
DNR Forest Management

1. Organizing Question

Are there changes that DNR could make to the way that it manages forested trust lands that would increase trust revenue, reduce management costs, or increase timber volume?

2. Background and Context

DNR manages approximately 1.4 million acres of state land within the Washington range of the marbled murrelet ("murrelet").¹ DNR is currently working to amend its Final Habitat Conservation Plan ("HCP")² for these lands to include a marbled murrelet long-term conservation strategy ("LTCS"). In February 2018, Commissioner of Public Lands Hilary Franz convened the Solutions Table ("Table") to "advise DNR on creative, feasible, and impactful stakeholder-driven actions to address the social, economic, and environmental impacts that may result from upcoming Board of Natural Resources' ["Board"] decisions"³ around this amendment. The Table works outside of the public process that is being carried out by the Board and U.S. Fish and Wildlife Service for developing, reviewing, and adopting the LTCS.

In April 2019, DNR provided the Table with seven draft papers on topics of interest identified through discussions by the Table "in order to build common understanding and lay the groundwork for further discussions, refinement of the ideas, and identification of the most fruitful ideas to pursue further."⁴ DNR is providing this additional paper in response to feedback that the seven previous papers did not address opportunities to increase trust revenue, reduce management costs, or increase timber volume that have been raised by members of the Table. Accordingly, this paper addresses opportunities that meet all of the following criteria:

- has the potential to increase trust revenue, reduce management costs, or increase timber volume;
- is consistent with DNR's interpretation of the trust mandate;

¹ Washington State Department of Natural Resources and U.S. Fish and Wildlife Service. 2018. Revised draft environmental impact statement on a long-term conservation strategy for the marbled murrelet. Wash. St. Dep. Nat. Resour., Olympia. 361 p.

² Washington State Department of Natural Resources. 1997. Final habitat conservation plan. Wash. St. Dep. Nat. Resour., Olympia. 456 p.

³ Washington State Department of Natural Resources. 2018. Advisory council charter and ground rules. Wash. Dep. Nat. Resour., Olympia. 3 p.

⁴ McManus, E. 2019. Solutions Table: technical papers for review & scheduling caucus meetings; ST mtg schedule for the year. April 22, 2019 (email).

- is consistent with federal and state laws and regulations; and
- is not an element of the LTCS: the public process to amend DNR's HCP--not the Table--is the appropriate venue in which to address aspects of DNR's forest management activities that are part of the LTCS.

This paper contains a short addendum that addresses two other suggestions, one that DNR does not feel merits further exploration and another that is outside purpose and scope of the Table.

3. Potential Opportunities

The premise of this paper is that DNR could make changes to the way that it manages the forested trust lands that are not specific to the LTCS but which increase trust revenue, reduce management costs, or increase timber volume. These opportunities are considered broadly: they reflect the full range of activities funded by DNR's proprietary management accounts.

4. Challenges/Uncertainties

Budget. Budget realities limit the extent to which DNR can undertake new or expanded activities that would provide additional benefits. Heading into the 19-21 Biennium, DNR's proprietary management accounts face several challenges: "significant increases in expenditures (around 6%) for salary increases and other fixed costs, a significant [\$11 million] shortfall in silviculture needs, no significant increase in revenue (forecast is the next two years will be equivalent to the last two years)."⁵ All available resources may be required to carry out core work, leaving no capacity to add activities that could provide additional benefits.

5. Potential Next Steps

Policies

Riparian Timber Volume. Urge the Board to avoid the bias that would be created by counting riparian timber harvest volume toward attainment of the Sustainable Harvest Calculation ("SHC") while not including this volume in the SHC. For the coming sustainable harvest planning decade, either include an estimate of riparian timber harvest volume in the SHC, or do not count riparian timber harvest volume toward attainment of the SHC. Either stance would hold DNR accountable for attainment of the entire SHC non-riparian timber harvest volume adopted by the Board.

Currently, the Board's SHC preferred alternative does not include riparian timber harvest volume in the SHC. However, DNR harvests timber from riparian areas through ecological restoration efforts that are part of its HCP riparian conservation strategy. From 2013 through 2017, DNR harvested an average of 6 MMBF per year from riparian areas. This volume would be counted toward attainment of the SHC under

⁵ Brodie, A. 2019. State lands legislative and budget update. April 18, 2019 (email).

the Board's preferred alternative. This biases attainment of the SHC target adopted by the Board by allowing harvest volume from riparian areas to substitute for planned non-riparian volume.

Region Timber Sales. Support DNR's use of "Region Sales" to expedite low value, timber sales and thereby help DNR achieve SHC volume targets.

The Board recently transferred authority to sell Region Sales up to \$250,000 in appraised value to the Commissioner of Public Lands.⁶ Region Sales are low value sales of timber from salvage of blowdown or fire-damaged timber, or other small volume opportunities that benefit from a more expedited process not involving the Board. This authority provides DNR with needed marketing flexibility and shortens the timber sales timeline by two to three months. All other timber sale regulatory processes remain the same. From 2004 through 2015, DNR averaged 28 region sales per year, representing an average timber volume of 31.2 MMBF and \$5.0 million in revenue⁷

Trust Land Transfer. Reform the Trust Land Transfer ("TLT") program to halt the ongoing reduction of trust acres inherent to the TLT process as currently implemented.

TLT has produced outstanding conservation outcomes. Since the program's inception in 1989, the Washington State legislature has appropriated almost \$1 billion to transfer 123,000 acres of trust land into conservation status.⁸ When such transfers are executed, the appraised timber value is cashed out to the trust beneficiaries while the appraised value of the land itself (i.e., "bare land value") is appropriated to DNR for acquiring replacement land for the trusts. However, few suitable opportunities to buy bare forestland exist, and DNR most often buys forestlands with existing timber--with funds that represent only bare land value. A recent, retrospective analysis concluded that for the nine trust land purchases made over the preceding 24 months, approximately 80 percent of the purchase price was for timber on the replacement land.⁹ Roughly extrapolated, this suggests that DNR can obtain only one acre of replacement land for every five acres of trust land transferred into conservation status through TLT.

Planning

GEM Rotation Age. Recognize the specific role of General Ecological Management ("GEM") lands within DNR's multi-zoned forest landscape and encourage DNR to begin to track average rotation age in the GEM lands to verify rotation-age assumptions.

DNR manages approximately 30 percent of the state forest trust lands in western Washington for General Ecological Management (GEM). GEM lands are managed per the economic and financial assumptions policies outline in the Policy for Sustainable Forests ("PSF")¹⁰, with the intended outcome that management will optimize the economic value of these forest stands subject to existing age class

⁶ Washington State Department of Natural Resources. 2019. Resolution No. 1538. Wash. St. Dep. Nat. Resour., Olympia. 2 p.

⁷ Washington State Department of Natural Resources. 2019. unpublished data.

⁸ Washington State Department of Natural Resources. 2017. Trust land transfer program: 2017-2019. Wash. Dep. Nat. Resour., Olympia. 27 p.

⁹ Greene, R. M., and K. Boire. 2018. Land value estimates in timberland transactions. November 8, 2018 (memorandum).

¹⁰ Washington State Department of Natural Resources. 2006. Policy for sustainable forests. Wash. Dep. Nat. Resour., Olympia. 50 p.

distributions and timber flow constraints. DNR projects that the average rotation age for GEM lands will continue to decrease towards 40-50 years, assisted by increased operational stability following completion of the LTCS.

SHC Expert Panel. Create an expert panel to advise DNR on the SHC model and planning process. Select panelists based on their expertise, not their organizational affiliations or personal views on forest management. The purpose of the panel is to advise DNR on technical aspects of the SHC. Regularly update stakeholders on timelines and status.

DNR had an expert panel in the early 2000's, and believes that this idea could benefit harvest planning efforts. A panel composed of experts from academia, private forest landowners, trust beneficiaries, and other stakeholders would help obtain useful input and increase transparency about DNR's planning process. DNR is considering implementing this idea and could do so in winter 2019-2020 for future planning efforts.

Timber Sales Plans. Implement 2-, 3-, and 5-year timber sales plans within each DNR region, in coordination with division staff.

DNR's Timber Sales Program has set the expectation that each region will have firm 2-3 year harvest plans, and district level plans out to 5 years. Recent planning efforts impacting the scheduling of harvest areas (namely the LTCS) have made short- to mid-term scheduling of harvests very challenging. Completion of the LTCS and westside SHC will improve field staff's ability to complete reliable planning over the 5-year time horizon.

Operations

Riparian Management. Support DNR's efforts to improve riparian management through operational experimentation and research. Collaboratively explore a new funding mechanism that would increase DNR's ability to carry out young-stand treatments following red alder conversion.

DNR is carrying out operational experiments in the Olympic Experimental State Forest ("OESF") aimed at adapting riparian management to site-specific conditions. Under the OESF Forest Land Plan¹¹, DNR is tailoring riparian buffer widths to match local topography and landscape features, applying site-specific rationale for thinning along Type 3 and Type 4 streams, and using a model that predicts reach-specific windthrow to configure harvest unit designs. DNR's Forest Resources Division is conducting training to help DNR foresters identify riparian and hardwood harvest opportunities when these are present. All of these beneficial development activities as well as DNR's statewide, operational silviculture needs are limited by available funding and constantly under financial pressure. DNR is considering development of an alternative funding mechanism to ensure that funds to carry out needed young-stand treatments are available.

¹¹ Washington State Department of Natural Resources. 2016. Olympic Experimental State Forest forest land plan. Wash. Dep. Nat. Resour., Olympia. 148 p.

Expedite Compliant Timber Sales. Encourage DNR to promptly advance toward auction timber sales that comply with all applicable laws, regulations, and policies: do not procrastinate or unnecessarily delay timber sales when objections are raised.

DNR strives to work in this manner and is currently applying Lean Six Sigma methods to improve its timber sales process. A very small percentage of the 120 timber sales that DNR offers each year is delayed to investigate concerns expressed by neighbors or stakeholders. The number of these few sales remains fairly constant in comparison to previous years. Some such situations are inevitable because DNR is continuing to actively manage forests in the wildland-urban interface ("WUI"), with all of the complexities that entails. Many large landowners have divested from these lands. DNR is committed to addressing WUI concerns head on--even when these result in delay--rather than divesting from these landscapes or ceasing to actively manage these forests.

Silviculture. Assure an adequate budget for site preparation, optimum planting, vegetation management, pre-commercial thinning, commercial thinning, and final harvest, and then assure that the work gets done.

At the moment, DNR has a substantial shortfall in the budget necessary to complete all of the silvicultural activities required to maximize return on investment for every acre of its land: DNR is roughly 40 percent short of its projected need for funding for silviculture activities. Increases in the costs of labor, largely as a result of unstable national immigration policies, have substantially increased the cost of growing seedlings, planting, and conducting other silvicultural activities critical for maximizing long-term returns from DNR-managed forests. DNR is working diligently in the short term to reallocate funding to fill some of this need, and is exploring more effective and sustainable models for funding silviculture over the long term.

Forest Inventory. Implement a strategy to accurately update the inventory of state trust lands. This includes fixing GIS data layers, ground-truthing remotely sensed data, etc.

DNR is continually working to improve its forest inventory. Over the past several years, staff has met with industry experts and other stakeholders to discuss DNR's forest inventory and SHC modeling. This collaboration has influenced DNR's approach to updates and improvements. Staff is completing an analysis comparing field-sampled and remotely sensed data. The inventory group is also working to repair GIS errors. Staff has also developed a new platform to collect data from timber cruises. This platform will help provide a check of the inventory and allow DNR to better develop yields for future SHC calculations. As with many things, scope and pace of progress are budget-dependent.

Overhead. Explore ways to reduce agency overhead costs.

DNR's administrative costs for executive management, information technology, human resources, facilities, and other agency support functions are currently about 27 percent of total management fund expenditures. By the end of 2019, as part of the ongoing Trust Land Performance and Assessment project, DNR will have industry benchmarks related to different asset performance areas--including administration--by which to compare its performance. DNR is continually seeking opportunities to reduce costs and is pursuing Lean Six Sigma processes with the timber sales program, as noted above.

6. Addendum

This addendum addresses two other suggestions, one that DNR does not feel merits further exploration and another that is outside purpose and scope of the Table.

Maximum Removals. This suggestion proposes to mandate maximizing removals from acres available for management through minimizing leave trees, not expanding riparian buffer widths beyond minimum requirements, clumping leave trees, and other means.

DNR is required to meet minimum leave tree and riparian buffer width requirements on every timber sale. Both of these requirements are terms of DNR's HCP. In addition, DNR foresters are required to protect sensitive resources on a site-specific basis, including geologic features, archaeological features and cultural resources, and wildlife habitat commitments in lieu of law or rule (e.g., DNR's lynx habitat management plan). The PSF provides guidance to DNR foresters to "Use professional judgment, best available science and sound field forestry to achieve excellence in public stewardship"¹⁰, and they do their best to meet these requirements as efficiently as possible. A recent evaluation found that DNR timber sales sampled averaged seven percent more leave trees than required by specific policies and rules.¹² In 2012, HCP implementation monitoring found that only two of 12 Type 3 stream segments evaluated following timber harvest in the adjacent uplands had average buffer widths more than 10 feet wider than required.¹³ Given the complexity of laying out timber sales on the ground, DNR believes these are acceptable results "to achieve excellence in public stewardship". The PSF provides DNR with the needed flexibility to exceed regulatory requirements on a site-specific basis to properly configure timber sales, to reasonably address legitimate concerns that are not the subject of a law or rule, to be a good neighbor and thereby achieve the desired outcomes of the board's policies in the PSF.

LTCS Alternative H. This suggestion proposes to reduce acres of non-habitat in LTCS Alternative H.

Changing LTCS alternatives is outside purpose and scope of the Table.

¹² Washington State Department of Natural Resources. 2019. unpublished data.

¹³ Washington State Department of Natural Resources. 2013. Habitat conservation plan for state trust lands: 2012 implementation monitoring report. Wash. Dep. Nat. Resour., Olympia. 34 p.