

Cedar Pole Policy

Capstone Project, Leadership Development Program

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Introduction

The Idaho Department of Lands (IDL) launched its first Leadership Development Program in 2014. As part of the program, participants with diverse backgrounds were divided into small groups and given a capstone project/problem to work on during the course of the program, which was approximately eighteen months. Each group was assigned a mentor from the agency's executive team. David Groeschl, Deputy Director for Forestry and Fire, is the assigned mentor for this team.

The Capstone Team for the Cedar Pole Policy Project consists of Archie Gray, Sale Administration and Scaling Program Manager ; Jay McCoid, IT Project Manager; Julia Sullens, South Idaho Fire Liaison Program Manager; and Wendy Walter, Fire Business Program Manager.

The purpose of the cedar pole capstone project was to review the current cedar pole rules and policy and analyze their environmental, operational, and financial impacts and make recommendations for rule changes.

Project Approach

As noted in the issue statement found in Appendix A, if a timber sale meets the appropriate criteria of cedar pole density in a yarding area, then according to IDAPA 20.02.14, Rules for Selling Forest Products on State-Owned Endowment Lands, the cedar poles shall be reserved and sold separately as a pole sale.

This policy often results in an additional entry on the same ground: one to first remove the cedar poles, and then a subsequent one to complete the silvicultural prescription. This policy of conducting an additional timber sale on the same piece of land results in several adverse impacts. For this project, the Capstone Team condensed this into our Problem Statement:

- The current cedar pole policy often requires an additional timber sale on the same ground which,
 - Doubles sale preparation and administrative costs
 - Delays regeneration
 - Damages residual stand
 - Increases site disturbance
 - Favors one sector of industry

The costs associated with sale preparation and administration (including reconnaissance, designating boundaries, cruising, road maintenance, etc.) is essentially doubled. The time it takes to have an additional timber sale on the same land results in delays in regeneration and rotation of the stand. The additional sale results in more stand damage and site disturbance. In addition, the current cedar pole policy favors one segment of the forest products industry by providing a guarantee that the department will produce a set volume, of a very specific product, each year, and no other segment of the timber industry in Idaho is entitled to such a guarantee.

Goal

After drafting the cedar pole problem statement, the, the Capstone Team created an Objective Statement:

Achieve maximum financial return from the sale of forest products, including cedar poles, for the beneficiaries in the most efficient and operationally sound manner, while minimizing environmental impacts.

Information Gathering

To understand the impact of the current cedar pole policy, the Capstone Team compiled lists of questions targeting different stakeholders: industry stakeholders, internal Department stakeholders, and Forestry / Natural Resource Departments in other states. These lists of questions were presented as surveys which were sent out to the various stakeholders, or used as the basis for interview questions by the Capstone Team. The results of the surveys and interviews are summarized below in Findings.

In addition to the surveys and interviews, in January, 2015, Capstone Team members visited a pole manufacturing facility (Stella Jones) in Juliaetta, Idaho, and observed a cedar pole sale auction at the IDL office in Deary, Idaho. At the pole yard we were able to meet various Stella Jones staff members and observe how cedar poles are manufactured, graded, and stored. While attending the auction, Capstone Team members talked with the IDL foresters responsible for setting up the sale, and were able to observe the auction process.

Background

History

Western redcedar (*Thuja plicata*), which is known locally simply as cedar has long been a high-value product in the Northwest because of its unique physical and biological characteristics. It was used in many ways by Native Americans for clothing, lodging, and transportation (canoes). Cedar is the highest value timber species in northern Idaho, often selling for more than double the value of other species.

Cedar's physical characteristics include a significant resistance to decay resulting in its use in outdoor applications such as fencing, decks, siding, and roofing. This same characteristic makes cedar a prized species for use as utility poles. As the popularity of cedar for building increased it also became more widely used in the expanding utility pole business resulting in its value increasing dramatically over time. In the 1980s the availability of larger cedar trees better suited to pole production began to decrease as the USDA Forest Service (USFS) sold significantly less timber.

To grow cedar large enough to make poles requires a much longer rotation than sawlogs. The timber industry and state tend to manage their lands to maximize financial returns. This results in shorter rotations which are less suitable to pole production. Starting in the 1980s the number of pole production facilities began to diminish significantly. Currently, Idaho has two cedar pole companies remaining. While there is still a significant demand for cedar poles, it has lessened some as alternative pole sources have become more economical.

Prior to WWII there was a small but growing market for cedar poles in the US. Following WWII there was a huge increase in the demand for poles as people migrated to suburbs and the new infrastructure needed to be added. In the early 1950s the demand was great enough that the IDL adopted an informal policy that all pole-quality cedar should be manufactured into poles. This led to some significant issues during timber sale administration in that poles had to be reserved on timber sales. This was especially complicated during road construction operations. This policy effectively precluded sawlog and veneer companies from bidding on pole-quality cedar.

In the early 1970s the sawlog industry requested that the IDL eliminate the mandatory manufacture of cedar poles on right-of-way material easing the burden of pole production during road construction. During this same timeframe, environmental and political pressures on the timber industry began to intensify resulting in constraints on harvest practices and reducing the availability of cedar. By the late 1970s sawlog and veneer companies requested that the IDL allow them to purchase pole-quality cedar. On February 22, 1980, after extensive and contentious negotiations, the Idaho State Board of Land Commissioners (Land Board) formally adopted the policy of reserving pole-quality cedar material for pole sales, and to sell them on a lineal foot basis only. Sawlog companies could purchase these sales; however, they had to manufacture the pole-quality cedar trees into cedar poles.

This policy remained in effect until May 14, 1985, when the IDL asked the Land Board to consider changing the policy regulating selling cedar poles. After lengthy and sometimes heated debate between the pole companies and the sawlog companies, a compromise was proposed and adopted by the Land Board on February 11, 1986. The Land Board then directed the IDL to offer a minimum of 20,000 cedar poles for sale per year. This quota and Land Board policy remain in effect today.

Current Policy

The Cedar Pole Policy (complete policy found in Appendix B) as it is currently being implemented by the IDL states:

The State Board of Land Commissioners directed the department, on February 11, 1986, to provide cedar pole-quality timber as a portion of the annual timber sales program. All supervisory areas growing cedar are responsible to help the Idaho Department of Lands (IDL) meet that commitment. The IDL will provide at least 20,000 cedar poles as part of the annual timber sales program. The actual number of cedar poles each area will provide each year will be negotiated with the Bureau. These sales shall be clearly identified as pole sales by using the word "pole" in the sale name. For example, "Cottonwood Creek Pole."

This policy is the compromise agreed to by the sawmill and pole industries in 1986. Since that time, the IDL has sold more than the policy minimum of 20,000 poles per year. However, current land management strategies and market trends are making the continued implementation of the policy less practical or economical. Shorter rotations and less competition for specialized products are making it difficult to justify maintaining the current policy. There are two pole companies in Idaho and there have been pole sales that have a single bidder, resulting in the sale going for the minimum bid. This reduced level of competition makes the current pole policy ineffective in current market conditions.

In order to implement the cedar pole policy the IDL has adopted rules that can be found in IDAPA 20.02.14, Rules for Selling Forest Products on State-Owned Endowment Lands (see full text of Rules in Appendix C).

Findings

Surveys

The surveys and interviews that the Capstone Team conducted in early 2015 provided insight into the policies of neighboring states as well as the thoughts and opinions of industry and internal personnel. Some conclusions derived from the surveys and interviews follow:

The states that responded to the questions indicated that they do not have a separate policy or rules regarding cedar poles. Poles are included in their regular timber sale process.

In general the pole companies were very much in favor of continuing the current pole policy and claim that poles provide a significant value advantage over cedar sawlogs. Sawmills view the current policy as providing a competitive advantage to a single component of the industry preventing their access to the material. Cedar pole companies felt that the additional entry to generate poles had a minimal financial and environmental impact while other producers and purchasers seemed to find greater risk associated with the practice. The respondents mostly agreed that it would be beneficial to be able to complete the harvest without the need of a separate pole sale but that this would present its own challenges related to ensuring the maximum value of products was generated and that the logger may lack the skills and experience to produce those products efficiently. There was also agreement that there has been and likely will continue to be consolidation, not just within the pole industry but the timber industry in general. There was some mention of the idea of using delivered product sales to help create opportunities to produce poles and possibly capture more value from other products as well.

The requirement to provide a separate and distinct “pole sale” in addition to the ordinary silvicultural entries was unpopular in the surveys and interviews with the IDL staff. Occasionally, a cedar pole sale can be utilized to help achieve a step in a shelterwood or seed tree system which can result in minimal impacts but often there is a separate entry associated with the removal of poles that would not be part of a silvicultural system. Operationally, the extra sale results in a near doubling of the costs, workload, and environmental impacts over a single entry. It is also widely agreed that an extra entry adds at least 6-10 years of delay to the establishment of a new stand and significantly affects log quality and costs of additional harvests. IDL foresters also recognize the consolidation within the industry and believe it will begin to have an impact on cedar poles as well as other markets. There seems to be some support for the establishment of a delivered log program among IDL staff as well.

It has been found that occasionally a cedar pole sale can be used to fulfill a silvicultural prescription within a seed tree or shelterwood system but that more often the sale is created in addition to the requirements of the preferred system. When the sale is silviculturally unnecessary, it adds another entry, delays establishment of the next stand, increases impacts to the site, and adds substantial cost that negatively affects returns.

Sites that are capable of growing cedar are among the most productive sites. These highly productive sites are managed using rotations that will typically take less than 60 years to grow a stand to suitably marketable sawlog specifications. These younger stands may yield a few smaller poles but will not likely yield the larger poles that often take 80 years or more to grow. If the IDL were to extend the rotation ages to achieve the growth necessary to grow larger poles, it would not be meeting its mission to maximize the return to the endowments.

Economic Impacts

The Sawlog Component of Cedar Pole Sales

In order to meet the current cedar pole policy, cedar pole sales have to be sold separately from sawlog sales so that the sawlog component does not exceed the limit in rule of fifty percent of the volume for the sale. This results in an additional timber sale occurring on the same ground. In most cases it makes more sense to offer a pole sale first to prevent the poles from being damaged by the sawlog harvest. This can result in more sawlogs being harvested than are allowed under rule but it is often unavoidable in sale design. One other issue with the sale of pole sales is that the sawlog component is often undervalued because the pole companies have been clear that they prefer not to be in the business of marketing sawlogs from pole sales.

Often when pole companies purchase cedar pole sales they end up paying appraised rates for the sawlog component of the sale, which ends up being 15 to 20 percent below market value. These prices are generally considerably lower than they would be in a sawlog sale where they would be bid upon. The theory has been that the premium paid for the poles should be enough to offset the losses associated with what should be a relatively minor sawlog component. This sometimes is not the case and the low stumpage for the sawlogs may not be offset by the premium paid for the pole component. The IDL has recently begun using Transactional Evidence Appraisal Methods which has offered some relief from the undervalued sawlog component of pole sales. In Transactional Evidence Appraisals the department uses recent auction results to set minimum bid rates for timber rather than using formulas based on delivered log prices.

Doubling the sale prep and admin costs

In most cases a cedar pole sale is set up in addition to the timber sales that would have been used to achieve the silvicultural objectives of the system being employed. To set up the cedar pole sale the Forester-in-Charge (FIC) will have to perform a reconnaissance, design and implement a cruise, roads will need to be built or opened, boundaries established, trees marked, appraisal of the sale completed, and the auction conducted. The sale will likely have a three to five year term, during which, the FIC will administer the sale. After the sale is completed the area will have to be re-evaluated and added back into the sale plan as a sawlog timber sale, this could take several years. Then the FIC can start the whole sale preparation over again; the new sawlog timber sale will have to be cruised again, roads opened or maintained, the sale may have to be marked again, there are likely new boundaries to be established or old ones to be refreshed, and a new appraisal must be completed before the sawlog sale can be sold, again with a three to five year term. The requirement to sell cedar poles separately from sawlogs results in a nearly complete duplication of efforts related to sale preparation efforts and costs.

Impacts of Delays from Additional Pole Sale on Stand Replacement

The requirement to have a separate pole sale adds a minimum of six years, usually more like ten years to the rotation of a stand of timber. Unless a cedar pole sale fits neatly into the forester's intention to use a seed tree or shelterwood

system to regenerate the stand it will result in a delay in the establishment of the new stand. This occurs because any regeneration that may have established between the times of the two sales will likely be destroyed during the second entry. The use of two sales therefore, sets back the establishment of a new stand by about ten years, sometimes significantly longer.

Figure 1 below shows the impacts of a ten year delay in the establishment of the next stand of timber. Under this simplified scenario, with a ten year delay in establishment, four rotations of sawlogs can be grown in the time it takes to grow three with small poles and two and a half rotations of medium poles.

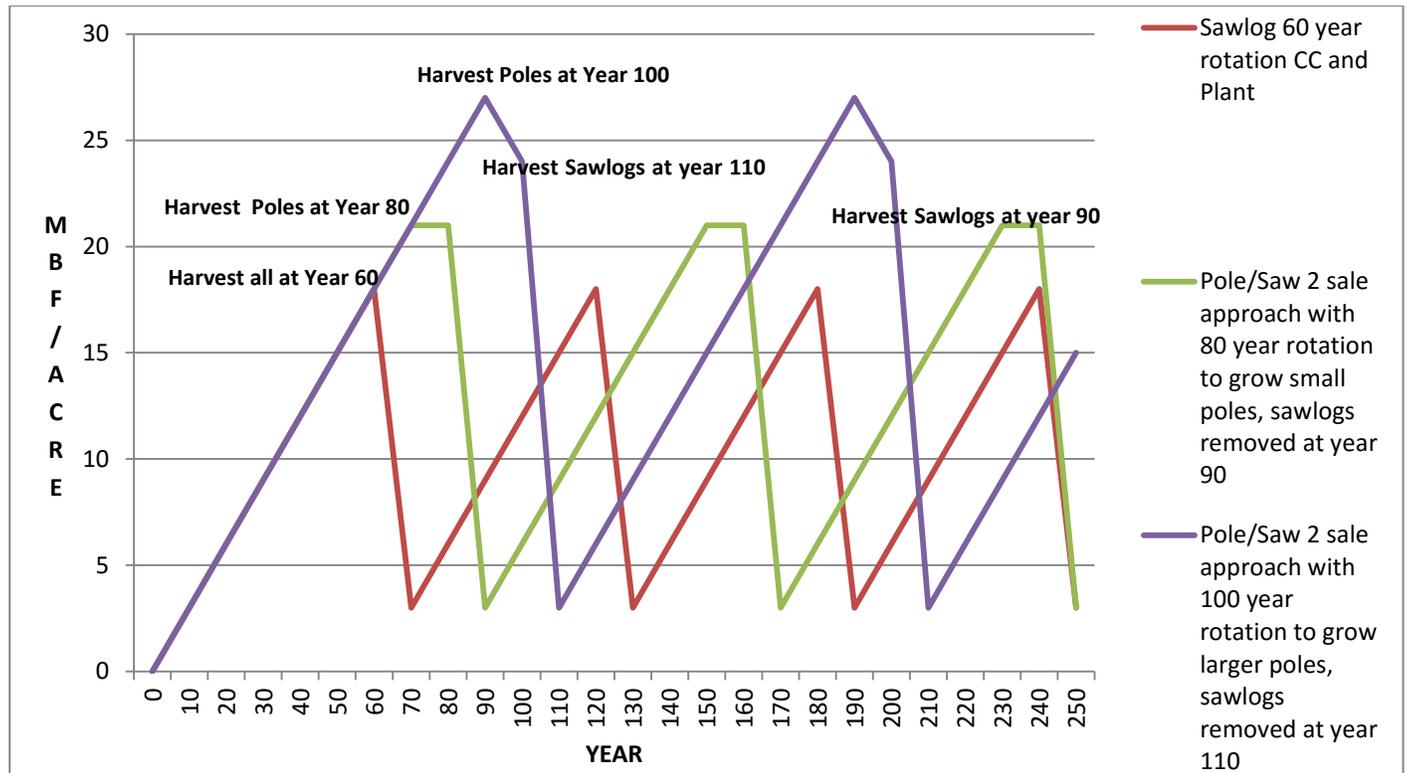


Figure 1. Delay of Establishment of the Next Timber Stand

Actual vs. Perceived Value of Poles

In IDAPA 20.02.14.024.05 Length to Volume Conversion Table for Western Red Cedar Poles: (Appendix C:) there is a table that establishes by rule the Scribner board foot volume that is assumed to be in each length of pole. This rule creates substantial problems related to the valuation of poles. Specifically, it substantially underestimates the Scribner

board foot volume in most length classes of poles. IDL has done studies to estimate the actual Scribner board foot volume of poles. The results of a 2014 study are shown in Table 1 below, the data were collected from both Juliaetta and Sandpoint during 2014. Historically, pole companies have been able to apply bid premiums to length categories in a manner that often resulted in skewed values for certain pole lengths. Many of these issues were recently addressed with changes in contract language but the impacts of the unregulated application of overbid can still be seen in the results shown in the table. While the results could vary over time, depending upon the market prices for favored pole lengths, the overall premise remains the same that on average the value of poles are substantially overstated when using the volumes set by the rule.

Table 1: State of Idaho Pole Volume Comparison

"STATE OF IDAHO POLE VOLUME COMPAIRSON"

POLE LENGTH	# of Poles Measured	Actual Scaled Volumes (Scribner)			BF Vol per pole by Rule	BF Vol per pole by Rule as a %
		HIGH VOLUME	AVERAGE VOLUME	LOW VOLUME		
30	75	100	64.40	30	50	77.64%
35	75	150	90.93	50	70	76.98%
40	75	200	112.00	60	101	90.18%
45	100	270	179.10	120	161	89.89%
50	100	380	233.00	140	239	102.58%
55	100	540	298.70	170	261	87.38%
60	75	590	675.71	150	304	44.99%
65	100	720	463.20	210	418	90.24%
70	100	910	581.10	360	462	79.50%
75	100	1100	729.00	370	512	70.23%
80	100	1260	817.80	450	595	72.76%
85	100	1510	1024.90	690	736	71.81%
90	66	1710	1160.91	750	792	68.22%
95	15	1740	1374.67	950	892	64.89%

Cedar poles are sold using linear feet instead of board-foot volume. The rule sets the conversion to board foot measurement. Table 2 below uses the average price per linear foot that has been paid for poles on IDL sales for the last three years (3/31/13 thru 3/31/16) to calculate the dollars per thousand board feet (MBF) using the rule volume. To come up with a more accurate average price, the linear feet of delivered volume during that time period is used to calculate the weighted average price for poles for the past three years:

Table 2: Pole Price Calculator (Rule)

Pole Price Calculator (Rule)

POLE	Avg. Price	Price per pole	BF Vol per	\$/MBF using	Linear Ft	% of LF	Weighted Avg. Price
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LENGTH	Per Lin Ft	using \$/Lin Ft	Pole by Rule	Rule vol	2013-16		/MBF
35	\$1.69	\$59.15	70	\$845.00	433160	14.3%	\$120.68
40	\$1.96	\$78.40	101	\$776.24	440280	14.5%	\$112.68
45	\$2.69	\$121.05	161	\$751.86	537750	17.7%	\$133.30
50	\$4.04	\$202.00	239	\$845.19	383050	12.6%	\$106.74
55	\$4.26	\$234.30	261	\$897.70	303820	10.0%	\$89.92
60	\$4.34	\$260.40	304	\$856.58	349560	11.5%	\$98.72
65	\$6.06	\$393.90	418	\$942.34	269230	8.9%	\$83.65
70	\$6.35	\$444.50	462	\$962.12	152670	5.0%	\$48.43
75	\$6.28	\$471.00	512	\$919.92	67875	2.2%	\$20.59
80 +	\$8.78	\$702.40	595	\$1,180.50	95710	3.2%	\$37.25
TOTALS	NA	NA	NA	NA	3033105	100.0%	\$851.94

The weighted average price for poles of \$851.94/MBF would indicate a substantial price premium compared to the price of cedar sawlogs during the same time period which was \$603.79/MBF, however, the price for poles is based on the board foot volumes established by the rules not actual calculated volumes. When the calculation is done using actual scaled board foot volumes the Actual Weighted Average Price per MBF is very different:

Table 3: Pole Price Calculator (Scaled)

Pole Price Calculator (Scaled)

POLE LENGTH	Avg. Price Per Lin Ft	Price per pole using \$/Lin Ft	BF Vol per Pole Scaled	\$/MBF using Scaled Vol	Linear Ft 2013-16	% of LF	Weighted Avg. Price /MBF
35	\$1.69	\$59.15	90.93	\$650.50	433160	14.3%	\$92.90
40	\$1.96	\$78.40	112.00	\$700.00	440280	14.5%	\$101.61
45	\$2.69	\$121.05	179.10	\$675.88	537750	17.7%	\$119.83
50	\$4.04	\$202.00	233.00	\$866.95	383050	12.6%	\$109.49
55	\$4.26	\$234.30	298.70	\$784.40	303820	10.0%	\$78.57
60	\$4.34	\$260.40	675.71	\$385.37	349560	11.5%	\$44.41
65	\$6.06	\$393.90	463.20	\$850.39	269230	8.9%	\$75.48
70	\$6.35	\$444.50	581.10	\$764.93	152670	5.0%	\$38.50
75	\$6.28	\$471.00	729.00	\$646.09	67875	2.2%	\$14.46
80 +	\$8.78	\$702.40	817.80	\$858.89	95710	3.2%	\$27.10
TOTALS	NA	NA	NA	NA	3033105	100.0%	\$702.36

When actual scaled volumes are used to calculate average price per MBF of poles, most of the competitive pricing advantage that poles are thought to have is eliminated. There is still a price premium associated with poles but it is much less than is often thought. This pricing advantage that pole companies receive from the rule is one of the competitive advantages that sawmills said prevents them from being able to bid on pole sales.

Net present value calculations

One way of looking at the difference in financial returns among different management regimes over time is to evaluate the net present value (NPV) of an acre of timberland under each management regime. To make this comparison table 4 shows the NPV of an acre of forestland under a number of different management regimes in order to demonstrate the effects of various systems and marketing/management decisions. A simple spreadsheet was used to calculate NPV. To help keep the analysis as simple as possible a clear-cut and replant scenario is used in the NPV calculations. The NPV analysis contains a number of other assumptions that are listed below.

Common Economic Assumptions for the scenarios:

- Assumptions
 - Hazard Management/Site preparation - \$119/acre
 - Planting - \$150/acre
 - Herbicide application - \$90/acre
 - Pre-commercial thinning (PCT) - \$180/acre
 - Discount of 4%
 - Administration and other sale preparation costs are not included
 - Prices are all based on three year weighted averages
 - Average price for sawlogs = \$302.15/MBF
 - Average price for small poles (35-50') = \$800.25/MBF using volumes from the rule
 - Average price for all pole classes = \$851.94/MBF using volumes from the rule
 - Average price for small poles (35-50') = \$659.75/MBF using averaged scaled volumes (estimated)
 - Average price for all pole classes = \$702.36/MBF using averaged scaled volumes
 - Sawlogs sold as part of pole sales often sell for less than average sawlog prices (85%) = \$256.83/MBF

The results of the NPV analysis are clear, even without considering the additional costs for administration and sale preparation associated with a pole sale that may not be necessary to meet silvicultural objectives, the long rotations necessary to grow larger poles in the future would not be appropriate given the departments fiduciary responsibility to generate the maximum financial returns for the endowment beneficiaries. Shorter rotations with limited pole availability would result in far better financial returns than managing lands for larger pole classes.

Table 4: Net Present Value per Acre Comparison

Description	Net Present Value / Ac Comparison						NPV/Ac
	MBF/Ac Poles	Initial Entry		Final Entry			
		Price	MBF/Ac Sawlogs	Price	MBF/Ac Sawlogs	Price	

Harvesting poles at 100 years followed by sawlogs at 110 years using volumes set by rule; 40 MBF/ac	10	\$ 851.94	10	\$ 256.83	20	\$ 302.15	\$ (139.00)
Harvesting poles at 100 years followed by sawlogs at 110 years using actual scaled volume; 40 MBF/ac	10	\$ 702.36	10	\$ 256.83	20	\$ 302.15	\$ (169.00)
Harvesting everything at 100 years using volumes set by rule; 40 MBF/ac	10	\$ 851.94	30	\$ 302.15			\$ (91.00)
Harvesting everything at 100 years using actual scaled volumes, 40 MBF/ac	10	\$ 702.56	30	\$ 302.15			\$ (121.00)
Harvesting poles at 80 years followed by sawlogs at 90 years using volumes set by rule; 30 MBF/ac	7.5	\$ 851.94	7.5	\$ 256.83	15	\$ 302.15	\$ 54.00
Harvesting poles at 80 years followed by sawlogs at 90 years using actual scaled volumes; 30 MBF/ac	7.5	\$ 702.36	7.5	\$ 256.83	15	\$ 302.15	\$ 5.00
Harvesting everything at 80 years using volumes set by rules; 30 MBF/ac	7.5	\$ 851.94	22.5	\$ 302.15			\$ 133.00
Harvesting everything at 80 years using actual scaled volumes; 30 MBF/ac	7.5	\$ 702.36	22.5	\$ 302.15			\$ 84.00
Harvesting everything at 60 years using prices for small poles and rule volumes; 20 MBF/ac	5	\$ 800.25	15	\$ 302.15			\$ 372.00
Harvesting everything at 60 years using prices for small poles and scaled volumes; 20 MBF/ac	5	\$ 659.75	15	\$ 302.15			\$ 305.00

Reduced Competition

Recent contraction within the timber industry has resulted in fewer sawmills and pole yards operating in Idaho. Currently, there are two active pole companies within the state. This has changed the dynamics of pole sale auctions. In some cases, only one bidder will participate in an auction. With both segments of the industry contracting it is in the best interest of the endowment beneficiaries to find ways to increase the opportunities to bring bidders to auctions. Opening more volume up to bidding by removing artificial economic barriers to competition is one way to do that.

Environmental Impacts

Offering two sales on the same ground to remove the poles and sawlogs separately can result in greater impact to forest soils and water resources, therefore, having a negative impact on long term forest productivity. Placing equipment on the site twice during a relatively short time period during the course of a rotation can have this negative impact. While it is true that some silvicultural systems require multiple entries during a rotation, such as the shelterwood, seed tree, and overstory removal sequence, these entries are often spaced out more through time and have specific growth and

regeneration goals associated with them. These treatments are carefully designed to accomplish these specific goals. When poles and sawlogs are harvested separately for strictly economic reasons the same cannot be said. The goal is to facilitate the removal of poles without damaging them and harvesting as little sawlog material as possible during the pole sale. These goals and the treatments associated with them are not complimentary to the current or future growth of the stand like the more biologically sound and planned silvicultural treatments.

Legal Review

Legal council 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.

Alternatives

Given the IDL's mission, "To professionally and prudently manage Idaho's endowment assets to maximize long-term financial returns to public schools and other trust beneficiaries," it makes sense to review the current pole policy. A number of negative issues have been identified related to the current Cedar Pole Policy including, but not limited to, 1) environmental impacts of doing multiple entries to accommodate the Cedar Pole Policy, 2) economic impacts of doing multiple entries, and 3) reduced competition for the specific product to accommodate the Cedar Pole Policy.

Alternative 1: No Change

No change is made and the IDL continues to operate with the current policy and rules, striving to maximize the return on the specialized product of cedar poles.

Advantages: This alternative would not require any policy or rule change.

Disadvantages: This alternative would continue to require two sales and two entries to be administered in areas with poles, and due to the current market structure the IDL would continue to not maximize returns to the endowments.

Alternative 2: Delivered Product Sales

This enables a single entry harvest while marketing the poles for their full value. A change to policy and rules may be required to implement this alternative.

Advantages: This alternative would enable a single sale and single entry harvest while marketing the poles for their full value. The IDL would also be able to maximize return based on product values and utilization.

Disadvantages: This alternative may necessitate the development of new policy and rules. The sale administration is also labor intensive under this alternative. In addition, some purchasers would prefer to do the marketing of the timber sales themselves, and this alternative would prevent that. Lastly, the IDL may lose some bid premium because the purchaser could lose flexibility/options for optimizing value based on the most-desired pole/log lengths and timing of delivery. Implementing cubic scaling is a possibility to address this last disadvantage, but it would result in a lower sampling frequency.

Alternative 3: Inclusion of Poles in Regular Timber Sales

Alternative 3 simply suggests that the IDL includes poles in regular timber sales. The IDL would appraise all timber sales the same way. Poles would be appraised and the value accounted for, but sold in a single sale with sawlogs. Those timber sales with poles on them would have the poles cruised the same way they are now, but the entire sale would be sold as one and all of the harvesting would be expected to be completed during the same time period. The poles that are found on the sale would be a separate biddable item during the timber sale auction, just as sawlogs and poles may be bid separately on pole sales now. The purchaser would have the option to manufacture the cedar component into poles or sawlogs but a bid premium would be attached to all cedar volume based on the up bid associated with poles. A change to policy and rules may be required to implement this alternative.

Advantages: This alternative would enable a single timber sale and single entry harvest, while allowing the IDL to appraise all timber sales in the same way. This would encourage, but not require, purchasers to manufacture poles when they are present. It would also maximize opportunities for multiple bidder participation in timber sale auctions, by creating the opportunity for pole companies to bid competitively on sales rich with poles to help maintain a steady flow of their material.

Disadvantages: This alternative may complicate the cruising and bidding process. Additionally, more landing space may be required when manufacturing poles at the same time as sawlogs.

Alternative 4: Combination of Alternatives 2 and 3: Delivered Product Sales/Inclusion of Poles in Regular Timber Sales

Alternative 4 uses a combination of some targeted delivered product sales and the IDL’s normal timber sales to maximize revenue from cedar poles and other specialty products. A change to policy and rules may be required to implement this alternative.

Advantages: This alternative would continue to provide products to pole companies while completing a single timber sale and single entry harvest. It would also allow for flexibility in both marketing and sale design. In addition, it would maximize the financial return to the endowments.

Disadvantages: The same disadvantages that are listed for Alternatives 2 and 3 apply to this alternative. Two types of sales complicate the process, and multiple products currently require multiple systems of measurement.

Table 5: Analysis of Alternatives

Alternatives		Advantages	Disadvantages
1	No Change	- No rule or policy change necessary	- Current market structure does not maximize returns to the endowments - Continues policy requiring two entries
2	Delivered Product Sales	- Maximizes economic return to the endowment - Completed in a single sale - Allows IDL to optimize marketing of forest products	- Labor intensive sale administration - Cutting products for scale (not to preferred length) may result in loss of some bid premium - Some purchasers would prefer to do the marketing of the timber sales themselves - Necessitates development of new policies and rules
3	Inclusion of Poles in Regular Timber Sales	- Maximizes opportunities for multiple bidder participation in timber sale auctions - Completed in a single sale - IDL would appraise all timber sales the same way	- Could result in complicated bidding when separating poles from sawlogs - Errors in estimating pole volumes in cruising become more consequential - The manufacture of poles at the same time as sawlogs would require much more landing space
4	Combination of Alternatives 2 and 3: Delivered Product Sales / Inclusion of Poles in Regular Timber Sales	- IDL will continue to provide products to pole companies - Maximizes economic returns to the endowment - Completed in a single sale - Allows flexibility in both marketing and sale design	- Same Disadvantages as Alternatives 2 & 3 - Two types of sales complicates processes - Multiple products currently require multiple systems of measurement

Recommendation

The capstone team conducted the following steps prior to making a recommendation regarding the IDL's Cedar Pole Policy:

- As part of IDL's Leadership Development Program, a "Capstone Project" team was assembled to investigate the Department's existing Cedar Pole Policy, to evaluate alternatives, and offer a recommendation.
- Internal Department stakeholders were surveyed and feedback was obtained regarding the "Pros/Cons" and impacts of the existing pole policy, as well as opinions on trends and forecasts of the industry.
- External stakeholders from the forest product industry and end users were surveyed.
- Forestry and Natural Resource Departments in other states and provinces were surveyed regarding their cedar pole policies.
- The Capstone team visited a (Stella Jones) pole manufacturing facility in Juliette, Idaho.
- The Capstone team observed a cedar pole auction at the IDL office in Deary, Idaho.
- Financial and environmental impacts under the current pole policy were collected and analyzed.
- Requested legal review of the Cedar Rules and Land Board Policy from the Attorney General's Office
- A list of alternatives was compiled, along with advantages and disadvantages of each.

After thoroughly studying and evaluating the issues the Capstone Team has determined that the current Cedar Pole Policy and Rules do not represent good stewardship of the resources or meet IDL's constitutional mandate to maximize long-term revenue to the endowment beneficiaries.

It is the Capstone Team's recommendation that the IDL adopt Alternative 4 and enter into negotiated rule making to change the current cedar pole rules and policy to meet the IDL's fiduciary and stewardship responsibilities. We believe Alternative 4 provides the best opportunity to achieve the IDL's mission of maximizing long term returns to the endowments while still ensuring that we offer the products necessary to maintain a diverse and healthy industrial infrastructure.

Action Plan

The suggested steps for implementation of the Capstone Team's recommendation are:

- Request approval of the Land Board to open Negotiated Rule Making – April, 2016 (Completed)
- Complete the Proposed Administrative Rule Form(PARF) and submit to Division of Financial Management – April, 2016 (Completed)
- Conduct Negotiated Rulemaking Public Meetings June, 2016
- Conduct Proposed Rule Hearings in July - August, 2016
- Seek Final Land Board approval of proposed rule - September - October, 2016
- Final Proposed Rule published in November - December, 2016
- Legislative Approval in February – March, 2017
- Implementation at the end of the legislative session in March, 2017

Appendix A: Capstone Project Description

CAPSTONE PROJECT OUTLINE

(Forest Management Bureau – Timber Sale Program)

Topic: Cedar Pole Rule/Policy

Issue Statement: If a proposed timber sale area contains at least 150 cedar poles at a density of at least 5 poles per acre on ground-based yarding areas or at least 10 poles per acre on cable yarding areas, then the cedar poles shall be reserved and sold separately as a pole sale. This requires two separate timber sales: one to remove the cedar poles and one to remove the rest of the trees from the harvest units.

Impacts:

- Financial - This doubles the sale prep and admin costs having to conduct two timbers sales rather than one. Delays establishment of regeneration which has a financial impact to the endowments.
- Environmental – More site disturbance due to two separate operations over the same ground.
- Operational – More time and staff resources used to prepare and administer two separate timber sales.

Applicable Statutes/Administrative Rules/Policy: IDAPA 20.02.14 & Land Board Policy

Starting Questions:

- What are the pros & cons of the cedar pole rule/policy?
- Does it maximize revenue for the endowments?
- What are the planning and operational challenges?
- What is the competition and industry forecast?
- How many pole companies are left in Idaho?
- How are other states handling cedar poles?

Desired Goal or Outcome: Remove and capture value of cedar poles for benefit of beneficiaries and industry in most efficient and operational sound manner.

Elements of Project:

Strategic – How will it impact the timber sale program, customers, etc? What does the future look like for this issue 5, 10, 15 years down the road?

Budget/Economic/Financial – What are the possible economic impacts of changing or not changing current cedar pole practices? Are there budget impacts to the timber program? Is a Decision Unit needed to implement recommended changes? What are the economic/financial advantages or disadvantages to the beneficiaries, stakeholders, State of Idaho, etc?

Environmental – What are the environmental impacts of changing or not changing current cedar pole practices?

Legislative – Would Administrative Rules or Statutes need to be amended? Legislative materials needed?

Customer Service – Who are the potential customers that could be affected by the recommended changes? What would be their possible concerns or issues raised by potential customers? How do you plan to address those concerns?

Communication/Outreach Plan – Who are the internal and external stakeholders? Who might support or oppose recommended changes? What is the communication plan for reaching out and meeting with stakeholders? How do you gain support for recommended changes?

Needed Process/Procedure Changes – Are there any process or procedures that will need to change in order to implement recommended changes? What is the estimated cost/timeline implementation?

Appendix B: IDL Timber Manual, Section J, Cedar Poles

SECTION J CEDAR POLES

A. CEDAR POLE POLICY

The State Board of Land Commissioners directed the department, on February 11, 1986, to provide cedar pole-quality timber as a portion of the annual timber sales program. All supervisory areas growing cedar are responsible to help the Idaho Department of Lands (IDL) meet that commitment. The IDL will provide at least 20,000 cedar poles as part of the annual timber sales program. The actual number of cedar poles each area will provide each year will be negotiated with the Bureau. These sales shall be clearly identified as pole sales by using the word "pole" in the sale name. For example, "Cottonwood Creek Pole."

B. CEDAR POLE SALE SELECTION

A proposed sale that contains 150 or more cedar poles (35 foot or longer), in densities of at least 5 poles per acre on tractor skidding ground or 10 poles per acre on cable yarding ground, will either be sold as a cedar pole sale, or the poles will be marked reserve and sold as a cedar pole sale later. If 30 foot cedar poles are designated for removal under "Harvest Specifications" contract term and not designated reserve, they may be removed either as sawlogs or poles at the option of the purchaser. Since they are optional in all cases, do not include them in sale totals.

Other products (sawlogs, cedar products, etc.) will not constitute more than 50 percent of the total pole sale volume (excluding development volumes).

If any area within a sawlog sale contains 250 cedar poles or more in a density of at least 10 poles per acre, the poles will be marked reserve and sold separately as a pole sale. This refers to isolated patches within a larger sale. It does not refer to situations where poles are uniformly distributed over the entire sale in the standard pole sale densities listed above. For example, in the case of a 350-acre sale that contains an isolated 40-acre patch of poles with a density of 7 poles/acre (total 280 poles), the poles may be harvested as sawlogs assuming the density over the remainder of the sale does not meet minimum pole sale density criteria. On the other hand, in the case of a 40-acre sale on cat ground with a uniform density of 5 poles/acre (total 200 poles), the poles must be marked reserve and sold as a separate pole sale.

The state may elect to sell pole sales that do not meet the minimum sale criteria listed above if it is economical and in the state's best interest to do so.

C. CEDAR POLE SALE APPRAISAL SPREADSHEETS

Use the Excel spreadsheet Pole Appraisal Template.xlsx to compute the starting selling price and other sale documents (estimated volume sheet, sale pricing sheet, pole pricing sheet, and the Memo to the Land Board). The Pole Appraisal Template can be found on the IDL intranet

website at: [Pole Appraisal Template](#) The worksheet computes the starting selling price using yard prices being paid for “Barkie Poles” delivered to the nearest pole yard or landing.

The production costs include allowances for felling, limbing, bucking to class and length, tractor, cable or aerial yarding, and decking and loading. The appraisal spreadsheet adjusts woods pole production costs because of the high cost variance for different types of yarding (ground based, cable or extraordinary).

The hauling cost is calculated using the loaded miles to the pole appraisal center as entered on appraisal Input sheet.

Allowances for other contract items such as snag felling, fire-line construction, etc., should be included in the “Other” row.

The pole industry periodically provides woods pole production costs and hauling costs to the bureau.

Review G. Cedar Pole Auctions, Section N – Timber Sale Auctions of this manual. Normally, cedar sawlogs are the only biddable sawlog species on pole sales. Because non-cedar sawlogs are normally not a biddable item, sawlogs on pole sales are usually sold at the advertised stumpage price. Therefore, non-cedar sawlog should be appraised using transactional evidence methods. It is recommended that the offering price of sawlogs on pole sales be 75 to 80 percent of recent bid stumpage prices on sawlog sales. A current stumpage price report for individual Supervisory Area or market area is available from the Bureau upon request.

The production of some sawlog volume is inevitable on a pole sale. Do not provide a financial incentive for purchasers to cut undesignated timber or produce sawlogs on a pole sale by selling sawlogs below market price. Do not create a hardship on the purchaser by appraising the sawlogs stumpage price above current market price. Consider the market trend when applying transactional evidence appraisal methods. Does the evidence show stumpage prices steady, increasing or decreasing? Contact the bureau for applicable stumpage price reports.

References

1. IDAPA 20.02.14 Selling Forest Products on State-Owned Endowment Lands
<http://adminrules.idaho.gov/rules/current/20/0214.pdf>

Appendices

Cedar Pole Sale Appraisal Example	J-1
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Appendix C: IDAPA 20.02.14 Rules for selling Forest Products on State-Owned Endowment Lands

IDAPA 20.02.14 Rules for Selling Forest Products on State-Owned Endowment Lands:

024. SALE OF CEDAR POLES.

1. Requirements for Cedar Poles. If a proposed sale area contains at least one hundred fifty (150) cedar poles in a density of at least five (5) poles per acre on ground based yarding areas and at least ten (10) poles per acre on cable yarding areas, the pole quality cedar shall be reserved and sold separately as a pole sale or as a separate product sort in a delivered products sale. Pole quality cedar in areas with a lower density of poles may be offered as poles. (3-4-11)

2. Maximum Amount of Sawlogs. Sawlogs and other forest products shall not exceed fifty percent (50%) of the total sale volume, excluding materials generated through the construction of roads and development sites. (5-8-09)

3. Poles within Sawlog Sale. If any area within a proposed timber sale contains two hundred fifty (250) cedar poles or more in a density of at least ten (10) poles per acre, the poles shall be reserved for a pole-quality cedar sale or sold as a separate product sort in a delivered products sale. (3-4-11)

4. Length Appraisal. Cedar poles shall be appraised by length and bid on a lineal foot basis. The conversion table set out below shall be used to establish the corresponding board foot volume. (5-8-09)

05. Length to Volume Conversion Table for Western Red Cedar Poles:

Pole Length	Board Feet Each*	Pole Length	Board Feet Each*
30'	50	80'	595
35'	70	85'	736
40'	101	90'	792
45'	161	95'	892
50'	239	100'	929
55'	261	105'	1113
60'	304	110'	1132
65'	418	115'	1420
70'	462	120'	1475
75'	512		

*Based on Scribner Decimal "C" board foot measure

(5-8-09)

06. Bidding Limited to Cedar. When cedar represents eighty percent (80%) or more of the total appraised value, bidding shall be limited to cedar poles and cedar sawlogs only. (5-8-09)

07. Purchaser's Option. The purchaser may opt to remove cedar as poles, sawlogs, and products or as sawlogs and products. Such choice shall be made at the completion of the auction. If the purchaser opts to manufacture the cedar as poles, the poles and sawlog material shall be removed at bid prices (lineal foot basis for poles and MBF basis for sawlogs). Pole-quality cedar trees containing thirty (30) foot cedar poles may be harvested as poles or sawlogs at the purchaser's discretion unless such trees are designated reserve. If the purchaser elects to manufacture cedar poles as sawlogs, the bid values of cedar poles and cedar sawlog material shall be weighted by volume to determine the selling value for all cedar sawlogs.

025. POLE SPECIFICATIONS.

Poles will conform to the current ANSI Specifications and Dimensions for Wood Poles unless agreed otherwise by contract. (5-8-09)