McFarland Cascade®
a Stella-Jones company

COMMENT MEMORANDUM

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FROM: McFarland Cascade Holdings, Inc.

RE: Comments of McFarland Cascade on Idaho Department of Lands—Negotiated Rulemaking—IDAPA 20, Title 02, Chapter 14—Rules for Selling Forest Products on State—Owned Endowment Lands

DATE: June 30, 2016

I. INTRODUCTION

McFarland Cascade Holdings, Inc. and its affiliates ("McFarland Cascade") submit these comments in response to the Idaho Department of Lands ("IDL") proposed plan to revise IDAPA 20, Title 02, Chapter 14—Rules for Selling Forest Products on State-Owned Endowment Lands.

One hundred years ago, the company that has grown into today's McFarland Cascade began manufacturing and selling cedar poles from Sandpoint. Now headquartered in Tacoma, Washington, McFarland Cascade continues to produce high value cedar poles in Idaho, including from its facility in Juliaetta, with workers, contractors and small businesses throughout the state benefitting from our cedar pole business. McFarland Cascade's cedar poles are the pole of choice for many Idaho utilities (and for utilities around the nation). We can, however, also use Southern Yellow Pine and Coastal Douglas Fir for poles to meet our customers' needs. Our purchases of cedar from IDL are an important input to revenues from State-Owned Endowment Timber Lands.

McFarland Cascade has operated in Idaho for the long run and wants to continue to be part of a genuinely sustainable program in Idaho that wisely uses and regenerates Western Red Cedar, protecting the resource and helping to "secure the maximum long term financial return" to the state endowments, as required by the Constitution. But McFarland Cascade must also have reasonable cedar pole sale procedures written in the IDL rules that our company can rely upon to continue our cedar pole business in Idaho. Procedures to be added to IDL's Manual, offered in connection with this rulemaking, will not substitute for clear rules that comply with law.

Cedar poles are a special and high value forest product. They are longer than saw logs and should be harvested before other species so that they are not damaged. For their value to be maximized, they must be handled in the forest and transported to a manufacturing facility by skilled contractors trained in pole manufacturing. Cedar poles have consistently produced higher sale prices relative to other forest products.

Since the IDL began this administrative rulemaking, McFarland Cascade has participated in the preliminary meetings and formal public meetings for negotiated rulemaking and now submits these comments to continue to fully use all administrative options available to raise objections to the IDL proposal.

II. BACKGROUND OF IDL PROCESS

As part of a departmental leadership development program, a small group of IDL personnel worked together on a "capstone project" to review IDL's cedar pole policy and rules. The issue statement for the group's capstone project focused on what it assumed was a perceived problem in IDL's existing policy and rules, which was "two separate timber sales: one to remove the cedar poles and one to remove the rest of the trees from the harvest units." The capstone team's project approach, as stated on page 3 of its report, was that IDL's cedar pole policy and rules required dual entries for harvesting, doubling IDL's work, creating delays between each sale and in regeneration, and allegedly favoring cedar pole companies. The capstone team started work with the assumption that IDL's existing cedar pole policy and rules needed to be changed.

That starting assumption led the capstone project group to recommend as a "solution" (Alternative 4) a combination of delivered product sales and timber sales that would include cedar poles included as a part of regular timber sales. It appears (although IDL's June 17, 2016 draft rule has "details [that] remain to be worked out") that IDL is proceeding in that direction; although dual bidding might be permitted. During the course of negotiated rulemaking, however, IDL representatives stated that delivered product sales would not be possible in the near future, if ever. That creates confusion for us and the public over IDL's proposed direction in this rulemaking. In addition, while the IDL draft of June 17, 2016 provides for High Value Forest Product Sales with two biddable items, one for high value species and one for others, the necessary dual entries to successfully harvest cedar poles are not in IDL's draft rules. The proposed structure will also promote skewed bidding, resulting in a greater disparity between the estimated value of the timber sale in the contract and the actual revenues produced at contract completion.

During negotiated rulemaking, IDL representatives indicated a possible acceptance of "stage logging" but we understand IDL's position on that to be that a single bidder would be required to purchase an entire timber sale at auction and could then itself harvest high value timber (cedar poles) followed by saw logs. If that is IDL's position, it would force bidders at state timber auctions to purchase all species and all products, including those that are not part of the bidder's business and that it does not wish to purchase. Forcing bidders to "buy everything" will reduce the number of bidders and will result in lower prices for state timber by diluting the worth of the state's highest value timber—its pole quality cedar. As explained in Sections V and VI of this letter, such an approach by IDL, even if it includes "stage logging" will reduce the revenue IDL will earn from state timber lands for the support of the state endowments.

IDL's rule proposal of June 17, 2016, is vague and incomplete. And indeed, one IDL representative in the negotiated rulemaking has stated in writing, "Making poles a separate biddable item will not work. Biddable forest products must be required to be removed and accurately estimated and measured. Too speculative. Opens bidding to games." Thus, because of this disagreement even within the IDL negotiating team, and the vague, incomplete status of the current rule draft, McFarland Cascade's ability to comment effectively is limited by uncertainty over IDL's actual direction with the rule.

The capstone team also included in its report a net present value ("NPV") analysis. It asserted the results of its NPV analysis were "clear" and justified its rule revision "solution." McFarland Cascade's comments contain a critique of IDL's NPV analysis by Moss Adams LLP ("Moss Adams"). Please see the Moss Adams opinion letter attached and incorporated in these comments and highlighted in Section VII.

Finally, the capstone team's report stated that "[L]egal council [sic] for the IDL has reviewed the current cedar pole rules and policies and has found that they are likely inconsistent with the IDL's constitutional mandate under Article IX, § 8 to provide for the 'maximum long term financial return' for the endowment beneficiaries." That legal opinion was not made available in this process (assuming it was written) and its supporting bases are unknown to us.

III. A REVISION OF IDL'S RULES FOR SELLING FOREST PRODUCTS FROM STATE LANDS MUST COMPLY WITH THE IDAHO CONSTITUTION

As IDL's capstone team's report recognized, rules for IDL's sale of timber from state-owned endowment lands must satisfy the Constitution's requirement for "the maximum long term financial return" to the state beneficiaries, primarily schools.

IDL's proposed new rule will not achieve the required constitutional mandate. In part, this is because IDL (beginning with the capstone report and continuing in this rulemaking) assumes that dual entry timber sales result in a "near doubling" of IDL's costs and workload and therefore must be avoided. But because cedar poles can generate much higher revenue than other timber products, higher timber sale costs and greater workload for IDL do not alone prove that single entry sales maximize long term financial return to the state endowments. A "doubling" of IDL costs and workload pales in comparison to the revenue that will be lost if IDL's cedar pole program vanishes.

Selling cedar poles in one auction and selling remaining mixed timber species in a second auction can generate higher financial returns. This is illustrated in the Moss Adams NPV analysis attached and incorporated in these comments of McFarland Cascade. But, it should have been understood also by IDL that merely reducing expenses and departmental workload does not necessarily maximize financial return. That is (as the saying goes) "only one side of the ledger." On the other side is gross revenue, and as IDL's capstone team acknowledged, "Cedar is the highest value timber species in northern Idaho, often selling for more than double the value of other species." And cedar poles are the most valuable cedar product, commanding "premium prices" as IDL has noted. So, selling cedar poles in separately identified and auctioned cedar pole sales, even if associated costs and IDL workload are greater, can and should maximize financial return to the endowments.

IDL came into this rulemaking with a pre-determined objective to eliminate "dual entry" timber harvests. That might reduce IDL's workload in timber sales, but it will not maximize financial return to the endowments and, because of that, the rule as proposed is contrary to requirements of the Constitution which require the Land Board to consider only maximum long term financial return to the institution or state [endowments]; not the convenience, departmental efficiency or ease of administration for IDL, particularly where easier administration is likely to result in lower long term returns to the endowments.

IV. <u>ENDING BOARD APPROVAL OF TIMBER SALES MAY DIVEST BOARD AUTHORITY IMPROPERLY</u>

On a similar note, in focusing on what it sees as efficiency, IDL proposes to strike the final sentence of IDAPA 20.02.14.026 providing that "Each individual timber sale will be submitted to the Board for approval prior to advertisement." Without greater clarification from IDL regarding the procedure that would be substituted for Board approval of each sale, it is difficult to determine whether such a change would be an "appropriate procedure" or proper delegation of Board authority that maintains constitutionally required Board control over timber sales from state-owned endowment lands, or instead, an unconstitutional divestiture of Board control. There is also a question of whether IDL has constitutional and statutory authority to eliminate Land Board approval of each timber sale by its departmental rulemaking. McFarland Cascade has an interest in IDL's adherence to constitutionally mandated procedures so that future timber sales on which it will bid are properly approved for sale and properly conducted, so as to not be invalidated.

V. <u>HARVESTING ALL TIMBER SPECIES AT ONCE IN A "SINGLE ENTRY" REDUCES THE REVENUE IDL CAN EARN FROM STATE TIMBER LANDS</u>

IDL started this negotiated rulemaking with a pre-determined preference for "single entry" timber harvests. Not only is that evident in the capstone report, but during negotiated rulemaking sessions, dual entry timber sales were referred to as "DOA" (dead-on-arrival) or a "non-starter" by IDL representatives.

That departmental approach is arbitrary, capricious and would lead to an unconstitutional result, contrary to applicable law.

Throughout the rulemaking thus far, IDL has said it wanted to "get the value of cedar in one, single-entry operation." Repeatedly, the IDL representatives were told that such an approach would not work—by pole companies, saw mills, independent loggers and major forest product company representatives.

The single entry timber harvests favored by IDL force pole companies to buy saw logs and prompt other buyers to value pole quality cedar as if it were saw logs. That will not lead to long term maximum financial return to the endowments. It will push operators out of the state timber market.

Furthermore, merely calling regular timber sales "High Value Forest Product" sales, when they are really just a regular timber sale of all species, does not fix the problem – assuming that there really is one.

Pole quality cedar must be removed separately, by highly skilled loggers to avoid breaks, defects and culls. It must be treated differently in the forest, and it must be harvested first, before other species around it are felled and cause damage to the pole quality cedar timber. IDL's proposed rules do not promote that sound and prudent harvest management approach.

VI. FORCING ALL HARVESTING INTO ONE OPERATION WILL RESULT IN FEWER BIDDERS AT AUCTION AND LOWER PRICES FOR STATE TIMBER.

Forcing all harvesting into one operation will result in fewer bidders at auction and lower prices for state timber. It will favor the few companies that harvest all species as relatively lower priced saw logs. Longer term, this may push the state towards a situation where a few large buyers effectively set the prices in state timber sales.

One-entry saw log harvesters are increasingly the only users of the majority of the timber sale volume. Because such companies cut the whole stand, single-entry bidding will prevent the "actual" pricing information on the value of differentiated, high-value species and products (like cedar poles) from becoming known through competitive bidding. That imbalance may distort the timber sale process through a lack of product-by-product pricing information and, over time, market pricing for high-value species may become less transparent. Even though the specialist (pole company, for example) can internally value a portion of a timber stand higher, this value will never be recognized for the state endowments because the specialist or product differentiating buyers will be forced to dilute the high prices they would pay for something like cedar poles with the general timber sale saw logs IDL is requiring them to buy (and, likely, to resell to one-entry saw log harvesters) under this rule. Alternatively, the cedar pole company will simply not bid in the first place.

Pole (or cedar) sales are a form of the product differentiation that could benefit the IDL. IDL should develop rules that allow for dual entry and for the purchase and harvest of a diversity of timber species and forest products, particularly cedar poles, instead of what it is proposing in these draft rules. It should stratify entries for harvest, selling timber in tranches—first cedar, prioritizing poles, then other mixed species such as fir, larch and pine.

IDL would earn more revenue if it recognized that its customers must differentiate in the marketplace and sell differentiated timber to meet that demand. IDL could have proposed pre-poling or allowed sales for stage logging, but cramming all harvests into a single sale and a single entry will have damaging consequences for Idaho state land revenues.

"Single entry," as contemplated and preferred by IDL, forces buyers to buy what they do not want to buy. That will push prices offered and paid lower. The premium value of pole quality cedar will be diluted because that cedar will be sold as part of a single entry, regular timber sale (even if it's called a high value sale), and state endowments will suffer for that, in the end.

VII. THE NPV THAT IDL INCORPORATED INTO ITS CAPSTONE REPORT IS INCOMPLETE

The attached and incorporated analysis and opinion of Moss Adams found several faults of a material nature with IDL's NPV. First, IDL's NPV analysis failed to use a real price appreciation rate for timber products. Moss Adams demonstrates a substantial financial difference in the outcome of the NPV as a result of including real price appreciation. Second, a discount rate of less than 4% is likely warranted. Third, if IDL acted on its NPV alone, Moss Adams finds that the decreased timber inventory from increased harvesting, re-invested in securities, would likely not optimize financial returns to the endowments. Fourth, IDL employed static rather than dynamic pricing, but historic patterns show price fluctuation that IDL should have modeled. IDL's failure to focus on pricing also results in negative price correlation being overlooked (when price of saw logs are relatively lower, cedar may be relatively higher). This is a shortcoming in IDL's analysis that may undermine its required efforts to maximize returns long term. Finally, IDL failed to quantify losses for harvest breakage in its NPV analysis for single entry harvests. It also failed to develop a strategy for increasing the number of bidders at its auctions. In sum, the IDL NPV is not a comprehensive enough analysis to support the rule change that IDL appears to be proposing. IDL's NPV analysis is leading IDL in the wrong direction in this process.

VIII. THE IDL SHOULD ENCOURAGE (NOT DISCOURAGE) MORE BIDDERS IN ITS TIMBER SALE AUCTIONS

Throughout this rulemaking process, IDL representatives have observed that they would like to have more bidders at their timber auctions. Ironically, the rule IDL is now advancing in this rulemaking is likely to discourage bidding and decrease the number of bidders at auction. IDL representatives have been told to expect fewer bidders with mandatory single entry. Operators drawn from most segments of the state timber markets have made that point to IDL in negotiated rulemaking. Those warnings should not be ignored.

More bidders at auctions would lead to higher prices and greater revenue for the state endowments. See the peer-reviewed journal articles referenced in the Moss Adams analysis that is part of this comment memorandum.

Unfortunately, the rule IDL is advancing will not encourage more bidders at IDL timber auctions because it would force bidders to pursue (bid on) products or species that are not part of their businesses. That will prompt relatively lower bids, or withdrawal from the market. The proposed structure will promote skewed bidding, resulting in a greater disparity between the estimated value of the timber sale in the contract and the actual revenues produced at contract completion. Rather than eliminating its cedar pole program, IDL would do better to improve its auction procedures.

IDL also might correct course by developing the "High Value Forest Products" concept into a meaningful, rule-based provision for two-tier auctions of cedar (or other relatively high value timber) followed by an auction of remaining mixed species, with dual entry harvesting also provided for in the rule to allow for cedar pole harvest to occur first, as they must.

IX. CONCLUSION AND SUMMARY OF MCFARLAND CASCADE'S POSITION

IDL's rule proposal of June 17, 2016, is incomplete and disjointed. It is a draft rule issued by IDL before negotiated rulemaking had progressed to a point that a workable revised rule was emerging. The draft proposal does little more than strike all rules that governed IDL's cedar pole policy without instituting an effective replacement rule. The draft rule will not serve as a basis for IDL to discharge the requisite obligation to achieve maximum long-term financial return for the state endowments. Where there was once a rule-based system for revenue generation through the sale of cedar poles, there is now little more than a new definition for "High Value Forest Products" with no applicability or practical significance.

IDL's proposed rule is headed in the wrong direction. IDL should suspend this rulemaking before it does harm to its revenue earning capability, particularly from high value forest products, particularly cedar poles. During that suspension, the existing 1986 Cedar Pole Policy should remain in place and IDL should re-do its NPV analysis and further study the pre-determined notions that prompted it to propose a rule that effectively would curtail or stop dual-entry harvests of cedar poles before saw logs and other forest products are harvested. If Idaho's cedar pole business were to be harmed by implementation of this rule, it may not recover quickly or at all. IDL, on behalf of the Board, must first do no harm to revenue maximization for Idaho schools.

McFarland Cascade has operated in Idaho for the long run and wants to continue to be part of a genuinely sustainable program in Idaho that wisely uses and regenerates Western Red Cedar, protecting the resource and helping to "secure the maximum long term financial return" to the state endowments, as required by the Constitution. But McFarland Cascade must also have reasonable cedar pole sale procedures written in the IDL rules that our company can rely upon to continue our cedar pole business in Idaho.

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TO: Idaho Department of Lands
Archie Gray, agray@idl.idaho.gov

FROM: Clayton Cafferata, CFA

DATE: June 30, 2016

Re: Moss Adams LLP Review of draft net present value analysis and related positions of the Idaho Department of Lands ("IDL") in connection with its Cedar Pole policy amendment and rulemaking process.

We were asked by McFarland Cascade Holdings, Inc. (MCH) to review the draft recommended changes to the Idaho Department of Lands (IDL) Cedar Pole Policy, dated May 3, 2016 (the "Report").

We focused our attention on the IDL's net present value (NPV) analysis in the Report. There were a number of harvesting scenarios considered and summarized in Table 4 showing that the financially superior scenario is a single entry harvest at age 60. We find several faults with this as follows:

1) The analysis calculates the NPVs in its scenarios utilizing an estimate of current timber prices, discounted by a real discount rate of 4%. We note that per the State of Idaho Title 63, Revenue and Taxation, the guiding discount rate and real price appreciation rate for timber products shall remain constant at 4% and 1.25% respectively, until January 1, 2017. IDL failed to incorporate into their analysis the 1.25% real price appreciation or any real price appreciation. It is my opinion that notwithstanding the statute, a real price appreciation ought to be considered. Applying a real annual growth rate of 1.25% to the stumpage values utilized in the Report significantly changes the results. As an example, in the IDL's dual entry scenario starting at 80 years the IDL's NPV was $54 per acre, whereas if one incorporates real growth of 1.25% to the stumpage the NPV is $941 per acre.

   We also examined stumpage data from IDL and Washington State DNR (WA) in Exhibit 1 which suggests that it may be reasonable to assume that the value of Cedar increases at a higher rate than the values of Douglas Fir and whitewoods. Together, these observations indicate that the stumpage prices at harvest utilized in IDL's timber harvesting analysis should be revisited.

2) The IDL's analysis utilized a discount rate of 4%. As mentioned above, we found a reference to a 4% discount rate in the State of Idaho's Title 63. Further, we reviewed the findings in "Timber Productivity Option's Valuation Method", Schlosser, Jan 1, 2005, Moscow, ID. Schlosser's report based the discount rate on the U.S. 10 year treasury yield, adjusted to remove inflation, and adjusted further to incorporate a 25% risk premium. As we have presented in Exhibit 2, various measures of benchmark rates have declined substantially since 2005. A lower discount rate will likely have the effect of lengthening the financially optimal rotation age due to the mean annual increment, or natural growth in volume of the

stands over time (see Exhibit 3). For example, if natural volume growth is approximately 4% for a stand aged 60 years and the discount rate is now approximately 200 basis points lower than it was in 2005, it could be prudent to let the trees continue growing at 4% per year rather than realize a value based on a reinvestment rate of 2 percent. As indicated above, per Title 63, the guiding discount rate is due to be updated January 1, 2017. These factors indicate the discount rate for IDL's timber harvesting analysis should be reconsidered.

3) The Report considers only its NVP analysis in its determination of financially superior policies. As such, the Report does not appear to consider either the composition (in terms of timber stand ages) of timber stands comprising IDL timberlands, or the composition of assets within the Endowment fund's portfolio. Though we do not have more detailed information about the timber stand ages comprising IDL timberlands, we have the Endowment fund's asset allocation as of June 30, 2014, as presented in table 4 on page 27 of Callan's "Asset Allocation and Governance Review", Idaho Board of Land Commissioners, November 24, 2014.

Asset Class	Allocation ($ mm)	Allocation (%)
Domestic Equity	902	30
International Equity	349	12
EFIB Fixed	469	16
IDL Timberland	1,152	39
IDL Grazing Land	61	2
Cash	17	1
Total	2,949	100

One of the main findings in this report was

> *In all asset mixes IDL timberland has an allocation at least as large as its existing allocation. Consequently, we would not recommend reducing the overall timber portfolio.*

If IDL acted to maximize returns based on its NPV analysis alone, then stands over the age of 60 would be harvested which would increase the level of harvest activity and decrease the value of the remaining inventory of timber. As these stands were harvested and the proceeds invested in stocks, bonds and other alternative investments, the composition of the Endowment fund's portfolio of assets would likely materially shift away from IDL Timberland. Additionally, the sustainable harvest level may be significantly reduced due to the lower timber stand Mbf per acre at rotation. These suggest that the Report's NPV results should not be considered in isolation, but rather in the context of the Endowment's portfolio of assets.

4) The IDL's NPV analysis relies on the attainment of static prices and conditions. We have presented historical stumpage pricing data from both IDL and WA in Exhibit 1 which illustrate that it is not uncommon for prices to vary more than 10% annually and that there appears to be evidence of negative correlations between Cedar Pole prices and other saw log prices (see Exhibit 4). Such price variations present the potential to realize superior financial returns through delayed harvests or dual-entry harvests. Or, alternatively, failure to recognize such price variations may result in failure to achieve the expected returns. On Exhibit 5 we have presented an example whereby a superior return is obtained by employing a dual-entry harvest based on historical pricing. On Exhibit 6 we have presented an example showing a superior return via dual-entry harvest based on reasonable adjustments to IDL's NPV assumptions to address pole recovery and prices during single entry harvests. This suggests the IDL ought to revisit their stumpage price and recovery assumptions.

5) The IDL's NPV analysis does not address its existing inventory. As discussed above, a component of the IDL timberlands are currently older than 60 years. Further, based on a presentation on the matter by the IDL during a public meeting in May, 14% of the timber stand volume is Cedar. However, currently the IDL's pole harvest targets 1.5% of the timber stand volume. To ascertain the financially superior alternatives, the IDL would need to consider the constitution of its current stand inventory and current and expected prices. It may be the case that the current target pole harvesting level is suboptimal.

6) The IDL's NPV analysis is incomplete insofar as it makes no attempt to quantify the impact of alternative methods that could be employed to attract additional bidders to the timber auctions. The Report raises the issue of timber industry consolidation and declining numbers of potential bidders participating in IDL's timber auctions. There has been much research into auctions and auction theory (and evidence) generally supports the notion that seller revenues increase with increasing numbers of bidders[1,2,3,4]. We previously highlighted

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[1] Sendak, Paul, E. July 1991. Timber Sale Value as a Function of Sale Characteristics and Number of Bidders. United States Forest Service Research Paper NE-657.
[2] Preget, Raphaële, Waelbroeck, Patrick. August 2010. What is the Cost of Low Participation in French Timber Auctions? Laboratoire Montpelliérain d'Economie Théorique et Appliquée.
[3] Goeree, Jacob, K., Offerman, Theo. November 1999. Competitive Bidding in Auctions with Private and Common Values. Journal of Economic Literature, C72, D44.

stumpage data from IDL and WA in Exhibit 1 and believe this data also suggests that the IDL's current auction process may be resulting in lower Cedar stumpage values than those achieved by WA. Based on conversations with administrators of the Washington State DNR's timber sales program, WA uses sort sales to extract higher bids when stands contain high value timber such as Cedar saw logs or Cedar poles. Their rationale can be summarized as follows:

a. Many mills are species or product specific and are more likely to bid on individual sorts than an entire sale;

b. Smaller purchasers may be precluded from bidding on regular sales because they do not have the capital for a sale appraised at over a million dollars;

c. Related to that is if a smaller purchaser wins a regular stumpage sale they have to work to sell the other species to other mills.

We were provided WA timber sale auction results for the period from June 2015 through May 2016 which showed more than twice the number of bidders on sort sales, on average, over the period. It is worth noting that the actual number of bidders on the sort sales was higher as the data provided was limited to names of successful bidders on at least one sort. A superior return may be achievable through some change in the manner in which high value timber is marketed by the IDL.

Clayton Cafferata, CFA
Senior Manager
For Moss Adams LLP

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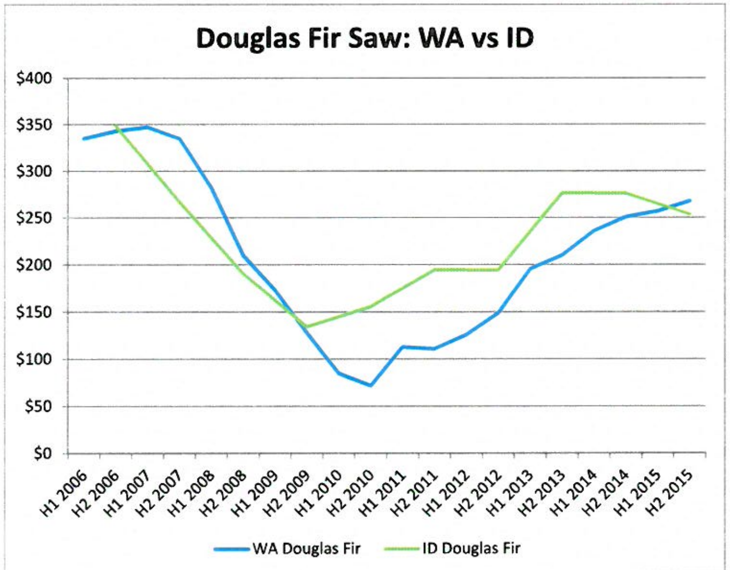
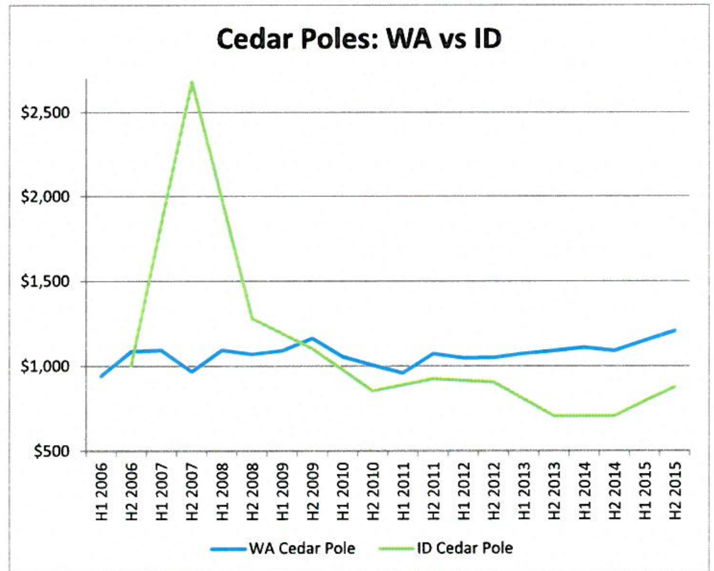
[4] Athey, Susan, Levin, Jonathan, Seira, Enrique, 2011. Comparing Open and Sealed Bid Auctions: Evidence from Timber Auctions. The Quarterly Journal of Economics 126, 207-257.

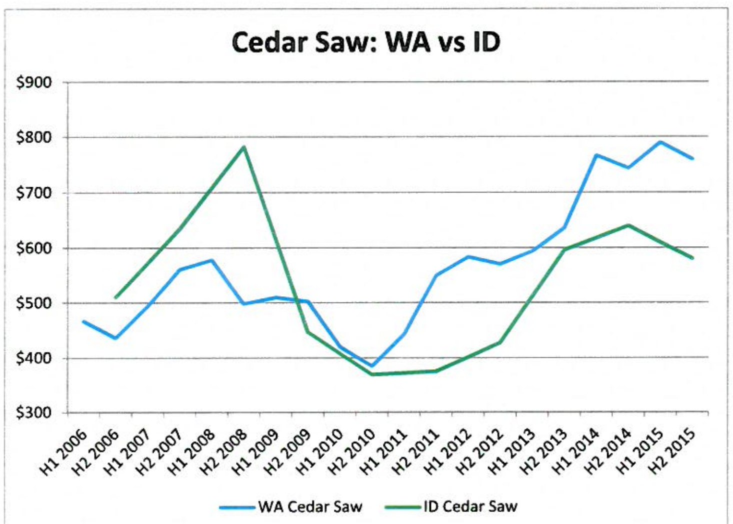
Exhibits

EXHIBIT 1

STUMPAGE COMPARISONS - WA vs ID







Due to data limitations, WA Cedar is SVA 1-5, westside scale converted to eastside scale based on a factor of 0.80. WA Douglas Fir is SVA 6/7.

It appears there is a significantly larger gap in Cedar prices between WA and ID.

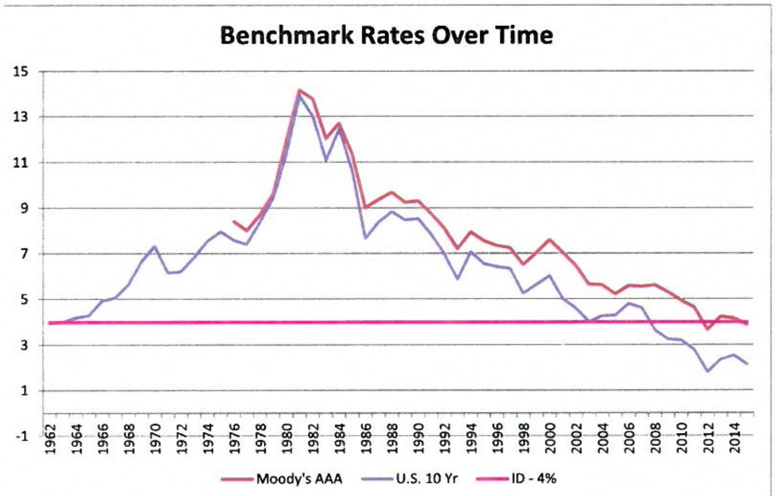
Over the period shown, WA Cedar Saw +68% whereas ID Cedar Saw +14%

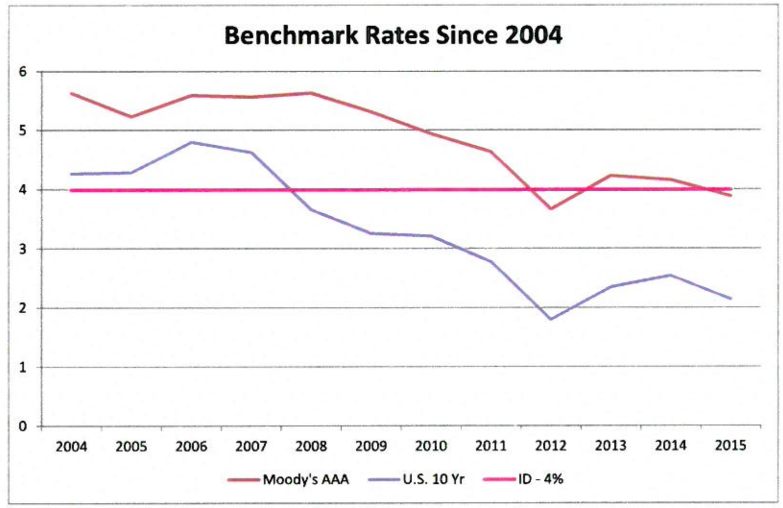
Over the period shown, WA Cedar Pole +28% whereas ID Cedar Pole -13%

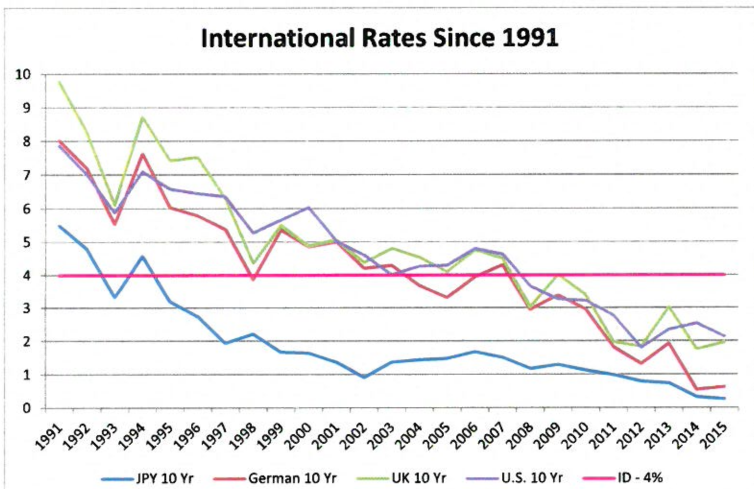
EXHIBIT 2

DISCOUNT RATE INDICATORS

Per Timber Productivity Option's Valuation Method (Schlosser, Jan 1, 2005, Moscow, ID)
Discount rate is based on the U.S. 10 year treasury rate, adjusted to remove inflation, and adjusted to incorporate 25% risk premium
Set in 2005 @ 4%







The benchmark indicators suggest the 4% discount rate determined in 2005 should be revisted.

Title 63 says the 4% discount rate and 1.25% real appreciation will remain in effect until Jan 1, 2017.

EXHIBIT 3

DISCOUNT RATE IMPACT ON ROTATION AGE

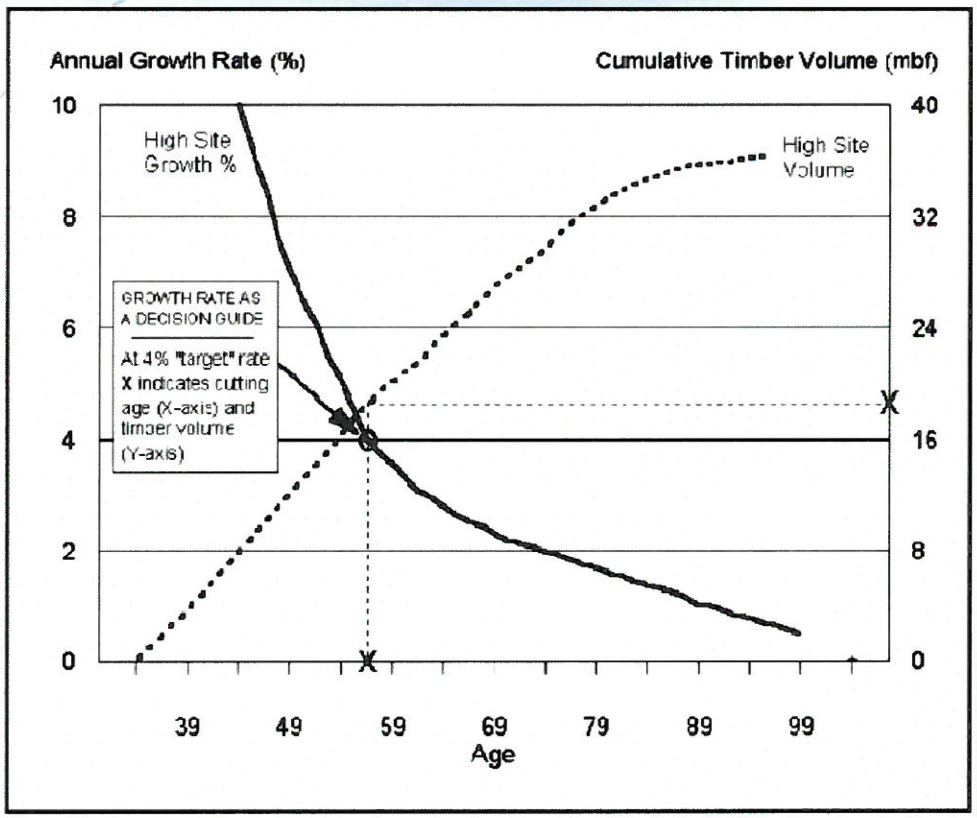


Figure 4-6. Annual growth rate as a timber harvesting decision guide, high-site lands, Idaho Department of Lands Clearwater region.

Note: This decision guide is a first approximation because the dollar value difference by age class is unknown. A more accurate financial decision model would use value growth, not just volume growth.

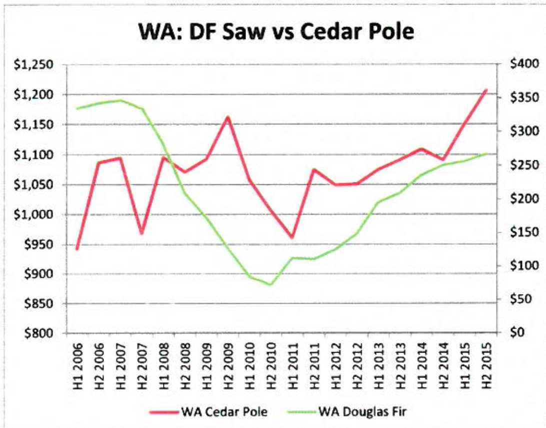
Policy Analysis Group – College of Natural Resources

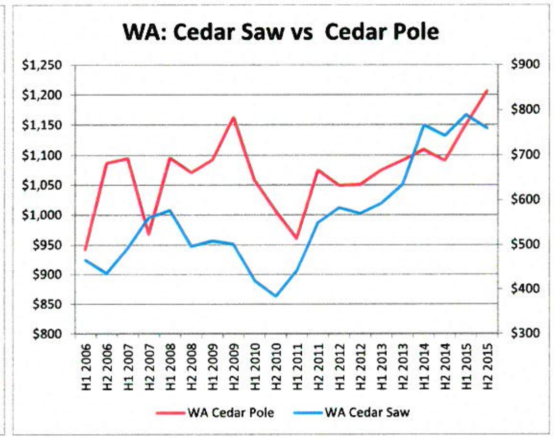
University of Idaho
Open Space. Open Minds.

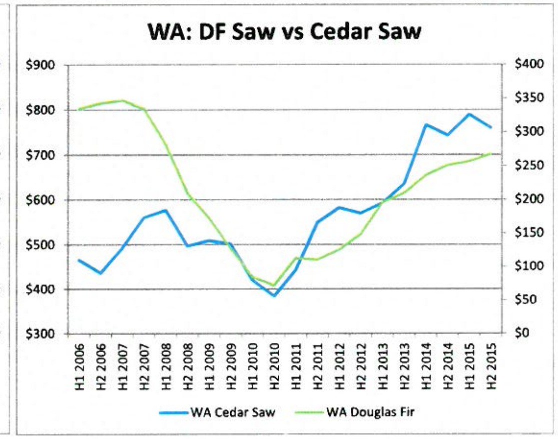
Source: ***Idaho's State Lands: Establishing an Asset Value***, Jay O'Laughlin, Professor, Dept. of Forest Resources, University of Idaho, Western Forest Economists Session on Valuing Public Lands, May 8, 2007.

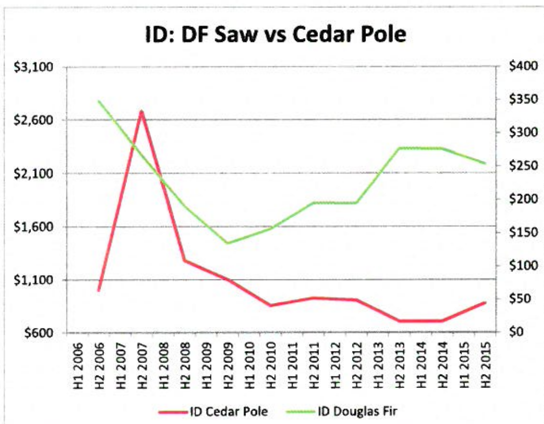
EXHIBIT 4

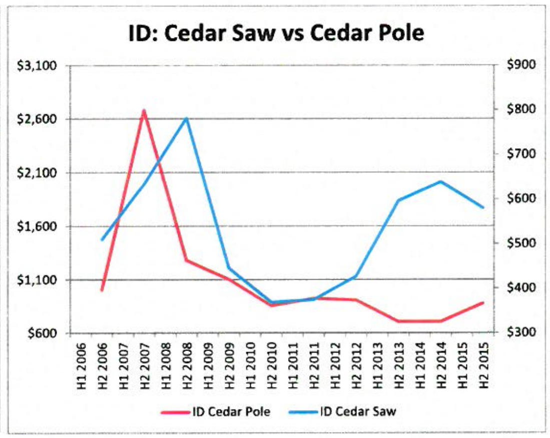
STUMPAGE COMPARISONS - CEDAR POLE vs SAWLOGS

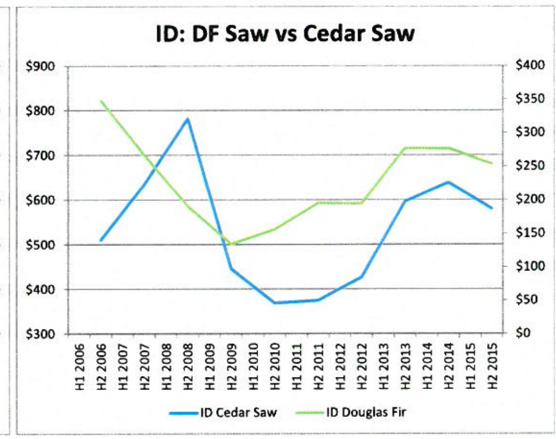












It appears there is some negative correlation between sawlog prices and pole prices, both in ID and WA.

It appears it is common for double digit percentage price changes from year-to-year.

EXHIBIT 5

HISTORICAL EXAMPLES WHERE DUAL ENTRY WOULD BE FINANCIALLY SUPERIOR

	ID Douglas Fir	ID Cedar Saw	ID Cedar Pole
2006	$348	$510	$1,004
2007	$267	$634	$2,682
2008	$190	$782	$1,280
2009	***$134***	***$447***	***$1,103***
2010	$156	$369	$855
2011	$195	$375	$925
2012	$194	$427	$907
2013	$276	$596	$707
2014	***$276***	***$639***	***$707***
2015	$253	$580	$878

Scenario: Pole sale in 2009, followed by sawlog sale in 5 years

Treatment	Time	Stand Age	Mbf/ acre	Stumpage Value (at harvest)	Gross Revenues (Expenses)	Tax Rate	Net	PV Factor	Present Value
Sawlogs in Pole Sale	0	80	7.5	$114.01	$855.08		$855.08	1.000	$855.08
Poles	0	80	7.5	$1,103.00	$8,272.50		$8,272.50	1.000	$8,272.50
Sawlogs in follow up sale	5	85	15.0	$276.00	$4,140.00		$4,140.00	0.822	$3,402.78
Site Prep	6	0			-$119.00		-$119.00	0.790	($94.05)
Plant	7	1			-$150.00		-$150.00	0.760	($113.99)
PCT	22	15			-$180.00		-$180.00	0.422	($75.95)
Poles	67	60	5.0	$800.25	$4,001.25		$4,001.25	0.072	$289.04
Sawlogs	67	60	20.0	$302.15	$6,043.00		$6,043.00	0.072	$436.53
Total									**$12,972**

Scenario: Single Entry Sale in 2009

Treatment	Time	Stand Age	Mbf/ acre	Stumpage Value (at harvest)	Gross Revenues (Expenses)	Tax Rate	Net	PV Factor	Present Value
Sawlogs	0	80	22.5	$134.00	$3,015.00		$3,015.00	1.000	$3,015.00
Poles	0	80	7.5	$1,103.00	$8,272.50		$8,272.50	1.000	$8,272.50
Site Prep	1	0			-$119.00		-$119.00	0.962	($114.42)
Plant	2	1			-$150.00		-$150.00	0.925	($138.68)
PCT	17	15			-$180.00		-$180.00	0.513	($92.41)
Poles	62	60	5.0	$800.25	$4,001.25		$4,001.25	0.088	$351.66
Sawlogs	62	60	20.0	$302.15	$6,043.00		$6,043.00	0.088	$531.11
Total									**$11,825**

Notes:

-All assumptions other than stumpage for current harvest are based on table 4 in the Capstone Project draft Cedar Pole Policy dated Ma

-In the Dual-Entry scenario, the stumpage value for the sawlogs in Pole Sale were reduced 15% to be consistent with table 4.

EXHIBIT 6

RECOVERY & STUMPAGE PRICE EXAMPLES WHERE DUAL ENTRY WOULD BE FINANCIALLY SUPERIOR

Scenario: Pole sale followed by sawlog sale in 3 years

Treatment	Time	Stand Age	Mbf/ acre	Mbf/ acre loss in recovery	Net Recovered Mbf/acre	Stumpage Value (at harvest)	Gross Revenues (Expenses)	PV Factor	Present Value
Sawlogs in Pole Sale[1]	0	80	7.5	0%	7.5	$256.83	$1,926.21	1.000	$1,926.21
Poles	0	80	7.5	0%	7.5	$851.94	$6,389.55	1.000	$6,389.55
Sawlogs in follow up sale	3	83	15.0	0%	15.0	$302.15	$4,532.25	0.889	$4,029.15
Site Prep	4	0					-$119.00	0.855	($101.72)
Plant	5	1					-$150.00	0.822	($123.29)
PCT	20	15					-$180.00	0.456	($82.15)
Poles[2]	65	60	5.0	15%	4.3	$800.25	$3,401.06	0.078	$265.73
Sawlogs[2]	65	60	15.0	-5%	15.8	$302.15	$4,758.86	0.078	$371.82
Total per Acre									$12,675

Scenario: Single Entry Sale

Treatment	Time	Stand Age	Mbf/ acre	Mbf/ acre loss in recovery	Net Recovered Mbf/acre	Stumpage Value (at harvest)	Gross Revenues (Expenses)	PV Factor	Present Value
Poles[1,2]	0	80	7.5	15%	6.4	$724.15	$4,616.45	1.000	$4,616.45
Sawlogs	0	80	22.5	-5%	23.6	$302.15	$7,138.29	1.000	$7,138.29
Site Prep	1	0					-$119.00	0.962	($114.42)
Plant	2	1					-$150.00	0.925	($138.68)
PCT	17	15					-$180.00	0.513	($92.41)
Poles[2]	62	60	5.0	15%	4.3	$800.25	$3,401.06	0.088	$298.91
Sawlogs[2]	62	60	15.0	-5%	15.8	$302.15	$4,758.86	0.088	$418.25
Total per Acre									$12,126

1. Assumes 15% lower price realized for sawlogs in Pole sale (dual entry) and Poles in sawlog sale (single entry).
2. Assumes 15% of Pole volume is lost (shifted) to sawlog volume during a single entry harvest. There is no net loss in volume assumed.