true market value?

Should the same assumption not be applied to the estimate of the Payette lands?

PM: Biased language.

PM: If IDL does not expect comparable sales to reflect the actual value of the land in a transaction, then why does it use them to price the land for a transaction?

PM: The tiers do not take into account topography, terrain, distance from infrastructure, etc. The tiers are solely based on distance from the lake. In this case, a parcel a mile up a hill near North Beach gets the same valuation as a parcel next to the airport.

PM: Annual appreciation is affected by paucity of supply, which is controlled by IDL.

PM: This represents the 2020/21 surge.

This is a national trend fueled by record low interest rates and COVID demand for recreation-based property. This is not a sustainable rate of growth and should be normalized over a longer period of time, as IDL has not done here.

PM: Weighted average would be the correct method to determine value.

PM: This is meaningless if the data set does not accurately reflect the subject that it is meant to represent.

PM: Why would a developer's profit be considered on Timberland?

PM: This is completely meaningless. The 25% profit does not take into account the investment in roading, infrastructure, utilities, costs to subdivide, etc. that would need to be incurred in order to realize any value from sales.

Where is IDL's estimate of those costs? That is critical to valuing pre-infrastructure bare land, and provided nowhere in this document.

PM: How does this impact the ability to value the land?

Why has IDL also deliberately not requested these materials, instead insisting when offered that they have everything they need to evaluate this exchange.

Table 1: Estimated Land Value

	Tier Unit Ranges by Highest & Best Use	Unit Sizes	Estimated Unit Value	Estimated Gross Value	Developer's Risk	Estimated Current Value
Tier 1	Average front foot lots	11,750	**$12,000**	$141,000,000	25%	$105,750,000
MIN	$9,262					
AVG	**$13,246**					
MEDIAN	**$12,497**					
MAX	$17,412					
	Large FF lots & Islands	15,384	**$1,700**	$26,152,800	25%	$19,614,600
MIN	$982					
AVG	**$1,782**					
MEDIAN	**$1,724**	Acres				
MAX	$2,641	21,378				
Tier 2	1 - 4.99 acre lots	1,766	**$72,000**	$127,152,000	25%	$95,364,000
MIN	$10,185					
AVG	**$72,124**					
MEDIAN	**$72,314**					
MAX	$170,807					
Tier 3	5 - 39.99 acre lots	1,713	**$20,000**	$34,260,000	25%	$25,695,000
MIN	$7,882					
AVG	**$22,180**					
MEDIAN	**$20,213**					
MAX	$43,709					
Tier 4	40 - 2,000 acre timbered lots	17,766	**$9,000**	$159,894,000	25%	$119,920,500
MIN	$1,048					
AVG	**$12,286**					
MEDIAN	**$9,108**					
MAX	$35,985					
Total				$488,458,800		**$366,344,100**
Proponent Timerland	Large Timber Tracts Central Idaho	21,241	**$3,500**	$74,343,500	0%	$74,343,500
MIN	$532					
AVG	**$2,452**					
MEDIAN	**$2,324**					
MAX	$5,241	Acres				
Total		21,241		$74,343,500		**$74,343,500**

* Assuming all lots are sold and all approvals are in place.

Revenue and Appreciation: The RES Bureau worked with IDL's Payette Lakes Supervisory Area office toproduce an estimated annual revenue report and compared that to the average revenue per acre produced on endowment land in the IDL area offices that would absorb the Proponent's Land into theirmanagement. In addition, IDL applied an annual appreciation of six percent (6%) based on the 2021 Appreciation Study ("Study") completed by IDL's Certified General Appraiser ("CGA"), Kevin Graham. Inthe Study, land within proximity of Payette Lake has an annual appreciation of twenty-four percent (24%) to twenty-eight percent (28%) since 2013. Valley County shows eleven percent (11%) to thirteen

PM: Please clarify unit metric, it jumps from feet to sq. feet to acres.

PM: If this unit metric is linear feet this represents 2.2 miles. That suggests that the majority of this lakefront valuation concerns properties discussed in the following comment.

PM: A large portion of this 2.2 miles is the county road on the Northeast quadrant of the lake. This land is without a doubt undevelopable if the road does not get moved. The costs associated with moving the road has not been factored in. If the future owner of the land cannot move the road, they would need to put a home up onto the granite cliff and would not have direct waterfrontage, and thus should not be valued as direct waterfront as it is now.

Highlighted area of concern bordered yellow, shown also below.

The other large portion of this is the land to the east of Warren Wagon Road (west side of the lake). Again, the land here is not developable and is unusable for a private land owner. There is no feasible way to move this road, to unlock shoreline. Both these stretches of land should be valued differently than home sales with private, groomed beaches (as it currently is being)

These are straightforward mistakes, but together they add $105m to IDL's estimated land value.

PM: The min/max difference is a staggering $160,622 per acre which indicates that 1) the comps do not justly reflect the entirety of the land that it is being applied to or 2) the land it is being applied to should be further broken down into more specific tiers.

PM: The min/max difference is a staggering $35,827 per acre which indicates that 1) the comps do not justly reflect the entirety of the land that it is being applied to or 2) the land it is being applied to should be further broken down into more specific tiers.

PM: The min/max difference is a staggering $34,937 per acre which indicates that 1) the comps do not justly reflect the entirety of the land that it is being applied to or 2) the land it is being applied to should be further broken down into more specific tiers.

PM: If the weighted average is used with the same data set (which is incorrect) the total value is $296,600,491.

This value is overinflated by $69,743,609 because the median was used incorrectly, instead of a weighted average.

PM: Please elaborate. There is time and capital required to be invested to obtain all approvals, and to service & plat sellable lots.

percent (13%) appreciation over the same period. To remain consistently conservative in the modeling, IDL used eleven percent (11%). However, IDL used eleven percent (11%) and six percent (6%) to analyzethe sensitivity of the model at various percentages of appreciation.

The timberland in north and central Idaho has historically appreciated at a rate similar to the national inflation rate. For this model, the IDL used both six percent (6%) and eleven percent (11%) appreciationto be aggressive in adding value to the Proponent's Land.

In order to estimate the net gain or loss to the endowments, the RES Bureau calculated the potential appreciation in value for both the proponent and endowment land at 6% and 11% over ten years (Table4). The additional revenue generated on the proponent's land (Table 3) was then combined with the estimated appreciation of proponent's land.

A summary of the Endowment Land Estimated Gross Revenue (Table 2), Proponent's Land EstimateGross Revenue (Table 3), and Potential Income & Appreciation (Table 4) follow:

Table 2: Endowment Land Estimated Gross Revenue

Payette Lands Annual Revenue

Asset	Activity	Endowment	Acres	Annual Revenue	Rent per Ac
	Communication	PS	0.25	$10,227.00	$40,908.00
	Recreation	Mixed	1,105.00	$1,000.00	$0.90
	Recreation	Mixed	625.00	$9,000.00	
	Recreation	Mixed		$600.00	
	Recreation	Mixed		$2,500.00	
	Recreation	Mixed	19.85	$1,000.00	$50.38
	Grazing	Mixed		$1,750.00	
	Grazing		3,258.00	$742.31	$0.23
	Mineral	Mixed		$7,500.00	
	Mineral			$30,100.00	
Timber Harvest					
	Primary base		13,000.00	$715,000.00	$55.00
	2nd Base		8,000.00	$0.00	$ -
TOTAL				**$779,419.31**	

PM: To be clear, this statement means the following. IDL believes it is "conservative" to adopt a higher long-term appreciation rate for its Payette bare lands than the S&P 500 Index has achieved over its entire 95-year history (10%). That is not industry practice.

PM: Why are expenses not factored in? The Land Board directed IDL in 2014 to provide area-level profitability metrics that shared expense figures. Excluding those expense figures, not knowing profits, and citing only revenues, is not best practice.

Can the market bear 4% of the new market value?

If the market is priced out, the new, actual revenue will be far lower. Has that assessment been performed?

Why did revenue change from PELS?

Table 3: Proponent's Land Estimated Gross Revenue

Proponent's Land Revenue Proposed for LEX				
Asset	**Activity**	**Acres**	**Annual Revenue**	**Rent per Ac**
	Timber Harvest	21,241.00	$2,178,689.37	$102.57
TOTAL			**$2,178,689.37**	

Expected Gross Revenue Increase		
Asset	**Acres**	**Annual Revenue**
Endowment Land Revenue	21,378.00	$779,419.31
Trident Revenue	21,241.00	$2,178,689.37
Gross Income Benefit for the Endowment		**$1,399,270.06**

Table 4: Summary of Potential Income and Appreciation

6% Appreciation of Lands with Additional Revenue		
Asset	**Acres**	**Totals**
10 Year Appreciation of Endowment Land at 6%	21,378.00	$237,254,308.96
10 Year Appreciation of Trident Land at 6%	21,241.00	$59,313,577.24
10 Years of Trident Additional Revenue		$15,628,049.10
Loss to Endowment*		**$162,312,682.63**

11% Appreciation of Lands with Additional Revenue		
Asset	**Acres**	**Totals**
10 Year Appreciation of Endowment Land at 11%	21,378.00	$551,826,295.82
10 Year Appreciation of Trident Land at 11%	21,241.00	$137,956,573.96
10 Years of Trident Additional Revenue		$15,628,049.10
Loss to Endowment*		**$398,241,672.77**

*Deducting the proponent's ten years of appreciation and gross income benefit from the ten years ofendowment appreciation reveals a loss to the endowment if exchange is completed.

Consolidation of Endowment Lands: The RES Bureau worked with IDL's GIS team to review the potentialof the proposed exchange for blocking additional lands with existing endowment lands. The analysis concluded that only 9,450 acres of the proposed 21,241 acres have a common boundary with existing endowment timberlands.

The McCall area land is almost entirely blocked up, except for small portions like the islands, etc. The Proponent's Land proposed for exchange offers little in the way of blocking up existing endowment timberlands. In short, the result of this exchange would be a net loss of almost 12,000 acres of blocked-up endowment land.

PM: This analysis does not factor in any portfolio level benefits such as increasing allowable cut, legal and physical access, reduced haul times, or reallocation of land bank funds toward higher returning EFIB investments, etc. Where is that analysis? These figures, along with all relevant assumptions were provided by Trident in November of 2020. Where is IDL's estimates of those same components of economic value?

PM: How has IDL valued proponents timberland revenue without review of the inventory and stocked areas?

Trident provided to IDL in July 2021 year 1 endowment net cash of $6.43m, and average annualized net cash over the project total of $2.89m using the actual proponent land data which IDL still lacks, and has turned down when offered.

PM: An artificially high basis as a starting point obviously inflates these numbers into the future.

PM: "Loss" is a misnomer. Even under IDL's conclusions, the Endowment does not lose money.

PM: PM estimates that 61% of its proposed timberlands are adjacent to existing endowment lands.

PM: "Entirely blocked up" is meaningless where these parcels make very little revenue and pose a fire risk to the surrounding community.

PM: Yes, the McCall area lands are blocked up. The asset is already unprofitable, but the fact that it is blocked up doesn't turn it profitable.

IDL recognizes that roughly half of the proponents lands are adjacent to existing endowment landholdings. Yet, mere adjacency is not the method of determining legal and physical access unlocked by this exchange.

That analysis was provided to IDL in July 2021. Where is IDL's version of the same analysis?

In addition, approximately 7,000 acres of the Proponent's Land are in a remote drainage (St. Joe) that would create a burden on the local area office to manage. Exchanging into this land makes no financialsense in the context of reducing management expenses and increasing overall efficiency.

Improving Access: The RES Bureau reviewed the Proponent's Land for additional access created by theexchange. There is no recognized net benefit of access to the endowments. In fact, the land in the St. Joe drainage would create additional cooperative road cost-share liabilities for the endowments with the United States Forest Service and private industrial landowners.

Third-Party Review: The final part of the RES Bureau's analysis involved independent third-party reviewsby the Land Board's Timberland Advisor, Mason Bruce and Girard ("MB&G"), and the Land Board's Commercial Real Estate Advisor, CenturyPacific LLLP.

Roger Lord, a CGA with MB&G, completed a review of Trident's proposal as presented to IDL (Attachment 4) with a scope of evaluating based on blocking up, improving access, and increasingrevenue. His conclusion and rationale are as follows:

> "I recommend that the State of Idaho not pursue the proposed land exchange" and "In my opinion,there are better strategies for addressing issues surrounding the Payette Lake endowment lands that would provide a significantly more net benefit to the endowment than the proposed exchange."
>
> 1. The land proposed is less desirable and potentially worth less than the endowment land.
> 2. The exchange would foreclose on future leasing opportunities for the endowments.
> 3. The exchange would further fragment, not create larger blocks of endowment land.

CenturyPacific LLLP's principal, Michael Finch, completed a final review (Attachment 5) of the application and the analysis completed by the RES Bureau. The scope that was provided to CenturyPacific LLLP varied from the MB&G's because the RES Bureau sought an analytical review of theanalysis compiled by IDL as well as a review of the application. Michael Finch concluded "…CenturyPacific does not support pursuing the proposed exchange." His opinion was informed by thefollowing:

1. Trident does not provide evidence of the ability to acquire the land they are proposing in theexchange.
2. The Department's "rough order of magnitude value of the Endowment Property proposed for exchange, categorizes property sale data from closed, competitive sales…Based on the analysis provided, the data suggest the value of the Endowment Property is in excess of $300,000,000- an order of magnitude value equal to four times the estimated approximate value of the TridentProperty."
3. McCall-area real estate market is set to appreciate faster than the Trident Property.
4. The resources and complexities of a land exchange this large would require significant resourcesfrom IDL and the Attorney General's offices.

PM: What is the estimated cost difference between managing these particular 7,000 acres that IDL cites as burdensome, versus the cost of maintaining the ~21,000 Payette acres?

Why is that Payette cost still left out of this analysis?

We offered to provide IDL in July 2021 an analysis of mill distance and mill pricing competitiveness of these St. Joe's lands, along with a comparison of those same metrics for the Payette area lands. We still have that data. It shows how IDL earns more stumpage from its St. Joe lands than from the Payette area lands. Why did IDL selectively note one aspect but not the other?

What burden is created that IDL does not already endure?

PM: When IDL is open to receiving the relevant access information, rather than just looking at adjacency on a map, we are eager to provide that information.

PM: This analysis was based on these factors, but never based upon value, since IDL never analyzed value.

PM: They drew this conclusion, in their own statements, according to the valuation work performed by IDL. Hence qualifiers like "potentially" that explain why MB&G is uncomfortable restating IDL's $366-488m valuation.

What is MB&G's assessment of the Payette value?

How much less? MB&G never had a reliable value

PM: Is IDL proposing to similarly increase lease rates in the McCall area by 915% as well? This analysis was based on these factors, but never based upon value, since IDL never analyzed value.

PM: Which leasing opportunities does this proposal foreclose?

PM: The exchange deliberately combines existing North Idaho fragmentation, by design.

PM: Not a legitimate reason for a negative recommendation. Unfortunately, that same evidence was rejected by IDL as unnecessary. Finch only reviewed IDL's already flawed data. Garbage in, garbage out.

PM: This is the IDL citing Michael Finch citing IDL. This is what is commonly known as a circular reference. Why did Michael Finch not feel comfortable providing his own value assessment?

Is largescale timber acreages not one of Mr. Finch's areas of expertise?

PM: What appreciation rate does IDL suggest Mr. Finch using? Or is he again restating that IDL's numbers are higher.

PM: What are these estimated costs? The resources identified exist for this very purpose.

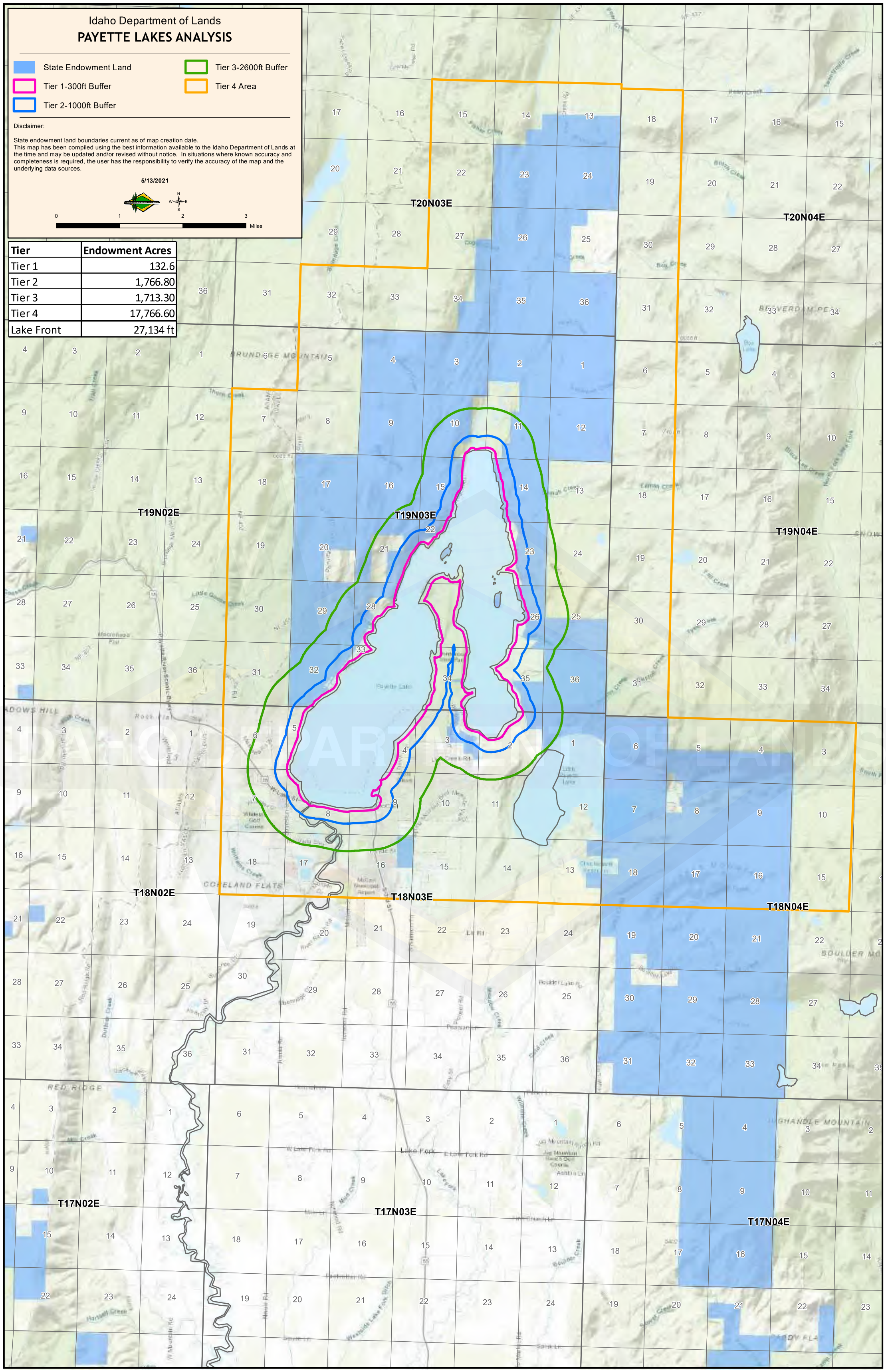
Recommendation

The RES Bureau recommends denial of the Trident Holdings, LLC land exchange application based on thefacts presented in this memorandum.

Attachments

1. Tier Maps
2. Market Condition Analysis
3. Comparable Sales
4. MB&G Review
5. CenturyPacific LLLP Review

CC/EC: Jim Elbin –Trust Land Division AdministratorBill Haagenson – Deputy Director



Tier	Endowment Acres
Tier 1	132.6
Tier 2	1,766.80
Tier 3	1,713.30
Tier 4	17,766.60
Lake Front	27,134 ft

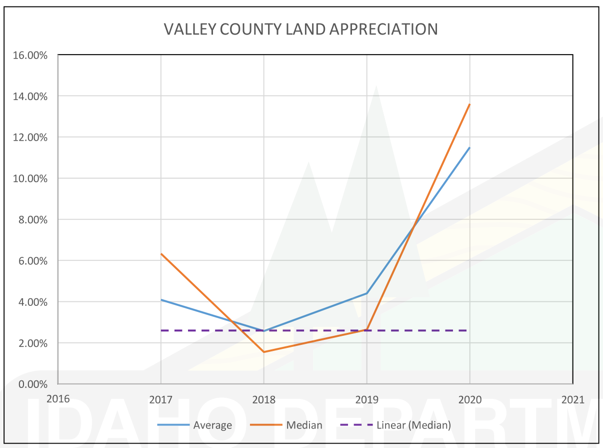
Josh,

As requested, I have researched IDL Mass Appraisals, 2016-2020 Payette Lake Sales Catalogs, average appraised upland land values from 2013-2020, direct sale/resale activities, and data fromthe Valley County Assessor's Office to determine the McCall market conditions. After looking intothis further, it seems the historical data, which predates the 2008-2009 great recession is unreliableand is not demonstrated.

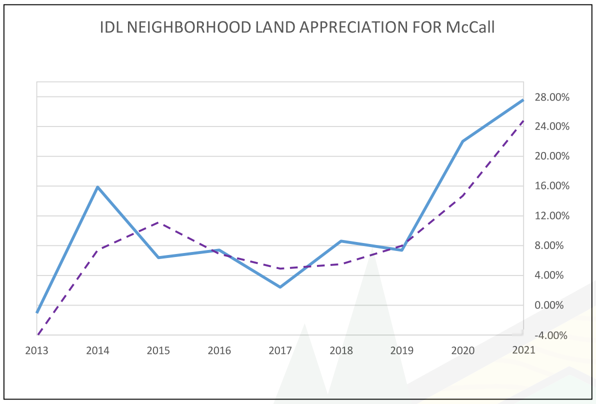
Idaho and Boise led the nation for the second year in a row for home price appreciation, accordingto the Federal Housing Finance Agency, for the year ending Sept. 30, 2020. Statewide, prices rose14.4%. In Boise, they jumped 16.4%. Affluent refugees from California and people others who cannow work remotely are all contributing to a boom in house and land sales in the McCall area, including New Meadows, Donnelly and Cascade. Sales of homes and lots in 2020 reached levels not seen since the real estate boom of the 2000s, according to local Realtors and sales reports.

PM: Good reasoning for normalized pricing methods.

The first table has been developed from Valley County Assessor's Office data and other data sets.As can be seen, since 2017, the entire **Valley County** land appreciation experienced a slight decline in 2018, however, is showing very strong growth from about **11% to 13%.**



The second table below is presented from data gathered by Valley County Assessor's Office dataand other published sources and has been selected from neighborhoods located in the areas where IDL lands are. I believe it is important to focus on this timeline as it best represents the specific location of the **IDL transition properties** and is the most current information (2013- present). The moving average trend and current land appreciation shows a current range from **24% to 28% appreciation** for these IDL land classes. It should be noted the balance of 2021 is forecasted.



Based upon the interviews, preceding data, and discussion, since 2010 the market has been increasing, 2011-2014 were correction years and in 2015 the values came back in line with 2010 at $3.2 billion in inventory. A conclusion can be made that the McCall market area has experiencedprevious stabilization with sharp current market increases.

Sincerely,

Kevin Graham, CGA-2836

Tier 1: Payette Lakefront Sales					
Sale	Date of Sale	Location	Land Value	FF	$/FF
1	9/6/2019	2131 East Side Drive	$1,250,000	71.79	$17,412
2	8/1/2019	901 Wagon Wheel Road	$1,800,000	157.50	$11,429
3	7/1/2019	2010 University Lane	$1,092,000	70.00	$15,600
4	6/28/2019	No. of 2260 Payette Drive	$1,808,750	104.97	$17,231
5	6/28/2019	2260 Payette Drive	$1,400,000	81.01	$17,282
6	6/21/2019	626 Ruby Street	$1,305,000	80.00	$16,313
7	6/14/2019	2168 Payette Drive	$1,243,000	101.87	$12,202
8	4/15/2019	1504 McCall Avenue	$1,100,000	100.00	$11,000
9	11/1/2018	1678 Forest Lawn Street	$930,000	53.90	$17,254
10	8/7/2018	1838 Warren Wagon Road	$935,000	60.00	$15,583
11	5/31/2018	2554 Warren Wagon Road	$750,000	60.00	$12,500
12	2/9/2018	1882 Warren Wagon Road	$1,890,000	181.02	$10,441
13	6/15/2018	2107 Water Lily Lane	$1,194,000	98.68	$12,100
14	6/15/2018	2109 Water Lily Lane	$1,064,000	85.14	$12,497
15	6/15/2018	2244 Payette Drive	$725,000	58.03	$12,494
16	10/25/2017	149 E. Lake	$1,255,000	135.50	$9,262
17	9/26/2017	2406 Sharlie Lane	$840,000	70.00	$12,000
18	9/11/2017	2077 Turkey Lane	$810,000	60.00	$13,500
19	8/3/2017	1882A Warren Wagon Road	$1,475,000	99.00	$14,899
20	10/19/2016	1926 Warren Wagon Road	$1,305,000	105.00	$12,429
21	8/23/2016	1882 Warren Wagon Road	$2,775,000	284.00	$9,771
22	8/16/2016	2012 Payette Drive	$1,395,000	102.94	$13,552
23	8/17/2016	2020 Payette Drive	$1,290,000	113.73	$11,343
24	8/18/2016	2030 Payette Drive	$872,000	77.00	$11,325
25	8/19/2016	2104 Payette Drive	$1,570,000	106.00	$14,811
26	5/19/2016	1924 Warren Wagon Road	$1,135,000	82.41	$13,773
27	11/17/2016	2060 Warren Wagon Road	$1,625,000	118.27	$13,740
28	11/15/2015	2029 Plymouth Ct.	$590,000	49.20	$11,992
29	5/24/2016	1630 E. Lake St.	$1,098,000	96.00	$11,438
30	10/28/2015	2365 Northshore Dr.	$1,086,700	100.00	$10,867
31	10/9/2015	2051 Plymouth Ct.	$905,000	64.97	$13,930
32	9/2/2015	2336 Warren Wagon Road	$940,000	60.00	$15,667
33	11/16/2015	990 Syringa Way	$1,300,000	100.09	$12,988
		Minimum	$590,000	49.20	$9,262
		Maximum	$2,775,000	284.00	$17,412
		Mean	$1,234,953	96.61	**$13,246**
		Median	$1,194,000	96.00	**$12,497**

PM: What are the sources of these land values? Does not tie with the 2021 Valley County Tax Assessors Valuations.

These sales are lakefront home sales that have built structures on them:

EX: #2 – 901 Wagon Wheel is a 5 bed / 4.5 bath home that sold for $4.6mm. How is the department extracting land value?

Tier 1: Payette Lakefront Sales (Larger Lots and Islands)					
Sale	Date of Sale	Location	Sales Price	FF	$/FF
1	10/25/2018	312 Warren Island Shores, Hope, ID	$850,000	492.94	$1,724
2	8/25/2016	Lots 2 & 3, Warren Island, Hope, ID	$523,000	198	$2,641
3	11/26/2014	NNA Memaloose Island, Hope, ID	$4,800,000	4890	$982
		Minimum	$523,000	198.0	$982
		Maximum	$4,800,000	4890.0	$2,641
		Mean	$2,057,667	1860.3	**$1,782**
		Median	$850,000	492.9	**$1,724**

PM: Weighted Average: $1,106 per FF

Tier 2: Payette Upland Sales (1 - 4.99 acres)

Sale	Date of Sale	Location	Sales Price	Lot Size (Acres)	$/Acre	Lot Size (SF)	$/SF
1	10/7/2020	Lot 18 Bitterroot Court	$ 98,500	1.34	$ 73,507	58,370	$ 1.69
2	12/29/2020	TBD Pine Terrace Drive	$ 93,000	1.44	$ 64,583	62,726	$ 1.48
3	11/8/2019	1426 Veronica Lane	$ 95,000	1.49	$ 63,956	64,704	$ 1.47
4	4/2/2021	58 Pearson Lane	$ 175,000	1.73	$ 101,156	75,359	$ 2.32
5	2/11/2021	TBD Sundance Drive	$ 109,900	1.87	$ 58,770	81,457	$ 1.35
6	10/26/2020	1753 Club Hill Boulevard	$ 217,000	1.96	$ 110,714	85,378	$ 2.54
7	1/28/2021	13774 Raptor Loop	$ 140,000	2.00	$ 70,000	87,120	$ 1.61
8	4/28/2021	TBD Whitefield Lane	$ 163,000	2.07	$ 78,744	90,169	$ 1.81
9	9/25/2020	69 Sundance Drive	$ 164,900	2.16	$ 76,343	94,090	$ 1.75
10	11/12/2020	26 Moonbeam Circle	$ 194,900	2.20	$ 88,591	95,832	$ 2.03
11	4/19/2021	TBD Harrington Place	$ 235,100	2.35	$ 100,043	102,366	$ 2.30
12	4/19/2021	TBD Harrington Place	$ 235,100	2.35	$ 100,043	102,366	$ 2.30
13	9/28/2020	TBD Stockton Drive	$ 175,000	2.42	$ 72,314	105,415	$ 1.66
14	1/8/2021	TBD Rogers Lane	$ 74,900	2.49	$ 30,080	108,464	$ 0.69
15	1/8/2021	TBD Blackhawk Lake Drive	$ 200,000	2.53	$ 79,051	110,207	$ 1.81
16	7/15/2020	53 Sundance Drive	$ 144,000	2.79	$ 51,613	121,532	$ 1.18
17	4/29/2021	L14 Blackhawk Lake Drive	$ 550,000	3.22	$ 170,807	140,263	$ 3.92
18	7/17/2020	14106 Penne Lane Road	$ 119,000	4.13	$ 28,814	179,903	$ 0.66
19	8/26/2019	447 Boydstun St	$ 48,500	4.76	$ 10,185	207,436	$ 0.23
20	3/11/2021	25 Smylie Lane	$ 139,900	5.16	$ 27,112	224,770	$ 0.62
21	3/1/2021	1705 Chris Lane	$ 301,333	5.18	$ 58,172	225,641	$ 1.34
		Minimum	$ 48,500	1.34	$ 10,185	$ 58,370	$ 0.23
		Maximum	$ 550,000	5.18	$ 170,807	$ 225,641	$ 3.92
		Mean	$ 174,954	2.65	**$ 72,124**	$ 115,408	$ 1.66
		Median	$ 163,000	2.35	**$ 72,314**	$ 102,366	$ 1.66

PM: Below are a few examples of why most of the comps provided by IDL over-inflate the value. These sales are in infrastructure served subdivisions. The value the developer created by bringing infrastructure to the homesite is reflected in the sale price. This cannot be justly applied to the upland acreage.

PM: Completely flat, infrastructure site on valley floor, not a comp for upland bare land acreage.

https://www.zillow.com/homedetails/58-Pearson-Ln-McCall-ID-83638/243188635_zpid/

PM: Road and infrastructure served; in white cloud subdivision.
https://www.landandfarm.com/property/1_87_Acres_in_Valley_County-10655239/

PM: in King Pines Estates.

PM: Duplicate entry?

PM: Located in infrastructure-served subdivision.

PM: Waterfront lot; not comparable for upland acreage.

PM: Weighted Average: $66,037 per acre

Tier 3: Payette Upland Sales (5 - 39.99 acres)

Sale	Date of Sale	Location	Sales Price	Lot Size (Acres)	$/Acre	Lot Size (SF)	$/SF
1	11/6/2020	13739 Grouse Knoll Place	$ 167,500	6.05	$ 27,686	263,538	$ 0.64
2	3/1/2021	13915 Farm to Market Road	$ 330,000	7.55	$ 43,709	328,878	$ 1.00
3	8/31/2020	TBD Longview Road	$ 150,000	9.36	$ 16,026	407,722	$ 0.37
4	12/15/2020	Lot 2 Ashton Ridge Place	$ 299,000	9.73	$ 30,730	423,839	$ 0.71
5	8/26/2019	TBD Crowley Lane	$ 270,000	10.00	$ 27,000	435,600	$ 0.62
6	1/31/2020	TBD Potter Lane	$ 169,500	12.00	$ 14,125	522,720	$ 0.32
7	11/12/2020	TBD Silver Fox Spur	$ 150,000	19.03	$ 7,882	828,947	$ 0.18
8	6/18/2020	3731 West Mountain Road	$ 300,000	20.92	$ 14,340	911,275	$ 0.33
9	9/16/2020	3737 West Mountain Road	$ 360,000	22.64	$ 15,901	986,198	$ 0.37
10	3/22/2021	2070 Bear Basin Road	$ 976,000	40.00	$ 24,400	1,742,400	$ 0.56
		Minimum	$ 150,000	6.05	$ 7,882	$ 263,538	$ 0.18
		Maximum	$ 976,000	40.00	$ 43,709	$ 1,742,400	$ 1.00
		Mean	$ 317,200	15.73	**$ 22,180**	$ 685,112	$ 0.51
		Median	$ 284,500	11.00	**$ 20,213**	$ 479,160	$ 0.46

PM: Below are a few examples of why the comps provided by IDL do not accurately reflect the Payette Upland parcels.

Subdivided sales on the valley floor are not legitimate comps for granite cliff side.
https://www.realtor.com/realestateandhomes-detail/Grouse-Knoll-Pl_McCall_ID_83638_M13699-79644#photo6

PM: This property is level, has a well dug, and septic approval:
https://www.realtor.com/realestateandhomes-detail/13915-Farm-to-Market-Rd_McCall_ID_83638_M97763-39416#photo0

PM: Located on valley floor; creek running through property:
https://www.estately.com/listings/info/lot-2-ashton-ridge-place

PM: Located next to existing homes. Paved road access:
https://www.landsofamerica.com/property/10-acres-in-Valley-County-Idaho/7170539/

PM: Located on valley floor:
https://www.estately.com/listings/info/tbd-potter-lane--1

PM: Located on valley floor.

PM: Located on valley floor.
https://www.landandfarm.com/property/22_64_Acres_in_ Valley_County-10541077/

PM: Direct access to bear basin, electric served:
https://www.realtor.com/realestateandhomes-detail/2070-Bear-Basin-Rd_McCall_ID_83638_M14073-86793

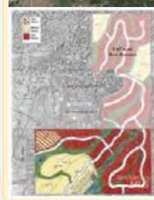
PM: Weighted Average: $20,168 per acre.

Tier 4: Payette Upland Sales (40 - 2,000 acres)

Sale	Date of Sale	Location	Sales Price	Lot Size (Acres)	$/Acre	Lot Size (SF)	$/SF
1	4/30/2021	Stockton Ct -1800	$ 3,270,000	91	$ 35,985	3,958,297	$ 0.83
2	6/14/2019	Paddy Flat Road	$ 3,420,000	2,235	$ 1,530	97,356,600	$ 0.04
3	4/10/2019	Hait Reservoir	$ 495,000	57	$ 8,695	2,479,871	$ 0.20
4	12/27/2019	West Valley Rd	$ 11,000,000	733	$ 15,013	31,916,412	$ 0.34
5	3/24/2021	Woodland Drive	$ 2,000,000	68	$ 29,542	2,949,012	$ 0.68
6	10/12/2019	Brook Dr	$ 750,000	45	$ 16,794	1,945,390	$ 0.39
7	7/7/2020	Fish Lake Rd	$ 460,000	140	$ 3,286	6,098,400	$ 0.08
8	8/20/2020	Knob Hill Dr - 1800	$ 900,000	95	$ 9,521	4,117,727	$ 0.22
9	10/9/2019	Paddy Flat Road	$ 2,075,000	1,980	$ 1,048	86,248,800	$ 0.02
10	11/25/2019	West Mountain Rd	$ 389,836	270	$ 1,444	11,762,942	$ 0.03
	40+ acres	Minimum	$ 389,836	44.66	$ 1,048	$ 1,945,390	$ 0.02
		Maximum	$ 11,000,000	2235.00	$ 35,985	$ 97,356,600	$ 0.83
		Mean	$ 2,475,984	571.24	$ 12,286	$ 24,883,345	$ 0.28
		Median	$ 1,450,000	117.27	$ 9,108	$ 5,108,063	$ 0.21

PM: PINCH CREEK RANCH; adjacent to existing school; home development; sold with conceptual design plans in place; served by existing infrastructure.

This should only be applied to the Deinhard 80 acres, not contributed to the 17,776 of forested acres further from the lake and town:
https://www.estately.com/listings/info/tbd-stockton-ct



PM: Underlying land of Blackhawk Lake, Infrastructure served; with 1,320 Feet of waterfront and existing dock rights. https://images1.loopnet.com/d2/kj4v24vAlTASYog_giwllx5F1-Srj7sWHLUxrcLrGDQ/document.pdf

PM: Land adjacent to Whitetail, Owned by SHORE LODGE WHITETAIL LLC.

PM: PINCH CREEK RANCH; adjacent to school; home development; sold with conceptual design plans in place;

This should only be applied to the Deinhard 80 acres, not contributed to the 17,776 of forested acres further from the lake and town.

PM: Waterfront property along the Payette River; not a comp for uphill acreage:
https://payetteriverwalk.org/?page_id=399

PM: Adjacent to Whitetail:
https://www.estately.com/listings/info/tbd-fish-lake-road

PM: Located on valley floor.

PM: Located on valley floor.

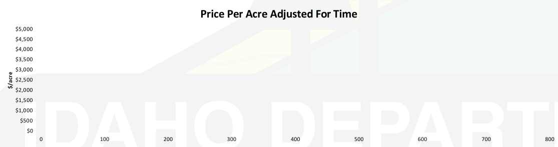
PM: Weighted average= $4,338 per acre.

Failing to use a weighted average, in just this Tier IV comp set alone, mistakenly creates $57,804,102 of value after developer discount.

If Sale 1,4,5 and 6 are removed, weighted average= $1,621 per acre → $21,602,091 value after developer profit factor.

Timberland Comparables

Timber Comparbales (31)																
	Sale 1	Sale 18	Sale 25	Sale 32	Sale 34	Sale 38	Sale 39	Sale 37	C-1	C-2	C-3	C-4	C-5	C-6	C-8	Listing
County	Shoshone	Shoshone	Benewah	Shoshone	Shoshone	Shoshone	Shoshone	Kootenai	Clearwater	Lewis	Clearwater	Latah	Benewah	Benewah	Idaho	Latah
Location	Thompson Pass	Hobo Creek	Marble Creek	Pritchard	Pinehurst	Canyon Cree	Spooky But	Cataldo	Hwy 11 Weip	Orofino	Weippe	Deary	Emida	Emida	Kamiah	Kindrick
Sale Date	6/19/2013	12/13/2012	5/2/2012	4/11/2011	11/10/2010	9/5/2008	9/3/2008	6/2/2009	9/24/2012	9/30/2015	7/26/2016	10/20/2015	12/13/2013	12/13/2013	7/21/2016	Listing
Sale Price	$4,814,000	$505,000	$62,000	$125,000	$41,600	$150,000	$175,000	$130,079	$308,680	$607,250	$806,000	$665,640	$484,000	$647,000	$216,500	$3,750,000
Time Diff 2007-17 in years*	3.54	4.05	4.67	5.73	6.15	8.32	8.33	7.59	4.27	1.26	0.43	1.20	3.06	3.05	0.45	-10% Listing
Adj Sale Price	$6,120,277	$664,268	$74,475	$156,522	$52,953	$207,913	$307,628	$175,215	$365,012	$638,108	$819,863	$697,804	$545,741	$729,243	$220,397	$4,125,000
Time Diff 2017-21 in years*	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	Listing
Adj Sale Price	$6,388,528	$693,452	$77,747	$163,399	$55,279	$217,047	$321,143	$182,913	$381,048	$666,143	$855,883	$728,461	$569,718	$461,282	$230,080	Listing
Acres	3001	160	80	138.7	104	80	80	139	308.68	286.64	620.3	360	604	560	240	1117
$/Acre	**$2,129**	**$4,334**	**$972**	**$1,178**	**$532**	**$2,713**	**$4,014**	**$1,316**	**$1,234**	**$2,324**	**$1,380**	**$2,024**	**$943**	**$824**	**$959**	**$3,693**
	Sale A	Sale B	Sale C	Sale D	Sale E	Sale F	Sale G	Sale H	Sale I	Sale J	Sale K	Sale L	Sale M	Sale N		
County	Benewah	Benewah	Benewah	Benewah	Benewah	Benewah	Benewah	Benewah	Benewah	Benewah	Benewah	Benewah	Benewah	Bonner		
Location	St. Maries	St. Maries	St. Maries	St. Maries	St. Maries	St. Maries	St. Maries	St. Maries	St. Maries	St. Maries	St. Maries	St. Maries	St. Maries	Sandpoint		
Sale Date	9/21/2020	8/13/2020	7/27/2020	7/29/2019	7/11/2019	7/11/2019	1/2/2019	5/14/2019	7/27/2018	4/20/2018	3/17/2017	3/23/2015	3/23/2015	10/22/2020		
Sale Price	$77,500	$180,000	$65,000	$66,500	$91,900	$97,500	$92,000	$53,000	$135,000	$70,000	$50,000	$50,000	$70,000	$181,500		
Time Diff 2007-17 in years*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.78	1.78	0.00		
Adj Sale Price	$77,500	$180,000	$65,000	$66,500	$91,900	$97,500	$92,000	$53,000	$135,000	$70,000	$50,000	$53,622	$75,071	$181,500		
Time Diff 2017-21 in years*	4.32	0.70	0.75	1.75	1.80	1.80	2.32	1.95	2.75	3.02	4.32	4.32	4.32	0.51	Min	$532
Adj Sale Price	$80,925	$187,908	$67,856	$69,422	$93,561	$99,262	$94,150	$54,039	$138,746	$72,136	$52,197	$55,978	$78,369	$182,426	Max	$5,241
Acres	27.7	60	20	15	21	24	36.9	10.31	40	26	36.99	28	21	120	mean	$2,526
$/Acre	**$2,921**	**$3,132**	**$3,393**	**$4,628**	**$4,455**	**$4,136**	**$2,551**	**$5,241**	**$3,469**	**$2,774**	**$1,411**	**$1,999**	**$3,732**	**$1,520**	median	$2,438



According to data on institutional timberland investments from the National Council of Real Estate Investment Fiduciaries (NCREIF):

In mid-1997, timberland values averaged $1,001 per acre, with 1-year total returns of 14.2%. Of this, about 7.1% from appreciation and 7.1% from income. In mid-2007, timberland values averaged $1,500 per acre, with 1-year total returns of 11.5%. Of this, about 3.8% from appreciation and 7.7% from income. As of mid-2017, timberland values average $1,823 per acre, with 1-year returns of 3.3%. Of this, about 0.7% from appreciation and 2.6% from income.

97-07	7%
07-17	4%
17- present	1%

PM: A relevant analysis of comparable sales without comparison of age, inventory, site index and distance to market is not industry practice.

Forests are long term investments PNW forest capital appreciation is less than 3% over twenty years. EBITDA growth in PNW is nearly flat (see NCREIF).

Industry practice is not to look at young trees when also looking at shorter term timber price trends unlikely to affect them.

If this is really what IDL believes timberlands are worth, why have they failed to acquire forest properties for three years?

Memo

To: Joshua Purkiss, Real Estate Services Bureau Chief, Idaho Dept. of Lands
From: Roger Lord, Timberland Advisor to IDL
Date: July 13, 2021
Re: Review and Recommendations Regarding the Proposed Trident Land Exchange

In accordance with the Scope of Work provided to me, I have performed a review of due diligence documents related to the proposed Trident Holdings LLC Land Exchange.

The proposed value-for-value exchange would trade 21,378± acres of state-owned property surroundingPayette Lake near McCall, for 21,240± acreage of mid-rotation industrial timberland in Benewah, Clearwater, Latah, and Shoshone Counties. At this time, there are no appraisals of either property.

I reviewed the following documents:

- The Trident Holdings LLC Land Exchange Application dated 2/8/2021.
- Maps of the proposed exchange lands in Benewah, Clearwater, Latah, and Shoshone Counties.

The proposed exchange is difficult to evaluate precisely using the evaluation criteria because the applicant has only provided a basket of possible exchange parcels with no property data other than acreage, maps, and legal description. It would not be known until late in the exchange process, after completion of appraisals, precisely which parcels the endowment would receive in the exchange. It should also be pointed out that the applicant doesn't own the proposed exchange parcels, nor have they provided any proof that they have secured rights to acquire the parcels from the current owner(s) or have sufficient capital.

Based on my review of the documents and evaluation of the proposed exchange, I recommend that theState of Idaho *not* pursue the proposed land exchange. My recommendation is based on the following evaluation of the decision criteria outlined in the Scope of Work:

- **Will the proposed land exchange provide desirable land for less desirable land?**

  I believe there is a high risk that the State would ultimately be disadvantaged by pursuing the proposed exchange. One risk is that the value of the highly-developable lands surrounding Payette Lake would be diluted by appraising them in bulk form, combined with a large acreage of lower- valued, adjacent timberland. It is the nature of land markets that larger blocks of land sell at lower unit values than smaller blocks, other things being equal. The value of the "higher and better use" lands (e.g., lands with lake front or lake views/access or proximity to town) would be maximized by

PM: PM has offered an appraisal, as MB&G recommends.

PM: All of this information is in Trident's possession and has been offered to IDL many times, but has been refused by IDL every time.

PM has and offered this additional information to IDL.

PM: If the appraisal is actually done correctly, the land would be broken into more than 4 tiers, based on many factors other than distance to the waterline. If these lands are not already subdivided, the cost to do so and then ACCESS these new, smaller lots must be factored in.

marketing it in relatively small acreage pieces over a period of time and at a pace that the market can absorb without materially discounting the value. From a fiduciary standpoint, this would be a superior approach to exchanging it in a bundle with a large block commercial/recreational timberland. While an appraisal could differentiate areas of different highest and best uses to a degree, it would in my opinion be inevitable that discounting of the highest value lands in the appraisal would prevent the endowment from maximizing capture of the full value of the lands.

PM: If IDL really believes the values it supplied to be true, why are they not now revising PELS to outline auction schedules for the entirety of the 20,000 Payette acres over time, as this letter suggests they now should?

Secondarily, it is not at all clear that the land gained in the exchange would be more desirable than that which would be given up. Some of the proposed exchange parcels appear to be in areas of relatively low productivity (e.g., some of the Clearwater and Latah County parcels) and other areas are remote and have steep, rugged topography (e.g., the St. Joe drainage south of Avery).

PM: Not based on any data. Trident has tried to provide this information to IDL, but been repeatedly refused.

What is MB&G own estimate of the Payette acreage value?

- **Will the proposed land exchange provide possible future lease revenue for the endowment?**

  It does not appear that the lands that would be acquired have lease potential except perhaps for somegrazing in the western-most lands, but income from this would be minimal.

PM: N. Idaho timberlands are, by design, primarily valuable for their timber sales, not leasing activity.

- **Will the proposed land exchange block up endowment lands?**

  Overall, the exchange further fragments rather than blocks up endowment lands. The exchange would give up the very large contiguous block of endowment lands around Payette Lake for an unknown number of small parcels scattered across four counties. Although some of the parcels proposed to transfer to the State are adjacent to existing endowment land, many are not. For example, much of the proposed land in Shoshone County is in a checkerboard ownership with national forest many milesfrom the closest endowment lands.

PM: We provided each parcel, its size, description, maps, and ownership information to IDL. Why is even the number of parcels unknown to MB&G?

- **Will the proposed land exchange provide overall long-term revenue to the endowment?**

  The applicant's claim is that it will, but it is impossible to know without specific data about the properties to be added to the endowment in the exchange, and that isn't made available.

PM: What is MB&G assessment of the analysis on exactly these points that we provided in our November 2020 presentation to the Land Board? Was he shared that information by IDL? We also shared with IDL in an in-person meeting with IDL staff in July 2021. Did IDL share those documents with MB&G?

- **Will the proposed land exchange overall, benefit the endowment?**

  In my opinion, there are better strategies for addressing issues surrounding the Payette Lake endowment lands that would provide significantly more net benefit to the endowment than the proposed exchange.

Conclusion:

I recommend that the State of Idaho not pursue the proposed land exchange for the reasons cited.

CENTURYPACIFIC, LLLP
REAL ESTATE INVESTMENT BROKERS ▪ ADVISORS ▪ ASSET MANAGERS

MICHAEL E. FINCH
PRINCIPAL

MEMORANDUM

DATE: July 27, 2021

TO: Mr. Josh Purkiss, Bureau Chief, Idaho Department of Lands (IDL)

FROM: Michael E. Finch

RE: Trident Holdings LLC Land Exchange Application

SUMMARY

Thank you for the opportunity to review select information in connection with the proposedland exchange between Trident Holdings LLC (Trident) and the State Board of Land Commissioners (Land Board). As outlined in Trident's land exchange application (February8, 2021), Trident is proposing to exchange ±21,241 acres of property identified as "forest" land in Benewah, Clearwater, Latah, and Shoshone Counties (Trident Property) for ±21,378 acres of land in and around Payette Lake under the control of the Land Board (Endowment Property).

The concept of a land exchange as a vehicle to facilitate the maximization of long-term valueto Land Board constituents has obvious value. Concept aside, the proposed Trident exchange appears problematic for two primary reasons: i) material difference in value; and
ii) net long-term value to the State of Idaho. Based on CenturyPacific's review of the information provided, it appears the Endowment Property has a value well in excess of thatof the Trident Property. Due to the dynamic and maturing nature of the real estate market surrounding Payette Lake, even if the proposed exchange was a "like for like" exchange at present, it is possible (perhaps likely) that the Endowment Property will appreciate faster than the Trident Property. At this juncture, CenturyPacific is of the opinion that the proposed land exchange is not in the best interest of the Land Board.

PM: Was the information provided IDL's own value estimates?

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4841-7701-5539V.1 -

INFORMATION & DISCUSSION

The opinion summarized above is informed by the following:

- Trident Holdings LLC Exchange Application (redacted; dated as received February8, 2021), accompanying cover letter from Preserve McCall, and related enclosures (schedules, maps and notes related to the proposed exchange transaction). Of note,footnote 2 of Attachment 3 discloses that Trident does not own the proposed exchange parcels in fee and will acquire preceding the closing of the proposed exchange. Based on the information provided, it is not clear if Trident has the unilateral right to acquire all of the proposed exchange properties.

- Analytical summary of McCall-area property transactions and corresponding graphical exhibit, prepared by IDL. The summary, intended to provide a rough order of magnitude value of the Endowment Property proposed for exchange, categorizes property sale data from closed, competitive sales. The data is categorizedby location and lot area and organized to arrive at i) average values for waterfront lots, and ii) average values for upland lots tranched in concentric distances around Payette Lake. Given the large scale of the proposed exchange, the material cost of a formal, parcel-discrete appraisal, and what appears to be a reasonable level of precedent data, IDL's analytical approach efficiently provides for "order of magnitude" values based on high-level property characteristics. Based on the analysis provided, the data suggest the value of the Endowment Property is in excess of $300,000,000 – an order of magnitude value equal to <u>four times</u> the estimated approximate value of the Trident Property.

- Analytical value summary of closed large timber tract transactions in central Idaho(Shoshone, Benewah, Kootenai, Clearwater, Lewis, Latah and Idaho Counties) prepared by IDL. Assuming an average fair market value of $3,500/acre, the estimated value of the Trident Property is approximately $75,000,000. Based on review of the information provided, there appears to be a material difference in value between the Trident Property and the Endowment Property. While many open questions remain related to this proposed land exchange – the apparent difference in value does not appear to represent a true "like-for-like" exchange.

- Unlike the Trident Property, the nature of the Endowment Property – specifically, the intermediate- and long-term highest and best use of the property – is varied. Given the continuing maturity of the McCall-area real estate market, Endowment Property values appear poised to appreciate faster over that of the Trident Property.As such, based on the information provided, the anticipated long-term value of the Endowment Property is greater than that of the Trident Property.

- In the event the Land Board determines owning the Trident Property is a desired strategic addition to the portfolio and the apparent material gap in assemblage valueis satisfactorily addressed, the scale of the proposed exchange should be approachedwith caution. Due to the scale of the proposed exchange, small value fluctuations have the potential to be magnified – resulting in potentially material value impacts

PM: Reviewing incomplete information; redacted version of the presentation and no access to the additional information Trident shared with IDL in July.

Why is IDL's advisor receiving <u>redacted</u> copies of our application?

PM: This valuation of proponent's lands is also far higher than the applicant indicates (a 67%+ increase). Perhaps that helps display exactly why actually appraising both sides of the transaction would be so useful.

PM: Taints the analysis with IDL's incorrect conclusions.

to the parties. In addition to potential issues related to value, the complexity of a transaction of this scale will likely require a significant investment of IDL and AGstaff and consultant resources.

ADDITIONAL INVESTIGATION & CONSIDERATIONS

For the reasons identified in this memorandum, based on the available information, CenturyPacific does not support pursuing the proposed exchange. Should the Land Boardelect to pursue the proposed exchange, CenturyPacific strongly recommends additional investigation, including:

1. Appraisals: In the event the apparent value gap is reconciled and the Land Board wishes to pursue the exchange, consider confirming property values with appraisalsby independent, MAI-certified professionals – including appraiser peer review of alldraft appraisals prior to finalizing values.

2. Title review: All title matters (access, encumbrances, restrictions, rights, etc.) shouldbe vetted to the AG's satisfaction.

3. Survey: IDL should consider obtaining boundary surveys for all exchangeproperties.

4. Environmental Evaluations: At a minimum, Phase I environmental site assessmentsshould be conducted on all exchange properties.

5. Alternative Approaches to Divestiture: If the Land Board determines that a broad divesting of the Payette Lake properties is in the best interest of the endowment constituents, an evaluation of various divestiture strategies should be evaluated toensure maximization of net sales proceeds (e.g. land exchange, large-scale public auction, public auction of select properties, capital-length term ground leasing of commercial property, etc.).

PM: What investment of IDL and AG time will need to be made that isn't part of their scope of work?

PM: We wholeheartedly agree. IDL's estimate of Payette Land Value has fluctuated 915% in five months. An independent appraisal seems a logical way to resolve the mistakes pointed out in this document. Indeed, this was the March direction of the Land Board that we wish to help IDL fund and pursue.
Even Finch asserts that additional information and an appraisal are necessary.

PM: We agree. This is another area of direction from the Land Board in March to IDL that we wish to help IDL fund and pursue.

PM: Divesting of the entire 21,000 acre Payette area was avoided in PELS due to the far lower IDL estimated land value (~$40m) being capable of meeting the required rate of return for those upland lands. Is IDL now recommending this new, far larger divestment strategy? It seemingly must.

Thank you

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PRESERVE McCALL

STATE BOARD OF LAND COMMISSIONERS
September 21, 2021
Regular Agenda

Subject

2021 Grazing Rate Methodology Proposal

Question Presented

Shall the Land Board adopt the proposed grazing rate formula?

Background

The State Board of Land Commissioners (Land Board) and Idaho Department of Lands (Department) are reviewing the 1993 rate formula for potential revision or replacement, ensuring the constitutional mandate to maximize long-term revenue is fulfilled. During the August 21, 2018 Land Board meeting, the Land Board approved the continued use of the status quo grazing rate formula and directed the Department to continue review of the grazing rate and seek to have a study completed by regarding non-fee grazing costs. During this time, a study by the University of Wyoming was commissioned to determine the non-fee cost of grazing livestock on state endowment trust lands, but findings were inconclusive due to the low sample size and lessee response. As a result, the grazing rate has remained as calculated by the 1993 status quo formula, with a rate of $7.32/AUM in 2020 and $7.07/AUM in 2021. The Department projects the rate to be $6.86/AUM in 2022 under the status quo formula.

During its October 20, 2020 meeting, the Land Board passed a motion directing the Department to coordinate with Land Board staff, gather and review pertinent information, engage with stakeholders, and conduct any other work necessary to recommend a grazing rate method, which was developed by the Department and presented to the Land Board as an information item at the July 20, 2021 Land Board meeting.

The Department refined and finalized the proposed grazing rate formula, conducted extensive public outreach, completed a public comment period, and commissioned an analysis of its methodology by Dr. Neil Rimbey, retired University of Idaho Agriculture Economist.

Discussion

The Grazing Rate Formula

The Department has continued to make use of four key sources in the 2021 Grazing Rate Proposal (Attachment 1):

1) 2020 cow-calf beef budgets developed by the University of Idaho (Attachment 2)
2) 2014 University of Idaho Research Bulletin 185 regarding non-fee costs in private lease arrangements (Attachment 3)

3) 2011 University of Idaho study Grazing Costs: What's the Current Situation (Attachment 4); and
4) 2021 University of Wyoming study Evaluating Non-Fee Grazing Permit Costs (Attachment 5)

These sources of information represent the best available data for the proposed model that nets the prorated sum of non-fee grazing costs paid by lessees against the USDA-NASS private lease rate for Idaho. Since the July 20, 2021 meeting, some updates to the Grazing Rate Methodology have been made, including:

- Adding a table comparing the most recent state and private grazing rates of the 11 western states.
- Reviewing common concerns about the grazing rate formula from the submission of public comments.
- Updating the model to implement Dr. Rimbey's suggestions for improving the model.

The Department's 2021 Grazing Rate Proposal (Attachment 1) is proposing a grazing rate that is 45% of the USDA-NASS reported private lease rate for Idaho and would result in a rate of $8.33/AUM for the 2022 calendar year.

Analysis of Grazing Rate Methodology by Dr. Neil Rimbey

In his initial review (Attachment 6), Dr. Rimbey raised the following concerns, which the Department addressed in the 9/10/2021 update to the grazing rate model:

- Dr. Rimbey expressed concerns about the applicability and age of data from the 1990 Obermiller study from the University of Oregon Extension Service. He recommended the Department not use the Obermiller data in the model, and instead utilize data for water and lost animal non-fee costs from the 2011 University of Idaho study Grazing Costs: What's the Situation and the 2021 University of Wyoming study Evaluating Non-Fee Grazing Permit Costs. The Department removed the Obermiller data from the model and replaced it with averaged, inflation-adjusted values from the newer studies.
- Dr. Rimbey took no issue with the general approach to adjust the non-fee costs identified in the 2020 UI enterprise cattle budgets using the proration data from the 2014 UI report. He did, however, recommend that the Department index the 2014 proration percentages to adjust for non-inflationary factors. The Department explored this recommendation but ultimately could not find non-fee data corresponding with the non-fee deductions for 2014. The next-best data the Department could find that corresponded with the categories of deductions in the model dated to the 1990 Obermiller study. The Department contemplated indexing the 1990 data to 2020 to accommodate inflationary and non-inflationary value changes, then using that data to recalculate the 2014 study's prorations. However, the Department dismissed this approach given age and relevancy concerns Dr. Rimbey expressed about the Obermiller study.

- Dr. Rimbey noted it was unclear if the non-fee costs derived from the 2020 UI enterprise cattle budgets were converted to an AUM basis or not. For those items not presented as per AUM units in the budgets, the Department had already converted those non-fee cost deductions to an AUM basis. The Department updated the study with a footnote to better explain this treatment of the data.
- Based on the new non-fee cost data available in the 2021 Dollerschell study, the Department attempted to crosswalk the Dollerschell non-fee costs to the averages derived from the 2020 UI enterprise cattle budgets with the intention of averaging the Dollerschell and UI data together. However, this was not possible given the differences in services bundled into each of the study's non-fee costs. For example, Dollerschell bundled salt and feed together, while the UI bundled salt and minerals.

Dr. Rimbey is working to provide the Department with a letter summarizing his final review of the model, as amended to reflect changes he suggested in his September 9, 2021 correspondence.

Stepping into a New Rate

In his initial review dated 9/9/2021, which was based on setting the endowment rate at 58% of the USDA-NASS private rate for Idaho, Dr. Rimbey recommended that the Land Board consider stepping into the rate incrementally. However, with the incorporation of the newer data, Dr. Rimbey noted that at the revised model output rate of $8.33 per AUM, stepping into the new rate is not warranted.

Public Outreach

As directed by the Land Board, the Department engaged in extensive public outreach activities related to adopting a new grazing rate formula. These efforts included:

- Launching a new "Grazing Rate Review" webpage on July 6, 2021 that was viewed 963 times by 812 unique viewers for an average time of 4 minutes and 11 seconds. The webpage may be viewed at https://www.idl.idaho.gov/leasing/grazing-farming-conservation-program/grazing-rate-review/.
- Disseminating a news release on July 7, 2021, to 219 media outlet contacts and 657 other interested parties seeking public comment on the proposed new grazing rate. The news release was also posted to the Department's website and was viewed 119 times by 113 unique viewers for an average time of 2 minutes and 42 seconds. The news release may be viewed at https://www.idl.idaho.gov/pressrelease/idaho-department-of-lands-seeks-public-input-on-new-grazing-rate-proposal/.
- Posting 24 times to social media (Facebook, Twitter, LinkedIn, and Instagram) between July and September 2021, to encourage the public to comment on the proposed new grazing rate. In total, these posts reached 12,415 viewers.
- Presenting information about the proposed new grazing rate at four industry-sponsored grazing stakeholder meetings between June and August 2021.

- Sending 808 letters and 1,581 emails to grazing stakeholders about the proposed new grazing rate, including inviting them to comment.
- Meeting four times with Idaho Cattle Association leaders between January and September 2021.
- Completing at least 17 telephone conversations with grazing stakeholders between June and September 2021.

Public Comments

The public comment period opened July 7th, 2021 and closed on September 3rd, 2021. During the comment period the Department received 37 comments. Comments were counted, analyzed, and are available for review by the Land Board (Attachment 7). Out of the 37 comments received, 7 are in support of the rate proposal or support an even higher rate proposal; 21 out of the 37 comments do not support the rate proposal and 9 comments were neutral in their support.

Common themes emerged from the comments which were concerns over drought (11% of comments), recreation impacts (26% of comments), comparison of Department leases to private leases (34% of comments), concerns over previous payment of premium bids (11% of comments), and consideration for fire mitigation/benefits that lessees bring to state leases (17% of comments).

Recommendation

Adopt the 2021 Grazing Rate Formula Proposal.

Board Action

Attachments

1. 2021 Grazing Rate Proposal (Updated 9/10/2021)
2. 2020 cow-calf beef budgets developed by the University of Idaho
3. 2014 University of Idaho Research Bulletin 185 regarding non-fee costs in private lease arrangements
4. 2011 University of Idaho study Grazing Costs: What's the Current Situation – Rimbey/Torell
5. 2021 University of Wyoming study Evaluating Non-Fee Grazing Permit Costs – Dollerschell
6. 9/9/2021 Critical Review: Determining the Market Rate for Endowment Grazing Leases by Dr. Rimbey
7. Public comments received between 7/7/2021 and 9/4/2021
8. Impacts on individual leases at 45 percent of NASS private rate

Determining the Market Rate for Endowment Grazing Leases

Idaho Department of Lands

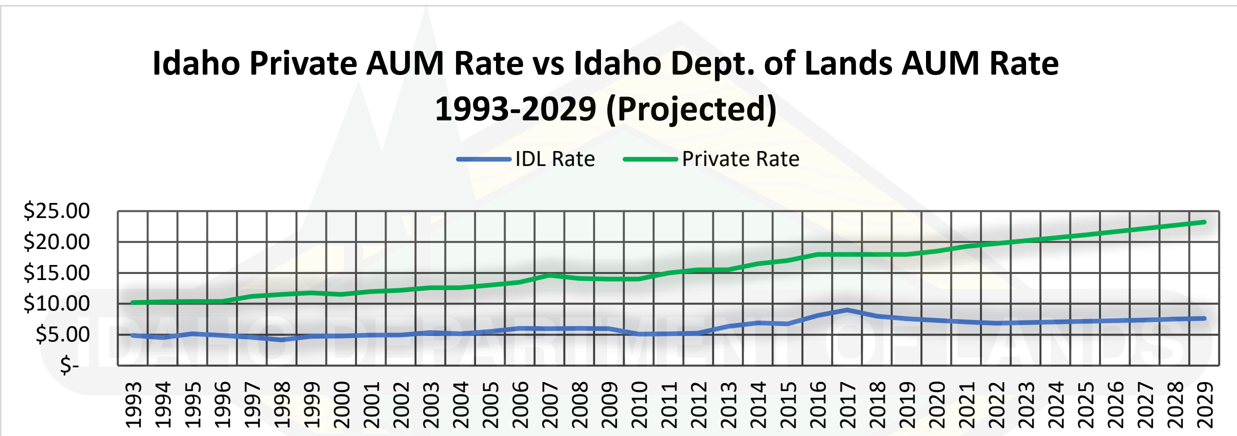
September 10, 2021

DRAFT

ATTACHMENT 1

Preface

With the constitutional obligation to maximize revenue for endowment beneficiaries, the Idaho Department of Lands (Department) analyzes rates of return and financial performance for our land assets. A decade ago, the Department commissioned a study to analyze grazing leases on Idaho endowment land, which determined that the grazing formula was likely not capturing market value (Attachment A). In recent years, the private grazing lease rate has increased faster than the rate for endowment lands, according to available data. In 1992 the Department rate was approximately 50% of the private lease rate; in 2022 the Department rate is projected to be about 37% of the private lease rate.



The Department and stakeholders have identified the need for a rate that is stable, tracks market trends, and is easy to understand. As directed by the State Board of Land Commissioners (Land Board), the Department has been evaluating the grazing rate, alternate formulas, and non-fee costs related to grazing on endowment land. Attempts to develop a fair, market-value grazing rate formula have been difficult due to limitations in the formulas brought before the Land Board. The Land Board has rejected formulas which contained arbitrary base rates and multipliers as key components and those which did not adequately demonstrate their ability to capture market value.

Prior work to collect data for extrapolating the market value of grazing on endowment rangeland has been inconclusive. Published research is limited, and efforts to ascertain a defensible rate by surveying our customers has failed. The price impacts of inholdings are anecdotal; lessees have indicated that if lease rates increase, they may simply forgo certain endowment leases, placing the cost of fencing out cattle on the endowments. Accurate and detailed data related to the carrying capacities of private and endowment rangeland does not exist; the Department does not have adequate staffing to undertake such a study for the entire rangeland asset class, and the cost may eclipse any potential gains in revenue. Studies of carrying capacity of certain high quality leased areas can be completed and may increase net revenue in some cases.

Central to the debate of choosing a proper base rate has been the determination of the actual cost of grazing on state endowment trust leases versus private leases. A recent analysis by the University of Idaho offers insight into the expenses incurred by the average ranching operation in Idaho, across various rangeland ownerships and grazing strategies. Using this information, a defensible, data-driven method for the grazing rate can be established.

Recent History

12/5/2017 – The Land Board held a special meeting to discuss the grazing rate review and alternatives presented by the Grazing Subcommittee. During this meeting, the Land Board voted 5-0 to defer a decision on the grazing rate methodology to allow further consideration of information regarding the alternatives (Attachment B).

8/21/2018 – The Land Board discussed the Grazing Rate Methodology Review agenda item. One topic of discussion related to the existing state grazing rate formula and alternatives previously presented by the Grazing Subcommittee was clarity regarding non-fee costs potentially incurred by state grazing lessees on state endowment trust lands versus private land grazing leases. The Land Board voted 4-1 to continue using the current Status Quo formula until a comprehensive, up-to-date third-party study was completed about non-fee grazing costs incurred by lessees on federal public or state trust lands versus private lands (Attachment C).

3/6/2019 – Per the August 21, 2018, Land Board meeting, the University of Wyoming initiated a non-fee grazing cost study (Attachment D).

10/17/2019 – As an informational item, the Land Board received an update on the 2020 grazing rate, as determined by the 1993 formula, and the University of Wyoming study (Attachment E).

3/31/2020 – The University of Wyoming Grazing Rate Study of non-fee grazing costs in Idaho was completed, but the findings were inconclusive due to the "low number of ranchers that participated." (Attachment F)

Fundamental Issue

Prior to the Land Board's deferral on revising the grazing rate methodology in December of 2017, the Land Board's Grazing Subcommittee had convened a working group of stakeholders, including representatives from the ranching industry, interest groups, conservation organizations, and Land Board staff members. This working group was led by an independent meeting facilitator and charged with developing alternatives to the grazing rate formula recommended by Dr. Rimbey and adopted by the Land Board in 1993 (Attachment G).

The proposed formulas submitted to the Land Board for consideration during the December 2017 meeting were predicated on arbitrary, indefensible variables (or multipliers) that ultimately determined the rates generated by the formulas.
By charging the 2017 working group with developing alternatives to the status quo grazing rate formula, the fundamental issue was overlooked—developing a defensible methodology for determining the market rate for grazing on endowment land that is not based on an arbitrary multiplier.

Approach for Estimating Market Value

This new approach for determining the market rate for endowment grazing leases solves the decades old problems of formula complexity and volatility, meaning that the rate generated by the current formula is difficult to understand, its calculations are hard for the layman to replicate, and market forces can significantly skew the indices upon which it is based.

The proposed new model is based on two pillars: transparent, defensible, not arbitrary; and periodic review.

Pillar 1: Transparent, Defensible, Not Arbitrary

The new model is based on defensible and transparent datasets. It avoids using arbitrary numeric modifiers and assumptions. At its core, the model can be described as netting non-fee grazing costs against the USDA National Agricultural Statistic Services (NASS) published private Animal Unit Month (AUM) grazing fee for Idaho (Attachment H). The proposed new model expresses the endowment grazing lease rate as a percentage of the NASS published private lease rate for Idaho and bypasses the four indices used under the current 1993 formula.

Pillar 2: Periodic Review

The Department recommends the Land Board adopt a policy to review the new grazing rate model (if adopted) every five years and update the model's underlying non-fee costs (if needed) to ensure the model continues to track with the market. This review should also analyze the market sensitivity to endowment grazing lease rate changes, specific to the question of how rate changes might impact the demand for leasing endowment land for grazing.

Proposed New Model

The core of the proposed new model is derived from four non-fee grazing costs identified within three cow-calf beef livestock enterprise budgets published by the University of Idaho's College of Agricultural and Life Sciences in 2020 (Attachment I). The sums of each of the non-fee costs identified within the budgets were averaged, then prorated using data from the 2014 University of Idaho research bulletin Idaho Private Rangeland Grazing – Lease Arrangements to reflect non-fee costs under private leases likely borne by lessees (Attachment J, Table 10). The model also includes two non-fee grazing costs derived from averages published in the 2011 University of Idaho study Grazing Costs: What's the Situation (Attachment K, Table 2) and the 2021 University of Wyoming study Evaluating Non-Fee Grazing Permit Costs (Attachment M, Table 6).

Model Rate as a Percentage of the Private Rate

The proposed new model nets the prorated sum of the non-fee grazing costs paid by lessees identified in the University of Idaho enterprise budgets and the non-fee costs identified in the Dollerschell and Rimbey/Torell studies against the prior-year USDA NASS private rate for Idaho, then divides this amount by the private rate to express the Idaho endowment grazing rate as a percentage of the USDA NASS private rate for Idaho. For purposes of simplicity, this percentage is rounded to the nearest one percent.

Calculating the Model Rate

Variables

A = NASS Idaho Private Rate (as published two years prior)
B = Sum of the Average Non-Fee Costs for Salt, Trucking, Labor and Repair (from 2020 UI Cattle Budgets)
C = % of Non-Fee Services Provided by Private Lessees (from budgets UI private lease arrangements study)
D = Sum of Non-Fee Costs for Lost Animals and Water (Dollerschell & Rimbey/Torell studies)

Formula

(A – (B x C) – D) ÷ A = Endowment Rate as % of Private Rate
($18.50 – $5.21 – $4.96) ÷ $18.50 = 45.03%
$8.33 ÷ $18.50 = 45.03%

Endowment Percentage Rate = 45% of the USDA NASS private Rate for Idaho (45.03% rounded to the nearest percent)

USDA NASS Private Rate for Idaho x Endowment Percentage Rate = Idaho Endowment AUM Rate
$18.50 x 45% = $8.33/AUM

Non-Fee Grazing Costs from UI Cattle Budgets

Non-Fee Services Lessor Provides*	UI Cattle Budget EBB-CC1-20	UI Cattle Budget EBB-CC7-20	UI Cattle Budget EBB-CC8-20	Average Non-Fee Costs
Salt/Mineral	$0.50	$0.54	$0.37	$0.47
Trucking to & from Pasture	$1.50	$0.75	$0.83	$1.03
Hired Labor	$7.35	$2.80	$3.65	$4.60
Buildings & Improvements (Repair)	$0.90	$1.07	$0.90	$0.96

* Non-fee costs accounted for in UI Cattle Budget using measures other than per AUM were converted to per AUM measurements.

Prorated Non-Fee Grazing Costs*

Non-Fee Grazing Services	Avg. $/AUM for Non-Fee Services		% of Non-Fee Services Paid by Lessee		Value of Non-Fee Services Provided by Lessee
Salt/Minerals	$0.47	x	84.4%	=	$0.40
Trucking to & from Pasture	$1.03	x	79.4%	=	$0.82
Hired Labor	$4.60	x	79.4%	=	$3.65
Buildings & Improvements (Repair)	$0.96	x	35.2%	=	$0.34
Total					**$5.21**

* The independent third-party review of the proposed new grazing rate recommended calculating the prorations using 2014 non-fee costs indexed to 2020 values. However, non-fee cost data for the non-fee costs included in this table is not available for 2014. The alternative, to use 1992 data and index to 2020 was dismissed given age and relevancy concerns of data expressed in the third party review for other studies.

Average Non-Fee Costs for Lost Animals and Water

Non-Fee Grazing Costs from 2021 Dollerschell Study

Operation	2018 Public	2018 Private	2018 Difference	Adjusted for Inflation, 2021
Lost Animals*	$7.48	$2.53	$4.95	5.22**
Water*	$1.29	$.07	$1.22	$1.29**

Data from Evaluating Non-Fee Grazing Permit Costs, Dollerschell, May 2021
* Data from page 40, Table 6
** Inflation adjustments calculated using U.S. Bureau of Labor Statistics online calculator at https://www.bls.gov/data/inflation_calculator.htm

Non-Fee Grazing Costs from 2011 Rimbey Torell Study

Operation	2010 Public	2010 Private	2010 Difference	Adjusted for Inflation, 2021
Lost Animals*	$5.21	$2.92	$2.29	2.76**
Water*	$.76	$.23	$.53	$.64**

Data from Grazing Costs: What's the Current Situation, Rimbey Torell, March 2011
* Data from page 6, Table 2; 1992 data indexed to 2010
** Inflation adjustments calculated using U.S. Bureau of Labor Statistics online calculator at https://www.bls.gov/data/inflation_calculator.htm

Average Lost Animals and Water Non-Fee Grazing Costs

Operation	Dollerschell	Rimbey Torell	Average Non-Fee Cost
Lost Animals	$5.22	$2.76	$3.99
Water	$1.29	$.64	$.97
Total			**$4.96**

Rate Change Impacts

The current 2021 endowment grazing rate of $7.07/AUM is 38.2% of the USDA NASS private rate for Idaho. The model output rate for 2022 is 45% of the USDA NASS private rate for Idaho, or $8.33/AUM. This change represents a 17.8% increase in grazing rates from 2021 to 2022.

The Department manages 1,107 endowment grazing leases, which range from 1 AUM to 25,253 AUMs, with an average count of 232 AUMs. The largest endowment grazing lease encompasses 25,253 AUMs, while the median lease contains 86 AUMs (Attachment L).

	AUMs	Current Annual Rate	@ 45% of Private Rate	Net Change	% Change
Total	256703	$1,814,890.21	$2,138,335.99	$323,445.78	17.8%
Average	232	$1,639.47	$1932.56	$293.09	
Median	86	$608.02	$716.38	$108.36	
Maximum	25253	$178,538.71	$210,357.49	$31,818.78	

Sheep Policy

This proposed new model incorporates the AUM fee policy for sheep as previously approved by the Land Board. For sheep, if the previous 12 month average lamb price is less than or equal to 70% of the price for calves under 500 pounds during the same period, the sheep AUM rate will be reduced 25%.

11-Western State Grazing Rates

Another metric that may validate this model is to compare the model rate to the 11-Western States private lease rates as reported by USDA-NASS and the rates each state charges for endowment grazing land.

2021 Grazing Rates for 11 Western States - State vs Private

State	Private Lease Rate (2020)	State Lease Rate (2021)	% of Private Rate
Nevada*	$10.00	$13.37	134%
Colorado (avg.)**	$19.50	$17.00	87%
Washington (avg.)***	$14.50	$11.49	79%
Montana	$23.50	$13.41	57%
Oregon	$18.00	$9.84	55%
Utah (avg.)****	$18.00	$8.75	49%
Idaho	**$18.50**	**$7.07**	**38%**
New Mexico	$16.50	$4.85	29%
Wyoming	$22.50	$5.53	25%
Arizona	$10.00	$2.41	24%
California******	$23.50	NA	NA
11-State Averages:	**$17.10**	**$9.37**	**58%**

*Nevada private rate for 2020 not available, 2019 rate used

**Colorado sets dozens of regional rates ranging from $12 to $22/AUM, this represents a rough average of the range of fees

***Washington has a permit rate ($8.68) and a lease rate ($14.30). Permit rates are historical allotments grazed in conjunction with Federal lands. New permits are not issued

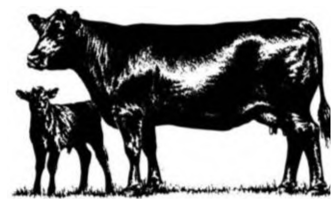
****Utah uses a tiered rate, $6.36 for lower tier (unblocked) and $11.13 for blocked leases

*****Lease rate data not available for CA state leases, each lease is calculated individually. Grazing lease rates can be charged in $/Acre or $/AUM

EBB-CC1-20 2020 Costs and Returns Estimate

Cow-Calf Budget: 250-head
Northern Idaho
Summer on Private Range, Winter Feeding Necessary

Ben Eborn and Jim Church



Background and Assumptions

University of Idaho costs and returns estimates use economic costs—all resources are valued based on market price or opportunity cost. This budget presents typical costs and returns per cow for a 250-head cow-calf operation plus total costs and returns for a northern Idaho ranch. The forage source is deeded range with some winter hay feeding.

Livestock Investment
The livestock investment consists of 250 cows, 10 bulls, and 2 horses. Cows have a useful life of 6 years after they enter the breeding herd. The culling rate is 17 percent and the cow herd has a 2 percent death loss. The ranch buys 2-year-old bulls and replaces them every 4 years. The weaned calf crop is 90 percent of the number of cows wintered. Of the 58 weaned heifer calves selected from the calf crop as replacements, 10 are culled because of non-breeding or poor quality, leaving an annual net replacement of 48 head.

Machinery and Equipment
The cow/calf enterprise uses a ¾-ton pickup (4x4), a 1-ton pickup, an ATV, an 80 HP tractor with a loader, a stock trailer, and a gooseneck trailer (see Table 4). This equipment complement is minimal but considered adequate. Values on these investments are calculated at 50 percent of new replacement cost to reflect typically aged but functional ranch equipment.

Haying equipment is not included in this budget as hay production is treated as a separate enterprise. See EBB1-AH-19 for costs and returns associated with grass hay production in northern Idaho. Hay and other feeds used as inputs in this cow-calf budget are valued at the market price received by growers FOB the farm.

Buildings and Improvements
The ranch has 35 miles of 4-wire fence, one barn, a hay shed, grain storage, two sets of corrals with working alleys, a squeeze chute, a calf table and a normal complement of veterinary equipment. Water is supplied from natural sources. Buildings and improvements are valued at 80 percent of new replacement cost.

Management Practices
The majority of cows calve between January 1 and late March, with some calves being born throughout the year. All cattle are fed alfalfa and grass hay from approximately December 1 to March 30. Replacement heifers also receive some supplemental barley.

In April, the cattle are trucked to private spring pasture where they remain until late May. They are then trucked to private summer pasture and left through October. By November 1, after gathering and working the cattle, they are pastured on stubble fields until winter feeding begins. Costs are included in the budget for all lands that are grazed.

The top 48 heifer calves are kept as replacements, while the remaining 65 heifers

ATTACHMENT 2

plus 113 steer calves are sold in November. Cull animals are sold in June, August, and November. The costs of selling cattle include checkoff/brand inspection, freight/trucking, and sales commissions. Checkoff/brand inspection costs pertain to all cattle sold in the enterprise including cull animals. Sales commission and freight costs pertain to cull animals only since they are sold through the sale yard. All steer and heifer calves are sold direct.

Veterinary Care

Veterinary care for calves includes viral treatments and 8-way vaccinations (given twice during the year), implants and selenium supplements. Heifer calves are also vaccinated for brucellosis. Cows, bulls, and replacement heifers receive vaccinations for viral infections, vibriosis and leptospirosis. The herd is treated annually for parasites and the cows are pregnancy checked in the fall. Bulls also receive a breeding soundness evaluation and trichomoniasis test.

Labor Costs

Labor provided by the operator is valued at $27.00 per hour, based on average wages for agricultural supervisors. Regular livestock labor is valued at $17.50 per hour. These hourly rates include all applicable payroll taxes and benefits.

Budget Format

In addition to the Background and Assumptions pages, this publication has three tables presenting a variety of costs and returns information.

Table 1 shows both expected revenue and expenses. Expenses are broken into two main categories: operating and ownership. Operating expenses are those that typically vary with the level of production and involve inputs that are used in a single production cycle. Ownership expenses include a systematic cost recovery over the useful life for inputs used in the production process that have a useful life of more than one year.

Table 2 is a monthly summary of the cash flow of revenues and expenses based on when the operation occurs and when inputs are purchased.

Table 3 is a monthly summary of feed requirements for the different classes of livestock. Daily feed quantities per animal are summarized below.

Table 4 lists the purchase price and salvage value of equipment used in this operation, as well as annual capital recovery and interest on retained livestock.

University of Idaho Extension

Table 1: Cow-Calf Budget, 250 Cow - 2020 EBB-CC1-20

Summer on Private Range, Winter Feeding Necessary **No. of Cows: 250**

	Weight Each	Unit	Total Number of Head or Units	Price or Cost/Unit	Total Value	Value or Cost/Head	Your Value
GROSS RETURNS							
Steer Calves	575	lbs	113	1.65	107,209	428.84	
Heifer Calves	525	lbs	55	1.60	46,200	184.80	
Cull Cows	1200	lbs	43	0.65	33,540	134.16	
Cull Bulls	1800	lbs	3	0.85	4,590	18.36	
Cull Replacement Heifers	900	lbs	10	1.10	9,900	39.60	
TOTAL GROSS RETURNS					**$201,439**	**$805.76**	
OPERATING COSTS							
Alfalfa/Grass Hay		ton	434	125.00	54,250	217.00	
Feed Barley		cwt	173	13.00	2,249	9.00	
Private Range		AUM	2,134	24.00	51,216	204.86	
Crop Aftermath		AUM	303	18.00	5,454	21.82	
Salt/Mineral		cwt	60	25.00	1,500	6.00	
Veterinary/Medicine		$	1	6,544.75	6,545	26.18	
Trucking to & from Pasture		head	250	18.00	4,500	18.00	
Trucking to Market		head	56	10.00	560	2.24	
Commission		head	56	21.44	1,201	4.80	
Checkoff/Brand Inspection		head	224	2.96	663	2.65	
Hired Labor		hour	1,260	17.50	22,050	88.20	
Owner Labor		hour	1,000	27.00	27,000	108.00	
Machinery (Fuel, Oil, Repair)		$	1	3,050.00	3,050	12.20	
Vehicles (Fuel, Repair)		$	1	7,000.00	7,000	28.00	
Equipment (Repair)		$	1	900.00	900	3.60	
Buildings & Improvements (Repair)		$	1	2,700.00	2,700	10.80	
Interest on Operating Capital		$	47,709	7.00%	3,340	13.36	
TOTAL OPERATING COSTS					**$194,177**	**$776.71**	
NET RETURNS ABOVE OPERATING COSTS					**$7,262**	**$29.05**	
OWNERSHIP COSTS							
Capital Recovery:							
Purchased Livestock		$	1	7,260	7,260	29.04	
Housing & Improvements		$	1	8,133	8,133	32.53	
Machinery		$	1	2,489	2,489	9.95	
Equipment		$	1	1,454	1,454	5.81	
Vehicles		$	1	5,045	5,045	20.18	
Interest on Retained Livestock		$	438,600	4.00%	17,544	70.18	
Taxes & Insurance		$	1	1,147	1,147	4.59	
General Overhead		$	1	5,000	5,000	20.00	
TOTAL OWNERSHIP COSTS					**$48,071**	**$192.28**	
TOTAL COSTS					**$242,248**	**$968.99**	
NET RETURNS ABOVE TOTAL COSTS					**($40,809)**	**-$163.24**	

Table 2: Monthly Summary of Returns and Expenses.													EBB-CC1-20
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Value
Production:													
Steer Calves											107,209		**107,209**
Heifer Calves											46,200		**46,200**
Cull Cows						33,540							**33,540**
Cull Bulls		2,754						4,590					**4,590**
Cull Replacement Heifers											9,900		**9,900**
Total Receipts	**0**	**2,754**	**0**	**0**	**0**	**33,540**	**0**	**4,590**	**0**	**0**	**163,309**	**0**	**201,439**
Operating Inputs:													
Alfalfa/Grass Hay	13,563	13,563	13,563									13,563	**54,250**
Feed Barley	375	375	375	375							375	375	**2,249**
Private Range				7,317	7,317	7,317	7,317	7,317	7,317	7,317			**51,216**
Crop Aftermath											5,454		**5,454**
Salt/Mineral	125	125	125	125	125	125	125	125	125	125	125	125	**1,500**
Veterinary/Medicine	65	327		2,454	65	327		131	720	2,454			**6,545**
Trucking to & from Pasture				2,250						2,250			**4,500**
Trucking to Market		19				381		9			151		**560**
Commission		40				817		20			324		**1,201**
Checkoff/Brand Inspection		5				103		3			496		**663**
Hired Labor	3,150	3,150	3,150	3,150						3,150	3,150	3,150	**22,050**
Owner Labor	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	**27,000**
Machinery (Fuel, Oil, Repair)	254	254	254	254	254	254	254	254	254	254	254	254	**3,050**
Vehicles (Fuel, Repair)	583	583	583	583	583	583	583	583	583	583	583	583	**7,000**
Equipment (Repair)	75	75	75	75	75	75	75	75	75	75	75	75	**900**
Buildings & Improvements (Repair)	225	225	225	225	225	225	225	225	225	225	225	225	**2,700**
Interest on Operating Capital												3,340	**3,340**
Total Costs	**20,665**	**20,991**	**20,600**	**19,058**	**10,895**	**12,457**	**10,829**	**10,992**	**11,549**	**18,683**	**13,463**	**23,939**	**194,177**
Net Returns	**-20,665**	**-18,237**	**-20,600**	**-19,058**	**-10,895**	**21,083**	**-10,829**	**-6,402**	**-11,549**	**-18,683**	**149,846**	**-23,939**	**7,262**

Table 3: Monthly Feed Requirements.

Feed	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Feed Barley	cwt	29	29	29	29							29	29
Alfalfa/Grass Hay													
Cows	ton	94	94	94									94
Replacement Heifers	ton	9	9	9									9
Bulls	ton	5	5	5									5
Horses	ton	1	1	1									1
Private Range													
Cows	AUM				250	250	250	250	250	250	250		
Replacement Heifers	AUM				38	38	38	38	38	38	38		
Bulls	AUM				14	14	14	14	14	14	14		
Horses	AUM				2	2	2	2	2	2	2		
Crop Aftermath	AUM											303	
Salt/Mineral	cwt	5	5	5	5	5	5	5	5	5	5	5	5

Daily Feed Requirements by Livestock Category (lb fed/head/day)

Livestock Category	Alfalfa or Grass Hay (lb)	Feed Barley (lb)	No. of Days
Replacement Heifers		2	180
Replacement Heifers	13		120
Cows	25		120
Bulls	30		120
Horses	25		120

Table 4: Investment Summary.						EBB-CC1-20
	Total Value	Salvage/Cull Value	Livestock Share	Useful Life	Annual Taxes & Insurance	Annual Capital Recovery [1]
Buildings, Improvements and Equipment						
Fencing	70,000	0	100	25	245.00	$4,480.00
Hay Shed	30,000	5,000	100	40	105.00	$1,275.00
Grain Storage	8,500	1,500	100	30	29.75	$406.00
Working Corrals & Pens	20,000	3,000	100	30	70.00	$986.00
Barn	20,000	3,000	100	30	70.00	$986.00
Calf Table	1,500	500	100	10	5.25	$123.00
Squeeze Chute	3,500	1,000	100	10	12.25	$307.50
Vet Equipment	1,500	0	100	15	5.25	$135.00
Stock Trailer	5,000	1,000	100	20	17.50	$296.00
Gooseneck Trailer	12,000	4,000	100	20	42.00	$592.00
Total	**$172,000**				**$602.00**	**$9,586.50**
Purchased Livestock						
Horses	5,000	1,200	100	10		$467.40
Bulls	40,000	15,300	100	4		$6,792.50
Total	**$45,000**					**$7,259.90**
Retained Livestock						
Beef Replacement Heifers	63,600	54,855	100			$2,544.00 [2]
Beef Cows	375,000	192,500	100			$15,000.00 [2]
Total	**$438,600**					**$17,544.00**
Machinery and Vehicles						
Tractor Loader	40,000	8,500	100	18	140.00	$2,488.50
Pickup 4X4 3/4 ton	20,000	5,000	100	10	180.00	$1,845.00
Pickup 4X4 1 ton	25,000	6,000	100	8	225.00	$2,831.00
ATV	4,000	1,000	100	10	36.00	$369.00
Total	**$89,000**				**$545.00**	**$7,533.50**

[1] Annual capital recovery is the method of calculating depreciation and interest recommended by the National Task Force on Commodity Costs and Returns Measurement Methods.
[2] Interest on average investment.

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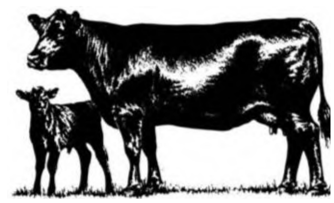
5-20 (revised) www.uidaho.edu/cals/idaho-agbiz

EBB-CC7-20 2020 Costs and Returns Estimate

Cow-Calf Budget: 500-head
Southwestern Idaho – Bruneau/Three Creek Area, Owyhee County
Summer on Federal, State & Private Range
Winter on Federal Range

Scott Jensen, Neil Rimbey and Ben Eborn



Background and Assumptions

University of Idaho costs and returns estimates use economic costs—all resources are valued based on market price or opportunity cost. This budget presents typical costs and returns per cow for a 500-head cow-calf operation in the Bruneau/Three Creek area of Owyhee County in southwestern Idaho plus total costs and returns for the ranch. The forage source is federal, state and private range.

Livestock Investment
The livestock investment consists of 500 cows, 25 bulls, and 10 horses. The culling rate is 15 percent and the cow herd has a 1 percent death loss. The ranch buys two-year-old bulls and replaces them every 4-5 years. The weaned calf crop is 87 percent of the number of cows wintered. Of the 88 weaned heifer calves selected from the calf crop as replacements, 10 are culled because of non-breeding or poor quality, leaving an annual net replacement of 80 head.

Machinery and Equipment
The cow/calf enterprise uses two 3/4-ton pickups (4x4), a 2-ton truck, a backhoe, a 160 HP tractor, a feed wagon, stock trailer and a UTV and an ATV (see Table 4). This equipment complement is minimal but considered adequate. Values on these investments are calculated at 50 percent of new replacement cost to reflect typically aged but functional ranch equipment.

Haying equipment is not included in this budget as hay production is treated as a separate enterprise. Hay and other feeds used as inputs in this cow-calf budget are valued at the market price received by growers FOB the farm.

Buildings and Improvements
The ranch has 25 miles of 4-wire fence, one barn, one set of corrals with working alleys, a set of portable panels, a squeeze chute, a calf table and an assortment of veterinary equipment. Water is supplied from natural sources. Buildings and improvements are valued at 80 percent of new replacement cost.

Management Practices
The cows calve between February 15 and April 15, but some will calve later in the year. The cows graze federal range on winter permits December through February. Replacement heifers are fed alfalfa hay during the winter months.

Cattle are moved from the ranch to federal or state range around March 15 and graze a combination of federal and state rangeland until August 31 (67% federal and 33% state). A grazing association fee is charged for range improvements, salt and range rider labor. On September 1 cattle are moved to private range for grazing through the end of October. After cattle have been gathered and worked, they are moved to crop aftermath until grazing begins around December 15.

The top 88 heifer calves are kept as replacements, while the remaining 130 heifers and 218 steer calves are sold in November. Calves are weaned and loaded on trucks the same day. All steer and heifer calves are sold direct.

The costs of selling cattle include checkoff/brand inspection, freight/trucking, and sales commissions. Checkoff/brand inspection costs pertain to all cattle sold in the enterprise including cull animals. Sales commission and freight costs pertain to cull animals only since they are sold through the sale yard in July and December.

Veterinary Care
Veterinary care for calves includes viral treatments and 8-way vaccinations (given twice during the year), implants and selenium supplements. Heifer calves are also vaccinated for brucellosis. Cows, bulls, and replacement heifers receive vaccinations for viral infections, including BVD and bacterial infections such as vibriosis and leptospirosis. The herd is treated annually for parasites and the cows are pregnancy checked in the fall. Bulls also receive a breeding soundness evaluation, fertility and trichomoniasis test in late winter/early spring.

Labor Costs
Labor provided by the operator is valued at $27.00 per hour, based on average wages for agricultural supervisors. Regular livestock labor is valued at $17.50 per hour. These hourly rates includes all applicable payroll taxes and benefits.

Budget Format
In addition to the Background and Assumptions pages, this publication has four tables presenting a variety of costs and returns information.

<u>Table 1</u> shows both expected revenue and expenses. Expenses are broken into two main categories: operating and ownership. Operating expenses are those that typically vary with the level of production and involve inputs that are used in a single production cycle. Ownership expenses include a systematic cost recovery over the useful life for inputs used in the production process that have a useful life of more than one year.

<u>Table 2</u> is a monthly summary of the cash flow of revenues and expenses based on when the operation occurs and when inputs are purchased.

<u>Table 3</u> is a monthly summary of feed requirements for the different classes of livestock. Daily feed quantities per animal are summarized below.

<u>Table 4</u> lists the purchase price and salvage value of equipment used in this operation, as well as annual capital recovery and interest on retained livestock.

University of Idaho Extension

Table 1: Cow-Calf Budget - Bruneau/Three Creek Area - Owyhee County, 500 Cow - 2020 EBB-CC7-20

Summer on Federal & State Range, Winter on Federal & Private Range **No. of Cows: 500**

	Weight Each	Unit	Total Number of Head or Units	Price or Cost/Unit	Total Value	Value or Cost/Head	Your Value
GROSS RETURNS							
Steer Calves	525	lbs	218	1.70	194,565	389.13	
Heifer Calves	485	lbs	130	1.65	104,033	208.07	
Cull Cows	1200	lbs	75	0.65	58,500	117.00	
Cull Bulls	1800	lbs	5	0.85	7,650	15.30	
Cull Replacement Heifers	1000	lbs	8	0.90	7,200	14.40	
TOTAL GROSS RETURNS					**$371,948**	**$743.90**	
OPERATING COSTS							
Alfalfa Hay		ton	108	150.00	16,200	32.40	
Meadow Hay		ton	50	110.00	5,500	11.00	
Protein Supplement		cwt	563	16.50	9,290	18.58	
Federal Range		AUM	5,624	1.35	7,592	15.18	
State Range		AUM	432	7.32	3,162	6.32	
Private Range		AUM	1,108	18.00	19,944	39.89	
Salt/Mineral		cwt	125	13.00	1,625	3.25	
Veterinary/Medicine		$	1	13,047.38	13,047	26.09	
Freight/Trucking to Market		head	88	10.00	880	1.76	
Freight/Trucking to & from Pasture		head	525	4.30	2,258	4.52	
Hired Labor		hour	480	17.50	8,400	16.80	
Owner Labor		hour	2,100	27.00	56,700	113.40	
Commission		head	88	20.84	1,834	3.67	
Checkoff/Brand Inspection		head	436	2.96	1,291	2.58	
Machinery (Fuel, Oil, Repair)		$	1	5,100.00	5,100	10.20	
Vehicles (Fuel, Repair)		$	1	10,200.00	10,200	20.40	
Equipment (Repair)		$	1	2,100.00	2,100	4.20	
Buildings & Improvements (Repair)		$	1	3,200.00	3,200	6.40	
Interest on Operating Capital		$	42,081	7.00%	2,946	5.89	
TOTAL OPERATING COSTS					**$171,268**	**$342.54**	
NET RETURNS ABOVE OPERATING COSTS					**$200,680**	**$401.36**	
OWNERSHIP COSTS							
Capital Recovery:							
Purchased Livestock		$	1	25,083	25,083	50.17	
Buildings & Improvements		$	1	6,052	6,052	12.10	
Machinery		$	1	3,705	3,705	7.41	
Equipment		$	1	1,120	1,120	2.24	
Vehicles		$	1	12,311	12,311	24.62	
Interest on Retained Livestock		$	746,000	4.00%	29,840	59.68	
Taxes & Insurance		$	1	1,500	1,500	3.00	
General Overhead		$	1	8,000	8,000	16.00	
TOTAL OWNERSHIP COSTS					**$87,610**	**$175.22**	
TOTAL COSTS					**$258,878**	**$517.76**	
NET RETURNS ABOVE TOTAL COSTS					**$113,069**	**$226.14**	

Table 2: Monthly Summary of Returns and Expenses. **EBB-CC7-20**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Value
Production:													
Steer Calves											194,565		**194,565**
Heifer Calves											104,033		**104,033**
Cull Cows							17550					40950	**58,500**
Cull Bulls							7,650						**7,650**
Cull Replacement Heifers											7,200		**7,200**
Total Receipts	**0**	**0**	**0**	**0**	**0**	**0**	**25,200**	**0**	**0**	**0**	**305,798**	**40,950**	**371,948**
Operating Inputs:													
Alfalfa Hay	4,050	4,050	4,050	2,025								2,025	**16,200**
Meadow Hay	1,375	1,375	1,375	688								688	**5,500**
Protein Supplement	3,096										3,096	3,096	**9,290**
Federal Range			7,592										**7,592**
State Range			3,162										**3,162**
Private Range									9,972	9,972			**19,944**
Salt/Mineral	135	135	135	135	135	135	135	135	135	135	135	135	**1,625**
Veterinary/Medicine			3,262								9,786		**13,047**
Freight/Trucking to Market		88						528			264		**880**
Freight/Trucking to & from Pasture			1,129								1,129		**2,258**
Hired Labor	420	840	1,680	1,680	840	420	420	420	420	420	420	420	**8,400**
Owner Labor	4,725	4,725	4,725	4,725	4,725	4,725	4,725	4,725	4,725	4,725	4,725	4,725	**56,700**
Commission		37						238			1,559		**1,834**
Checkoff/Brand Inspection		26						168			1,097		**1,291**
Machinery (Fuel, Oil, Repair)	425	425	425	425	425	425	425	425	425	425	425	425	**5,100**
Vehicles (Fuel, Repair)	850	850	850	850	850	850	850	850	850	850	850	850	**10,200**
Equipment (Repair)	175	175	175	175	175	175	175	175	175	175	175	175	**2,100**
Buildings & Improvements (Repair)	267	267	267	267	267	267	267	267	267	267	267	267	**3,200**
Interest on Operating Capital												2,946	**2,946**
Total Costs	**15,519**	**12,993**	**28,827**	**10,970**	**7,417**	**6,997**	**6,997**	**7,931**	**16,969**	**16,969**	**23,928**	**15,752**	**171,268**
Net Returns	**-15,519**	**-12,993**	**-28,827**	**-10,970**	**-7,417**	**-6,997**	**18,203**	**-7,931**	**-16,969**	**-16,969**	**281,870**	**25,198**	**200,680**

Table 3: Monthly Feed Requirements.

Feed	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alfalfa Hay													
Replacement Heifers	ton	36	36										36
Meadow Hay													
Bulls	ton	9	8	9									
Horses	ton	4	4	4	4							4	4
Federal Range													
Cows	AUM	470	470	470	470	470	470	470	470			470	470
Replacement Heifers	AUM			76	76	76	76	76	76	76	76	76	
Bulls	AUM			30	30	30	30	30	30	30	30		
State Range													
Cows	AUM	30	30	30	30	30	30	30	30	30	30		
Replacement Heifers	AUM			15	15	15	15	15	15	15	15		
Bulls	AUM									6	6		
Private Range													
Cows	AUM									500	500		
Bulls	AUM									24	24		
Horses	AUM					10	10	10	10	10	10		
Protein Supplement													
Cows & Heifers	cwt	96	96	96	93							96	96
Salt/Mineral	cwt	10	10	10	10	10	10	10	10	10	10	10	10

Daily Feed Requirements by Livestock Category (lb fed/head/day)

Livestock Category	Alfalfa or Grass Hay (lb)	Protein Supplement (lb)	No. of Days
Replacement Heifers	20		90
Replacement Heifers		3	60
Cows	25		30
Cows		3	60
Bulls	30		90
Horses	25		120

Table 4: Investment Summary.						EBB-CC7-20
	Total Value	Salvage/Cull Value	Livestock Share	Useful Life	Annual Taxes & Insurance	Annual Capital Recovery [1]
Buildings, Improvements and Equipment						
Fencing	63,000	0	100	25	220.50	$4,032.00
Corrals & Pens	26,750	10,700	100	30	93.63	$930.90
Water System	5,900	0	100	20	20.65	$436.60
Barn	12,500	1,250	100	30	43.75	$652.50
Feed Wagon	800	0	100	10	2.80	$98.40
Squeeze Chute	1,800	180	100	10	6.30	$199.26
Vet Equipment	650	65	100	15	2.28	$52.65
Stock Trailer	11,550	1,155	100	20	40.43	$769.23
Total	**$122,950**				**$430.33**	**$7,171.54**
Purchased Livestock						
Horses	25,000	3,600	100	10		$2,632.20
Bulls	100,000	18,360	100	4		$22,451.00
Total	**$125,000**					**$25,083.20**
Retained Livestock						
Beef Replacement Heifers	96,000	56,700	100			$3,840.00 [2]
Beef Cows	650,000	234,000	100			$26,000.00 [2]
Total	**$746,000**					**$29,840.00**
Machinery and Vehicles						
Backhoe	30,000	7,100	20	18	105.00	$1,809.10
150 hpTractor	30,000	6,000	55	18	105.00	$1,896.00
2 Pickups 4X4 3/4 ton	60,000	5,000	100	10	540.00	$6,765.00
2 Ton Truck	40,000	10,000	50	10	360.00	$3,690.00
Car	10,000	2,500	25	8	90.00	$1,117.50
UTV	7,000	4,000	100	10	63.00	$369.00
1 ATVs	4,000	1,000	100	10	36.00	$369.00
Total	**$181,000**				**$1,200.00**	**$16,015.60**

[1] Annual capital recovery is the method of calculating depreciation and interest recommended by the National Task Force on Commodity Costs and Returns Measurement Methods.

[2] Interest on average investment.

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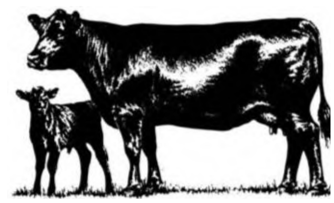
5-20 (revised) www.uidaho.edu/cals/idaho-agbiz

EBB-CC8-20 2020 Costs and Returns Estimate

Cow-Calf Budget: 250-head
Eastern Idaho
Fall Calving
Summer Private Range & Pasture, Winter Feeding Necessary

Ben Eborn and Meranda Small



Background and Assumptions

University of Idaho costs and returns estimates use economic costs—all resources are valued based on market price or opportunity cost. This budget presents typical costs and returns per cow for a 250-head cow-calf operation in eastern Idaho plus total costs and returns for the ranch. The forage source is private range. Feeding is necessary in the winter.

Livestock Investment
The livestock investment consists of 250 cows, 10 bulls, and 4 horses. Cows have a useful life of 8 years after they enter the breeding herd. The culling rate is 12 percent and the cow herd has a 3 percent death loss. The ranch buys yearling bulls and replaces them every 4 years. The weaned calf crop is 90 percent of the number of cows wintered. Of the 43 weaned heifer calves selected from the calf crop as replacements, 5 are culled because of non-breeding or poor quality, leaving an annual net replacement of 38 head.

Machinery and Equipment
The cow/calf enterprise uses a 3/4-ton pickup (4x4), a 1-ton pickup (4x4), an 80 HP tractor with a loader, an ATV, a feed wagon and a stock trailer (see Table 4). This equipment complement is minimal but considered adequate. Values on these investments are calculated at 50 percent of new replacement cost to reflect typically aged but functional ranch equipment.

Haying equipment is not included in this budget as hay production is treated as a separate enterprise. See EBB4-AH-19 (www.uidaho.edu/cals/idaho-agbiz) for costs and returns associated with hay production in Eastern Idaho. Hay and other feeds used as inputs in this cow-calf budget are valued at the market price received by growers.

Buildings and Improvements
The ranch has 10 miles of 4-wire fence, one barn, a calving shed, a hay shed, one set of corrals with working alleys, a set of portable panels, a squeeze chute, a calf table and an assortment of veterinary equipment. Water is supplied from natural sources. Buildings and improvements are valued at 80 percent of new replacement cost.

Management Practices
The cows calve between September 1 and November 15. Cows are fed a protein supplement in October and November to support lactation and additionally begin preparing them for breeding season. In the winter months, cattle are fed alfalfa/grass hay. Replacement heifers are fed alfalfa hay.

Cattle are moved from the ranch to private range around May 1 until the end of August. In September cattle are moved to private pastures and crop aftermath for calving where they graze until winter-feeding begins around December 1.

The top 43 heifer calves are kept as replacements, while the remaining 67 heifers and 110 steer calves are sold in April. Calves are weaned and loaded on trucks the same day. The costs of selling cattle include checkoff/brand inspection, freight/trucking, and sales commissions. Checkoff/brand inspection costs pertain to all cattle sold in the enterprise including cull animals. Sales commission and freight costs pertain to cull animals only since they are sold through the sale yard. All steer and heifer calves are sold direct.

Veterinary Care

Veterinary care for calves includes viral treatments and 8-way vaccinations (given twice during the year), implants and selenium supplements. Heifer calves are also vaccinated for brucellosis. Cows, bulls, and replacement heifers receive vaccinations for viral infections, including BVD and bacterial infections such as vibriosis and leptospirosis. The herd is treated annually for parasites and the cows are pregnancy checked in the spring. Bulls also receive a breeding soundness evaluation, fertility and trichomoniasis test in late winter/early spring.

Labor Costs

Labor provided by the operator is valued at $27.00 per hour, based on average wages for agricultural supervisors. Regular livestock labor is valued at $17.50 per hour. These hourly rates includes all applicable payroll taxes and benefits.

Budget Format

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Table 1 shows both expected revenue and expenses. Expenses are broken into two main categories: operating and ownership. Operating expenses are those that typically vary with the level of production and involve inputs that are used in a single production cycle. Ownership expenses include a systematic cost recovery over the useful life for inputs used in the production process that have a useful life of more than one year.

Table 2 is a monthly summary of the cash flow of revenues and expenses based on when the operation occurs and when inputs are purchased.

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University of Idaho Extension

Table 1: Cow-Calf Budget - Eastern Idaho, 250 Cow - 2018 | EBB-CC8-20

Fall Calving - Summer on Private Range & Pasture, Winter Feeding Necessary | No. of Cows: 250

	Weight Each	Unit	Total Number of Head or Units	Price or Cost/Unit	Total Value	Value or Cost/Head	Your Value
GROSS RETURNS							
Steer Calves	550	lbs	112	1.75	107,800	431.20	
Heifer Calves	525	lbs	70	1.65	60,638	242.55	
Cull Cows	1300	lbs	38	0.65	32,110	128.44	
Cull Bulls	1800	lbs	3	0.85	4,590	18.36	
Cull Replacement Heifers	850	lbs	5	1.10	4,675	18.70	
TOTAL GROSS RETURNS					**$209,813**	**$839.25**	
OPERATING COSTS							
Alfalfa Hay		ton	65	150.00	9,750	39.00	
Alfalfa/Grass Hay		ton	695	125.00	86,875	347.50	
Protein Supplement		cwt	450	16.50	7,425	29.70	
Private Pasture		AUM	630	28.00	17,640	70.56	
Private Range		AUM	1,212	24.00	29,088	116.35	
Crop Aftermath		AUM	307	18.00	5,526	22.10	
Salt/Mineral		cwt	55	20.00	1,100	4.40	
Veterinary/Medicine		$	1	6,335.50	6,336	25.34	
Freight/Trucking		head	250	10.00	2,500	10.00	
Commission		head	46	22.49	1,034	4.14	
Checkoff/Brand Inspection		head	228	2.96	675	2.70	
Hired Labor		hour	625	17.50	10,938	43.75	
Owner Labor		hour	750	27.00	20,250	81.00	
Machinery (Fuel, Oil, Repair)		$	1	3,000.00	3,000	12.00	
Vehicles (Fuel, Repair)		$	1	6,800.00	6,800	27.20	
Equipment (Repair)		$	1	975.00	975	3.90	
Buildings & Improvements (Repair)		$	1	2,700.00	2,700	10.80	
Interest on Operating Capital		$	53,153	7.00%	3,721	14.88	
TOTAL OPERATING COSTS					**$216,332**	**$865.33**	
NET RETURNS ABOVE OPERATING COSTS					**($6,519)**	**-$26.08**	
OWNERSHIP COSTS							
Capital Recovery:							
Purchased Livestock		$	1	7,727	7,727	30.91	
Buildings & Improvements		$	1	7,346	7,346	29.38	
Machinery		$	1	2,489	2,489	9.95	
Equipment		$	1	1,654	1,654	6.62	
Vehicles		$	1	5,343	5,343	21.37	
Interest on Retained Livestock		$	426,600	4.00%	17,064	68.26	
Taxes & Insurance		$	1	991	991	3.97	
General Overhead		$	1	5,000	5,000	20.00	
TOTAL OWNERSHIP COSTS					**$47,614**	**$190.46**	
TOTAL COSTS					**$263,946**	**$1,055.78**	
NET RETURNS ABOVE TOTAL COSTS					**($54,134)**	**-$216.53**	

Table 2: Monthly Summary of Returns and Expenses. **EBB-CC8-20**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Value
Production:													
Steer Calves				107,800									**107,800**
Heifer Calves				60,638									**60,638**
Cull Cows					32,110								**32,110**
Cull Bulls		4,590											**4,590**
Cull Replacement Heifers		4,675											**4,675**
Total Receipts	**0**	**9,265**	**0**	**168,438**	**32,110**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**209,813**
Operating Inputs:													
Alfalfa Hay	1,950	1,950	1,950	1,950								1,950	**9,750**
Alfalfa/Grass Hay	17,375	17,375	17,375	17,375								17,375	**86,875**
Protein Supplement			3,713	3,713									**7,425**
Private Pasture					17,640								**17,640**
Private Range					29,088								**29,088**
Crop Aftermath									5,526				**5,526**
Salt/Mineral	92	92	92	92	92	92	92	92	92	92	92	92	**1,100**
Veterinary/Medicine												6,336	**6,336**
Freight/Trucking	208	208	208	208	208	208	208	208	208	208	208	208	**2,500**
Commission		207	207								621		**1,034**
Checkoff/Brand Inspection					337				337				**675**
Hired Labor	911	911	911	911	911	911	911	911	911	911	911	911	**10,938**
Owner Labor	1,688	1,688	1,688	1,688	1,688	1,688	1,688	1,688	1,688	1,688	1,688	1,688	**20,250**
Machinery (Fuel, Oil, Repair)	150	450	450	450	150	150	150	150	150	300	300	150	**3,000**
Vehicles (Fuel, Repair)	567	567	567	567	567	567	567	567	567	567	567	567	**6,800**
Equipment (Repair)	56	56	56	56	56	56	56	56	56	56	56	56	**975**
Buildings & Improvements (Repair)	81	81	81	81	81	81	81	81	81	81	81	81	**2,700**
Interest on Operating Capital	225	225	225	225	225	225	225	225	225	225	225	225	**3,721**
Total Costs	**23,303**	**23,810**	**27,522**	**27,316**	**51,044**	**3,978**	**3,978**	**3,978**	**9,842**	**4,128**	**4,749**	**29,639**	**216,332**
Net Returns	**-23,303**	**-14,545**	**-27,522**	**141,122**	**-18,934**	**-3,978**	**-3,978**	**-3,978**	**-9,842**	**-4,128**	**-4,749**	**-29,639**	**-6,519**

Table 3: Monthly Feed Requirements.

Feed	**Units**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Alfalfa Hay													
Replacement Heifers	ton	13	13	13	13								13
Alfalfa/Grass Hay													
Cows	ton	132	132	132	132								132
Bulls	ton	5	5	5	5								5
Horses	ton	2	2	2	2								2
Protein Supplement													
Cows	cwt										225	225	
Private Range													
Cows	AUM					250	250	250	250				
Replacement Heifers	AUM					43	43	43	43				
Bulls	AUM					10	10	10	10				
Private Pasture													
Cows	AUM									250	250		
Replacement Heifers	AUM									43	43		
Bulls	AUM									10	10		
Horses	AUM					4	4	4	4	4	4		
Crop Aftermath													
Cows	AUM											250	
Replacement Heifers	AUM											43	
Bulls	AUM											10	
Horses	AUM											4	
Salt/Mineral	cwt	5	5	5	5	5	5	5	5	5	5	5	

Daily Feed Requirements by Livestock Category (lb fed/head/day)

Livestock Category	**Alfalfa - Grass Hay (lb)**	**Alfalfa Hay (lb)**	**Protein Supple ment (lb)**	**No. of Days**
Replacement Heifers		20		150
Cows	35			150
Cows			3	60
Bulls	40			150
Horses	25			150

Table 4: Investment Summary.						EBB-CC8-20
	Total Value	Salvage/Cull Value	Livestock Share	Useful Life	Annual Taxes & Insurance	Annual Capital Recovery [1]
Buildings, Improvements and Equipment						
Fencing	40,000	0	100	25	140.00	$2,560.00
Working Corrals & Pens	15,000	3,000	100	30	52.50	$696.00
Pannels	2,000	1,000	100	15	7.00	$90.00
Barn	20,000	3,000	100	30	70.00	$986.00
Hay Shed	30,000	5,000	100	30	105.00	$1,450.00
Feed Wagon	2,000	500	100	10	7.00	$184.50
Calf Table	1,500	500	100	10	5.25	$123.00
Squeeze Chute	3,500	1,000	100	10	12.25	$307.50
Vet Equipment	1,500	0	100	15	5.25	$135.00
Stock Trailer	12,000	1,000	100	20	42.00	$814.00
Total	**$127,500**				**$446.25**	**$7,346.00**
Purchased Livestock						
Horses	10,000	2,400	100	10		$934.80
Bulls	40,000	15,300	100	4		$6,792.50
Total	**$50,000**					**$7,727.30**
Retained Livestock						
Beef Replacement Heifers	51,600	40,205	100			$2,064.00 [2]
Beef Cows	375,000	211,250	100			$15,000.00 [2]
Total	**$426,600**					**$17,064.00**
Machinery and Vehicles						
80 hpTractor with Loader	40,000	8,500	100	18	140.00	2,488.50
Pickup 4X4 3/4 ton	20,000	5,000	100	10	180.00	1,845.00
Pickup 4X4 1 ton	25,000	4,000	100	8	225.00	3,129.00
ATV	4,000	1,000	100	10	36.00	369.00
Total	**$89,000**				**$545.00**	**7,831.50**

[1] Annual capital recovery is the method of calculating depreciation and interest recommended by the National Task Force on Commodity Costs and Returns Measurement Methods.
[2] Interest on average investment.

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Issued in furtherance of cooperative extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Barbara Petty, Interim Director of University of Idaho Extension, University of Idaho, Moscow, Idaho 83843. The University of Idaho provides equal opportunity in education and employment on the basis of race, color, religion, national origin, gender, age, disability, or status as a Vietnam-era veteran, as required by state and federal laws.

Research Bulletin 185
August 2014

Idaho Private Rangeland Grazing—Lease Arrangements

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ATTACHMENT 3

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Acknowledgments:
Barbara Foltz and Monica Reyna, Social Science Research Unit at the University of Idaho, provided assistance with the telephone survey and data management during this project.

Cover: Courtesy of Idaho Rangeland Resource Commission.

Published and distributed by the Idaho Agricultural Experiment Station, Donn Thill, Director. University of Idaho College of Agricultural and Life Sciences, Moscow, Idaho 83844-2337.

Background

Rangelands encompass about half of Idaho's 52 million acres. These lands are not cultivated or irrigated and may include native and introduced trees, shrubs and herbaceous (grasses and forbs) vegetation. Much of this vegetation is grazed by domestic livestock and serves as habitat for wildlife. About two-thirds of the rangelands are in the public domain, under the management of agencies such as the Bureau of Land Management (BLM), the U.S. Forest Service (USFS) and other public agencies. Idaho Department of Lands (IDL) manages approximately 2 million acres of State Endowment Trust Lands, which generate income for the trust beneficiaries. These public and private rangelands help support an important segment of Idaho's economy -- domestic livestock production. Privately owned rangelands in Idaho amount to about 4.6 million acres (USDA-NASS, 2009) and provide important domestic livestock grazing resources as well as critical wildlife habitat. Private lands may be leased to others for grazing. Private grazing lease rates are gathered and published each year by the USDA National Agricultural Statistics Service (USDA-NASS 2014). These USDA lease rate estimates provide critical information used in the calculation of federal grazing fees and state land lease rates, as well as providing information to private landowners and lessees of the going lease rates in the state. However, little is known about the leasing details, services provided by the landowners and other critical factors that influence the rates.

This bulletin summarizes Idaho private rangeland grazing lease arrangements. The study was partially funded by the Idaho Department of Lands (IDL) and the survey results were first released as an internal IDL report (Resource Dimensions, Inc. 2012). An intensive lease-rate telephone survey was undertaken during the fall and winter of 2011-12. Data provided by the lessees and lessors of Idaho private rangelands were analyzed to determine frequency of responses, locational variation of lease rates and the services provided by the lessor, types of leases encountered and numerous other factors. Analyses revealed statistically significant factors that influence lease rates, along with regionally important differences.

Survey Procedures

The survey frame was obtained from a list of 4,365 individuals, businesses and organization who had paid an assessment fee or who had a relationship with the Idaho Rangeland Resource Commission (IRRC). Only 772 listings had phone numbers associated with them. Survey staff at the University of Idaho Social Science Research Unit (SSRU), whose primary role on the study was to develop and conduct the telephone survey, used online directories to look up phone numbers for every second and fifth listing without a number. Sample frames were then combined and checked for duplicates, resulting in 2,159 listings.

The final telephone survey instrument, as approved by IDL, went through several internal and external reviews and revisions prior to pre-testing. Survey research convention requires that when pre-testing survey instruments, they be administered to the types of respondents who would actually be participating in the study. A pre-test of 60 listings began on November 8, 2011. Once the survey instrument was finalized, a computer-assisted telephone interviewing (CATI) protocol was developed and pilot-tested, then finalized.

To increase the telephone survey response rate, one week prior to calls a postcard was mailed to potential respondents for whom a complete address was known. Postcards identified the survey's purpose, that calls would be from the SSRU, and provided a toll-free number to call regarding questions about the survey. Postcards for the first survey wave were mailed on December 2, 2011; survey calls began on December 5, 2011. Postcards for the second wave were mailed January 9, 2012 with calls beginning on January 13, 2012. February 8, 2012 was the final day of calls.

SSRU telephone interviewers were required to complete a 4-hour training session in survey methodology, the use of the CATI software and phone etiquette, and a 1.5-hour online training program in human subject research and confidentiality practices developed by the U.S. Department of Health and Human Services. Each calling session was monitored by trained supervisors. Data were collected on Wincati telephone interviewing software[1].

A total of 373 respondents were determined to be eligible for and agreed to participate in the lease rate survey. Survey dispositions included 550 ineligible respondents (individuals who did not lease their land to anyone, nor leased land from anyone, or they had recently sold their land), 254 potential respondents with disconnected phone numbers for whom no new listing could be obtained from online directory listings, 106 potential respondents who refused to participate, and 685 potential respondents who were not reached either because no phone number could be obtained, or because they could not be reached after nine call attempts. The final adjusted response rate (AAPOR RR2) was 32.7%.[2] For comparison, a similar study conducted in 1992 (Rimbey, et al. 1992) had a response rate of 39%, and a survey of agricultural lease rates in the state had a response rate of 38.3% (Resource Dimensions 2010).

[1] Sawtooth Technologies, Inc. 2011. Wincati Version 4.1. Northbrook, IL.

[2] The American Association for Public Opinion Research (AAPOR) (2009). Standards Definitions: Final Disposition of Case Codes and Outcome Rates for Surveys, 4th Edition. Lenexa, KS: AAPOR. Available at: http://www.aapor.org/AM/Template.cfm?Section=Standard_Definitions&Template=/CM/ContentDisplay.cfm&ContentID=1819

Overview of Idaho Private Grazing Land Leases

The distribution of respondents across each of the five study regions, by county, is shown in Table 1. Because the study was partially funded by IDL, study regions closely follow IDL administrative areas (IDL 2014).

Several factors played into low actual respondent counts in a number of counties. In particular, several counties had a moderately small pool of potential participants. This is indicative of the extent and quality of grazing within these regions. Further, according to discussions with several County Assessors, it is representative of the pattern of private grazing lands leased. Overall, however, the total number of respondents met initial project goals for statistical reliability.

Table 1. Survey respondents by region and county.

Region/County	Grand Total	Region/County	Grand Total
Eastern	**143**	**Southwest**	**52**
Bannock	3	Ada	6
Bear Lake	13	Boise	5
Bingham	12	Canyon	3
Bonneville	15	Elmore	18
Butte	8	Gem	6
Caribou	12	Owyhee	12
Clark	16	Payette	2
Custer	13	**Payette Lakes**	**41**
Franklin	3	Adams	20
Fremont	4	Valley	6
Jefferson	1	Washington	15
Lemhi	26	**Northern**	**30**
Madison	2	Bonner	3
Oneida	6	Boundary	2
Power	6	Clearwater	4
Teton	3	Idaho	10
South Central	**46**	Latah	3
Blaine	14	Lewis	3
Camas	5	Nez Perce	3
Cassia	15	Shoshone	2
Gooding	2		
Jerome	0	**Region Not Reported**	**3**
Lincoln	5		
Minidoka	1		
Twin Falls	4	**Grand Total**	**315**

Data Limitations

The study region and county where each lease is located were used to allocate leases to different regions of the state. Respondents were asked to pick the two most representative leases and provide additional detail. The question in the survey was "*In what Idaho county is the first (or second) lease held.*" The location of the lease(s) relative to a nearby town was given, however it was not always clear what county the selected lease(s) was in. When not clear about county location, the county where this nearby town was located was used to define county location. The region coding is correct; however, in a few instances the exact county within that region may be incorrectly recorded as an adjacent county.

Several issues were encountered for statistical analysis of the data and for evaluating factors influencing grazing lease rates. Most notably, while survey respondents reported how leases were structured and charged, 97 respondents did not report what they paid for the lease. Calculating a dollar per AUM lease rate when only a total payment was given proved to be problematic because acreages were very broadly defined and aggregated across multiple leases. This nonresponse in lease payment amount limited our ability to convert to a common measure or standard of payment ($/head, $/AUM, $/acre, etc.) for comparison and analysis purposes. Dollar per acre lease rates could not accurately be computed and were reported for only 16 leases. Further, given the problems in computing acreages on a particular lease, the number of acres per AUM could not be computed to use as an indicator of lease quality.

Total Number of Leases

Private grazing lease information was gathered for 315 lease parcels with data reported by 239 individuals. Lease statistics were reported by 163 individuals for one parcel of land only, 76 individuals for a second parcel of land, and two people described 3 leases as both a lessee and lessor. Of the total 315 leases, 211 (67%) were reported from the lessee perspective and 104 (33%) were lessors (Table 2).

The majority of leases were between non-related individuals or groups. Inclusion of subleasing provisions in the lease was not common.

Table 2. Number of grazing leases in the survey, by type.

Description	Eastern	Northern	Payette Lakes	South Central	Southwest	All Regions
Respondent Type						
Lessor	35.0%	40.0%	19.5%	28.3%	38.5%	33.0%
Lessee	65.0%	60.0%	80.5%	71.7%	61.5%	67.0%
Number reporting	143	30	41	46	52	315
Leases To/From?						
Non-related individual or group	80.4%	80.0%	97.4%	80.4%	92.3%	84.7%
Relative or related group	18.2%	20.0%	2.6%	19.6%	7.7%	14.7%
Other	1.4%	0.0%	0.0%	0.0%	0.0%	0.6%
Number reporting	143	30	39	46	52	313
Subleasing Provisions						
Yes	0.7%	3.3%	4.9%	0.0%	7.7%	2.5%
No	34.3%	33.3%	14.6%	28.3%	30.8%	30.2%
Refused	65.0%	63.3%	80.5%	71.7%	61.5%	67.3%
Number reporting	143	30	41	46	52	315

Private Grazing Lease Characteristics

The survey was developed to specifically identify the range of terms, characteristics, and conditions for private grazing land leases in the five study regions. Responses to these questions are summarized in tables separately by region and land type. Most responses were consistent across regions, though tests were not conducted to determine if statistical differences exist. Summary tables include all 315 leases with three of the leases unclassified as to the IDL region location. As described in more detail below, the amount of native rangeland, improved rangeland, cropland and irrigated land included with each lease varied both within and between regions; thus, statistics include leases with various mixtures of native and improved lands.

The majority of leases (67.8%) were structured with automatic annual renewal (Table 3). The average term for the lease varied from three to five years for the five study regions, averaging four years across all leases. Slightly more than 50% of the lease agreements were written. About 80% of the leases had been renewed within the past three years, at least with respect to lease rate. There was no correlation (P = 0.84) between the length of the agreement and whether the lease was written or verbal.

Table 3. Typical lease arrangements and renewal terms, by region

	Eastern	Northern	Payette	South Central	Southwest	All Regions
Last Year Lease Renewed (%)						
2012	7.1%	3.4%	10.3%	2.2%	5.9%	6.1%
2011	67.4%	65.5%	82.1%	67.4%	60.8%	68.0%
2010	7.8%	6.9%	0.0%	8.7%	9.8%	7.1%
2009	5.7%	6.9%	2.6%	2.2%	7.8%	5.5%
2008	4.3%	10.3%	2.6%	4.3%	3.9%	4.5%
2007	1.4%	0.0%	0.0%	2.2%	3.9%	1.6%
2006	1.4%	3.4%	0.0%	0.0%	0.0%	1.0%
2005	0.0%	0.0%	0.0%	2.2%	3.9%	1.0%
2004	0.7%	0.0%	0.0%	4.3%	2.0%	1.3%
Prior to 2004	4.3%	3.4%	2.6%	6.5%	2.0%	3.9%
Number reporting	141	29	39	46	51	309
Lease Arrangement						
Written	52.8%	50.0%	55.0%	58.7%	46.2%	52.4%
Verbal	47.2%	50.0%	45.0%	41.3%	53.8%	47.6%
Number reporting	142	30	40	46	52	313
Renewal Arrangement						
Automatic Renewal each Year	68.8%	73.3%	61.5%	71.7%	62.7%	67.8%
Specified Number of Years	31.2%	26.7%	38.5%	28.3%	37.3%	32.2%
Number reporting	138	30	39	46	51	307
Term of Lease (Years)						
Average	4.5	3.0	2.7	5.2	4.5	4.2
Standard Deviation	13.9	5.1	4.5	11.1	5.1	10.8
Number reporting	136	26	38	42	49	294
Distribution (Years)						
1	64.0%	76.9%	68.4%	54.8%	53.1%	62.6%
2	5.1%	0.0%	2.6%	0.0%	0.0%	2.7%
3	5.9%	3.8%	7.9%	11.9%	8.2%	7.5%
4	1.5%	0.0%	0.0%	4.8%	0.0%	1.4%
5	9.6%	3.8%	7.9%	4.8%	10.2%	8.2%
6	0.0%	3.8%	0.0%	0.0%	4.1%	1.0%
7	0.0%	0.0%	0.0%	4.8%	2.0%	1.0%
8	1.5%	3.8%	0.0%	2.4%	0.0%	1.4%
10	5.9%	3.8%	2.6%	7.1%	14.3%	6.8%
> 10 Years	6.6%	3.8%	5.3%	7.1%	8.2%	6.5%

Average distance from the respondent's base (i.e. ranch headquarters) to the lease was highly variable, averaging 26 miles ± 32 (Table 4). Distance to the lease was skewed to the low end.

Lessees and lessors indicated they held an average of four private land leases. The Eastern region had an average of six leases per individual (Table 4). Fifty survey respondents indicated some of their leases included IDL lands. Ninety-one leases also included lands leased from other agencies including the BLM and USFS. Information on the size or nature of lease characteristics with other public land agencies is outside the scope of this study and was not reported.

Table 4. Distance to lease and total number of leases held

Description	Eastern	Northern	Payette Lakes	South Central	Southwest	All Regions
Distance from base to lease (miles)						
Average	27	29	25	24	26	26
Standard Deviation	37	28	32	28	25	32
Minimum	0	0	0	0	0	0
Maximum	200	100	130	100	90	200
Number reporting	143	30	41	46	52	311
Private Leases in Idaho						
Average number of leases per lessee/lessor	6	2	1	4	3	4
Number reporting	143	30	41	46	52	315
Non-private leases in Survey						
Total number of IDL leases	21	4	6	8	10	50
Total number of other agency leases	44	7	12	13	14	91

On about 73% of total leases, lessors held the water rights (Table 5). Lessee responses were excluded from this calculation as we believe they would not be expected to have a thorough understanding of water right issues on parcels they lease. About 66% of total leases do not control public access to the property.

Table 5. Water rights and control for public access to lease

	Eastern	Northern	Payette Lakes	South Central	Southwest	All Regions
Lessor hold water rights?						
Yes	78.0%	75.0%	62.5%	76.9%	65.0%	73.1%
No	22.0%	16.7%	37.5%	23.1%	35.0%	26.0%
Refused	0.0%	8.3%	0.0%	0.0%	0.0%	1.0%
Is public access to lease controlled?						
Yes	30.8%	46.7%	26.8%	30.4%	30.8%	31.8%
No	68.5%	53.3%	65.9%	65.2%	67.3%	66.0%
Refused	0.7%	0.0%	7.3%	4.3%	1.9%	2.2%

Respondents indicated that the carrying capacity of a lease is principally determined by climatic conditions and vegetation availability, or through the use of historic records (Table 6). Some leases used multiple ways to calculate carrying capacity. Likewise, multiple water sources were reported on some leases. Typically, natural sources of water were used on reported leases; however, motor driven wells were used on about 14% of all leases. The location of the water source on native versus improved lands was not defined in the survey. However, there was a negative correlation (r = -0.41) between the percent of the leased land that was designated as native rangeland and the use of a well as a water source. Motorized wells tended to be used more often when improved or irrigated lands were also included with the lease.

Table 6. Carrying capacity and water sources, by type

	Total instances	% of total
How is carrying capacity determined?		
Climatic conditons and vegetation availability	144	40.6%
Use of historic property records	128	36.1%
Negotiated with lessor	59	16.6%
Other	24	6.8%
Water sources on lease		
River, stream or creek	68	36.4%
Spring	58	31.0%
Motor-driven well	27	14.4%
Lake or pond	23	12.3%
Other	5	2.7%
Haul water	4	2.1%
Wind-powered well	2	1.1%

Nearly 80% of all leases were only for beef cattle, specifically cow-calf pairs. Yearlings comprised an average of 12% of leases. Sheep are grazed primarily in the South Central and Southwest regions (Table 7). The grazing system types were split about evenly with season-long, rest-rotation and short duration each employed on about 30% of leases in each region. Most lease structures do not require the lessee to report range conditions after grazing.

Table 7. Livestock and grazing system, by type

Description	Eastern	Northern	Payette Lakes	South Central	Southwest	All Regions
Livestock Type						
Cow-calf	83.0%	86.2%	82.5%	67.4%	70.6%	78.7%
Cow-calf, Sheep	2.1%	3.4%	0.0%	10.9%	7.8%	4.2%
Cow-calf, Yearlings	0.7%	0.0%	2.5%	2.2%	2.0%	1.3%
Yearlings	12.8%	10.3%	15.0%	10.9%	7.8%	11.9%
Sheep	0.7%	0.0%	0.0%	8.7%	9.8%	3.2%
Horses	0.7%	0.0%	0.0%	0.0%	2.0%	0.7%
Grazing System Type						
Season-long	28.7%	30.0%	26.8%	21.7%	26.9%	27.3%
Deferred	6.3%	6.7%	4.9%	10.9%	5.8%	6.7%
Rest-rotation	28.0%	30.0%	29.3%	26.1%	23.1%	27.3%
Short duration	28.7%	26.7%	34.1%	28.3%	34.6%	30.2%
Other	3.5%	3.3%	0.0%	10.9%	3.8%	4.1%
Refused	4.9%	3.3%	4.9%	2.2%	5.8%	4.4%
Report range conditions required after grazing?						
Yes	17.5%	16.7%	26.8%	13.0%	11.5%	17.1%
No	82.5%	83.3%	70.7%	87.0%	88.5%	82.5%
Refused	0.0%	0.0%	2.4%	0.0%	0.0%	0.3%

Length of the grazing season varied from less than 30 days to yearlong. The majority of grazing animals were on the lease for less than 150 days (Table 8). Most of the grazing occurred during Q2 (i.e. 2nd quarter) and Q3 with 4% of the grazing days in Q1, 33% in Q2, 45% in Q3, and 18% in Q4. These percentages were consistent across cow-calf, yearling, and sheep producers except none of the sheep producers grazed the leased parcel during Q1.

Table 8. Length of grazing season

Length of Grazing Season (days)	Eastern	Northern	Payette	South Central	Southwest	All Regions
0-30	21.0%	23.3%	22.0%	13.0%	13.5%	18.7%
30-60	12.6%	3.3%	12.2%	10.9%	19.2%	12.4%
60-90	8.4%	3.3%	9.8%	13.0%	21.2%	11.1%
90-120	11.2%	23.3%	4.9%	17.4%	7.7%	11.7%
120-150	23.1%	20.0%	14.6%	8.7%	11.5%	17.5%
150-180	14.7%	16.7%	14.6%	21.7%	13.5%	16.2%
180-210	5.6%	6.7%	17.1%	10.9%	11.5%	8.9%
210-240	2.8%	0.0%	0.0%	2.2%	0.0%	1.6%
240-270	0.7%	0.0%	2.4%	0.0%	1.9%	1.0%
270-300	0.0%	0.0%	2.4%	2.2%	0.0%	0.6%
360-390	0.0%	3.3%	0.0%	0.0%	0.0%	0.3%

Native rangeland was the predominant category of land on the leases in each region (Table 9). About 45% of the leases included only native rangeland while 22% of the leases did not include any native rangeland acreage. The majority of the leases had a mixture of native rangeland, improved seeded species, cropland and irrigated pasture. Twenty of the 315 leases were comprised of over 90% irrigated pasture.

Table 9. Categories of land, by region

Study Region	Native Rangeland	Improved Rangeland	Crop aftermath	Irrigated Pasture	Other
Eastern					
Average (%)	62.9	12.6	7.0	13.9	2.9
Standard Deviation	43.1	29.1	21.6	28.9	14.6
Northern					
Average (%)	68.4	15.3	5.1	0.8	6.7
Standard Deviation	38.5	27.7	11.6	4.6	21.7
Payette Lakes					
Average (%)	64.1	11.2	9.6	14.1	1.0
Standard Deviation	38.0	23.9	22.2	33.5	4.5
South Central					
Average (%)	57.4	28.6	5.4	8.4	0.0
Standard Deviation	43.1	39.3	21.7	24.7	0.0
Southwest					
Average (%)	72.7	15.0	2.0	4.3	5.3
Standard Deviation	37.9	31.3	8.9	16.0	20.6

Only 16 leases reported a cost share agreement for property maintenance or operation expenses. For the respondents providing detail, the cost sharing ranged from 10% to 90%, with a 50/50 split most prevalent. No leases were reported to have a minimum guaranteed weight gain, and two leases were reported to have a death loss guarantee or adjustment.

Table 10 provides the expense share each party paid. Real estate taxes were largely the responsibility of the lessor. Equipment maintenance, cattle doctoring, salt costs and nutritional supplements and liability insurance were largely paid by the lessee. Noxious weed control was not reported, or respondent refused to address, for two-thirds of leases. It is likely that noxious weed control was not of major concern for those not responding to this question, but we are unsure of the cause for the high nonresponse rate for the question. Responses to all service related questions were very similar by region.

Table 10. Cost allocation / share for improvements and management expenses

Description	Lessor Provides	Lessee Provides	Both provide	Irrelevant to the lease	Refused or Not reported	Total Reporting
Provide building/replace equipment (e.g. fence, water)	36.8%	35.2%	6.7%	20.3%	1.0%	315
Maintain equipment (e.g. fence, water)	26.0%	48.9%	4.1%	20.0%	1.0%	315
Control livestock, pasture moves, doctor cattle	13.7%	79.4%	2.9%	3.2%	1.0%	315
Provide salt	11.4%	84.4%	1.6%	1.6%	1.0%	315
Provide nutritional supplements	8.6%	78.1%	1.3%	11.1%	1.0%	315
Haul water	20.3%	14.0%	2.5%	61.9%	1.3%	315
Provide utilities	15.9%	19.0%	0.6%	63.5%	1.0%	315
Provide liability insurance	27.9%	46.7%	7.0%	17.1%	1.3%	315
Provide noxious weed control	15.6%	7.0%	3.8%	6.7%	67.0%	315
Pay land taxes	92.1%	3.8%	1.3%	1.9%	1.0%	315
Other	1.0%	1.0%	0.3%	82.2%	15.6%	315

Some type of rate on a $/livestock unit basis was the arrangement for over half of the leases. A lump sum payment was also common whereas charging on a $/acre basis was not. Lump sum payments were employed most in the Eastern, Southwest and Northern regions (Table 11). The majority of lease payments are made after grazing, but a significant number of respondents in each region report that payments are split (before and after grazing). Typically, the lease rate is established through market conditions and negotiation.

Table 11. Lease characteristics, by region

	Eastern	Northern	Payette	South Central	Southwest	All Regions
How do you charge/pay for lease?						
$/animal basis	45%	40%	66%	65%	48%	51%
$ per head per month	18%	7%	24%	39%	29%	23%
$ per AUM	20%	33%	15%	17%	17%	19%
$ per head per day	7%	0%	27%	9%	2%	8%
Other						
Lump sum payment	46%	47%	22%	22%	40%	38%
$ per acre	6%	3%	2%	4%	6%	5%
Trade of commodity	1%	7%	5%	4%	2%	3%
$ per lb of gain	0%	3%	5%	2%	0%	1%
Refused	1%	0%	0%	2%	4%	2%
When is the lease for the parcel paid?						
Before grazing	14%	20%	10%	20%	25%	17%
After grazing	52%	57%	56%	50%	44%	51%
Split payment	29%	13%	27%	24%	23%	26%
Other	5%	10%	5%	7%	6%	6%
Refused	0%	0%	2%	0%	2%	1%
How was the lease rate established?						
Going rate in area	31%	17%	41%	46%	35%	33%
Historic rate	8%	13%	5%	7%	12%	9%
Negotiated rate	54%	57%	54%	37%	48%	51%
Other	7%	10%	0%	11%	4%	6%
Refused	0%	3%	0%	0%	2%	1%

The average 2011 $/AUM lease rate across the five IDL management regions was $16.04/AUM (Table 12). The $/AUM rate reported by NASS (USDA-NASS 2012) during 2011 was $16.00/AUM across the 11 western states and $14.50/AUM in Idaho. Lease rates were highly variable, ranging from $7/AUM to over $30/AUM. Only five leases reported a rate less than $10/AUM and six leases had a rate over $25/AUM. The survey average and NASS-reported rates for Idaho were not statistically different. Lease rates in the Eastern and Payette Lakes areas were statistically higher than the other three areas.

Table 12. Mean lease prices reported, by region

	Reported AUM	Average of AUM reported	Standard Deviation of AUM reported
Study Region			
Eastern	54	$17.17	$4.48
Northern	13	$14.58	$6.05
Payette Lakes	22	$17.36	$3.70
South Central	25	$14.43	$3.45
Southwest	18	$14.13	$3.27
Not Reported	2	$18.25	$13.79
Grand Total	*134*	*$16.04*	*$4.53*
Livestock Type			
Cow-Calf	110	$15.73	$4.04
Cow-Calf, Sheep	4	$14.25	$3.30
Cow-Calf, Yearlings	1	$18.30	-
Sheep	3	$8.93	$1.20
Yearlings	16	$19.84	$5.75
Grand Total	*134*	*$16.04*	*$4.53*

Private Grazing Sublease Characteristics

Respondents were also asked questions relative to subleasing in Idaho. Specifically, we were concerned with those who leased forage from an individual or other entity, who then leased that forage to or managed the livestock for another individual or entity. Thirty-three respondents (8.8%) indicated that they subleased properties to or from another individual or entity.

Relative to the type of land included in the sublease, the majority of respondents indicated the land as privately owned (14), while 12 respondents identified another ownership pattern; seven did not respond to the question. Average private land parcel size was 416 acres ($n = 13$). Three respondents identified other land ownerships included in the lease (with an average parcel size of 656 acres). Only one sublease respondent identified IDL lands as included in the sublease.

The majority of the subleases were seasonal in nature ($n = 18$) as opposed to year-long subleases ($n = 7$). There were eight non-responses to this question.

Services or tasks undertaken with subleases of grazing lands are important considerations in determining comparable lease rates and understanding terms of a lease. Commonly, manager-provided tasks corresponded to items that you would expect with private landowners (Table 13). Land managers paid land taxes, provided noxious weed control, allowed access to buildings and other facilities on the parcel, supplied salt and maintained and replaced equipment. Items such as providing nutritional supplements, utilities, liability insurance and irrigation water were fairly evenly split between land manager-provided and not being a component of the sublease. Water hauling, marketing of livestock, winter feeding, branding/marking livestock and transportation of livestock were generally not provided by the manager or not included with the lease. The lack of lease rate information and minimal responses to this set of questions precluded further analysis, as respondents were not queried regarding fees charged for subleasing. However, it is indicative that subleases have a very minor presence in the Idaho rangeland grazing markets (as evidenced by only 33 sublease respondents from the total survey sample of 373 private grazing leases). Lease rates paid and ranch location of the sublease were not provided by those responding to questions about subleasing.

Table 13. Sublease services provided

Description	Manager Provides	Manager Does Not Provide	Not Provided or Not Reported
Access to buildings, corrals, etc.	57.6%	12.1%	30.3%
Replaced equipment	54.5%	15.2%	30.3%
Maintained equipment	57.6%	12.1%	30.3%
Provided salt	48.5%	21.2%	30.3%
Provided nutritional supplements	33.3%	36.4%	30.3%
Hauled water	18.2%	45.5%	36.4%
Provided utilities	30.3%	33.3%	36.4%
Provided liability insurance	33.3%	30.3%	36.4%
Provided noxious weed control	51.5%	15.2%	33.3%
Provided irrigation water	30.3%	30.3%	39.4%
Paid land taxes	60.6%	6.1%	33.3%
Branded/marked livestock	27.3%	39.4%	33.3%
Provided winter feed for livestock	24.2%	39.4%	36.4%
Transported/shipped livestock	30.3%	39.4%	30.3%
Marketed livestock	18.2%	51.5%	30.3%
Other services	0.0%	30.3%	69.7%

Lease Rate Analysis

Data gathered through the survey were analyzed to determine statistically significant factors that influence private grazing lease rates and their magnitude. This section summarizes the analysis and results of this component of the study. The goal of the statistical analysis was to determine how grazing lease rate (dependent variable expressed in $/AUM) is influenced by services provided or undertaken with the lease, regions of the state and other independent variables specified in the statistical analysis. We used a commonly-accepted technique known as regression analysis to estimate the statistically significant independent variables and the magnitude their influence on the lease rate.

Econometric Model Variable Definitions

Sample size, limited variability of some explanatory variables, and the data limitations detailed earlier meant that the statistical model could consider only $/AUM lease rates as the dependent variable, and some potential explanatory variables could not be considered. Numerous variables were recorded in the survey that measured relevant potential lease price-influencing factors. It would be expected, for example, that grazing lease rates would increase depending on the type and productivity of land included on the lease (native rangeland versus other more productive land types); regional location of the lease; type of livestock grazing the lease; season of grazing; cost influencing factors such as distance to the lease; and especially landowner services provided. These are potential explanatory variables in the statistical model. Previous studies have considered only the landowner services component and regional lease rate differences (Torell and Bledsoe 1990, Rimbey et al. 1992, Bioeconomics Inc. 2011). In this study a systematic analysis of many factors potentially influencing lease rates was made for key variables recorded in the lease rate survey. Potential explanatory variables are discussed by general category, starting with what has been shown to be a consistent and important factor, landowner services provided.

Landowner Services Provided

Eleven different categories of services were recorded in the survey, ranging from the provider of buildings, fencing and equipment; maintenance of facilities, equipment, and range improvements; control and daily management of cattle; to hauling water. As shown in Table 10, four of these service categories were for the most part irrelevant on the lease (noxious weed control, water hauling, provision of utilities, and other). Further, the landowner nearly always paid the land taxes. No attempt was made to include these services in the model because there were not enough observations and variability in the sample to obtain meaningful and reliable results. Dummy variables were assigned to the other services (DPEQUIP = provide equipment, DMEQUIP = maintain equipment, DCONTROL = control livestock movement, DSALT = provide salt, DSUPPL = provide supplements, DINSUR = provide insurance). The service dummy variables were coded as a 1 when the lessor provided the service, a zero when the lessee provided it, and a 0.5 when both the lessee and lessor jointly provided it. This assumes any joint effort was equally split between the landlord and tenant. If the landlord provided these services to the tenant, a positive sign for the parameter estimate would be expected, and numerous studies have found landlord-provided services to be an important determinant of private grazing lease rates. As described by Bartlett et al. (2002, p. 429), six different New Mexico studies and two in Idaho considered the value of landlord-provided services using regression models. A recent study developed a similar model for Montana (Bioeconomics Inc. 2011).

Quality of Lease

Data limitations described earlier regarding acreage calculations precluded calculation of the pre-planned variable for measuring the grazing quality of the lease, which was to calculate the average number of acres required per AUM of grazing capacity. Other variables in the survey that provided indications of lease quality were the proportion of the lease designated as native rangeland (NATIVE), improved rangeland (IMPROVED), crop aftermath (CROP), and irrigated pasture (IRRIGATED). The land type variables sum to 100 percent. Excluding NATIVE from the model (i.e. no dummy variable is included for NATIVE) means parameter estimates for other land type variables reflect an adjustment in AUM price when a larger proportion of the acreage was in that land class.

Parcel Size and Distance

Similar to land values in general, per head lease rates might be expected to decrease with lease size while total payments for the lease increases. The number of AUMs included with the lease was used to evaluate potential price influences for size of lease. Both linear and log specifications were considered in the analysis. In this type of analysis, alternative specifications of the model are undertaken. In some cases (as detailed here in the final model specification) a linear relationship exists and is the best formulation of the relationship between the dependent variable and the independent variables. In other cases, non-linear (logarithmic, or log) specifications provide for better specification of the relationship. These non-linear specifications were determined to be not as appropriate in this in this analysis.

Inconvenience and operating costs increase as distance to the lease increases, and tenants far from the leased parcel may be more inclined to pay the landlord for daily care of livestock, the effect of which would be captured in the service variables. The distance variable was considered in both linear and log form to evaluate whether there were additional lease rate influences when the tenant resided further from the lease. Expectations were that distance would not have a price influence with 64% of the leases located within 20 miles of the leased parcel (Table 4).

Lease Renewal, Length and Terms of Lease

The length of time that the lease agreement was made or renewed may influence lease rates if older leases fall behind the current market. This could not be evaluated in this study because most leases were recently negotiated. Current year renewal (2011-12) included 75% of the leases studied and over 90% had been renewed since 2008 (Table 3). Sixty-four percent of the leases were negotiated on an annual basis (Table 3). The sample had little variability in lease renewal terms and lease length. Given limited variability in the length of the leases, this factor was not considered in the regression analysis.

A dummy variable (DWRITTEN) was used to evaluate whether having a written or oral lease arrangement affected the lease price (written = 1, oral = 0). A written agreement might indicate a more professional lease arrangement with an expected positive sign for the regression parameter.

Related individuals are usually thought to receive a price discount relative to the market (Libbin et al. 1993). A dummy variable was defined to be one if the lease was between related individuals or groups and zero otherwise. A dummy variable was also defined to evaluate whether reported lease rates were different when a landlord (DLANDLORD = 1) reported for the parcel instead of the tenant (DLANDLORD = 0).

Grazing Season, Length of Grazing Period and Livestock Class

Survey respondents were primarily cow-calf producers (Table 7). Of the 132 leases considered in the statistical analysis only 7 leases included sheep on the leased parcel and 17 had yearlings. We considered a separate dummy variable for when yearlings were present and when sheep were present on the lease.

We considered the percentage of days that grazing occurred in each of the four quarters as potential explanatory variables. The 3rd quarter was excluded so seasonal variables measured price differences relative to this quarter. It might be expected that a premium price would be paid for the lease when winter grazing was allowed. Winter feed is a major production expense and grazing alternatives to feeding hay may justify a premium lease price. Similar premiums might also occur in periods in which hay is the only alternative feed source (e.g. early spring and late fall seasons). The total number of days grazed on the lease was also considered as a potential explanatory variable.

Lease Regions

Regional differences in lease rates were tested in the multiple regression model by assigning dummy variables for each area (DEAST, DSW, DSC, DNORTH, and DPAYETTE). The dummy variables were coded as a one when the lease was located in the designated region, zero otherwise. The south central area was initially excluded from the regression model such that included regional dummies measured price differences relative to this area. Statistically insignificant dummy variables were then removed and any remaining regional dummies measure value relative to all excluded regions. When regional dummy variables were not statistically different, this suggests lease rates were not different between regions and no regional adjustment is needed or warranted.

Control of Recreation Access

We considered two alternative dummy variables for restricted lease access. LACCESS was set to one when the landlord indicated he/she controlled access, 0 otherwise. Similarly, TACCESS was one when the respondent was a tenant and indicated that they controlled access, 0 otherwise. Potential interpretation problems exist given the separate questions asked the landlord and tenant. Just because the tenant indicated he/she did not control access does not mean the landlord did, or vice versa. It would be expected that when access was restricted, a higher lease rate would be paid. It is widely stated that one of the reasons a lower grazing fee is justified on public lands is because of multiple uses and the nuisance that creates for grazing on the allotment or lease.

Results

The dependent variable of the hedonic model was the $/AUM lease rate. Missing values for some of the explanatory variables meant 127 leases were included in the final regression model. The final model did not have problems with multicollinearity (independent or explanatory variables are correlated) or heteroscedasticity (unequal variance) based on statistical tests available in the SAS™ software. Residual plots indicated, however, that the regression model tended to over-predict relatively cheap leases and under-predict the most expensive leases. This has potential serious consequences with potential bias in the regression parameter estimates. We believe the necessary exclusion of a quality variable like average acres/AUM for the lease caused this statistical problem. It would be expected that higher price leases would be of superior quality but as noted earlier, data limitations precluded calculation of the carrying capacity rating (AUMS/acre) for each lease. It should be noted that none of the earlier hedonic models about grazing lease rates included rangeland productivity or lease quality as an explanatory variable. This may partly explain why all of the studies had statistically significant regression results but a major amount of lease price variation remained unexplained by the model. Consistently low R^2 values across lease rate studies (< 30%) suggest that the market for forage leasing is not well-structured and precise, with many different criteria used by individuals when they agree on a lease rate.

The R^2 of the final model was estimated to be 26% (Table 14). Only six variables were found to be statistically significant at the 0.10 level. All of the other potential explanatory variables detailed above were systematically considered in alternative regression models but the other potential explanatory variables were not statistically significant.

Of the five lessor service categories that were relevant for the leases and had enough variability in the data to be considered in the model (DPEQUIP, DMEQUIP, DCONTROL, DSALT, and DSUPP), only DCONTROL was statistically significant. The hypothesis that the regression parameters for the other four service variables are jointly equal to zero could not be rejected. Significance of the DCONTROL variable suggests that when the lessor managed, moved and tended the livestock on the lease, the lease rate increased by $2.21/AUM. As a percentage of the mean lease rate paid ($16/AUM) this is a 14% increase in lease rate. DCONTROL was positively correlated with the four other service variables, with correlation coefficients ranging between 26% for provision of equipment to 66% for providing supplements. The DCONTROL variable likely captured some of the other service provision effects. As shown in Table 10, only 17% of the time was the landlord involved in the daily care of livestock, but a higher lease rate was charged when they did provide this service.

Statistical significance of service variables in other lease rate studies has varied, but service variables have not been consistently defined. Similar to the findings of this study, Torell and Bledsoe (1990) found daily control and care of cattle to be an important factor influencing lease rates, along with provision of livestock water on the lease. Rimbey et al. (1992) found two services to be statistically important for Idaho leases, lessor provision of improvement maintenance and liability insurance. A later study that combined data from Idaho, New Mexico and Wyoming (Rimbey et al. 1994) found care of cattle and maintenance of the water supply by the lessor to be important lease rate determinants. Bioeconomics Inc. (2011) found two service variables to be statistically significant, landowner participation in water development costs and fence maintenance activities. It is not clear what other service categories were considered in the Montana study that were not statistically significant and excluded from the model. While the definition of service categories and significance has varied across studies, results are consistent; if the lessor had a significant input in providing daily livestock care and improvement maintenance then lease prices are higher.

Table 14. Linear regression model results

Dependent Variable: Reported $/AUM lease rate

Number of Observations Read	132
Number of Observations Used	127
Number of Observations with Missing Values	5

Analysis of Variance

Source	DF	Sum of Squares	Mean	F Value	Pr > F
Model	6	654.27774	109.04629	7.17	<.0001
Error	120	1825.40359	15.21170		
Corrected Total	126	2479.68133			

Root MSE	3.90022	R-Square	0.2639
Dependent Mean	16.00511	Adj R-Sq	0.2270
Coeff Var	24.36857		

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	14.03544	0.58915	23.82	<.0001
Dcontrol	Daily Livestock Management	1	2.20824	0.85539	2.58	0.0110
DPayette	Payette Region	1	1.86688	1.03056	1.81	0.0726
Deast	Eastern Region	1	1.42954	0.81094	1.76	0.0805
Dyearlings	Yearlings on the lease	1	3.52751	1.07336	3.29	0.0013
Dsheep	Sheep on the lease	1	-2.58727	1.55796	-1.66	0.0994
Irrigated	% of land Irrigated	1	0.02161	0.01317	1.64	0.1035

Average lease rates in the Northern, South Central, and Southwest regions were not statistically different (Table 12). The regression results indicated this as well. The Eastern and Payette regions were found to have higher lease rates than the three other areas ($\alpha < 0.10$). The Payette region had lease rates that were $1.86/AUM more than the Southwest, South central and Northern areas. The Eastern region was $1.43/AUM higher in price than the three excluded areas.

Leases that were totally on irrigated lands were supposedly excluded from this survey. However, ranch units are included with the leases and include different kinds of land including BLM, USFS, IDL lands, seeded areas, and irrigated lands. Of the 315 leases included in the survey 64 leases included some percentage of the land area that was irrigated. Of the 127 leases included in the regression analysis, 24 had irrigated land on the lease and 7 were over 90% on irrigated land. The percentage of the lease that was irrigated was statistically significant ($\alpha = 0.10$). This would be expected given the superior production and reliability of irrigated lands relative to native rangeland. Initial design of the survey included a component to gather information on irrigated land. However, IDL requested that the survey be limited to rangeland leases. Further, NASS-reported pasture rents appear to be inflated for Idaho relative to other intermountain states because the state has a relatively high percentage of irrigated pasture and the increased amount and higher value of irrigated land in the state inflates reported pasture values. The parameter estimate for the IRRIGATED variable indicates that a 10% increase in the amount of irrigated land would increase $/AUM lease rates by about $0.22/AUM. A lease that was 100% on irrigated land would have an average lease rate that was $2.16/AUM more than a lease with native rangeland. As a very similar estimate for Montana, Bioeconomics Inc. (2011) found an irrigated lease to add an additional $2.27/AUM to lease price. Other variables that defined the percentage of the lease on improved (seeded) rangeland, or on crop aftermath, were not statistically significant ($\alpha > 0.39$) and excluded from the final model.

Excluding the animal class dummy variables (Dyearlings and Dsheep) from the model reduced the R^2 of the model to 18% (not shown in detail). Significance of the animal class dummy variables and the large change in R^2 means even with limited occurrence, when present, the $/AUM lease price was consistently higher when yearlings were included on the lease ($3.53/AUM) and lower when sheep were on the lease (-$2.59/AUM). The likely reason for this finding is that little attention is actually paid by forage lessees and lessors to the size and animal unit equivalency (AUE) level of the animals. That is, while it is standard to adjust for equivalency levels between animal classes (especially for sheep), in practice people may pay a per head rate without regard to size and forage consumption equivalency. In the analysis a cow/calf pair was considered to be 1 AUE, a yearling was 0.7 AUE and a sheep was 0.2 AUE (5 sheep per AU). Unless the survey respondent indicated they paid based on an AUM rate the conversion to an AUM rate used these equivalencies. Survey respondents may have had some other equivalency in mind and we expect that many yearling operators paid by the head with no adjustment in price for the reduced size of yearling cattle. This is explored in greater detail below where the model is used to estimate lease rates when various conditions exist. Nearly all of the yearling operators reported the lease rate on a $/head basis, with an average per head price of $13.83. Sheep producers generally reported the lease rate on a per sheep basis or as a lump sum payment (an average of $2.39/head). Other lease rate studies have adjusted to a $/AUM price basis (Bartlett et al. 2002, Bioeconomics Inc. 2011) but none of these studies considered whether the animal class on the lease influenced lease price.

Including the dummy variable for landlord control of recreation access was not significant ($\alpha = 0.11$), the parameter estimate was -1.55 and not positive as expected a priori. Tenant restriction of access was not significant ($\alpha = 0.17$). Thus, control of parcel access by either the landlord or tenant individually was not found to be an important factor in determining lease prices. A more direct question about whether outside uses were controlled on the lease, regardless of the person responsible for the monitoring, may have had a different result.

Many alternative price-influencing factors were also considered as additional explanatory variables in the hedonic analysis. Some of these factors may be significant with a larger and more varied sample, but in many cases lack of significance provides information as well. Most tenants lived close enough to the leased parcel that distance to the lease was not considered in price negotiations ($\alpha = 0.22$) and, may in fact explain why the parcel was leased by this individual. Season of grazing ($\alpha < 0.12$) and length of the grazing season ($\alpha = 0.49$) were not found to influence rental rates. Lease rates were apparently not biased by whether a landlord or tenant responded ($\alpha = 0.23$), and leases negotiated between related individuals were not found to be discounted relative to the market ($\alpha = 0.17$). It did not matter whether the lease was verbal or written ($\alpha = 0.55$).

The size of the lease as measured by AUMs on the lease did not appear to influence lease price when specified in either linear ($\alpha =0.86$) or log form ($\alpha = 0.89$). But, lack of complete information necessary to calculate AUMs on some of the leases limit the reliability of that conclusion. Other studies have also not found a discount in per AUM lease rates as lease size increases, though Torell and Bledsoe (1990) did find per acre rates were discounted as acreages increased. This may be because larger acreages were less productive and adjusting to a $/AUM basis accounts for these productivity differences. Rimbey et al. (1994) included a lease-price discount for the number of AUMs on the lease but it was not statistically significant in the model.

Pre-or post-payment of the lease made no difference to negotiated lease prices ($\alpha = 0.34$). This is in contrast to the $0.33/AUM payment timing adjustment included by Rimbey et al. (1992) for a 185-day grazing season when interest charges were in the 10% range. Similarly, in contrast to the findings of this study, in a major study about western public lands grazing, Tittman and Brownell (1984) found that rental rates were generally less when the payment was made prior to grazing.

For the most part Idaho grazing leases were not found to be negotiated as a sophisticated business arrangement. The leases were nearly evenly split between oral and written and most of the leasing agreements were negotiated annually (Table 3). Not surprising, and similar to the findings of other lease rate studies, a large amount of variation in lease prices remained unexplained. A significant equation was estimated but the R^2 of the model was only 26%. This is not unlike the findings of other statistical models about private grazing leases. One would have expected many of the other variables measured in the survey to play a role in lease prices. However, these variables are not present in the final regression model because they do not add additional explanatory power to the model beyond knowing the leasing region, the amount of irrigated land, the class of livestock on the lease, and whether the lessor provided a significant role in the daily care and management of livestock. We anticipate that had we been able to include a measure of rangeland productivity as originally planned[3] that this would have improved the predictive power of the model.

Model Estimates of Lease Rates

The hedonic model can be used to estimate lease rates located in different regions with different animal classes and with or without daily livestock care provided. As an example, using the model parameter estimates from Table 14, consider the estimated 2011 lease rate for a 100% native range lease in Eastern Idaho with daily care of cattle not provided by the lessor, and running cow/calf pairs on the lease:

$$\text{Predicted \$/AUM lease rate} = \widehat{\beta_0} + \widehat{\beta_1}\,\text{Dcontrol} + \widehat{\beta_2}\text{DPayette} + \widehat{\beta_3}\,\text{Deast} + \widehat{\beta_4}\text{DYearlings} + \widehat{\beta_5}\,\text{DSheep}$$

$$+ \widehat{\beta_6}\text{Irrigated}$$

$$= 14.04 + 2.21\,(0) + 1.87\,(0) + 1.43\,(1) + 3.53\,(0) - 2.59\,(0) + 0.022\,(0) = \$15.46/\text{AUM}.$$

The estimated \$/AUM lease rate would increase by \$3.53/AUM to \$18.99/AUM if yearlings were on the lease. Recognizing that the analysis considered a yearling to be 0.7 AUE, the predicted \$/head lease rate for yearling cattle would then be \$13.29/AUM (\$18.99/AUM × 0.7 = \$13.29/head). This suggests, as noted above, that yearling cattle are in fact discounted in the market place but not by nearly as much as the 0.7 AUE commonly used for animal class conversion. The implied discount is 14% (1-(\$13.29/\$15.46)). In a similar way the estimated per AUM lease rate with sheep on the lease would be \$12.88/AUM and with 5 sheep per AUM the average per head lease rate would be \$2.58/head (\$12.88/AUM × 0.2 = \$2.58/head). If 6 sheep per AUM were used in the conversion the average \$15.46/AUM lease rate paid by cow/calf producers would be obtained. It appears that statistical significance of the animal class dummy variables is because common AUE conversion factors are not what is reflected in the private leased forage market.

Regional differences in lease rates can be estimated from the model by assigning a regional dummy variable a coding of one. Assuming cow/calf pairs on the lease, the \$/AUM lease rates estimate for the Payette Lakes area would be \$15.90/AUM while the Northern, South Central, and Southwestern areas would have the same lease rate estimate of \$14.04/AUM for a non-serviced lease (Table 15). If 10% of the land base on the lease was irrigated the estimated lease rate would increase by an estimated \$0.22/AUM (0.02246×10).

The model results are similar, but lease rates are less than what others have previously found as it relates to landlord services. Bartlett et al. (2002) summarized previous New Mexico and Idaho grazing lease studies and concluded that to estimate net forage value (excluding the value of landlord services) a downward adjustment to about 70% of the average reported NASS rate was required to account for the contributory value of lessor provided services. Hedonic models and competitively bid leases for Montana state trust lands supported that conclusion (Bioeconomics Inc. 2011). The hedonic results of this study suggest a lease discount to 12-14% when lessor services are not provided (Table 15).

[3]/An unanticipated survey response was that many survey respondents reported acreage totals across multiple leases such that the acreage included with each particular lease was not obtained so that a valid productivity rating could be computed.

Table 15. Estimated lease price ($/AUM) based on daily livestock care provided/not provided.

Daily Livestock Management	Eastern	Payette	South central	South West	Northern
Not Provided (a)	$15.46	$15.90	$14.04	$14.04	$14.04
Provided (b)	$17.67	$18.11	$16.24	$16.24	$16.24
Ratio (a/b)	88%	88%	86%	86%	86%

Summary and Conclusions

This bulletin summarizes findings from a major study on Idaho private rangeland grazing lease arrangements conducted in 2011-12. Lessees and lessors of private rangeland grazing were contacted in a telephone survey during the winter of 2011-12. Responses to the survey are summarized in this document. Results from the study indicate key factors related to Idaho grazing lease arrangements that should be of interest to lessees and lessors of rangeland forage, along with policy makers and public and private rangeland managers. Key results from the study reveal:

1. Idaho private rangeland grazing leases are generally informal, year-to-year arrangements. Grazing leases are about evenly split between written and oral arrangements. Lease terms are negotiated mostly on an annual basis.
2. The bulk of Idaho grazing leases that occur on native rangelands, are season-long or include some type of rotational grazing system (e.g. rest-rotation or short duration) and cover the grazing season, ranging from 1-6 months in duration. Most of the leases were cow-calf production systems.
3. Services provided by the lessor or undertaken by the lessee can impact the lease rate. In this study, the only statistically significant service was daily care of livestock and when the lessor provided care, lease rates increased by $2.20/AUM (about 20%).
4. The average rate charged for Idaho grazing leases in 2011 was $16.04/AUM, which was not statistically different from the published USDA-NASS rate of $14.50/AUM. There is large variability in rates reported in our study, although those in the Eastern and Payette Lakes regions were higher than the rest of the state ($1.42 and $1.86/AUM, respectively). Leases with yearling cattle and some amount of irrigated land showed increased lease rates.
5. Leases were paid on a $/head or lump sum basis and the terms generally favored payment occurring after the grazing season or a split between pre- and post-grazing.
6. Based upon the relative lack of sophistication in relation to grazing leases, it would appear that major educational efforts for livestock producers and others are appropriate to emphasize the importance of: a) written leases and, b) understanding common lease characteristics such as AU's, AUM's and animal weights or class of livestock grazing.

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Grazing Costs: What's the Current Situation?

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Agricultural Economics Extension Series No 2011-02
March 22, 2011

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ATTACHMENT 4

Grazing Costs: What's the Current Situation?

Neil Rimbey and L. Allen Torell

Interest in the federal grazing fee seems to fluctuate with political and economic changes. Recently, there has been an upswing in the level of interest in grazing fees and non-fee grazing costs. In this article, we will provide a historical perspective of grazing fee policy, with the total cost of grazing at the center of the issue. We review literature on the issue, highlighting the fee formula enacted in the Public Rangeland Improvement Act of 1978. We also explore a means of updating grazing costs and conclude that indexing these to current costs has serious shortcomings, but may be the only feasible approach.

Theoretical Background

The concern about total grazing costs goes back to the 1960's and formed the basis for an extensive survey of ranchers in the western United States in 1966. The goal of policy makers and federal agencies was to extensively gather public and private grazing costs throughout the west. They hypothesized that public grazing costs would be less than private costs, primarily due to higher lease rates on privately leased grazing lands. The goal was to equalize total grazing costs by charging a fee on public lands equal to the cost differential. The 1966 survey found the cost difference to be $1.23/Animal Unit Month (AUM), when cost differences were weighted by the relative use of public lands by cattle and sheep. In other words it was $1.23/AUM cheaper to run livestock on public lands and the fee that would equalize public and private grazing costs would be $1.23/AUM. Critical to this Total Cost Approach was the assumption that the investment in the grazing permit (or, permit value) was not appropriate for consideration in this approach. Table 1 summarizes the 1966 study results in terms of public and private land grazing costs and the implied forage value on public land at that point in time. An extensive analysis of the data was done and a uniform westwide fee was recommended because there was as much variation in grazing costs within regions studied as there was between regions.

The Public Rangeland Improvement Act of 1978

After the completion of the 1966 study, politics took over for a period of 12 years, with proposals and counter-proposals on fee systems for public lands. The dialogue ended in 1978 when Congress passed an omnibus public rangeland law. The only time that the U.S. Congress has acted on the issue of grazing fees on federal lands was with the passage of the Public Rangeland Improvement Act (PRIA, PL 95-514) in 1978. The passage of PRIA set forth a grazing fee formula which built upon the 1966 study and established "fair market value" of public land grazing from 1978 through the present. The formula was modified in 1986 through an Executive Order (12548), setting a floor of $1.35/AUM.

The formula used the $1.23/AUM cost difference from the 1966 survey and updated it by indexing annual changes in the private grazing lease rates, cattle prices and prices paid to produce cattle. More information on the basis for public land grazing fees and a critical review of the formula are available in Bartlett, et al. (2002) and Torell, et al. (2003).

The PRIA grazing fee formula is depicted in the following formula:

$$\text{Grazing Fee}_{t+1} = \$1.23 \text{ X } \frac{(FVI_t + BCPI_t - PPI_t)}{100}$$

where:
FVI = Forage Value Index, or an index of private grazing lease rates in the 11 western states, with 1964-68 as the base period
BCPI = Beef Cattle Price Index, or an index of cattle prices with 1964-68 as the base period
PPI = Prices Paid Index, or an index of the prices paid by producers to purchase inputs, with 1964-68 as the base period

So, the private-public land grazing cost difference detected in 1966 ($1.23) is adjusted by annual changes in cattle prices, prices paid and private grazing lease markets. Another proposal suggested was to adjust by using only the FVI and economists argued that including all three indices double counted in the formula (Torell et al. 2003).

Table 1. Summary of Fee and Non-Fee Grazing Costs, 1966.				
	Cattle	**Cattle**	**Sheep**	**Sheep**
Item	**Public**	**Private**	**Public**	**Private**
Lost Animals	$ 0.60	$ 0.37	$ 0.70	$ 0.65
Association Fees	$ 0.08	$ -	$ 0.04	$ -
Veterinarian	$ 0.11	$ 0.13	$ 0.11	$ 0.11
Moving Livestock	$ 0.24	$ 0.25	$ 0.42	$ 0.38
Herding	$ 0.46	$ 0.19	$ 1.33	$ 1.16
Salt and Feed	$ 0.56	$ 0.83	$ 0.55	$ 0.45
Travel	$ 0.32	$ 0.25	$ 0.49	$ 0.43
Water	$ 0.08	$ 0.06	$ 0.15	$ 0.16
Horse Cost	$ 0.16	$ 0.10	$ 0.16	$ 0.07
Maintenance	$ 0.43	$ 0.40	$ 0.20	$ 0.24
Development Depreciation	$ 0.11	$ 0.03	$ 0.09	$ 0.02
Other Costs	$ 0.13	$ 0.14	$ 0.29	$ 0.22
Private Lease Rate	$ -	$ 1.79	$ -	$ 1.77
Total Non-Fee Costs	$ 3.28	$ 4.54	$ 4.53	$ 5.66
Cost Difference/Forage Value		$ 1.26		$ 1.13
Weighted Cost Difference			**$ 1.23**	
(weighting by relative AUMs of cattle and sheep on public lands)				
Source: USDI and USDA. 1977. Study of Fees for Grazing Livestock on Federal Lands. Table 5, Page 2-22				

Grazing Fee Task Group Study of 1992

In 1991-92, the authors, Tom Bartlett, Professor at Colorado State University (at that time) and Larry VanTassell, Professor at University of Wyoming (at that time), were asked by the Bureau of Land Management (BLM) and U.S. Forest Service (FS) to take another look at the grazing fee issue. We decided that we needed to do what we could to repeat the 1966 study, given the sound theoretical basis of that study. Given budgetary constraints and areas that could be covered by project staff, we chose to study those costs in New Mexico, Wyoming and Idaho. Random samples of private and public grazers were drawn in each state and face-to-face interviews conducted with permittees/lessees of public and private forage resources during 1991-92. Several publications summarize the findings of this study (Torell, et al. 1993; Bartlett, et al. 1994; Rimbey, et al. 1994; VanTassell, et al. 1997). It was enlightening and surprising to the authors and others involved in the project to find that the cost differential between public and private lands had declined to $0.13/AUM in 1992 in the three study states. The study also indicated changes in cost structure between 1966 and 1992, with higher proportion of costs associated with items such as herding, meetings and less relative cost associated with veterinary and depreciation of improvements (Table 2).

Today's Situation

Since no information concerning grazing cost comparisons between private and public lands has developed through the literature since 1993, we will attempt to provide a method to update that information to current costs. We recognize the shortcomings of this update, given substantial changes that have occurred in the last 19 years in relation to public land policy, national economic issues and changing societal values. These changes have undoubtedly had impacts on the cost structure of both private and public grazers. We will highlight those concerns and cautions at the conclusion of this piece. Nielsen (1991) provided a method for updating the 1966 study to 1990 figures, including references to specific USDA-NASS indices used in his analysis. We applied that same methodology to the updates of the 1992 costs to current dollars included here. We accept Dr. Nielsen's designation of the appropriate indices to use in this analysis.

Table 2 presents 1992 grazing costs for cattle and sheep on public and private lands in New Mexico, Wyoming and Idaho. We use that information and the appropriate USDA-NASS indices to update costs to current (2010) figures. For example, 1992 cost for lost animals on public land cattle operations was $3.65/AUM. The NASS index indicated that the Prices Received Index for Meat Animals had increased 1.35 times since 1990-92. We multiplied the 1992 value by the index/inflation factor to derive the estimate of cost in 2010 dollars. We repeated the same exercise with sheep. We adjusted these cost items by the relative weight of cattle and sheep leasing in the 1992 study (88% cattle and 12% sheep) and derived the combined 2010 cost of $5.21/AUM for lost animals. The same methodology was repeated for other cost items included in Table 2. For items with 2 indices listed, we averaged the 2 indices and calculated the resulting inflation in cost based upon the combined, average index.

Private leases on the private land costs were inflated to 2010 dollars using the relative change in the Forage Value Index (FVI). In other words, the FVI for 1992 was 2.75 and was calculated at 4.44 for 2010, or a ratio of 1.61. The same process was followed for developing the private grazing costs presented in Table 2. Indexing the lease rate found in the 3-state 1992 study meant a $12.35/AUM private lease rate estimate for 2010 (Table 2). The 2010 average lease rate reported by USDA/NASS (2010) for the 3 study states was a dollar per AUM more, $13.37/AUM.

Total Public Land 2010 Cost was estimated to be $33.24/AUM. Comparable private land cost was estimated to be $32.04/AUM. So the fee that would equalize total costs of grazing in 2010 would be a payment to public land ranchers of $1.20/AUM. In others words in 2010, public land grazers are paying $1.20/AUM more than those leasing private land. If current NASS lease rates for the 3 study states are used a payment of $0.20/AUM would be warranted, not unlike the $0.13/AUM difference found in 1992 (Torell et al. 1994).

Table 2. Summary of Fee and Non-fee Grazing Costs, 1992 and 2010

Item	1992 Public Cattle	1992 Public Sheep	1992 Private Cattle	1992 Private Sheep	NASS Indices	2010 Index	2010 Public Cost	2010 Private Cost
Lost Animals	$3.65	$5.39	$2.10	$2.63	meat animals/prices received	1.35	$5.21	$2.92
Association Fees	$0.48	$0.04	$ -	$ -	production items	1.95	$0.83	$ -
Veterinarian	$0.10	$0.22	$0.12	$0.20	wage rates	1.92	$0.22	$0.25
Moving Livestock	$3.35	$4.74	$1.93	$2.51	(auto & trucks)+(wage rates)	1.53	$5.36	$3.05
Herding	$4.31	$8.89	$2.94	$3.05	wage rates	1.92	$9.33	$5.67
Salt and Feed	$1.29	$1.62	$1.80	$1.53	(auto & trucks)+(feed)	1.62	$2.15	$2.85
Travel	$0.69	$0.77	$0.18	$0.34	(auto & trucks)+(fuel & energy)	2.11	$1.47	$0.42
Water	$0.39	$0.39	$0.11	$0.16	production items	1.95	$0.76	$0.23
Horse Cost	$0.31	$0.47	$0.15	$0.22	feed	2.10	$0.69	$0.33
Maintenance	$3.18	$2.12	$1.84	$2.22	(wage rates) + (building & fencing)	1.80	$5.48	$3.38
Development Depreciation	$0.45	$0.26	$0.15	$0.24	production items	1.95	$0.83	$0.31
Other Costs	$0.34	$1.36	$0.11	$0.35	production items	1.95	$0.90	$0.27
Private Lease Rate			$7.71	$7.18	Forage Value Index	1.61	$ -	$12.35
Total Non-Fee Costs	$18.54	$26.27	$19.14	$20.63			$33.24	$32.04
Grazing Fee	$1.86	$1.86	$7.71	$7.18			$1.35	
Total Cost	$20.40	$28.13	$26.85	$27.81			$34.59	

Notes:
Cost items with more than one index listed were updated using an average of the indices listed.
Combined Public and Private 2010 Costs accomplished by weighting based upon the relative leased AUMs of cattle and sheep from the Grazing Cost Survey: 88% cattle and 12% sheep (Torell, et al. 1993).
1992 Private Lease Rates indexed using Forage Value Index (FVI) from USDA-NASS (Ag Prices, January, 2011). 2010 FVI of 441 divided by 1992 FVI of 275, or 1.61.
All indices provided by USDA-NASS (Ag. Prices, January, 2011).

Caveats and Cautions

A major shortcoming of the indexing process used here is that we are essentially assuming no major changes in the cost structures of private and public land grazers since 1992. Using the indices will account for inflationary pressure on fuel prices, for example. However, it does not account for changes in quantities used over the past 19 years. We hypothesize that legal expenses have risen since we sampled lessors/permittees in 1992. We also think that costs for lost animals may be low in the 3 states, given the reintroduction of wolves which occurred in the mid 1990's in several western states. The shift of maintenance responsibilities to public land permittees was occurring at about the time that we surveyed people in 1992 and those expenses may be understated in relation to others. Numerous other factors have changed and the resulting cost differences may or may not reflect what has taken place on public and private rangelands of the west.

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ATTACHMENT 5

Dollerschell, Kasey, D, BS, REWM, Department of Ecosystem Science and Management, December, 2020.

Research surrounding the topic of the federal grazing fee started in the 1960's and extended into the 1990's. The current project updated the non-fee costs (all costs of grazing on public and privately leased lands except for the federal grazing fee) associated with livestock grazing by comparing the total non-fee cost of grazing on public allotments to grazing on privately leased land in Wyoming, Idaho, and California.

This project found an overall non-fee total for federal land grazing in the states of Wyoming, Idaho, and California was $\$31.08\ \mathrm{AUM}^{-1}$. For privately leased grazing in these same states, it is $\$34.18\ \mathrm{AUM}^{-1}$ to graze.

The overall non-fee total to graze on BLM land in Wyoming, Idaho, and California was $\$30.77\ \mathrm{AUM}^{-1}$ and $\$31.29\ \mathrm{AUM}^{-1}$ on USFS land.

A small allotment size brought a total of $\$34.14\ \mathrm{AUM}^{-1}$ for private land, $\$35.68\ \mathrm{AUM}^{-1}$ for BLM, and $\$61.02\ \mathrm{AUM}^{-1}$ for USFS land. Medium allotment and lease sizes showed a total non-fee cost of $\$31.28\ \mathrm{AUM}^{-1}$ for private land, a $\$38.35\ \mathrm{AUM}^{-1}$ for BLM land, and $\$39.41\ \mathrm{AUM}^{-1}$ for USFS land. Finally, for large allotment and leases a total non-fee cost of \$30.42 was shown for private, $\$28.70\ \mathrm{AUM}^{-1}$ for BLM, and $\$21.73\ \mathrm{AUM}^{-1}$ for USFS land.

Evaluating Non-Fee Grazing Permit Costs

By

Kasey Dollerschell

A thesis submitted to the Department of Ecosystem Science and Management

and the University of Wyoming

in partial fulfillment of the requirements

for the degree of

MASTER OF SCIENCE

in

RANGELAND ECOLOGY AND WATERSHED MANAGEMENT

Laramie, Wyoming

May 2021

ACKNOWLEDGEMENTS

I would like to thank everyone involved in aiding in the completion of this study. I would like to give a special thanks to the leadership at Public Lands Council, Wyoming Stock Growers Association, Idaho Cattle Association, and California Cattleman's Association for assisting in outreach for this study.

I would like to give a special thanks to my advisors, Dr. John Tanaka and Dr. Kristie Maczko, for all of the support and guidance throughout this process.

I would also like to give a huge thanks to Tom Hilken, the research assistant who completed the Idaho Department of Lands study along with the current study. Thank you for all of the help and support in completing this project.

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CHAPTER 1: INTRODUCTION

Introduction

Regulation of livestock grazing on federal land has been in effect since as early as 1897 when regulation of livestock on Forest Reserves was put into place (CAST, 1996). Since then, much of the western United States has been set aside for protection under the Federal Government. The regulation and protection of most of this land has been put in the hands of the U.S. Forest Service (USFS) and the Bureau of Land Management (BLM). It is said that around 85% of federal land is utilized for the grazing of livestock (CAST, 1996). With such a high utilization rate it becomes increasingly important to understand federal grazing permit costs in addition to the added expenses of grazing on public land. When compared to private land leases, leasing on public land can lead to added costs to the rancher. These costs can come from sharing the land as part of the federal agencies multiple use goals, traveling to sometimes difficult to reach areas, and through compliance with regulations set forth to protect the land (CAST, 1996). All of these extra costs should be taken into account when deciding the appropriate amount to be charged to ranchers grazing on federal land.

The current fee, as seen in Equation 1 uses the initial base forage value established by the 1966 Western Livestock Survey (Torell, 2003), cost of beef production (PPI), price received for beef cattle (BCPI), and the Private grazing land lease rate (FVI) (Bartlett, 1993). It was formally established in the Public Rangelands Improvement Act of 1978 and extended through Executive Order No. 12548 in 1986 with a minimum fee of $1.35 AUM (Torell, 2003).

$$\text{Fee} = \$1.23\ (\text{Private grazing land lease rate (FVI)} + \text{Cost of beef production (PPI)} - \text{price received for beef cattle (BCPI)}/100) \tag{1}$$

Many people believe that the public grazing fee should match that of the private lease rate, which tends to be higher in price. They say that the fee is set too low and brings a form of "subsidy" for ranchers grazing on the public land (Obermiller et al., 1990). Others argue that the permit price is too high and does not account for the added costs that ranchers have to pay for livestock grazing on public lands, as stated above. The conflicting views on the federal grazing fee has sparked many research studies throughout the years.

Studies on the federal grazing fee started in the 1960s and have been taking place ever since. The basis of the studies comes from comparing the costs of federal land grazing to that of privately leased grazing. Past studies have sought to come up with the best methods for determining forage value, while also comparing the extra costs associated with grazing (Bartlett, 1993).

As a result of past studies, a research team was formed in the 1990s to look deeper into the federal land grazing fee. That study was conducted by the 1992 Grazing Fee Task Group (Torell et al., 1993). This group was made up of multiple researchers and worked closely with the U.S Forest Service (USFS) and Bureau of Land Management (BLM). That project had many objectives including determining the basis for establishing grazing fees and forage values, determining a price range for the grazing fee, and determining a procedure for updating the grazing fee. Since the federal grazing fee is set administratively (Quigley and Tanaka, 1988) and not determined by a competitive market, it becomes difficult to establish a market value for federal land forage (Bartlett, 1993). Out of the 1992 study came a suggestion of determining the forage value of public lands by comparing it to the price paid for alternative forage. In this case the alternative forage would be that of private lands, which is established in a competitive market. Therefore, the competitive price in the private forage market would be used to value public land forage (Bartlett, 1993). This must be done while taking into consideration the differences between leasing privately and leasing publicly. A method called the Total Cost Approach was used to quantify these considerations. The Total Cost Approach aims to compare the total fee and non-fee costs[1] of grazing on privately leased land with non-fee costs of grazing on public land. The difference between these two total non-fee costs is suggested to be the fair grazing fee for federal land (Bartlett, 1993).

This current study replicates the Total Cost Approach study conducted in the 1966 and 1992 studies. This will allow for a comparison to be made across all of the studies conducted within the last 50+ years on the topic of the federal grazing fee. Data from this study will show how non-fee costs may have changed over time. Established trends will aid future research on the grazing fee, and when necessary, help in the reevaluation and adjusting of grazing fees.

Objectives

This project was initiated with the intention of evaluating the non-fee costs of federal and privately leased grazing allotments and following the study conducted in 1992 as closely as possible.

[1] Throughout this thesis, non-fee costs are all costs of grazing on public and private lands except for the federal grazing fee.

The project objectives are:

1.) To collect, analyze, and interpret the non-fee permit costs associated with federal grazing allotments in Wyoming, Idaho, and California.
2.) To compare total costs of grazing on public and private lands.
3.) To evaluate changes in total costs of grazing on public and private lands over time.

Significance of Research

The research conducted in this study will be based on the work gathered by the 1966 Western Livestock Survey and the 1992 Grazing Fee Task Group. These studies aimed to obtain the ideal permit costs of federal land grazing. In addition to the permit costs, these studies aimed to establish the best methods to value federal land forage and create a suitable grazing fee formula. The 1966 Western Livestock Survey established the total cost difference between public land permittees and private land lessees. This difference of \$1.23 AUM^{-1} was later used in forming the federal grazing fee formula in the Public Rangelands Improvement Act of 1978 (Torell, 2003). Furthermore, the 1992 study concluded that the market forage value was the most appropriate way to place a forage value on federal land grazing (Bartlett et al., 1993).

Permit grazing has been part of the USFS since 1905 (Williams, 2005) and the BLM since 1934 (Prevedel, 2005). Together these two agencies manage around 307 million acres of land with 57% of them managed by BLM and 43% by the Forest Service. Of these 307 million acres, 262 million acres (85%) are grazed by livestock (CAST, 1996). With over half of the beef cattle in the western United States utilizing federal land it is important to look at how much producers are paying to do so. At a glance, a person could argue that public and privately leased grazing are the same and should reflect that in the cost of the fee. For the 1992 study, the average private land lease rate for all 11 western states was \$9.41 AUM^{-1} (Bartlett et al., 1993). However, in the 1992 study, an average rate of \$7.76 AUM^{-1} was found in just the three states of Wyoming, Idaho, and New Mexico. This difference shows how variation across states and time can adjust the average private lease rate (Bartlett et al., 1993). However, both of these values are higher than the public grazing permit fee of \$1.35 AUM^{-1}; yet research done in 1966 and 1992 have shown that public land grazers are paying a comparable amount to graze on federal lands. This study will find the current non-fee costs associated with grazing on private and public land. A comparison of the non-fee costs will then be made between privately leased and federal land grazing.

This comparison is significant because the federal grazing fee can have a large influence on the affordability of grazing on public land for ranchers. If the fee is set too high and paired with the additional non-fee costs, it can lead to financial instability within the federal land ranching community (CAST, 1996). This is why research is necessary to determine the appropriate grazing fee range set by the federal government. The fee must allow for the market between private land grazers and public land grazers to remain competitive and not give an advantage to one over the other. Research that compares and contrasts fee and non-fee costs to these two groups of ranchers helps ensure this ideal outcome.

Since the federal grazing permit system is not active in a competitive market and the price cannot be adjusted by itself, frequent studies have to be conducted to ensure the permit fee remains fair and appropriate (Van Tassell, 1994). By aiding the research on non-fee permits costs that has been ongoing for the last 50 years, the current study gains relevance.

CHAPTER 2: LITERATURE REVIEW

Grazing Fee and Rangeland History

After the expansion of the United States in the early 19th century many important events took place that shaped the history of the country. Most of the land at this time was owned by the federal government, but many acts were passed that changed that in the 19th century. By the end of the century almost half of the federal land had been given to states and private ownership through land grants and the passing of the Homestead Act in 1862 (Prevedel, 2005). The land was being utilized by many different industries including mineral mining, timber harvest, and livestock grazing. Concern began to rise as many of these endeavors went unchecked, and the land began to reflect this over exploitation. In response to this exploitation, much of which took place on rangelands and forests, many people began to voice concern for the land (Prevedel, 2005).

In 1891, the Forest Reserve Act, also known as the Creative Act, was passed in Congress. This was the first step in land conservation and protection in the west and stated that the government could set aside land as forest reserves when necessary (Prevedel, 2005). From 1898 to 1905 these forest reserves were managed by forest reserve superintendents, supervisors, and rangers. These positions were appointed by senators and the Department of the Interior's General Land Office along with surveyors and mappers from the US Geological Survey (USGS). In 1905 all of the forest administration was unified under the Department of Agriculture's Bureau of Forestry that was later named The U.S. Forest Service. The USFS was tasked with mapping forests, providing trail access, and administering sheep and cattle permits (Williams, 2005). Another major event that began to protect federal grazing land was that of the Taylor Grazing Act of 1934. This act placed the responsibility of the remaining federal land (not set aside for forest reserves) into the hands of the Department of the Interior's Grazing Service, later to be named the Bureau of Land Management (Holechek, 1981).

Since the USFS and BLM were formed, they have been tasked with managing federal lands and all of the activities that take place on them; one of these activities being livestock grazing. Many ranchers in the west depend on public grazing leases to maintain their herd health and population. They place their herds on BLM land typically in the spring and fall, and the USFS land in the summer. During the winter they keep their cows close by on their own private land (CAST, 1996). Livestock grazing on federal land has become an important part of ranching in the west, and many events have taken place in history that have influenced its management.

As stated in the Taylor Grazing, the Secretaries of the Interior and the Secretary of Agriculture, the departments that the BLM and USFS are under, should be tasked with issuing permits and leases on federal land (BLM, 2001). The Federal Land Policy and Management Act (FLPMA) of 1976 stated that the Secretary of Agriculture and the Secretary of the Interior shall conduct a study that determines the correct grazing fee to be enforced on federal lands (U.S. Department of the Interior et.al, 2001). These two Secretaries were tasked with establishing a fee charge but had to take into account many considerations. They have to understand the costs generally associated with livestock grazing, forage value, and other considerations that can affect the amount charged as a fee. Once this initial study was conducted, they were also tasked with implementing a schedule for such studies to continue on this matter (BLM, 2001).

FLPMA also brings into light the fairness of the grazing fee and determining a fair way to value forage or the utilization of public lands for grazing. The term of setting a “fair market value” (FMV) for grazing fees shows up first in the Taylor Grazing Act of 1934 when officials were in charge of setting a “reasonable” fee for livestock grazing (Collins, 1989). This term has shown up in multiple other legislative acts and bills over the years. It most recently showed up in FLPMA for developing a FMV when determining grazing fees. However, this act and previous acts do not define the appropriate process by which to determine the FMV. This makes defining and maintaining a FMV difficult due to the complexity of federal livestock grazing. Since federal livestock grazing permit markets are not an open and competitive market, it is hard to determine a fair way to establish market value. That is why different approaches must be discussed in order to determine the best one (Collins, 1989).

<u>The Grazing Fee Issue</u>

The federal grazing fee amount has been a long and controversial subject. Many groups say the grazing fee price is too low and acting as a “subsidy” to ranchers to graze on federal land (Obermiller, 1990). These groups argue that if grazing fees are set too low it could encourage overuse of the land and the forage available. They also believe that the low grazing fees allows for public land ranchers to have a competitive advantage over those buying feed and forage in a private market (Steward, 1998). Another topic on federal land is the need for allowing multiples uses. The Multiple Use-Sustained Yield Act of 1960 mandated federal agencies to treat all resources including timber, range, water, and recreation as equal (Williams, 2000). This bill highlighted the concern of the public that federal land was mainly being used for livestock grazing and timber harvesting only and there was no room for other types of management. This concern of the public adds even more pressure to the grazing fee controversy.

The argument set against these groups is that the grazing fee is only a portion of the amount of money ranchers pay to graze on federal land (Obermiller, 1990). Potential other forms of payment come from sharing the land with other users, restrictions on the time of year cows graze, and overall regulation of maintenance and improvements to the land (CAST, 1996). In a survey of 42 ranchers done in Lake County, Oregon and Modoc County, California this statement, along with many others, was extracted from the interviews about the added costs of grazing on federal land:

"Being called a welfare rancher because of the price on public land grazing is not a true picture. You have to fix the fences, salt the cows, and keep the cows outta here and into there. Next year we are going to have to have someone up there all the time. So that's an extra employee. We run more bulls, because the cattle spread out more. This is a cost. We have quite a bit of coyote problems too. The cost of gathering is extensive also—the cows are hard to find." (Steward, 1998, pg. 82).

Raising the Fee

Since the federal land grazing fee has been a controversial subject for so many years the easy thing to do would be to raise the fee, right? This question is important when looking at the grazing fee issue because it all comes down to the grazing fee cost. Many studies have set out to analyze that action and inform the public of the effects of doing so. When altering policy and other land management decisions it is important for the agency to understand the effects the actions will have. BLM and USFS are constantly seeking tools for analyzing results of management decisions, and the case of the federal grazing fee is no different (Torell et al., 2014). The National Environmental Policy Act (NEPA) of 1969 requires public land managers to not only analyze environmental impacts of their management decisions but also the social and economic impact the decision could potentially have (Torell et al., 2014). The question on whether to raise or lower the fee has been the stem of research on this topic. In order to understand the issue of federal land grazing it is important to understand the events that have shaped it.

The 1966 Research and Results

The research that began in the 1960's had a goal of finding the non-fee grazing costs associated with grazing on federal and privately leased land. This study established the 14 categories that are considered non-fee costs as seen in Table 1. These were the original 14 categories that were accounted for and were left out of the total grazing costs that both private and public lessees paid (Obermiller, 1992). For private leases, the private land lease rate itself was included in the cost categories. This is because the private land lease rate often makes up

Table 1. Description of non-fee cost categories (Bartlett, 1993)

Cost Category	**Description**
Lost animals	Value of livestock that die or disappear on the lease or allotment
Association fees	Dues, fees, and assessments by grazing association
Veterinary	Veterinary and medicine expenses for sick or injured animals grazing on a lease
Moving livestock	Expenses to move livestock to and from the lease, including hired trucking, labor, and vehicle expenses.
Herding	Labor and vehicle expenses to check animals and to move livestock to new pasture or areas within the lease.
Miscellaneous and mileage	Labor and vehicle expenses to go to meetings, round up strays, or deal with various problems associated with the lease.
Salt and feed	Salt and feed expenses while livestock are on the lease.
Water	Cost of pumping and hauling water to the lease
Horse	Cost of using horses on the lease
Improvement maintainence	Labor, vehicle expenses, materials, and equipment to maintain improvements on the lease.
Development depreciation	
Federal land	Annual depreciation allowance for range improvements located on federal land and used on the allotment or lease. Only the rancher's share of cost is considered.
Private land	Annual depreciation allowance for range improvements located on private, state, or other uncontrolled lands but used totally or partially on the allotment or lease. Only the rancher's share of the cost is considered. Improvements used to service both private and federal lands are prorated based on the estimated percentage of use on the lease.
Other	Miscellaneous expenses including insect control, predator control, and other undefined items.
Private lease rate	Fee paid to private lessors of forage for forage and services provided.
Total labor	Total labor costs summed across various categories defined above.
Total vehicle mileage	Total vehicle costs summed across various categories defined above.

a majority of the lessee’s expenses as the lessor takes care of many added costs. This study used the Total Cost Approach to determine the base price of $1.23/AUM for the PRIA grazing fee formula as shown in Equation 1 (Torell, 1993).

The Total Cost Approach takes the total fee and non-fee costs of grazing on private land and the non-fee costs on public land and finds the difference. In the 1966 study, the $\$1.23\ \mathrm{AUM}^{-1}$ was the difference of total cost per AUM between grazing on private land and non-fee costs of grazing on public land as shown in Table 2. In 1966 it cost grazers on private land leases $\$1.23\ \mathrm{AUM}^{-1}$ more to graze than it did for ranchers leasing public land (Obermiller, 1992).

In other words, the non-fee cost for grazing cattle was $\$3.28\ \mathrm{AUM}^{-1}$ for public permits and the total cost was $\$4.54\ \mathrm{AUM}^{-1}$ for private leases with a difference of $\$1.26\ \mathrm{AUM}^{-1}$. For grazing sheep, the non-fee cost for public leases was $\$4.53\ \mathrm{AUM}^{-1}$ and the total cost was $\$5.66\ \mathrm{AUM}^{-1}$ for private leases with a $\$1.13\ \mathrm{AUM}^{-1}$ difference. The weighted average of these differences for both sheep and cattle resulted in $\$1.23\ \mathrm{AUM}^{-1}$ (Obermiller, 1992). This amount was said to be the value of public land forage and also the grazing fee to be charged for federal land grazing (Torell, 1993).

Table 2. Non-fee costs of federal and privately leased grazing with cost difference in the 1966 study (Rimbey, 2011).

Item	Cattle Public	Cattle Private	Sheep Public	Sheep Private
Lost Animals	$0.60	$0.37	$0.70	$0.65
Association Fee	$0.08		$0.04	
Veterinary	$0.11	$0.13	$0.11	$0.11
Moving Livestock To & From	$0.24	$0.25	$0.42	$0.38
Herding	$0.46	$0.19	$1.33	$1.16
Salt and Feed	$0.56	$0.83	$0.55	$0.45
Travel To & From	$0.32	$0.25	$0.49	$0.43
Water	$0.08	$0.06	$0.15	$0.16
Horse	$0.16	$0.10	$0.16	$0.07
Fence Maintainance	$0.24	$0.25	$0.09	$0.15
Water Maintainance	$0.19	$0.15	$0.11	$0.09
Development Depreciation	$0.11	$0.03	$0.09	$0.02
Other Costs	$0.13	$0.14	$0.29	$0.22
Private Lease Rate		$1.79		$1.77
Total Non-Fee Costs	$3.28	$4.54	$4.53	$5.66
Cost Difference/Forage Value	$1.26		$1.13	
Weighted Cost Difference	$1.23			

(weighting by relative AUMs of cattle and sheep on public lands)

Source: USDI and USDA. 1977 Study of Fees for Grazing Livestock on Federal Lands. Table 5, Page 2-22

The Public Rangeland Improvement Act of 1978

Prior to 1978, the grazing fee for federal land was produced using a FMV model derived using the 1966 study (Nielson et al., 1984). This model was based on the idea that the value of forage lies in a traditional competitive market in which supply and demand interact to form a price (Bartlett et al., 1993). This model posited that ranchers are profit maximizers and will be willing to pay a certain price for their forage. This model assumed that private and public land grazing were interchangeable and their productivity the same. This would mean that a rancher would be willing to pay the same for both types of land. If this were the case, the private land market could be used to predict the public land grazing market. The fee from using the 1996 study used the private lease rate added to the non-fee cost of grazing on privately leased land and the non-fee costs of grazing on public land. This model was argued against due to the fact that it made the value of public land and private land grazing the same without taking into account productivity and quality differences (Nielson et al., 1984).

Since the 1962 model for establishing a grazing fee was being argued against, Congress set out with a goal of computing a formula for the federal grazing fee. FLPMA mandated that a grazing fee study be reported to Congress within a year (U.S. Department of the Interior et.al, 2001). The 1977 Grazing Fee Study evaluated seven different ways to determine a grazing fee. One of these ways was proposed by the American National Cattlemen's Association, now National Cattlemen's Beef Association (NCBA). The association proposed only using beef prices and prices paid in adjusting the grazing formula. However, this was not accepted by federal agencies who only wanted to use the Forage Value Index (FVI) for the fee (Torell, 2003).

The proposal by NCBA and the 1977 Technical Committee, who was proposing present day PRIA, were both evaluated in the 1977 Grazing Fee Study. The Technical Committee suggested using the Beef Cattle Price Index (BCPI), Prices Paid Index (PPI), and Forage Value Index (FVI) in the formula to account for short term fluxes in the market (Torell et al., 2003). The addition of utilizing the FVI while also including factors that take into account short term instabilities in the market was the compromise between federal agencies and grazing interests for the formula.

Congress then passed the Public Rangeland Improvement Act of 1978. This formula (Equation 1) took the base price of \$1.23 AUM^{-1} found in the 1966 study and adjusted it annually by taking into account the private lease rates representing the Forage Value Index, Beef Cattle Price Index, and Prices Paid Index for beef production (Torell, 1993). Adjusting for these economic conditions is said to help adjust the FMV of grazing each year (Nielson et al., 1984). In order to do this the FVI was created (Nielson et al., 1984). In the beginning the FVI was known as the Range Forage Index (RFI). The RFI was created from average rental rates paid by ranchers for private forage that were collected from the Farm Real Estate Market Developments. This was developed from the Farm Report Questionnaire that was sent to farm operations in 11 western states annually. This was done by weighting the state values collected by the weights determined in the 1966 Western Livestock survey and dividing by the average value for private land leases from 1964-1968 of \$3.65 AUM^{-1} (Nielson and Garratt,1984). The RFI was later renamed the FVI and is used in the current grazing fee formula.

The Public Rangeland Improvement Act was important in establishing a grazing fee formula that would be used in the future by both the BLM and USFS. The formula was set forth in a meeting in 1978 and would be evaluated after a seven-year experiment period lasting from 1979-1985 (Nielson and Garratt, 1984). Following the seven-year trial, Executive Order 12548 was signed in 1986 stating that the 1978 PRIA formula would continue to be used with a modified the base price of \$1.23 AUM^{-1} to \$1.35 AUM^{-1} (NARA, 2016).

Oregon Study Conducted in the 1990s

After the study conducted in 1966 there was a gap in the research done on grazing fees that directly compared grazing costs. There had been reviews, changes in law and regulation, and changes in production costs since the 1966 study and there was the question if a simple indexing of numbers was enough to update the grazing fee (Obermiller, 1992). It was decided that the USDA/SEA (Science Emphasis Area) Extension Service would collect and analyze data around grazing costs in Oregon. This study aimed to gather data to provide updated costs associated with public and privately leased grazing (Obermiller, 1992). The results from the 1966 study and results from the 1983 Oregon study, all updated to show 1990 dollars, were slightly different. On private leased land the updated indexed cost from 1966 to 1990 dollars was \$14.79 AUM^{-1} and the Oregon 1983 costs were \$15.03 AUM^{-1} in 1990 dollars. This resulted in a \$0.24 AUM^{-1} difference which could have indicated little change had occurred in the structure of the private grazing land market (Obermiller, 1992). However, for public land grazing the updated 1966 cost resulted in \$14.29 AUM^{-1} in 1990 dollars, and the Oregon 1983 updated cost was \$16.83 AUM^{-1} in 1990 dollars, resulting in a \$2.54 difference. This indicated a potential structural change in the public land grazing livestock industry since 1966. However, these data were only collected in Eastern Oregon and do not fully represent all of the western states. It could not be used as a general description of the public land grazing livestock market (Obermiller, 1992).

It did however point out that many things can change in just 24 years, and so there remained a need to revisit the issue of federal land grazing. Updated non-fee grazing costs would better reflect the changes in policy, regulation, and technology that happened within the livestock industry (Obermiller, 1983).

Study Conducted in 1992

Since there was a pressing need for updated costs associated with livestock grazing on public and privately leased land, a new project was formed. This project was formed to continue to evaluate the grazing fee issue and update costs that would reflect updated policy, regulations, and technology in the livestock industry. This project was formed as a group of researchers by the BLM and the USFS to recommend grazing fee policy for public lands and was known as The Grazing Fee Task Group (GFTG) (Torell, 1993). The GFTG consisted of researchers from four western states along with appraisers from both the BLM and the USFS.

The first problem the group tackled was that of the incentives for ranchers to uphold rangeland stewardship. Under this goal came four other objectives for this project. First, determine the basis for establishing current forage values. Second, determine the basis for establishing grazing fees. Third, determine appropriate pricing areas. Fourth, determine an appropriate procedure for updating the grazing fee (Bartlett, 1993). The GFTG believed that the primary way of establishing a grazing fee would be based on the value of forage on public lands and would therefore need to find a way to value the forage (Torell, 1993.) The group surveyed both private and public ranchers in order to determine the total cost of grazing livestock. The three states in which this survey took place were Idaho, New Mexico, and Wyoming (Torell, 1993).

This study produced many recommendations for future research on the grazing fee issue. From this study it was concluded that the market value of forage was the best way to obtain forage value. This form of value is obtained by comparing, or setting, the market value of public land forage even to the amount that buyers in a private permit market are willing to pay (Bartlett, 1993). This method included obtaining the total cost of grazing on private land and the non-fee costs of grazing on public land. The difference between the grazing costs was established as the forage value for public land and could also be considered the grazing fee amount (Bartlett, 1993). The other methods looked at to compare forage value were permit value, production analysis, and competitive bidding.

The permit value method used the permit value that occurred in a competitive market to determine the value of forage. Permit value is defined as the difference in costs of public and private grazing discounted over perpetuity. It is the amount that a willing buyer would pay a willing seller for a federal AUM. As costs change between grazing private and public land, the value of a permit fee balances out the supposed advantage of public land ranchers because they had already paid that difference. In the 1992 study a value of \$3.00 AUM^{-1} to \$5.00 AUM^{-1} was found based on the permit value approach. This method depends heavily on the interest rate used for permit investments, and it why it is not always promoted (Bartlett,1993).

The production analysis looked at various production analyses and budgets to value forage on public land. This method can be done without data on private and public leases. However, production costs of ranchers are needed for this analysis. Often, enterprise budgets are used in this technique to gather the value of the producer’s output and all costs, except the cost for federal forage are subtracted out. This then leaves a return for the public land forage. This method can be subjective as values are assigned to unpaid resources and leaves a wide range of forage values available based on the subjective amount assigned (Bartlett, 1993).

The competitive bidding valuation uses a real forage market system to find a value for public forage. By using the interaction of buyers and sellers, it is possible to indicate a value that buyers are willing to pay for public land forage. However, many factors such as structure, regulations, and staffing would limit the use of this method for valuing public land forage (Bartlett, 1993).

For reasons listed above, it was established that the market value approach was the best method to value forage. Under this method, the Total Cost Approach was used to value public land forage. The 1992 study found an average cost for Wyoming, Idaho, and New Mexico for both cattle and sheep grazing on public and private lands. For cattle, it was estimated to cost \$18.15AUM^{-1} on public land and \$19.04 AUM^{-1} on private land. This resulted in \$0.89 AUM^{-1} difference[2] for cattle. For sheep, it cost \$24.87 AUM^{-1} on public land and \$20.46 AUM^{-1} for private land. This resulted in a -\$4.41 AUM^{-1} for sheep. Almost all of the categories as defined in Table 1 were shown to be higher in cost for public land ranchers than private land ranchers. The possibility of this was said to be because of multiple uses and the regulations that public land ranchers must follow.

[2] The difference is computed as private land non-fee costs minus public land non-fee costs. A positive value indicates that private land non-fee costs are greater than those on public land and would be indicative of the what the federal grazing fee should be to equate total costs on private and public lands. A negative value shows it cost more to graze on public land.

The 1992 study aimed to update information on the grazing fee issue and give recommendations based on the findings. The final recommendations from this study were to keep the grazing fee in a range from \$3-5 AUM^{-1} and be applied west wide. The study found that it was not necessary to determine the grazing fee based on geographic location. The base grazing value should be updated annually with the Forage Value Index, and that the BLM and USFS should look into a potential bid system that could create a market for public land grazing (Bartlett, 1993).

Current Situation

Since the study that was conducted in the 1992 no further research has been done in comparing grazing costs between private and public land. However, since then, there have been changes in public land policy and the multiple uses it brings, economic conditions under which ranches operate, and the way in which society believes and thinks public lands should be utilized. Rimbey and Torell (2011) conducted a project to find the total grazing cost difference between private and public land grazers without conducting an in-depth survey like that of the 1992. These researchers used the information of grazing costs found in the 1992 and used the agricultural prices paid indices (NASS, 2011) to update the costs to as much as possible in 2010. This project used the same three states of New Mexico, Wyoming, and Idaho. In other words, they took the 1992 value of a particular category and multiplied it by the amount that the NASS index price has increased (Rimbey and Torell, 2011). This study found that in 2010 public land non-fee costs were around \$33.24 AUM^{-1}, and the private land non-fee costs were around \$32.04 AUM^{-1}. From this study it was estimated that the cost difference between public land and privately leased land was -\$1.20 AUM^{-1} with non-fee costs being higher on public land. Again, from this research comes the need to continue to update numbers for the federal grazing fee.

CHAPTER 3: METHODS AND DESIGN

Research Methods

This research project seeks to align as closely as possibly with the research done in 1992 by The Grazing Fee Task Group. The overall goal of this project is to evaluate the non-fee allotment costs associated with federal land grazing and grazing on privately leased land. In order to do this, non-fee costs must be obtained from federal allotment permittees along with those that graze on privately leased land. Information will be obtained on the categories listed on Table 1. It includes lost animals, association fees, veterinary fees, moving livestock, herding, labor and mileage, salt and feed, water, horses, improvement maintenance, development depreciation for federal and private land, private lease rates, and other expenses not captured elsewhere (Bartlett et al., 1993). An interview packet was retrieved from the 1992 study and updated to match the production year of 2018. Gathering all of the financial information for the year 2018 allows for the most accurate comparison between allotments and private leases.

The project and sampling protocols were approved by the University of Wyoming Institutional Review Board (Appendix A). In the beginning of 2020, the COVID-19 quarantine occurred, and therefore, a revised protocol for collecting data was submitted and approved by the board (Appendix A). COVID-19 caused further issues with collecting data and slowed the procedures.

The packet for the current study contains sections on range developments, range maintenance, other cash costs, miscellaneous costs, death loss, labor, transportation, and horse use (Table 1). A new section covering expenses involving technology was added to the survey. Technology has been a growing expense and structural change in ranching in the last 30 years, and therefore, technology costs were included in the 2018 survey.

Sampling Procedure

In beginning the sampling process, lists of federal permittees were retrieved from the Wyoming Stock Growers Association, Idaho Cattle Association, and California Cattleman's Association for each state. These lists included all permittees, both association and non-association members, from both the BLM and USFS. However, it was not specifically listed as to which agency a permittee was leasing from. The sample size for this project was based on the number of federal permittees in each state and was generated by the lists obtained for Wyoming, Idaho, and California.

The number of federal allotments needed for an adequate sample size was similar for each state. The sample size was based on a 90% confidence level with a 10% margin of error. As seen in Equation 2 the population proportion, z-score, percentage expected, and population size were used to determine the sample size for each state. (Survey Monkey, 2020).

$$Sample\ Size = \frac{z^2 xp(1-p)}{1+(\frac{z^2 xp(1-p)}{e^2 N})} (2)$$

Where, p = the population proportion

z = z-score

p = percentage expected

N = population size

Table 3 shows the desired number of allotments for Wyoming, Idaho, and California along with the components of the sample size equation. This is consistent with the 1992 study (Bartlett, 1993). In hopes of receiving at least a 50% response rate, the desired number was doubled before sampling to account for no responses or returned packages. A sample was then randomly generated from the list of federal permittees in each state using the Survey Monkey calculator (Survey Monkey, 2020).

Table 3. Minimum desired sample size for Wyoming, Idaho, and California.

	Population Size (N)	Margin of Error (€)	Z-score (z)	Percentage (p)	Sample Size
Wyoming	3469	10%	1.65	50%	68
Idaho	2443	10%	1.65	50%	68
California	851	10%	1.65	50%	64

Following the initial random sampling for each state, a project packet was sent to all permittees on the sampled list. The package contained the federal land (Appendix B) and privately leased (Appendix C) survey packets. The packet included a cover letter from UW research team, a consent form for the project, and a letter from the Public Lands Council and partnering state cattle or livestock association (Appendix D). A joint cover letter between Public Lands Council and each state association was used in hopes of increasing producer participation. It can be noted that using letters written by these associations could potentially favor a sector of the ranching community that is familiar with the association’s goals and values.

After the packet was sent, follow-up phone calls were made when phone numbers were available. Due to a low response rate, two follow-up letters were sent to unresponsive producers in all three states. For the state of Idaho, the desired sample size was reached after the first round of sampling. For this state alone, non-fee costs of federal and privately leased grazing took place with the addition of an analysis of non-fee grazing costs on state land. This part of the project was done for the Idaho Department of Lands and is not a direct part of this thesis research. The research team interviewed overlapping producers in Idaho simultaneously when possible. This combination of projects was beneficial in collecting an adequate sample size.

Due to a low response rate in Wyoming and California, it was decided a second list of federal permittees would be randomly sampled. The second list received the same packet, phone call, and follow-up letters as the first random sample. The financial information gathered from producers on the second list targeted data from 2018 in order to remain consistent throughout the project. Due to a low response rate for the second round of sampled permittees in both Wyoming and California, it was decided a third sample would be drawn. The third list received the same packet, phone call, and follow-up letters as the first two samples. All financial information was gained for the 2018 year to remain consistent throughout the project.

In order to gather private leases for the 1992 study, researchers worked closely with USDA-NASS to obtain information on private lease holders. In addition to this, past private lease holder lists were also available for the project. However, for the 2018 project, both of these methods were unavailable and other methods had to be utilized to gather private leases.

Private leases were located for the project using two methods. First, if a producer from the sampled federal list agreed to participate and had both federal allotments and private leases, two packets were filled out for that producer. Another method used to gather private leases was announcements and coordination with state agencies and associations. Announcement for private leases were made in Wyoming Stock Growers Association, California Cattleman's Association, and Public Lands Council publications. For the state of Wyoming, announcements were also posted in local Farm Service Agency and Conservation District offices.

This form of obtaining private leases does provide an error in independence between the two types of producers for the study. It also resulted in a nonrandom sample of respondents.

Interview Process

The interview process began after receiving initial contact from producers willing to participate in the study. Before the COVID-19 lock-down, the interview packet was filled out during an in-person interview. In the state of Idaho, interviews were conducted with the research assistant for the state lands research project. Besides one interview, all of the interviews for the state of Idaho were conducted in person. One interview took place over the phone due to timing and funding of the project.

For the state of Wyoming, in-person interviews were conducted for the first round of sampling. The second and third round of sampling took place at the beginning of 2020. At this time, COVID-19 forced travel restrictions by the University of Wyoming and travel for interviews was not permitted. Producers were given the choice of a phone interview or filling the packet on their own and returning it to the research team. In the case of the permittee filling out the packet on their own, it was necessary to keep close contact in case any questions arose for the producer. A follow-up call was then made by the research team when questions arose in reviewing the packet once it was mailed back.

For the state of California, no in-person interviews took place due to COVID-19 travel restrictions. All of the participants were given the choice of a phone interview or filling the packet out on their own. Once again, in the case of the permittee filling out the packet on their own, it was necessary to keep close contact in case any questions arose for the producer. A follow-up call was then made by the research team when questions arose while reviewing the packet once it was mailed back.

Cost Analysis

The research packet for this project consisted of 16 pages and obtained financial information on grazing on federal and privately leased land. Information was gained on basic allotment and private lease information including acreage, vegetation type, topography, grazing management, and AUM information. The AUM number and allotment/lease size were the main factors that were used for the 2018 study. The 1992 study used vegetation and topography to further compare federal and privately leased land, but this project did not conduct that type of analysis since our objective was not to determine whether different grazing fees should be established based on productivity.

The first cost information obtained through the packet was that of range developments. This was the only section of the survey that went back to years before that of 2018. This section collected total cost information on range developments that had taken place on a federal allotment or private lease. However, many allotments and leases had been in the producer's family for over 50 years, so improvement costs for the current permittee were the only development costs that were calculated for this survey. This left the assumption that the current permittee had only invested in improvements since they had taken over the allotment or lease. Total range developments were calculated on an annual cost based on the useful life of the development (NRCS, 2020) and an annual discount rate of 7% which is the standard rate used to portray long-term rate of return and risk factor. Labor and material costs associated with a development were included in the total development amount and not listed in a separate section. If labor was used for a development, the labor hourly wage provided by the producer was used to account for hours of work. This total was then added into the total range development cost.

After the range development section, non-fee costs were collected for the year 2018 only. The next section, maintenance, included any work done on range developments in 2018. Maintenance costs included materials, labor, and vehicle expenses needed to upkeep developments on an allotment or lease. If vehicle prices were counted in the maintenance section, the average cost per gallon of gasoline, $2.72 or $3.42 for diesel was used if mileage was given (EIA, 2021). Labor maintenance costs were also included in this section. Labor hourly wages were provided by producers for manager, family, hourly, and daily workers. Information on hours and number of workers was used to compute the total labor costs.

The other cash cost section consisted of salt, protein and supplements, grain, hay, contractor, predator, and other cash costs of the packet. Other cash costs included any expense not accounted for in the packet such as dog food, horse shoeing (if used for horses used on allotment), and vehicle repair (if occurred on allotment). If other cash costs were accounted for, the price was only used if the expense occurred during the time the livestock was on the allotment or lease and was weighted based on the amount of public or private the expense was used for.

Miscellaneous costs for this project accounted for expenses that occurred because of regulation and policy occurring on a federally owned or privately leased permit. This includes miles and hours accumulated for meetings and paperwork, vandalism repair, stray roundup due to fence or gate damage, and land or animal monitoring. If labor or vehicle miles were accounted for in this section, the average gas price for the year 2018 and the producer's hourly wage were used to compute the total. To avoid counting twice, miles and labor hours used for vandalism repair and stray roundup were not counted in the labor or vehicle expenses for maintenance.

For lost animal costs, any animal that was found dead or was not gathered off the allotment or lease was considered a death loss for the permit. It was assumed that cattle lost off of the allotment or lease would have made it to market, so prices received for cattle was used in calculated death loss. Cattle and sheep prices in each state for the year 2018 can be found in Appendix E.

When computing moving livestock and herding costs in the statistical analysis, information on labor hours and number of workers was obtained from each producer. Labor hourly wages were provided by producers for manager, family, hourly, daily, and exchange workers. Information on hours and number of workers was used to compute the total labor costs for each section of moving livestock and herding. Moving livestock included labor hours used to bring livestock to allotment, gathering, and moving livestock off allotment. Herding livestock included labor hours required to herd and distribute livestock while on the allotment, and animal health and inspection. Total labor costs for each category were then combined with the total vehicle costs to form total moving livestock and total herding costs.

When computing moving, herding, and travel vehicle costs in the analysis, gasoline costs of $2.72 and diesel averaging $3.42 were used (EIA, 2021). The moving livestock section included information on both labor and mileage for livestock to allotment, gathering, and moving livestock. If mileage was given for moving livestock to and from the allotment, mileage and number of vehicles was obtained. If a total hauling expense was involved, that total was added to the total moving cost for that allotment.

Horse cost involved horse use while livestock was on the federal allotment or private lease. Total horse numbers and days used were obtained for livestock to allotment, livestock distribution/herding/grazing management, livestock gathering, livestock off allotment, maintenance of allotment, and animal health and maintenance. Horse costs used the annual cost of horses by using an expected useful life and a discount rate of 7%. This total was then divided out based the percent federal land it was used on.

The last section included information on technology use on allotments or private leases. The first section asked for costs associated with cell phone applications that are paid for by the permittee or lessee. These can include applications for weather or GPS use. The second section obtains information on devices purchased for use on the federal allotment or lease. This can include, radios, GPS units, or drones. Annual cost was calculated for devices based on the useful life and a discount rate of 7%. This total was then divided out based the percent federal land it was used on.

Statistical Analysis

The goal of this project was to align as closely with the 1992 study. For this reason, similar analysis took place in order to create a comparison between the two studies.

First, the data were summed up for each individual section of the packet. The total costs for that particular section were added up and divided by the total number of federal or private AUMs. This then created a $\$\ \mathrm{AUM}^{-1}$ for each section of the packet. The study could have divided costs among allotment numbers since that is the sample size of the study. However, in order to align with the 1992 study, it was decided that costs would be divided out based on AUMs in order for a comparison between the two studies to be possible. Each section was then separated into a non-fee cost category used in the 1966 and 1992 studies as shown in Table 1. A total $\$\ \mathrm{AUM}^{-1}$ for public and privately leased land was summarized by totaling the $\$\ \mathrm{AUM}^{-1}$ for each cost category on the specific lease type. The average and median $\$\ \mathrm{AUM}^{-1}$ was then calculated along with the minimum and maximum $\$\ \mathrm{AUM}^{-1}$ to indicate the range of costs.

Multiple costs were analyzed for both federal and private leases between the three states and as a three-state average. Public and privately leased non-fee costs were summarized for each state. Total non-fee cost for each state was used to summarize a three-state weighted average. The weighted average took into account the number of cattle and sheep AUMs in the state. Costs were separated out to allow for comparison between BLM and USFS land. Differences were analyzed both within each state and as a three-state average. The averages for the 2018 study were then compared to those of the 1992 study. Costs were divided up based on size of allotment. In the 1992 study, the size of the permit or lease was found to have a large influence on the amount of costs the producer accrues (Bartlett, 1993). In order to understand and compare this trend, the project found the three-state average for small, medium, and large allotments. A small allotment or lease size was less than 500 AUMS. A medium allotment was between 501 and 1000 AUMS, and a large allotment being any AUM number higher than that.

Due to a lack of independence between federal allotments and private leases for this study a t-test to compare costs was not appropriate. A compiled private lease list was not available for the study, and therefore, it was necessary to use private leases from producers who also had a federal permit. This eliminated independence. For this reason, the study only reports total numbers, median, and minimum and maximum costs.

CHAPTER 4: RESULTS

This chapter will summarize the results for the current grazing project and compare them to the results of the 1966 and 1992 studies. First, an overall view of the data collected will be given for each state. This includes the total number of allotments, ranchers, and AUMs sampled for the project. Next, an analysis of the costs between federal allotments and private leases will be summarized separately for Wyoming, Idaho, and California. A summary of the 2018 study along with summaries of the 1966 and 1992 studies is displayed to allow for a comparison across time. Following that comparison, costs will be shown for grazing costs on BLM and USFS land for each state of the current project along with those of the 1992 project. Next, data costs are shown based on size of allotments and leases for the current and 1992 study, and are separated into small, medium, and large sizes.

Each table displays the average (mean), median, minimum, and maximum number for each data set and category. The average represents the mean cost associated with each particular category while the median represents middle cost, or the number that appeared in the middle of a sorted list of costs. Next, the minimum cost displays the lowest cost associated with any particularly category. The maximum cost then displays the highest cost for the category. Together these numbers provide a range for each category and data set. Collectively these numbers allows the reader to interpret data and identify any significant outliers.

Due to the low number of both federal allotments and private leases for sheep, it was decided that all public and privately leased totals for the 2018 study would be a combined weighted average between cattle and sheep. In other words, the costs for the 2018 include both cattle and sheep costs and no comparison is made between the two.

Total Numbers

For the state of Wyoming, there was a total response rate of 3% for the survey packets. That means 3% of the people who received the packet participated in the study. This number excludes packets that were returned to sender because of the wrong delivery address. For the state of Idaho, there was a total response rate of 6% for the survey packets. That means 6% of the people who received the packet participated in the study. This number excludes packets that were returned to sender. For the state of California, there was a total response rate of 4% for the survey packets. That means 4% of the people who received the packet participated in the study. This number excludes packets that were returned to sender.

The results for numbers included in the statistical analysis for Wyoming, Idaho, and California are listed below. As stated before, since the initial contact for this study included a joint cover letter between the Public Lands Council and each state association, a response bias is possible. It was felt that this response bias was worth the risk in order to validate a study conducted out of Wyoming into other states to encourage participation. To begin, Table 4 shows the number of allotments, ranchers, and AUMs collected for each state of the current project.

For the state of Wyoming, there was a total of 69 allotments sampled for grazing on federal land. As Table 3 indicates, Wyoming needed 68 allotment samples to reach a confidence level of 90%. This allotment number was composed of both BLM and USFS land with a total of 53 BLM allotments and 16 USFS allotments. There were 14 private leases sampled for Wyoming. All of the sampled private leases grazed cattle and no leases were recorded for sheep grazing.

For the state of Idaho, there was a total of 89 federal allotments sampled. As indicated on Table 3, the desired sample size for Idaho was 68 allotments in order to reach a 90% confidence interval. Of these 89 federal allotments, 60 of them were BLM and 29 were USFS. There were 18 private leases for the state of Idaho. Two of these leases recorded costs for sheep grazing and the rest recorded the cost of grazing cattle on private leases.

California had a total of 49 federal allotments sampled for the project. This resulted in an 85% confidence level for this state. In order to attempt to reach a confidence level of 90%, a total of three letters were sent to the sampled lists for California. Two of the letters were from the University of Wyoming research team and one letter was written jointly between California Cattleman's Association and Public Lands Council. Multiple announcements from the research team were posted in both California Cattleman's Association and Public Lands Council publications, and several phone calls were made in order to increase allotment numbers for this state. Of the allotments, 20 of them were on BLM land and 29 of them on USFS land. All of the federal allotments for California were grazed by cattle. No record was taken of sheep grazing on BLM or USFS land in California. There were 16 private leases for this state and only cattle grazing was recorded. No private lease contained information on sheep grazing in the state of California.

Table 4. Allotment, AUM, and rancher total for Wyoming, Idaho, and California. Numbers are divided out by cattle number and sheep number.

	Wyoming		Idaho		California	
	BLM		**BLM**		**BLM**	
	Cattle	Sheep	Cattle	Sheep	Cattle	Sheep
Total Number of Allotments	36	17	49	11	20	0
Total Number of Ranchers	17	3	21	5	14	0
Total AUMS	18492	15524	33596	12021	12628	0
	FS		**FS**		**FS**	
	Cattle	Sheep	Cattle	Sheep	Cattle	Sheep
Total Number of Allotments	12	4	20	9	29	0
Total Number of Ranchers	8	1	14	3	18	0
Total AUMS	7475	1737	24723	8365	19161	0
	Private		**Private**		**Private**	
	Cattle	Sheep	Cattle	Sheep	Cattle	Sheep
Total Number of Leases	14	0	16	2	16	0
Total Number of Ranchers	6	0	9	1	9	0
Total AUMS	22471	0	5463	565	5174	0

Private vs. Public

Wyoming

For the year 2018, the total non-fee cost of grazing on federal land in Wyoming was \$35.05 AUM^{-1}. The non-fee cost to graze on privately leased land for the same year was \$32.80 AUM^{-1} as shown in Table 5. The average private land lease rate in the state of Wyoming in 2018 was \$22.50 AUM^{-1} (NASS, 2021). The \$22.50 AUM^{-1} lease rate is considered a non-fee cost category and therefore, it is included in the total non-fee cost of privately leased grazing.

Table 5. Non-fee costs ($ AUM-1) on federal land and privately leased land in Wyoming.

Wyoming	2018 Public	2018 Private
Item		
Lost Animals	6.35	1.67
	(8.20,0.40,37.0)	(1.70,1.30,9.80)
Association Fees		
Veterinarian	0.23	0.03
	(0.09,0,2.87)	(0,0,0.29)
Moving Livestock	5.91	2.43
	(0.12,0,35.43)	(0.01,0,25.00)
Herding	7.14	2.42
	(0.13,0,46.06)	(0.01,0,25.00)
Salt and Feed	1.99	0.78
	(0.89,0,35.90)	(0.41,0.21,1.67)
Travel	0.04	0.01
	(0.03,0,0.28)	(0.003,0,0.45)
Water	1.36	0.21
	(0.80,0,50.86)	(0,0,1.12)
Horse Cost	1.01	0.01
	(1.12,0,5.59)	(0.01,0,0.04)
Maintenance	4.24	2.04
	(0.20,0,16.45)	(0.01,0,12.50)
Development Depreciation	4.86	0.43
	(1.21,0, 49.43)	(0,0,28.74)
Other Costs	1.86	0.25
	(0.64,0,13.40)	(0,0,10.75)
Technology	0.06	0.00
	(0.01,0,0.31)	(0,0,0)
Private Lease Rate		22.50
Total Non-Fee Costs	35.05	32.80
	(37.63,10.78,135.25)	(37.02,7.69,66.99)

Note: Numbers in parenthesis represent the median, minimum, and maximum numbers. The sample size for 2018 public was 69 allotments and the sample size for 2018 private was 14 leases.

Idaho

For the year 2018, the total non-fee cost of grazing on federal land in Idaho was \$29.83 AUM^{-1}. The average cost to graze on privately leased land for the same year was \$33.58 AUM^{-1} as shown in Table 6. The average private land lease rate in the state of Idaho in

2018 was \$18.00 AUM^{-1} (NASS, 2021). The \$18.00 AUM^{-1} lease rate is considered a non-fee cost category and therefore, it is included in the total non-fee cost of privately leased grazing.

Table 6. Non-fee costs ($ AUM-1) on federal land and privately leased land in Idaho.

Idaho		
	2018 Public	**2018 Private**
Item		
Lost Animals	7.48	2.53
	(4.30,0,54.60)	(1.20,0,17.90)
Association Fees		
Veterinarian	0.48	0.12
	(0,0,4.80)	(0.02,0,1.37)
Moving Livestock	5.68	4.36
	(0.06,0,38.46)	(0.16,0,51.43)
Herding	4.45	2.74
	(0.12,0,25.35)	(0.16,0,14.54)
Salt and Feed	1.96	1.08
	(1.0,0,12.60)	(1.15,0,7.22)
Travel	0.03	0.01
	(0.003,0,0.78)	(0,0,0.34)
Water	1.29	0.07
	(0.16,0,16.67)	(0,0,5.00)
Horse Cost	0.19	0.09
	(0.08,0,1.90)	(0.02,0,0.73)
Maintenance	4.06	2.62
	(0.16,0,20.00)	(0.30,0,14.00)
Development Depreciation	3.12	0.50
	(1.85,0,27.98)	(0,0,7.50)
Other Costs	1.05	1.34
	(0.31,0,7.94)	(0.14,0,10.01)
Technology	0.03	0.11
	(0,0,0.36)	(0,0,1.99)
Private Lease Rate		18.00
Total Non-Fee Costs	29.83	33.58
	(32.74,7.02,95.06)	(32.27,9.60,118.79)

Note: Numbers in parenthesis represent the median, minimum, and maximum numbers. The sample size for 2018 public was 89 allotments and the sample size for 2018 private was 18 leases.

California

For the year 2018, the total non-fee cost of grazing on federal land in California was \$28.79 AUM^{-1}. The average cost to graze on privately leased land was \$40.89 AUM^{-1} as shown in Table 7. The average private land lease rate in the state of California in 2018 was \$21.40 AUM^{-1} and was the number used to account for private lease rates in the study (NASS, 2021).

Table 7. Non-fee costs ($ AUM^{-1}) on federal land and privately leased land in California.

California		
	2018 Public	**2018 Private**
Item		
Lost Animals	2.75	2.72
	(2.43,0,31.58)	(2.26,0,7.70)
Association Fees	0.00	0.00
Veterinarian	0.14	0.53
	(0,0,5.28)	(0,0,1.34)
Moving Livestock	10.62	6.70
	(0.13,0,67.13)	(0.02,0,22.88)
Herding	4.44	1.57
	(0.13,0,37.13)	(0.08,0,5.71)
Salt and Feed	1.22	2.52
	(0.29,0,38.95)	(0.57,0.09,3.94)
Travel	0.03	0.01
	(0.01,0,1.21)	(0,0,0.09)
Water	0.96	0.14
	(0,0,12.92)	(0,0,0.75)
Horse Cost	0.37	0.18
	(0.13,0,3.25)	(0.02,0,1.23)
Maintenance	4.81	2.52
	(0.02,0,53.41)	(0.005, 0, 9.00)
Development Depreciation	2.48	2.01
	(0.35,0,17.09)	(0,0,34.73)
Other Costs	0.96	0.54
	(0.07,0,14.58)	(0,0,1.79)
Technology	0.03	0.03
	(0,0,0.99)	(0,0,0.60)
Private Lease Rate		21.40
Total Non-Fee Costs	28.79	40.89
	(19.88,0.14,183.40)	(19.95,3.49,81.72)

Note: Numbers in parenthesis represent the median, minimum, and maximum numbers. The sample size for 2018 public was 49 allotments and the sample size for 2018 private was 16 leases.

Three-State Average

The results for both federal and privately leased grazing costs for the 2018 study are displayed in Table 8. This table shows non-fee costs for the three states of the 2018 study and includes a weighted three-state average for federal and privately leased grazing. The average weighted cost between all three states accounts for the different number of cattle and sheep AUMS and adjusts average costs for each state. The weighted average non-fee costs for public land grazing in all three states for the year 2018 were \$31.08 AUM^{-1}. On privately leased land, the weighted average non-fee costs of grazing were \$34.18 AUM^{-1} as shown in Table 8.

Table 8. Averages by state and the three-state weighted average for public and privately leased grazing

	2018	
State	**Public**	**Private**
Wyoming	35.05	32.80
Idaho	29.83	33.58
California	28.79	40.89
Three State Average	31.08	34.18

The total non-fee grazing costs of public and privately leased land in the three states of the 1992 and 2018 studies are compared in Table 9. In the state of Wyoming, total costs of grazing on federal land were \$32.08 AUM^{-1} in 1992 and \$35.05 AUM^{-1} in 2018. For privately leased land, there was a total of \$38.10 AUM^{-1} in 1992 and \$32.80 AUM^{-1} in 2018.

In the state of Idaho, the 1992 study showed a total cost of \$35.83 AUM^{-1} for federal land and \$29.83 AUM^{-1} for federal land in 2018. A total cost of \$38.78 AUM^{-1} was found on privately leased land in 1992 and a total of \$33.58 AUM^{-1} was found in 2018.

No comparison can be made between California and New Mexico for the 1992 and 2018 study since they are two separate states that were studied.

Table 9. Non-fee costs of federal land and privately leased land in 2018 compared to totals of the 1992 study.

	1992			2018	
State	**Public**	**Private**	**State**	**Public**	**Private**
Wyoming	32.08	38.10	Wyoming	35.05	32.80
Idaho	35.83	38.78	Idaho	29.83	33.58
New Mexico	41.59	43.92	Calfironia	28.79	40.89
Three-State Average	40.07	43.37	**Three-State Average**	31.08	34.18

The total non-fee costs of public and privately leased grazing can be compared between all three studies that have taken place.

Starting in the 1966 study, an average non-fee cost between sheep and cattle on public land was \$27.14 AUM^{-1} in 2018 dollars as shown in Table 10. For privately leased land, a total non-fee cost of \$36.50 AUM^{-1} was found between cattle and sheep.

The 1992 revealed a weighted non-fee cost of grazing on public land of \$40.07 AUM^{-1} and a cost of \$43.37 for privately leased land.

The 2018 study showed a weighted non-fee cost of grazing on public land of \$31.08 AUM^{-1} and a cost of \$34.18 for privately leased land.

Table 10. Non-fee and total fee costs of federal land and privately leased land in Wyoming, Idaho, and California in 2018 compared to totals of 1996 and 1992 studies.

Item	1966 **Public**	1966 **Private**	1992 **Federal**	1992 **Private**	2018 **Federal**	2018 **Private**
All Values in 2018 $						
Lost Animals	2.06	1.41	6.19	3.46	6.18	1.99
Association Fees	0.55		0.99		0.00	0.00
Veterinarian	1.25	1.44	0.28	0.32	0.34	0.12
Moving Livestock	2.66	2.66	6.37	3.62	6.77	3.43
Herding	7.23	4.38	12.13	7.37	5.21	2.35
Salt and Feed	3.39	4.58	2.24	2.97	1.82	1.10
Travel	2.66	2.15	1.36	0.39	0.03	0.01
Water	0.72	0.62	0.90	0.28	1.24	0.17
Horse Cost	0.76	0.45	0.69	0.33	0.46	0.05
Maintenance	3.79	3.64	6.86	4.24	4.26	2.22
Development Depreciation	0.82	0.22	0.99	0.37	3.48	0.69
Other Costs	1.25	1.20	1.07	0.32	1.26	0.49
Technology					0.04	0.02
Private Lease Rate		13.77		19.70		18.00
Total Non-Fee Costs	27.14	36.50	40.07	43.37	31.08	34.18

[1] Averages for 1966 weighted by 80% cattle and 20% sheep AUMS (Obermiller, 1992)

[2] Averages for 1992 weighted by 88% cattle and 12% sheep (Bartlett, 1993)

[3] Averages for 2018 study weighted by 80% cattle and 20% sheep

BLM vs. USFS

The results of comparing the total non-fee costs of livestock grazing on different land ownership types are summarized below. This section will look at the non-fee costs of grazing, regardless of livestock type, on Bureau of Land Management (BLM), U.S Forest Service (USFS), and private land. This analysis was done in the 1992 study as well and both studies will be looked at.

For the state of Wyoming, the total non-fee costs of grazing on BLM land in 2018 was \$30.56 AUM^{-1}. The total non-fee cost of grazing on USFS land was \$49.88 AUM^{-1}. For the state of Idaho, the non-fee cost to graze on BLM land was \$33.22 AUM^{-1} and \$25.15 AUM^{-1} on USFS. Lastly, in the state of California the total non-fee cost to graze on BLM land was \$22.49 AUM^{-1} and \$32.95 AUM^{-1} on USFS land as shown in Table 11.

Table 11. Total non-fee costs of grazing on BLM, USFS, and private land in Wyoming, Idaho, and California for the year 2018.

	Wyoming		Idaho		California	
	BLM	**USFS**	**BLM**	**USFS**	**BLM**	**USFS**
Item						
Lost Animals	5.38 (7.80,0.40,24.80)	9.94 (8.30,1.40,37.00)	7.79 (3.50,0,45.50)	7.06 (7.50,0,54.60)	2.14 (2.09,0,20.85)	3.15 (2.43,0,31.58)
Association Fees						
Veterinarian	0.25 (0.09,0,2.87)	0.16 (0.03,0,0.53)	0.37 (0.02,0,3.24)	0.63 (0,0,4.81)	0.18 (0,0,5.28)	0.11 (0,0,3.98)
Moving Livestock	4.57 (0.13,0,35.43)	10.87 (0.16,0,24.48)	5.23 (0.06,0,23.94)	6.30 (0.05,0,38.46)	8.58 (0.005,0,48.28)	11.96 (0.61,0,67.13)
Herding	5.65 (0.11,0,16.79)	12.63 (0.23,0,46.06)	5.31 (0.19,0,51.43)	3.28 (0.08,0,12.20)	2.89 (0.04,0,24.83)	5.47 (0.16,0,37.13)
Salt and Feed	2.31 (1.02,0,35.89)	0.79 (0.43,0.13,4.65)	2.61 (0.95,0,12.62)	1.06 (0.43,0,2.50)	0.29 (0.26,0.09,5.37)	1.84 (0.49,0.11,38.95)
Travel	0.03 (0.03,0,0.17)	0.07 (0.03,0,0.28)	0.04 (0.003,0,0.63)	0.02 (0.002,0,0.78)	0.02 (0.01,0,1.21)	0.04 (0.01,0,1.01)
Water	1.12 (0.81,0,50.86)	0.48 (0.06,0,2.06)	1.85 (0.31,0,16.67)	0.53 (0.08,0,7.86)	1.34 (0,0,5.29)	0.71 (0.14,0,12.92)
Horse Cost	0.79 (0.89,0,5.59)	1.81 (1.63,0.01,5.05)	0.13 (0.06,0,0.96)	0.28 (0.13,0,1.89)	0.18 (0.06,0,3.25)	0.49 (0.14,0,1.62)
Maintenance	3.82 (0.15,0,50.86)	5.79 (0.26,0,16.45)	4.55 (0.25,0,20.00)	3.37 (0.08,0,15.00)	3.68 (0.002,0,11.25)	5.55 (0.06,0,53.41)
Development Depreciation	4.95 (1.21,0,49.43)	4.55 (4.82,0.05,19.27)	3.93 (1.26,0,26.22)	2.01 (1.88,0,27.98)	2.79 (0.17,0,8.46)	2.27 (1.07,0,17.09)
Other Costs	1.61 (0.64,0,6.73)	2.77 (0.64,013.40)	1.39 (0.25,0,7.94)	0.59 (0.35,0,4.50)	0.37 (0,0,5.83)	1.34 (0.20,0,14.58)
Technology	0.07 (0.01,0,0.31)	0.03 (0.03,0.0.30)	0.03 (0,0,0.36)	0.02 (0,0,0.35)	0.03 (0,0,0.62)	0.03 (0,0,0.99)
Total Non-Fee Costs	30.56 (37.10,10.78,87.50)	49.88 (45.52,31.17,135.25)	33.22 (32.52,7.02,91.12)	25.15 (33.17,17.74,95.06)	22.49 (12.77,0.14,76.56)	32.95 (38.80,8.05,184.63)

Numbers in parenthesis represent the median, minimum, and maximum numbers. The sample size for Wyoming public was 53 BLM allotments and 16 USFS allotments. The sample size for Idaho was 60 BLM allotments and 29 USFS allotments. The sample size for California was 20 BLM allotments and 29 USFS allotments.

Table 12 shows the 2018 study results alongside the results from the 1992 study. As shown, for the state of Wyoming, the total non-fee cost of grazing on BLM land was $30.96 AUM^{-1}. The non-fee cost of grazing on USFS land in 1992 was $35.94 in the state of Wyoming. The total non-fee cost to graze on BLM land in the state of Idaho was $32.85 AUM^{-1} and $48.02

AUM^{-1} to graze on USFS. For the state of New Mexico, it was \$33.84 AUM^{-1} to graze on BLM land and \$54.62 AUM^{-1} on USFS. This led to a three-state weighted average of \$35.99 AUM^{-1} for BLM land, \$51.04 AUM^{-1} for USFS land, and \$41.91 AUM^{-1} for private land.

Table 12. Total non-fee costs of grazing on BLM, USFS, and private land in Wyoming, Idaho, and New Mexico in 1992 along with the costs in Wyoming, Idaho, and California in 2018. All numbers have been updated to 2018 dollars.

	1992				2018		
	BLM	USFS	Private		BLM	USFS	Private
All values in 2018 $							
State				State			
Wyoming	30.96	35.94	38.78	Wyoming	30.56	49.88	32.80
Idaho	32.85	48.02	43.92	Idaho	33.22	25.15	33.58
New Mexico	33.84	54.62	38.10	California	22.49	32.95	40.89
Three-State Average	35.99	51.04	41.91	Three State Average	30.77	31.29	34.18

<u>Allotment Size</u>

In order to compare how allotment size influences non-fee costs of private, BLM, and USFS grazing, a comparison was done between different allotment sizes based on AUM number. The allotments and private leases were split into three categories. The first category was size small and covered any allotment or private lease with a total AUM number equal to or below 500. Next was size medium and covered an AUM total above 500 but below 1000. Lastly, size large covered any AUM size that was above 1000. This allotment or private lease size comparison was also performed in the 1992 grazing study and a comparison between the two studies is made.

The results for non-fee costs divided among allotment and lease size is shown in Table 13. The total non-fee cost of grazing on small private leases was \$34.14 AUM^{-1} and \$31.28

AUM^{-1} for medium size leases in the 2018 study. The total non-fee cost for large allotments was \$30.42 AUM^{-1}. For BLM small allotments, the total non-fee cost was \$35.68 AUM^{-1} and \$38.35 AUM^{-1} for medium size allotments. The total non-fee cost to graze on large BLM allotments in 2018 was \$28.70 AUM^{-1}. The total non-fee cost for USFS land was \$61.02 AUM^{-1} for small allotments, \$39.41 AUM^{-1} for medium allotments and \$21.73 AUM^{-1} on large allotments.

Table 13. Total non-fee costs based on different allotment size (small, medium, large) on public and private lands.

2018			
	Private	**BLM**	**USFS**
AUM Size (S) Category			
S ≤ 500	34.14	35.68	61.02
	(32.09,3.49,118.79)	(37.10,0.36,91.12)	(38.88,11.61,184.63)
500 < S < 1000	31.28	38.35	39.41
	(24.49,7.69,81.72)	(33.13,0.14,87.50)	(39.67,13.29,106.15)
S ≥ 1000	30.42	28.70	21.73
	(25.41,9.60,66.99)	(22.28,8.43,60.71)	(20.15,8.05,39.50)

Numbers in parenthesis represent the median, minimum, and maximum numbers. The sample size for BLM allotments was 91 small, 17 medium , and 25 large. The sample size for USFS allotments was 36 small, 24 medium, and 14 large. The sample size for private leases was 28 small, 9 medium, and 11 large.

Table 14 shows a comparison between allotment sizes for the 1992 and 2018 studies. As shown in the table, the total non-fee cost of grazing on small private leases was \$47.44 AUM^{-1} for cattle and \$46.47 AUM^{-1}for sheep in the 1992 study. A total of \$42.97 AUM^{-1} for cattle grazing on medium was found and \$42.20 AUM^{-1} for grazing sheep. The total non-fee cost for large allotments was \$45.46 AUM^{-1} for cattle and \$48.96 AUM^{-1} for sheep. An extra size category in the 1992 study showed a total of \$31.74 AUM^{-1} for cattle grazing and \$42.51 AUM^{-1} for sheep grazing on allotments larger than 3000 AUMs.

For BLM small allotments in the 1992 study, the total non-fee cost was \$44.03 AUM^{-1} for cattle and \$77.03 AUM^{-1} sheep. For medium size allotments in 1992, a total of \$30.29 AUM^{-1} was found for cattle on BLM land and \$46.67 AUM^{-1} for sheep. The total non-fee cost to graze on large BLM allotments in 1992 was \$33.57 AUM^{-1} for cattle and \$57.52 for sheep. For the large category consisting of allotments larger than 3000 AUMs, a total of \$27.85 AUM^{-1} was found for cattle and \$23.36 AUM^{-1} for sheep.

For USFS small allotments in the 1992 study, the total non-fee cost was \$65.61 AUM^{-1} for cattle and \$99.86 AUM^{-1} sheep. For medium size allotments in 1992, a total of \$49.86 AUM^{-1} was found for cattle on USFS land and \$66.39 AUM^{-1} for sheep. The total non-fee cost to graze on large USFS allotments in 2018 was \$42.99 AUM^{-1} for cattle and \$68.09 for sheep. For the large category consisting of allotments larger than 3000 AUMs, a total of \$34.30 AUM^{-1} was found for cattle and \$53.45 AUM^{-1} for sheep.

Table 14. Total non-fee costs based on different allotment and lease size (small, medium, large) for both the 1992 and 2018 studies. All numbers have been updated to match the year 2018.

	1992						2018		
	Cattle			Sheep					
AUM Size (S) Category	Private	BLM	USFS	Private	BLM	USFS	Private	BLM	USFS
	All Values in 2018 $								
S ≤ 500	47.44	44.03	65.61	46.47	77.03	99.86	34.04 (32.09,3.49,118.79)	35.71 (37.10,0.36,91.12)	60.89 (38.88,11.61,184.63)
500 < S < 1000	42.97	30.29	49.86	42.20	46.67	66.39	31.26 (24.49,7.69,81.72)	38.35 (33.13,0.14,87.50)	39.27 (39.67,13.29,106.15)
S ≥ 1000	45.46	33.57	42.99	48.96	57.52	68.09	30.38 (25.41,9.60,66.99)	28.70 (22.28,8.43,60.71)	21.73 (20.15,8.05,39.50)
S > 3000	31.74	27.85	34.30	42.51	23.36	53.45			

Numbers in parenthesis represent the median, minimum, and maximum numbers for the 2018 study. The sample size for BLM allotments was 91 small, 17 medium , and 25 large. The sample size for USFS allotments was 36 small, 24 medium, and 14 large. The sample size for private leases was 28 small, 9 medium, and 11 large.

CHAPTER 5: DISCUSSION

This section will focus on discussing the results of the current study. Discussion will be made on potential differences of total non-fee costs between public vs. private, BLM vs. USFS, and allotment and lease size. Discussion will also take place on comparisons and trends between the 1966, 1992, and 2018 studies.

Due to the lack of number of sheep allotments for the 2018 study, it was decided all costs would be summarized for public and privately leased land. This number would reflect both cattle and sheep grazing where possible. No sheep data were collected for Wyoming privately leased land or California public and privately leased land. Idaho had a total of two private sheep grazing leases. For this reason, it was decided sheep would not be correctly represented and weighted totals would be calculated for all comparisons.

Private vs. Public

Differences in total non-fee costs between public and privately leased land can potentially come from any of the cost categories previously discussed. Each category has the potential to be higher on either type of land and for multiple different reasons. Common reasons for added costs in each category will be discussed below.

Livestock loss on an allotment or lease often comes from predation or overall loss of the animal. This can be from predators killing livestock directly or from livestock never being found and recovered off the allotment or lease. If livestock were not found or recovered off an allotment or lease it is counted as a loss because the animal never made it to market. This can occur because of the size and terrain of allotments or leases. It can also come from gates and fences being left open and livestock wandering away from the area. Gates being left open or fence damage can be more common on federal land because of multiple use. This can add to a higher number of users on the land and resulting in more damage or wear on property.

Occasionally, veterinarian jobs have to be completed out on allotments or leases because the livestock do not come home before heading somewhere else. This is especially the case when allotments or leases are located far away from the ranch headquarters and transporting livestock back and forth is not possible. These expenses often come from bills or materials used on the allotment to treat injured or sick animals. If an allotment or lease is in a steep area with rough terrain, there is potential for an increase in injury to livestock.

Moving and herding expenses can increase on an allotment or lease for multiple different reasons. If the allotment or lease is large it can require more vehicle miles, labor, labor hours, and horses to locate livestock. It often takes more vehicle miles and labor to move livestock around in the allotment or lease, especially if pastures are not available. These expenses can also increase if the lease or allotment is located in an area with rough terrain.

Salt, mineral, and supplemental feed can also increase on an allotment or lease if pastures are not available. Salt and mineral can often be used to move livestock around an allotment or encourage livestock to move away from water sources if needed. Minerals are also used if livestock is out on a lease or allotment for an extended period of time.

Travel expenses can increase on an allotment or lease if travel is required to meet with federal personnel or a landlord. Expenses in this category can also increase if gates are left open and livestock gets out or if fence damage allows for livestock to wander. This is often the case with federal land as multiple use requires producers to share the land with other public users. This can potentially increase the likelihood of fence or gate damage.

Water costs can increase on an allotment or lease if there is no water on the land. This can then require the producer to haul water which increases vehicle and labor expenses. Water costs can also increase if a producer has to put materials, labor, and vehicle miles into maintaining and fixing water developments on an allotment or lease.

Horse costs can often be high on federal land due to the large size of allotments or leases. Horses are sometimes needed over OHV's because they are not allowed in federally protected areas or the terrain is too rough. It can also require more horse use to gather and move livestock if the allotment or lease is large in size or located in rough terrain.

One cost category that can often be high is that of development depreciation and maintenance. These costs can potentially be higher on federal land because it is the responsibility of the federal permittee to maintain and provide upkeep on developments on allotments. This includes labor, materials, and vehicle miles. Often, developments and maintenance are included with a private-lease rate, and therefore the producers are usually not responsible for these costs.

Other cash costs that can be associated with grazing on federal and privately leased land are materials and labor needed for predator. Other costs, especially for sheep producers, can include dog food while the dogs are out on the allotment or lease. This category also included any contract work done on a lease or allotment.

Technology has become an increasing cost of grazing on privately leased and federal land. Often, especially if the area is large and has rough terrain, GPS units and two-way radios are used by the hired labor. This can increase the cost to the producer because there is an initial investment in the tools.

Three States

The trend in costs of total non-fee costs of privately leased and public land could potentially be from a recent increase in development costs, multiple use, and federal policy. Federal land permittees have to put more financial resources into improvements, maintenance, vandalism, and stray roundup repair on federal permits than they do on privately leased land. Often, private leases are treated as a rental where the landowner is responsible for general maintenance and upkeep. This includes developments on the property as well. Federal land permittees are responsible for water and fence developments along with the materials and labor to maintain them.

The trend of non-fee costs of public and privately leased land could also come from BLM and USFS lands requiring multiple use management. This concept of multiple use means that recreation and business industries may utilize the land along with the livestock industry. Examples include hunting, fishing, hiking, oil and gas, OHV, endangered species, and biodiversity among other uses. Often livestock producers are in charge of road maintenance, fencing, water development, and other facilities that other federal land users come in contact with. Repairing and maintaining these facilities can add expenses to a federal permittees non-fee cost. In recent years, population growth has led to a higher use of federal lands for different outdoor activities. This could be leading to a higher cost of maintenance and repairs for the federal permittee on BLM or USFS land.

Federal policy can also potentially influence the total non-fee costs that federal land permittees pay for grazing. Changes in the Threatened or Endangered Species in the United States can also influence non-fee costs of federal permittees. If a land area is considered critical habitat for an endangered species, it is the responsibility of the federal land agency to make sure actions on that land do not harm or modify the habitat (FWS, 2018). This can sometimes result in an alteration of AUMs or the grazing season on a federal allotment.

<u>BLM vs. USFS</u>

Differences in total non-fee costs between BLM and USFS land can potentially come from any of the cost categories previously discussed. Each category has the potential to be higher on either type of land for multiple different reasons. Common reasons for added costs in each category will be discussed below.

Lost animals on a BLM or USFS allotment can cause differences between the two types of land. Often, USFS allotments are located in steep, remote, and forested areas. This can account for an increase in death loss because of the allotments being in hard-to-reach areas or the inability to find animals that stray. If an animal is not located and moved off the lease it is counted as a death loss. Predation on both BLM and USFS land can also account for lost animals.

Veterinarian jobs have to be completed out on BLM or USFS land because the livestock do not come home before heading somewhere else. This is especially the case when allotments or leases are located far away from the ranch headquarters and transporting livestock back and forth is not possible. USFS land can be located far away from ranch headquarters and is often in rough and steep locations. For this reason, veterinary bills can potentially be high on USFS because animals are at a higher risk of injury because of the rough terrain.

Often, there can be a difference in moving and herding costs between BLM and USFS land. This is often because USFS land is in harder to reach areas with steeper terrain. This can require more time, labor, and vehicle miles to locate animals and move them around the allotment or lease. If the area is heavily forested this can also increase the time to gather and move livestock off the allotment. This then increases labor and vehicle costs for the producer.

Salt and feed costs can occur on both BLM and USFS land. Salt can be used as a way to move livestock around a federal allotment. Animals can congregate around a water source or riparian area causing damage to soil and vegetation in these places. Salt and minerals can be used to encourage movement to other parts of the allotment.

Travel expenses can increase on BLM and USFS land if travel is required to meet with federal personnel or travel is required for paperwork. Expenses in this category can also increase if gates are left open and livestock get out, or if fence damage allows for livestock to wander. This is often the case with federal land as multiple use requires producers to share the land with other public users. This can potentially increase the likelihood of fence or gate damage. Expenses can be especially high on USFS land if the allotment is located farther from ranch headquarters and more gas is needed to get to and from the allotment.

Water and other developments, development depreciation, and maintenance tend to be high on both BLM and USFS land. Often, developments centered around fencing and roads are higher on USFS because of the remote locations. These areas often have more snow which can result in more fence and other development damage. However, water developments can potentially be higher on BLM land. This is due to the fact that forested areas often have more water sources for livestock. Often, BLM land does not come with water sources and developments must be made to acquire them.

Costs of horse use can potentially be higher on BLM and USFS land. If an allotment is located in a remote or steep area, more horses could be required to locate, gather, and move livestock. This is especially true if an area is federally protected and does not allow OHV use or is too rough for vehicle use.

Other costs such as predator control or expenses can be high on both BLM and USFS land. Often, if sheep producers are involved there are added expenses of food, dog food, shelter, and other bills that come with having labor with livestock 24 hours per day and 7 days a week.

Technology has been a growing expense for both BLM and USFS land. These lands, especially USFS, can be located in remote areas. This can then require labor to use GPS or two-way radios if cell phone reception is not available.

Allotment Size

Allotment and lease size can potentially influence the overall total non-fee costs a producer is paying. There are multiple reasons this can occur on both private leases and federal allotments.

Smaller allotments and leases can often lead to higher prices because grazing costs are spread out over fewer AUMs. Categories such as development and maintenance costs are often consistent but fewer livestock utilize them. Larger costs for smaller allotments and leases could also come from labor and transportation costs. The same amount of labor and vehicles could potentially be used on a small allotment or lease as on a large one, especially for gathering livestock on and off the land. If the allotment or lease is located away from the ranch, the transportation costs can increase while the small number of AUMs to distribute the costs can remain the same.

Large allotment sizes can also lead to higher costs per AUM for a producer. This can be because of the labor number, labor, hours, and vehicle miles needed to move livestock around a lease or allotment. It can take longer to locate livestock and longer to gather and move them within the allotment or lease. A large allotment or lease can also lead to an increase in the time it takes to transport livestock off an allotment. This again can be due to size making it more difficult to locate animals. There can also be a potential increase in development and maintenance costs if more materials and labor must go into an increased number of developments. Fence maintenance in particular can increase with a large allotment or lease due to the miles that require annual upkeep or development.

<u>Additional Non-fee Issues</u>

There were many additional factors that influence non-fee costs on both federal and privately leased land but are not easily quantified. The first issue is that of multiple use on federal land. Although some expenses such as vandalism, stray roundup, and road maintenance could be quantified, many other expenses that fall on federal land permittees were left out. With the increase of multiple use activities occurring on federal land comes the increase in livestock-human interaction. Privately leased permits have the advantage of private property rights and the ability to prohibit other uses of the land. Federal permittees must work with the general public in order to use the land and this can occasionally result in user conflict. While livestock interaction does not always lead to death or injury, it is possible that interaction with humans and OHVs can cause stress which leads to a decrease in weight and breeding. OHVs and other vehicles can cause damage to the roads and possible water developments that the permittees must fix or risk damage to vehicles.

Another consideration for both federal and privately leased land grazing is that of an increase in predation, especially in northern Wyoming and Idaho. While direct kills influence livestock deaths, it is difficult to quantify stress and injury due to predators (Steele et al., 2013). Interactions with predators can cause stress to an animal that influences their weight and ability to breed for the following year. Some cases reported in Idaho also mentioned direct injury to the livestock that did not directly result in death but influenced prices received at market.

Other Considerations

As stated before, it was not possible to produce a test that looks at significant differences between public and privately leased grazing. This is because of a lack of independence in the study. Due to the nature of obtaining private leases for this project, it was not possible to separate out producers filling out a form for federal allotment and those filling out one for private leases. There was no single list that this project could obtain that contained private leases for each state in the study. For this reason, it was necessary to gather private leases by overlapping with producers who also held a federal permit or gathering by association announcements. Again, by using the associations it has the potential to bias the results of the study.

For this reason, it was necessary just to report average total costs along with the median and range of $ AUM^{-1} for both federal allotments and private leases.

In the 1992 study, they concluded the study by recommending a grazing fee range of $3-5 which is a range of $6.60-11.01 in 2018 dollars (Bartlett, 1992). For this study, the overall numbers reported would not fall within this suggested range.

CHAPTER 6: CONCLUSIONS AND FUTURE RESEARCH NEEDS

In conclusion, the overall non-fee total for federal land grazing in the states of Wyoming, Idaho, and California was \$31.08 AUM^{-1}. For privately leased grazing in these same states, it was \$34.18 AUM^{-1} to graze. This would imply a federal grazing fee of \$3.10 to make the total costs of grazing be equal for public and privately leased land. The overall non-fee total to graze on BLM land in Wyoming, Idaho, and California was \$30.77 AUM^{-1} and \$31.29 AUM^{-1} on USFS land. A small allotment size brought a total of \$34.14 AUM^{-1} for private land, \$35.68 AUM^{-1} for BLM, and \$61.02 AUM^{-1} for USFS land. Medium allotment and lease sizes showed a total non-fee cost of \$31.28 AUM^{-1} for private land, a \$38.35 AUM^{-1} for BLM land, and \$39.41 AUM^{-1} for USFS land. Finally, for large allotment and leases a total non-fee cost of \$30.42 was shown for private, \$28.70 AUM^{-1} for BLM, and \$21.73 AUM^{-1} for USFS land.

When looking at non-fee costs of federal and privately leased grazing in the United States, it is important to identify and interpret the differences and similarities between the two types of grazing land. Research on this topic started in the 1960s, continued into the 1990’s, and must be updated in order to compare between the two types of grazing. Before this study, it had been over 30 years since these numbers were examined. Future research on this topic would be beneficial in identifying trends in grazing costs of public and privately leased grazing. It can potentially help producers identify where costs will be high in either type of grazing situation. Understanding and revealing a trend in non-fee grazing costs can aid federal agencies and private grazing industries in managing grazing. It can also help ensure that neither public nor private ranches have a competitive advantage over the other. In other words, if the total costs of grazing are the same between public and privately leased ranching then the playing field would be level.

As shown in the three states examined in this study, there can be differences based on location and some ranches will always have an advantage over other ranches due to a variety of factors beyond the scope of a non-fee cost study.

That is why it is recommended to update these numbers occasionally. This would aid in having the data that compares the two types of grazing on a more regular basis. Such information can aid in discussions of public land grazing. Future research on this topic would leave to an overall better understanding of the non-fee costs of federal land grazing.

It is recommended that future studies include more or all states to truly capture differences. If personal interviews are used as the method for data collection, teams of two interviewers are generally more efficient. One can ask questions and the other can record results. Due to the complexity of the data in allocating costs to public permits or private leases, the research team will need to be involved. It is unlikely that a mail-only or web-based survey instrument will be effective in gathering this information.

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APPENDIX A

UNIVERSITY OF WYOMING

Vice President for Research & Economic Development
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June 12, 2019

John Tanaka
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Protocol #20190612JT02426

Re: IRB Proposal "*Evaluating Non-fee Grazing Permit Costs in the Context of Social and Economic Characteristics of Public Land Ranchers*"

Dear John, Kasey, Tom, and Kristie:

The proposal referenced above qualifies for exempt review and is approved as one that would not involve more than minimal risk to participants. Our exempt review and approval will be reported to the IRB at their next convened meeting on June 20, 2019.

Any significant change(s) in the research/project protocol(s) from what was approved should be submitted to the IRB (Protocol Update Form) for review and approval prior to initiating any change. Further information and the forms referenced above may be accessed at the "Human Subjects" link on the Office of Research and Economic Development website: http://www.uwyo.edu/research/human-subjects/index.html. Please note that exempt protocols are approved for a maximum of three years. If your study extends beyond three years, or beyond the duration that is approved in your protocol form, please be sure to submit an update before expiration to extend the duration. If you are not able to submit the update in time, you will need to submit a new exemption request for the project.

You may proceed with the project/research and we wish you luck in the endeavor. Please feel free to call me if you have any questions.

Sincerely,

Nichole Person

Nichole Person
Staff Assistant, Research Office
On behalf of the Chairman,
Institutional Review Board

UNIVERSITY OF WYOMING

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August 3, 2020

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Research Scientist
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Protocol #20190612JT02426

Re: IRB Proposal "*Evaluating Non-fee Grazing Permit Costs in the Context of Social and Economic Characteristics of Public Land Ranchers*"

Dear John, Kasey, Tom, and Kristie:

The proposal referenced above qualifies for exempt review with a minor modification and is approved as one that would not involve more than minimal risk to participants. Our exempt review and approval will be reported to the IRB at their next convened meeting August 20, 2020.

Any significant change(s) in the research/project protocol(s) from what was approved should be submitted to the IRB (Protocol Update Form) for review and approval prior to initiating any change. Per recent policy and compliance requirements, any investigator with an active research protocol may be contacted by the recently convened Data Safety Monitoring Board (DSMB) for periodic review. The DSMB's charge (sections 7.3 and 7.4 of the IRB Policy and Procedures Manual) is to review active human subject(s) projects to assure that the procedures, data management, and protection of human participants follow approved protocols. Further information and the forms referenced above may be accessed at the "Human Subjects" link on the Office of Research and Economic Development website: http://www.uwyo.edu/research/human-subjects/index.html. Please note that exempt protocols are approved for a maximum of three years. If your study extends beyond three years, or beyond the duration that is approved in your protocol form, please be sure to submit an update before expiration to extend the duration. If you are not able to submit the update in time, you will need to submit a new exemption request for the project.

You may proceed with the project/research and we wish you luck in the endeavor. Please feel free to call me if you have any questions.

Sincerely,

Nichole Person

Nichole Person
Staff Assistant, Research Office
On behalf of the Chairman,
Institutional Review Board

APPENDIX B

2019 Grazing Cost Evaluation

Federal Grazing Costs

This evaluation is being conducted in selected western states to accurately determine the total costs of running livestock on federal and privately leased rangeland. The purpose of this information is to update the costs of federal and private grazing for western livestock producers. This survey is being conducted by the University of Wyoming, Wyoming Stock Growers Association, Idaho Cattle Association, and the Public Lands Council. It is intended that results from this cost evaluation will provide a valid comparison between private and public grazing costs to use in evaluating grazing fees.

Be assured that any information you provide will be strictly confidential. Only summary statistics by state or region will be released.

Enumerator

____

I. GENERAL RANCH DESCRIPTION

The following information is for the 2018 operating year. Please include accurate information for your land as well as your federal allotments.

A. What was your average livestock inventory on January 1, 2018?

1.) Mother Cows____________ No.Repl. Heifers_____________ No.
Bulls___________________ No.

2.) Yearling market livestock (Over 6 months of age)
Raised Steers____________ No. Raised Heifers____________ No.

Purchased Steers_________ No.Purchased Heifers_________ No.

3.) Ewes___________________ No.Rams___________________ No.
Yearlings________________ No.

4.) Horses__________________ No.

5.) Other Livestock (specify) _______________________No.

II.LIST OF ALLOTMENTS

A. Are your allotments managed as separate units ☐ or as one large block of land ☐ ?

B. In this please provide a list of all federal allotments permitted/leased in 2018.

1. Allotment 1

Allotment Number

Operator Number

Is this allotment a BLM ☐ or USFS allotment ☐ ?

Name of BLM field office or Forest ranger district in which allotment is located:

2. Allotment 2

Allotment Number

Operator Number

Is this allotment a BLM ☐ or USFS allotment ☐ ?

Name of BLM field office or Forest ranger district in which allotment is located:

3. Allotment 3

Allotment Number

Operator Number

Is this allotment a BLM ☐ or USFS allotment ☐ ?

Name of BLM field office or Forest ranger district in which allotment is located:

C. For any additional allotments please add another page like this one.

III. ALLOTMENT CHARACTERISTICS AND MANAGEMENT

This section will be filled out for allotments identified in Part II and used during 2018.

A. Allotment Information

	Allotment 1	Allotment 2	Allotment 3
Allotment Name			
Allotment Number			
Individual or common allotment?			
If BLM, classified as Section 3 or Section 15?			
IF BLM, categorized as M, I, or C?			
Total 2018 Grazing Use (AUMs)			

B. Allotment Acreage and Ownership

Type of Ownership	Acreage			AUMS of Grazing		
	Allotment 1	Allotment 2	Allotment 3	Allotment 1	Allotment 2	Allotment 3
Bureau of Land Management						
U.S. Forest Service						
Other Federal						
State Trust Land						
Private Lease						
Uncontrolled						
Other (describe)						

TOTAL						

C. What type of vegetation is on this grazing allotment?

Type	Allotment 1	Allotment 2	Allotment 3
(1) Sagebrush	%	%	%
(2) Salt Desert Shrub (Atriplex, Greasewood)	%	%	%
(3) Chaparral (Oakbrush, Mt. Mahogany, Chamise)	%	%	%
(4) Creosote bush (Blackbrush, cactus, mesquite, etc.)	%	%	%
(5) Pinyon-Juniper	%	%	%
(6) Coniferous Forest Types (Ponderosa, Lodgepole, etc.)	%	%	%
(7) Broadleaf Woodland (Aspen, Oaks, Cottonwood-River Bottom)	%	%	%
(8) Native Grassland	%	%	%
(9) Native Meadowland	%	%	%
(10) Seeded Grasses	%	%	%
(11) Invasive Annual Grasses	%	%	%
(12) Other (Describe)	%	%	%

D. What were the number of livestock on this allotment in 2018?

Allotment 1	On the Allotment		Off the Allotment	
	Number	Date	Number	Date
Total Cows (Include cows with calves and dry cows)				
Weaned Calves (Weaning age to I year old)				
Yearlings (I to 2 years old. excluding cows listed above)				
Bulls				
Ewes				
Rams				

Weaned Lambs (weaning age to 1 year old)				
Wethers				
Horses (Include only horses under permit or license)				

Allotment 2	On the Allotment		Off the Allotment	
	Number	Date	Number	Date
Total Cows (Include cows with calves and dry cows)				
Weaned Calves (Weaning age to I year old)				
Yearlings (I to 2 years old. excluding cows listed above)				
Bulls				
Ewes				
Rams				
Weaned Lambs (weaning age to 1 year old)				
Wethers				
Horses (Include only horses under permit or license)				

Allotment 3	On the Allotment		Off the Allotment	
	Number	Date	Number	Date
Total Cows (Include cows with calves and dry cows)				
Weaned Calves (Weaning age to I year old)				
Yearlings (I to 2 years old. excluding cows listed above)				

Bulls				
Ewes				
Rams				
Weaned Lambs (weaning age to 1 year old)				
Wethers				
Horses (Include only horses under permit or license)				

E. What topographic features best describe this allotment? (Give proportion)

Description	Allotment 1 %	Allotment 2 %	Allotment 3 %
Steep			
Steep and Rocky			
Rolling Hills			
Gentle, Flat			
Other (describe)			

F. How many pasture (units) are there in this allotment?

Allotment 1

Allotment 2

Allotment 3

G. How would you describe your current grazing management plan on each allotment?

	Allotment 1	Allotment 2	Allotment 3
Scheduled rest rotation among a number of pastures (one or more pastures used each year). How many pastures are used each year?	Y N ________	Y N ________	Y N ________
Scheduled deferred rotation among a number of pastures. How many pastures are used each year?	Y N	Y N	Y N

	________	________	________
Open rotation with scheduled moves. How many pastures were used each year? How many moves while in this lease?	Y N ________	Y N ________	Y N ________
Continuous grazing, with all livestock distributed freely	Y N ________	Y N ________	Y N ________
Decision deferment (i.e., non-scheduled moves, Savory)	Y N	Y N	Y N
Other (specify)	Y N	Y N	Y N

H. How many years have you had each allotment or how long has each allotment been in your family?

Allotment 1

Allotment 2

Allotment 3

I. If Allotment was purchased:

	Allotment 1	Allotment 2	Allotment 3
Year Purchased			
How much was paid? ($/AUM or $/AUY)			

IV. RANGE DEVELOPMENT AND MAINTENANCE COSTS

Include here ail range improvements and developments that service the allotment or allow harvest of forage, regardless of land ownership. Include all improvements made to run your operation.

New Development

Type of Development	Code Description	Year Developed	Land Ownership (e.g. Federal, State, Private)	Number	Units	Total Improvements	Dollars Rancher Invested (incuding hired labor)	Hours of unpaid labor including operator and other unpaid	Percent Improvement use on this allotment	Percent Improvement use for other purposes (e.g. irrigation)
Development Code										
Wells										
Spring										
Ponds										
Fence (Specify Type)										
Roads										
Corrals and Chutes										
Oilers										
Dipping Vats										
Seeding										
Spraying										
Windmills										
Brush Control										
Noxious Weed Control										
Other (Specify in Notes)										

B. Range Improvement Maintenance

Maintenance Item	Cost
Water Maintenance	
(1) Water pumping costs (gas, electric, diesel, service)	
(2) Contract expenses to haul water?	
(3) Materials to maintain and clean wells and stock ponds	
(4) Cost of bulldozers, and other equipment for water maintenance?	
(5) Other costs in maintaining stock ponds, wells, and springs on the allotment?	
Fence Maintenance	
(6) What was the cost of materials and equipment to maintain fences on the allotment during the last grazing season?	
Other Costs	
(7) Did you have any costs in implementing or maintaining improvements other that those we have for the 2018 grazing season?	

V. OTHER CASH COSTS

This section of the questionnaire will be used to list the cash costs expended in grazing livestock on this allotment.

A. What were your cash expenditures for the following items that were used while livestock were on this allotment in 2018?

Description	Units	Dollars
(1) Salt		
(2) Veterinary and Medicine		

(3) Protein Supplements. Grain, Hay		
(4) Contractor Feed		
(6) Predator Control (Poisons, trappers)		
(7) Others (not previously listed)		

Do association fees pay for: (check all that apply)

- ☐ Grazing Fees
- ☐ Herding, rider
- ☐ Salt and Supplements
- ☐ Fence and Improvement maintenance
- ☐ Other (specify____)

B. Miscellaneous Costs

What were the cash and non-cash expenditures for the following items pertaining to this allotment during 2018? (Paperwork, stockmen's grazing meetings, NEPA, vandalism, rounding up stray stock after gates are left open, meetings with federal personnel, endangered species protocol etc.)

	Transportation		Labor			
	Vehicle Type	Mileage	Manager Operated (hrs)	Family (hrs)	Regular Hired (hrs)	Day (hrs)
Paper work						
Meetings						
Vandalism						
Stray roundup						

VI. DEATH LOSSES

A. What was the average 2018 Livestock sale weights?

Steer calves	
Heifer calves	
Yearling steers	
Yearling heifers	
Cull cows	
Lambs	
Cull Ewes	
Cull bucks	
Wool per ewe	

B. How many livestock died or disappeared on this allotment in 2018?

Cows__________________________
Yearling Steers_________________Yearling Heifers________________
Steer Calves___________________Heifer Calves__________________
Bulls__________________________
Rams_________________________Ewes_________________________
Lambs_________________________

VII. LABOR

This section of the questionnaire asks about the labor requirements (number of people and the hours required) to move livestock to allotment, to herd and distribute livestock on allotment, to gather and move livestock from allotment, to maintain the physical requirements of the allotment (fences. water tanks. dams. etc.) and the labor requirements for animal health and maintain (herd checking, doctoring. salting, feeding, watering, etc.) throughout 2018.

A. Hired Labor Information

	Pay Unit* (code)	Wage rate per unit time	Approx. monthly cost for social security, unemployment, insurance, room and board, and benefits
Hired Manager			
Hired labor			
Day labor			

•paid by: hour=I day=2 week =3 month =4 unpaid=5 exchange=6

B. Labor numbers and hours worked for 2018 year

	Livestock to allotment (A)		Herding, distribution, grazing mgt. (B)		Maintain allotment		Animal health and periodic Inspection (D)		Gathering & moving livestock (E)	
	no.	hrs.	no.	hrs.	no.	hrs.	No.	hrs.	No.	hrs.
Yourself/manager										
Family members										
Regular hired labor										
Day Labor										
Exchange Labor										

VIII. TRANSPORTATION

This section of the questionnaire asks about the vehicle requirements to move livestock to allotment, vehicle requirements to herd and distribute livestock on allotment, gather and move livestock from allotment, maintain the physical requirement of the allotment (fences, water tanks, dams. etc.) and the vehicles requirements for animal health and maintenance checking, doctoring, salting, watering, etc.) throughout 2018.

(Please: use hours on farm and industrial equipment instead of miles)

This section of the questionnaire will ask about the transportation of livestock to and from the allotment.

A. What is the distance from your ranch headquarters to this allotment?

__________ miles

B. If livestock were not taken directly from the ranch headquarters, give the distance from the last lease, allotment or owned pasture used.
___________miles

C. How were the livestock moved onto this allotment?
_________ Hired trucks$______________Total Cost

_________ Owned trucks

_________ Trailed

_________ Other (specify ______________)

D. What was the distance to remove livestock from this allotment or owned pasture?

_____________miles

E. How were the livestock moved off of this allotment?
_________ Hired trucks$______________Total Cost

_________ Owned trucks

_________ Trailed

_________ Other (specify ______________)

If hired trucks were used, what was the total cost in transporting livestock from the allotment?

$

F. Please fill out the following table with as much detail as possible:

	Livestock to allotment		Herding and Distribution in lease		Gathering and moving livestock in lease		Lease Maintenance		Animal Health and Maintenance	
Vehicle type used*	No. Used	Miles (hrs.)	No. Used	Miles (hrs.)	No. Used	Miles (hrs.)	No. Used	Miles (hrs.)	No. Used	Miles (hrs.)

•Some vehicles that might be used: Pickup, Pickup-stock trailer, Stock truck, Semi-tractor trailer, All-terrain vehicle (ATV), Water-tank truck, Tractors, Implements.

Of the total costs for equipment (to this allotment) what percentage was done by:

__________% Rented/Contracted
__________% Owned equipment

IX. Horse Use

This section of the questionnaire will ask you about the horse requirements to operate and maintain this allotment throughout 2018.

A. Horse requirements to operate and maintain this allotment

Horse Requirements		
	Average number of horses	Average days horses
Livestock to allotment		
Livestock distribution/herding/grazing management		
Livestock gathering		
Livestock off allotment		
Maintenance of allotment		
Animal health and maintenance		

B. What percent of the total horse requirements were used by the following:

___________% Owned horses _____________ % Rented Horses

___________% Horses provided by hired range riders

___________% Horses provided by friend or neighbor

___________% other (specify___________________)

*Sum should equal 100%

X. Technology

This section will ask questions in the use of technology to maintain allotments throughout 2018.

A. Is there use of any subscriptions to local weather, road or other apps?

App: ________________

Cost: _______

App: _________

Cost: _______

App: _________

Cost: _______

B. Was any mobile technology purchased to use on this allotment? (Ex: laptop, Ipad, GPS)

Device:_____________

Cost:_______

Device:_____________

Cost:_______

Device:_____________

Cost:_______

END (Thank you)

APPENDIX C

2019 Grazing Cost Evaluation

Private Grazing Lease 2019

This evaluation is being conducted in selected western states to accurately determine the total costs of running livestock on federal and privately owned rangeland. The purpose of this information is to update the costs of federal and private grazing for western livestock producers. This survey is being conducted by the University of Wyoming, Wyoming Stock Growers Association, Idaho Cattle Association, and the Public Lands Council. It is intended that results from this cost evaluation will provide a valid comparison between private and public grazing costs to use in evaluating grazing fees.

Be assured that any information you provide will be strictly confidential. Only summary statistics by state or region will be released.

Enumerator ______________________________

I. GENERAL RANCH DESCRIPTION

The following information is for the 2018 operating year. Include accurate information for your deeded land as well as your private leases.

A. What was your average livestock inventory on January I, 2018?

1. Mother Cows_____________ No.Repl. Heifers______________ No.

Bulls____________________ No.

1. Yearling market livestock (Over 6 months of age)
Raised Steers_____________ No. Raised Heifers_____________ No.

Purchased Steers_________ No.Purchased Heifers_________ No.

2. Ewes____________________ No.Rams____________________ No.
Yearlings_________________ No.

3. Horses___________________ No.
5. Other Livestock (specify) ________________________No.

II.LIST OF PRIVATE LEASES

A. Are your leases managed as separate units ☐ or as one large block of land ☐ ?
B. In this section, please provide a list of all private leases in 2018.

1. Lease 1

Landlord Name

County

2. Lease 2

Landlord Name

County

3.Lease 3

Landlord Name

County

C. For any additional leases please add another page like this one.

III. Lease Arrangement

A. How were you charged for this lease and what was the lease rate?

	Rate Lease 1	Rate Lease 2	Rate Lease 3
a)_______per acre	$		
b)_______per head per month	$		
c)_______ per pound of grain	$		
D________ per cwt of gain	$		
e)_________other (specify_______________)	$		

B. Amount Paid for Lease

	Lease 1	Lease 2	Lease 3
Dollar Amount Paid for Lease			
When as the Grazing Lease Paid?	Beginning of Grazing Season ☐ After ☐ Other (Specify) ☐ _____________	Beginning of Grazing Season ☐ After ☐ Other (Specify) ☐ _____________	Beginning of Grazing Season ☐ After ☐ Other (Specify) ☐ _____________

C. Terms and Conditions of Lease

	Lease 1	Lease 2	Lease 3
Maintenance of Property	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐
Liability Insurance	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐
Daily Livestock Care	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐
Receiving and Shipping Livestock	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐
Water Supply	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐
Death Loss Adjustment	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐
Livestock Tax132	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐
Utilities	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐
Other (specify)	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐	Lessor ☐ Lessee ☐

D. What other rights, besides grazing, were associated with the lease?

	Lease 1	Lease 2	Lease 3
Recreational			
Wood Harvesting			
House			
Barns			
Equipment			
Crop Aftermath			
Hay			
Other (specify)			

IV. LEASE CHARACTERISTICS AND MANAGEMENT

A. This section will be filled out for each lease identified in Part Il and used during 2018.

	Lease 1	Lease 2	Lease 3
Lease Name			
Turn on/gathering dates for 2018	Date on_________ Date off_________	Date on_________ Date off_________	Date on_________ Date off_________
How many acres in in this lease?			
Of these total acres, how many are used for grazing?			

B. What type of vegetation is on this grazing lease?

Type	Lease 1	Lease 2	Lease 3
(1) Sagebrush	%	%	%
(2) Salt Desert Shrub (Atriplex, Greasewood)	%	%	%
(3) Chaparral (Oakbrush, Mt. Mahogany, Chamise)	%	%	%
(4) Creosote bush (Blackbrush, cactus, mesquite, etc.)	%	%	%
(5) Pinyon-Juniper	%	%	%
(6) Coniferous Forest Types (Ponderosa, Lodgepole, etc.)	%	%	%
(7) Broadleaf Woodland (Aspen, Oaks, Cottonwood-River Bottom)	%	%	%
(8) Native Grassland	%	%	%
(9) Native Meadowland	%	%	%
(10) Seeded Grasses	%	%	%
(11) Invasive Annual Grasses	%	%	%
(12) Other (Describe)	%	%	%

C. What were the number of livestock on this lease in 2018?

Lease 1	On the Lease		Off the Lease	
	Number	Date	Number	Date
Total Cows (Include cows with calves and dry cows)				
Weaned Calves (Weaning age to I year old)				
Yearlings (I to 2 years old. excluding cows listed above)				
Bulls				
Ewes				
Rams				
Weaned Lambs (weaning age to 1 year old)				
Wethers				
Horses (Include only horses under permit or license				

Lease 2	On the Lease		Off the Lease	
	Number	Date	Number	Date
Total Cows (Include cows with calves and dry cows)				
Weaned Calves (Weaning age to I year old)				
Yearlings (I to 2 years old. excluding cows listed above)				
Bulls				
Ewes				
Rams				
Weaned Lambs (weaning age to 1 year old)				
Wethers				
Horses (Include only horses under permit or license)				

Lease 3	On the Lease		Off the Lease	
	Number	Date	Number	Date
Total Cows (Include cows with calves and dry cows)				
Weaned Calves (Weaning age to I year old)				
Yearlings (I to 2 years old. excluding cows listed above)				
Bulls				
Ewes				
Rams				
Weaned Lambs (weaning age to 1 year old)				
Wethers				

Horses (Include only horses under permit or license)				

D. What topographic features best describe this lease? (give proportions)

Description	Lease 1 %	Lease 2 %	Lease 3 %
Steep			
Steep and Rocky			
Rolling Hills			
Gentle, Flat			
Other (describe)			

E. How would you describe your current grazing management plan for each lease?

	Lease 1	Lease 2	Lease 3
Scheduled rest rotation among a number of pastures (one or more pastures used each year). How many pastures are used each year?	Y N ________	Y N ________	Y N ________
Scheduled deferred rotation among a number of pastures. How many pastures are used each year?	Y N ________	Y N ________	Y N ________
Open rotation with scheduled moves. How many pastures were used each year? How many moves while in this lease?	Y N ________	Y N ________	Y N ________
Continuous grazing, with all livestock distributed freely	Y N ________	Y N ________	Y N ________
Decision deferment (i.e., non-scheduled moves, Savory)	Y N	Y N	Y N

Other (specify)	Y N	Y N	Y N

IV. RANGE DEVELOPMENT AND MAINTENANCE COSTS
Include here ail range improvements and developments that service the IDL leases or allow harvest of forage, regardless of land ownership. Include all improvements made to run your operation.

New Development

Code Description	Year Developed	Land Ownership (e.g. Federal, State, Private)	Number	Units	Total Improvements	Dollars Rancher Invested (incuding hired labor)	Hours of unpaid labor including operator and other unpaid	Percent Improvement use on this allotment	Percent Improvement use for other purposes (e.g. irrigation)

Type of Development	Development Code	Wells	Spring	Ponds	Fence (Specify Type)	Roads	Corrals and Chutes	Oilers	Dipping Vats	Seeding	Spraying	Windmills	Brush Control	Noxious Weed Control	Other (Specify in Notes)	

B. Range Improvement Maintenance

Maintenance Item	Cost
Water Maintenance	
(I) Water pumping costs (gas, electric, diesel. service)	
(2) Contract expenses to haul water?	
(3) Materials to maintain and clean wells, stock ponds and springs?	
(4) Cost of bulldozers, backhoes, and other equipment used for water maintenance?	
(5) Other costs in maintaining stock ponds, wells and springs on the lease?	
Fence Maintenance	
(5) What was the cost of materials and equipment to maintain fences on the lease during the last grazing season?	
Other Costs	
(6) Did you have any costs in implementing or maintaining improvements other than those we have for the 1992 grazing season	

VI. OTHER CASH COSTS

This section of the questionnaire will be used to list the cash costs expended in grazing livestock on this lese.

A. What were your cash expenditures for the following items that were used while livestock were on this lease in 2018?

Description	Units	Dollars
(1) Salt		
(2) Veterinary and Medicine		
(3) Protein Supplements. Grain. Hay		
(4) Conn-acted Feed		
(6) Predator Control (Poisons.		
(7) Other items not previously mentioned		

B. Miscellaneous Costs

What were the cash and non-cash expenditures for the following items pertaining to this lease during 2018? (Paperwork, stockmen's grazing meetings, vandalism, 137 rounding up stray stock after gates are left open, meetings with federal personnel etc.)

	Transportation					
	Vehicle Type	Mileage	Manager Operated (hrs)	Family (hrs)	Regular Hired (hrs)	Day (hrs)
Paper work						
Meetings						
Vandalism						

Stray roundup						

VII. DEATH LOSS

A. What was the average 2018 livestock sale weights?

__________Steer calves
__________Heifer calves
__________Yearling steers
__________Yearling heifers
__________Cull cows Lambs
__________Cull Ewes
__________Cull bucks
__________ Wool per ewe

C. How many livestock died or disappeared on this allotment in 2018?

Cows____________________________
Yearling Steers__________________Yearling Heifers_________________
Steer Calves____________________Heifer Calves___________________
Bulls___________________________
Rams_________________________Ewes__________________________
Lambs_________________________

VIII. LABOR

This section of the questionnaire asks about the labor requirements (number of people and the hours required) to move livestock to the lease, to herd and distribute livestock on the lease, to gather and move livestock from the lease, to maintain the physical requirements of the (fences. water tanks. dams. etc.) and the labor requirements for animal health an
maintain (herd checking, doctoring, salting, feeding, watering, etc.) throughout 2018.

A. Hired Labor information

	Pay Unit* (code)	Wage rate per unit time	Approx. monthly cost for social security, unemployment, insurance room and board and benefits.
Hired Manager			
labor			
Day labor			

•paid by: hour= I day=2 week= 3 month =4 unpaid = 5 exchange=6

B. Labor numbers and hours worked for 2018 year

	Livestock to lease (A)		Herding, distribution, grazing mgt. (B)		Maintain lease (C)		Animal health and inspection (D)		Gathering & moving livestock (E)	
	no.	hrs.	no.	hrs.	no.	hrs.	no.	hrs.	no.	hrs.
Yourself/manager										
Family members										
Regular hired labor										
Day Labor										
Exchange Labor										

IX. TRANSPORTATION

This section of the questionnaire asks about the vehicle requirements to move livestock to lease, vehicle requirements to herd and distribute livestock on lease, gather and move livestock from lease, maintain the physical requirement of the lease (fences. water tanks. dams. etc.) and the vehicles requirements for animal health and maintenance (herd checking, doctoring, salting, feeding, watering, etc.) throughout 2018.

(Please: use hours on farm and industrial equipment instead of miles)

This section of the questionnaire will ask about the transportation of livestock to and from the lease.

A. What is the distance from your ranch headquarters to this lease?

__________ miles

B.If livestock were not taken directly from the ranch headquarters, give the distance from the last lease, lease or owned pasture used.

_________miles

C. How were the livestock moved on to this allotment?

__________ Hired trucks$_______________Total Cost

__________ Owned trucks

__________ Trailed

__________ Other (specify _______________)

D. What was the distance to remove livestock from this lease or owned pasture?

__________ miles

E. How were the livestock moved off of this allotment?

__________ Hired trucks$_______________Total Cost

__________ Owned trucks

__________ Trailed

__________ Other (specify _______________)

If hired trucks were used, what was the total cost in transporting livestock from the allotment? $

Please fill out the following table with as much detail as possible:

	Livestock to allotment		Herding and Distribution in lease		Gathering and moving livestock in lease		Lease Maintenance		Animal Health and Maintenance	
Vehicle type used*	No. Used	Miles (hrs.)	No. Used	Miles (hrs.)	No. Used	Miles (hrs.)	No. Used	Miles (hrs.)	No. Used	Miles (hrs.)

*Some vehicles that might be used: Pickup, Pickup-stock trailer, Stock truck, Semi-tractor trailer, All-terrain vehicle (ATV), Water-tank truck, Tractors, Implements.

Of the total costs for equipment (to maintain this lease) what percentage was done by:

____________%Rented/Contracted

____________%Owned equipment

X.Horse Use

This section of the questionnaire will ask you about the horse requirements to operate and maintain this lease throughout 2018.

A. Horse requirements to operate and maintain this lease

Horse Requirements		
	Average number of horses used	Average days horses used
Livestock to lease		
Livestock distribution/herding/grazing management		
Livestock gathering		
Livestock off		
Maintenance of lase		
Animal health and maintenance		

B. What percent• of the total horse requirements were used by the following:

___________% Owned horses ______________ % Rented Horses

___________% Horses provided by hired range riders

___________% Horses provided by friend or neighbor

___________% other (specify___________________)

*Sum should equal 100%

X. Technology

This section will ask questions in the use of technology to maintain allotments throughout 2018.

A. Is there use of any subscriptions to local weather, roads or other apps?

App: ________________

Cost: _______

App: _________

Cost: _______

App: _________

Cost: _______

B. Was any mobile technology purchased to use on this allotment? (Ex: laptop, ipad, GPS)

Device:______________

Cost:_______

Device:______________

Cost:_______

Device:______________

Cost:_______

END (Thank you)

APPENDIX D

University of Wyoming Consent Form

Evaluating Non-fee Grazing Permit Costs in the Context of Social and Economic Characteristics of Public Land Ranchers

University of Wyoming

Project Researchers: John Tanaka, Kristie Maczko

Graduate Research Assistant: Kasey Dollerschell

I.General purpose of the study:

In order for a rancher to graze their livestock on public land they are required to pay a grazing fee. The federal grazing fee has long been a controversial subject. Research on this topic started in the 1960's and continued into the 1990's where they found the difference between private and public leased livestock grazing. The study from the 1990's discovered that public lease grazing costs $0.89/AUM less than private lease grazing for cattle and $5.41/AUM more for sheep. This project will aim to update that research by comparing the non-fee costs of livestock grazing on privately and publically leased land. A non-fee cost is any cost associated with grazing not involving the permit price itself such as labor or routine maintenance. The total non-fee costs of both permit types will be added up and compared to each other and to past research.

II.Procedure:

Information gained from ranchers will be obtained through in-person interviews in Wyoming, Idaho, and California. The questions for this project replicate those used in the 1990's study. Kasey Dollerschell (University of Wyoming graduate student) will contact individual ranchers to set up interview times and lead the interviews.

The interviews will take a half day at most on the day of the interview. The participants will be asked to obtain financial information from the 2018 year. During the interview, those costs will be allocated to grazing on public lands, privately leased lands, and state lands as appropriate.

III.Disclosure of risks

This study requires specific financial and personal information to be obtained from each rancher. Financial information will be used for statistical analysis but will be done in a way that protects the identity of the participants. Results will only be reported in aggregate and lists that identify specific ranchers and their responses will be destroyed at the conclusion of the interviews. We believe there is no personal risk to individual ranchers.

IV.Description of benefits:

There is no personal benefit to participating in this project. Participation will provide some information that assists the future federal grazing fee determinations and that can be used by the livestock industry and others in discussing the federal grazing fee.

V.Confidentiality:

Personal information tied to this project will be kept confidential and will not be shared beyond the research team. The information for this project will be compiled for statistical analysis and no release of specific allotments, ranchers, or locations will be given. Each ranch will be assigned a code that will be used for the statistical analysis done during the project. Only compiled information will be shared and published. A list of ranchers interviewed will be kept indefinitely by the project researcher, co-investigator, and researcher advisory for future use. Codes will be removed from that list so that there will be no way to relate interviewees to specific responses.

VI.Freedom of consent:

Participation in this study is voluntary, refusal to participate will involve no penalty or disclosure of information. It will not affect the participants association with any of the programs involved in the study or their ability to obtain a grazing lease. Participation can be discontinued at any time during the course of the project.

If a participant chooses to withdraw from the study contact must be made with the project researcher, co-investigator, or research advisor.

VII.Questions about the research:

If there are any questions pertaining to the project, risks, benefits, or confidentiality of this project. Please contact:

- Kasey Dollerschell
  Graduate Research Assistant, Ecosystem Science and Management
  University of Wyoming, Dept. 3354.
  1000 E. University Ave
  Laramie, WY 82071
  Phone number: kdoller1@uwyo.edu

Note: If you have questions about your rights as a research subject, please contact the University of Wyoming Institutional Review Board Administrator at 307-766-5320.

VIII.Consent to participate:

____

Printed name of participant

____________________________________ __________________

Participant signature Date

Department of Ecosystem Science and Management
University of Wyoming
1000 E. Ave
Laramie 82071

To whom it may concern,

This letter is being written on behalf of researchers at the University of Wyoming, Wyoming Stock Growers Association, Idaho Cattle Association, and the Public Lands Council. This is in regards to research being conducted on non-fee grazing costs of public land grazing. The goal of this project is find the total cost of livestock grazing on federally leased land and compare it to that of privately leased land.

Research on this study started back in the 1960's and extended into the 1990's, and it has now been over 20 years since any research like this has been conducted in the West. The current project will serve to update the information obtained from the 1990's study and in turn compare changes that have occurred over the years. It will provide an update on differences in total cost of grazing livestock on private and public land through the purchase of a permit, or note if no real change has occurred. The information gained from this research could potentially be used to develop a trend in total cost fees that can be used for future research and policy.

During the 1990's study the three states that were studied were Wyoming, Idaho, and New Mexico. The current study will utilize two of the past three states: Wyoming and Idaho. This will aid in a more consistent comparison between the two studies. A new state, California, has been selected and study there will commence after Wyoming and Idaho.

You have been randomly selected from a list of all USFS and BLM permittees in your state to participate in an in-person interview. Your participation in this project would be greatly appreciated and beneficial to the research on this topic. However, there will be no penalties for not participating in this study.

If you choose to participate, a researcher from the University will visit you to conduct an interview for approximately 2-3 hours; there will be no need for travel on your part. We understand your schedules are very busy and are happy to accommodate the best time to conduct an interview.

Attached please find a consent form that must be filled out and signed before the interview begins. The consent form outlines the general process of this research and gives the contact information for the researchers if you have any questions. The survey itself is also attached and provides information on what questions we will be asking so you can be prepared.

If you are interested in participating reach out to Kasey Dollerschell, the graduate student on this project (contact information is listed below). Since we do not have contact information for all potential participants we ask that you please contact us. We really appreciate your consideration and look forward to talking to you soon!

Thank you for your time and consideration,

Kasey Dollerschell

Graduate Student, University of Wyoming

Phone: (970) 589-9339

Email: kdoller1@uwyo.edu

EST. 1915 IDAHO CATTLE ASSOCIATION

1968 50 YEARS 2018 PUBLIC LANDS COUNCIL

Dear Idaho Livestock Industry Member,

This letter is being written to you on behalf of the Public Lands Council (PLC) and the Idaho Cattle Association (ICA) regarding a study taking place on the non-fee costs of public land livestock grazing. The grazing fee for federal and state land grazing has, for a long time, been misrepresented by extreme environmental organizations and politicians with radical agendas. Over the years, this misrepresentation has been used to confuse lawmakers with little or no knowledge of the value which grazing provides in the rural West.

Often, the grazing fee is compared to the price of private land leases. However, the federal or state lands grazing fee itself does not account for all the costs associated with running on public land. There are numerous non-fee costs, such as labor, regulatory compliance, and routine maintenance, which are most often is significantly higher on public land. Research on this topic started in the 1960s when the federal grazing fee was set at the difference between the total cost of private land leases and the non-fee costs of grazing on public land resulting in a fee of $1.23 per AUM. The current grazing fee formula was established in the Public Rangeland Improvement Act of 1978 and continued by Executive Order 12548 in 1986. A study conducted in the 1990s ventured further in this research by again comparing the total cost of leased public and private livestock grazing. The study discovered that grazing on leased public land was $0.89/AUM less than leased private land for cattle and $5.41/AUM more for sheep.

No research on this topic has been conducted since the 1990s study, and since that time a number of new federal regulations and technologies have immensely changed the type of non-fee costs realized by federal land ranchers. A new project has been formed by researchers at the University of Wyoming, in cooperation with the Public Lands Council, to once again compare the total cost of livestock grazing on federal and private land and to take into account these new regulations and costs. Information gained from this study will provide current information about the federal and state grazing fee issue by accounting for the non-fee costs.

Both PLC and ICA strive to represent, support, and defend the livestock producers of the western United States in legislative and administrative decisions. This research will aid greatly in the mission of our groups by producing data that that can be used to defend the livestock industry. This is particularly important and timely in Idaho, where the Idaho Department of Lands has been considering a significant raise to the state lands grazing rate closer to the private lands grazing lease rate. It is only because of our efforts that the increase has been delayed in order to allow time for the results of this study to be published. Establishing a science-based analysis of the non-fee costs of grazing on state land will arm us with the necessary tools to prevent your grazing fee from being raised to a disproportionately high rate. It will also aid in the education of the general public on the role of federal and state grazing permits and clear up some of the confusion around the grazing fee.

You are receiving this letter because you are being asked to participate in this study. Information gained from the study will greatly aid our efforts in both Boise and Washington, DC. It is important for studies like this one to be conducted so current numbers and data can be compared.

Thank you for taking the time to read this letter. This letter was written as an introduction to the project and to Kasey Dollerschell, a graduate student at the University of Wyoming, who will follow-up with you to see about interviewing you for this study. We urge you to participate. If you have questions for the PLC or ICA please do not hesitate to contact us.

Thank you for your time,

Marty I. Gill

Bob Skinner

Marty Gill, President

Idaho Cattle Association

Bob Skinner, President

Public Lands Council

Dear Wyoming Livestock Industry Member,

This letter is being written to you on behalf of the Public Lands Council and the Wyoming Stock Growers Association in regards to a study taking place on the non-fee costs of public land livestock grazing. The grazing fee for federal land grazing has for a long time been misrepresented by extreme environmental organizations and politicians with radical agendas. Over the years, this misrepresentation has been used to confuse lawmakers with little or no knowledge of the value which grazing provides in the rural West. Many organizations focus on the fee itself and compare it to the price of private land leases. The problem with this is that it overlooks the impact of non-fee costs, such as labor, regulatory compliance, and routine maintenance, which most often is significantly higher on federal land. Research on this topic started in the 1960’s when the grazing fee was set at the difference between the total cost of private land leases and the non-fee costs of grazing on public land resulting in a fee of $1.23 per AUM. The current grazing fee formula was established in the Public Rangeland Improvement Act of 1978 and continued by Executive Order 12548 in 1986. A study conducted in the 1990’s ventured further in this research by again comparing the total cost of leased public and private livestock grazing. The study discovered that grazing on leased public land was $0.89/AUM less than leased private land for cattle and $5.41/AUM more for sheep.

No research on this topic has been conducted since the 1990’s study, and since that time a number of new federal regulations (Range Reform ’94, WOTUS, etc.) and technologies have immensely changed the type of non-fee costs realized by federal land ranchers. A new project has been formed by researchers at the University of Wyoming, in cooperation with the Public Lands Council and the Wyoming Stock Growers Association, to once again compare the total cost of livestock grazing on federal and private land and to take into account these new regulations and costs. Information gained from this study will provide current information about the federal grazing fee issue by accounting for the non-fee costs.

Both the Public Lands Council (PLC) and the Wyoming Stock Growers Association (WSGA) strive to represent, support, and defend the livestock producers of the western United States in legislative and administrative decisions. This research will aid greatly in the mission of our groups by producing data that that can be used to defend the livestock industry. It will also aid in the education of the general public on the role of federal grazing permits and clear up some of the confusion around the grazing fee.

You are receiving this letter because you are being asked to participate in this study. Information gained from the study will greatly aid our efforts in both Cheyenne and Washington, DC. It is important for studies like this one to be conducted so current numbers and data can be compared.

Thank you for taking the time to read this letter. This letter was written as an introduction to the project and to Kasey Dollerschell, a graduate student at the University of Wyoming, who will follow-up with you to see about interviewing you for this study. We urge you to participate. If you have questions for the PLC or WSGA please do not hesitate to contact us.

Thank you for your time,

Ethan Lane **Jim Magagna**
Public Lands Council **Wyoming Stock Growers Association**
elane@beef.org **jim@wysga.org**

Dear California Livestock Industry Member,

The California Cattlemen's Association (CCA), California Public Lands Council (CalPLC), and the Public Lands Council (PLC) request your participation in a study by the University of Wyoming examining the non-fee costs of grazing livestock on federal lands within California. The grazing fee that public lands ranchers pay to graze on federal lands is often intentionally misrepresented by radical environmental organizations and politicians with anti-grazing agendas to brand our federal lands' stewards as "welfare ranchers." Over the years, this intentional misrepresentation has been used to mislead lawmakers and the public regarding the valuable role grazing plays on our public lands throughout the West—and especially in California.

Opponents of public lands grazing often misleadingly compare the grazing fee to the price of private land leases, failing to factor in the significant costs associated with ranching on public lands, such as labor, regulatory compliance, and routine maintenance. Research seeking to quantify these non-grazing-fee costs of ranching on public lands most recently occurred in the 1990s, and discovered that permitted grazing on public land was $0.89/AUM less expensive than leased private land for cattle and $5.41/AUM more expensive for sheep. No research on this topic has been conducted since the 1990s.

Over the past thirty years, several new federal regulations and technologies have altered the non-fee costs incurred by federal lands ranchers. Researchers at the University of Wyoming, in cooperation with PLC, are now undertaking new research to compare the cost of livestock grazing on federal and private land and to account for these new regulations and costs.

Research regarding the non-fee costs associated with federal lands grazing will greatly aid PLC, CalPLC, and CCA in promoting and defending federal lands grazing in California. Radical environmental groups and politicians misrepresent the economics of federal lands grazing in court filings and in front of legislators and regulators in Sacramento and Washington, DC; the data developed by this study will allow PLC, CalPLC, and CCA to correct the record and better safeguard your livelihood.

In the coming weeks, you can expect a follow-up from Kasey Dollerschell, a graduate student at the University of Wyoming, who will work with you to set up an interview for this study. We urge you to participate. If you have any questions regarding the study, don't hesitate to contact Kirk Wilbur in the CCA office at (916) 444-0845.

Thank you for your time,

Mark J Lacey
Mark Lacey, President
California Cattlemen's AssociationCalifornia

Dave Daley
Dave Daley, Chair
Public Lands Council

Bob Skinner
Bob Skinner, President
Public Lands Council

APPENDIX E

Livestock Prices 2018											
State	**Steer Calves**	**Heifer Calves**	**Yearling Steers**	**Yearling Heifers**	**Cull Cows**	**Cull Bulls**	**Lambs**	**Cull Ewes**	**Cull Bucks**	**Wool per Ewe**	**Wool per Yearling**
Wyoming											
MLRA 34a	207.94	204.78	173.07	173.07	82.07	101.87	250.90	131.98	131.98	2.50	2.50
MLRA 58b	207.94	186.34	146.12	146.12	82.07	101.87	250.90	131.98	131.98	2.50	2.50
MLRA 32	207.94	204.78	139.12	139.12	82.07	101.87	250.90	131.98	131.98	2.50	2.50
Idaho											
Average	186.37	174.39	160.82	160.82	78.36	91.45	250.90	131.98	131.98	2.02	2.02
MLRA 25	192.17	181.94	161.85	161.85	77.98	91.73	250.90	131.98	131.98	2.02	2.02
MLRA 12	180.56	166.83	159.78	159.78	78.74	91.16	250.90	131.98	131.98	2.02	2.02
California											
San Joaquin Valley	132.92	134.58	-	-	62.73	72.50	250.90	131.98	131.98	2.00	2.00
North Sacromento Valley	132.92	123.90	-	-	62.73	72.50	250.90	131.98	131.98	2.00	2.00
Sacromento Valley	132.92	129.24	-	-	62.73	72.50	250.90	131.98	131.98	2.00	2.00
Central Coast	134.31	126.41	-	-	69.36	80.16	250.90	131.98	131.98	2.00	2.00

[1]Wyoming and Idaho cattle pricesgathered from MRLA information from University of Wyoming Research Team (Dyer et al., 2018).

[2] Idaho Average category is an average between MLRA 25 and MLRA 12 for catle only since no MLRA was available.

[3] Beef prices for San Joaquin Valley gathered from a project by UC Davies and indexed to match 2018 dollars (Finzel et al., 2017).

[4] Beef prices for Central Coast fathered from study conducted by UC Davies for the year 2018 (Rao et al., 2018).

[5] Beeff Prices for Northern Sacramento Valley fathered from a study conducted by UC Davies and indexed to match 2018 dollars (Forero et al., 2017).

[6] Sheep prices for all three states gathered from USDA Economics, Statistics, and Market Information (ESMIS, 2018).

Lamb prices for all three states gathered from Agriculture Marketing Service (AMS) and indexed to match the year 2018 (AMS, 2017)

8 All indices gathered from USDA-NASS (Ag. Prices, January, 2019).

Critical Review: Determining the Market Rate for Endowment Grazing Leases

Prepared by Neil Rimbey, Emeritus Professor, University of Idaho
September 9, 2021

General Comments

The draft policy is generally well-written and concise in relation to determining a market rate for Idaho Department of Lands (IDL) grazing leases. Where assumptions are made in the process, they are specified and references cited, where appropriate. I do have several concerns relative to the approach and will detail those in my responses to specific IDL questions in the next sections of this review.

Specific Questions Posed by IDL

1. **Is it appropriate to derive a rate for grazing on endowment land that nets non-fee costs against the USDA NASS private rate for Idaho?**

Yes, if done properly. I have concerns about using very dated and non-representative data as embodied in the Obermiller report (Oregon State University Extension Bulletin). First, that report was based upon a non-random survey of grazing permittees in Eastern Oregon. Because there was no sampling done of a population of graziers, we have no idea if they are indicative of what the population is doing. Second, the survey concentrates on Eastern Oregon, which may or may not be appropriate for Idaho graziers. Third, the data is extremely dated and does not reflect changes in policy and management that have taken place since that time. On federal lands, maintenance of range improvements has been shifted to the permittee. Wolves have been re-introduced or migrated into the ecosystems of Oregon, Idaho, Wyoming, Montana and other western states. Vehicle costs and operating expenses have increased dramatically. Technology such as drones, tracking collars and others may be minimizing some costs included in the 1992 data.

There is more recent and better information on non-fee costs available. I have included 3 references of these at the end of this report. Torell, et al. (1995) summarizes a large 3 state study done in 1992. Idaho was one of the states (Wyoming and New Mexico were the other two) studied in this project and those data are much more valid and pertinent to your project than the Obermiller report. There are also 5 or 6 peer-reviewed journal articles from this study that summarize various aspects of the project. I can provide those citations, if you need them. The concerns raised about policy changes impacting grazing costs in the Obermiller report also apply to this study. If those data (from the 3 state study) are used, there is a need to index those values up to current years. An example of indexing those costs is done in the Rimbey and Torell report (2011). This approach uses USDA indices that are specific to each production item included in the cost bundle, as opposed to the CPI or other general index.

A recent thesis from University of Wyoming (Dollerschell, 2021) provides the most recent data on non-fee costs and includes data from Idaho. It is my understanding that Idaho contributed to this study. If so, it should be used in your analysis rather than the Obermiller data.

I can provide electronic versions of the referenced publications, if you so desire.

2. **Is the USDA NASS private rate for Idaho a reliable measure of or proxy for the average private grazing rate in the state?**

Yes. Over the course of my career at the University of Idaho, I was involved in 4 separate studies on private grazing lease arrangements. In 3 of those 4 years, there was no significant difference between our estimate of lease rates and those published by USDA NASS. The 4 studies involved gathering data on actual market transactions associated with private grazing leases. The USDA NASS values were based upon respondents' knowledge of "lease rates in their area". In most cases, the USDA NASS lease rates are based upon minimal responses (40-60 per year) to their survey. In spite of those concerns, the USDA NASS rates do appear to provide a representative estimate of market changes in relation to grazing lease rates.

3. **Are we deducting the correct non-fee costs from the private rate in the model?**

It depends. Lost animals, maintenance, salt/supplement, and herding/moving livestock would appear to be the most important items in the cost array. Salt/supplement can easily be estimated using the UI livestock budgets, as you have done in your approach. Lost animals, maintenance and herding are site-specific and may not be reflected in the livestock budgets. Those items will have to be gathered from other sources (for example, the Wyoming report) and updated using indices appropriate for the expense item.

4. **Is it appropriate to use the data from the 2014 University of Idaho research bulletin Idaho Private Rangeland Grazing – Lease Arrangements to prorate the non-fee deductions derived from the 2020 cow-calf beef livestock enterprise budgets, or would the model be better if this proration was omitted, and the average costs sans proration were deducted from the private rate instead?**

Yes, as long as you index those to 2020 or current year values. The livestock budgets include costs items on the basis of $/head. Your approach implies an adjustment on the basis of $/AUM. Are you certain that you are using the same basis going between the livestock budgets and grazing costs/services provided? That is unclear to me in my reading of the document.

5. **Based on the literature we reviewed, it was clear that lost animals/mortality was a significant non-fee cost factor that we needed to address in the model. Unfortunately, we could not find recent data, so we used data from the 1992 University of Oregon Extension Service special report Costs Incurred by Permittees in Grazing Cattle on Public and Private Rangelands and Pastures in Eastern Oregon that were adjusted for inflation. Are you aware of any better data about lost animals/mortality that may be available?**

See responses to Question 1 and references provided at the end of this review.

6. **Do you have any opinions from an economist's point of view regarding stepping in a new rate over a period of 2-5 years as opposed to implementing the new rate immediately?**

From a livestock production perspective, an increase in costs of 50+% for one item in the operating budget is an area of concern. This would be particularly true for your blocked-up grazing leases, through grazing associations or individual lessees. For many of your scattered leases, an increase of this magnitude is not going to break the bank, because that feed source is a relatively small component of their total operating cost. A phased approach to the increase may be appropriate, if nothing more than to maintain relations with your lessees. Does your current policy have caps on annual increases or decreases in lease rates? For example, the federal agencies cannot increase or decrease the grazing fee by more than 25% per year. The feds also have a floor, that essentially says that fees cannot go below a certain level. The sheep fee adjustment based upon relative prices is probably still appropriate, given the basis for your approach is generally slanted toward cattle (through budget analysis, etc.).

7. **Any other input, ideas, criticisms, feedback, you may have.**

I commend you on stating the need to review this approach every 5 years. This same recommendation was included in the development of the 1992 lease rate formula and it was never done! I would take it a step further and advocate doing periodic surveys of graziers on private grazing lease arrangements, including estimating either non-fee costs or grazing services undertaken or provided with the leases. I am not sure this latter item is necessary every 5 years, but it is needed to keep your indexing and general approach "honest". An "unbiased", scientific, third party approach is the best way to do this, through contracts with academic institutions or private consultants.

References

Dollerschell, K. 2021. Evaluating Non-fee Grazing Permit Costs. M.S. Thesis. University of Wyoming. College of Graduate Studies. Laramie, WY.

Rimbey, N.R. and L.A. Torell. 2011. Grazing Costs: What is the Current Situation? Univ. of Idaho. Dept. of Ag. Econ. and Rural Soc. AEES 2011-02. Moscow, ID.

Torell, L.A., L.W. VanTassell, N.R. Rimbey, E.T. Bartlett, T. Bagwell, P. Burgener, J. Coen. 1995. The Value of Public Land Forage and the Implications for Grazing Fee Policy. New Mexico State University Exp. Station Bulletin 767. Las Cruces, NM.

September 13, 2021

To Whom it May Concern:
Subject: September 10, 2021 Review Draft

Thank you for the opportunity to review the September 10, 2021 draft of "Determining the Market Rate for Endowment Grazing Leases". I feel confident that you have addressed most of my suggestions from the earlier review. I also feel that you are on much more solid ground, from both a theoretical and practical bent in terms of the figures which you are using as background for your approach. The Torell, et al., and Dollerschell figures in terms of non-fee costs are valid and defensible.

Given the new rate of $8.33/AUM, I do not think a phase in over a period of years would be warranted. It might warrant another look at the issue if the livestock industry makes that request, in light of the on-going drought conditions and current and projected feed cost increases.

If you have other questions, please feel free to contact me.

Best regards,
Neil Rimbey
208-573-3791
nrimbey@uidaho.edu
16638 Logan Street
Caldwell, ID 83607

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Thursday, July 8, 2021 1:08 PM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Lewiston Sayre at sayre@cableone.net
Phone: 2087908221
Address: 1232 Bryden Avenue
City: Lewiston
State: Idaho
Zip Code: 83501

Comment:
The original 1993 plan and rates needed to be updated at the most every 5 years. Cattle and sheep graze lands totally differently. 38% to 58% is a bit of jump. $3.69 per AMU. How about half that at $1.85 per AMU? Offer the other $1.85 in two years.

Why the 20% jump? Is there a solid justification? Thats is a lot for producers. Administrative fee increase? What? Comparing most private lands under NASS is not really a fair comparison of lands to lands. Most private lands are managed totally differently then federal and states lands. Although Idaho does a darn good job of managing our lands as opposed to USFS lands hands down.

No none is complaining about the AMU costs other than the folks who do not graze, trying to stop ALL grazing.

Idaho State Lands need to be grazed for many reasons. Fire prevention being number one, especially this year.
The University of Idaho has one of the best range management programs in the Western USA. Wyoming's is too. But U of I is the tops.

For comparison, the current year endowment grazing fee is $7.07 per AUM, or 38% of the NASS private rate for Idaho. Under the proposed new model, the rate for 2022 may increase to $10.73 per AUM, which is 58% of the published NASS private rate.

Jeff Sayre
122 Bryden Avenue
Lewiston, ID 8501
208-790-8221 cell

ATTACHMENT 7

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Thursday, July 8, 2021 2:00 PM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Zerry greenwood at zergre@ctcweb.net
Phone: 2082530244
Address: 2675 council cuprum road
City: Council
State: Idaho
Zip Code: 83612

Comment:
The issue I see with comparing rates is this, 1: Grazeland is not irrigated fenced pasture, that the landowner keeps in prime grazing condition, so he can charge the price he charges. 2: The death loss on a mountain permit includes preditors both beast and man, over the last ten years we have lost over a dozen cows to gunshot wounds. 3: Gazing on private-own land holds little benefits to landowners, if cows are not grazing it, he will harvest it. 4: On the mountain, animals are beneficial to the forest as fire suppression. Grazing can benefit both forest management and biodiversity. Grazing can increase habitat diversity and regeneration of canopy tree species. 5: Grazing has always been mutually beneficial.
When the grazing programs started it was with respect to this mutual benefit and priced accordingly. The charges for gov. and private landowners reflect these many issues. To increase to 58% of the private sector when the benefits and drawbacks to gov.-land grazing remain unchanged makes it appear that this respect is gone.

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Thursday, July 8, 2021 5:03 PM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Mark Dease at mnedease@yahoo.com
Phone: 208-543-2144
Address: 222 Mark Twain Dr.
City: Buhl
State: Idaho
Zip Code: 83316

Comment:
IDL
I know the grazing issue is a complicated issue but as I see it these fees are far too low and the suggested increases are not enough. I feel this PUBLIC land needs to be protected from over grazing making it unusable for wildlife or people. The cost increase will surely lower the number of cows and sheep on public land and will ultimately impact the cost of these products to the consumer. My issue is this is my land and not the ranchers land less cows and the same income for Idaho is a win, win for the lands and people if Idaho. I have friends that are ranchers and even they don't have a valid argument on this issue. I know they would like to keep low cost grazing and in the same vane I would like to see one dollar gasoline also but nobody is going to subsidize my fuel. Does IDL even recover the cost of managing the grazing lands? or is it coming out of my pocket? Food for thought. Thanks Mark Dease

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Wednesday, July 14, 2021 12:27 PM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Paula Balderson at jpb2@ctcweb.net
Phone: 2082534346
Address: 2452 Mill Creek Rd
City: Council
State: Idaho
Zip Code: 83612

Comment:
The current formula used is far behind the current trends of the current value of beef, as it is very vairiable.

to whom it may concern:
I am writing About the new grazing rate proposal:
I run sheep on Several State LEASES in the state All rough unfenced ground. this Land is costing to much as it is, if I don't run sheep on here, what are you going to do with it? its not Like sheep men are Lined up to take this pasture, and I'm sure the state isn't going to fence it. I run two men to the camp, because of the States wolves, so this cost around 5,000.00 per month per band for herders + predator Loss.

I rent Alfalfa in the treasure Valley for 5¢ per ewe in October through January. this makes 7.50 per AUM per Month For A cow which makes it 1.50 per Month per Sheep, and I run one man per camp which saves 2500.00 per Month.

there is A Lot of difference between fenced irrigated pasture Compared to rough unfenced maybe Lands.

Be careful you don't price your self out of getting your Lands grazed. these sheep do you a Lot of good in weed Control and fire Control. I dare Say if I Say "no" which is very Likely" in a few yrs. you will be paying Somebody to run goats to take out Some of the fire danger.

If you do anything reduce the price, and be fair to the Sheep Man and do the State A favor. maybe you want to pay me?

thank you
Frank Shirts

From:	Jason Laney
Sent:	Wednesday, September 08, 2021 3:01 PM
To:	Renee Jacobsen
Subject:	FW: Message from PEAVEY JOHN DIA (2087885111)
Attachments:	VoiceMessage.wav

From: Cisco Unity Connection Messaging System <unityconnection@idl.idaho.gov>
Sent: Friday, July 16, 2021 9:28 AM
To: Jason Laney <JLaney@idl.idaho.gov>
Subject: Message from PEAVEY JOHN DIA (2087885111)

Following is transcription of a voice mail left for Mr. Jason Laney, Idaho Department of Lands, by Mr. John Peavey, on Friday, July 16, 2021 at 9:28 AM (Mountain).

Jason, my name is John Peavey and the Flat Top Sheep Company leases quite a bit of the endowment land. I got your letter and it's a pretty nice and handy way to make a comment not having an office staff. Anyway, when a rancher leases your land, we don't get control of the land. We can't determine who's going to camp on it, hunting, a lot of things that we don't acquire when we pay our lease. I would hope that is something that you guys could look at. Thank you. Bye-bye.

From:	melonie@fosterlac.com
To:	Jason Laney
Cc:	"Brad Foster"
Subject:	Comment: Determining Market Rate on Grazing
Date:	Friday, July 16, 2021 9:30:08 AM

As a large Leasee of State of Idaho endowment ground, we are not sure why we need to change what has been a fair rental rate to the endowment ground except to raise more money for the endowment. We propose that the refiguring of the rate stay as it has in the past and to reject the new proposal.

Sincerely
Brad Foster
Foster Land & Cattle
PO Box 40
Ririe, ID 83443

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Friday, July 16, 2021 5:10 PM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Linda Shepard at lindakshepard@gmail.com
Phone: 208-882-5508
Address: 530 Jerstad Court
City: MOSCOW
State: Idaho
Zip Code: 83843

Comment:
In reviewing the letter we received seeking public input on the new grazing rate proposal we believe that this much of an increase (from $7.07 to $10.73) during a time of extreme drought and poor crops is a bad decision and will hurt farmers and ranchers more that is good for the program. Yes a smaller increase may be needed but this seems to be too much for the economic realities of those leasing lands.

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Wednesday, July 21, 2021 4:59 PM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Opal Michelle Neal at garrett.neal@verizon.net
Phone: 208-628-3474
Address: PO Box 386
City: Lucile
State: Idaho
Zip Code: 83542

Comment:
Our State grazing lease G500090 consists of 360 acres of State land in two separate pastures. The State land is used in conjunction with private and USFS lands in a multi-pasture system. Both pastures include deeded lands. The State land is an important trail route for livestock movement from deeded lands to our Forest allotment and back. We pride ourselves in being good stewards of all lands; using proper grazing management, maintaining fences, water sources and trails. As long time cattle ranchers, a substantial increase in the State grazing lease would be detrimental to our ranching operation.

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Sunday, July 25, 2021 4:56 PM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Stephen BAuchman at sbauchman@challiscrk.com
Phone: 2088795515
Address: P.O. Box 10
City: Challis
State: Idaho
Zip Code: 83226

Comment:
State leases are inholdings within public lands, and the only access to water is through the public land. Additionally while private lease ground is more expensive the greatest percentage is irrigated directly or by sub. Thus while the AUM is more expensive, private is more productive, therefore as IDL become more expensive, one has to reconsider whether the additional AUMs are worth it.

Then one considers the political ramifications of our legislators including CRT in the curriculum (ie BSU), and then the failure of leadership to consider separating out the budgets of the universities. This is the same leadership we are providing more money to allocate.

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Monday, July 26, 2021 11:10 AM
To: Comments
Subject: Grazing Rate Comment Submitted

From: luke luthy at lukeluthy@hotmail.com
Phone: 2087095164
Address: 737e moody rd
City: rexburg
State: Idaho
Zip Code: 83440

Comment:
when you are talking about private rangelands are they similar to the state ground. most privet pasture the owner of the land fixes the fence and salts the cows and manages the water systems. the biggest differences is they can control the axis to whom is there so when livestock get hit or shot they have a better time find how did it. the state has a problem with atv/utv traffic and how to control it. unlike federal land atv/utv is a problem for ranchers to. with leaving gates open and moving livestock down the trails without giving them time to get out of the way . also why are they comparing it to other public lands like national forests and BLM lands.

From: Chris Alzola <calzola@earthlink.net>
Sent: Thursday, July 29, 2021 10:06 AM
To: Comments
Subject: . Grazing Rate Proposal
Attachments: Idaho Dept of Lands Grazing Rate Proposal.pdf

I have attached my comments on the proposed grazing rate increase.

Thank You,

Chris Alzola

July 29, 2021

Idaho Department of Lands
Grazing Rate Review Update
comments@idl.idaho.gov

I don't believe you are comparing apples to apples when comparing the private and state lease rates. In our situation (Owyhee County) the private rate is $15.00 in that rate it includes water, pasture for when we can't be on the state lease, BLM lease, corrals and loading facilities. Our state leases have none of these amenities. Please look at all of these factors when you are determining rates.

Thank You,

Chris Alzola

Chris Alzola
208-863-5818
calzola@earthlink.net

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Tuesday, August 3, 2021 10:00 AM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Elting Hasbrouck at elting.hasbrouck@gmail.com
Phone: 208-630-3893
Address: 50 Hasbrouck Lane
City: Cascade
State: Idaho
Zip Code: 83611

Comment:
Please keep the existing grazing rate formula that leasees are used to. The costs of raising cattle has only risen over the years including trucking, vet and supplements. If cattlemen don't make better profits on their herds then future generations will never continue these operations at such low returns and the state will have no one willing to lease their parcels

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Thursday, August 12, 2021 9:09 AM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Roy Moses at tmoses9@aol.com
Phone: 208-365-8475
Address: 8777 Sweet Ola Hwy
City: sweet
State: Idaho
Zip Code: 83670

Comment:
It is unfair to even compare private leases to public leases. Idaho department of lands should charge the same as the forest service or BLM where the same problems and costs to the lease exist. Some of these problems or costs are–
1. You have no control over thieves as you do on private lease.
2. People. There are more people in the state than ever and livestock are displaced , harassed and stolen more than on a private lease. Also they pay nothing into the endowment for their horses, ATV's, camping and hunting privilege's yet the state is determined to charge more for the livestock that are actually saving the state money in fire protection.
3. Fires, are a bigger risk on public lease. Some fire prevention credit should be returned to ranchers for risking their livestock to reduce the fuel load.
4. Wolves are a bigger risk on public lease. This is reason alone to reduce not increase the rate.
5. Big game . Fish and game have increased their herds and I'm sure they do not pay grazing fees on them.
6. hunters, put out salt and game cameras interfering with grazing.
7. People or thieves with horses, dogs and ATV's all have more control and rights than the rancher and his family who is paying the lease.

summary;
Please do not compare state lease ground to private. IT IS NOT COMPARABLE
Please change your policies so the lessee has more control of people who are thieves, or use their dogs, horses, guns, ATV's to rope harass, steal or kill livestock.
Please give the rancher and logger the credit they deserve for saving the state huge fire bills.
The current state policies and grazing prices are going to break up our family ranches and farms and ultimately cost the endowment more in fire prevention.
With the constitutional obligation to maximize revenue to endowment beneficiaries, the state needs to keep producers on its land which will help all of Idaho's economy and reduce its expenditures to fire control, regulations, management and ultimately bring more revenue to the endowment beneficiaries.

From: Jason Laney
Sent: Tuesday, August 17, 2021 8:06 AM
To: Comments
Subject: FW: [EXT: SD91] Stanger Auction Information
Attachments: 2021 - 07-28 - Cost of State Lease Letter From Bruce Stanger.docx

Attached is a comment letter I received directly from Bruce Stanger.

Jason Laney
Grazing, Ag, and Conservation Program Manager
Idaho Department of Lands
Office: (208) 334-0278

From: Korenke-Stanger, Jennifer <KoreJenn@sd91.org>
Sent: Monday, August 16, 2021 5:10 PM
To: Jason Laney <JLaney@idl.idaho.gov>
Subject: Re: [EXT: SD91] Stanger Auction Information

Hi Jason,
Please find Bruce's letter attached
Have a great evening,
Jenny

From: Jason Laney <JLaney@idl.idaho.gov>
Sent: Thursday, July 29, 2021 8:12 AM
To: Korenke-Stanger, Jennifer <KoreJenn@sd91.org>
Subject: [EXT: SD91] Stanger Auction Information

CAUTION: The sender does not have a standard @sd91.org email address. *If You Didn't Expect It, Reject It.* Please forward suspicious emails to CyberSecurity Reporting - CyberSecurity@sd91.org --

Hello Mr. Stanger,

Here is the information you requested regarding the conflict auctions you/your family participated in:

Area	County	**Lease Number**	**Auction Year**	**1. Lessee 2. Other Applicants**	Lease Term	Authorized AUMs	Grazing Acres	Improvement Value	High Bidder	High Bid	Premium AUM Rate/Year	AUM Rate for Year AFTER Auction	AUM Rate Plus Premium Rate
Eastern	Bingham	**G800148-a**	**2012**	1. Bruce Stanger 2. Galen Williams 3. Dexter Van Orden	20	504	2,232	$36,330	Bruce Stanger	$91,100	$9.04	$6.36	$15.40
Eastern	Bingham	**G800148-b**	**2012**	1. Bruce and Norm Stanger 2. Galen Williams 3. Chad Bachard 4. Brad Stanger	20	82	307	$6,670	Brad Stanger	$2,100	$1.28	$6.36	$7.64
Eastern	Bingham	**G800148**	**2012**	1. Bruce Stanger 2. Galen Williams 3. Val Carter 4. Chad Barchard	20	79	320	$7,140	Chad Barchard	$15,100	$9.56	$6.36	$15.92

I could not find any auction information for Brian, I hope this helps and feel free to call or email with any questions.

Jason Laney
Grazing, Ag, and Conservation Program Manager
Idaho Department of Lands
Office: (208) 334-0278

018

Cost of State Lease
Bruce Stanger 7/28/2021

Jason Laney
Grazing, Ag, and Conservation Program Manager
Idaho Department of Lands
Office: (208) 334-0278
JLaney@idl.idaho.gov

Ranae Jacobsen
Assistant to the Lands Director
208-334-0242
rjacobsen@idl.idaho.gov
Email to testify in person to the Land Board on Sept. 21st.

Hello Mr. Stanger,
Here is the information you requested regarding the conflict auctions you/your family participated in:
I could not find any auction information for Brian, I hope this helps and feel free to call or email with any questions.

Area	County	**Lease Number**	**Auction Year**	**1. Lessee 2. Other Applicants**	Lease Term	Authorized AUMs	Grazing Acres	Improvement Value	High Bidder	High Bid	Premium AUM Rate/Year	AUM Rate for Year AFTER Auction	AUM Rate Plus Premium Rate
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Eastern	Bingham	**G800148-b**	**2012**	1. Bruce and Norm Stanger 2. Galen Williams 3. Chad Bachard 4. Brad Stanger	20	82	307	$6,670	Brad Stanger	$2,100	$1.28	$6.36	$7.64
Eastern	Bingham	**G800148**	**2012**	1. Bruce Stanger 2. Galen Williams 3. Val Carter 4. Chad Barchard	20	79	320	$7,140	Chad Barchard	$15,100	$9.56	$6.36	$15.92

019

1. Cost of State Lease
   a. On September 11th, 2012 Norman & Bruce Stanger paid $91,100 for 504 AUM's. Brad Stanger paid $2,100 for 82 AUM's. On September 23rd, Chad Barchard paid $15,100 for 79 AUM's.
   b. Norman and Bruce Stanger's $91,100 plus Brad Stanger's $2,100 plus Chad Barchard's lease $15,100 for a total of $108,300 for 20 years, so that would work out to be $5,415.00 per year + interest at 6%. The total price with the 6% interest is $6,498 per year. $6,498 plus the average additional annual rate from 2012-2021 (9 years) is $6.84 per AUM. $6.84 x 665(AUM) = $4,548.60. The $17.91 annual cost for the leases (G80014 8-a G80014 -b and G80014 8) plus the $6.84 average rental cost = $24.75.
   c. In addition, the cost of maintaining the current improvements on these leases (12 miles) annually over the course of 20 years is $2,520.60 plus labor. 2 weeks of labor @ $7.25 (current minimum wage) = $580.00. $2520.60 + $580 = $3,100.60 ÷ 665AUMs = $4.66 per AUM. $4.66 plus the average rental cost of $24.75 per AUM = $29.41. In addition, we have not ascribed any cost of transportation of cattle to the lease, work involved in maintaining health and herd numbers while on the State Lease, any losses due to vandalism, accidental shooting, rustling or fire etc., or the inability to utilize the annual paid for AUM's during drought years. Over the course of 20 years this easily, from past experience, would cost anyone $3 per AUM. $29.41 + $3.00 = $32.41.
   d. An annual cost increase at this time of $3.00 per AUM plus the conservative annual cost of $32.41 would equal $35.41 which is $5.00 more than the average price of $30 for private leases in our area.
   e. Private Lease holders have the security of not having the general public at large accessing their property. When you consider the losses incurred from rustling and accidental shooting plus vandalism by the general public on public lands this is a value that public lands cannot provide.

2. The Practice of Contest Bidding
   a. Only 5% of the State Grazing Leases are Contest Bid, therefore it is patently unfair for the 95% of the State Lease holders that are not paying for the contested lease to be paying the same rate as a 5% of contested lease holders who in addition to paying the annual cost of AUM's have to average the cost of owning the lease over the time period of the lease. Not even considering that the State Land Department was essentially prepaid at the time of the contest, thereby using the monies interest free for the course of the lease.

b. The majority of uncontested leases are uncontested because the State Lands have neither access nor water without the lease holders privately joining ground, therefore if someone contested
c. The number of AUM units that we are currently paying on the State Lease would not support the AUM's without the rest rotation program that we have because of the deeded private land adjoining it. If the State Leasee had no other place to go to rotate the cattle during the 4-month grazing season the lease itself would not sustain the cattle in any normal year as well as any drought year. And yet the cost of owning the state lease goes on regardless of the capacity of the lease to sustain itself for the period of the lease. Therefore, the joyous lease holder has the option of replacing the grass in drought years if he can by paying additional private lease rates as well as the cost of maintaining the unsupportable state lease or over pasturing the state lease. In good years to compensate for previous income loss and in bad years because there is not enough grass. Therefore, the range quality of the 5% contested leases are deteriorating. Furthermore, because the state land departments personnel are not monitoring the number of cattle or the time that the cattle are put on or taken off of the State Leases they are unable to protect the quality of Idaho's Grazing resources. Therefore, over time these leases will sustain less and less forage for the animals grazing them. Since there is no monitoring in place by the state, the private land owner adjacent to lease state land leases has the responsibility of keeping the unregulated cattle off of his managed private lease at his expense. This is no way for the State of Idaho to neighbor in a ranching community. In addition, we have been informed that the only consideration, due to the supreme court ruling with John Marvel vs. The State of Idaho, is that the monies gleemed for education is the only thing to be considered. And yet currently the State Lands bureaucracy is only giving $.60 on our lease dollar for education and spending $.40 per dollar on themselves. And according to them that is still not enough for them to fulfill their obligations to be a good neighbor in the ranching communities of Idaho. The State of Idaho State Lands Department has evolved to a point of view that these grazing lands are there to provide job opportunities for their employees who feel they have the ownership of these grounds to satisfy the cost of their jobs and returning just enough to the educational endowment to maintain some pretense of existence. In addition, if their true intent was for the State Land of Idaho to return the maximum amount of money to the Educational Endowment, why aren't these state lands being put up for sale with that revenue money going to a trust and thereby relieving the state land department from their overtaxing obligations. In addition, this would create more taxable land within the individual counties of the State for local road improvement, policing etc. Instead of going to a centralized bureaucracy in Boise, Idaho.

It does not take much imagination to realize with this slim of a profit margin that in the overall 20-year lease period, you're in a break even to losing financial investment for this grazing lease at current or increased annual grazing rates. The inevitable temptation over time is to overstock your range to recoup financial loss and of course this leads to the deterioration of the range itself and eventually the number of actual AUM's available. There are two reasons for us paying such a high premium to keep this lease. 1. We have adjoining deeded range so we can include the State Lease in a rest rotation program thereby maintaining the quality of the forage on the State Lease. 2. The State Lease by itself without oversite and monitoring from the State Land Department the lease then becomes vulnerable to abuse. Without adjoining deeded range this abuse can happen in two ways, too many cattle or by leaving the cattle on the lease for too long a grazing period. With no convenient way of removing cattle in a timely fashion a lease holder other than ourselves and with no interest in maintaining the range; forces us into a defensive position in trying to protect our deeded range from abuse.

In our experience by itself the State Lease cannot support the current number of AUM's ascribed to it from the Department Lands without some kind of rest rotation program. We are currently paying the state for AUM's that we are not using. Especially in times of drought. In short, we are overpaying the state already without any rate increase.

Unlike grazing associations and private leases that strictly count the number of cattle and length of time the cattle are on those leases as well as requiring certification for disease free animals in both bulls and cows. The state of Idaho Department of Lands does not have enough personnel and expects the lease holder to provide this oversite for them which a responsible rancher will do if he has a vested interest in adjoining property. But without these considerations in an ever-increasing cost of the lease and with no vested interest in the area the State of Idaho is promoting abuse of its own resource. Also, all State of Idaho Lands are open to public for fishing, hunting and rustling. Which is a common occurrence and results in significant losses to lease holders. All three of which sometimes results in significant losses to lease holders.

Many private leases are now owned by absentee property owners who have no knowledge or minimal knowledge of range management. And are solely looking for economic return on their investment until such time that it can be sold for other commercial investments than grazing. This puts an artificially high premium on grass.

The most expensive grazing leases that I know of locally are on the Indian Reservation and I think these are motivated by a desire of the Indians to rid themselves of non-Indian people utilizing their resources on their reservation. The most grieves part of the State of Idaho department of Lands idea that their grazing leases should be brought into accord with private grazing leases is simply that they have forgotten that out of those private grazing leases the land owner is paying property tax to the county and in return receives services for his tax dollar for schools, roads, police, fire protection as well as ambulance for the local citizens. The State of Idaho Land department pays no property tax to the county on their grazing leases that the public is using for fishing, hunting and rustling and thereby utilizing roads, ambulance services and fire control. Yet they are not contributing to the local community. We are currently subsidizing the state so that the public can access and enjoy State Lands. Therefore, counties with large amounts of State Lease ground in them do not have effective law enforcement, ambulance and fire, control and prevention or decent roads.

Another Leasee has no interest in maintaining the lease past its useful life so he has no motivation to be a good neighbor or to care for the lease properly. I can show you in person examples of this in our area, both on state grazing lands as well as private grazing leases.

The simple fact that the Idaho State Lands bureaucracy is consuming $0.40 of every $1.00 that we are paying in grazing fees thereby delivering only slightly more that $0.50 to the educational foundations of the State leads me to believe that the Lands Departments self interest is solely for itself. If you truly we interested in funding State Grazing Lands for education contested State Leases should reasonably be considered unlike State Leases that are not contested thereby not providing a premium to the endowment fund. It is patently unfair!

When the computer model takes into account that many, and by far not all grazing leases are at the $30.00 AUM rates, I believe they have forgotten that those deeded acres are subject to property tax within their counties that subsidizes the ambulance, police and roads in their respective areas while to my knowledge the State Lands do not, therefore if you can't differentiate between all state lands leases contested and uncontested or that you think you should have a lease rate comparable to deeded ground without paying your fair share of property tax it's seem to me to be quite an overreach on the part of State Government.

Hopefully this isn't so, for my prediction further attitudes from centralized State Government such as the afore mentioned will ultimately erode the agricultural community within the State of Idaho, thereby limiting future food and fiber production for future Idahoans.

In conclusion, we have as a family been in possession of this State Lease for approximately 140 years (before Idaho was a State). My forefathers homesteaded the deeded property adjoining the state ground which was at the time due to lack of potable water or amount of level, un-rocky or unwooded ground suitable for homesteading, or it surly would have been homesteaded at the time. At that time the Department of Lands recognized the value of having private citizens maintain this precious resource on behalf of their need to provide good education for the citizenry. At that time the agency itself realized these lands are not as productive or valuable as those taken up by homesteading or desert entry. Somehow that's been forgotten, and now we are in a position of having to subsidize these lands or face competition who have no vested interest in the lands themselves.

August 16, 2021

Dustin Miller, Director
Idaho Department of Lands
300 N. 6th Street, Suite 103
Boise, ID 83702

Dear Dustin:

As you know, the entire state of Idaho is experiencing a severe drought which is having reverberating effects across the state's economy. Key among those affected are Idaho's farmers and ranchers. Currently, the majority of the state is in moderate to severe drought, according to the U.S. Drought Monitor. As of today, twenty Idaho counties have been declared to be in a state of emergency due to drought. Already, ranchers across the state are having to make the difficult decision to liquidate their herds in the face of the rising feed costs and reduced grazing opportunities that have resulted directly from the drought. In the midst of this, the Idaho Department of Lands (IDL) has proposed an increase to the state's grazing lease rate. As drought conditions only worsen across the state, the Idaho Cattle Association and Idaho Farm Bureau join together to call your attention to this issue and to seek for a pause in consideration of the grazing rate proposal. Our industry is facing a great deal of uncertainty right now and a state grazing rate change would only add to additional pressures being felt by producers.

Additionally, you may be aware the Idaho Farm Bureau is in the process of collecting data regarding state lessee's non-fee costs associated with operating on state land compared to private land leasing. This information would build on the University of Wyoming's study to produce more statistically significant results from which IDL could rely to arrive at more accurate and verifiable non-fee costs for Idaho state land lessees. This information is not yet complete but will be at some point this fall. This adds to the need for a pause in implementation of the state grazing rate change.

Our organizations both have several additional concerns related to this proposed change, particularly relating to its reliance on the NASS private lease rate and the under-valued non-fee costs associated with operating on state lands. There is certainly a need for greater clarification on the calculations used by IDL to arrive at the newly proposed formula. In our mutual review, there is not enough information at this point from which to base a Land Board decision on this important issue. We will further detail these concerns to you in our individual organization's comments however, we wanted to jointly call your attention to the pressing matter of the drought and its effect on Idaho producers, coupled with the uncertainty of the data provided. Now is not the time to increase fees or put more pressure on Idaho's cattle and sheep producers.

We appreciate the efforts you have made in considering our concerns in the past on this issue and we urge caution in moving forward with the current proposal this year. As always, please feel free to reach out to us if you would like to discuss our concerns in more detail.

Sincerely,

Jay Smith, President
Idaho Cattle Association

Bryan Searle, President
Idaho Farm Bureau Federation

CC: Idaho Land Board Members

· 2120 Airport Way · P.O. Box 15397 · Boise · Idaho · 83715 · 208.343.1615 · www.idahocattle.org ·

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Tuesday, August 17, 2021 2:53 PM
To: Comments
Subject: Comment Submitted

From: Kent Howell at sykes3170@gmail.com
Phone: 2082010282
Address: 3009 North 4000 West
City: Dayton
State: Idaho
Zip Code: 83232

Comment:
We are not opposed to a new grazing formula, but we are opposed to the amount of recreational use being allowed on our leases.

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Wednesday, August 18, 2021 2:07 PM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Thompson Matt at wadesaddle1@gmail.com
Phone: 208-589-3185
Address: 1202E. 900N.
City: Shelley
State: Idaho
Zip Code: 83274

Comment:
I would like to provide comment on the proposed grazing rate methodology study. My family has held leases with the Idaho Dept of Lands for many years and appreciates the opportunity. I feel the current formula established by the University of Idaho has served the State and the grazing leasees well as it is tied to the market price for livestock that fluctuates from year to year. 2020 with the effects of Covid-19 on the markets and the extreme drought of 2021 have been tough years on the livestock business. In the same year ranchers are scrambling to find and pay for winter feed IDL is reporting its highest revenue returned to the endowment in history. I realize there is higher costs and inflation for the state as well but under the current formula when livestock revenues increase so does the grazing fees. I feel its fair for both parties over the long term and would encourage the State to look at the value of the long term relationships with the leasees and the stability it provides to the State Endowment
I believe the State of Idaho should consider other ways of administering the leases and the lease renewals to provide more stability for both the State and the leasees. I would be more open to a rate increase if it came with more lease stability. The premium bid auction create alot of tension between neighbors and other ranchers, creates alot of work for the staff and legal advisors that comes with alot of cost to the State. If a system was established to provide stability to a leasor, like a first right of refusal to a lease challenge or even a long term lease similar to a BLM lease. I realize it would take a constitutional amendment or legistlative changes to accomplish this but feel it would be a viable alternative to look into.
There are many costs associated to operating a State lease versus a private lease that need to be considered, I understand the State would like to receive higher rental rates similar to what a private lease rate but they are sure not an apple to apple comparison. As a State leasee you are responsible for fence construction and maintenance, management of the cattle or sheep including providing them salt and mineral. You are responsible for weed control. Because of the increased recreational use of the public since Covid-19 you need to check the cattle and fences more frequently to keep the gates closed and cattle dispersed and you just have to co exist because they have access to your State land. On a private lease the leasee is willing to pay higher rates the more services that are offered. The higher fees include fences that are maintaned , management and care including salt, mineral and riding horseback often and the medicine and doctoring of the livestock. Gathering the cattle in the fall to be picked up in a corral and searching for cattle that have strayed is usually part of the deal as well. The gates can be locked, hunting can be allowed or not and charged for if land owner desires. Tresspaing and vandalism can be minimized on private land if the landowner is willing to put out the effort. The private land owner has property taxes. insurance costs and interest on borrowed money to pay that the State does not. The State recieves fire suppresion from the grazing and maintaned fences to keep stray cattle from tresspassing onto endowment land as an additional benefit to grazing fees it collects. If the State had to hire staff to build and maintain fences, and control weeds and the increased fire potential would add significant cost to the State. I believe having livestock on the endowment land provides many benefits to the State Lands and that needs to be averaged into the rental rate that is charged and I believe the current rate methodology provides for that.
I know of a grazing lease that was issued after a premium bid auction that brought a substantial return to the State. Since the auction 10 years ago the IDL has incurred way more costs in legal and staff time spent administering the lease

than it ever received through the premium bid and the costs are still occurring . Because the terms of the grazing lease had not been followed by the leasee and fences to seperate endowment land from the private land were not built by leasee the private land owner sued the State of Idaho in court and prevailed in court. To my knowledge the State was ordered to pay for the fence construction and maintenance of existing fences on their legal half of the fences as well as the legal fees of the private land owner. The indemnification clause in the lease that was issued covered the State from paying the legal fees and fence costs incurred but the State chose to incure the costs and the lease is still in place to this day with a new lawsuit filed that is pending to my understanding. I strongly believe there are many ways the State could get a higher return to the Endowment from grazing revenues with better management by IDL. I believe managing for the long term viability of the Endowment is the goal and chasing dollars through premium bids and higher grazing fees shouldnt always be the answer.

Thank You,
Matt Thompson

From:	Jim Hagenbarth <hagenbarthj@msn.com>
Sent:	Monday, August 23, 2021 9:23 AM
To:	Comments
Cc:	Karen Williams
Subject:	Proposed New Grazing Fee Model
Attachments:	2019 grazing fee cost evaluations- Sheridan Unit.docx; Cost Analysis on the Sheridan Unit-2018 FB.docx; SHERIDAN UNIT- Improvements 1970-2018.docx; Copy of IDpasture 2018 fields-Grazing study.xls; Cost X Analysis on the Camas Meadow BLM Grazing Allotment-2018.docx; Cost Analysis on the High Five Cattle-2018.docx

Dear Jason:

As a state land grazing lessee in Idaho (Lease #G8407), I am commenting on the proposed New Grazing Fee Model developed by your agency. As you are aware I have put in a lot of time working on this issue with your agency trying to come up with a formula that is equitable to both the school trust and the lessee. The formula devised is a breath of fresh air in that it is based upon the USDA NASS private grazing rate for Idaho and formulated grazing costs within the state and across the western border in Oregon on grazing lands similar to those in Idaho. We can all squabble about each of these parameters, but they both relate directly to the cattle industry in Idaho. The weakest link is the number of operations used to develop average costs figures. Costs are very difficult to separate out on multi-enterprise agricultural operations.It is important that this formula will have a 5 year review to update costs.

The benefactors of school trust income and return on investment advocates do not understand that grazing fees paid on state land are for forage on open space. The costs of infrastructure to responsibly graze state lands is significant, not to mention the escalating PPI price index for products needed to sustain a grazing operation. When comparing graphs on increases of private vs state grazing rates, little attention is given to the huge rise in the PPI costs for the same period. Trust benefactors seldom realize that the lessees are providing management for trust lands at little cost to the state as these lands appreciate in value and lessees' management is irreplaceable. On commingled lands the management of state lands is restricted by federal mandates related to the ESA and this decreases their production potential.

As trust benefactors press for more revenue from state grazing lands, the department has a better legal standing to defend this model vs the old model. The rate increase being proposed will certainly be questioned by many in the industry. Past studies by Rimbey and Torell on federal land leases indicate costs have risen to the point that federal lessees should be compensated for the costs of their management. As a Idaho state land grazing lessee working in a landscape where intermingled ownership impacts our ability to manage costs and production, increased fees certainly are of concern. In 2018 I was asked to participate in a study involving the PL and the University of Wyoming on grazing costs on Idaho State Lands and on federal leases. I did not complete my work in time for Idaho's study, but did sent in the results for Idaho and federal permits we graze. I will attach the data for these studies for your perusal. One will see the amount of development required to responsibly graze an intermingled grazing resource is significant and all costs are based on the true definition of a 1000 pound AUM. An excel spreadsheet is used to pro-rate animal weights and grazing periods in the units being grazed. Hopefully these analyses will be helpful and indicate the cost side of the proposed model needs more participants than have been used to develop the same. As for the formula being proposed, it certainly is better than the old formula and is more defensible in court.

Thanks for the opportunity to comment,

Jim Hagenbarth

2019 Non-Fee GRAZING COST EVALUATIONS

Idaho State Endowment Trust Lands
Sheridan Unit
Addendum

<u>l. General Ranch Description</u>

This ranch has units in Montana and Idaho. The Montana unit is currently being used as late fall, winter, and spring grazing and is located near Glen, Montana. This unit is in a high desert setting along the Big Hole River with an average precipitation below 10 inches per year. This unit is made up of mostly deeded and state lands, with a dash of BLM. The Idaho unit is used for early spring, summer and fall grazing use and lies on the south side of the Centennial Mountains around Kilgore, Idaho and about 30 miles west of Yellowstone National jjjnPark. This area has from 13 to 25 inches of moisture and lies on the eastern edge of the Snake River Plain and has some very fertile volcanic soils along with southern areas of lava outcroppings. The family history of this ranch runs back into the 1870's in both states and the current operation is a 5% remnant of the original outfit that went broke in the mid 1930's. My father, D. V. Hagenbarth, started to put this ranch back together in 1938 using his experience gained while working for the original operation for the first 35 years of his life. Idaho has the best grass and Montana had the best winter range. This was originally a sheep out fit and in 1973 switched to cattle. Currently we are a cow/calf/yearling operation and moving toward a straight stocker enterprise.

I will provide cost analyses of the Idaho unit because it has a 21,000 acre forest allotment that is run separately, a 6600 acre BLM allotment (54% BLM) that can be isolated on a cost and use basis easily, and a 16,000 acre grazing unit that is intensively managed and is 59% state, 28% private and 13% BLM. My brother and I have developed an estate plan where the Montana and Idaho units are in separate limited partnerships owned by our four children. My son John bought all the cattle and manages the grazing operation and he leases the land from the LP's on a 1000 pound AUM basis. John operates as Hagenbarth Livestock (HL). AUM's are valued based on quality of forge and time of year. The ranch has been mapped with all fields identified as to acres and % ownership. An excel spreadsheet is used to calculate the harvested AUMS, field use, period of use, AUMs substituted with supplement, weight of livestock, class of livestock and columns that breakout a 1000 pound AUM based on weight of animal class and average gain over grazing period in a field. A subchapter S management company (Hagenbarth Management-HM) ran by my brother manages the land in the LP's and keeps separate cost records on the base lands. My son, John, keeps separate costs on his livestock as they harvest the AUM's and also keeps track and apportions any land costs that he pays for back to HM and through to the LP's. This is all settled up once a year and costs and grazing fees are allocated to each entity based on a 1000 pound aum. We feel very comfortable that we have a good handle on our costs. My brother and I work for HM on an hourly wage and all living expense comes out of our personal income and not the business entities. There are no fringes. All fuel, labor, insurance and other costs are identified separately and logged to the appropriate entity. With this accounting system the costs of providing the infrastructure necessary to make available one 1000 pound AUM of forage off of open space can be determined. This includes all costs related to maintaining this infrastructure (fences, wells, machinery, taxes, BLM and state grazing fees, and etcetera). John pays and keeps track of all costs related to owning and managing the livestock that harvest the AUMs. The forest service permit is held by HL because the USFS would not let the Idaho LP hold the lease because it did not own the livestock, even though one of its shareholders did. The BLM and state agencies in both states were more flexible and sensible. Consequently all costs associated with the forest permit are paid and kept separate from the other entities.

The average livestock inventory reflects the number and class of animals that arrive in Idaho to begin the spring grazing season. The pairs that grazed the forest allotment in 2018 were range calved in Idaho about two miles south of the allotment. I will use a separate form for each of the three allotments I submit information on. The pairs that run on the forest allotment are shipped to Idaho about June 1 to two fields that are part of the state unit (Sheridan unit) I am also submitting costs on. The pairs are gathered off the forest allotment starting about October 1 to the Sheridan unit. The calves are worked, turned back out and weaned in about 3 weeks. The cows are pregged and remain on the Sheridan unit till the rough feed is taken and then they are either trailed to another Idaho unit or shipped to our Montana unit. The forest service is being treated as a stand-alone unit and all AUMs and management costs allotted to these cows when they are not on the forest are apportioned on an AUM basis harvested in the unit used in relation to the total AUMs harvested in Idaho, excluding the forest service. Since the forest allotment is owned by HL and John pays all the associated costs while the cattle are on this allotment, no LP or HM costs are allotted to the AUMs harvested off the forest allotment. Transportation costs of shipping a cow from Montana to Idaho and back to Montana are being charged to the forest allotment at the apportioned cost of $3.60 per AUM with a total amount of $10,933 (3037 1000 pound AUMS x 3.60). As explained above the cows that graze the forest are on the Sheridan unit when they are not on the forest allotment. Transportation costs are charged to the Sheridan unit in the amount of $13,108 (3641 AUM x $3.60) for the time these forest cows spend on the Sheridan unit. Also the Sheridan unit has a transportation expense of $2.50 per yearling AUM for an amount of $12,642 (5057 AUM x $2.50) for a total transportation charge for the Sheridan unit of $25,750.

<u>lll. Lease Characteristics and Management.</u>

1. Allotment Management Unit - Allotment Acreage and Ownership
   There are 2,105 acres of BLM, 8,349 acres of state and 4,514 acres of private land within the Sheridan unit for a total of 14,968 acres.
2. The type of vegetation was taken from a state land study done in 2003 by state lands for the Antelope Valley Planning Unit of Grazing Lease G8407.
3. Total 2018 Grazing Use (AUMs)
   I have included Attachment A that identifies the time periods, fields and acres grazed, number and class of cattle, adjusted weight and 1000 pound AUMs harvested for the Sheridan unit. When forage is being managed and sold on an AUM basis it is imperative to calculate the actual 1000 pound AUMs that are available and harvested. This gives you the true dollar value of the forage raised and an accurate idea of the production on the unit being grazed. This also allows one to determine an accurate cost associated with raising and harvesting that AUM and allows one to apportion expenses accurately. The actual grazing use on the Sheridan unit based on a 1000 pound AUM was 8698 AUMs. The grazing on the Sheridan Unit by the pairs that used the forest service was converted to 1000 pound AUMs as per Attachment A. When one compares grazing costs based on AUMs between different

operations and surveys, it is extremely important to use similar AUM figures, but very difficult to do so.

4. The topographic features of land in the Sheridan unit was also taken from the 2003 state land study.
5. 22 fields
6. We use a high intensity short duration grazing system in most of the fields. A couple larger fields in the southern portion of the unit have a rotation where one field is used in the spring for two continuous years and the second field is used later for the same two years. The rotation is changed every two years. Two fields in the unit are used late in the fall due to poison.
7. This lease has been used by our family for 79 years.

IV. Range Development and Maintenance Costs

A. Range Improvements Developments. See Attachment B for all range improvement developments since 1971. Portions of cost share are noted with asterisks. I am not sure how this non-fee grazing cost evaluation will take into consideration the infrastructure costs that are needed to facilitate the optimal economic harvest of forage off open space while enhancing the grazing resource with livestock hoof disturbance and excrement's. I am familiar with the state's treatment of these costs and I do not agree on how they are handled. It is the state lessee that develops a plan which allows this funding to become available. In many instances private land is encumbered to get this funding that adds value to the state land. If a state lease is put up for bid, no value is given to the portion of the infrastructure that was developed with outside funding and secured by the lessee. If the lease is lost, the new lessee gets the improvements made with outside funding for nothing. This is a disincentive for a lessee to include state land in any government funded range programs which in the long run increases AUMs harvested on state land and funding to the school trust.

B. Range Improvement Maintenance. There is only one well pumped in the Sheridan unit with an actual costs of $851 that was paid by Hagenbarth Livestock and covered in overhead costs. Hagenbarth

Management is responsible for the other land costs listed in (6)-(8) under B. Range Improvement Maintenance. A contract fencer was used to put up and let down all the fences for a total actual cost of $6,235 in 2018. We have a one woman weed crew and she spot sprayed in the Sheridan Unit in 2018 for a cost of $4002 and we areal sprayed an 85 acre patch of Scotch thistle at a cost of $3,803 for a total expenditure of $7,805 in 2018 for weeds. We had two fencing projects in 2018 in the Sheridan unit for a total cost of $15,301 and these are also itemized in Attachment B under deeded fence projects.

V. Other Cash Costs

A. (1) Salt and Mineral.

Using the total 2018 AUMs harvested and the 2018 mineral and salt expense account our operation expends $2.73/ 1000 lb AUM on mineral and salt. There were 8698 AUMs harvested off the Sheridan unit so the salt and mineral costs were $23,746 ($2.73 x 8698) for 2018. Note: For reference salt is 5.5% of mineral cost ($1,306). The veterinary and medicine costs for our operation are $2.76/ 1000 pound AUM so the costs on this unit are $24,006. Of this amount remedial medicine used was $1/AUM or $8698. Other costs that occur were the 2018 state grazing fee of $25,696 ($8.02 x 3,204) , BLM grazing fee of $437 (310 AUMs x $1.40), the Idaho Rangeland Commission Fee of $442 for all classes of land ($.02/ acre or $.10/aum) and interest costs of $19,049 (8698 x $2.19).

There are two other major costs that are accounted for on a 1000 pound AUM basis and that is Hagenbarth Livestock's costs associated with the expense of managing the cattle as they harvest the AUMs off the land and Hagenbarth Management's cost of providing and maintaining the infrastructure on the land and all costs associated with management of the land. The overhead costs accounted for by Hagenbarth Livestock do not include trucking, mineral and salt, vet, pasture or interest, which are HL separate cost categories The overhead costs of HL are $6.29 per 1000 pound AUM and on the Sheridan unit this amount is $54,710 (8698 x $6.29) and includes all labor and payroll costs, horses, well pumping costs, vehicle maintenance, gas, utilities, insurance and so on. The

Hagenbarth Management Idaho land costs for 2018 were $13.39 per 1000 pound AUM ($116,466). Individual HM land costs that have been itemized for the Sheridan unit are $6,235 for fence maintenance, $7805 for spraying, and two fencing projects in the Sheridan unit for $15,301. In addition to the land costs itemized above, HM also pays the state land grazing fee of $25,696, BLM grazing fee of $437, Rangeland Commission fee of $442, and monitoring costs of $640 that I have itemized and are included in the $116,466 figure above for land costs paid by HM associated with the Sheridan unit. All the above itemized costs amount to $55,916 which leaves $60,550 of HM costs that are not specifically itemized ($116,466-$55,916). See Attachment C, Cost Analysis on the Sheridan unit for a numerical explanation of all the figures above. Fees are a part of doing business and grazing fees give the lessee the responsibility to do most of the management on state land as their livestock harvest the forage on open space that the state land provides. These invisible polygons of ownership make it difficult to holistically manage a grazing resource economically.

VI. Death Losses-

A. See form for A-C
B. Miscellaneous Costs- We currently have a privately funded monitoring study going on in the Sheridan Unit that is measuring the impact of using herbicides to manage wyethia and sagebrush. This study is measuring the positive and negative impacts of herbicide on native and domestic forbs, grasses and brushes as vegetation is being manipulated. In 2018 we spent $640 (16hrs x $40/hr) on this project.

VII. Labor

A. Seasonal and permanent help are paid $3350 per month. Room costs $350 per month and withholding on gross of about 17% equals $920 per month
   Average days worked per month is 22 days, so cost per day of labor is $194. Day help is paid $150 per day.
B. The total labor expended on the Sheridan unit is not separated out but is included as a portion of the overhead per AUM of all expenses for

managing the cattle on the Idaho unit by Hagenbarth Livestock and in the land management costs figures kept by Hagenbarth Management.

VIll. Transportation

A-E. Please review the last paragraph under (l.) General Ranch Description in regard to how transportation costs of cows from the Montana unit to the Idaho unit are being handled along with the cost of transporting the yearlings from Montana to the Sheridan unit. Note: All vehicular and equipment fuel and maintenance costs are included in the Hagenbarth Livestock overhead charges and in costs kept by Hagenbarth Management. The value of the capital inventory of the vehicles, machinery, and housing facilities needed to support these businesses in managing the land and livestock are not considered in this evaluation, but they are substantial. Structural facilities on the grazing units being analyzed are itemized in Attachment B which correlates to section lV. Range Development and Maintenance costs on the form.

lX. Horse use- covered in Hagenbarth Livestock overhead.

X.Technology

No technology costs were charged

General explanatory comments

It is our intention as a family to keep this land base as a functioning economic and ecologic sustainable grazing resource. Operators who have worked with the land over periods of time develop a land ethic that requires them to be responsible caretakers of and participants in nature's home all while exercising society's trust given to them as tenants, not owners of the land. This is extremely difficult with the landscape being fractured with so many jurisdictional polygons that holistic management is a nightmare for those of us that are serious stewards. The psychological, physical, social and economic challenges of continuing this task are immense, yet society has little recognition of adequately compensating us for our services that no other entity could provide. The real costs above bear testimony to the fact that the wrong entity is paying the grazing fee. Livestock provides the disturbance necessary to sustain diversity in the grazing landscape, yet marketing, not grazing, determines if we can persist as nature's and society's caretakers. Management skills and marketing have allowed us to survive so far.

Cost Analysis on the Sheridan Unit

2018 Grazing Season

Total 1000 Pounds AUMs harvested in 2018

8698 Aums (All livestock classes converted to 1000 pound AUMs) See Attachment A

Range Development Costs (out of pocket) since 1971-See Attachment B $449,962

<u>Hagenbarth Management Land Costs</u>

Total land management cost in Idaho $210,184

Total 1000 pound AUMs harvested in Idaho 15699

Land Costs per 1000 pound AUM $210,184/15699 $13.39

Total land cost for Sheridan unit

8698 AUMS x $13.39/AUM $116,466

Land costs itemized on form

Fence Maintenance $6,235

Weeds $7,805

New Fence $15,301

Rangeland Commission fee $442

BLM Grazing fee

310 AUMs x $1.41 $437

State Land Grazing fee

3204 AUMs x $8.02 <u>$25,696</u>

Total itemized HM costs $55,916

Total HM Costs not itemized $60,550

Total HM costs for Sheridan Unit $116,466

<u>Hagenbarth Livestock Management Costs</u>

Overhead Costs for HL does not include trucking, salt and mineral, vet, pasture, or interest.

Total HL overhead $6.29 / 1000 pound AUM

Total overhead costs for Sheridan Unit

$6.29 x 8698 AUMs $54,710

Overhead Costs itemized on form

Water pumping costs ($851) for reference

HL costs not included in overhead

Salt and Mineral $2.73/AUM x 8698 $23,746

Vet and Medicine $2.76/AUM x 8698 $24,006

Interest ($2.19/AUM x 8698) $19,049

Trucking

Pairs $3.60 x 3641 $13,108

Yearlings $2.50 x 5057 <u>$12,642</u>

Total Trucking $25,750 $25,750

Loss

5 calves (500# x $1.70) $850 $4,250

6 yr Str ($800# x $1.33) $1064 <u>$6,384</u>

$10,634 <u>$10,634</u>

Total HL costs excluding pasture $157,895 <u>$157,895</u>

<u>HL livestock management cost per 1000 pound AUM</u> $274,361

$157,895/8698 = $18.15

<u>Livestock (HL) and Land (HM) mgt costs per 1000 pound AUM</u>

$274,361/8698= $31.54 per 1000 pound aum ($13.39 + $18.15)

$31.54 x 1.5 = **$47.31 per pair (1500 pound AUM)**

Idaho Improvements

SHERIDAN UNIT

Deeded

Water

1974 Dry Creek Headgate (USFS land)	4917
1995 Kim's Pond Dirt Tank 102 hours x 50/hr	5100
1996 Lock Springs Pipeline, storage tank and trough (7621-5096cs*)	2525
2000 #1 Headgate Structures (Rawhide Johnson and Mike Mull)	10,415
2001 Ridge Well Vollmer- Well, Storage, Trough $24,241-$12,703*	11538
2003 Antelope headgate and ditch renovation-Irrigation- Rawhide	9046
2006 Antelope Pond renovation and headgates Rawhide, Grover	14,267
2007 Wolf pond renovation Rawhide	1,310
2007 Sheridan Lake hard water gap	1,000
2007 Middle Pond hardened water gap	1,000
2011 Headquarter Springs Trough and Spring Renovation	6,704
2012 Sec 12, 13N40E, Lodge Pasture Irrigation Structures (State Water Right)	998
	Total $68,220

Fence

1978 4 wire stay Ld posts @ 40' Fence out Ridge Deed prt. 720 rd x 5.55 R	3996
1990-2012 Corrals and Scale at #2 (37,320 x 80% Sheridan unit)	29,856
1990 #1 and #2 division 3wire electric Vadnais 256 rods	1010
1996 N&W side MW Ant 1wr elc + cattle guard (4286-2793cs*)	1493
1997 3 wire electric Back side of #2 2344 x .548	1284
1998 1 Wire electric s side NW Ant 8448 ft x .227 (1918- 566cs*)	1352
1998 1 wire electric e side NW Ant 924 ft x .227 (2097- 619cs*)	1478
2002 Riparian fence Sheridan Creek 2226 x .857 (Henry's Fork-Bradshaw)1908*	0000
2004 N and E sides of NE of Sec 6, 13N41E HC 5280 x .57	3033
2004 E side of SE of Sec 6, 13N41E Split-RB 2640x .657 = 1735/2 3we	867
*2006 Division of Ridge & 22 Field 17835' fence + row + cattle guard	13,710
2007 #2 and #3 division fence 3we 3531 feet x .883	3119
2007 Replacement on E boundary of Ridge 1980' x .74 (.5 paid by Rivb)	1465
2010 Singleton Ridge-cattle guard east to BLM 3160 x 1.23	3887
2010 W side of Sec 6, 13N41E & Part of N side of SW of 6 5481x.793 3we	4632
2010 S ROW A2 from State in Sect 10 to #2 1980' x 1.19 swe	2356
2010 S ROW A2 North side of #2 3630 x .892 x 3630	3238
2012 S ROW A2 From new Cor to state, #1 Sec 11 (775'x 1.07) 3we	808
2013 N side of #4 along A2 ROW (USFS Land) 3531' x 1.071	3783
2013 N ROW A2 from Lodge gate to Sec 7, 13N40E 1484 x 1.62 3we	2404
2014 E and W sides of Sher Ripar from A2 to Peterson 2195'x1.78 3we	3896
2014 S and E side of Peterson HC Sec 6, 13N41E (split/Pet) $6108/2=$3054/2	1527
2014 Ernies Horse Pasture 3we 2619 x 1.08	2825
2016 1 wire electric E/W S Ridge Division 8078' x .48	3907
2017 4 wire stld RB SW Antelope West side Hawkins to NW Ant 5280 x 1.20	6316
2017 4 wire stld RB Ridge/E22 East Cattleguard to Wolf Pond 10928 x .64	7028
2017 3 wire electric New Riverb Ridge to cattle guard 1356 x 1.18	1609
2018 Wolf Pond Holding Pen 5 wire barb 2 stay 16.5' 5600 feet	9290
2018 4 wire stld RB Ridge/W22 Wolf Pond to Forest Spur 4272 x 1.40	6011

Total	$126,180

Vegetation

2009 Wyethia SW Antelope Sec 14,13N39E 420 Acres @ 23.20	9744
2009 Seeding SW Antelope Sec 14, 13N39E 420 Acres @ 22.17	9311
2012 Wyethia NW Antelope Sec 11&14, 13N39E 515 acres @ 19.49	10037
2013 HC Sprayed Larkspur Sec 6,13N41E 57 Acres x 112.58	6417
2014 Wyethia South Ridge Sec 22,23,26,27,28, 13N40E 860 Ac x19.17/ac	16486
2015 Wyethia Spray #3 and Horse Ps Sec15, 13N40E 114 x 18.66	2172
2015 Wyetia East Antelope 8 acres and 34 Acres in West Ant 42 x 18.66	784
2016 Wyethia West Antelope Sec 13, 13N39E 230 acres x 19.51	4487
2017 Wyethia West Ridge Sec 20,21,28,29, 13N40E 512 ac x 18.31	9375
2018 Scotch Thistle Spraying SW Antelope	2085
Total	$68,813

BLM

Fence

1997 Back side of #2 3 wire electric 1320 x .546	362
1998 Lock Springs 6378 ft x .48 (3061-1977*)	1084
1998 3 wire electric (Back side of #3 and #4- Sec 15) 2483 x .463	1150
2010 Singleton Ridge fence E of cattle guard 1320 x 1.23	1624
Total	$4,220

Vegetation

2015 Wyethia Spray #3 Sec 15,13N40E,nwsw,senw 40 acre x 18.66	746
2016 Wyethia Spray nwnw Sec 24 13N39E 20 acres x 19.51	390
Total	$1136

State

Water

1978 Mick,s Pond Dirt Tank 15 hours x $45/hr	675
1978 Wolf Pond Dirt Tank 70 hours x $45/hr	3150
2007 Duck Pond Rehab (dug out and hardened)	7181
2009 Dry Creek #3 & #4 Headgates Rawhide	4968
2012 Sec 10,15,16, T13N,40E. #3 & #4 Irrigation Structures (State Water Right)	19,959
2012 Sec 13,13N39E & Sec 18,19,20, 13N40E Antelope (state water right)	23,640
Total	$59,573

Fence

1975 East side of West 22 651 rods x 9.25 *Evans ½ Vadnais re-stay?	6021
1996 E side of MW Antel 1wre Elec+ Cattle guard (2139-1397cs*)	742
1997 3-wire electric Back side of #2 1320 x .548	723
1998 # wire barb Lock Springs (1595 x .48 (766-494*)	305
1998 3-wire electric (Back side of #3 and #4- Sec 15 and 16) 6758'x.463	3129
2003 3-wire electric (Howard Creek- E side of NE of Sec 7) 2310'x .642	1482
2003 Tear out fence from #4 to West 22	1340

2003 3-wire electric (south side of Neck- Sec 16) 2200'x .65	1430
2004 E side of NE Sec 7, 13N41E 2640' x .642 3we	1483
2006 Division of Ridge & 22 Field (DOL cont-2729*) + lessee cost on state 11,644	11,644
2007 Replacement on E boundary of Ridge (5280'x1.48/2 split w Rivb)	3907
2008 Div between #3 and $4 3 wire electric Tear out and build 4125'x.795	3283
2010 S Row A2 SW of Sec 10 3-wire electic (3we)1320x1.19	1571
2011 Tear out N side of #4 3654' x .246	853
2011 S A2 ROW #4 3627' x 1.08 3we Fence on FS	3921
2012 S ROW A2 Fr new corral to old cor #1 Sec 11,12 13N40E (4356x1.07)3we	4661
2013 N ROW A2 Fr Sec 7 ,13N41E to cattle guard HC 2640 x 1.62 3we	4277
2013 A-2 s ROW tear out on state	853
2013 West side of #4. Sec 16, 13N40E 3627'x1.08 3we	3921
2013 Branding trap Sec 20, 13N40E East side of A2	2946
2015 Lit Antelope Div Fence Sec 19 and 20 13N40E 4620' x 1.06 1we	4867
Total	$63,359

Vegetation

1993 Wyethia Sec 10,13N40E 26 acres sprayed x 9.00	234
2006 West 22 Fire guard Dixie Harrow	1652
2006 West 22 Fire guard- Larry Garner	1402
2011 Lit Antelope Wyethia 584 ac x 18.38	10,734
2011 #4 Wyethia 21 ac x 18.38	386
2013 #4 Wyethia 285 ac x 20.42	5820
2013 HC Sec 7, 13N41E Spry Larkspur 45 Acre x 112.58	5066
2014 Wyethia S Ridge Sec 22,23,26,27,T13N40E 240 ac x 19.17	4600
2015 #3 Wyethia Spray Sec 15, 13N40E 151 Acres x 18.66	2818
2015 East Antelope Wyethia Sec 17 &18 13N40E 379 ac x 18.66	7072
2015 Wyethia Henniger Gravel Pit 90 Acres x 11.20 MSN 60 only	1014
2016 West Antelope Wyethia Spray 318 acres x 19.51	6204
2017 Wyethia West Ridge Sec 16, 20,T13N40E 309 ac x 18.31	5603
2018 Wyethia Big Ant (120 Ac) + Neck (95 ac) 215 ac x 17.54	3771
Total	$,56,376

Total Development costs

Water	$127,793
Fence	$193,759
Vegetation	$128,410
	$449,962

Development Costs- Land Ownership

Deeded	$265,298
State	$179,308
BLM	$5356
	$449,962

Cost Categories by Land Ownership

Water

Deed	$68,220
State	$59,573
	$127,793

Fence

Deed	$126,180
State	$63,359
BLM	$4220
	$193,759

Vegetation

Deed	$79,898
State	$56,376
BLM	$1136
	$128,410

Idaho 2018 fields

Date In	Date Out	Field	Acres	Type	# of Cattle	Class of Cattle	ADJ Weight	DIF	AUM's	Aums/acre
6/18/18	7/3/18	#1	310	o	537	med hefs	665	15	179	0.58
8/30/18	9/5/18	#1	310	o	698	big steers	840	6	117	0.38
9/5/18	9/11/18	#1	310	o	428	strs	870	6	74	0.24
9/6/18	9/11/18	#1	310	o	28	big steers	873	5	4	0.01
9/13/18	9/19/18	#1	310	o	22	big hefs	913	6	4	0.01
9/14/18	9/19/18	#1	310	o	183	big hefs	913	5	28	0.09
9/28/18	10/3/18	#1	310	o	90	pairs	1500	5	23	0.07
10/3/18	10/15/18	#1	310	o	310	pairs	1500	12	186	0.60
10/15/18	10/25/18	#1	310	o	91	pairs	1504	10	46	0.15
10/25/18	10/29/18	#1	310	o	427	pairs	1507	4	86	0.28
10/29/18	11/2/18	#1	310	o	427	cows	1200	4	68	0.22
11/3/18	11/9/18	#1	310	o	98	opens	1200	6	24	0.08
		#1 Total							838	2.70
7/3/18	7/9/18	#2	270	o	537	med hefs	665	6	71	0.26
9/6/18	9/12/18	#2	270	o	455	med strs	835	6	76	0.28
9/12/18	9/13/18	#2	270	o	223	big steers	950	1	7	0.03
9/12/18	9/13/18	#2	270	o	183	med strs	950	1	6	0.02
9/13/18	9/18/18	#2	270	o	377	med hefs	820	5	52	0.19
9/14/18	9/18/18	#2	270	o	386	med hefs	820	4	42	0.16
9/21/18	10/2/18	#2	270	o	40	strs	770	11	11	0.04
9/21/18	10/2/18	#2	270	o	82	lit strs	770	11	23	0.09
10/3/18	10/4/18	#2	270	o	309	pairs	1500	1	15	0.06
10/12/18	10/15/18	#2	270	o	66	pairs	1500	3	10	0.04
10/15/18	10/30/18	#2	270	o	327	pairs	1503	15	246	0.91
10/30/18	11/3/18	#2	270	o	327	cows	1201	4	52	0.19
11/3/18	11/13/18	#2	270	o	259	cows	1202	10	104	0.38
		#2 Total							716	2.65
7/9/18	7/26/18	#3	274	o	537	med hefs	665	17	202	0.74
9/5/18	9/12/18	#3	274	o	223	big steers	950	7	49	0.18
9/6/18	9/12/18	#3	274	o	183	med strs	950	6	35	0.13
9/17/18	9/19/18	#3	274	o	21	lit hefs	750	2	1	0.00
9/17/18	9/19/18	#3	274	o	120	lit hefs	750	2	6	0.02
9/27/18	10/1/18	#3	274	o	287	pairs	1500	4	57	0.21
10/1/18	10/3/18	#3	274	o	309	pairs	1500	2	31	0.11
10/12/18	10/15/18	#3	274	o	16	pairs	1501	3	2	0.01
10/18/18	10/25/18	#3	274	o	307	pairs	1505	7	108	0.39

		#3 Total							492	1.80
7/26/18	8/13/18	#4	306	o	537	med hefs	740	18	238	0.78
8/27/18	9/6/18	#4	306	o	754	med strs	785	10	197	0.64
9/5/18	9/21/18	#4	306	o	40	strs	750	16	16	0.05
9/6/18	9/21/18	#4	306	o	82	lit strs	750	15	31	0.10
		#4 Total							482	1.58
6/26/18	7/11/18	e 22	2196	o	861	pairs	1500	15	646	0.29
		e 22 Total							646	0.29
7/12/18	8/7/18	e s. ridge	734	o	759	med strs	730	26	480	0.65
		e s. ridge Total							480	0.65
10/4/18	10/18/18	east ant	1837	o	301	pairs	1500	14	211	0.11
		east ant Total							211	0.11
7/26/18	8/10/18	ernies	32	o	15	cow	1200	15	9	0.28
7/26/18	8/1/18	ernies	32	o	7	bulls	1750	6	2	0.08
8/1/18	8/9/18	ernies	32	o	8	bulls	1750	8	4	0.12
8/9/18	8/10/18	ernies	32	o	11	bulls	1750	1	1	0.02
9/13/18	9/17/18	ernies	32	o	120	lit hefs	750	4	12	0.38
9/14/18	9/17/18	ernies	32	o	21	lit hefs	750	3	2	0.05
10/4/18	10/11/18	ernies	32	o	30	dries	1200	7	8	0.26
11/3/18	11/13/18	ernies	32	o	37	pairs	1500	10	19	0.58
10/10/19	10/19/19	ernies	32	o	18	bulls	1750	9	9	0.30
		ernies Total							66	2.05
9/26/18	9/28/18	howard cr	499	o	127	pairs	1500	2	13	0.03
9/28/18	10/3/18	howard cr	499	o	180	pairs	1500	5	45	0.09
10/12/18	10/15/18	howard cr	499	o	32	pairs	1502	3	5	0.01
10/17/18	10/25/18	howard cr	499	o	29	pairs	1506	8	12	0.02
11/2/18	11/13/18	howard cr	499	o	359	cows	1200	11	158	0.32
		howard cr Total							232	0.47
6/5/18	6/22/18	lit ant	619	o	576	big hefs	670	17	219	0.35
8/13/18	8/30/18	lit ant	619	o	692	big steers	810	17	318	0.51
		lit ant Total							536	0.87
8/21/18	9/7/18	lock spgs	1030	o	597	big hefs	790	17	267	0.26
		lock spgs Total							267	0.26
6/22/18	7/5/18	me ant	388	o	576	big hefs	670	13	167	0.43
8/13/18	8/28/18	me ant	388	o	537	med hefs	740	15	199	0.51
		me ant Total							366	0.94
8/4/18	8/21/18	mw ant	627	o	576	big hefs	790	17	258	0.41

9/7/18	9/14/18	mw ant	388	o	597	big hefs	825	7	115	0.30
		mw ant Total							373	0.71
8/28/18	9/13/18	n ridge	1059	o	537	med hefs	785	16	225	0.21
		n ridge Total							225	0.21
7/12/18	7/14/18	neck	115	o	270	pairs	1500	2	27	0.23
7/17/18	7/19/18	neck	115	o	299	pairs	1500	2	30	0.26
7/23/18	7/25/18	neck	115	o	208	pairs	1500	2	21	0.18
		neck Total							78	0.68
7/5/18	7/20/18	nw ant	524	o	576	big hefs	730	15	210	0.40
		nw ant Total							210	0.40
7/20/18	8/4/18	sw ant	584	o	576	big hefs	730	15	210	0.36
		sw ant Total							210	0.36
5/28/18	5/30/18	w 22	2537	o	209	pairs	1500	2	21	0.01
5/30/18	6/1/18	w 22	2537	o	443	pairs	1500	2	44	0.02
6/1/18	6/4/18	w 22	2537	o	780	pairs	1500	3	117	0.05
6/4/18	6/20/18	w 22	2537	o	815	pairs	1500	16	652	0.26
6/20/18	6/26/18	w 22	2537	o	861	pairs	1500	6	258	0.10
		w 22 Total							1093	0.43
7/11/18	7/12/18	w ridge	1237	o	861	pairs	1500	1	43	0.03
7/12/18	7/17/18	w ridge	1237	o	591	pairs	1500	5	148	0.12
7/17/18	7/23/18	w ridge	1237	o	292	pairs	1500	6	88	0.07
8/7/18	8/27/18	w ridge	1237	o	754	med strs	750	20	377	0.30
		w ridge Total							655	0.53
6/19/18	7/12/18	w s. ridge	480	o	760	med strs	655	23	382	0.80
9/1/18	9/3/18	w s. ridge	480	o	85	Mays Hefs	1000	2	6	0.01
9/3/18	10/19/18	w s. ridge	480	o	88	Mays Hefs	1000	46	135	0.28
		w s. ridge Total							522	1.09
		Grand Total							8698	18.78

Cost Analysis on the Camas Meadow BLM Grazing Allotment

2018 Grazing Season

Total 1000 Pounds AUMs harvested in 2018				
1994 Aums (All livestock classes converted to 1000 pound AUMs) See Attachment A				
Range Development Costs (out of pocket) since 1971-See Attachment B				$216,824
Hagenbarth Management Land Costs				
Total land management cost in Idaho		$210,184		
Total 1000 pound AUMs harvested in Idaho		15699		
Land Costs per 1000 pound AUM $210,184/15699			**$13.39**	
Total land cost for Camas Meadow Allotment				
1994 AUMS x $13.39/AUM				$26,700
Land costs itemized on form				
Fence Maintenance	$3,134			
Weeds	$863			
Spraying	$880			
Rangeland Commission fee	$158			
BLM Grazing fee				
694 (1500 lb.) AUMs x $1.41	$978			
State Land Grazing fee				
176 AUMs x $8.02	$1,411			
Generator capital cost	$2396			
Vegetative Monitoring	$320			
Total itemized HM costs	$10,140			
Total HM Costs not itemized	$16,560			
Total HM costs for Camas Mead Unit Unit				$26,700
Hagenbarth Livestock livestock management Costs				
Overhead Costs for HL does not include trucking, salt and mineral, vet, pasture, or interest.				
Total HL overhead $6.29 / 1000 pound AUM				
Total overhead costs for the Camas Meadow Allotment				
$6.29 x 1994 AUMs		$12,542		
Overhead Costs itemized on form				
Water pumping costs (2751) for reference				
HL costs not included in overhead				
Salt and Mineral $2.73/AUM x 1994		$5,444		
Vet and Medicine $2.76/AUM x 1994		$5,503		
Interest ($2.19/AUM x 1994)		$4,367		
Trucking per 1000 lb. AUM $3.60 x 1994		$7,178		
Loss				
17 calves (500# x $1.70) x $850		$14,450		
Total HL costs excluding pasture		$49,484		$49,484
HL livestock management cost per 1000 pound AUM				$76,184
$49,484/1994 = $24.82				

Livestock (HL) and Land (HM) mgt costs per 1000 pound AUM

\$76,184/1994 = \$38.21 per 1000 pound aum (\$13.39 + \$24.82)
\$38.21 x 1.5 = **\$57.32 per pair (1500 pound AUM)**

Cost Analysis on the High Five Cattle & Horse Allotment

2018 Grazing Season

Total USFS AUMs harvested in 2018

59314 Head Days with Pairs (1500 pounds) 1977 Head Months

Conversion to 1000 pound AUMs (Attach B) 3037 AUMS

Range Development Costs since 1971 $55,960

2018 Allotment costs

Weed Spraying		$468	
Fence Maintenance		$5,100	
Salt & Mineral $2.73 x 3037 AUMs		$8291	
Vet $2.76 x 3037 AUMs		$8382	
Interest 3037 AUMs x $2.19		$6651	
Transportation Cattle 3037 x $3.60		$10,933	
Transportation Allotment		$2314	
Horse costs 110 days x $31.80		$3498	
		$45,637	$45,637
USFS grazing fee	$2278		
ID Rangeland Com Fee	$162		
Private Inholding Taxes	$515		
State land grazing fee	$2136		
	$5091		$5091
Labor			
Rider 58 days x $194	$11,252		
Ranch crew 32 days x $194	$6,208		
Monitoring, Water Rights & Meetings 7 days x $240	$1680		
Day help 15 days X $150	$2250		
Total Labor	$21,390		$21,390
Loss			
6 cows (1200# x $.45) $540		$3240	
44 calves (500# x $1.70) $850		$37,400	
1 bull $2,500 Rep Value		$2,500	
Cow Rep Value ($1400-540)$860x6		$5,160	
Total loss		$48,300	$48,300
		Total costs	$120,418

Cost per head month (1500 pounds) $120,418/1977 = $60.90

Cost per 1000 pound AUM $120,418/3037 = $39.65

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Wednesday, August 25, 2021 8:36 AM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Jones Brent at tammyalmo@gmail.com
Phone: 2083127791
Address: PO Box 151
City: ALMO
State: Idaho
Zip Code: 83312

Comment:
I think the grazing rate should be based on the price of cattle. The private grazing sometimes involves people that do ranching as a "hobby" and their livelihood does not depend solely on cattle and can expend unrealistic amounts of money compared to ranchers

From: Patrick Kelly <patrick@westernwatersheds.org>
Sent: Thursday, August 26, 2021 5:40 PM
To: Comments
Subject: Grazing Rate Review Comments
Attachments: WWP comments to IDoL on grazing fees_2021.pdf; Att 1_Dr. Thomas Power ID Grazing Lease Rpt 8-30-2017 (1).pdf; Att 2_2019_CRS Report_Grazing Fees.pdf

Hello there,

Please see attached comments and supporting documentation from Western Watersheds Project on the proposed new model for the state of Idaho grazing rate. Let me know if you have any questions. Thank you.

--
Patrick Kelly
Idaho Director
Western Watersheds Project
(208) 576-4314
patrick@westernwatersheds.org

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web site: www.westernwatersheds.org

Working to protect and restore Western Watersheds and Wildlife

August 26, 2021

Dustin Miller
Idaho Department of Lands
300 N. 6th Street
Suite 103
Boise, ID 83702

Via email to comments@idl.idaho.gov

Comments on behalf of WWP on Idaho state land grazing fees

Dear Mr. Laney:

The following are the comments of Western Watersheds Project on grazing fees charged by the State of Idaho on state lands. We are concerned that the proposed new model under consideration does not meet the constitutional mandate to "secure a maximum long term financial return" for state schools, and also does not appear to meet the mandate to secure a "market rate" for state land grazing fees per the business plan for grazing leases.

The State of Idaho should also be considering in detail the alternative previously proposed in 2017 by Dr. Tom Power, a PhD economist from Montana with expertise on livestock grazing fee structures, for the State of Idaho's consideration in setting grazing fees for state Trust Land sections. Though it specifically addresses the now tabled 2017 proposal, it is still directly relevant to the current 2021 proposal and warrants close review. It does not appear that this report was fully considered and evaluated in detail by the subcommittee before it forwarded its recommendations to the Land Board. We are attaching this report again so that it can be fully evaluated by the entire Land Board.

At Western Watersheds Project, we believe that livestock grazing is not the highest or best use of state lands, and in many cases livestock grazing is not a land use that will bring the highest Return on Asset to the state trust fund and the citizens that it serves. But in cases where the State chooses to lease Trust section for livestock grazing, it should do so under a fair market rate that provides a maximum Return on Asset for the citizens of Idaho, in accord with constitutional requirements.

According to a 2019 Congressional Research Service report (attached), private grazing fees averaged $23.40 per head as of 2017. USDA statistics list an average grazing fee on

Idaho private lands at $18.50.[1] The proposed new model would yield far less (only 58%) than the market rate for private lands grazing leases, and does not depart significantly from the status quo.

Per Dr. Power's recommendations, we urge the State to set grazing fees at 84% of private lease rates in order to achieve fair market value and maximum Return on Asset, as outlined in the attached report. While Dr. Power recommends a 10-year phase-in of fee hikes to achieve such an increase to fair market rates, WWP believes that the State's legal obligations constrain the State to implementing fair-market rates immediately, rather than over a 10-year span.

We also would encourage the Idaho Department of Lands to directly solicit comments on the grazing fee from the Idaho Department of Education, local school districts, teachers, and students. A cursory review of the comments received indicates that none of these recipients and beneficiaries of the state grazing fees has provided input to the process, and it would seem that such input should weigh considerably in this process.

Thank you for your consideration, and please keep us apprised regarding future actions involving State of Idaho livestock grazing fees.

Respectfully yours,

Patrick Kelly

Patrick Kelly
Idaho Director
Western Watersheds Project

Attachments:

1. Analysis and recommendations of Dr. Thomas Power, PhD on the economics of the Idaho state grazing fee.
2. CRS Report on federal grazing fees, including corresponding private lease grazing fees.

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[1] *See* https://www.nass.usda.gov/Charts_and_Maps/Grazing_Fees/gf_am.php

Comments on the Idaho Department of Lands
2017 Grazing Rate Methodology Review

Submitted by

Western Watersheds Project

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Prepared for

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by

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August 30, 2017

About the Authors:

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Donovan S. Power received his undergraduate degree in Geosciences at the University of Montana and his Master of Science in Geology from the University of Washington. He has been the Principal Scientist at Power Consulting, Inc. for the past ten years.

Comments on the Idaho Department of Lands
2017 Grazing Rate Methodology Review

Executive Summary

Since September 2015, the Idaho State Board of Land Commissioners (Land Board) and the Idaho Department of Lands (IDL) have been reviewing the way they set grazing fees for ranchers who lease Idaho State Endowment Trust Lands (Trust Lands) for livestock forage. In late June 2017, IDL released a "Grazing Rate Methodology Review" that listed and briefly described five alternative approaches to annually setting Trust Lands grazing fees. At the same time, IDL announced a 60-day public comment period ending September 1, 2017, to receive comments on those five alternative approaches to setting Trust Lands grazing fees.

These comments are offered in response to that invitation.

The analysis in the main body of these comments support the following conclusions about the alternative approaches to setting Idaho Trust Lands grazing fees that the IDL has laid out for public review and comment.

- In general, none of the alternative ways of calculating Idaho Trust Lands grazing fees that the Land Board has offered for public comment will lead to grazing fees that reflect the fair market value of the forage on those lands or provide the target rate of return on asset value. In that sense, it appears that most of those methods are not literally consistent with the Idaho constitutional mandate that the Trust Lands be managed "…in such a manner as will secure the maximum long term financial return…"

- There is no conceptual or empirical reason that Trust Lands grazing fees cannot be set at fair market value if the Land Board believes, as its criteria for evaluating alternative methods of setting Trust Lands grazing fees suggest, that fair market value or fair market return on assets is the proper target in setting those grazing fees. We **know** how to estimate the fair market value of Trust Lands forage. The University of Idaho Policy Analysis Group has repeatedly done that for the Land Board in order to demonstrate how close or how far away various proposed Trust Lands grazing fees are from the fair market value target. In addition, those fair market values provide an annual estimate of the value of Trust Lands grazing. As the PAG has pointed out: "…this provides a fair approach to setting grazing rates, as it removes potentially arbitrary adjustment factors used in other formulas, and closely indexes the price paid to private lease rates." [1]

- Under most of the alternative approaches to estimating Trust Lands grazing fees, the historic base value of the Idaho per AUM grazing fee that is then projected forward using indices of various relevant economic factors needs to be regularly re-estimated and then re-indexed to provide estimates for future years. The current base value has not been changed since 1993 nor were the index values reset when it was adopted. As a result, there is little

[1] Dennis Becker, Policy Analysis Group, University of Idaho, "Alternative #6 Addendum – Grazing Rate Review Analysis, February 26, 2017. p. 5.

reason to trust the current formula and its logic is anything but transparent. Any new formula should be periodically be reset with a current per AUM base grazing fee in contemporary dollars and the indices reset to trend that grazing fee forward.

- The formulae used to estimate the Trust Lands grazing fees should not combine data associated with livestock markets and production with data reflecting private grazing land fees as the current formula does. Doing so creates statistical problems that make the estimated Trust Lands grazing fees inaccurate and misleading. Dependable fair market Trust Lands forage values will not be derived from such approaches.

- In addition, a major simplification of the current Trust Lands grazing fee formula could provide the most defensible Trust Lands grazing fee formula. Private land grazing fees are highly correlated with each other from one year to the next providing a relatively stable index for predicting future private grazing fees. In addition, private grazing lands fees represent valuable market information as to what Idaho livestock forage is worth. Adjusted for differences in owner-provided services, these private grazing land fees can determine a fair market grazing fee for Trust Lands.

- The five criteria by which the Land Board has asked the proposed formulae for determining Trust Lands grazing fees be evaluated are not consistent with each other. For instance, the fifth criterion is that the "formula is fair, predictable and certain for both parties."[2] Unfortunately agricultural markets are not "fair, predictable and certain." Instead they are notoriously volatile in ways difficult to predict and impersonal in their impact on ranchers. This puts that criteria in conflict with the second criteria: "The formula is a defensible process driven by market data."[3] If, for instance the market information that is used are the price of beef and the costs of raising beef, the resulting Trust Lands grazing fees are likely to swing substantially from year to year. This is not as likely to be the case if the Trust Lands grazing fees are tied to Idaho private grazing land fees.

- The University of Idaho Policy Analysis Group has demonstrated that the Montana Model can be applied to Idaho to determine empirically-based fair market grazing fees for Idaho Trust Lands. That formula involves only the Idaho private lands grazing fees and an estimate in the differential value of land-owner-supplied services. That approach estimates a fair market Trust Lands forage rate each year. As a result, a past "base value" does not get out-of-date. This approach also provides relatively steady values for Trust Lands grazing fees from year-to-year. It is also based on easily understood data.

- The IDL's presentation of the Montana Model in its request of comments deviated significantly from the University of Idaho Policy Analysis Group's presentation. It is difficult to reconcile the two presentations. The IDL's version of the impact of the Montana Model should not be used until it is explained, modified if necessary, and re-presented to the public for comment. The University of Idaho Policy Analysis Group's presentation of the Montana Model *can* be used for the comparative analysis.

[2] Op. cit. University of Idaho Policy Analysis Group, "Grazing Rate Review Analysis, January 20, 2017, p. 2.
[3] Ibid.

- Recent empirical analysis of private and Trust Lands grazing fees in Idaho indicates that private land grazing fees can be converted to fair market grazing fees for Idaho Trust Lands by reducing the private grazing fees by 12 to 14 percent. This is a much smaller discount for services not provided to grazers than earlier studies suggested was appropriate. Similar analysis in Montana determined that the differences in services provided to ranchers on private compared to trust grazing lands, justified a 22 percent reduction from private grazing fees to obtain fair market forage value for trust lands.

- Other recent empirical analysis in Idaho has surveyed those owning and leasing private grazing lands for livestock production. The analysis of that data allowed the estimation of the determinants of Idaho private lands grazing fees. Those estimated Idaho private grazing fees were not statistically different from the annual estimates provided by the federal National Agricultural Statistics Service (NASS) estimates. That provides some confidence in the reliability of using that federal data on Idaho private grazing fees to set Trust Lands grazing fees. These types of empirical studies of private grazing practices in Idaho can also allow the periodic adjustment of estimated fair market Trust Land grazing fees.

- Projected increases in the sales value of Idaho Trust Lands should not be included in estimates of the return associated with grazing leases on those lands. Ranchers lease the forage on those lands. They do not rent or buy all of the property values associated with those lands.

- Projected increases in the sales value of Idaho Trust Lands also should not be included in calculating the “total return on assets” associated with grazing Trust Lands. There are political and legal limits to the sale of those Trust Lands and there is no imminent policy change that is likely to allow the sale of substantial parts of the Trust Lands. For that reason, the conversion of such theoretical land appreciation values into a cash flow is not a reasonably foreseeable outcome that should be included in state financial statements.

- The Idaho Land Board in early 2017 asked the University of Idaho Policy Analysis Group to analyze an approach to setting Public Lands grazing fees that was used in Montana for its trust lands. The Policy Analysis Group delivered the results of its study of that approach to the IDL in February 2017. Later in the year, the Idaho Land Board decided to include the Montana Model as one of the five alternatives on which the Land Board sought public comment.

    - The Policy Analysis Group analysis of the Montana Model concluded that it could be used to set the fair market value of Trust Lands grazing fees. That would assure that Idaho’s target return on asset value would be achieved. It would also be consistent with the Idaho constitutional mandate that Trust Lands be managed for the “maximum long term financial return.”

    - If the recent estimate that the lower level of services to grazers on Trust Lands reduces the value of Trust Lands leases by 12 to 14 percent is used in the Montana Model, the 2016 Idaho average private grazing fee of $17.34 per AUM would indicate that the fair market grazing fee for Trust Lands should be $14.91 per AUM. The actual Trust Land grazing fee in 2016 was $8.09 per AUM, only 54 percent of that estimated fair market value. In 2016, the Trust Land grazing would have to almost double to reach the estimated fair market value.

- Because of the size of the gap between current Trust Lands grazing fees and the fair market value of that grazing, it would take an 84 percent increase in the Trust Lands grazing fee to reach the fair market level. For that reason, it may be appropriate to move towards full fair market value over a ten-year period. During the first five years the Trust Lands grazing fees could move to 70 percent of the Idaho private grazing fees. In the following five years, the Trust Lands grazing fees could move to 86 percent of the private grazing fee level, the current fair market value for the Trust Lands grazing. During that ten-year period, the IDL could continue to analyze private grazing fees in Idaho and the differential value of the services provided by the state and private grazing land owners. That would allow the Land Board to check its progress in moving Trust Land grazing fees to reflect the fair market value of Trust Land forage.

Comments on the Idaho Department of Lands
2017 Grazing Rate Methodology Review

1. Introduction

Since September 2015, the Idaho State Board of Land Commissioners (Land Board) and the Idaho Department of Lands (IDL) have been reviewing the way they set grazing fees for ranchers who lease Idaho State Endowment Trust Lands (Trust Lands) for livestock forage. In late June 2017, IDL released a “Grazing Rate Methodology Review” that listed and briefly described five alternative approaches to annually setting Trust Lands grazing fees. At the same time, IDL announced a 60-day public comment period ending September 1, 2017, to receive comments on those five alternative approaches to setting Trust Lands grazing fees.

These comments are offered in response to that invitation.

By way of introduction, I am an economist who has been a Professor in the Economics Department at the University of Montana for almost 50 years. For thirty of those years, I was Chair of the Economics Department. I retired from teaching and university administration ten years ago but remain a Research Professor and Professor Emeritus. I am also the Principal Economist in Power Consulting Incorporated, Missoula, Montana. It is in the latter capacity that I have prepared the following comments on appropriate Idaho Trust Lands grazing fees.

Over the last several decades I have researched and published on issues associated with livestock grazing in the western United States as well as on many other natural resource issues in the Western states. A brief summary of my qualifications and experience is attached at the end of these comments.

I was asked to prepare these comment by the Western Watersheds Project, but the analysis, conclusions, and opinions expressed in these comments are entirely my own.

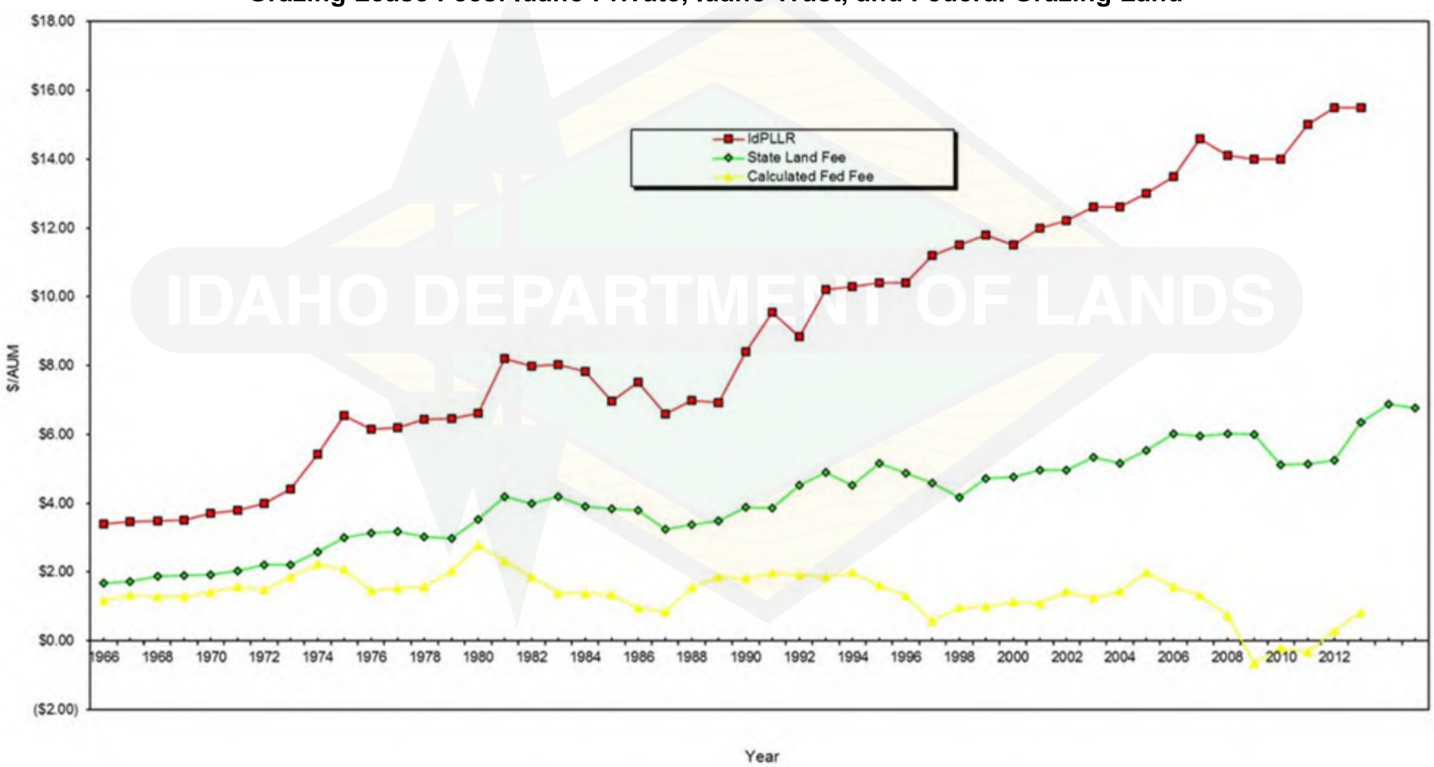
2. Idaho Trust Land Grazing Fees Compared to Private Grazing Fees and Those of Other Western States

Most of the Western states when they were admitted to the Union were given relatively large quantities of federal land to support their schools and other public services. Although some states sold off their federal trust lands and used the proceeds to support government institutions and programs, many Western states, like Idaho, still have substantial state-owned lands held in trust for schools or other state general fund activities. Many of those lands are also rangelands whose primary commercial use is providing forage for the raising of livestock. Those Western states also have to wrestle with how to establish a fair market grazing lease fees private ranch use of these state trust lands.

A comparison of Idaho's Trust Land grazing fees with private Idaho grazing fees and a comparison with those of other states provides some context in which to evaluate Idaho's success in establishing fair market forage values when leasing its grazing Trust Lands to ranchers.

Grazing fees for forage on private lands in Idaho (black squares in Figure 1) have been substantially above the per AUM fees charged by the IDL to graze on Trust Land (green diamonds in Figure 1) since at least 1966. The per AUM gap between the private Idaho grazing fee and the fee charged for forage on Idaho Trust lands has increased significantly over time in dollar terms with the gap in nominal dollars growing from about $2.15 in 1966 to $10.25 in 2015. The Idaho Trust Lands grazing fee expressed as a percent of the private AUM lease rate shows that the Trust Land rate declined from about 47 percent of the Idaho private land grazing fee in 1966 to about 40 percent of the private rate 2015.[4] See Figure 1 below.

Figure 1.
Grazing Lease Fees: Idaho Private, Idaho Trust, and Federal Grazing Land



Source: Idaho State Land Grazing Lease Rates: Historical Background, Dr. Neil Rimbey, University of Idaho, Extension Range Economist, 2014, p. 7.

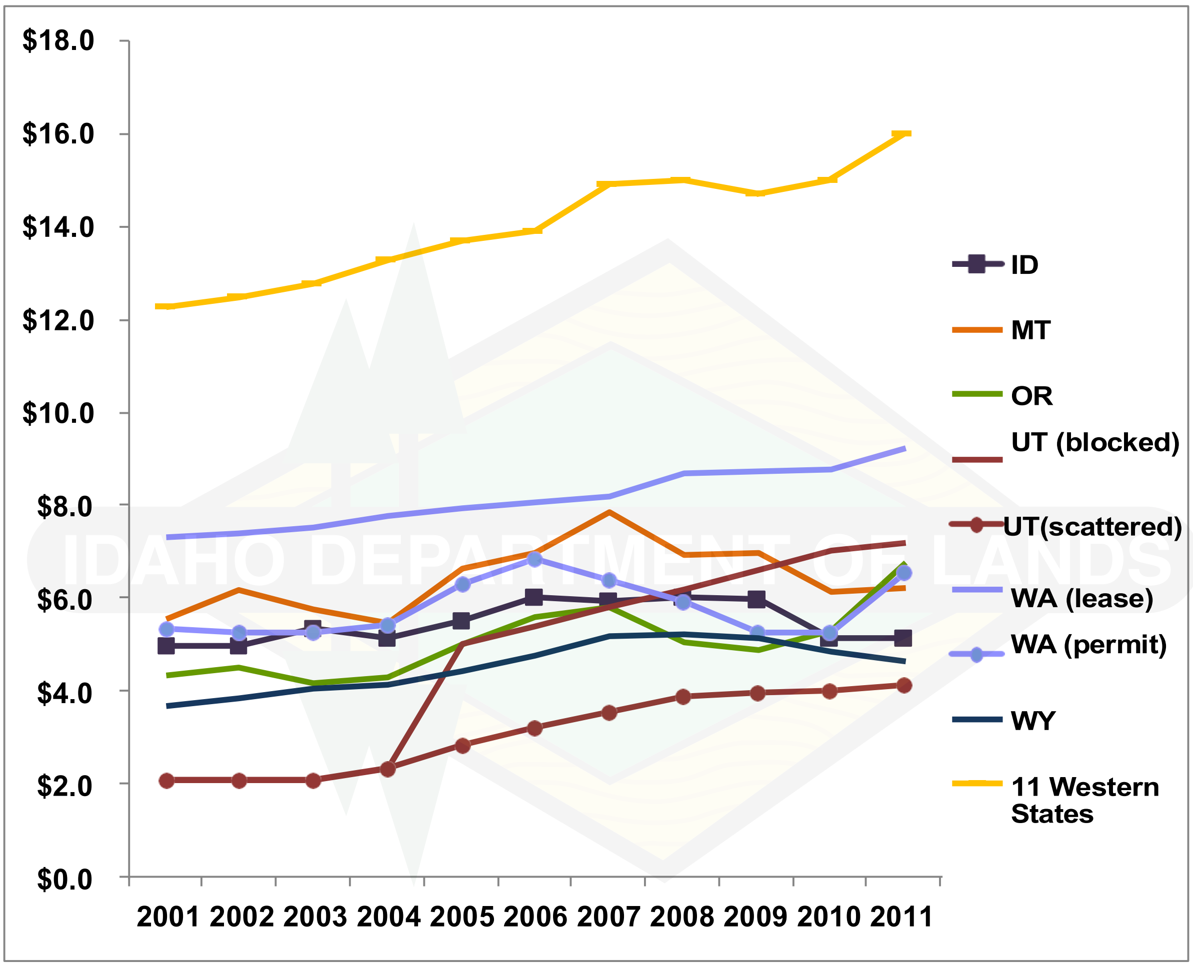
Also shown in Figure 1 is the Federal grazing fee (yellow triangles) that would result from the application of the Federal formula that is similar to that adopted by the Idaho Land Board. What is shown is the grazing fee that would have resulted if certain limits placed on the grazing fee actually adopted were ignored. So, Figure 1 does not show the actual federal grazing fees adopted, just the fee that the formula would have generated. One of those limits is that the

[4] Estimates approximated from the points in the figure.

Federal grazing fee cannot fall below $1.35 per AUM. That would rule out the *negative* grazing fees shown in Figure 1 for 2008-2012. Another limit is that any increase or decrease cannot exceed 25 percent of the previous year's grazing fee. That limit would smooth out some of the volatility in the Federal formula results shown in Figure 1.[5]

Figure 2

State Program Grazing Fee Trends, Dollars per AUM, 2001 - 2011



Source: Idaho Department of Lands Grazing Market Rent Study, August 2012, Figure 4.1, p. 65. The "11 Western States include AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, and WY. The individual states shown had the lowest grazing fees. Their individual grazing fees are contrasted with the average fees across all 11 Western States.

As will be discussed below, although the grazing fees paid by Idaho ranchers to graze their livestock on privately owned lands provides important, market-based, information on the value of forage in Idaho, one cannot simply assume that Idaho Trust Lands should be leased at rates exactly equal to those private grazing fees. There may be different costs associated with using private grazing lands as opposed to Idaho Trust Lands and there may be differences in the

[5] BLM and Forest Service Announcer 2017 Grazing Fee. https://www.blm.gov/press-release/blm-and-forest-service-announce-2017-grazing-fee

quality of forage. If such differences exist, they need to be empirically quantified in order to use private grazing fees to inform decisions as to the fair market value of the forage on Idaho Trust Lands.

The IDL commissioned a study of “trends in the private grazing land lease markets…in Idaho…to aid the Idaho Department of Lands in making decisions on how best to manage the state’s Endowment Trust Lands for its beneficiaries.” [6] In addition to the analysis of Idaho private grazing land leases, that study also compared Idaho’s Trust Land Grazing fees to those of other Western states between 2001 and 2011. That comparison showed that Idaho Trust Lands grazing fees were both among the lowest in the Western states and also showed by far the lowest annual rates of increase.

Figure 2 above shows the level of state trust land grazing fees for Western states over that decade. Idaho’s Trust Lands grazing fees per AUM are shown by the black squares. At the beginning of the 2001-2011 period, Idaho’s Trust Lands grazing fees were above those in Oregon, Wyoming, and Utah (scattered sections). By the end of that decade Idaho’s Trust Lands grazing fees had fallen below Oregon’s and were approaching those of Wyoming and Utah (scattered), the two states with the lowest fees of the states this IDL study used for comparisons.

One of the reasons for this relative decline in Idaho’s Trust Lands grazing fees compared to other Western states was the very slow growth or absolute decline in the Idaho Trust Lands grazing fees. Over the 2001-2011 period, there was almost no growth in the Idaho Trust Lands grazing fee, 0.4 percent per year. For the eleven Western states for which NASS reports the state trust lands grazing fees, the growth rate was 2.7 percent per year, almost seven times higher that the growth in the Idaho Trust land grazing fee. The Idaho Trust Lands grazing fee growth rate was less than one-tenth of the Oregon growth rate, about one-sixth of the Wyoming and Washington lease rates, and about one-twentieth of the growth rate of Utah’s scattered state grazing sections. See Figure 3 below. At least for this particular decade that the IDL study analyzed, Idaho’s Trust Land grazing fees were trailing other states in adjusting for changes in the economic value of Trust Land grazing.

The Idaho Land Board has asked the Policy Analysis Group (PAG) at the University of Idaho to “provide context for assessing financial performance of various methods of establishing grazing fees for Idaho Trust Lands.”[7] The University of Idaho PAG has carried out several analyses of different methods that could be used to establish Idaho Trust Lands grazing fees.[8] All of those analyses found that Trust Land grazing fees set by the existing formula and most of the alternative formulae that were considered did not lead to returns on Idaho Trust Lands grazing that met the competitive return that was set as the appropriate target. Put slightly differently, the Idaho private lands grazing fees can be adjusted to reflect fair market forage values by taking

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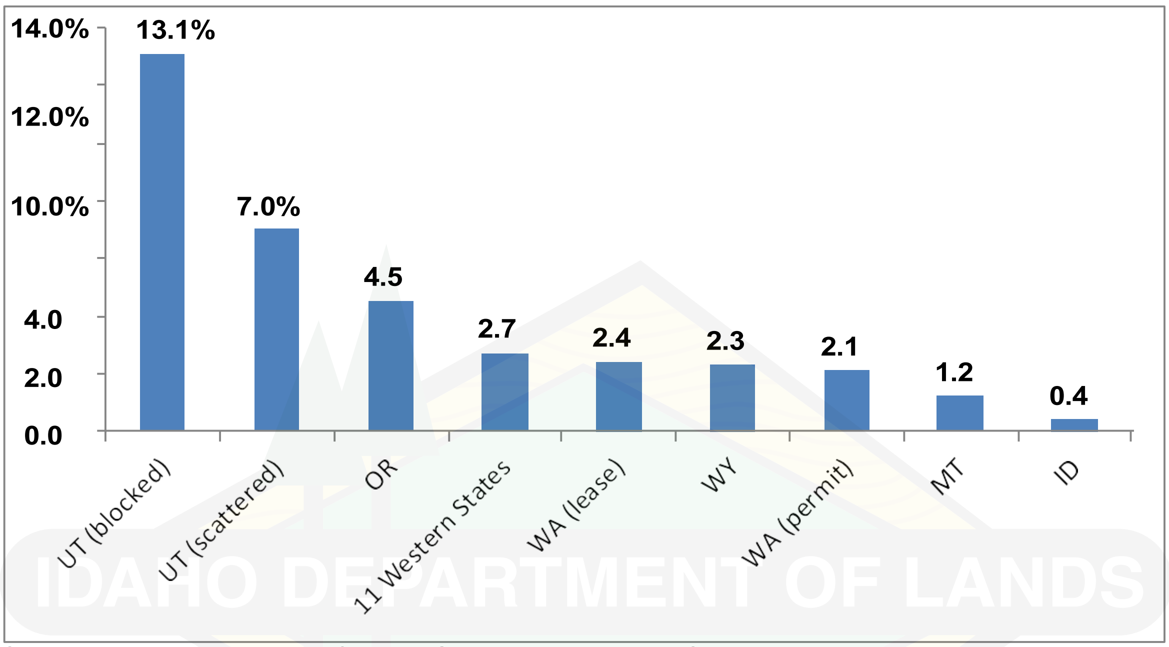
[6] Resource Dimensions, August 2012, “Idaho Department of Lands Grazing Market Rent Study.”
[7] Becker, Dennis R. and Phillip S. Cook, March 2016, “Financial Performance of Idaho’s Endowment Rangelands, Issue Brief No. 17, Policy Analysis Group, University of Idaho, p. 2.
[8] In addition to the analysis cited in the footnote above, the PAG also provided the Land Board with a “Grazing Rate Review Analysis” on January 20, 2017, and an April 25, 2017 “Grazing Rate Review-Analysis of Alternatives.” The PAG provided an Addendum to its January 20, 2017 analysis on February 26, 2017, which provided an analysis of the Montana method of setting trust lands grazing fees.

into account the additional services private grazing land owners provide. When those estimates of the fair market forage value of Idaho Trust Lands are compared to the suggested grazing fees for Idaho Trust Lands, none of the formulae except for one come close to that fair market forage value of Trust Lands.

Figure 3.
Average Annual % Increase in State Trust Lands Grazing Fees, 2001 - 2011



Source: Idaho Department of Lanes Grazing Market Rent Study, August 2012, Figure 4.2.

As the University of Idaho PAG stated in its March 2016 “Financial Performance of Idaho’s Endowment Rangelands” said:

> “…viewed strictly from a financial asset perspective, returns to endowment beneficiaries are below benchmark rates of return obtained by other [state of Idaho asset] investment classes. This is in part because it is not possible to attain targeted rates of return from grazing net income…when fees are set below the fair market value…Form this perspective a higher grazing fee would be warranted.” (p. 14)

The January 2017 “Grazing Rate Review Analysis” found that for the four alternative approaches to setting grazing fees that were actually modeled, three of the four (Status Quo, Revised Status Quo, and Wyoming Model) failed to meet the fair market [‘target”] rate of return for the years analyzed. The Calf-Crop Share formula met the “benchmark rate of return for <u>some</u> years and discount rates.” (Table 3, p. 15, emphasis added)

The February 2017 Addendum to the January 2017 “Grazing Rate Review Analysis” compared four alternative formulae for setting the Idaho Trust Lands grazing fee to an estimate of the fair market forage value on Trust Lands. That fair market forage rate was calculated by adjusting the Idaho private land grazing fees downward to reflect the additional value of services provided by private owners of grazing lands. The University of Idaho PAG used a 30 percent reduction from the private grazing fee to obtain an estimate of the fair market value of Trust Lands grazing. For the years 2011 and 2012, the estimated grazing fees from the various alternative formulae were only about half the estimated fair market forage value. For the years 2013 through 2016, the various alternative formulae generated grazing fees that were 60 to 70 percent of the fair market value. Only Alternative #4, the Calf Crop Share formulae, for the years 2014 and 2015 actually produced grazing fees equal to the fair market rate.[9]

As will be discussed below, the Montana Model as applied in this February 2017 University of Idaho PAG modeling systematically specified Idaho Trust Land grazing fees that matched the estimated fair market value of the forage on Idaho Trust Lands. That was the result because that formula effectively set Trust Lands grazing fees on the basis of the Idaho private grazing fees reduced to reflect the higher level of services provided to private land grazers. This PAG modeling based on the Montana Model, however, was replaced in the IDL "Grazing Rate Methodology Review" that presented the alternative methods for setting the Idaho Trust Lands Grazing fees on which the Land Board was seeking public comment. The reason for modifying the University of Idaho PAG proposed Montana Model was not discussed in the Methodology Review.

Conclusions on the Appropriateness of Past and Current Trust Land Grazing Fees

In general, none of the alternative ways of calculating Idaho Trust Lands grazing fees that the Land Board has offered for public comment will lead to grazing fees that reflect the fair market value of the forage on those lands or provide the target rate of return on asset value. In that sense, it appears that most of those methods are not literally consistent with the Idaho constitutional mandate that the Trust Lands be managed "…in such a manner as will secure the maximum long term financial return…" (Section 8 of the Idaho Constitution)

3. An Overview of the Issues Raised by the IDL in Its Request for Comments on Alternatives Ways of Setting and Adjusting Idaho Trust Land Grazing Fees

In the IDL's *Grazing Program Business Plan* (May 2015), the IDL committed itself to "achieve market rates for grazing leases that align with fair market forage values." "That objective aligns with the [Idaho] constitutional mission to maximize revenues for state endowment trust land beneficiaries and justifies a periodic review of the Grazing Program to ensure that market rates are being realized."[10]

Note the emphasis on "market rates" and "fair market forage values" as the appropriate reference point is setting grazing fees for Idaho Trust grazing lands. Unfortunately, most of the proposed approaches for determining Trust Land grazing fees that have been put up for comment do not meet this criterion.

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[9] Becker, Dennis, Policy Analysis Group, University of Idaho, "Alternative #6 Addendum-Grazing Rate Review Analysis," Tables 1 and 2, pp. 2-4.
[10] IDL, Grazing Rate Methodology Review, request for Comments. P. 1. Undated (ca. late June 2017).

This is not because we do not know how to calculate the fair market value of Trust Lands grazing. In all of the studies that IDL had the Policy Analysis Group at the University of Idaho carry out of alternative ways to annually estimate appropriate Trust Lands grazing fees, the PAG evaluated the proposed Trust Lands grazing fee against fair market value targets to determine how close the proposed Trust Lands grazing fee was to that fair market target expressed either in a percentage return on asset value or as a direct comparison of the proposed grazing rate to the fair market grazing fee target.

The fair market grazing fee for Trust Lands that has been used by the University of Idaho PAG to evaluate the adequacy of the actual Trust Lands grazing fees has been calculated as the average private grazing fee in Idaho multiplied by an estimate of how much less valuable Trust Land grazing is than private land grazing in Idaho due to the fact that Idaho Trust Lands provide fewer valuable services to grazers, such as fencing, water supply, livestock monitoring, etc. The size of that multiplier to adjust for lower levels of services provided with Trust Lands grazing has varied considerably, ranging from 88 percent to 56 percent. We will discuss the empirical basis of the different values of that multiplier below.

A. *Base Year Grazing Values*

Instead of proposing Trust Lands grazing fee formulae that are directly tied to the fair market value of that grazing, a variety of indirect approaches have been taken to estimating appropriate Trust Lands grazing fees. Three of the proposed five approaches on which the Land Board has requested public comment begin with a base year grazing value, either current or a past year and then use an index built around variables that are expected to change the forage value associated with Trust Lands. Those three approaches that index base year grazing values have the words "status quo" in their names. The existing formula for the Trust Lands grazing fee (Alternative #1: Status Quo) is built around a rough estimate of the value of Trust Lands grazing in 1993, about five dollars per AUM. That quarter-century-old informal estimate continues to be used

The Alternative #2: Revised Status Quo ($1.70) proposes to continue to use that base value from 1993 but to change the index used to adjust it annually. The Alternative #3: Revised Status Quo ($2.00) proposes to increase the base value by about 18 percent to better represent 2016 values, and then annually adjust the Trust Lands grazing fee based on the same simplified index used in Alternative #2. The new base value of the Trust Land grazing fee for Alternative #3 was "indexed at approximately 56% of 2016 private lease rate." [11] That would produce a 2016 Trust Lands grazing fee of $9.71.[12] The source of the 0.56 multiplier applied to Idaho private grazing fees to produce that base Trust Lands grazing fee was not provided or explained.

[11] Op. cit. IDL "Grazing Rate Methodology Review," p. 3.
[12] $17.34 x 0.56 = $9.71.

B. The Type of Economic Data That Would Be Used to Annually Adjust an Idaho Trust Land Grazing Fee

The University of Idaho Policy Analysis Group (PAG) that has been working with the Idaho Land Board and the Grazing Rate Review Subcommittee has provided criteria by which to evaluate alternative approaches to estimating grazing fees for Trust Land forage. One of those criteria is that the formula used be driven by market data, specifically "published and established market data for prices, costs, and revenues associated with livestock grazing in Idaho."[13]

There are two related, but different, types of market data that have been used to estimate market-based grazing fees for forage on public lands. One is data on the costs and revenues associated with raising livestock on grazing land. The assumption is that the value of grazing land is determined by its ability to support livestock production and that livestock prices and measures of the costs associated with that production process will determine the demand for and value of the forage on grazing land. Livestock producers favored the use of this type of market data to set Trust Land grazing fees, arguing that it introduces information on the livestock producers' *ability to pay.*

The other type of market data that has been used to estimate the value of livestock grazing on public land is the price of such livestock grazing on private lands in Idaho that are similar in character to the Trust Lands that are leased for grazing. The grazing fees that the private owners of grazing land charge to ranchers to graze their livestock on that private land could provide useful information on what ranchers seeking to graze their livestock on Idaho Trust Lands are, in fact, willing to pay. This information focuses on what livestock producers were *willing to pay* as opposed to their *ability to pay.*

Three of the approaches to setting the Trust Lands grazing fees on which the Land Board is seeking public comment specify the use of information associated with the value of the meat produced by livestock operations and/or the cost of the inputs necessary to produce that meat.

> The formula used by Idaho to set Trust Land grazing fees since 1993, labeled Alternative #1: Status Quo, has used *both* of these different types of market data: private land grazing fees and the market price of beef, and a beef production cost index. This is the only alternative that includes both measures of livestock production value/costs and measures of private grazing fees.
>
> Alternative #4: Calf Crop Share makes use of only beef prices and costs of production. The value of a 550-pound steer adjusted for various characteristics of the livestock operation establishes the value per animal produced. University of Idaho cost modeling of cattle operations is used to determine the share of the costs that are forage- or pasture-related. That share applied to the value produced establishes the value associated with the forage and, therefore, the appropriate Trust Land grazing fee.

[13] "Grazing Rate Review Analysis, January 20, 2017, University of Idaho, College of Natural Resources, Policy Analysis Group, Dennis Becker, p. 2.

Alternative #5: Montana Model nominally also includes the price of beef along with grazing fees associated with private Idaho grazing lands. However, in actual use it does not appear that the price of beef actually plays a role in determining the Trust Lands grazing fees the Montana Model generates. Private grazing fees in Idaho are the primary data determining grazing fees under this alternative. This will be discussed below.

Conclusions on the Structure of the Formulae Used to Estimate Fair Market Grazing Fees of Idaho Trust Lands

The historic base value of the per AUM grazing fee that is then projected forward using indices of various relevant economic factors needs to be regularly re-estimated and then re-indexed to provide estimates for future years. The current base value has not been changed since 1993 nor was the index values reset when it was adopted. As a result, there is little reason to trust the formula and its logic is anything but transparent. Any new formula should be periodically reset with a current base per AUM base grazing fee in contemporary dollars and the indices determining future values should be reset so that the formula is more easily understood by the public.

4. Logical and Statistical Problems with Combining Livestock Market Prices and Costs as Well as Data on Private Lands Grazing Fee

It is clear that the profitability of livestock production is likely to be related to the grazing fees that livestock producers are willing to pay for forage for their animals. Higher beef prices increase the demand for forage and the price beef producers are willing to pay for that forage. On the other hand, higher costs in the production of beef are likely to have the opposite impact on grazing fees. It is not surprising, therefore, that in the development of the federal grazing fees formula, on which Idaho's current Trust Land leasing fee formula is based, livestock interests wanted to use *only* livestock market prices and costs to determine the grazing fees. The land managers, the U.S. Forest Service and Bureau of Land Management, on the other hand, wanted to *only* include market data on private grazing fees. The "compromise" was to include both.[14] That was a serious conceptual mistake.

Since the private grazing fees are influenced by the profitability of livestock production, putting both of these types of data into the formula to estimate what Trust Lands grazing fees should be added statistical confusion to the formula. The data sets being used to determine public land grazing fees were correlated with each other and different data sets effectively measuring the same thing were included in the formula.

This was recognized at the time that the federal grazing fee formula was adopted and it was recognized by the University of Idaho PAG that assisted the Idaho State Board of Land Commissioners in the development of the five alternative approaches to setting Trust Land grazing fees. That is why there are two Alternatives, #2 and #3 labeled "Revised Status Quo."

[14] Torell, L. Allen et al. 2003. An evaluation of the federal grazing fee formula. *J. Range Management* 56 (November): 577-584. Table 1.

As the University of Idaho PAG explained in its January 2017 Grazing Rate Review Analysis: "This alternative revises the current Status Quo formula to correct statistical concerns. The first is that key indices (Prices Paid Index and Forage Value Index) are highly correlated and may artificially inflate statistical predictability." [15] Dr. Neil Rimbey, Extension Range Economist at the University of Idaho, in a historical review of federal and Idaho grazing fee policies pointed out that: "The existing [Idaho Trust Land grazing] fee system is not perfect as the gap between private lease rates and IDL rates continues to widen. This is primarily due to the large negative impact of the livestock Prices Paid Index that is included in the formula." [16] As a result of these statistical problems with the current Idaho Trust Lands grazing fee formula, Dr. Rimbey recommended dropping all of the variables except for the previous year's Idaho (private lands) forage value index. That is the basis for the Revised Status Quo Alternatives #2 and #3.

Conclusions on the Data Sets That Should Be Used to Estimate Trust Land Grazing Fees

One conclusion from this discussion is that data associated with livestock markets and production should not be combined with data reflecting private grazing land fees. Doing so creates statistical problems that make the estimated Trust Lands grazing fees inaccurate and misleading. Dependable fair market Trust Lands forage values will not be derived.

In addition, a major simplification of the current Trust Lands grazing fee formula could provide the most defensible Trust Lands grazing fee formula. Private land grazing fees are highly correlated with each other one year to the next providing a relatively stable index for predicting future private grazing fees. In addition, private grazing lands fees represent valuable market information as to what Idaho livestock forage is worth. Adjusted for differences in owner-provided services, these private grazing land fees can determine a fair market grazing fee for Trust Lands.

The fifth criteria by which the Land Board asked that proposed formulae for determining Trust Lands grazing fees be evaluated is that the "formula is fair, predictable and certain for both parties.''[17] Unfortunately agricultural markets are not "fair, predictable and certain." Instead they are notoriously volatile in ways difficult to predict. This puts this fifth criteria in conflict with the second criteria: "The formula is a defensible process driven by market data."[18] If that market data it the price of beef and costs of raising beef, the resulting Trust Lands grazing fees are likely to swing substantially from year to year. This is not as likely to be the case if the Trust Lands grazing fees are tied to private grazing land fees.

5. An Evaluation of Alternative #5: The Montana Model

Alternative #5, the Montana Model, on its face appears to violate the conclusion above to not mix market agricultural values and market grazing fees in a formula to determine Trust Lands

[15] Memo to Idaho State Board of Land Commissioners, Grazing Rate Review Subcommittee, from Dennis Becker, Policy Analysis Group, University of Idaho, dated January 20, 2017, p. 5.
[16] Idaho State Land Grazing Lease Rates: Historical Background, undated, ca. 2015, p. 3.
[17] Op. cit. University of Idaho Policy Analysis Group, "Grazing Rate Review Analysis, January 20, 2017, p. 2.
[18] Ibid.

grazing fee. This is so because the Montana Model is nominally built around the market price of beef. Under that formula, the Idaho Land Board would develop a multiplier based on the Idaho private grazing lands lease rate that would be applied to the market price of beef to obtain the Trust Lands lease rate.

At the request of the Idaho Land Board, the University of Idaho PAG developed a formula for Idaho Trust Lands grazing fees based on the approach used in Montana.[19] The "multiplier" that would be applied to the market price of beef would be:[20]

$$\frac{0.70 \times \text{ID Private Land Grazing Lease Rate (2016)}}{\text{Market Beef Cattle Price}}$$

The 0.70 is a 30 percent discount applied to the private land grazing lease rate to adjust for the reduced services the Idaho Trust Lands provide to ranches grazing their livestock compared to private land owners as discussed above. Note that if this ratio is multiplied times the market beef cattle price, the beef cattle prices will cancel out and simply leave a formula involving 70% of the ID Private Land Least Rate: 0.70 x $17.34 = $12.15 per AUM.

In this formula, the market beef cattle price has no impact on the calculated Trust Lands fair market forage value. Only the private land grazing lease rate level and the percentage discount applied to the private lease rate impact the calculation. The University of Idaho PAG recognized this and noted that the Trust Lands grazing fee that results from this approach is an estimate of the fair market value or benchmark grazing rate that yields the target rate of return on the land expectation value of the Idaho Trust Lands. That is, the Trust Lands grazing fee produced by this approach is simply an estimate of the fair market value of the forage on Trust Land based on the private grazing land lease rate: The private grazing fee multiplied times the appropriate discount for reduce services provided to grazers. As discussed above, this is the only approach among the five that directly seeks to estimate the fair market value of Trust Lands grazing rather than indirectly estimating a value that might, more or less, reflect fair market value.

Because of this design, the University of Idaho PAG pointed out that: "Of the six alternatives analyzed, the Montana Model yielded the highest ROA (return on assets)." Table 2 of that "addendum" showed that the Montana Model had a return on asset value significantly above the other alternative approaches to setting Trust Lands grazing rates. The return on assets was exactly equal to the competitive target return being sought. This is the result because the price of beef does not affect the estimated Trust Lands grazing fee in this formula. Only the adjusted private lands grazing fees matter.

The "addendum" report to the Land Board developing the Montana Model also discussed the strengths and weaknesses of this approach to setting Trust Lands grazing fees. Among the

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[19] February 26, 2017, Memo from Dennis Becker, Policy Analysis Group, University of Idaho, to Idaho State Board of Land Commissioners, Re: Alternative #6 Addendum—Grazing Rate Review Analysis. This was designed as an addendum to the January 20, 2017, analysis of five grazing rate alternatives that the Policy Analysis Group had provided to the Idaho Land Board. The "Alternative 6" in the title became "Alternative 5" in the "Grazing Rate Methodology Review" prepared by the IDL and offered for public comment in July 2017.
[20] Ibid. p. 1.

weaknesses are listed: “[grazing] rate corresponds to livestock prices, which fluctuate greatly” and “potential for wide price swings.” Among the strengths are listed: “highly responsive to market data” and “inputs track closely with livestock markets” and “rate corresponds closely to livestock prices and lease rates.” These statements are expressions of concern about any grazing fee formula tied to the price of beef and/or the costs of raising beef as discussed above. But for the Montana Model as presented by the University of Idaho PAG, this is not a relevant concern because the concern about the volatility of grazing fees under this approach incorrectly assumes that the Montana Model would track the market price of beef, which, as pointed out above, is not the case.

One can test the assertion that the Trust Lands grazing fees resulting from the Montana Model will be more volatile by calculating the standard deviation of the projected Trust Lands grazing fees between 2011 and 2016 that result from each of the six alternatives that were evaluated in the “addendum” report on the Montana Model. In fact, the variation in the grazing fees projected by each alternative between 2011 and 2016 was by far the *lowest* for the Montana Model. The standard deviation of the Montana Model grazing fees for this time period was only half the standard deviation of the grazing fees of the other five alternatives. That is, the Montana Model as presented does not produce widely fluctuating estimates of Trust Lands grazing fees. It produces the most stable grazing fees.

The above discussion of the Montana Model is based on February 26, 2007, addendum” study prepared by the University of Idaho PAG for the Land Board. In the IDL “Grazing Rate Methodology Review” review that summarized the five Trust Lands grazing fee approaches on which the public was asked to comment, the Montana Model was presented in a quite different manner. Instead of discounting the Idaho private land lease rates by 30 percent, the IDL version of the Montana Model indicated that it discounted the private lease rates by 44 percent when calculating the market value of Trust Land leases. No explanation or justification of this discount factor was provided. We discuss the appropriate discount for differential services provided by grazing land owners below.

The table presented in the IDL “Grazing Rate Methodology Review” that presents the Trust Lands grazing fees that would result from each of the five alternative approaches does not match the similar table in the February Addendum report. In particular the results for the Montana Model are not similar for the years both tables cover. This is partly understandable if the IDL shifted from a 30 percent discount to a 44 percent discount for differences in owner-supplied services. But the Calf-Crop Share results are also different with the 2013-2018 results in the Grazing Rate Methodology Review matching the 2011-2016 results in the February Addendum report. This may be the result of one of the tables not reflecting the two-year lag in the application of the results of the formula to a particular year. But the reported Trust Lands grazing fees for Alternatives 1 and 2 in the Grazing Rate Methodology Review table does match the Addendum Table 1 (Alternatives #1 and #5). This difference in formulae and results, without any explanation, between the analysis of the University of Idaho PAG and the analysis of the IDL is confusing and makes it difficult for the public to evaluate the results of the analysis of the alternative approaches to determining a fair market value for Trust Lands grazing fees.

What the IDL appears to have done with the Montana Model is to consciously reduce the Trust Lands grazing fees that result from the Montana Model. In the Addendum analysis, the Montana

Model generates $10-$12 per AUM lease rates. Only the Calf-crop share alternative comes close to $12 for two years under the other alternatives. Starting with a much larger discount from the private lands lease rates to account for differences in owner-supplied services and then moving towards a discount that is empirically justified *may* be a way of phasing the Montana Model in, but permanently adopting a 44 percent discount from private leases rates does not appear defensible based of the empirical evidence, especially in Idaho, that is currently available.

Conclusions on the Use of the Montana Model to Determine Fair Market Trust Lands Grazing Fee

The University of Idaho PAG has demonstrated that the Montana Model can be applied to Idaho to determine empirically-based fair market grazing fees for Idaho Trust Lands. That formula involves only the Idaho private lands grazing fees and an estimate in the differential value of land-owner-supplied services. This approach estimates a fair market Trust Lands forage rate each year. As a result, a "base value" does not get out-of-date. This approach also provides relatively steady values for Trust Lands grazing fees from year-to-year. It is also based on easily understood data.

The IDL's presentation of the Montana Model deviated significantly from the University of Idaho PAG presentation. It is difficult to reconcile the two presentations. The IDL's version of the impact of the Montana Model should not be used until it is explained, modified if necessary, and represented to the public for comment. The PAG presentation *can* be used for the comparative analysis.

6. Discounting Private Grazing Land Lease Rates for Differences in Owner-Provided Services to Estimate Fair Market Trust Land Grazing Fees

As many economists have noted for decades, there *is* market information on the value of livestock forage on Western grazing lands. Significant amounts of private land are leased out to livestock producers. The federal government, USDA-National Agricultural Statistics Service (NASS), has collected data on those private land grazing lease rates for over half a century. Those private grazing land lease rates were used by the federal government to form the Forage Value Index (FVI). That FVI still is used, along with other variables, in both the Federal lands and the Idaho Trust Lands grazing fee formulae to annually adjust an estimated base grazing fee to appropriate levels over time. However, because it is combined with other data with which it was highly correlated, the information on grazing fees for private forage lands could not play a useful role in establishing reasonable Trust Lands grazing fees.

One criticism of the use of grazing fee information from private grazing land leases has been that the owners of private grazing land often provide valuable services to livestock producers who lease their land: fencing, water supply, stock monitoring, etc. The IDL does not provide the same services to the ranchers who lease Trust Lands. For that reason, the value of Trust Land grazing might be expected to be lower than the grazing value of private lands.

Since the 1970s there has been ongoing empirical analysis of just how to quantify the value of the difference in services provided to ranchers grazing on private lands as opposed to those grazing on federal or various state-owned grazing lands. One of the more recent, 2014, studies of the impact of the additional services provided to those leasing private grazing lands in Idaho found that the absence of such services reduced the lease rate by 12 to 14 percent depending on the location within Idaho.[21] That would suggest a 12 to 14 percent discount or a 0.86 to 0.88 multiplier applied to Idaho private grazing fees to obtain an estimate of the fair market value of Trust Lands grazing fees.

A 2011 study of Montana state land grazing fees sought to quantify the difference between state grazing lease values and private land grazing values by looking at the grazing fees on state lands when there was competition among ranchers for those leases. These competitive lease values on state lands were then compared to the average private land grazing fees. This allowed a comparison of two competitive market values: one for state lands without the level of private services and another for private lands with those additional services included. That study concluded that the additional services provided by private grazing land owners made up 22 percent of the private grazing fee, indicating a 0.78 multiplier applied to the private land grazing fee to obtain the fair market grazing fee for Montana trust lands.[22] If the earlier modeling carried out in 1992 of Montana grazing fees was applied to 2010 state leases, the appropriate multiplier of the Montana private grazing fees to make them market values for leasing state lands was estimated to be 68 percent. This older result is similar to other estimates made in the late 1980s and early1990s where a multiplier of about 70 percent emerged as a consensus value in that time period.[23]

The Quality of the USDA State Data on Private Lease Rates

The USDA NASS data on private grazing lease rates is the only consistent reporting of private grazing lease rates available at the state level over a lengthy period. The reliability of that data has been criticized by researchers for two reasons. First, this survey data was intended to provide information for grazing fees at the national level. As a result, the annual sample size within a particular state is quite small, undermining the reliability of the estimated annual data values. Second, this survey does not ask respondents to consider a particular transaction in which they personally have engaged and report that value. Instead people are asked to recall or speculated on lease rates in their area, leading to reporting that might appropriately be labeled as speculation or hearsay.[24]

Researchers have been aware of these problems and they have estimated the determinants of private lands grazing fees based on their own independent surveys of ranchers leasing private

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[21] Neil Rimbey et al., "Idaho Private Rangeland Grazing-Lease Arrangements, University of Idaho, College of Agricultural and Life Sciences, Research Bulletin 185, August 2014, p. 23 and Table 15. Also see Resource Dimensions, "Idaho Department of Lands Grazing Market Rent Study, August 2012, page ES-4 and p. 108, a report done for the Idaho Department of Lands.
[22] Bioeconomics Incorporated, Montana Trust Land: Grazing Lease Rate Valuation Analysis, April 26, 2011. P.12.
[23] See Torell, LS. et al.1998. *Economic Considerations for Setting Grazing Fees on New Mexico State Trust Lands*, Special Report 81, New Mexico State University Agricultural Experiment Station. Also Duffield, J. and B. Anderson. 1993. *Economic Analysis of the Values of Surface Uses of State Lands,* Montana State Lands, Helena, Montana.
[24] Resource Dimensions, "Idaho Department of Lands Grazing Market Rent Study, a report done for the Idaho Department of Lands, August 2012, page 75.

grazing land. Their statistical modeling seeks to include all of the types of data that are likely to influence those private grazing fees. These “hedonic models,” among other things, can estimate the impact of the various services provided by land owners to livestock grazers and provide an estimated market value of a grazing lease that does not provide significant services to ranchers who lease the land. These independent surveys and statistical analyses provides a check on conclusions reached on the basis of USDA NASS data. For Idaho, those analyses have confirmed that the NASS data leads to estimates of average grazing values on private land that are statistically similar to those indicated by NASS data.[25] That provides some confidence that the USDA NASS is reliable enough to support the estimation of fair market values for Trust Lands grazing fees. Periodic surveys of Idaho private land grazers independent of NASS can confirm or challenge the use of that NASS data in the future as Trust Lands grazing fees are reevaluated periodically.

Conclusion on Using USDA NASS Data on Private Lease Rates in Idaho to Estimate Fair Market Value of Trust Land Grazing

Recent empirical analyses of private and state trust land grazing fees in Idaho and Montana indicate that private land grazing fees can be converted to fair market grazing fees for Idaho State Trust Land by reducing the private grazing fees by 10 to 20 percent. This is a smaller discount for services not provided to grazers than earlier studies suggested was appropriate.

Recent empirical analysis in Idaho has also surveyed those owning and leasing private grazing lands for livestock production. The analysis of that data allowed the estimation of the determinants of Idaho private lands grazing fees. Those estimated Idaho private grazing fees were not statistically difference from the annual estimates provided by the federal NASS estimates. That provides some confidence in the reliability of using that federal data to set Trust Lands grazing fees.

These types of empirical studies of private grazing practices in Idaho can also allow the periodic adjustment of estimated fair market Trust Land grazing fees.

7. Estimating the Financial Returns on Trust Land Asset Value

The Idaho Constitution requires that in the state’s management of Trust Lands, it must “maximize long term financial return to trust beneficiaries through revenues generated from state endowment trust lands…” (Article 9, Section) That financial language encourages comparing alternative ways of setting Trust Lands grazing fees exclusively in financial terms: What was the return on state ownership and management of those Trust Lands? In various documents prepared to inform the Land Board and IDL, experts have compared the various alternative ways of setting the Trust Lands grazing fee in terms of the “return on asset value.” This, it is suggested, will allow the management of those Trust Lands to be compared to the management of other state assets such as timber lands and the management of private assets

[25] Op. cit. Neil Rimbey, et al. 2016, p.24.

by firms and individuals to see how well the State of Idaho is doing with the assets entrusted to it.[26]

Because state grazing lands are rarely sold on the market, it is difficult to establish what the asset value of that land is from market sales. The alternative way of establishing the value of that land is to capitalize the stream of revenue that would come to the state if the land was leased at a fair market value, i.e. divide the annual net revenue from grazing fees by the target rate of return the Land Board believes the assets under its care should be generating.

An alternative, and, arguably, simpler way of proceeding may be to first specify how the AUM fair market value of the forage on those Trust Lands is going to be calculated and then proceed to calculate the per AUM return actually being realized, i.e. the actual AUM grazing fee that is being suggested by one approach or the other. The ratio of the proposed Trust Lands grazing fee to the calculated AUM fair market value tells us how close the propose grazing fee came to the AUM fair market value that is assumed to be the constitutional target.[27]

That ratio of the proposed AUM grazing fee to the AUM fair market value can be used to compare alternative formulae for calculating an appropriate grazing fee. Alternatively, that ratio can be multiplied times the target rate of return and the different alternatives can be stated in terms of their different return on asset value. E.g. if the target return on assets is 4 percent and a particular formula for establishing a Trust Lands grazing fee is only 40 percent of the fair market grazing fee value, then the return on asset value for that grazing fee is 0.4 times 4 percent or 1.6 percent. The same financial information is conveyed by either method. Both tell us that the Trust Lands grazing is returning only 40 percent of a fair market return. The ease of citizens understanding of the results, however, may differ depending on which presentation of the results is chosen.[28]

Including the Appreciation of State Land Values in the Calculated Return on State Land Management

A 2016 University of Idaho PAG Issue Brief on the “Financial Performance of Idaho’s Endowment Rangelands” goes beyond the focus on Trust Lands grazing fees and includes in the overall return on Trust Lands asset value an estimated increase in value of the Trust Lands. In the PAG analysis adding this estimated appreciation in the value those trust lands to the net revenues from the grazing fees boosts the overall return from 1.7 percent per year when only

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[26] See, for instance, Table 2 in the January 20, 2017 “Grazing Rate Review Analysis,” prepared for the Land Board by the University of Idaho Policy Analysis Group. Memo from Dennis Becker to Idaho State Board of Land Commissioners.
[27] This is true only if there are no costs associated with operating either private land owners or Trust Lands grazing lease programs. If there are leasing program costs, then it is the ratio of the net incomes that is important. I.e. the Trust Lands grazing fee per AUM less the administrative costs per AUM compared to the fair market forage value per AUM less the administrative costs per AUM.
[28] Again, if there are administrative costs, which there almost certainly are, it is the ratio of the net revenues per AUM that convey how close the Trust Lands grazing fee is to the target per AUM value or target return on asset.

grazing fees are considered to 3.8 percent with the land appreciation included, increasing the apparent return on those lands by 124 percent.[29]

Before discussing the appropriateness of boosting the calculated return on Trust Lands in this manner, it is important to recognize that this proposed adjustment in calculating the total return on Trust Lands assets is irrelevant to the calculation of the fair market value of Trust Land forage and, therefore, an appropriate Trust Lands grazing fee. This is so because ranchers are only leasing the forage on the Idaho Trust Lands. They are not purchasing full use of all asset values that may be associated with the Trust Lands. They are not renting the land, they are leasing the grazing rights. That grazing use is what the grazing fee is intended to cover: the value of the livestock forage found on those Trust Lands. The appropriate market-based fee for that is the fair market value of that forage and nothing else. That is how the January 20, 2016 "Grazing Rate Review Analysis" and the IDL's "Grazing Rate Methodology Review" approached the evaluation of the alternative approaches to calculating grazing fees for the Trust Lands. Only grazing fees and the costs of managing those grazing lands were included. As the January 2017 "Grazing Rate Review Analysis" put it: "Thus, the ROA [return on asset] reflects net income from grazing leases only (forage value) independent of land appreciation (bare land value), because forage is what ranchers lease from the state." (p. 7)

However, it is also unclear that an estimate of the appreciation of the Trust Lands' market value should be included in calculating the total financial return on those Trust Lands. What is being measured by the appreciation in the sales value of the Trust Lands is the expected growth in the grazing fees on private lands. Those private land grazing fees are taken to be a reliable index of the sales value of private grazing lands. On the assumption that Idaho Trust Lands are similar to private grazing lands (except for the higher level of services provided by private grazing land owners), the assumption is made that the sales value of the Trust Lands will increase in a similar manner. But this projection of rising sales value is not a cash flow that the State of Idaho will be collecting and spending to provide government services. That theoretical appreciation in sales value can be realized only by actually selling the lands for their market value in commercial real estate markets. But the State of Idaho does not have a policy of doing that nor is it likely that such a policy will be implemented in the foreseeable future. In short, there are legal and political limits on the sale of those lands. In that setting it would be misleading to list this theoretical estimate in the growth in the Trust Lands' sales value as an *actual* financial return on those Trust Lands. It is not.

[29] Dennis R. Becker and Philip S. Cook, "Financial Performance of Idaho's Endowment Rangelands," p. 1. University of Idaho, Policy Analysis Group, Issue Brief No. 17, March 2016. The Resource Dimensions "Grazing Market Rent Study," August 2012, done for the IDL estimated that the appreciation of grazing Trust Lands contributed ever more to the overall return on those lands: Of an estimated total return of 4.9 percent, the growth in the value of the land contributed 80 percent of that return and grazing fees only 20 percent (p. 144-146). Resource Dimensions estimated the appreciation in the value of grazing Trust Lands by using NASSA data on the change in the value of "pasture" land. The average annual increase calculated was 15.7 percent per year. For some years the increase in the value of those pasture lands was 25 to 50 percent in a single year. It is not at all clear that this is a reasonable way to estimate the value of grazing Trust Lands given that the availability of irrigation for private pastures is important to the determination of their value or that an open market for private land sales is an appropriate way of conceptualizing the return on state lands that are not for sale.

Conclusion on Including Trust Land Appreciation in Calculating Return on Assets

Projected increases in the sales value of Idaho Trust Lands should not be included in estimates of the return associated with grazing leases on those lands. Ranchers lease the forage on those lands. They do not rent or buy all of the property values associated with those lands.

Projected increases in the sales value of Idaho Trust Lands also should not be included in calculating the "total return on assets" associated with those lands. There are political and legal limits to the sale of those Trust Lands and there is no imminent policy change that is likely to allow the sale of substantial parts of the Trust Lands. For that reason, the conversion of such theoretical land appreciation into a cash flow is not a reasonably foreseeable outcome that should be included in a state government financial statement.

8. Practical Matters: Moving Towards a Trust Lands Grazing Fee That Actually Reflects the Fair Market Value of the Forage

As discussed above, the Montana Model assumes that the fair market value of grazing Trust Lands can be determined by reducing the private lands grazing fee by the value of the additional services private land grazers obtain from the landowners compare to the services Trust Lands provide to grazers. That makes the value of the additional services provided by private grazing landowners an important determinant of the fair market value of Trust Land grazing.

Four different values for the differences in services to grazers have been suggested in the discussion of Idaho Trust Lands grazing fees. Stated as multipliers applied to the Idaho private lands grazing fees, those are:

0.88 to 0.86: 2012 Estimates from the Idaho Grazing Rents Study.
0.78: 2011 Estimate from the Bioeconomics Montana grazing fee study.
0.70: "Consensus" value from 1980s-1990s studies. It was used in UID PAG study.
0.56: Value used in the 2017 Grazing Rate Methodology Review.

Depending on which measure of the value of additional services received by Idaho private land grazers is adopted, the implied "fair market value" of Trust Land grazing will be either far above current Trust Lands grazing fees or within about 20 per cent of them. We demonstrate in the calculations below.

In the February 26, 2017, "Alternative #6 Addendum - Grazing Rate Review Analysis," the University of Idaho Policy Analysis Group estimated the fair market value of forage on Idaho Trust Lands by reducing the Idaho private lands grazing fees by 30 percent to account for the higher level of services provided by private land owners compared to the services provided by the state of Idaho for Trust Lands. Using a 70 percent multiplier was supported by analysis from the 1980s and 1990s. If, instead, we use the value of the services that private Idaho grazing land owners provide to livestock grazers but which Trust Lands used for grazing do not, the private lease rate should be reduced by 14 percent, not 30 percent.[30]

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[30] See Section 6 above.

The 2016 average Idaho private grazing fee was $17.34 per AUM.[31] With the 14 percent reduction, the fair market Trust Lands grazing fee would be $14.91 per AUM. The actual Trust Land grazing fee in 2016 was $8.09, only 54 percent of the fair market value implied by an 86 percent multiplier.[32] The 2016 fTrust Lands Grazing fee would have to almost double to reflect this particular estimate of the fair market value of Trust Land grazing.

If, instead, the adjustment for the different level of services provided by owners to grazers was the 44 percent (a multiplier of 0.56) that IDL used in the Montana Model and Revised Status Quo ($2.00) [33], the implied fair market value of Trust Land grazing would be much lower, $9.71 per AUM, about 83 percent of the 2016 Trust Land grazing fee. A twenty percent increase in that Trust Land grazing fee would make the Trust Land grazing fee equal to the f the fair market value of Trust Land forage implied by the 56 percent multiplier.

Minimizing the implied increase in the Trust Land grazing rate in order to produce a grazing fee that could be labeled “fair market value” may have been the purpose of IDL’s choice of applying a 56 percent multiplier to the Idaho private grazing fees.

Given that the IDL specifically funded a study of Idaho private land grazing to obtain information that would help the Land Board to incorporate Idaho private land grazing fees into the process of establishing fair market grazing fees for Trust Lands,[34] it would be appropriate to incorporate the relevant results of that study into the Trust Lands grazing fee process, including the 0.86 multiplier to account for the higher value of services associated with private grazing leases. The large gap, 83 percent, between current Trust Lands grazing fees and what the analysis of Idaho private grazing fees suggest should be the target fair market value, however, is likely to discourage making use of the results of that and other studies that IDL has commissioned of how to estimate the fair market value of Trust Land grazing.[35]

One way of proceeding to move the Idaho Trust Lands grazing fees systematically towards the fair market value standard would be to spread the move over a five-year period. Given the size of the gap, 84 percent, however, this would require grazing fees to increase about 13 percent each year for those five years in addition to whatever other increase the private grazing fees were indicating. A more conservative approach would be to move towards a grazing fee level that reached 70 percent of the private grazing fees over the next five years. That would require the grazing fee to grow from $8.09 to $12.14, a 50 percent increase over five years or an annual eight percent increase in addition to whatever increase the changing Idaho private grazing fees were indicating. At the end of that five-year period, the Land Board, could review new information on the accuracy of federal private grazing fees in Idaho and the best information on the appropriate discount below private land grazing fees to obtain a fair market Trust Lands

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[31] University of Idaho Policy Analysis Group, February 26, 2017, “Alternative #6 Addendum – Grazing Rate Review Analysis,” p. 1.
[32] Ibid. Table 1, p. 3.
[33] IDL, “Grazing Rate Methodology Review”, undated (ca. July 2017), p. 3.
[34] Resource Dimensions, “Idaho Department of Lands Grazing Market Rent Study,” a report done for the Idaho Department of Lands, August 2012.
[35] E.g. the “Alternative #6 Addendum – Grazing Rate Review Analysis, February 26, 2017, Dennis Becker, Policy Analysis Group, University of Idaho.

grazing fees. If information from Idaho studies of private grazing fees still indicate that the federal NASS Idaho private grazing fee data accurately reflects changes in private grazing fees and that the appropriate multiplier to be applied to those private grazing fees to determine the fair market Trust Lands grazing fee is still about 0.86, then the Trust Land grazing fee should continue to be increased each year over the following five years until it is based on 86 percent of the Idaho private grazing fee. At that point, the state of Idaho would be receiving the full fair market value of the forage on Idaho Trust grazing lands.

Conclusions on Closing the Gap between Current Trust Lands Grazing Fees and the Fair Market Value of That Trust Lands Grazing.

The 2016 Trust Lands grazing fee was only about half the calculated fair market Trust Lands grazing fee. Because of the size of the gap between current Trust Lands grazing fees and the fair market value of that grazing, it would take an 84 percent increase in the Trust Lands grazing fee to reach the fair market level. For that reason, it may be appropriate to move towards full fair market value over a ten-year period. During the first five years the Trust Lands grazing fees could move to 70 percent of the Idaho private grazing fees. In the follow five years, the Trust Lands grazing fees could move to 86 percent of the private grazing fee level, the current fair market value for the Trust Lands grazing. During that ten-year period, the IDL could continue to analyze private grazing fees in Idaho and the differential value of the services provided by the state and private grazing land owners. That would allow the Land Board to check its progress in moving Trust Land grazing fees to reflect the fair market value of Trust Land forage.

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Grazing Fees: Overview and Issues

Updated March 4, 2019

Congressional Research Service
https://crsreports.congress.gov
RS21232

Summary

Charging fees for grazing private livestock on federal lands is a long-standing but contentious practice. Generally, livestock producers who use federal lands want to keep fees low, whereas conservation groups believe fees should be increased. The current formula for determining the grazing fee for lands managed by the Bureau of Land Management (BLM) and the Forest Service (FS) was established in the Public Rangelands Improvement Act of 1978 (PRIA) and continued by a 1986 executive order issued by President Reagan. The fee is based on grazing of a specified number of animals for one month, known as an animal unit month (AUM). The fee is set annually under a formula that uses a base value per AUM. The base value is adjusted by three factors—the lease rates for grazing on private lands, beef cattle prices, and the cost of livestock production.

For 2019, BLM and FS are charging a grazing fee of $1.35 per AUM. This fee is in effect from March 1, 2019, through February 29, 2020, and is the minimum allowed. Since 1981, when BLM and FS began charging the same grazing fee, the fee has ranged from $1.35 per AUM (for about half the years) to $2.31 per AUM (for 1981). The average fee during the period was $1.55 per AUM. In recent decades, grazing fee reform has occasionally been considered by Congress or proposed by the President, but no fee changes have been adopted.

The grazing fees collected by each agency essentially are divided between the agency, Treasury, and states/localities. The agency portion is deposited in a range betterment fund in the Treasury and is subject to appropriation by Congress. The agencies use these funds for on-the-ground activities, such as range rehabilitation and fence construction. Under law, BLM and FS allocate the remaining collections differently between the Treasury and states/localities.

Issues for Congress include whether to retain the current grazing fee or alter the charges for grazing on federal lands. The current BLM and FS grazing fee is generally lower than fees charged for grazing on state and private lands. Comparing the BLM and FS fee with state and private fees is complicated, due to factors including the purposes for which fees are charged, the quality of the resources on the lands being grazed, and whether the federal grazing fee alone or other nonfee costs are considered.

Unauthorized grazing occurs on BLM and FS lands in a variety of ways, including when cattle graze outside the allowed areas or seasons or in larger numbers than allowed under permit. In some cases, livestock owners have intentionally grazed cattle on federal land without getting a permit or paying the required fee. The agencies have responded at times by fining the owners, as well as by impounding and selling the trespassing cattle. BLM continues to seek a judicial resolution to a long-standing controversy involving cattle grazed by Cliven Bundy on lands in Nevada.

There have been efforts to end livestock grazing in specific areas through voluntary retirement of permits and leases and subsequent closure of the allotments to grazing. Congress has enacted some such proposals. Congress also has considered measures to reduce or end grazing in specified states or to allow a maximum number of permits to be waived yearly. Among other reasons, such measures have been supported to protect range resources but opposed as diminishing ranching operations.

Another issue involves expiring grazing permits. Both BLM and FS have a backlog of permits needing evaluation for renewal. To allow for continuity in grazing operations, P.L. 113-291 made permanent the automatic renewal (until the evaluation process is complete) of permits and leases that expire or are transferred. The law provided that the issuance of a grazing permit "may" be categorically excluded from environmental review under the National Environmental Policy Act (NEPA) under certain conditions. NEPA categorical exclusions have been controversial.

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Introduction

Charging fees for grazing private livestock on federal lands is statutorily authorized and has been the policy of the Forest Service (FS, Department of Agriculture) since 1906, and of the Bureau of Land Management (BLM, Department of the Interior) since 1936. Today, fees are charged for grazing on BLM and FS land basically under a fee formula established in the Public Rangelands Improvement Act of 1978 (PRIA) and continued administratively.[1]

BLM manages a total of 245.7 million acres, primarily in the West. Of total BLM land, 154.1 million acres were available for livestock grazing in FY2017.[2] The acreage used for grazing during 2017 was 138.7 million acres.[3] FS manages a total of 192.9 million acres. Although this land is predominantly in the West, FS manages more than half of all federal lands in the East.[4] Of total FS land, more than 93 million acres were available for grazing in FY2017, with 74 million used for livestock grazing.[5] For both agencies, the acreage available for livestock grazing reflects lands within grazing allotments. However, the acreage in those allotments that is capable of forage production is substantially less, according to the FS, because some lands lack forage (e.g., are forested or contain rockfalls). In addition, for both agencies, acreage used for grazing is less than the acreage available due to voluntary nonuse for economic reasons, resource protection needs, and forage depletion caused by drought or fire, among other reasons. Because BLM and FS are multiple-use agencies, lands available for livestock grazing generally are also available for other purposes.

On BLM rangelands, in FY2017, there were 16,357 operators authorized to graze livestock, and they held 17,886 grazing permits and leases.[6] Under these permits and leases, a maximum of 12,333,568 animal unit months (AUMs) of grazing potentially could have been authorized for use. Instead, 8,820,617 AUMs were authorized for use.[7] BLM defines an AUM, for fee purposes,

[1] P.L. 95-514, 92 Stat. 1803; 43 U.S.C. §§1901, 1905. Executive Order 12548, 51 *Fed. Reg*. 5985 (February 19, 1986), at https://www.archives.gov/federal-register/codification/executive-order/12548.html. These authorities govern grazing on the Bureau of Land Management (BLM) and the Forest Service (FS) lands in 16 contiguous western states, which are the focus of this report. These states are Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, and Wyoming. Forest Service grasslands and "nonwestern" states have different fees. In addition, grazing occurs on some other federal lands, not required to be governed by PRIA fees, including certain areas managed by the National Park Service, Fish and Wildlife Service, Department of Defense, and Department of Energy.

[2] This figure was provided to CRS by BLM on December 10, 2018. It reflects BLM acreage within grazing allotments during FY2017.

[3] This figure was provided to CRS by BLM on December 10, 2018. It is an estimate of the acreage within BLM allotments for which BLM billed grazing permit and lease holders.

[4] *East* is used here to refer to all states except the following 12 states: Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. For more information on federal land ownership by state, see CRS Report R42346, *Federal Land Ownership: Overview and Data*, by Carol Hardy Vincent, Laura A. Hanson, and Carla N. Argueta.

[5] These figures were provided to CRS by FS on November 30, 2018. Nearly all of this acreage is in the 16 western states covered by this report. The acreage used for livestock grazing (74 million) reflects FS acreage in active allotments. Additional acres under other ownerships also were in active allotments. Active means that livestock use was permitted during the year.

[6] BLM uses both permits and leases to authorize grazing. Permits are used for lands within grazing districts (under Section 3 of the Taylor Grazing Act, 43 U.S.C. §315b). Leases are used for lands outside grazing districts (under Section 15 of the Taylor Grazing Act, 43 U.S.C. §315m).

[7] Statistics in this paragraph were taken from U.S. Department of the Interior (DOI), BLM, *Public Land Statistics, 2017*, Table 3-8c and Table 3-9c, at https://www.blm.gov/sites/blm.gov/files/PublicLandStatistics2017.pdf. The numbers of operators and animal unit months (AUMs) used are reported as of September 30, 2017, and the number of

as a month's use and occupancy of the range by one animal unit, which includes one yearling, one cow and her calf, one horse, or five sheep or goats.[8]

On FS rangelands, in FY2017, there were 5,725 permit holders permitted (i.e., allowed) to graze commercial livestock, with a total of 6,146 active permits. A maximum of 8,238,429 head-months (HD-MOs) of grazing were under permit and thus potentially could have been authorized for use. Instead, 6,803,425 HD-MOs were authorized for use.[9] FS uses HD-MO as its unit of measurement for use and occupancy of FS lands. This measurement is nearly identical to AUM as used by BLM for fee purposes.[10] Hereinafter, *AUM* is used to cover both HD-MO and AUM.

BLM and FS are charging a 2019 grazing fee of $1.35 per AUM. This annual fee is in effect from March 1, 2019, through February 29, 2020. This is the minimum fee allowed. (See "The Fee Formula" section, below.) BLM and FS typically spend more managing their grazing programs than they collect in grazing fees.[11] For example, $79.0 million was appropriated to BLM for rangeland management in FY2017. Of that amount, $32.4 million was used for administration of livestock grazing, according to the agency. The remainder was used for other range activities, including weed management, habitat improvement, and water development. For the same fiscal year, BLM collected $18.3 million in grazing fees.[12] The FY2017 appropriation for FS for grazing management was $56.9 million. The funds are used primarily for grazing permit administration and planning.[13] FS collected $7.6 million in grazing fees during FY2017.[14]

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permits and leases and maximum AUMs are reported as of January 3, 2018.

[8] Specifically, BLM regulations at 43 C.F.R. §4130.8-1 provide that in general, "[f]or the purposes of calculating the fee, an animal unit month is defined as a month's use and occupancy of range by 1 cow, bull, steer, heifer, horse, burro, mule, 5 sheep, or 5 goats: (1) Over the age of 6 months at the time of entering the public lands or other lands administered by BLM; (2) Weaned regardless of age; or (3) Becoming 12 months of age during the authorized period of use."

[9] Statistics in this paragraph were provided to CRS by FS on November 30, 2018.

[10] Specifically, FS regulations at 36 C.F.R. §222.50 provide that "[a] grazing fee shall be charged for each head month of livestock grazing or use. A head month is a month's use and occupancy of range by one animal, except for sheep or goats. A full head month's fee is charged for a month of grazing by adult animals; if the grazing animal is weaned or 6 months of age or older at the time of entering National Forest System lands; or will become 12 months of age during the permitted period of use. For fee purposes 5 sheep or goats, weaned or adult, are equivalent to one cow, bull, steer, heifer, horse, or mule."

[11] Past estimates of the cost of livestock grazing have varied considerably for a number of reasons, including the following. Some estimates might reflect the entirety of BLM and FS appropriations for rangeland management, whereas others might reflect the subset of these appropriations for administration of livestock grazing. Another variable is whether the estimates reflect any indirect costs to the federal government of livestock grazing, such as programs that might benefit livestock grazing or compensate for impacts of livestock grazing, or indirect costs to ranchers, such as for maintenance of fences and water sources. A 2015 study by the Center for Biological Diversity identifies BLM, FS, and other federal programs that might fund indirect costs of livestock grazing. The study also identifies potential nonfederal costs, such as at the state or local level. The study, entitled *Costs and Consequences: The Real Price of Grazing on America's Public Land*s," 2015, is available at https://www.biologicaldiversity.org/programs/public_lands/grazing/pdfs/CostsAndConsequences_01-2015.pdf. Another 2015 assessment, by the Public Lands Council, identifies the costs to ranchers of grazing on federal lands in addition to the grazing fee. See Public Lands Council, *The Value of Ranching*, 2015, at http://publiclandscouncil.org/wp-content/uploads/2015/07/ValueofRanching_Onesheet-1.pdf.

[12] The amount used for livestock grazing administration versus other rangeland management activities and the amount of fees collected were provided to CRS by BLM on December 10, 2018.

[13] The FS appropriation for grazing management was taken from appropriations documents. Other FS appropriations also support livestock grazing but are not separately identifiable. For instance, appropriations for vegetation and watershed management, within the National Forest System account, have been used for range improvements, restoration, and invasive species management. A total of $184.7 million was appropriated for vegetation and watershed management in FY2017, but the portion for activities that benefitted livestock grazing is not identifiable.

[14] The amount of grazing fees was taken from appropriations documents.

Grazing fees have been contentious since their introduction. Generally, livestock producers who use federal lands want to keep fees low. They assert that federal fees are not comparable to fees for leasing private rangelands because public lands often are less productive; must be shared with other public users; and often lack water, fencing, or other amenities, thereby increasing operating costs. They fear that fee increases may force many small and medium-sized ranchers out of business. Conservation groups generally assert that low fees contribute to overgrazing and deteriorated range conditions. Critics assert that low fees subsidize ranchers and contribute to budget shortfalls because federal fees are lower than private grazing land lease rates and do not cover the costs of range management. They further contend that, because some of the collected fees are used for range improvements, higher fees could enhance the productive potential and environmental quality of federal rangelands.

Current Grazing Fee Formula and Distribution of Receipts

The Fee Formula

The fee charged by BLM and FS is based on the grazing on federal rangelands of a specified number of animals for one month. PRIA establishes a policy of charging a grazing fee that is "equitable" and prevents economic disruption and harm to the western livestock industry. The law requires the Secretaries of Agriculture and the Interior to set a fee annually that is the estimated economic value of grazing to the livestock owner. The fee is to represent the fair market value of grazing, beginning with a 1966 base value of $1.23 per AUM. This value is adjusted for three factors based on costs in western states of (1) the rental charge for pasturing cattle on private rangelands, (2) the sales price of beef cattle, and (3) the cost of livestock production. Congress also established that the annual fee adjustment could not exceed 25% of the previous year's fee.[15]

PRIA required a seven-year trial (1979-1985) of the formula while BLM and FS undertook a study to help Congress determine a permanent fee or fee formula. President Reagan issued Executive Order 12548 (February 14, 1986) to continue indefinitely the PRIA fee formula, and established the minimum fee of $1.35 per AUM.[16]

The 2019 grazing fee of $1.35 per AUM represents a 4% decrease from the 2018 fee. Since 1981, BLM and FS have been charging the same fee, as shown in **Table 1**. The fee has ranged from $1.35 per AUM (for about half of the years during the 39-year period) to $2.31 per AUM (for 1981). The fee averaged $1.55 per AUM over the period.

Table 1. Grazing Fees from 1981 to 2019

(dollars per animal unit month)

1981	$2.31	1991	$1.97	2001	$1.35	2011	$1.35
1982	$1.86	1992	$1.92	2002	$1.43	2012	$1.35
1983	$1.40	1993	$1.86	2003	$1.35	2013	$1.35
1984	$1.37	1994	$1.98	2004	$1.43	2014	$1.35

15 43 U.S.C. §1905.

16 The executive order is available at https://www.archives.gov/federal-register/codification/executive-order/12548.html.

1985	$1.35	1995	$1.61	2005	$1.79	2015	$1.69
1986	$1.35	1996	$1.35	2006	$1.56	2016	$2.11
1987	$1.35	1997	$1.35	2007	$1.35	2017	$1.87
1988	$1.54	1998	$1.35	2008	$1.35	2018	$1.41
1989	$1.86	1999	$1.35	2009	$1.35	2019	$1.35
1990	$1.81	2000	$1.35	2010	$1.35		

Sources: Data for 1981-2005 are primarily derived from p. 83 of a 2005 Government Accountability Office report, GAO-05-869, at https://www.gao.gov/products/GAO-05-869. Data for 2006-2019 are primarily derived from annual BLM press releases. See for instance the 2019 press release containing the 2019 fee, at https://www.blm.gov/press-release/blm-and-forest-service-grazing-fees-lowered-2019.

Distribution of Receipts

Fifty percent of grazing fees collected by each agency, or $10.0 million—whichever is greater—go to a range betterment fund in the Treasury. BLM and FS grazing receipts are deposited separately.[17] Monies in the fund are subject to appropriations. BLM typically has requested and received an annual appropriation of $10.0 million for the fund. FS generally requests and receives an appropriation that is less than the $10.0 million minimum authorized in law. For instance, for FY2017, the agency received an appropriation of $4.2 million, roughly half the fees collected.[18]

The agencies use the range betterment fund for range rehabilitation, protection, and improvement, including grass seeding and reseeding, fence construction, weed control, water development, and fish and wildlife habitat. Under law, one-half of the fund is to be used as directed by the Secretary of the Interior or of Agriculture, and the other half is authorized to be spent in the district, region, or forest that generated the fees, as the Secretary determines after consultation with user representatives.[19] Agency regulations contain additional detail. For example, BLM regulations provide that half of the fund is to be allocated by the Secretary on a priority basis, and the rest is to be spent in the state and district where derived. Forest Service regulations provide that half of the monies are to be used in the national forest where derived, and the rest in the FS region where the forest is located. In general, FS returns all range betterment funds to the forest that generated them.[20]

[17] 43 U.S.C. §1751(b)(1).

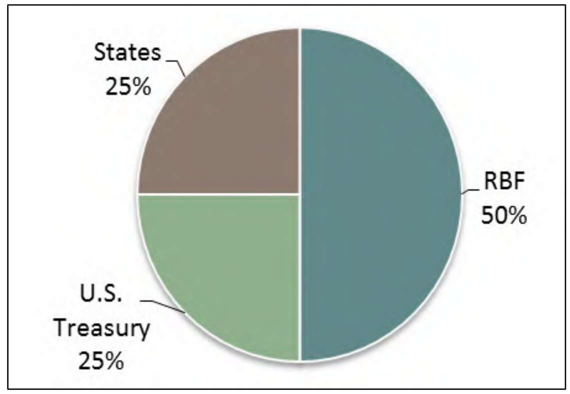
[18] This amount is the actual appropriation based on collections. It differs from the amount the agency requested and received in the appropriations law ($2.3 million), which was an estimate. See USDA, FS, *FY2019 Budget Justification*, p. 110, at https://www.fs.fed.us/sites/default/files/usfs-fy19-budget-justification.pdf.

[19] 43 U.S.C. §1751(b)(1).

[20] For BLM, see regulations at 43 C.F.R. §4120.3-8. For FS, see regulations at 36 C.F.R. §222.10.

The agencies allocate the remaining 50% of the collections differently.[21] For FS, 25% of the funds are deposited in the Treasury and 25% are subject to revenue-sharing requirements. The revenue-sharing payments are made to states, but the states do not retain any of the funds. The states pass the funds to specified local governmental entities for use at the county level (16 U.S.C. §500; see **Figure 1**).[22] For BLM, states receive 12.5% of monies collected from lands defined in Section 3 of the Taylor Grazing Act and 37.5% is deposited in the Treasury.[23] Section 3 lands are those within grazing districts for which BLM issues grazing permits. (See **Figure 2**.) By contrast, states receive 50% of fees collected from BLM lands defined in Section 15 of the Taylor Grazing Act. Section 15 lands are those outside grazing districts for which BLM leases grazing allotments. (See **Figure 3**.) For both agencies, any state share is to be used to benefit the counties that generated the receipts.

Figure 1. Distribution of Forest Service Grazing Fees



Source: CRS.

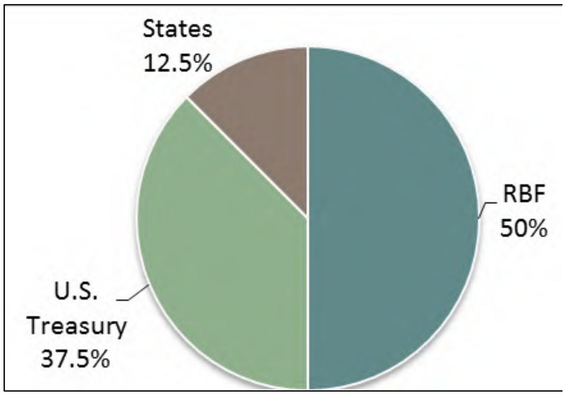
Note: RBF = Range Betterment Fund.

[21] The allocations described in this paragraph are made regardless of the amount of fees collected by an agency, including whether the total collection is less than the $10.0 million authorized for the range betterment fund (described above).

[22] More specifically, FS is required to share the annual average of 25% of the revenue generated on NFS land over the previous seven fiscal years with the counties containing those lands. Starting in 2000, however, Congress has at times authorized counties containing national forest system lands to receive revenue-sharing payments through an alternative payment program called Secure Rural Schools (SRS) payments. Payments made through SRS are based not on current revenue but on a formula that accounts for historic revenue. For more information, see CRS Report R41303, *Reauthorizing the Secure Rural Schools and Community Self-Determination Act of 2000*, by Katie Hoover. Under separate provisions of law (16 U.S.C. §501), 10% of monies received from national forests are to be allocated to the National Forest Roads and Trails Fund. However, these funds sometimes have stayed in the Treasury, as directed by recent annual Interior appropriations laws.

[23] Taylor Grazing Act of June 28, 1934; ch. 865, 48 Stat. 1269. 43 U.S.C. §§315, 315i.

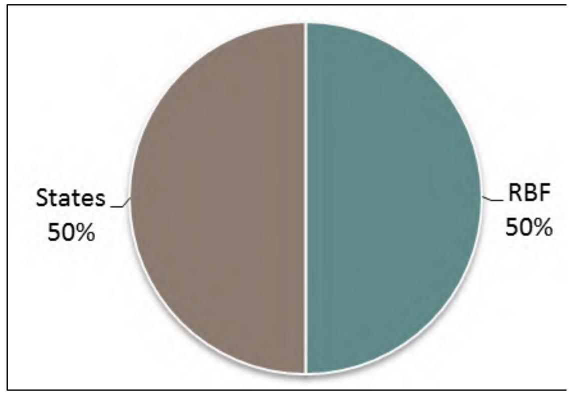
Figure 2. Distribution of BLM Grazing Fees: Section 3



Source: CRS.

Note: RBF = Range Betterment Fund.

Figure 3. Distribution of BLM Grazing Fees: Section 15



Source: CRS.

Note: RBF = Range Betterment Fund.

History of Fee Evaluation and Reform Attempts

PRIA directed the Interior and Agriculture Secretaries to report to Congress, by December 31, 1985, on the results of their evaluation of the fee formula and other grazing fee options and their recommendations for implementing a permanent grazing fee. The Secretaries' report included (1) a discussion of livestock production in the western United States; (2) an estimate of each agency's cost for implementing its grazing programs; (3) estimates of the market value for public rangeland grazing; (4) potential modifications to the PRIA formula; (5) alternative fee systems; and (6) economic effects of the fee system options on permittees.[24] A 1992 revision of the report updated the appraised fair market value of grazing on federal rangelands, determined the costs of range management programs, and recalculated the PRIA base value through the application of economic indexes. The study results, criticized by some as using faulty evaluation methods, were not adopted.

In the 1990s, grazing fee reform was considered by Congress but no change was enacted. In particular, in the 104th Congress (1995-1996), the Senate passed a bill to establish a new grazing fee formula and alter rangeland regulations. The formula was to be derived from the three-year average of the total gross value of production for beef and no longer indexed to operating costs and private land lease rates, as under PRIA. By one estimate, the measure would have resulted in an increase of about $0.50 per AUM. In the 105th Congress (1997-1998), the House passed a bill with a fee formula based on a 12-year average of beef cattle production costs and revenues. The formula would have resulted in a 1997 fee of about $1.84 per AUM. Since the 1990s, it appears that no major bills to alter the grazing fee have passed the chambers.

Also in the 1990s—and in subsequent years—certain Presidents proposed changes to grazing fees and related policies. However, these changes were not adopted. As one example, in 1993, the Clinton Administration proposed an administrative increase in the fee and revisions of other grazing policies. The proposed fee formula started with a base value of $3.96 per AUM and was

[24] U.S. Department of Agriculture, Forest Service, and U.S. Department of the Interior, Bureau of Land Management, *Grazing Fee Review and Evaluation*, A Report from the Secretary of Agriculture and the Secretary of the Interior (Washington, DC: February 1986).

to be adjusted to reflect annual changes in private land lease rates in the West (called the Forage Value Index). The current PRIA formula is adjusted using multiple indexes. As a second example, for some fiscal years (e.g., FY2008), President George W. Bush proposed terminating the deposit of 50% of BLM's grazing fees into the range betterment fund. The fee collections would have gone instead to the General Fund of the U.S. Treasury. As a third example, for some fiscal years, President Obama proposed a grazing administrative fee for BLM and FS (e.g., of $1.00 per AUM in FY2015 and $2.50 per AUM in FY2017). These administrative fees would have been additional to the annual grazing fee, and the agencies would have used them to offset the cost of administering the livestock grazing programs.

Current Issues

Fee Level

There is ongoing debate about the appropriate grazing fee, with several key areas of contention. First, there are differences over which criteria should prevail in setting fees: fair market value; cost recovery (whereby the monies collected would cover the government's cost of running the program); sustaining ranching, or resource-based rural economies generally; or diversification of local economies. Second, there is disagreement over the validity of fair market value estimates for federal grazing because federal and private lands for leasing are not always directly comparable. Third, whether to have a uniform fee, or varied fees based on biological and economic conditions, is an area of debate. Fourth, there are diverse views on the environmental costs and benefits of grazing on federal lands and on the environmental impact of changes in grazing levels. Fifth, it is uncertain whether fee increases would reduce the number of cattle grazing on sensitive lands, such as riparian areas.[25] Sixth, some environmentalists assert that the fee is not the main issue, but that all livestock grazing should be barred to protect federal lands.

As noted, there have been proposals to alter the grazing fee in recent years, but these proposals have not been adopted. For example, the Obama Administration's proposed grazing administration fee of $2.50 per AUM in 2017 would have been in addition to the annual fee of $2.11 per AUM. The monies would have been used for administering grazing to shift a portion of the costs to permit holders. Use of the fees would have been subject to appropriations. BLM estimated that the proposed administrative fee would have generated $16.5 million in FY2017, and FS estimated revenues of $15.0 million in FY2017.[26] Livestock organizations, among others, opposed the proposal as an unnecessary and burdensome cost for the livestock industry. The Administration had included similar proposals in earlier budget requests; none of these proposals were enacted.

As another example, in 2005, several groups petitioned BLM and FS to raise the grazing fees, asserting that the fees did not reflect the fair market value of federal forage. When the agencies did not respond to the petition, the groups sued.[27] In addition to asserting that BLM and FS

[25] As described in a BLM glossary, riparian areas are "[l]ands adjacent to creeks, streams, and rivers where vegetation is strongly influenced by the presence of water." See DOI, BLM, *Public Land Statistics, 2017*, p. 247, at https://www.blm.gov/sites/blm.gov/files/PublicLandStatistics2017.pdf.

[26] DOI, BLM, *Budget Justifications and Performance Information, Fiscal Year 2017*, p. II-6 and VII-35 – VII–36, athttps://edit.doi.gov/sites/doi.gov/files/uploads/FY2017_BLM_Budget_Justification.pdf. USDA, FS, *FY2017 Budget Justification*, pp. 39-40, at https://www.fs.fed.us/sites/default/files/fy-2017-fs-budget-justification.pdf.

[27] Center for Biological Diversity v. U.S. Department of the Interior, No. 10-CV-952 (D.D.C. *Complaint filed* June 7, 2010).

unreasonably delayed response to their petition, the petitioners argued that the agencies were required to conduct a study under the National Environmental Policy Act (NEPA) to determine the environmental impacts of the current grazing fee rate. In January 2011, BLM and FS responded to the petition, denying the request for a fee increase, and the lawsuit was settled.[28]

State and Private Grazing Fees

The BLM and FS grazing fee has generally been lower than fees charged for grazing on other federal lands as well as on state and private lands, as shown in studies over the past 15 years. For instance, a 2005 Government Accountability Office (GAO) study found that other federal agencies[29] charged $0.29 to $112.50 per AUM in 2004, when the BLM and FS fee was $1.43 per AUM. While BLM and FS use a formula to set the grazing fee, most agencies charge a fee based on competitive methods or a market price for forage. Some seek to recover the costs of their grazing programs. GAO also reported that in 2004, state fees ranged from $1.35 to $80 per AUM and private fees ranged from $8 to $23 per AUM.[30]

In 2010, when the BLM and FS fee was $1.35 per AUM, state grazing fees continued to show wide variation. They ranged from $2.28 per AUM for Arizona to $65-$150 per AUM for Texas. Moreover, some states did not base fees on AUMs, but rather had fees that were variable, were set by auction, were based on acreage of grazing, or were tied to the rate for grazing on private lands.[31] Further, a 2018 study of state grazing fees in 11 western states continued to show widely differing fees, ranging from $3.50 per AUM for New Mexico to $65-$100 per AUM for Texas. Fees for these states were higher than the 2018 BLM and FS fee ($1.41 per AUM).[32]

For grazing on private lands in 2017, the average monthly lease rate for lands in 16 western states was $23.40 per head. Fees ranged from $11.50 in Oklahoma to $39.00 in Nebraska.[33] For comparison, in 2017, the BLM and FS grazing fee was $1.87 per AUM.

Comparing the BLM and FS grazing fee with state and private fees is complicated due to a number of factors. One factor is the varying purposes for which the fees are charged. Many states and private landowners seek market value for grazing. As noted above, PRIA established the BLM and FS fee in accordance with multiple purposes. They included preventing economic disruption and harm to the western livestock industry as well as being “equitable” and

[28] Center for Biological Diversity v. U.S. Department of the Interior, No. 10-CV-952 (D.D.C. *Order filed* February 23, 2011).

[29] Other federal agencies covered by the GAO study included the Department of Energy, agencies (in addition to BLM) within the Department of the Interior, and agencies within the Department of Defense.

[30] GAO, *Livestock Grazing: Federal Expenditures and Receipts Vary, Depending on the Agency and the Purpose of the Fee Charged*, GAO-05-869 (Washington, DC: September 2005), pp. 37-40, at http://www.gao.gov/products/GAO-05-869. Hereinafter cited as GAO, *Livestock Grazing*, 2005.

[31] These figures and information are derived from an April 2011 study by the Montana Department of Natural Resources and Conservation. The report is at https://web.archive.org/web/20120930233640/http:/dnrc.mt.gov/Trust/AGM/GrazingRateStudy/Documents/GrazingReviewByBioeconomics.pdf. In particular, Table 1 (p. 9) compares fees on state lands in 17 western states.

[32] Holly Dwyer, WY Office of State Lands & Investments, 2018, *State Trust Land Grazing Fees*, at https://www.wyoleg.gov/InterimCommittee/2018/05-20180927StateLandsGrazingFees.pdf.

[33] Statistics on grazing fees on private lands were taken from U.S. Department of Agriculture, National Agricultural Statistics Service, *Charts and Maps, Grazing Fees: Per Head Fee, 17 States*, January 2018, at https://www.nass.usda.gov/Charts_and_Maps/Grazing_Fees/gf_hm.php. Including Texas, which also had a fee of $11.50, the 17-state average fee was $20.60 in 2017. For many years, the National Agricultural Statistics Service has published fees for grazing on private lands.

representing the fair market value of grazing. While the base fee originally reflected what was considered to be fair market value, the adjustments included in the formula have not resulted in fees comparable to state and private fees. According to GAO's 2005 study, "it is generally recognized that while the federal government does not receive a market price for its permits and leases, ranchers have paid a market price for their federal permits or leases—by paying (1) grazing fees; (2) nonfee grazing costs, including the costs of operating on federal lands, such as protecting threatened and endangered species (i.e., limiting grazing area or time); and (3) the capitalized permit value."[34] Regarding the latter, the capitalized value of grazing permits typically is reflected in higher purchase prices that federal permit holders pay for their ranches.

A second factor is the quality of resources on the lands being grazed and the number and types of services provided by the landowners. For example, in its 2005 study, GAO noted advantages of grazing on private lands over federal lands. They included generally better forage and sources of water; services provided by private landowners, such as watering, fencing, feeding, veterinary care, and maintenance; the ability of lessees to sublease, thus generating revenue; and limited public access. With regard to state lands, the study indicated that states also typically limit public access to their lands, while the quality of forage and the availability of water are more comparable to federal lands.[35]

A third factor is whether the federal grazing fee alone or other nonfee costs of operating on federal lands are considered in comparing federal and nonfederal costs. Some research suggests that ranchers might spend more to graze on federal lands than private lands when both fee and nonfee costs are considered. Nonfee costs relate to maintenance, herding, moving livestock, and lost animals, among other factors.[36]

Grazing Without Paying Fees

Unauthorized grazing occurs on BLM and FS lands in a variety of ways, including when cattle graze outside the allowed areas or seasons or in larger numbers than allowed under permit. According to GAO, the frequency and extent of unauthorized grazing is not known, because many cases are handled informally by agency staff. However, during the five-year period spanning 2010 to 2014, BLM and FS documented nearly 1,500 instances of unauthorized grazing, some of which involved the livestock owners having to pay penalties and, less frequently, livestock impoundment.[37]

In many cases the unauthorized grazing is unintentional, but in other cases livestock owners have intentionally grazed cattle on federal land without getting a permit or paying the required fee. The livestock owners have claimed that they do not need to have permits or pay grazing fees for various reasons, such as that the land is owned by the public; that the land belongs to a tribe under a treaty; or that other rights, such as state water rights, extend to the accompanying forage.

A particularly long-standing controversy involves cattle grazed by Cliven Bundy in Nevada.[38] After about two decades of pursuing administrative and judicial resolutions, in April 2014, BLM

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[34] GAO, *Livestock Grazing*, 2005, pp. 49-50, at http://www.gao.gov/products/GAO-05-869.

[35] GAO, *Livestock Grazing*, 2005, p. 49, at http://www.gao.gov/products/GAO-05-869.

[36] Neil Rimbey and L. Allen Torrell, *Grazing Costs: What's the Current Situation?*, University of Idaho, March 22, 2011.

[37] GAO, *Unauthorized Grazing: Actions Needed to Improve Tracking and Deterrence Efforts*, GAO-16-559 (Washington, DC: July 2016), pp. 12-13, at http://www.gao.gov/products/GAO-16-559.

[38] Except where otherwise noted, information in this paragraph was derived from information provided to CRS by BLM on April 24, 2014, and information formerly on BLM's website (since removed).

and the National Park Service began impounding Mr. Bundy's cattle on the grounds that he did not have authority to graze on certain federal lands and had not been paying grazing fees for more than 20 years. BLM estimated at that time that Mr. Bundy owed more than $1 million to the federal government (including grazing fees and trespassing fees) as a result of unauthorized grazing. However, the agencies ceased the impoundment of the cattle due to fears of confrontation between private citizens opposed to the roundup and federal law enforcement officials present during the impoundment. Mr. Bundy had not been paying grazing fees to the federal government primarily on the assertion that the lands do not belong to the United States but rather to the state of Nevada, and that his ancestors used the land before the federal government claimed ownership.[39] However, courts determined that the United States owns the lands, enjoined Mr. Bundy from grazing livestock in these areas, and authorized the United States to impound cattle remaining in the trespass areas.[40] BLM continues to seek to resolve the issue through the judicial process.

BLM estimated that during the two decades prior to the 2014 intended impoundment of Mr. Bundy's cattle, the agency had impounded cattle about 50 times. The operation to remove Mr. Bundy's cattle from federal lands in Nevada was the biggest removal effort, in terms of the number of cattle and the area involved, according to BLM.[41] It was also one of the most controversial, in part because of the number and role of law enforcement officials and the temporary closures of land to conduct the impoundment.[42]

Voluntary Permit Retirement

There have been efforts to end livestock grazing on certain federal lands through voluntary retirement of permits and leases and subsequent closure of the allotments to grazing. This practice is supported by those who view grazing as damaging to the environment, more costly than beneficial, and difficult to reconcile with other land uses. This practice is opposed by those who support ranching on the affected lands, fear a widespread effort to eliminate ranching as a way of life, or question the legality of the process. In some cases, supporters seek to have ranchers relinquish their permits to the government in exchange for compensation by third parties, particularly environmental groups. The third parties seek to acquire the permits through transfer, and advocate agency amendments to land use plans to permanently devote the grazing lands to other purposes, such as watershed conservation.[43]

Legislation to authorize an end to grazing in particular areas through voluntary donations of the permits by the permit holders has been introduced in recent Congresses. These measures generally provide for the Secretary of the Interior and/or the Secretary of Agriculture to accept the donation of a permit, terminate the permit, and end grazing on the associated land (or reduce

[39] See for example, CBS/AP, CBS News, "Nevada Rancher Cliven Bundy: 'The Citizens of America' Got My Cattle Back," April 13, 2014, at http://www.cbsnews.com/news/nevada-rancher-cliven-bundy-the-citizens-of-america-got-my-cattle-back/.

[40] For example, court orders were issued on July 9, 2013, and October 9, 2013.

[41] Telephone communication between BLM and the Congressional Research Service, April 23, 2014.

[42] Jon Ralston, "Former BLM Director: Bundy is Not a Victim but BLM Mishandled Roundup," *Ralston Reports*, April 14, 2014, at http://www.ralstonreports.com/blog/former-blm-director-bundy-not-victim-blm-mishandled-roundup.

[43] The third parties would not pay grazing fees under their permits if they opt not to graze during the amendment process, because fees are paid for actual grazing.

grazing where the donation involves a portion of the authorized grazing). Provisions authorizing such voluntary permit donations in specific areas have sometimes been enacted.[44]

Other bills have sought to establish pilot programs for livestock operators to voluntarily relinquish permits and leases in particular states. Still other measures have proposed allowing the Secretary of the Interior and the Secretary of Agriculture to accept a certain number of waived permits, such as a maximum of 100 each year. Under both types of measures, when the Secretaries accept waived permits, they would permanently retire such permits and leases and end grazing on the affected allotments (or reduce grazing where the relinquishment involves a portion of the authorized grazing). Provisions authorizing such pilot programs for particular states or authorizing acceptance of a certain number of waived permits have not been enacted.

In earlier Congresses, legislation was introduced to *buy out* grazing permittees (or lessees) on federal lands generally or on particular allotments.[45] Such legislation provided that permittees who voluntarily relinquished their permits would be compensated at a certain dollar value per AUM, generally significantly higher than the market rate. The allotments would have been permanently closed to grazing. Such legislation, which had been backed by the National Public Lands Grazing Campaign, was advocated to enhance resource protection, resolve conflicts between grazing and other land uses, provide economic options to permittees, and save money. According to proponents, while a buyout program would be costly if all permits were relinquished, it would save more than the cost over time. Opponents of buyout legislation include those who support grazing, others who fear the creation of a compensable property right in grazing permits, some who contend that it would be too costly, or still others who support different types of grazing reform.

Extension of Expiring Permits

The extension, renewal, transfer, and reissuance of grazing permits have been issues for Congress. Both BLM and FS have a backlog of permits needing evaluation for renewal. For instance, BLM's backlog has been increasing for more than a decade, with a backlog of more than 7,000 permit renewals as of September 30, 2017.[46] To allow for continuity in grazing operations, Congress had enacted a series of temporary provisions of law allowing the terms and conditions of grazing permits to continue in effect until the agencies complete processing of a renewal. The most recent provision, P.L. 113-291 (Section 3023), made permanent the automatic renewal (until the renewal evaluation process is complete) of grazing permits and leases that expire or are transferred.[47]

Agency decisions regarding permit issuance are subject to environmental review under the National Environmental Policy Act (NEPA). That environmental review would include the identification of any additional state, tribal, or federal environmental compliance requirements,

[44] See, for example, P.L. 114-46, Section 102(e), for certain wilderness areas in Idaho and P.L. 112-74, Section 122, for the California Desert Conservation Area.

[45] For example, see H.R. 3166 in the 109th Congress.

[46] DOI, BLM, *Budget Justifications and Performance Information, Fiscal Year 2019*, p. VI-37, at https://www.doi.gov/sites/doi.gov/files/uploads/fy2019_blm_budget_justification.pdf. The figure in the document shows grazing permits processed by BLM, and permits in an unprocessed status, annually from FY1999-FY2017.

[47] This provision was enacted as an amendment to portions of the Federal Land Policy and Management Act (specifically 43 U.S.C. 1752) pertaining to livestock grazing on BLM and FS lands in 16 contiguous western states, which is the focus of this report. Annual appropriations laws for Interior, Environment, and Related Agencies have continued to provide automatic extension of grazing permits on other FS lands.

such as the Endangered Species Act (ESA), that would apply to a permitted grazing operation. P.L. 113-291 provided that the issuance of a grazing permit "may" be categorically excluded from this NEPA requirement under certain conditions.[48] Provisions regarding categorical exclusions have been controversial. Supporters assert that they will expedite the renewal process, foster certainty of grazing operations, and reduce agency workload and expenses. Opponents have expressed concern that categorical exclusions could result in insufficient environmental review and public comment to determine range conditions.

Author Information

Carol Hardy Vincent
Specialist in Natural Resources Policy

Disclaimer

[48] For information about the various levels of environmental review required under NEPA, see CRS Report RL33152, *The National Environmental Policy Act (NEPA): Background and Implementation*, by Linda Luther.

From: mike savage <rmsavage17@outlook.com>
Sent: Sunday, August 29, 2021 11:04 PM
To: Comments
Subject: State Lease Land
Attachments: Scan_20210829.jpg; DSCN1503.JPG; DSCN1504.JPG; DSCN1508.JPG

Enclosed is a letter and 3 pictures.
These are private fenced land.
The next email will be 4 pictures of state lease that has been logged
Sent from Mail for Windows

I am writing this in response to your letter asking for input on State Lease Land and why private landowners get more money. I have enclosed some pictures that i took. This is state land that has been logged and supposedly cleaned up. I am a rancher and my family has leased state land for years. I am finding out that after you guys log and clean up that there is nothing left to pasture cows on. All we have left is alot of weeds knappweed, thistles, mullan and more weeds. Not only is there nothing left to pasture i am expected to put up and maintain a fence at my expense. Private land is fenced and mostly weed free. They take care of it. What are we supposed to do. There needs to be a solution to this problem. I am inviting you to come up and walk through with me to see if we can come up with something.

Thank-you,

Robert Savage
Priest River, Id.
(208)290-6923

From: mike savage <rmsavage17@outlook.com>
Sent: Sunday, August 29, 2021 11:16 PM
To: Comments
Subject: State Lease Land

Categories: Comments-Admin-Use-Only

Enclosed is 4 pictures of State leases that has been logged

Thank- you
Robert Savage
208-290-6923

Sent from Mail for Windows

From:	Jason Laney
Sent:	Monday, August 30, 2021 12:51 PM
To:	Scott Phillips; Sharla Arledge
Cc:	Josh Purkiss
Subject:	FW: IDL Grazing fee increase comments
Attachments:	Grazing fee increase comments 8_30_21.pdf

Here are comments from ICL, in case they didn't make it through the comment submission form.

Thanks!

Jason Laney
Grazing, Ag, and Conservation Program Manager
Idaho Department of Lands
Office: (208) 334-0278

From: Randy Fox <rfox@idahoconservation.org>
Sent: Monday, August 30, 2021 11:38 AM
To: Jason Laney <JLaney@idl.idaho.gov>
Subject: IDL Grazing fee increase comments

Mr. Laney,
Please accept the Idaho Conservation League's comments on the proposed grazing fee increases on IDL endowment lands. I have submitted our comments through the Comments Page on the IDL webpage, and I have attached them to this email as a secondary submission in the event the comment page didn't accept them. If you have any questions, please feel free to email or call.

Respectfully,

--
Randy Fox
He/Him/His (What's This?)
Conservation Associate
Idaho Conservation League
311 Lake St., McCall, ID 83638
208-345-6933 x 510
fax 208-344-0344
rfox@idahoconservation.org
http://www.idahoconservation.org
Twitter: @idconservation
Facebook: /idahoconservationleague
Instagram: @idahoconservationleague

IDAHO
CONSERVATION
LEAGUE

208.345.6933 • PO Box 844, Boise, ID 83702 • www.idahoconservation.org

August 30, 2021

Mr. Jason Laney
Grazing, Farming, and Conservation Program Manager
Idaho Department of Lands
300 N. 6th St., Suite 103
Boise, ID 83720
(208) 334-0278

Electronically Submitted: jlaney@idl.idaho.gov and
https://www.idl.idaho.gov/leasing/grazing-farming-conservation-program/grazing-rate-review/

RE: Idaho Conservation League's Comments on the Proposed Idaho Department of Lands Grazing Fee Increase

Dear Mr. Laney:

Thank you for this opportunity to comment on the proposed Idaho Department of Lands (IDL) Grazing Fee Increase. Since 1973, the Idaho Conservation League (ICL) has been Idaho's voice for clean water, clean air and wilderness—values that are the foundation for Idaho's extraordinary quality of life. The Idaho Conservation League works to protect these values through public education, outreach, advocacy and policy development. As Idaho's largest statewide conservation organization, we represent over 35,000 supporters who want to ensure that grazing activities and related infrastructure are managed in such a way that protects and sustains Idaho's rangelands, wildlife, water quality and other natural resources, while ensuring allotment permittees pay market rate for grazing on endowment lands. We also understand the role that these parcels play in meeting the State's responsibility to maximize long-term profits for trust beneficiaries.

In 1993, the State Board of Land Commissioners (Land Board) adopted a formula to determine the annual grazing fee for allotments on state endowment lands, which is applied on an Animal Unit per Month (AUM) basis. Using the current formula, IDL currently charges \$7.07/AUM, or 38% of the USDA National Agricultural Statistic Services (NASS) published rate for private land grazing lease fees in Idaho. We believe that the current rate does not accurately reflect fair market value for grazing on endowment lands, and we encourage IDL and the Land Board to adopt the proposed formula model to bring IDL grazing fees more in line with private land fees. According to documents found on IDL's Grazing Rate Review webpage, if IDL adopts the proposed formula the grazing fees would increase in 2022 to $10.73/AUM, which is 58% of the published NASS private rate ($18.50/AUM). While this would represent a 20% increase in IDL endowment land allotment grazing fees and would more accurately reflect fair market value, the proposed increase would still fall over 40% short of the NASS Idaho private rate. We are concerned that the disparity between the proposed IDL 2022 rate and the current NASS private rate does not allow for adequate compensation for IDL management and infrastructure, and we recommend increasing the proposed fee rate another 10%. This would allow for administrative overhead increases while keeping the IDL rate well below the published NASS for private lands.

Thank you for providing ICL and the public the opportunity to comment on the proposed rate increase and adoption of a new calculation formula. If you have any questions regarding our comments and recommendations, please feel free to contact me.

Respectfully submitted,

Randy Fox
Conservation Associate
Idaho Conservation League
rfox@idahoconservation.org
(208) 345-6933 x 510

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Wednesday, September 1, 2021 2:46 PM
To: Comments
Subject: Grazing Rate Comment Submitted

From: JOSEPH IVESON at aniprowest@gmail.com
Phone: 2087411273
Address: 2615 UPPERDALE RD
City: Council
State: Idaho
Zip Code: 83612

Comment:
Please leave lease Rate formula the same. State is already 4 or 5 times higher then federal lands. Should not be compared to private lease rates at all.

Thanks

Joe Iveson
state lease holder
Adams County Commissioner

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Wednesday, September 1, 2021 2:55 PM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Zachary Jones at mr.zachjones@gmail.com
Phone: 2089216633
Address: 5770 W. Winfield Ct
City: BOISE
State: Idaho
Zip Code: 83703

Comment:
Raise the rate! Ranchers have a long history of underpaying to abuse public lands for next to nothing. What do we get in return? Habitat loss, endangered species (sage grouse), stream erosion, fish decline, algae blooms, wrongful persecution of wolves, and the list goes on.

In my opinion, the fact that ranchers pay pennies on the acre to graze their filthy cattle on public lands is a crime. Save a wolf, educate a rancher.

From: Josh Bruce <bruc0002@hotmail.com>
Sent: Thursday, September 2, 2021 7:20 AM
To: Comments
Subject: Comment for grazing fee increase

To whom it may concern:

Growing up on a ranch, I always felt lucky to have that privilege. I graduated from college and worked a few jobs until I made enough money to buy cows and lease my parents ranch. As the years has gone by, running cows gets more and more expensive every year. Grass gets more expensive along with hay and other inputs. Most ranchers are barely scraping by and having to find outside income to make ends meet. Their is no profit left right now at today's prices and another increased input cost will put us farther behind.

We build fences, move and gather cows, maintain water, cut trees, improve the state lands we run on. The fee of 8 dollars a month sounds cheap but when you put the other expenses in it; it's quite expensive.

I do buy outside grass for $30 a month. I drop the cows off and show up 4 months later and pick them up. Nothing has died, cattle are fat, I built no fence, I never gathered or moved cows. That is cheaper than the 8 dollar grass from the state.

I am against the rate increase for grazing aums. Cattle are worth less than they ever were if you adjust for inflation over the last 20 years. With the burden and head aches of this business, we feel less privileged every year to try snd stay in the business. Small Ranches can't handle the rate increases. We are losing our small Ranches to the wealthy every year. We need to keep rates where they are to give the smaller ranchers a chance to stay in business. Thank you for your time.

Sincerely

Josh Bruce

Sent from my iPhone

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Friday, September 3, 2021 8:22 AM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Bruce L. Mulkey at mulkeycircle1ranch@gmail.com
Phone: 208-303-0165
Address: 25 Mulkey Ln
City: Salmon
State: Idaho
Zip Code: 83467

Comment:
I am president of the Haynes Creek Cattle and Horse Association. Our association has a state lease of about 2600 acres. there are four ranches that share this lease, two of families have been using this land for over one hundred years. Your proposed fee increase will probably end that. There is no way you can compare the state ground to private. It is already over priced compared to our federal land. We have to pay for any improvements with no help from the state. Compared to our federal range our state land is our least productive. The current formula is working, even though it is too high priced. I know the mission of the land board is to maximize profits, but how will it do that if we can't afford to pay the lease. If we drop the lease the state will have to pay to fence their ground away from our BLM or we will be using for free. It is tough enough to survive in ranching without another cost increase. Private leases don't have to deal with the public all over the place. We have only seen a Department of Lands employee twice in the last fifty years, so there is no service provided by you department, Thank you for the opportunity to comment.

From: Mark and Wendy Pratt <prattcattle@gmail.com>
Sent: Friday, September 3, 2021 12:45 PM
To: Comments
Subject: Grazing rate review comments
Attachments: Grazing rate comments.docx

Our comments are attached. Thank you for the opportunity to comment. We value this relationship as our ranch has done business in some form with State Lands for the last seventy years.

1 - Contribution to local economies should be considered as leases are awarded to non-ranching entities.

2 - We filled out the Wyoming survey and request those figures be considered.

3 - The conflict bid process needs to be considered in every discussion of a rate increase. If the rates are truly underpriced it would show up in more competitive bids. We bid $82,000 to acquire a lease in 2003 which raised our annual AUM rate by nearly 12.00. It reflected the fact that the lease was attractive to two bidders because of proximity to other leases and/or private land. Additionally, if an increase is implemented, those contracts that were purchased with significant up-front costs should be adjusted for the remaining life of the contract.

4 - As lease fees go up, more of these lands will change hands and will therefore be fenced upon ownership lines which limit recreation access and wildlife movement.

5 - Our state allotments are managed in conjunction with private land which allows time-controlled grazing BETWEEN those lands. If rates go up these allotments and improved management are jeopardized. We have graze periods on two leases of approximately 10 days because we have private ground intermingled with state ground. This is highly beneficial to the range ecosystem over season-long grazing. There is a roughly 40% increase in productivity (for total biological output) between land which is under a time control system as opposed to season-long grazing. These "costs" are not currently calculated under the proposed model. We believe they should be if long term sustainability is important to the Land Board and Idaho citizens.

6 - State parcels surrounded by federal ground are already overpriced compared to the federal costs. These lessees which hold both state and federal leases are likely to forego the state lease if the rates go any higher. If these are picked up by someone else, it would require fencing which increases costs, while hindering recreation access and wildlife movement.

7 - In examining the proposed rate model, we notice the June draft dropped half of the non-fee grazing costs that were in May's model, without any explanation. A major non-fee cost not included in either draft is water development and maintenance. In addition, conflict bidding adds on average 1.64 per AUM. This should be considered as a deduction in the proposed formula.

8 - State Lands have required little management by the State because they are affordable and lessees do the vast majority of the work. We have not kept track of all the time spent fencing, installing and maintaining water developments, brush control, etc. because we do this as part of our regular ranching work. Higher lease costs will upset the cart and it seems very likely that another staff person will need to be added to state staff and will

quickly use up the $90,000+ the state will generate with this fee increase. We appreciate the affordability of these lands and take seriously our commitment as partners.

9 – Many of the blocked lands have roadways going through them, with those roads comes high speed traffic, more so every year. Killed and maimed livestock is the result. The resulting death loss has to date been counted as a cost of doing business. Death loss from shootings and collisions should be added as a non-fee cost since they seldom occur on a private lease.

10 – In our opinion, our relationship is mutually beneficial. We need one another to meet the challenges that lie ahead. The current formula lacks defensibility only if you choose not to defend it as it has stood the test of time. If the members of the Land Board will consider all the factors that are part of this relationship we believe that they will find that we are maximizing returns while insuring the long term health of the resource.

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Friday, September 3, 2021 12:52 PM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Clyde Johnson at cjohnson@gossner.com
Phone: 208-851-1888
Address: 313 West Oneida
City: Preston
State: Idaho
Zip Code: 83263

Comment:
Idaho Lands,
I'm a member/manager of Stock Valley Ranch LLC located in Franklin County. I'm definitely opposed to a large rate increase for grazing. Right now, we have multiple factors impacting our bottom line. We are in the middle of one of the worst droughts and growing conditions that I can ever remember. Fuel has taken a huge increase. Property taxes are up significantly because we have had large land sales next to our farm. Insurance is always increasing. We are having a very difficult time just keeping the multi-generational family farm in business. We provide a valuable product, which is food, that directly and indirectly impacts the local economy and the State of Idaho. It's a difficult time for a Rancher and any increase in operating costs impacts our ability to provide a valuable product. Because of those reasons, I would ask that the State doesn't impose a rate increase. Thanks for your consideration.
Clyde Johnson

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Friday, September 3, 2021 1:40 PM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Darcy Helmick at darcy.helmick@simplot.com
Phone: 2088345152
Address: 1301 Hwy 67
City: grand view
State: Idaho
Zip Code: 83624

Comment:
Jason Laney, Program Manager September 3, 2021
Idaho Department of Lands
300 N 6th Street, Suite 103
PO Box 83720
Boise, ID 83720 Sent electronically to: comments@idl.idaho.gov

Dear Jason,

Thank you for the opportunity to provide comments on the New Grazing Fee Model developed by Idaho Department of Lands, as accessed at Welcome to Department of Lands (idaho.gov) on August 26, 2021. As a company, we hold multiple State Land grazing leases within both the Southwest and Southcentral areas. We appreciate and understand the needs of Idaho Department of Lands (IDL) to manage state endowment trust land to meet the Constitutional mandate to maximize long-term financial returns to the State of Idaho. We sincerely believe revenue from livestock grazing has been and will continue to be a necessary component in that long-term mission. It is critical that any formula selected be defensible, implementable, and predictable to ensure continuation of utilizing livestock as a component of State Land management.

Based on review of the website, we have the following recommendations:

1. A majority of IDL lands are more similar to federal leased lands than private leases. We have previously provided comments and suggestions when IDL has previously considered a formula change. Those comments still apply, specifically that IDL should consider the location and management of surrounding properties when determining lease rates. A majority of our IDL leases are isolated sections, surrounded by Bureau of Land Management (BLM) lands and are managed in combination with those lands. Any grazing fee applicable to those lands should reflect that relationship.

2. Non-Fee Grazing Costs must be calculated at 100%.
The prorated Non-Fee Grazing Costs percentages are incorrect assumptions. Unless IDL plans on changing their contributions to lease holders, the % of Non-Fee Services Paid by Lessee should reflect 100% for Salt/Minerals, Trucking to & From Pasture; Hired labor; and buildings & Improvements (repair). Currently the lessee is responsible for 100% of those costs, and utilizing a lower percentage significantly skews the overall rate.

3. There should be a cap on the % of increase each year. The federal grazing rate has a cap to limit the total increase in any one year. By adopting a similar structure, leases will be more likely to be able to maintain economic stability if this system is implemented.

4. IDL leases lack any assurances for length of lease or preference, reducing the value of said leases. As recently exhibited by the conflict auction results from the Southcentral area, at any time (State Lease can be canceled with 180 day notice, Term 12. c.), IDL can determine that a different use is superior to livestock grazing and end the lease. This adds additional risk in investing in a state lease, and decreases the associated value of that lease.

Simplot is also a member of Idaho Cattle Association and support any comments submitted by the ICA.

Thank you,

Darcy Helmick
Land Manger – Simplot Livestock Company

Cc: Tom Basabe – President, Simplot Livestock Company

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Friday, September 3, 2021 2:05 PM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Eric Winford at ewinford@uidaho.edu
Phone: 208-364-3176
Address: 322 E. Front St.
City: Boise
State: Idaho
Zip Code: 83702

Comment:
Recreation should be considered a non-fee cost while grazing public lands. The past few years of incredible numbers of recreation users have shown everyone in the state the desirability of public lands. While this is appropriate in a multi-use management model, it can have impacts on the rancher and the ranching operation and that should be recognized in this model. While I do not have exact numbers to provide, my understanding is that these impacts can be felt in two ways: through increased depreciation of infrastructure (ie, damaged fences and water troughs or increased maintenance of cattle guards), and through decreased performance (ie, decreased weight gain) on livestock. Better defining these numbers would take some effort, which I totally support. But to start off, and to provide some initial sense of the issue, the model could incorporate an increased rate of depreciation. There is one provided in Table 2 of the Obermiller (1992) report included as Attachment K on your webpage.

From:	Karen Williams <karen@idahocattle.org>
Sent:	Friday, September 3, 2021 2:32 PM
To:	Comments
Subject:	ICA Comments
Attachments:	Sept 2021 ICA Comments on IDL Grazing Rate Model.pdf

Please accept the attached comments on the IDL grazing rate proposal.

Thanks,

Karen M. Williams
Policy Director
Idaho Cattle Association
Phone: 208-866-6438
Email: karen@idahocattle.org

EST. 1915 IDAHO CATTLE ASSOCIATION

September 3, 2021

Idaho Department of Lands
300 N. 6th Street, Suite 103
Boise, ID 83702
Submitted via email: comments@idl.idaho.gov

RE: Idaho Department of Lands Grazing Lease Rate Review

The Idaho Cattle Association (ICA) submits the following comments regarding the Idaho Department of Lands (IDL) Proposed Grazing Lease Rate Model. ICA represents the cattle industry in Idaho, including ranchers who have state lands grazing leases. We ask that you weigh our comments and concerns accordingly, as you move forward with recommendations for the Idaho Land Board.

Benefits of Grazing to the Endowment

As IDL moves forward in this process, we want to re-emphasize the important role that livestock grazing plays in both the state's economy and in the management of the state's land. Both factors are key in supporting the state's endowment fund and in understanding the effect that a change in the grazing rate may have, not only on our industry, but on state lands and to the endowment.

Livestock grazing leases provide a consistent source of revenue to the state. These leases are based on a renewable resource that replenishes itself annually. Thanks to the foresight of our state's founders, the endowment is comprised of a diverse mixture of real estate. This real estate has appreciated significantly over the years. Grazing lands have appreciated in value and represent an excellent diversification of investment for the endowment. Grazing benefits that investment with predictable cash flows. A healthy cattle industry is necessary to protect that cash flow, and accordingly the endowment. In managing for long term returns, this predictability is an invaluable portion of the endowment's portfolio.

In terms of economics alone, IDL should focus on maintaining a strong grazing program. With so much of Idaho's lands in control of the state and federal government, Idaho's ranchers are dependent upon the use of these lands in order to maintain viable businesses. It is in the best interest of IDL and the Land Board, as you carry out your role of safeguarding the endowment, to encourage a vibrant economy. A strong cattle industry guarantees revenues to the endowment for years to come.

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By its nature, ranching is a very unstable occupation. Further changes to the industry that increase this instability, such as an over-inflated grazing rate, threaten the economic backbone of Idaho. A University of Idaho study of the Owyhee County area determined that approximately $50 of direct and indirect economic activity is generated regionally by one cow and her calf grazing for one month. Although this figure varies county by county, if used to generalize the economic value of ranchers across the state, the total benefit is significant. Considering that the state leases over 258,000 AUMs, that calculates out to approximately $12.9 million in revenue that the state and its citizens enjoy due to the grazing program each year, in addition to the direct grazing fee revenue. Another economic study concluded that every beef dollar turns over five times. All this economic activity supports property values of ranches and creates a significant amount of income and sales tax for the state. While it may be true that, due to a Supreme Court decision, the Land Board cannot consider the direct economic impact of its decisions on a rancher, it is also true that its chief responsibility is in strengthening the endowment. As such, the effect of decisions regarding IDL's grazing program has ramifications on the economy of the whole state, and thus the endowment. Ensuring viable rural, small communities in Idaho means protecting grazing on public lands.

Grazing lessees are vital partners with IDL in managing the state's lands. The grazing fee is only a small portion of the contributions that lessees bring to the state. Further, if all grazing leases were cancelled, the administrative costs that IDL incurs in managing its rangelands would not comparatively decrease. Excluding grazing would only increase the workload for the IDL. Without ranchers to assist in cooperatively managing the state lands, IDL would be wholly accountable for controlling noxious weeds. Perhaps the biggest, and most potentially costly, threat to IDL's lands is wildfire. Without the important role that grazing plays in fine fuels reduction, IDL would have to greatly increase their fire prevention efforts on 1.76 million acres. Improvement maintenance is another important role that grazing lessees fill for the state. Without grazing leases, IDL personnel would be solely responsible for building and maintaining fences to keep livestock out or else allow them to graze free of charge.

Continued livestock grazing provides a sound land management tool for IDL. As a wise and sustainable use of the land, grazing fosters a good ecological balance as it promotes good grass growth, prevents or lessens the threat of wildfires, and controls the spread of weeds. Additionally, there are places in Idaho that, without developed water sources, wildlife would have no water for 50 miles or more. Because of these water developments that ranchers have established across the state lands, wildlife have been able to flourish. Without these water sources, there would be no sage grouse, no elk, no deer. Certainly, IDL would not be able to maintain the wildlife's vital water supply on all of this land if the ranchers were gone.

Non-Fee Costs

Our primary concern with the new proposal is the way in which non-fee costs associated with grazing on state land have been calculated. IDL has attempted to capture some of these costs by incorporating the University of Idaho livestock enterprise budgets and the 1992 University of Oregon Extension Service report. However, we do not believe these estimates present a full and accurate representation of the costs of running of public ground. The percentages of non-fee costs paid by the lessees that were derived by IDL for the new model do not accurately reflect the costs paid by state grazing lessees and create a level of ambiguity in the formula. In all of the non-fee categories, it should be noted that the lessee covers 100% of those costs; none of these non-fee costs are borne by IDL. We question why IDL did not utilize the updated research conducted by the University of Wyoming which included a more complete list of non-fee costs than those used by IDL in calculating the proposed model. It appears as though IDL cherry-picked the cost categories to use that would allow the grazing rate to arrive at a predetermined figure.

As you are aware the Idaho Farm Bureau is in the process of collecting data regarding state lessee's non-fee costs associated with operating on state land compared to private land leasing. This information would build on the University of Wyoming's study to produce more statistically significant results from which IDL could rely to arrive at more accurate and verifiable non-fee costs for Idaho state land lessees. This information is not yet complete but will be at some point this fall. In light of this, and the need for greater clarity on the actual non-fee costs associated with grazing on state lands, we ask IDL and the Land Board to put a pause implementation of the state grazing rate change until they can review and incorporate the additional information obtained by this review.

Impact of Recreation

As our state's population has exploded, there has been a correlating proliferation of recreational users on state ground. This increased use, which in and of itself provides no funding to the endowment, makes livestock management on those same lands increasingly difficult. Gates are left open, water troughs are shot and damaged, fences are cut, other infrastructure developed to support grazing is vandalized, and livestock are stirred up and their health impacted. All of this results in direct costs borne by the grazing lessee. We recommend that IDL incorporate a recreation impact non-fee cost into their calculations to account for this impact.

Wildfire Management

As mentioned in our introductory comments, livestock grazing on state lands plays an essential role in fuels management and wildfire control. We request that this also be accounted for in the non-fee costs. Not only does livestock grazing reduce the threat of catastrophic fire by reducing fine fuels, but the presence of grazing lessees creates an invaluable partnership with IDL in managing wildfire. Many IDL lessees are members of Rangeland Fire Protection Associations (RFPAs) which have proven their merit time and again in providing initial attack against fire starts and in partnering with wildland firefighters to fight fire.

Uncertainty of State Leases

An additional concern with state grazing leases that adds to a grazing lessee's operating costs is the uncertainty that accompanies operating on state lands. First, due to the

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contested lease auction process, a lessee is never certain that they will be able to hold on to the lease long enough to build a long-term business plan around. Secondly, due to existing rules, IDL reserve the right to change the use of any of its ground with just a thirty-day notice. This lack of security is an additional non-fee costs that lessees must account for in their business operations but is not quantified in any of the proposed model.

Private Land Lease Rate

We continue to have concerns with the USDA National Agricultural Statistic Services (NASS) published private Animal Unit Month (AUM) grazing fee for Idaho and IDL's heavy reliance on it as the basis for the proposed new model. Although IDL did seek to answer many of our questions related to the NASS rate, we still maintain strong reason to question its validity in serving as the primary basis for a new state lands grazing rate. Beyond that, it should be noted that the reported private land lease rate exhibits an inflated value that has followed the dramatic increase in land value in our state.

In addition to our questions about the reported rate itself, there is great disparity between private land leases and state land leases. There are vast differences in the type of land and land value, along with the amount of fencing, water, and management included. The comparative quality of the land and forage availability is vastly greater on private land than on federal and state lands. Further, private land leases always include a level of provided benefits that are not included in state leases, including fencing, water, other infrastructure, and stock management.

Further, private leases typically have shorter terms than state leases. IDL does not have the efficiencies allowed in the private sector, especially in the cost of lease renewal, which make the comparison further void. Long-term leases are an effective way for IDL to net more revenue by limiting the expensive elements of the grazing program (i.e. lease renewal). It is therefore an inaccurate representation of the market to base state rates so heavily on private rates.

Comparison of All Land Ownership Types

When attempting to establish the value of a state lands lease, IDL has exclusively drawn comparisons to private lands leases while overlooking the largest landowner and grazing lessor in the state, the federal government. In fact, IDL is competing with both private land and federal land for its grazing lease program. This is particularly true because state lands are much more comparable in type and situation to federal land than private land. At the 2021 rate of $1.35, the federal grazing rate is well below the state grazing rate and should serve as an anchor to any proposed changes.

Intermingled Ownership

According to IDL's Grazing Business Plan, 29% or approximately 350,000 acres of the state grazing land is intermingled with federal land. If the Land Board were to adopt a new grazing rate alternative that increased the prices too much, the state runs the risk of foregoing the rent received on those lands. Several lessees who have grazing permits/leases on intermingled federal and state lands have indicated to us that if the state rate is raised to the proposed fee, they will just forego their state lease. The state does not have the capability—primarily due to access issues—nor does it want the expense, of fencing off the state land within federal parcels. This would be lost revenue to IDL. These scattered parcels are identical ground to the surrounding federal land. It is ludicrous to allege that the state ground in these instances has eight times the value of the federal land it borders, which is precisely what the proposed model does.

The Value of a State Lands Grazing Lease

In the past, IDL has contended that premium bids on conflict lease auctions provide evidence that leases possess a higher market value than currently charged. In fact, IDL's Grazing Business Plan identifies that in 2010-2014, only five percent of the leases were conflicted, and the long-term average is even lower. This low conflict rate would indicate that 95+% of leases are at or above market value. It is not accurate to assume that premium bids in conflict values establish the real value of the lease, and certainly not the value of other state land grazing leases. The fact that there is such a low conflict rate provides evidence that the current grazing rate is not under market value.

Conclusion

In relation to the proposed model, it is our primary concern that the actual non-fee costs covered by state grazing lessees are neither adequately nor accurately accounted for. We seek for a pause in implementation of the model until these figures can be further discovered and refined.

With ranchers' presence on state land, IDL has a strong, dependable partner working for the good of the land and thus, the endowment. Our industry is proud to work with IDL to bring revenue to the endowment. The best way to do that is to work together. We have a proven history of cooperation. We look forward to a continued dialogue and partnership with the Department of Lands and the Land Board to promote and preserve a strong grazing program in Idaho by ensuring the state rate is justifiable—both to grazing lessees and to the Endowment.

Thank you for considering our comments. Please contact us if you would like further input or have additional questions.

Sincerely,

Jay Smith, President
Idaho Cattle Association

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From: Timothy Keller <timkel59@hotmail.com>
Sent: Friday, September 3, 2021 4:11 PM
To: Comments
Subject: Grazing rates

Not every pasture is the same some have water some do not. The lease holder is obligated to do all fencing and upkeep and maintain all the cattle. So I can see it would be a hard thing to come up with one rate to fit all. If you keep all of this in mind up to date it has been fair. Thank you Tim Keller

Sent from my iPhone

From: Department of Lands <no-reply@idl.idaho.gov>
Sent: Friday, September 3, 2021 4:20 PM
To: Comments
Subject: Grazing Rate Comment Submitted

From: Wayne Christiansen at christ@ida.net
Phone: 208-785-4417
Address: 380 N 400 E
City: Blackfoot
State: Idaho
Zip Code: 83221

Comment:
Comments in the review show that adequate data was not available from ranchers. Surveys conducted in the past are very labor-intensive and require a great deal of time to complete, which is not usually available to ranchers who are attempting to maintain their herds, grazing, overhead expenses, etc.–often in very difficult situations due to weather-related factors (e.g., drought, severe winters, etc.). Data for "non-grazing fee" costs must be carefully evaluated for accuracy before basing any grazing formula strictly on that data. Has the Department ever surveyed how the beneficiaries of endowment funds are spending the money? There is always the possibility of abuse of the funds. If abuse is identified, that should not be carried by ranchers who pay State grazing fees; however, we do realize that the Department is obligated to only maximize revenues for endowment beneficiaries. There are, however, other State agencies who are charged with ensuring that all State monies are spent in the best interests of the taxpayer.

From: jlazysco@yahoo.com
Sent: Friday, September 3, 2021 4:43 PM
To: Comments
Subject: Comment

Dear Jason

I just want to make A couple of points separate from the ICA comments. Here and Lemhi County there are no blocks of IDL grazing land they are all isolated sections or smaller. I reached out to as many of the known lease holders as I could get hold of before this comment deadline. I received very homogenous input from 100% of the people that I talk to. Number one is that we are already paying 5 1/2 times the federal rate for identical ground. When I asked if they would pay up to $10.73 per AUM every one of them said absolutely not. The no answer was for a couple reasons. 1. We already pay a premium. 2. Lack of security in IDL leasing and 3. So called conservationists bidding for grazing leases. The rest of my thoughts are summed up in the ICA comments.
Jay Smith
J Lazy S Angus Ranch
Carmen, ID
Sent from my iPhone

From: Russ Hendricks <rhendricks@idahofb.org>
Sent: Friday, September 3, 2021 4:58 PM
To: Comments
Cc: Scott Phillips
Subject: Grazing Comments
Attachments: Grazing Letter 0921.pdf

Attached are the comments from the Idaho Farm Bureau regarding the proposed grazing rate formula.

Please contact me if you have any questions.

Best,

Russ Hendricks
Director of Governmental Affairs
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September 3, 2021

Dear Director Miller and State Land Board Members:

On behalf of the more than 80,500 Idaho families who are members of the Idaho Farm Bureau Federation (IFBF), I am writing to provide the following comments regarding the proposal to adjust the grazing rate on state endowment lands.

A significant number of current state grazing lessees are Farm Bureau members, and many of our other members have close business ties with state grazing lessees. Our members are significant stakeholders in this decision. They appreciate the relationship they have with the IDL personnel who manage state grazing lands. Our members work hard to manage, maintain and enhance these assets for the beneficiaries, at no cost to the endowment. We firmly believe this is a win-win relationship.

Farm Bureau members understand the intent behind the proposed grazing rate structure is twofold:
1.) to simplify the current formula; and
2.) to alter the state grazing lease rate so the total cost to graze on endowment lands is at parity with the total cost to graze on leased Idaho private rangelands.

We agree that the proposed methodology is simpler and easier to explain and understand. However, that alone is not sufficient reason to make such a dramatic change, particularly given the significant negative consequences to both the endowment and Idaho ranchers, which we will describe later in these comments.

Unfortunately, although we agree with the intent, there are several reasons why the proposed methodology will not provide the desired results with respect to bringing the state grazing lease rate into parity with the total cost to graze on leased private rangelands. In fact, we firmly believe that the proposed formula will ensure Idaho ranchers pay an even higher premium price to graze on state endowment lands than they already do.

1. - First, it must be admitted from the beginning that using a formula will never achieve "market rates." Only one-on-one negotiations between the lessor and the lessee will truly provide the "market rate" for a particular parcel, since each parcel is different in a myriad of factors. It may be the same acreage as another parcel but can be wildly different in productivity, vegetative composition, terrain, water availability, access, proximity to other suitable pasture, etc. Therefore, even when two different parcels are being negotiated between the same lessor and lessee with exactly the same terms and conditions of the lease, they will often come to a different price for each parcel based upon this wide variability of the productivity of the land, and how it may or may not fit into the needs of the lessee's operation.

Large landowners understand that each parcel is unique and despite the additional work and administration required, they typically negotiate with each lessee individually to maximize the revenue they can generate from each parcel. However, most states who have large amounts of grazing land to lease, have typically opted to forgo revenue maximization in favor of ease of administration by using a set fee across all parcels. The expectation is that the revenue lost by utilizing a set fee will be somewhat offset through the reduction in administrative costs associated with negotiating each individual lease.

By its very nature, a set fee, whether it is determined through a formula or through some other means, will ALWAYS charge more than some parcels are worth, while charging less than other parcels are worth. This upside loss on the better parcels is mitigated in most instances through Idaho's competitive bidding process.

It appears the original decision by the Land Board to use a set fee is based upon the understanding that the formula will come somewhat close to the "market rate" on average while avoiding all the administrative costs associated with actually achieving the market rate. There are some parcels that do go unleased under the current rate structure. Each time the formula is changed, and the rate is arbitrarily increased, there is the potential that more of the low-quality parcels will go unleased.

2. - In fact, it was proposed during the two-year grazing rate review process in 2015-2017 to eliminate the grazing lease rate formula and individually negotiate each grazing lease when it is up for renewal every ten years, which would be about 120 leases per year on average, or 10 per month. This would truly achieve the "market rate" and nobody could ever say the state was leaving money on the table under such a system. However, the Land Board at that time rejected this proposal stating that it would simply be too costly to administer and would cost more in additional personnel time than it would achieve in additional revenues. This implies that the current formula is pretty close to market rates, otherwise the additional gains would be worth the added costs to administer.

If the decision stands that we cannot actually negotiate each lease to achieve true "market values" then the only other option is a formula to provide a close proxy for market values. However, this means the state grazing lease rate will always be "off" of market value. Using a formula guarantees that there will always be those who think the formula results in a price that is too high, while others will always believe the price is too low. Interestingly, they will both be right because by definition, the formula will provide an average price across the board. There is no way to avoid eventual lawsuits when using a formula, no matter what the formula looks like, due to this reality.

3. - It is well established that there are significant additional costs beyond the lease rate itself that comprise the total cost per AUM to graze on both state land and on leased private rangeland. These costs are typically referred to as “non-fee” costs, meaning they are above and beyond the grazing fee, or the lease rate. Therefore, in order to ensure parity in total cost between state and private rangeland, it is vitally important to know <u>exactly</u> what the non-fee costs are on each type of land. Guesstimates of non-fee costs are not going to provide the accuracy needed and will provide inappropriate results.

Unfortunately, we cannot know for certain what these non-fee costs are for each parcel as they will vary by both parcel and operation. The closest we can get is to gather a statistically significant sample of data across the state and use that as a close approximation of what the average operation across the state would pay in non-fee costs, both on a state grazing lease as well as on a private rangeland lease. Therefore, this methodology, even if done rigorously, will only give an approximation, and will never accurately reflect the true costs on any one parcel, or for any one operation since it is an aggregate of data averaged across many operations.

Unfortunately, there is no solid, recent data available on non-fee costs in Idaho. One of the sources of data that is being relied upon to provide the basis for the new formula is from a survey conducted by Oregon State University in 1983 for the 1982 grazing season. This 1982 data was then indexed for inflation to 1990 values and republished in 1992. Therefore, although published 30 years ago, it is based upon data that was gathered ten years earlier.

It is difficult to confidently say that 40-year-old data, despite being indexed for inflation, can be relied upon to provide an accurate assessment of the true cost of grazing in Idaho today. Many changes have happened over the past four decades that have impacted the cost of grazing on public lands. One in particular is the introduction of wolves into Idaho in the mid-90s, which has had a dramatic impact on rancher profitability, both through increased death loss, as well as reduced gains from stress/harassment by wolves. These are direct costs that are borne by ranchers, outside of the actual lease rates, that must be accounted for accurately.

Furthermore, the Oregon study itself states in the introduction “The purpose of this report is to provide an updated estimate of grazing costs on federal and private rangelands in one state: Oregon.” Therefore, not only is the data 40 years out of date, it also is specific to Oregon and is, by its own admission, not applicable to Idaho.

The other data that is being relied upon is from three U of I enterprise budgets that are not represented as a study of non-fee costs, but simply as a forward looking sample budget of typical expenses that can be used as a “rule of thumb” for producers to make educated guesses about the effects of changes in their operations. According to the University of Nevada, Reno College of Agriculture, Biotechnology & Natural Resources: “Enterprise budgets are constructed to *estimate* the outcomes of activities in the *future*, as opposed to records, which are summaries of past outcomes. Budgeting allows for estimates to be made on paper, prior to the commitment of funds or resources to an activity, allowing for the anticipation and avoidance of problems that will likely be encountered based on historical records."

This explanation of the limitations of enterprise budgets was confirmed by the author, Ben Eborn. He agreed that the enterprise budgets are not based upon any actual data but are best "guesstimates" based upon experience to be used as guidelines for ranchers who are making budgets. Therefore, these enterprise budgets are not a meaningful source of data for determining actual non-fee costs to graze on state lands.

4. – IDL did wisely commission a study in 2018 to gather data on actual non-fee costs in Idaho on state lands. However, as you well know, the University of Wyoming did not deliver the product that had been contracted. Understanding that it would be difficult to get ranchers to respond to a request from UW or even IDL that was not required, IFBF offered to assist in getting the word out to lessees and to encourage their participation. Unfortunately, our offer was not accepted, and we were left to await the results of UW's efforts.

Despite the lower than hoped for response from lessees, the data that was gathered did in fact demonstrate what our members have been saying all along, the non-fee costs are significantly higher on state land than on private land and even with the current lease rate, it is still more costly to run on state land when all expenses are included.

In a report from Jason Laney to Bill Haagnson dated 09/30/2020, Jason questions what he considers to be unusual results. He reports "the cost of lost animals is 55% higher on state leases compared to federal permits. Since the vast majority of state leases are intermingled with federal land, it is perplexing how the cost of lost animals could be so much higher on endowment land." The difference between the cost of lost animals on state vs federal lands as reported in the UW survey data is $2.84 per AUM.

Mr. Laney, however, does not mention the disparity between the cost of herding on state and federal land. State land herding costs were reported as $2.99 per AUM, while federal herding was reported as $10.43 per AUM resulting in a difference of $7.44. The same rationale he uses to question the results on lost animals can also be applied in this instance. Since the vast majority of state leases are intermingled with federal land, it is perplexing how the cost of herding could be so much higher on federal land, particularly when one understands that normally, the federal government requires state land that is intermingled with federal land to be managed the same way, unless it is fenced-off. Herding expense appears to be substantially undervalued in this survey on state lands.

He also questions a couple expenses that are higher on state lands by a large percentage, but in actual dollars, they equate to only a few cents each. These include travel and technology. Even if there is no logical explanation for the discrepancy in these two combined categories, we are only talking about a difference of $0.23 per AUM compared to federal lands, and only $0.15 per AUM compared to private land. This combined total represents only seven-tenths of one percent of the total non-fee costs and is well within the margin of error that might be expected in such a survey.

The two remaining items that Mr. Laney focused on bear additional scrutiny. Mr. Laney reports: "Other Costs – According to the survey, other costs consist of salt, veterinary costs, protein supplements, supplemental feed, predator control, and other miscellaneous costs (paperwork, meetings, etc.)" This appears to contradict the plain categories that are reported in table 2 of the survey report, which he is referring to. There are clearly categories reported for Veterinarian and Salt and Feed (which we would assume would include salt, protein supplements and supplemental feed). Therefore, of the items Mr. Laney stated are included, only predator control, paperwork and meetings would actually be included. However, we suspect that noxious weed control would also be included in this category as it does not neatly fit in any other category, except perhaps maintenance, which we understood was the maintenance of infrastructure.

Therefore, it is not unusual to expect "Other Costs" to be somewhat larger on state lands given the requirement for noxious weed control in the lease agreement, which is not required on federal lands, nor typically on private leases. Since we could expect leases to be around 8 – 10 acres per AUM on many state leases, $2 per AUM would only equate to $0.20 to $0.25 per acre spent on noxious weed control. Also, due to differing policies, there is a greater opportunity to do meaningful predator control on state lands vs federal lands, so that would certainly lead to higher expenditures on state lands, hoping to assist with their surrounding federal land allotments.

Finally, Mr. Laney notes the difference in the Development Depreciation category, and does a good job of highlighting the reasons why this would be expected to be much higher on state land than either federal or private land. Essentially there is little, if any, incentive for a private landowner to allow a lessee to install and retain ownership of permanent infrastructure on private land. Federal agencies almost always retain ownership of any infrastructure installed on federal lands. Therefore, only state lands allow the opportunity for a lessee to improve the land through the construction of infrastructure that is owned by the lessee. It only makes sense that this figure will be significantly higher on state land than the other two types.

Given these explanations of the variations in costs between land ownership types, none of the data points seem out of line. However, for the sake of argument, even if we stipulate that the Lost Animals, Travel and Technology costs are somehow over-reported, it is still more expensive to graze on state land than private land after adjusting those three categories to the federal equivalents. That brings the total cost of grazing on state land to $37.26 per AUM, or still $0.49 per AUM more than state grazing leases under the current grazing formula.

5. – IFBF recognizes the need for accurate, current data upon which the Land Board can rely when determining how to address this issue. We were very disappointed that the UW study was unable/unwilling to keep going until they gathered the necessary number of respondents. When we were first alerted to this situation, we began looking into how we might be able to secure the services of a similarly credible source to conduct an identical survey. Finally, after recognizing that this is quite a specialized field of study, and there are only a few similarly situated institutions with the expertise and credibility to produce meaningful results, we were successful in securing the services of a graduate student at Utah State University, Dexton Lake, who is using this opportunity to complete his Master's program.

Utah State University is recognized as one of the pre-eminent rangeland programs in the west and has produced over the years a number of studies and publications that have been cited in subsequent research efforts on this subject. Once we secured the services of Dexton, he contacted both Jason Laney at IDL and Dr. John Tanaka at University of Wyoming to ensure he was utilizing the same survey questions and procedures as the previous UW study.

After consultation and planning with his Master's advisory team, Dexton began the project in early July. All current IDL grazing lessees have been contacted through mail as well as attempted contacts through email and phone where those contacts are available. To date, he has gathered more than 75 completed surveys. Our goal is to have more than 100 completed surveys by the end of September, which would surpass the 86 responses that UW indicated would be needed to be statistically significant. We feel confident that we can achieve that goal. It is difficult to predict how long it will take to analyze the data and get the results formatted for presentation. Our hope is to have the data available to present at the October Land Board meeting, but unanticipated glitches could occur which could push that timeline back.

As this is his master's project, Dexton will have to defend it before his Master's Review Board and ensure that all appropriate protocols are followed, and that everything is done rigorously to ensure data quality and accuracy. Dexton and his advisor have indicated that they would be willing to present the methodology used and the scientific rigor of the project to the Land Board at their October meeting if that would be of value to the Board.

Once completed, this project will provide accurate, current non-fee cost data that will be invaluable to the Land Board and IDL as this issue continues to be discussed so an appropriate decision can be made.

Finally, as we mentioned early in these comments, there will be significant negative consequences to both the lessees and the endowment beneficiaries if the grazing rate is altered in a way that makes it even more expensive to graze on state lands than it already is.

Currently, those endowment lands that are leased are receiving several benefits that would suddenly become an expense to the endowment if the rate is increased to a level that is no longer economically viable to graze. Ranchers are currently providing at least three services for free under the current lease arrangement. They are managing the land, they are significantly reducing the threat from wildfire, and they are deterring vandalism, damage and illegal activities.

Although we are currently unaware of any studies that have attempted to quantify the value of these services, it is not difficult to look to the private sector for similar services to get an idea of how much value the beneficiaries are receiving under the current arrangement.

Commercial property companies routinely charge 10 – 12% of rent to manage properties. Although not directly applicable to vast areas of open land, it does provide a vague idea of the value that is being provided. As you are fully aware, land does not take care of itself. Noxious weeds must be controlled, infrastructure must be repaired and maintained, water must be developed. If your home or your lawn were not regularly maintained, it would soon deteriorate and would become far less attractive and valuable without ongoing management.

IDL has detailed records of the cost to fight wildfires, and the cost of rehabilitating lands that have been ravaged by wildfires. Ranchers provide a valuable service in keeping fine fuels grazed off, which significantly reduces the threat and intensity of wildfire on an annual basis. Without their service, endowment lands would likely be burned more often, and with more intensity than they currently are. This would lead to additional rehab costs, or without rehab, could lead to significant erosion, water quality issues, loss of wildlife habitat and threats to surrounding properties and structures.

Large areas of remote lands are attractive to those who are up to no good. Whether it is foolish teenagers who go off-road and begin hill climbing where they should not or criminals who are looking to hide their illicit activities, it is a real value to the beneficiaries to have ranchers out on the land on a frequent basis to keep an eye on their assets for them to ensure that no vandalism, destruction or illegal activities are taking place. Private security forces provide this sort of work. It may be possible to find out what it would cost to patrol the endowment lands on a routine basis or calculate how many man hours it would take for IDL personnel to provide equivalent services.

All of these functions are being performed by the lessees currently and would by necessity need to be paid for through additional IDL personnel or contractors if the ranchers are no longer grazing. There has been far too little discussion of these services the beneficiaries are receiving and the value the ranchers are providing within the current leasing structure. If those services were priced into the non-fee costs, it would be even more apparent that the current rate structure makes grazing on state endowment lands a good value for the endowment.

Idaho ranchers can only pay what will pencil out for them for these grazing leases. If the Land Board were to go to a true market-based system and negotiate each individual lease, we would get some idea every ten years what each lease is worth. However, since the decision has been made to use a formula, we know many parcels are currently over-valued. If the formula causes the rate to increase to the point that no rational person would pay that price, additional parcels will go unleased, and the beneficiaries will lose the services that they are now getting for free. Thus, administrative and overhead costs will necessarily increase and the endowment may end up losing money in the long run as ranchers can potentially be pushed out of business when grazing lands are priced too high and no alternatives are available.

In a private market system, if a landowner prices his leases too high and he gets no takers, he is able to quickly lower the price, but if he waits too long, or does not go down far enough, he risks not leasing the land for that season. The state has no such luxury. Once the decision is made, it takes time to make course corrections. In the meantime, there can be significant damage done to both the endowment and the ranching community.

Our plea to you is that you take the time to wait for the survey results before making any decisions. As we mentioned in our previous joint letter with the Cattlemen, this is not the right year, during extreme drought conditions, to make any rate increases, much less an increase of 52%.

We are confident that once the survey data is gathered and analyzed, you will have the accurate data needed to ensure that the endowment is receiving a fair price for the forage on the state lands while adequately pricing in the many services ranchers are providing to manage and maintain the endowment lands, thus helping to keep their administrative expenses low.

Thank you for taking the time to review our comments. If you have any questions, please contact Russ Hendricks in our Boise office at 208-342-2688.

Sincerely,

Bryan Searle

Bryan Searle, President
Idaho Farm Bureau Federation

From:	Department of Lands <no-reply@idl.idaho.gov>
Sent:	Saturday, September 4, 2021 5:45 PM
To:	Comments
Subject:	Grazing Rate Comment Submitted

From: George L Bennett at bcattle@att.net
Phone: 2088410266
Address: 573 N Bennett Rd
City: Grand View
State: Idaho
Zip Code: 83624-5079

Comment:
We lease State Ground in Owyhee County. We oppose increasing the Endowment Grazing Leases for the following reasons:
1. To raise the Base Value would be a hardship to the ranchers and lease holders.
2. Private lease rates should not enter into the equation. State leases require much more work to maintain. We truck our cattle to the range, maintain all the fencing (several times during the summer because of the elk plowing through the fences}; take salt out; maintain water resources; monitor the usage of the range and move the cattle several times during the summer. We gather them in the fall and have to reride several times to find the strays. At the end of the fall to early winter, we hire an airplane or a helicopter to fly over the range to find the last ones.

Private pasture use is understandably high because the owner of this land usually maintains the fences, furnishes the salt and maintains the water through out the season. Private pastures are usually irrigated which keeps the rate of foliage growing throughout the season
To compare private pastures to State Range is like comparing the city of Boise to Grand View.
Sometimes the services are there but quality and quantity is not.
3. I have a problem with comparing Idaho rangelands with all the other Western States, even the State Endowment Lands within Owyhee County with the State Endowment Lands in other parts of the State. Each state has it's particular ecosystem and to adopt standards from other states is not equitable.
4. The average age of ranchers and holders of State Endowments leases if above 60 years. As managers of State Endowment lands you should consider that raising lease rates is creating a hardship for the younger people who would like to be the future ranchers. They do not have the finances to go into the ranching industry. As the existing ranchers retire or die, who will manage these leases? The large corporate ranches will eat up the smaller family owned ranches and from experience, I know that their managers do not watch as closely the management of their lands.
5. The tourists and people from the metropolitan areas who come out on the weekends to recreate and go back leaving trash and possible fire starts do not pay anything, yet they seem to be the ones who are dictating these lease rates. They do not respect wildlife or the resources.
The population of Idaho is raising by leaps and bounds. We are only gong to be pressed by the influx of these folks, who have no idea of what to do or how to do it. The pressure they put on the local resources; law enforcement, emergency services and road maintainance will only increase drastically.
Again, they do not pay for these services, only use them.

Thank You

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G200003	22	$155.54	$183.26	$27.72
G200004	70	$494.90	$583.10	$88.20
G200007	2	$14.14	$16.66	$2.52
G200008	45	$318.15	$374.85	$56.70
G220001	12	$84.84	$99.96	$15.12
G220002	10	$70.70	$83.30	$12.60
G220003	25	$176.75	$208.25	$31.50
G300002	2	$14.14	$16.66	$2.52
G300004	60	$424.20	$499.80	$75.60
G300005	180	$1,272.60	$1,499.40	$226.80
G300006	383	$2,707.81	$3,190.39	$482.58
G400001	237	$1,675.59	$1,974.21	$298.62
G400002	585	$4,135.95	$4,873.05	$737.10
G400003	410	$2,898.70	$3,415.30	$516.60
G400004	2140	$15,129.80	$17,826.20	$2,696.40
G400005	25	$176.75	$208.25	$31.50
G400007	360	$2,545.20	$2,998.80	$453.60
G410003	5	$35.35	$41.65	$6.30
G410007	30	$212.10	$249.90	$37.80
G410009	59	$417.13	$491.47	$74.34
G410011	570	$4,029.90	$4,748.10	$718.20
G410012	16	$113.12	$133.28	$20.16
G410013	621	$4,390.47	$5,172.93	$782.46
G410014	80	$565.60	$666.40	$100.80
G410016	567	$4,008.69	$4,723.11	$714.42
G410017	1375	$9,721.25	$11,453.75	$1,732.50
G410019	110	$777.70	$916.30	$138.60
G420004	625	$4,418.75	$5,206.25	$787.50
G420005	250	$1,767.50	$2,082.50	$315.00
G420006	126	$890.82	$1,049.58	$158.76
G420010	50	$353.50	$416.50	$63.00
G420011	120	$848.40	$999.60	$151.20
G420012	52	$367.64	$433.16	$65.52
G420013	8	$56.56	$66.64	$10.08
G420014	16	$113.12	$133.28	$20.16
G420015	5	$35.35	$41.65	$6.30
G420017	90	$636.30	$749.70	$113.40
G420018	40	$282.80	$333.20	$50.40
G420019	162	$1,145.34	$1,349.46	$204.12
G420020	62	$438.34	$516.46	$78.12
G420022	40	$282.80	$333.20	$50.40
G420023	64	$452.48	$533.12	$80.64
G420024	20	$141.40	$166.60	$25.20
G420026	75	$530.25	$624.75	$94.50
G420027	250	$1,767.50	$2,082.50	$315.00
G420028	73	$516.11	$608.09	$91.98

ATTACHMENT 8

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G420029	15	$106.05	$124.95	$18.90
G420030	405	$2,863.35	$3,373.65	$510.30
G420031	10	$70.70	$83.30	$12.60
G420032	191	$1,350.37	$1,591.03	$240.66
G420034	100	$707.00	$833.00	$126.00
G420035	23	$162.61	$191.59	$28.98
G430006	10	$70.70	$83.30	$12.60
G430007	355	$2,509.85	$2,957.15	$447.30
G430008	40	$282.80	$333.20	$50.40
G430009	11	$77.77	$91.63	$13.86
G430010	80	$565.60	$666.40	$100.80
G430011	558	$3,945.06	$4,648.14	$703.08
G430012	569	$4,022.83	$4,739.77	$716.94
G430014	50	$353.50	$416.50	$63.00
G430015	25	$176.75	$208.25	$31.50
G430016	30	$212.10	$249.90	$37.80
G430017	666	$4,708.62	$5,547.78	$839.16
G430018	164	$1,159.48	$1,366.12	$206.64
G430019	88	$622.16	$733.04	$110.88
G430020	8	$56.56	$66.64	$10.08
G430021	8	$56.56	$66.64	$10.08
G430022	91	$643.37	$758.03	$114.66
G430023	62	$438.34	$516.46	$78.12
G430024	45	$318.15	$374.85	$56.70
G430025	224	$1,583.68	$1,865.92	$282.24
G430026	145	$1,025.15	$1,207.85	$182.70
G430027	135	$954.45	$1,124.55	$170.10
G430028	22	$155.54	$183.26	$27.72
G430029	100	$707.00	$833.00	$126.00
G430030	45	$318.15	$374.85	$56.70
G430031	803	$5,677.21	$6,688.99	$1,011.78
G500018	26	$183.82	$216.58	$32.76
G500019	37	$261.59	$308.21	$46.62
G500020	126	$890.82	$1,049.58	$158.76
G500021	32	$226.24	$266.56	$40.32
G500022	81	$572.67	$674.73	$102.06
G500023	329	$2,326.03	$2,740.57	$414.54
G500024	100	$707.00	$833.00	$126.00
G500025	64	$452.48	$533.12	$80.64
G500027	149	$1,053.43	$1,241.17	$187.74
G500028	7	$49.49	$58.31	$8.82
G500029	146	$1,032.22	$1,216.18	$183.96
G500030	72	$509.04	$599.76	$90.72
G500031	128	$904.96	$1,066.24	$161.28
G500032	65	$459.55	$541.45	$81.90
G500033	73	$516.11	$608.09	$91.98

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G500034	365	$2,580.55	$3,040.45	$459.90
G500036	84	$593.88	$699.72	$105.84
G500037	336	$2,375.52	$2,798.88	$423.36
G500038	84	$593.88	$699.72	$105.84
G500039	440	$3,110.80	$3,665.20	$554.40
G500040	33	$233.31	$274.89	$41.58
G500041	46	$325.22	$383.18	$57.96
G500042	155	$1,095.85	$1,291.15	$195.30
G500044	204	$1,442.28	$1,699.32	$257.04
G500045	164	$1,159.48	$1,366.12	$206.64
G500046	52	$367.64	$433.16	$65.52
G500047	116	$820.12	$966.28	$146.16
G500048	128	$904.96	$1,066.24	$161.28
G500049	113	$798.91	$941.29	$142.38
G500050	208	$1,470.56	$1,732.64	$262.08
G500051	12	$84.84	$99.96	$15.12
G500052	96	$678.72	$799.68	$120.96
G500053	68	$480.76	$566.44	$85.68
G500054	158	$1,117.06	$1,316.14	$199.08
G500059	39	$275.73	$324.87	$49.14
G500060	10	$70.70	$83.30	$12.60
G500061	69	$487.83	$574.77	$86.94
G500062	140	$989.80	$1,166.20	$176.40
G500063	50	$353.50	$416.50	$63.00
G500064	40	$282.80	$333.20	$50.40
G500065	52	$367.64	$433.16	$65.52
G500066	30	$212.10	$249.90	$37.80
G500067	27	$190.89	$224.91	$34.02
G500068	30	$212.10	$249.90	$37.80
G500069	423	$2,990.61	$3,523.59	$532.98
G500071	99	$699.93	$824.67	$124.74
G500072	35	$247.45	$291.55	$44.10
G500073	74	$523.18	$616.42	$93.24
G500074	78	$551.46	$649.74	$98.28
G500075	108	$763.56	$899.64	$136.08
G500077	15	$106.05	$124.95	$18.90
G500078	200	$1,414.00	$1,666.00	$252.00
G500079	80	$565.60	$666.40	$100.80
G500080	48	$339.36	$399.84	$60.48
G500081	45	$318.15	$374.85	$56.70
G500082	239	$1,689.73	$1,990.87	$301.14
G500083	112	$791.84	$932.96	$141.12
G500084	48	$339.36	$399.84	$60.48
G500085	32	$226.24	$266.56	$40.32
G500087	249	$1,760.43	$2,074.17	$313.74
G500088	16	$113.12	$133.28	$20.16

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G500089	11	$77.77	$91.63	$13.86
G500090	40	$282.80	$333.20	$50.40
G500091	118	$834.26	$982.94	$148.68
G500092	4	$28.28	$33.32	$5.04
G500093	48	$339.36	$399.84	$60.48
G500094	88	$622.16	$733.04	$110.88
G500095	253	$1,788.71	$2,107.49	$318.78
G500096	331	$2,340.17	$2,757.23	$417.06
G500097	24	$169.68	$199.92	$30.24
G500098	98	$692.86	$816.34	$123.48
G500099	38	$268.66	$316.54	$47.88
G500100	91	$643.37	$758.03	$114.66
G500101	97	$685.79	$808.01	$122.22
G500102	80	$565.60	$666.40	$100.80
G500103	103	$728.21	$857.99	$129.78
G500105	5	$35.35	$41.65	$6.30
G500106	863	$6,101.41	$7,188.79	$1,087.38
G500107	8	$56.56	$66.64	$10.08
G500108	40	$282.80	$333.20	$50.40
G500110	8	$56.56	$66.64	$10.08
G500112	32	$226.24	$266.56	$40.32
G500113	48	$339.36	$399.84	$60.48
G500114	24	$169.68	$199.92	$30.24
G500115	36	$254.52	$299.88	$45.36
G500117	1320	$9,332.40	$10,995.60	$1,663.20
G500118	38	$268.66	$316.54	$47.88
G500119	82	$579.74	$683.06	$103.32
G500120	60	$424.20	$499.80	$75.60
G500121	75	$530.25	$624.75	$94.50
G500124	89	$629.23	$741.37	$112.14
G500125	48	$339.36	$399.84	$60.48
G500127	34	$240.38	$283.22	$42.84
G500128	231	$1,633.17	$1,924.23	$291.06
G500129	80	$565.60	$666.40	$100.80
G500130	24	$169.68	$199.92	$30.24
G500131	106	$749.42	$882.98	$133.56
G500132	230	$1,626.10	$1,915.90	$289.80
G500133	80	$565.60	$666.40	$100.80
G500134	8	$56.56	$66.64	$10.08
G500135	485	$3,428.95	$4,040.05	$611.10
G500136	10	$70.70	$83.30	$12.60
G500137	80	$565.60	$666.40	$100.80
G500138	64	$452.48	$533.12	$80.64
G500139	110	$777.70	$916.30	$138.60
G500140	92	$650.44	$766.36	$115.92
G500141	10	$70.70	$83.30	$12.60

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G500142	91	$643.37	$758.03	$114.66
G500144	334	$2,361.38	$2,782.22	$420.84
G500145	70	$494.90	$583.10	$88.20
G500146	35	$247.45	$291.55	$44.10
G500147	36	$254.52	$299.88	$45.36
G500148	36	$254.52	$299.88	$45.36
G500149	36	$254.52	$299.88	$45.36
G500150	110	$777.70	$916.30	$138.60
G500151	247	$1,746.29	$2,057.51	$311.22
G500152	26	$183.82	$216.58	$32.76
G500154	33	$233.31	$274.89	$41.58
G500156	40	$282.80	$333.20	$50.40
G500158	20	$141.40	$166.60	$25.20
G500160	105	$742.35	$874.65	$132.30
G600047	246	$1,739.22	$2,049.18	$309.96
G600048	9	$63.63	$74.97	$11.34
G600049	102	$721.14	$849.66	$128.52
G600050	40	$282.80	$333.20	$50.40
G600051	100	$707.00	$833.00	$126.00
G600052	10	$70.70	$83.30	$12.60
G600053	13	$91.91	$108.29	$16.38
G600054	49	$346.43	$408.17	$61.74
G600055	829	$5,861.03	$6,905.57	$1,044.54
G600056	1093	$7,727.51	$9,104.69	$1,377.18
G600057	306	$2,163.42	$2,548.98	$385.56
G600058	124	$876.68	$1,032.92	$156.24
G600059	168	$1,187.76	$1,399.44	$211.68
G600060	557	$3,937.99	$4,639.81	$701.82
G600061	709	$5,012.63	$5,905.97	$893.34
G600062	277	$1,958.39	$2,307.41	$349.02
G600063	447	$3,160.29	$3,723.51	$563.22
G600064	34	$240.38	$283.22	$42.84
G600065	75	$530.25	$624.75	$94.50
G600066	160	$1,131.20	$1,332.80	$201.60
G600067	18	$127.26	$149.94	$22.68
G600068	162	$1,145.34	$1,349.46	$204.12
G600069	456	$3,223.92	$3,798.48	$574.56
G600071	42	$296.94	$349.86	$52.92
G600072	140	$989.80	$1,166.20	$176.40
G600073	150	$1,060.50	$1,249.50	$189.00
G600074	45	$318.15	$374.85	$56.70
G600075	96	$678.72	$799.68	$120.96
G600076	45	$318.15	$374.85	$56.70
G600077	180	$1,272.60	$1,499.40	$226.80
G600078	183	$1,293.81	$1,524.39	$230.58
G600079	74	$523.18	$616.42	$93.24

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G600080	122	$862.54	$1,016.26	$153.72
G600081	136	$961.52	$1,132.88	$171.36
G600083	113	$798.91	$941.29	$142.38
G600084	37	$261.59	$308.21	$46.62
G600085	88	$622.16	$733.04	$110.88
G600086	37	$261.59	$308.21	$46.62
G600087	19	$134.33	$158.27	$23.94
G600088	640	$4,524.80	$5,331.20	$806.40
G600089	60	$424.20	$499.80	$75.60
G600090	83	$586.81	$691.39	$104.58
G600091	155	$1,095.85	$1,291.15	$195.30
G600092	1322	$9,346.54	$11,012.26	$1,665.72
G600093	141	$996.87	$1,174.53	$177.66
G600094	230	$1,626.10	$1,915.90	$289.80
G600095	230	$1,626.10	$1,915.90	$289.80
G600097	135	$954.45	$1,124.55	$170.10
G600098	129	$912.03	$1,074.57	$162.54
G600099	101	$714.07	$841.33	$127.26
G600100	247	$1,746.29	$2,057.51	$311.22
G600103	720	$5,090.40	$5,997.60	$907.20
G600105	824	$5,825.68	$6,863.92	$1,038.24
G600106	34	$240.38	$283.22	$42.84
G600107	20	$141.40	$166.60	$25.20
G600108	256	$1,809.92	$2,132.48	$322.56
G600109	227	$1,604.89	$1,890.91	$286.02
G600110	50	$353.50	$416.50	$63.00
G600111	480	$3,393.60	$3,998.40	$604.80
G600112	132	$933.24	$1,099.56	$166.32
G600113	13	$91.91	$108.29	$16.38
G600114	840	$5,938.80	$6,997.20	$1,058.40
G600115	43	$304.01	$358.19	$54.18
G600116	181	$1,279.67	$1,507.73	$228.06
G600117	30	$212.10	$249.90	$37.80
G600118	30	$212.10	$249.90	$37.80
G600119	105	$742.35	$874.65	$132.30
G600122	10	$70.70	$83.30	$12.60
G600123	179	$1,265.53	$1,491.07	$225.54
G600124	23	$162.61	$191.59	$28.98
G600125	144	$1,018.08	$1,199.52	$181.44
G600126	231	$1,633.17	$1,924.23	$291.06
G600128	23	$162.61	$191.59	$28.98
G600129	464	$3,280.48	$3,865.12	$584.64
G600130	870	$6,150.90	$7,247.10	$1,096.20
G600131	99	$699.93	$824.67	$124.74
G600132	48	$339.36	$399.84	$60.48
G600133	795	$5,620.65	$6,622.35	$1,001.70

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G600134	28	$197.96	$233.24	$35.28
G600135	37	$261.59	$308.21	$46.62
G600136	25	$176.75	$208.25	$31.50
G600137	30	$212.10	$249.90	$37.80
G600138	168	$1,187.76	$1,399.44	$211.68
G600139	830	$5,868.10	$6,913.90	$1,045.80
G600140	184	$1,300.88	$1,532.72	$231.84
G600141	38	$268.66	$316.54	$47.88
G600142	64	$452.48	$533.12	$80.64
G600143	87	$615.09	$724.71	$109.62
G600144	120	$848.40	$999.60	$151.20
G600145	22	$155.54	$183.26	$27.72
G600146	141	$996.87	$1,174.53	$177.66
G600147	230	$1,626.10	$1,915.90	$289.80
G600148	44	$311.08	$366.52	$55.44
G600149	40	$282.80	$333.20	$50.40
G600150	92	$650.44	$766.36	$115.92
G600151	161	$1,138.27	$1,341.13	$202.86
G600152	553	$3,909.71	$4,606.49	$696.78
G600153	6	$42.42	$49.98	$7.56
G600154	124	$876.68	$1,032.92	$156.24
G600155	40	$282.80	$333.20	$50.40
G600156	27	$190.89	$224.91	$34.02
G600157	40	$282.80	$333.20	$50.40
G600158	53	$374.71	$441.49	$66.78
G600159	7	$49.49	$58.31	$8.82
G600160	47	$332.29	$391.51	$59.22
G600161	374	$2,644.18	$3,115.42	$471.24
G600162	95	$671.65	$791.35	$119.70
G600163	370	$2,615.90	$3,082.10	$466.20
G600164	30	$212.10	$249.90	$37.80
G600165	13	$91.91	$108.29	$16.38
G600166	250	$1,767.50	$2,082.50	$315.00
G600167	64	$452.48	$533.12	$80.64
G600168	50	$353.50	$416.50	$63.00
G600169	100	$707.00	$833.00	$126.00
G600170	51	$360.57	$424.83	$64.26
G600171	37	$261.59	$308.21	$46.62
G600172	27	$190.89	$224.91	$34.02
G600173	40	$282.80	$333.20	$50.40
G600174	92	$650.44	$766.36	$115.92
G600175	35	$247.45	$291.55	$44.10
G600176	120	$848.40	$999.60	$151.20
G600177	81	$572.67	$674.73	$102.06
G600178	96	$678.72	$799.68	$120.96
G600179	13	$91.91	$108.29	$16.38

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G600180	125	$883.75	$1,041.25	$157.50
G600181	44	$311.08	$366.52	$55.44
G600182	48	$339.36	$399.84	$60.48
G600184	195	$1,378.65	$1,624.35	$245.70
G600185	15	$106.05	$124.95	$18.90
G600186	10	$70.70	$83.30	$12.60
G600187	48	$339.36	$399.84	$60.48
G600188	63	$445.41	$524.79	$79.38
G600189	585	$4,135.95	$4,873.05	$737.10
G600190	63	$445.41	$524.79	$79.38
G600191	162	$1,145.34	$1,349.46	$204.12
G600192	86	$608.02	$716.38	$108.36
G600193	98	$692.86	$816.34	$123.48
G600194	16	$113.12	$133.28	$20.16
G600196	82	$579.74	$683.06	$103.32
G600198	1076	$7,607.32	$8,963.08	$1,355.76
G600199	358	$2,531.06	$2,982.14	$451.08
G600200	175	$1,237.25	$1,457.75	$220.50
G600201	230	$1,626.10	$1,915.90	$289.80
G600202	375	$2,651.25	$3,123.75	$472.50
G600203	84	$593.88	$699.72	$105.84
G600204	100	$707.00	$833.00	$126.00
G600205	32	$226.24	$266.56	$40.32
G600206	131	$926.17	$1,091.23	$165.06
G600207	176	$1,244.32	$1,466.08	$221.76
G600208	107	$756.49	$891.31	$134.82
G600209	32	$226.24	$266.56	$40.32
G600210	4	$28.28	$33.32	$5.04
G600211	123	$869.61	$1,024.59	$154.98
G600212	86	$608.02	$716.38	$108.36
G600213	712	$5,033.84	$5,930.96	$897.12
G600214	6	$42.42	$49.98	$7.56
G600215	187	$1,322.09	$1,557.71	$235.62
G600216	108	$763.56	$899.64	$136.08
G600217	10	$70.70	$83.30	$12.60
G600218	248	$1,753.36	$2,065.84	$312.48
G600219	91	$643.37	$758.03	$114.66
G600220	106	$749.42	$882.98	$133.56
G600221	26	$183.82	$216.58	$32.76
G600222	64	$452.48	$533.12	$80.64
G600223	5	$35.35	$41.65	$6.30
G600224	399	$2,820.93	$3,323.67	$502.74
G600225	231	$1,633.17	$1,924.23	$291.06
G600226	26	$183.82	$216.58	$32.76
G600227	6	$42.42	$49.98	$7.56
G600229	68	$480.76	$566.44	$85.68

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G600230	354	$2,502.78	$2,948.82	$446.04
G600231	17	$120.19	$141.61	$21.42
G600232	242	$1,710.94	$2,015.86	$304.92
G600233	1126	$7,960.82	$9,379.58	$1,418.76
G600234	727	$5,139.89	$6,055.91	$916.02
G600235	59	$417.13	$491.47	$74.34
G600236	24	$169.68	$199.92	$30.24
G600237	33	$233.31	$274.89	$41.58
G600238	144	$1,018.08	$1,199.52	$181.44
G600239	5	$35.35	$41.65	$6.30
G600240	460	$3,252.20	$3,831.80	$579.60
G600241	83	$586.81	$691.39	$104.58
G600242	18	$127.26	$149.94	$22.68
G600243	172	$1,216.04	$1,432.76	$216.72
G600244	6	$42.42	$49.98	$7.56
G600245	377	$2,665.39	$3,140.41	$475.02
G600246	53	$374.71	$441.49	$66.78
G600247	16	$113.12	$133.28	$20.16
G600248	90	$636.30	$749.70	$113.40
G600249	126	$890.82	$1,049.58	$158.76
G600250	68	$480.76	$566.44	$85.68
G600251	29	$205.03	$241.57	$36.54
G600252	35	$247.45	$291.55	$44.10
G600253	40	$282.80	$333.20	$50.40
G600254	93	$657.51	$774.69	$117.18
G600255	46	$325.22	$383.18	$57.96
G600256	153	$1,081.71	$1,274.49	$192.78
G600257	21	$148.47	$174.93	$26.46
G600258	116	$820.12	$966.28	$146.16
G600259	58	$410.06	$483.14	$73.08
G600260	18	$127.26	$149.94	$22.68
G600261	10	$70.70	$83.30	$12.60
G600262	49	$346.43	$408.17	$61.74
G600264	80	$565.60	$666.40	$100.80
G600265	66	$466.62	$549.78	$83.16
G600266	11	$77.77	$91.63	$13.86
G600267	91	$643.37	$758.03	$114.66
G600268	47	$332.29	$391.51	$59.22
G600269	1967	$13,906.69	$16,385.11	$2,478.42
G600270	2695	$19,053.65	$22,449.35	$3,395.70
G600271	42	$296.94	$349.86	$52.92
G600272	42	$296.94	$349.86	$52.92
G600273	66	$466.62	$549.78	$83.16
G600274	220	$1,555.40	$1,832.60	$277.20
G600275	65	$459.55	$541.45	$81.90
G600276	110	$777.70	$916.30	$138.60

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G600277	72	$509.04	$599.76	$90.72
G600278	80	$565.60	$666.40	$100.80
G600279	106	$749.42	$882.98	$133.56
G600280	22	$155.54	$183.26	$27.72
G600281	181	$1,279.67	$1,507.73	$228.06
G600282	3	$21.21	$24.99	$3.78
G600283	151	$1,067.57	$1,257.83	$190.26
G600284	64	$452.48	$533.12	$80.64
G600285	5	$35.35	$41.65	$6.30
G600287	75	$530.25	$624.75	$94.50
G600290	109	$770.63	$907.97	$137.34
G600291	72	$509.04	$599.76	$90.72
G600292	228	$1,611.96	$1,899.24	$287.28
G600293	586	$4,143.02	$4,881.38	$738.36
G600294	249	$1,760.43	$2,074.17	$313.74
G600295	158	$1,117.06	$1,316.14	$199.08
G600296	36	$254.52	$299.88	$45.36
G600297	90	$636.30	$749.70	$113.40
G600298	9	$63.63	$74.97	$11.34
G600299	514	$3,633.98	$4,281.62	$647.64
G600300	100	$707.00	$833.00	$126.00
G600301	192	$1,357.44	$1,599.36	$241.92
G600302	313	$2,212.91	$2,607.29	$394.38
G600303	112	$791.84	$932.96	$141.12
G600304	130	$919.10	$1,082.90	$163.80
G600305	7	$49.49	$58.31	$8.82
G600306	14	$98.98	$116.62	$17.64
G600307	83	$586.81	$691.39	$104.58
G600308	47	$332.29	$391.51	$59.22
G600309	133	$940.31	$1,107.89	$167.58
G600310	5	$35.35	$41.65	$6.30
G600311	63	$445.41	$524.79	$79.38
G600312	224	$1,583.68	$1,865.92	$282.24
G600313	142	$1,003.94	$1,182.86	$178.92
G600314	220	$1,555.40	$1,832.60	$277.20
G600315	140	$989.80	$1,166.20	$176.40
G600316	285	$2,014.95	$2,374.05	$359.10
G600317	161	$1,138.27	$1,341.13	$202.86
G600318	179	$1,265.53	$1,491.07	$225.54
G600319	228	$1,611.96	$1,899.24	$287.28
G600320	425	$3,004.75	$3,540.25	$535.50
G600321	1057	$7,472.99	$8,804.81	$1,331.82
G600322	593	$4,192.51	$4,939.69	$747.18
G600323	226	$1,597.82	$1,882.58	$284.76
G600324	107	$756.49	$891.31	$134.82
G600325	21	$148.47	$174.93	$26.46

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G600326	20	$141.40	$166.60	$25.20
G600327	2	$14.14	$16.66	$2.52
G600328	157	$1,109.99	$1,307.81	$197.82
G600329	37	$261.59	$308.21	$46.62
G600330	50	$353.50	$416.50	$63.00
G600331	776	$5,486.32	$6,464.08	$977.76
G600332	518	$3,662.26	$4,314.94	$652.68
G600333	37	$261.59	$308.21	$46.62
G600334	61	$431.27	$508.13	$76.86
G600335	430	$3,040.10	$3,581.90	$541.80
G600336	515	$3,641.05	$4,289.95	$648.90
G600337	31	$219.17	$258.23	$39.06
G600339	636	$4,496.52	$5,297.88	$801.36
G600340	95	$671.65	$791.35	$119.70
G600341	13	$91.91	$108.29	$16.38
G600342	14	$98.98	$116.62	$17.64
G600343	175	$1,237.25	$1,457.75	$220.50
G600344	71	$501.97	$591.43	$89.46
G700037	471	$3,329.97	$3,923.43	$593.46
G700039	161	$1,138.27	$1,341.13	$202.86
G700040	292	$2,064.44	$2,432.36	$367.92
G700041	64	$452.48	$533.12	$80.64
G700042	122	$862.54	$1,016.26	$153.72
G700043	334	$2,361.38	$2,782.22	$420.84
G700044	60	$424.20	$499.80	$75.60
G700045	107	$756.49	$891.31	$134.82
G700046	75	$530.25	$624.75	$94.50
G700047	82	$579.74	$683.06	$103.32
G700048	49	$346.43	$408.17	$61.74
G700049	37	$261.59	$308.21	$46.62
G700051	23	$162.61	$191.59	$28.98
G700053	46	$325.22	$383.18	$57.96
G700055	40	$282.80	$333.20	$50.40
G700056	28	$197.96	$233.24	$35.28
G700057	80	$565.60	$666.40	$100.80
G700058	173	$1,223.11	$1,441.09	$217.98
G700059	34	$240.38	$283.22	$42.84
G700061	221	$1,562.47	$1,840.93	$278.46
G700062	222	$1,569.54	$1,849.26	$279.72
G700064	82	$579.74	$683.06	$103.32
G700065	13	$91.91	$108.29	$16.38
G700067	147	$1,039.29	$1,224.51	$185.22
G700068	20	$141.40	$166.60	$25.20
G700069	144	$1,018.08	$1,199.52	$181.44
G700070	112	$791.84	$932.96	$141.12
G700071	10	$70.70	$83.30	$12.60

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G700072	27	$190.89	$224.91	$34.02
G700073	112	$791.84	$932.96	$141.12
G700074	96	$678.72	$799.68	$120.96
G700075	122	$862.54	$1,016.26	$153.72
G700077	723	$5,111.61	$6,022.59	$910.98
G700078	202	$1,428.14	$1,682.66	$254.52
G700079	85	$600.95	$708.05	$107.10
G700080	60	$424.20	$499.80	$75.60
G700081	28	$197.96	$233.24	$35.28
G700083	90	$636.30	$749.70	$113.40
G700084	68	$480.76	$566.44	$85.68
G700085	127	$897.89	$1,057.91	$160.02
G700086	117	$827.19	$974.61	$147.42
G700087	360	$2,545.20	$2,998.80	$453.60
G700088	80	$565.60	$666.40	$100.80
G700090	18	$127.26	$149.94	$22.68
G700091	120	$848.40	$999.60	$151.20
G700092	39	$275.73	$324.87	$49.14
G700093	20	$141.40	$166.60	$25.20
G700095	75	$530.25	$624.75	$94.50
G700096	621	$4,390.47	$5,172.93	$782.46
G700098	107	$756.49	$891.31	$134.82
G700099	200	$1,414.00	$1,666.00	$252.00
G700100	484	$3,421.88	$4,031.72	$609.84
G700101	123	$869.61	$1,024.59	$154.98
G700102	57	$402.99	$474.81	$71.82
G700104	60	$424.20	$499.80	$75.60
G700105	499	$3,527.93	$4,156.67	$628.74
G700107	143	$1,011.01	$1,191.19	$180.18
G700109	186	$1,315.02	$1,549.38	$234.36
G700110	178	$1,258.46	$1,482.74	$224.28
G700112	80	$565.60	$666.40	$100.80
G700113	46	$325.22	$383.18	$57.96
G700114	64	$452.48	$533.12	$80.64
G700115	347	$2,453.29	$2,890.51	$437.22
G700116	258	$1,824.06	$2,149.14	$325.08
G700117	699	$4,941.93	$5,822.67	$880.74
G700118	83	$586.81	$691.39	$104.58
G700119	112	$791.84	$932.96	$141.12
G700120	225	$1,590.75	$1,874.25	$283.50
G700122	231	$1,633.17	$1,924.23	$291.06
G700123	70	$494.90	$583.10	$88.20
G700124	39	$275.73	$324.87	$49.14
G700125	86	$608.02	$716.38	$108.36
G700126	431	$3,047.17	$3,590.23	$543.06
G700127	150	$1,060.50	$1,249.50	$189.00

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G700128	71	$501.97	$591.43	$89.46
G700129	45	$318.15	$374.85	$56.70
G700130	30	$212.10	$249.90	$37.80
G700131	84	$593.88	$699.72	$105.84
G700132	120	$848.40	$999.60	$151.20
G700133	380	$2,686.60	$3,165.40	$478.80
G700134	106	$749.42	$882.98	$133.56
G700135	151	$1,067.57	$1,257.83	$190.26
G700136	110	$777.70	$916.30	$138.60
G700137	71	$501.97	$591.43	$89.46
G700138	79	$558.53	$658.07	$99.54
G700139	30	$212.10	$249.90	$37.80
G700140	86	$608.02	$716.38	$108.36
G700141	51	$360.57	$424.83	$64.26
G700142	153	$1,081.71	$1,274.49	$192.78
G700143	49	$346.43	$408.17	$61.74
G700146	130	$919.10	$1,082.90	$163.80
G700148	115	$813.05	$957.95	$144.90
G700149	44	$311.08	$366.52	$55.44
G700150	60	$424.20	$499.80	$75.60
G700153	120	$848.40	$999.60	$151.20
G700154	44	$311.08	$366.52	$55.44
G700155	50	$353.50	$416.50	$63.00
G700156	53	$374.71	$441.49	$66.78
G700157	160	$1,131.20	$1,332.80	$201.60
G700160	193	$1,364.51	$1,607.69	$243.18
G700161	77	$544.39	$641.41	$97.02
G700162	36	$254.52	$299.88	$45.36
G700163	79	$558.53	$658.07	$99.54
G700165	29	$205.03	$241.57	$36.54
G700166	130	$919.10	$1,082.90	$163.80
G700167	89	$629.23	$741.37	$112.14
G700168	140	$989.80	$1,166.20	$176.40
G700169	38	$268.66	$316.54	$47.88
G700170	155	$1,095.85	$1,291.15	$195.30
G700171	30	$212.10	$249.90	$37.80
G700173	4	$28.28	$33.32	$5.04
G700174	151	$1,067.57	$1,257.83	$190.26
G700175	160	$1,131.20	$1,332.80	$201.60
G700176	53	$374.71	$441.49	$66.78
G700177	200	$1,414.00	$1,666.00	$252.00
G700178	422	$2,983.54	$3,515.26	$531.72
G700179	192	$1,357.44	$1,599.36	$241.92
G700180	53	$374.71	$441.49	$66.78
G700181	184	$1,300.88	$1,532.72	$231.84
G700182	80	$565.60	$666.40	$100.80

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G700183	245	$1,732.15	$2,040.85	$308.70
G700184	124	$876.68	$1,032.92	$156.24
G700185	135	$954.45	$1,124.55	$170.10
G700187	120	$848.40	$999.60	$151.20
G700188	311	$2,198.77	$2,590.63	$391.86
G700189	110	$777.70	$916.30	$138.60
G700190	28	$197.96	$233.24	$35.28
G700191	15	$106.05	$124.95	$18.90
G700194	47	$332.29	$391.51	$59.22
G700195	70	$494.90	$583.10	$88.20
G700196	111	$784.77	$924.63	$139.86
G700197	49	$346.43	$408.17	$61.74
G700200	15	$106.05	$124.95	$18.90
G700202	101	$714.07	$841.33	$127.26
G700203	190	$1,343.30	$1,582.70	$239.40
G700204	43	$304.01	$358.19	$54.18
G700205	60	$424.20	$499.80	$75.60
G700206	110	$777.70	$916.30	$138.60
G700210	53	$374.71	$441.49	$66.78
G700211	880	$6,221.60	$7,330.40	$1,108.80
G700213	134	$947.38	$1,116.22	$168.84
G700214	200	$1,414.00	$1,666.00	$252.00
G700216	134	$947.38	$1,116.22	$168.84
G700218	76	$537.32	$633.08	$95.76
G700220	22	$155.54	$183.26	$27.72
G700221	331	$2,340.17	$2,757.23	$417.06
G700222	60	$424.20	$499.80	$75.60
G700223	29	$205.03	$241.57	$36.54
G700224	80	$565.60	$666.40	$100.80
G700225	71	$501.97	$591.43	$89.46
G700226	760	$5,373.20	$6,330.80	$957.60
G700229	64	$452.48	$533.12	$80.64
G700230	78	$551.46	$649.74	$98.28
G700231	91	$643.37	$758.03	$114.66
G700232	26	$183.82	$216.58	$32.76
G700233	105	$742.35	$874.65	$132.30
G700234	36	$254.52	$299.88	$45.36
G700235	71	$501.97	$591.43	$89.46
G700236	30	$212.10	$249.90	$37.80
G700237	184	$1,300.88	$1,532.72	$231.84
G700238	121	$855.47	$1,007.93	$152.46
G700239	70	$494.90	$583.10	$88.20
G700242	100	$707.00	$833.00	$126.00
G700243	40	$282.80	$333.20	$50.40
G700245	176	$1,244.32	$1,466.08	$221.76
G700246	88	$622.16	$733.04	$110.88

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G700247	314	$2,219.98	$2,615.62	$395.64
G700248	77	$544.39	$641.41	$97.02
G700253	91	$643.37	$758.03	$114.66
G700254	359	$2,538.13	$2,990.47	$452.34
G700256	550	$3,888.50	$4,581.50	$693.00
G700257	15	$106.05	$124.95	$18.90
G700258	112	$791.84	$932.96	$141.12
G700259	320	$2,262.40	$2,665.60	$403.20
G700261	300	$2,121.00	$2,499.00	$378.00
G700262	113	$798.91	$941.29	$142.38
G700263	582	$4,114.74	$4,848.06	$733.32
G700266	578	$4,086.46	$4,814.74	$728.28
G700267	44	$311.08	$366.52	$55.44
G700270	222	$1,569.54	$1,849.26	$279.72
G700271	101	$714.07	$841.33	$127.26
G700272	174	$1,230.18	$1,449.42	$219.24
G700273	78	$551.46	$649.74	$98.28
G700274	102	$721.14	$849.66	$128.52
G700275	211	$1,491.77	$1,757.63	$265.86
G700276	273	$1,930.11	$2,274.09	$343.98
G700278	32	$226.24	$266.56	$40.32
G700279	77	$544.39	$641.41	$97.02
G700280	123	$869.61	$1,024.59	$154.98
G700281	50	$353.50	$416.50	$63.00
G700282	102	$721.14	$849.66	$128.52
G700283	193	$1,364.51	$1,607.69	$243.18
G700284	222	$1,569.54	$1,849.26	$279.72
G700285	187	$1,322.09	$1,557.71	$235.62
G700287	248	$1,753.36	$2,065.84	$312.48
G700289	264	$1,866.48	$2,199.12	$332.64
G700292	210	$1,484.70	$1,749.30	$264.60
G700293	37	$261.59	$308.21	$46.62
G700294	91	$643.37	$758.03	$114.66
G700295	45	$318.15	$374.85	$56.70
G700296	200	$1,414.00	$1,666.00	$252.00
G700297	411	$2,905.77	$3,423.63	$517.86
G700299	322	$2,276.54	$2,682.26	$405.72
G700300	64	$452.48	$533.12	$80.64
G700301	200	$1,414.00	$1,666.00	$252.00
G700302	48	$339.36	$399.84	$60.48
G700303	54	$381.78	$449.82	$68.04
G700304	100	$707.00	$833.00	$126.00
G700308	939	$6,638.73	$7,821.87	$1,183.14
G700309	80	$565.60	$666.40	$100.80
G700310	73	$516.11	$608.09	$91.98
G700311	20	$141.40	$166.60	$25.20

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G700312	20	$141.40	$166.60	$25.20
G700313	105	$742.35	$874.65	$132.30
G700314	90	$636.30	$749.70	$113.40
G700316	88	$622.16	$733.04	$110.88
G700317	7	$49.49	$58.31	$8.82
G700318	122	$862.54	$1,016.26	$153.72
G700319	523	$3,697.61	$4,356.59	$658.98
G700320	98	$692.86	$816.34	$123.48
G700321	98	$692.86	$816.34	$123.48
G700322	76	$537.32	$633.08	$95.76
G700323	45	$318.15	$374.85	$56.70
G700324	19	$134.33	$158.27	$23.94
G700325	417	$2,948.19	$3,473.61	$525.42
G700326	28	$197.96	$233.24	$35.28
G700327	210	$1,484.70	$1,749.30	$264.60
G700328	7	$49.49	$58.31	$8.82
G700329	307	$2,170.49	$2,557.31	$386.82
G700330	146	$1,032.22	$1,216.18	$183.96
G700331	80	$565.60	$666.40	$100.80
G700332	411	$2,905.77	$3,423.63	$517.86
G700333	90	$636.30	$749.70	$113.40
G700334	100	$707.00	$833.00	$126.00
G700335	173	$1,223.11	$1,441.09	$217.98
G700336	85	$600.95	$708.05	$107.10
G700337	79	$558.53	$658.07	$99.54
G700338	48	$339.36	$399.84	$60.48
G700339	51	$360.57	$424.83	$64.26
G700340	163	$1,152.41	$1,357.79	$205.38
G700342	1668	$11,792.76	$13,894.44	$2,101.68
G700343	1285	$9,084.95	$10,704.05	$1,619.10
G700344	87	$615.09	$724.71	$109.62
G700345	75	$530.25	$624.75	$94.50
G700346	82	$579.74	$683.06	$103.32
G700347	116	$820.12	$966.28	$146.16
G700348	29	$205.03	$241.57	$36.54
G800010	601	$4,249.07	$5,006.33	$757.26
G800050	216	$1,527.12	$1,799.28	$272.16
G800051	107	$756.49	$891.31	$134.82
G800052	734	$5,189.38	$6,114.22	$924.84
G800053	224	$1,583.68	$1,865.92	$282.24
G800054	96	$678.72	$799.68	$120.96
G800055	119	$841.33	$991.27	$149.94
G800056	212	$1,498.84	$1,765.96	$267.12
G800057	160	$1,131.20	$1,332.80	$201.60
G800058	151	$1,067.57	$1,257.83	$190.26
G800059	119	$841.33	$991.27	$149.94

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G800060	343	$2,425.01	$2,857.19	$432.18
G800061	3887	$27,481.09	$32,378.71	$4,897.62
G800062	307	$2,170.49	$2,557.31	$386.82
G800063	79	$558.53	$658.07	$99.54
G800064	300	$2,121.00	$2,499.00	$378.00
G800065	638	$4,510.66	$5,314.54	$803.88
G800066	330	$2,333.10	$2,748.90	$415.80
G800067	30	$212.10	$249.90	$37.80
G800068	1339	$9,466.73	$11,153.87	$1,687.14
G800069	294	$2,078.58	$2,449.02	$370.44
G800070	10	$70.70	$83.30	$12.60
G800071	67	$473.69	$558.11	$84.42
G800072	92	$650.44	$766.36	$115.92
G800074	174	$1,230.18	$1,449.42	$219.24
G800075	118	$834.26	$982.94	$148.68
G800076	130	$919.10	$1,082.90	$163.80
G800077	42	$296.94	$349.86	$52.92
G800079	669	$4,729.83	$5,572.77	$842.94
G800080	43	$304.01	$358.19	$54.18
G800081	116	$820.12	$966.28	$146.16
G800083	347	$2,453.29	$2,890.51	$437.22
G800084	1883	$13,312.81	$15,685.39	$2,372.58
G800085	12	$84.84	$99.96	$15.12
G800086	16	$113.12	$133.28	$20.16
G800087	100	$707.00	$833.00	$126.00
G800088	68	$480.76	$566.44	$85.68
G800090	114	$805.98	$949.62	$143.64
G800094	8	$56.56	$66.64	$10.08
G800101	74	$523.18	$616.42	$93.24
G800102	138	$975.66	$1,149.54	$173.88
G800103	91	$643.37	$758.03	$114.66
G800104	101	$714.07	$841.33	$127.26
G800105	52	$367.64	$433.16	$65.52
G800106	123	$869.61	$1,024.59	$154.98
G800107	508	$3,591.56	$4,231.64	$640.08
G800108	26	$183.82	$216.58	$32.76
G800111	300	$2,121.00	$2,499.00	$378.00
G800112	307	$2,170.49	$2,557.31	$386.82
G800115	155	$1,095.85	$1,291.15	$195.30
G800116	47	$332.29	$391.51	$59.22
G800117	55	$388.85	$458.15	$69.30
G800118	714	$5,047.98	$5,947.62	$899.64
G800119	113	$798.91	$941.29	$142.38
G800121	121	$855.47	$1,007.93	$152.46
G800122	65	$459.55	$541.45	$81.90
G800124	27	$190.89	$224.91	$34.02

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G800125	803	$5,677.21	$6,688.99	$1,011.78
G800127	83	$586.81	$691.39	$104.58
G800128	124	$876.68	$1,032.92	$156.24
G800130	31	$219.17	$258.23	$39.06
G800131	424	$2,997.68	$3,531.92	$534.24
G800133	12	$84.84	$99.96	$15.12
G800134	1272	$8,993.04	$10,595.76	$1,602.72
G800136	163	$1,152.41	$1,357.79	$205.38
G800137	46	$325.22	$383.18	$57.96
G800138	37	$261.59	$308.21	$46.62
G800139	409	$2,891.63	$3,406.97	$515.34
G800140	356	$2,516.92	$2,965.48	$448.56
G800141	113	$798.91	$941.29	$142.38
G800142	64	$452.48	$533.12	$80.64
G800143	116	$820.12	$966.28	$146.16
G800144	67	$473.69	$558.11	$84.42
G800145	288	$2,036.16	$2,399.04	$362.88
G800146	10	$70.70	$83.30	$12.60
G800147	68	$480.76	$566.44	$85.68
G800148	506	$3,577.42	$4,214.98	$637.56
G800149	194	$1,371.58	$1,616.02	$244.44
G800150	185	$1,307.95	$1,541.05	$233.10
G800151	66	$466.62	$549.78	$83.16
G800152	45	$318.15	$374.85	$56.70
G800153	118	$834.26	$982.94	$148.68
G800155	108	$763.56	$899.64	$136.08
G800156	86	$608.02	$716.38	$108.36
G800157	71	$501.97	$591.43	$89.46
G800158	271	$1,915.97	$2,257.43	$341.46
G800160	100	$707.00	$833.00	$126.00
G800161	64	$452.48	$533.12	$80.64
G800162	30	$212.10	$249.90	$37.80
G800163	78	$551.46	$649.74	$98.28
G800164	64	$452.48	$533.12	$80.64
G800165	86	$608.02	$716.38	$108.36
G800166	422	$2,983.54	$3,515.26	$531.72
G800167	112	$791.84	$932.96	$141.12
G800168	49	$346.43	$408.17	$61.74
G800169	38	$268.66	$316.54	$47.88
G800170	49	$346.43	$408.17	$61.74
G800171	1445	$10,216.15	$12,036.85	$1,820.70
G800172	64	$452.48	$533.12	$80.64
G800173	128	$904.96	$1,066.24	$161.28
G800174	120	$848.40	$999.60	$151.20
G800175	67	$473.69	$558.11	$84.42
G800176	86	$608.02	$716.38	$108.36

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G800177	131	$926.17	$1,091.23	$165.06
G800178	22	$155.54	$183.26	$27.72
G800179	210	$1,484.70	$1,749.30	$264.60
G800180	45	$318.15	$374.85	$56.70
G800181	25	$176.75	$208.25	$31.50
G800182	96	$678.72	$799.68	$120.96
G800183	56	$395.92	$466.48	$70.56
G800184	43	$304.01	$358.19	$54.18
G800185	361	$2,552.27	$3,007.13	$454.86
G800186	64	$452.48	$533.12	$80.64
G800187	71	$501.97	$591.43	$89.46
G800188	48	$339.36	$399.84	$60.48
G800189	146	$1,032.22	$1,216.18	$183.96
G800190	191	$1,350.37	$1,591.03	$240.66
G800191	40	$282.80	$333.20	$50.40
G800192	40	$282.80	$333.20	$50.40
G800193	79	$558.53	$658.07	$99.54
G800194	82	$579.74	$683.06	$103.32
G800195	160	$1,131.20	$1,332.80	$201.60
G800196	12	$84.84	$99.96	$15.12
G800197	91	$643.37	$758.03	$114.66
G800198	32	$226.24	$266.56	$40.32
G800199	151	$1,067.57	$1,257.83	$190.26
G800201	40	$282.80	$333.20	$50.40
G800202	128	$904.96	$1,066.24	$161.28
G800203	721	$5,097.47	$6,005.93	$908.46
G800204	69	$487.83	$574.77	$86.94
G800205	14	$98.98	$116.62	$17.64
G800206	79	$558.53	$658.07	$99.54
G800207	245	$1,732.15	$2,040.85	$308.70
G800208	52	$367.64	$433.16	$65.52
G800209	84	$593.88	$699.72	$105.84
G800210	42	$296.94	$349.86	$52.92
G800211	150	$1,060.50	$1,249.50	$189.00
G800212	8	$56.56	$66.64	$10.08
G800213	183	$1,293.81	$1,524.39	$230.58
G800214	52	$367.64	$433.16	$65.52
G800215	63	$445.41	$524.79	$79.38
G800216	59	$417.13	$491.47	$74.34
G800217	8192	$57,917.44	$68,239.36	$10,321.92
G800218	76	$537.32	$633.08	$95.76
G800219	169	$1,194.83	$1,407.77	$212.94
G800220	83	$586.81	$691.39	$104.58
G800221	160	$1,131.20	$1,332.80	$201.60
G800222	125	$883.75	$1,041.25	$157.50
G800223	64	$452.48	$533.12	$80.64

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G800224	30	$212.10	$249.90	$37.80
G800225	25253	$178,538.71	$210,357.49	$31,818.78
G800226	346	$2,446.22	$2,882.18	$435.96
G800228	59	$417.13	$491.47	$74.34
G800229	18087	$127,875.09	$150,664.71	$22,789.62
G800230	246	$1,739.22	$2,049.18	$309.96
G800233	124	$876.68	$1,032.92	$156.24
G800234	152	$1,074.64	$1,266.16	$191.52
G800235	259	$1,831.13	$2,157.47	$326.34
G800236	1	$7.07	$8.33	$1.26
G800237	781	$5,521.67	$6,505.73	$984.06
G800238	215	$1,520.05	$1,790.95	$270.90
G800239	863	$6,101.41	$7,188.79	$1,087.38
G800240	88	$622.16	$733.04	$110.88
G800241	5	$35.35	$41.65	$6.30
G800242	451	$3,188.57	$3,756.83	$568.26
G800243	497	$3,513.79	$4,140.01	$626.22
G800244	617	$4,362.19	$5,139.61	$777.42
G800245	673	$4,758.11	$5,606.09	$847.98
G800246	631	$4,461.17	$5,256.23	$795.06
G800247	3380	$23,896.60	$28,155.40	$4,258.80
G800248	33	$233.31	$274.89	$41.58
G800249	259	$1,831.13	$2,157.47	$326.34
G800250	81	$572.67	$674.73	$102.06
G800251	1129	$7,982.03	$9,404.57	$1,422.54
G800252	77	$544.39	$641.41	$97.02
G800253	5828	$41,203.96	$48,547.24	$7,343.28
G800254	330	$2,333.10	$2,748.90	$415.80
G800255	43	$304.01	$358.19	$54.18
G800256	193	$1,364.51	$1,607.69	$243.18
G800257	15	$106.05	$124.95	$18.90
G800258	235	$1,661.45	$1,957.55	$296.10
G800259	93	$657.51	$774.69	$117.18
G800260	154	$1,088.78	$1,282.82	$194.04
G800261	130	$919.10	$1,082.90	$163.80
G800262	1266	$8,950.62	$10,545.78	$1,595.16
G800264	134	$947.38	$1,116.22	$168.84
G800265	287	$2,029.09	$2,390.71	$361.62
G800266	24	$169.68	$199.92	$30.24
G800267	220	$1,555.40	$1,832.60	$277.20
G800268	32	$226.24	$266.56	$40.32
G800269	732	$5,175.24	$6,097.56	$922.32
G800270	9	$63.63	$74.97	$11.34
G800271	62	$438.34	$516.46	$78.12
G800272	245	$1,732.15	$2,040.85	$308.70
G800273	259	$1,831.13	$2,157.47	$326.34

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G800274	136	$961.52	$1,132.88	$171.36
G800275	725	$5,125.75	$6,039.25	$913.50
G800276	48	$339.36	$399.84	$60.48
G800277	147	$1,039.29	$1,224.51	$185.22
G800278	65	$459.55	$541.45	$81.90
G800279	77	$544.39	$641.41	$97.02
G800280	95	$671.65	$791.35	$119.70
G800281	137	$968.59	$1,141.21	$172.62
G800282	196	$1,385.72	$1,632.68	$246.96
G800283	160	$1,131.20	$1,332.80	$201.60
G800284	431	$3,047.17	$3,590.23	$543.06
G800285	405	$2,863.35	$3,373.65	$510.30
G800286	115	$813.05	$957.95	$144.90
G800287	23	$162.61	$191.59	$28.98
G800288	82	$579.74	$683.06	$103.32
G800290	958	$6,773.06	$7,980.14	$1,207.08
G800291	84	$593.88	$699.72	$105.84
G800292	18	$127.26	$149.94	$22.68
G800293	485	$3,428.95	$4,040.05	$611.10
G800294	59	$417.13	$491.47	$74.34
G800295	223	$1,576.61	$1,857.59	$280.98
G800296	104	$735.28	$866.32	$131.04
G800297	180	$1,272.60	$1,499.40	$226.80
G800298	315	$2,227.05	$2,623.95	$396.90
G800300	14	$98.98	$116.62	$17.64
G800301	186	$1,315.02	$1,549.38	$234.36
G800302	71	$501.97	$591.43	$89.46
G800303	55	$388.85	$458.15	$69.30
G800304	57	$402.99	$474.81	$71.82
G800305	64	$452.48	$533.12	$80.64
G800306	30	$212.10	$249.90	$37.80
G800307	62	$438.34	$516.46	$78.12
G800308	90	$636.30	$749.70	$113.40
G800309	5	$35.35	$41.65	$6.30
G800310	63	$445.41	$524.79	$79.38
G800311	26	$183.82	$216.58	$32.76
G800312	113	$798.91	$941.29	$142.38
G800313	32	$226.24	$266.56	$40.32
G800314	61	$431.27	$508.13	$76.86
G800315	167	$1,180.69	$1,391.11	$210.42
G800316	8	$56.56	$66.64	$10.08
G800317	30	$212.10	$249.90	$37.80
G800318	21	$148.47	$174.93	$26.46
G800319	97	$685.79	$808.01	$122.22
G800320	7	$49.49	$58.31	$8.82
G800321	143	$1,011.01	$1,191.19	$180.18

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G800322	130	$919.10	$1,082.90	$163.80
G800323	56	$395.92	$466.48	$70.56
G800324	40	$282.80	$333.20	$50.40
G800325	32	$226.24	$266.56	$40.32
G800326	39	$275.73	$324.87	$49.14
G800327	21	$148.47	$174.93	$26.46
G800328	557	$3,937.99	$4,639.81	$701.82
G800329	75	$530.25	$624.75	$94.50
G800331	34	$240.38	$283.22	$42.84
G800332	285	$2,014.95	$2,374.05	$359.10
G800333	39	$275.73	$324.87	$49.14
G800334	310	$2,191.70	$2,582.30	$390.60
G800335	80	$565.60	$666.40	$100.80
G800336	20	$141.40	$166.60	$25.20
G800337	90	$636.30	$749.70	$113.40
G800338	8	$56.56	$66.64	$10.08
G800339	81	$572.67	$674.73	$102.06
G800340	35	$247.45	$291.55	$44.10
G800341	450	$3,181.50	$3,748.50	$567.00
G800342	174	$1,230.18	$1,449.42	$219.24
G800343	375	$2,651.25	$3,123.75	$472.50
G800345	80	$565.60	$666.40	$100.80
G800346	77	$544.39	$641.41	$97.02
G800347	65	$459.55	$541.45	$81.90
G800348	51	$360.57	$424.83	$64.26
G800349	64	$452.48	$533.12	$80.64
G800350	62	$438.34	$516.46	$78.12
G800351	22	$155.54	$183.26	$27.72
G800352	80	$565.60	$666.40	$100.80
G800353	20	$141.40	$166.60	$25.20
G800354	34	$240.38	$283.22	$42.84
G800355	477	$3,372.39	$3,973.41	$601.02
G800356	72	$509.04	$599.76	$90.72
G800357	4	$28.28	$33.32	$5.04
G800358	70	$494.90	$583.10	$88.20
G800359	13	$91.91	$108.29	$16.38
G800360	41	$289.87	$341.53	$51.66
G800362	624	$4,411.68	$5,197.92	$786.24
G800363	0	$0.00	$0.00	$0.00
G800364	8	$56.56	$66.64	$10.08
G800365	45	$318.15	$374.85	$56.70
G800366	281	$1,986.67	$2,340.73	$354.06
G800367	53	$374.71	$441.49	$66.78
G800368	20	$141.40	$166.60	$25.20
G800369	5	$35.35	$41.65	$6.30
G800370	32	$226.24	$266.56	$40.32

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G800371	105	$742.35	$874.65	$132.30
G800372	152	$1,074.64	$1,266.16	$191.52
G800373	50	$353.50	$416.50	$63.00
G800374	92	$650.44	$766.36	$115.92
G800375	31	$219.17	$258.23	$39.06
G800376	31	$219.17	$258.23	$39.06
G800377	194	$1,371.58	$1,616.02	$244.44
G800378	211	$1,491.77	$1,757.63	$265.86
G800379	110	$777.70	$916.30	$138.60
G800380	18	$127.26	$149.94	$22.68
G800382	20	$141.40	$166.60	$25.20
G800383	68	$480.76	$566.44	$85.68
G800384	100	$707.00	$833.00	$126.00
G800385	20	$141.40	$166.60	$25.20
G800387	8	$56.56	$66.64	$10.08
G800389	50	$353.50	$416.50	$63.00
G800390	14	$98.98	$116.62	$17.64
G800391	40	$282.80	$333.20	$50.40
G800392	63	$445.41	$524.79	$79.38
G800393	217	$1,534.19	$1,807.61	$273.42
G800394	12	$84.84	$99.96	$15.12
G800395	71	$501.97	$591.43	$89.46
G800396	30	$212.10	$249.90	$37.80
G800397	336	$2,375.52	$2,798.88	$423.36
G800398	210	$1,484.70	$1,749.30	$264.60
G800399	63	$445.41	$524.79	$79.38
G800400	250	$1,767.50	$2,082.50	$315.00
G800401	101	$714.07	$841.33	$127.26
G800403	549	$3,881.43	$4,573.17	$691.74
G800404	1254	$8,865.78	$10,445.82	$1,580.04
G800405	516	$3,648.12	$4,298.28	$650.16
G800406	38	$268.66	$316.54	$47.88
G800407	141	$996.87	$1,174.53	$177.66
G800408	130	$919.10	$1,082.90	$163.80
G800410	36	$254.52	$299.88	$45.36
G800411	100	$707.00	$833.00	$126.00
G800412	26	$183.82	$216.58	$32.76
G800413	167	$1,180.69	$1,391.11	$210.42
G800414	128	$904.96	$1,066.24	$161.28
G800415	32	$226.24	$266.56	$40.32
G800416	44	$311.08	$366.52	$55.44
G800417	80	$565.60	$666.40	$100.80
G800418	1	$7.07	$8.33	$1.26
G800419	70	$494.90	$583.10	$88.20
G800420	75	$530.25	$624.75	$94.50
G800421	80	$565.60	$666.40	$100.80

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G800422	2004	$14,168.28	$16,693.32	$2,525.04
G800423	68	$480.76	$566.44	$85.68
G800424	35	$247.45	$291.55	$44.10
G800425	160	$1,131.20	$1,332.80	$201.60
G800426	12	$84.84	$99.96	$15.12
G800427	61	$431.27	$508.13	$76.86
G800430	91	$643.37	$758.03	$114.66
G800431	10	$70.70	$83.30	$12.60
G800432	82	$579.74	$683.06	$103.32
G800434	32	$226.24	$266.56	$40.32
G800435	281	$1,986.67	$2,340.73	$354.06
G800436	6443	$45,552.01	$53,670.19	$8,118.18
G800437	235	$1,661.45	$1,957.55	$296.10
G800438	63	$445.41	$524.79	$79.38
G800440	7	$49.49	$58.31	$8.82
G800441	65	$459.55	$541.45	$81.90
G800442	34	$240.38	$283.22	$42.84
G800444	416	$2,941.12	$3,465.28	$524.16
G800445	223	$1,576.61	$1,857.59	$280.98
G800446	139	$982.73	$1,157.87	$175.14
G800447	242	$1,710.94	$2,015.86	$304.92
G800448	224	$1,583.68	$1,865.92	$282.24
G800449	35	$247.45	$291.55	$44.10
G800450	282	$1,993.74	$2,349.06	$355.32
G800451	101	$714.07	$841.33	$127.26
G800452	30	$212.10	$249.90	$37.80
G800453	434	$3,068.38	$3,615.22	$546.84
G800454	37	$261.59	$308.21	$46.62
G800455	24	$169.68	$199.92	$30.24
G800456	63	$445.41	$524.79	$79.38
G800457	14	$98.98	$116.62	$17.64
G800458	44	$311.08	$366.52	$55.44
G800459	131	$926.17	$1,091.23	$165.06
G800460	207	$1,463.49	$1,724.31	$260.82
G800461	80	$565.60	$666.40	$100.80
G800462	275	$1,944.25	$2,290.75	$346.50
G800463	64	$452.48	$533.12	$80.64
G800464	32	$226.24	$266.56	$40.32
G800465	38	$268.66	$316.54	$47.88
G800466	381	$2,693.67	$3,173.73	$480.06
G800467	141	$996.87	$1,174.53	$177.66
G800468	51	$360.57	$424.83	$64.26
G800469	86	$608.02	$716.38	$108.36
G800470	580	$4,100.60	$4,831.40	$730.80
G800471	16	$113.12	$133.28	$20.16
G800473	11	$77.77	$91.63	$13.86

Lease #	AUMs	2021 Annual Rate	2022 Rate @ 45%	Net Change
G800476	1004	$7,098.28	$8,363.32	$1,265.04
G800480	41	$289.87	$341.53	$51.66
G800481	80	$565.60	$666.40	$100.80

	AUMs	Current Annual Rate	Model Output Rate	Net Change	% Change
Total	256703	$1,814,890.21	$2,138,335.99	$323,445.78	
Average	232	$1,639.47	$1,932.56	$293.09	17.8%
Median	86	$608.02	$716.38	$108.36	
Maximum	25253	$178,538.71	$210,357.49	$31,818.78	