

2018[®] SFI Public Summary Report

Washington State Department of Natural Resources Sustainable Forestry Initiative[®] (SFI) Forest Management Standard [2015-2019]

Date: September 14, 2018

Project Scope and Objectives

PricewaterhouseCoopers LLP (PwC) completed a Re-Registration and Transfer Assessment on Washington Department of Natural Resources' ("the Company" or "DNR") Forest Management activities across the State of Washington for the Central Office located in Olympia, WA and 6 regional units: South Puget Sound, Pacific Cascade, Northwest, Olympic, Northeast and Southeast. The Lead Assessor was James Lucas, MF, RPF, EMS(LA). The audit team members were Sean Pledger, MSc, FIT, EMS(A) (internal), PwC Assessor, and Jim Rochelle, PhD, PwC Contract Assessor. The audit team was accompanied by DNR's SFI Representatives, Doug Kennedy and Hannah Yourd.

The primary objective of the assessment was to assess the Company's SFI management system and to evaluate the Company's implementation of the SFI Standard in the field.

Client Profile

The Washington State Department of Natural Resources (DNR) employs approximately 1,400 full-time, part-time, seasonal, and temporary employees. DNR manages 5.6 million acres of public lands including approximately 2.4 million acres of forestlands and natural areas. Most of these lands produce revenue in support of public schools, state institutions, and county services. DNR-managed Natural Resources Conservation Areas (NRCAs) and Natural Area Preserves (NAPs) protect unique and threatened native ecosystems and provide educational and research opportunities. DNR also protects Washington State's natural resources by improving forest health conditions through suppressing and preventing wildfires on more than 12 million acres of state-owned and private forestlands and maintaining forest conditions that are resilient to insects and disease.

Currently, all DNR-managed forested state trust lands, as well as all NAPs and NRCAs across Washington State are certified under the Sustainable Forestry Initiative (SFI) program standard. DNR-managed forested trust lands offer local markets a continuous flow of wood that supports Northwest mills and woodworkers. Having some of the most commercially productive forests in the United States, DNR works to ensure that forest products for business, home construction, or weekend projects are grown and harvested to protect core environmental and social values.

Indicators

All of the indicators in the SFI Forest Management Standard were within the scope of the assessment. There were no substitute indicators.

Assessment Process

On June 20, 2018, the assessment team conducted interviews and reviewed appropriate documentation to assess policies and procedures, and tested the implementation of SFI program requirements at the Central Office in Olympia, WA. On June 21 and 22, 2018, the assessment team conducted field assessments in the Toutle, Elbe, Winston, and Capitol Forests. In total, the audit team spent 3 audit days at the central office and 6 audit days on-site for field assessments. In total 12 harvesting and road construction units, 14 silviculture units and 3 recreation sites were sampled during the 2018 assessment. The audit report was dated September 14, 2018.

The Washington Department of Natural Resources has a regional certification for their Forest Management practices across Washington State that includes the following regions: South Puget Sound, Pacific Cascade, Northwest, Olympic, Northeast and Southeast. PwC uses a rotational audit approach where the central office is audited annually and 2 regions are sampled annually on a 5 year rotating schedule that conforms to the International Accreditation Forum Inc.'s Mandatory Document 1.

Summary of Conformance, Findings, and Good Management Practices

FOREST MANAGEMENT

SFI FOREST MANAGEMENT		
Objective	Performance Measure	Evidence of Conformity
Objective 1. Forest Management Planning	<i>Performance Measure 1.1 Program Participants shall ensure that forest management plans include long-term harvest levels that are sustainable and consistent with appropriate growth-and-yield modes.</i>	<p><i>Evidence: Interviews with DNR staff. Review of Draft Environmental Impact Statement (DEIS) for Westside Sustainable Harvest Calculation, State Trust Land HCP 2017 Annual Report, SEPA Checklist template and samples, Forest Practices Application samples.</i></p> <p>DNR manages 5.6 million acres of public lands including approximately 2.4 million acres of forestlands and natural areas. Most of these lands produce revenue in support of public schools, state institutions, and county services. DNR has a fiduciary obligation to generate revenues from these lands for trust beneficiaries while managing them sustainably in perpetuity. Management activities on forested state trust lands are subject to the State Environmental Policy Act (SEPA). DNR is in the process of updating their 10 year sustainable harvest calculation for their West Side operations. This has been ongoing for several years and includes an environmental impact statement and public consultation process prior to the adoption of the 10-year sustainable harvest calculation level by the Board of Natural Resources. The planning process involves forest estate modeling using Woodstock at 10 year time steps for 100 years. The objective function is set to maximize NPV over that 100 year period. DNR is in process of updating their standing inventory with Lidar and air photo data, supplemented with PSP information. A thorough land classification system is in place based on forest cover, site index, soil types, and other geographic variables. DNR's timeline for adopting a West Side harvest level is influenced by the concurrent development of a long-term conservation strategy for the Marbled Murrelet. Biodiversity, species at risk and a variety of wildlife are considered in their planning processes at both the landscape and site level. Growth and Yield modeling is conducted based on historic sample plot data and incorporated into their Woodstock modeling. Non-timber objectives such as</p>

		<p>wildlife, recreation, and visuals are considered during the planning processes.</p> <p>Current harvest levels are tracked at the time of sale and rolled up into a West Side harvest level, which is tracked against their target. The historical harvest levels have been around 500 MMFBM per year. Current levels are approximately 470 MMFBM. Overall DNR has the ability to deviate from the annual level by 25%. The largest Sustainable Harvest Unit is Federally Granted Trust Lands and State Forest Purchase Lands - for the 2005-2014 period this amounted to 2112 MMFBM against a target of 2485 MMFBM.</p> <p>The DNR is continually collecting plot data as part of their Remote Sensing-Forest Resource Inventory System (RS-FRIS) system. The ground plots are taken to collect more detailed data at the smaller plot sizes. This data is then correlated to the remote sensing (LiDAR and PhoDAR) information to generate stand level inventory approximations. Data is being collected on a continual basis, and the modeling for growth and yield, and harvest level calculations is being updated with the most current data in preparation for the final West Side sustainable harvest calculation.</p> <p>The primary repository for tracking all silviculture and timber harvest activities is DNR's Land Resource Manager (LRM) database. All documentation pertaining to a timber sale and regulatory compliance is stored in the Timber Sale Document Center (TSDC) on DNR's intranet site. LRM entries are initiated based on a timer harvest and all future surveys and activities are automatically populated and scheduled. Budgetary requirements ensure LRM is kept up to date and all activities are conducted in a given fiscal year.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
	<p><i>Performance Measure 1.2 Program Participants shall not convert one forest cover type to another forest cover type, unless in justified circumstances.</i></p>	<p><i>Evidence: Interviews with DNR staff. Site visits and plan reviews for various timber sales.</i></p> <p>DNR occasionally implements riparian hardwood conversions, which is when a hardwood dominated stand within a riparian management zone (RMZ) is harvested and replanted with conifer species. This practice is guided by the Riparian Forest Restoration Strategy (RFRS), an amendment to the state trust lands Habitat Conservation Plan ("HCP") which details management strategies for promoting and sustaining large diameter conifer trees and woody debris in riparian areas for habitat purposes.</p> <p>DNR occasionally converts small areas of forest to develop recreation infrastructure. The conversions for recreation purposes provide social benefit while also protecting ecological integrity by concentrating users in controlled areas. The development of infrastructure for recreation sites is rare and must align with the overall management objectives of DNR.</p>

	<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p> <p><i>Performance Measure 1.3 Program Participants shall not have within the scope of their certification to this SFI 2015-2019 Forest Management Standard, forestlands that have been converted to non-forestland use.</i></p> <p><i>Evidence: Interviews with DNR staff. Site visits and plan reviews for various timber sales.</i></p> <p>DNR's riparian enhancement conversions are not converting forest lands to another land use. The conversions for recreational infrastructure provide recreational opportunities, help protect sensitive areas, and enhance social benefit.</p>
	<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>
<p>Objective 2. Forest Health and Productivity</p>	<p><i>Performance Measure 2.1 Program Participants shall promptly reforest after final harvest.</i></p> <p><i>Evidence: Evidence: Interview with silviculture staff, SFI Procedures, SFI 2018 - Silviculture Reports, HCP 2017 Annual Report, WAC Reforestation Regulations, Research and Monitoring Program, Various Procedures from forestry handbook - Young Stand Surveys, IPM Procedure</i></p> <p>All forestry harvest activities are well documented. Under Washington State Forest Practice rules, DNR has three years to achieve 190 stems/acre reforestation on lands which are even aged harvested. Each stand has a silviculture prescription which is stored in the sale file. The prescription describes current stand and physical characteristics and the treatment including future management steps (planting, spray, surveys) as well as bareland discounted cash flow at 5% & 7%. The overall stand history and treatments are also captured in Land Resource Manager (LRM, formerly Cengea). Another tool (Data Cubes) pulls data from LRM and can run a variety of reports for the landbase such as yearly harvest treatments at the county level. Examples were reviewed in the Castle Rock - Pacific Cascade Region office which included various harvest units. According to staff, the actual trees planted per acre (tpa) vary from 360-435 tpa and species vary with the Douglas fir being the largest component (75%) and ponderosa pine/larch (Eastern side) & western red cedar/hemlock (Western side) being the next highest species planted. Planting generally occurs the year after harvest.</p> <p>Each stand gets a 1 year survival survey which documents regeneration quantity and quality. Procedures for surveying young forests are documented in the Guideline 14-006-010. The results of surveys are entered into LRM and documented - see example for "Wheaties U2" sale where 415 tpa of Douglas fir species plus a description of the competing vegetation complex was documented. Currently LRM requires the user to capture species, natural & planted tpa, survival and any notes (competition & damage) for "Survival Surveys". This is the case for other (FG or Free Growing) surveys. Reviewed multiple sales/stands in LRM and TSDC.</p> <p>DNR uses a variety of silviculture systems, from partial retention & shelterwoods to even-aged management (CC).</p>

		<p>The type of operations depend on the type of forest including the amount of advanced regen in the stand. Based on field observation, the immature stands (if any) will be used as leave areas or excluded from harvest operations where present. Reviewed and confirmed in field. Harvests are mainly Variable Retention Harvests (VRH) with some thinnings.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
<p><i>Performance Measure 2.2 Program Participants shall minimize chemical use required to achieve management objectives while protecting employees, neighbors, the public and the environment, including wildlife and aquatic habitats.</i></p>	<p><i>Evidence: Interview with silviculture staff, SFI Procedures (SF61 Document), SFI 2018 - Silviculture Reports, HCP 2017 Annual Report, WAC Reforestation Regulations, Research and Monitoring Program, Various Procedures from forestry handbook - Young Stand Surveys, IPM Procedure</i></p>	<p>The DNR has procedures for the use of chemicals. In general, approximately 85% of stands get a site preparation treatment. This treatment is up to the discretion of the Silviculture Forester and/or Intensive Management Forester at each Region who works with the Unit Forester to document future treatments. Treatments are documented in the "Site Preparation & Vegetation Management" procedure. The goal is to limit chemical use where possible. Over the last few years, the number of stands needing a second release treatment has been declining and is a small percentage of variable retention harvests. Only herbicide chemicals are used, from a general (Glyphosate) to more targeted (Velpar and Oust) for shrubs or hardwood competition. Rates are at the label dosage or less. Sprays are largely manual with only Pacific Cascade currently using aerial spraying which is preferred over manual due to cost and safety considerations.</p> <p>The DNR uses Integrated Pest Management (IPM) where possible including a variety of ground and aerial herbicide uses plus mechanical treatment of brush in some cases. Each unit is reviewed on a case by case basis and prescriptions are created to control competition and minimize cost. Other manual techniques are used including hand slashing.</p> <p>Many DNR staff are licensed applicators and all contractors are licensed. Stand treatment records were reviewed for multiple files and include both DNR and contractor license numbers. These are legally required for each activity under various contracts including site prep, manual or aerial, or release treatment. All activities are supervised by qualified DNR staff. Herbicide use procedures are documented in the TK - 14-006-020. A variety of protective measures are in place including: chemical handling requirements, training, notification requirements including adjacent landowners, signage, PPE, spills and emergency assistance.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
<p><i>Performance Measure 2.3</i></p>	<p><i>Evidence: Interview with silviculture staff, SFI Procedures (SF61 Document), SFI 2018 - Silviculture Reports, HCP</i></p>	

	<p><i>Program Participants shall implement forest management practices to protect and maintain forest and soil productivity.</i></p>	<p><i>2017 Annual Report, WAC Reforestation Regulations, Research and Monitoring Program, Various Procedures from forestry handbook - Young Stand Surveys, IPM Procedure</i></p> <p>DNR have soils maps and identify soil types in the field. DNR has a soil scientist on staff and they are currently working on a project to help identify sensitive soils in the field.</p> <p>Water bars and erosion control measures are used across the Regions to address issues on roads. Many examples of use of Best Management Practices (BMPs) were seen in the field. Within harvest units, contracts specify soil disturbance criteria (e.g. 6 inches and area) within them. The actual size allowed is dependent on the area and the soil types found there.</p> <p>Foresters are on-site frequently to monitor soils conditions during and at the end of harvest activity. Post-harvest inspections assess conditions and contractors are required to address soil disturbance if it exceeds contract specifications.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
	<p><i>Performance Measure 2.4 Program Participants shall manage so as to protect forests from damaging agents, such as environmentally or economically undesirable wildfire, pests, diseases, and invasive exotic plants and animals, to maintain and improve long-term forest health, productivity, and economic viability.</i></p>	<p><i>Evidence: Interview with silviculture staff, SFI Procedures, SFI 2018 - Silviculture Reports, HCP 2017 Annual Report, WAC Reforestation Regulations, Research and Monitoring Program, Various Procedures from forestry handbook - Young Stand Surveys, IPM Procedure</i></p> <p>Fire and forest health monitoring programs were reviewed with staff. An annual insect and disease aerial detection survey is conducted across ownerships in Washington state by the USDA Forest Service (USFS) in cooperation with DNR. Reports are created which flag issues of concern. There are fewer major forest health issues in Western Washington compared to forests on the eastern side of the state. On the Westside, there are minor issues with elk in some areas, minor root rot (alternate species planting) and few insect issues. DNR is Washington state's largest on-call fire department and many staff have responsibilities during fire season ranging from planning and preparation, to checking fire tools and equipment, to actively fighting fires.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
	<p><i>Performance Measure 2.5 Program Participants that deploy improved planting stock, including varietal seedlings, shall use best scientific methods.</i></p>	<p><i>Evidence: Evidence: Interview with silviculture staff, SFI Procedures, SFI 2018 - Silviculture Reports, HCP 2017 Annual Report, WAC Reforestation Regulations, Research and Monitoring Program, Various Procedures from forestry handbook - Young Stand Surveys, IPM Procedure</i></p> <p>The DNR has its own seed orchard and tree nursery. They are involved in progeny trials across the land base and are members of a variety of seed and tree improvement coops. Seed transfer guidelines compliance is mandatory in the State.</p>

	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
<p>Objective 3. Protection and Maintenance of Water Resources</p>	<p><i>Performance Measure 3.1 Program Participants shall meet or exceed all applicable federal, provincial, state and local water quality laws, and meet or exceed best management practices developed under Canadian or U.S. Environmental Protection Agency – approved water quality programs.</i></p>	<p><i>Evidence: Interviews with DNR staff, various District level staff, SFI Procedures, HCP 2017 Annual Report, Forest Roads Guidebook, WAC Roads Regulations, Overview Silv., Various Procedures from forestry handbook, Access records for bridge and record inspections for various areas.</i></p> <p>DNR is subject to the WA State forest practices rules which covers harvesting, road management and BMPs. The program includes audits by DNR Forest Practices compliance foresters. In addition, all DNR timber sales are conducted under contracts that specify legal compliance and are closely supervised by DNR State Lands contract administrators. All sales include: pre-work start up reviews, ongoing active harvest inspections and final close out inspections to ensure that contract compliance is met.</p> <p>DNR have a good road and bridges inspection process. The Forest Roads Guidebook is the manual for DNR roads management. Region Engineers direct work on roads which is undertaken by contractors or DNR roads staff. The majority of all RMAP fixes have been completed with a few minor upgrades to be implemented. All bridges and crossings have been inventoried and documented inspections are conducted in specified years. Issues found during inspections are addressed in a priority manner to ensure safety and environmental standards are not compromised.</p>
<p>No Nonconformities were identified related to this performance measure.</p> <p>Three Opportunities for Improvement were identified pertaining to road deactivation, updating procedures, and harvest “Close Outs”. On a number of units, DNR was observed to deactivate temporary crossings and some roads promptly after the completion of harvest. The use of mulch and grass seed was a standard treatment for most of the deactivation activities. On one deactivated crossing; however, grass seed and mulch were not used but could have been, to reduce the risk of soil erosion.</p> <p>DNR has a thorough set of documented procedures to conduct their planning and operations; however, some of these are somewhat dated (Assessing Slope Stability – 1999, Young Vegetation Management – 2000). DNR may wish to review and update procedures to ensure they are still effective and relevant and might consider setting a revision date to ensure procedures are still valid.</p> <p>DNR’s harvest unit files include an extensive range of monitoring documentation including pre-works and inspection journals but close outs are conducted in a less formal manner. In light of this, DNR may wish to consider creating and implementing a standardized “Close Out” form to be filled out once timber harvest and road deactivation is completed.</p>		
	<p><i>Performance Measure 3.2 Program Participants shall implement water, wetland and riparian protection measures based on soil type, terrain, vegetation, ecological function, harvesting system, and state best management practices (BMPs), provincial guidelines and other applicable factors.</i></p>	<p><i>Evidence: Evidence: Interviews with DNR staff, SFI Procedures, HCP 2017 Annual Report, Forest Roads Guidebook, WAC Roads Regulations, Overview Silv., Various Procedures from forestry handbook, Access records for bridge and record inspections for various areas.</i></p> <p>Road construction procedures are documented in the "Forest Roads Guidebook" which is a technical guide to road construction and maintenance on state-managed land. The guidebook has recently been updated (2018 version)</p>

		<p>and is geared towards new engineering staff (forestry engineering or civil) as a "how to" guide. Most road building is conducted in conjunction with timber sale activities. DNR has six Region Engineers (1 for each Region) that have staff at each Region office (ex: 4 staff in South Puget Sound). District Engineers help to design and implement roads activities for all timber sales. Additionally, roads engineers carry out maintenance activities, bridge and culvert inspections and support larger projects where they can. The DNR also have a roads crew at each region (2-5 staff) who carry out roads maintenance activities across the land base. In total, the DNR have 14,000 miles of road on State lands and during the RMAP process, all road was inspected to determine condition of fish crossings and other structures. In addition to road building and maintenance, the DNR has a roads "deactivation and abandonment" mandate which it carries out in areas where activities won't be carried out for many years or in the case of non-compliant roads (stream adjacent or unstable roads). DNR is in the second round of roads and culvert inspections which is a long-term (7 year) project. Bridges and culverts are inspected on a 1-2 year time horizon. Records were reviewed during the audit.</p>
	<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>	
<p>Objective 4. Conservation of Biological Diversity</p>	<p><i>Performance Measure 4.1 Program Participants shall conserve biological diversity.</i></p>	<p><i>Evidence: Interviews with DNR staff. Review of HCP and policy for sustainable forests, Forestry handbook, Annual reports to USF&WS, Forest practice requirements for E. side forests, GIS layers, inventory system and landscape level stand composition data, Natural heritage program, Noxious weed policy, procedures for control of noxious weeds, Chemical site preparation records, and Timber sale contracts.</i></p> <p>Washington’s State Trust Lands Habitat Conservation Plan (HCP) is an ecosystem-based forest management plan that helps DNR develop and protect habitat for at-risk species while carrying out forest management and other activities on the state trust lands it manages for revenue to build public schools, universities and other state institutions. This long-term plan outlines how DNR will provide habitat for species such as the northern spotted owl, Marbled Murrelet, and riparian-dependent species, such as salmon and bull trout, which are listed as ‘threatened’ or ‘endangered’ under the federal Endangered Species Act.</p> <p>DNR-managed Natural Resources Conservation Areas (NRCAs) and Natural Area Preserves (NAPs) protect unique and threatened native ecosystems and provide educational and research opportunities. DNR’s development of the multi-species habitat conservation plan addresses diversity conservation on Western WA lands.</p> <p>The Policy for Sustainable Forests and various procedures and guidance documents address diversity considerations for the portion of Eastern Washington that is not covered by the HCP. Criteria for retention of stand level habitat elements are specified in DNR’s operating procedures as</p>

		<p>outlined in documents for harvest planning. The HCP and Forestry Handbook are key guiding documents. The HCP is built around the current and desired future conditions for habitat to support multiple species that are listed as ‘threatened’ or ‘endangered’ under the federal Endangered Species Act. Habitat analyses using this information documents the presence of desirable habitat. Implementation of the HCP ensures compliance with the Endangered Species Act for the DNR lands which it covers. DNR is currently collaborating with the US Fish and Wildlife Service on the development on a long-term conservation strategy for the Marbled Murrelet.</p> <p>DNR is continuously updating the information contained in the Natural Heritage program GIS layer and documenting occurrences of noxious weeds on state lands in the LRM database.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
	<p><i>Performance Measure 4.2 Program Participants shall protect threatened and endangered species, Forests with Exceptional Conservation Values (FECV) and old-growth forests.</i></p>	<p><i>Evidence: Interviews with DNR staff. Reviews of HCP, GIS layers contain species locations, flags in harvest planning, policies in place for T&E species protection, Forestry handbook and HCP implementation guidance.</i></p> <p>A major component of DNR’s efforts to protect T&E species are documented in the HCP. This includes plans to develop and protect habitat for the Northern Spotted Owl at the landscape level. Protection of federally listed, and non-listed species of concern is principal objective of management under the HCP. Their multi-species approach considers listed and non-listed species. The Natural Heritage program uses objective scientific criteria to determine which plant and animal species and ecosystems are in need of conservation, and identifies the best sites for conserving them. The DNR engages in cooperative efforts with other agencies including USFS and WDFW.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
	<p><i>Performance Measure 4.3 Program Participants shall manage ecologically important sites in a manner that takes into account their unique qualities.</i></p>	<p><i>Evidence: Interviews with DNR staff. Review of GIS layers, Natural heritage preserves and conservation areas, NHP website, Mission, Goals, and annual report, and HCP habitat descriptions.</i></p> <p>The Natural heritage program has been developed to address ecological communities and species of concern. GIS layers include known sites / occurrences of species of concern. DNR staff review the NHP database during harvest planning which flags known occurrences of species of concern. If new occurrences are identified during harvest planning the NHP database will be updated.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		

	<p><i>Performance Measure 4.4 Program Participants shall apply knowledge gained through research, science, technology, and field experience to manage wildlife habitat and contribute to the conservation of biological diversity.</i></p>	<p><i>Evidence: Interviews with DNR staff. Review of policy in support of collection of forests or communities of exceptional ecological value. GIS layers, Natural Heritage Program mission and strategy document, Accomplishment reports, HCP monitoring programs, staff involvement in research, collaboration and contracts with scientists external to DNR.</i></p> <p>The Natural heritage program addresses this requirement. It is well supported within the DNR. GIS layers include known sites/occurrences of species of concern. These data sources are reviewed in harvest planning phase and known occurrences are flagged.</p> <p>The HCP includes a monitoring process for effectiveness and validation. This supports adaptive management and continuing improvement of various components of the HCP.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
<p>Objective 5. Management of Visual Quality and Recreational Benefits</p>	<p><i>Performance Measure 5.1 Program Participants shall manage the impact of harvesting on visual quality.</i></p>	<p><i>Evidence: Interviews with DNR staff. Review of Visual Management Procedure PR-14-004-080, Forestry Handbook, and site visit and file review for various timber sales.</i></p> <p>DNR has a two level approach to visual management: harvest unit level and viewshed level. Particular attention is paid in areas that can potentially be seen from significant highways and other high traffic or highly populated locations. Visual quality will be considered in the early stages of harvest unit planning. If there are potential concerns along highway corridors, efforts will be made to retain a visual screen in front of the unit. For areas with local residence or stakeholders, consultation will take place to determine what concerns (if any) they have pertaining to visual management. To lessen the visual impact of harvest units, the DNR will implement a number of possible approaches including leave strip buffers, strategically designing unit boundaries, incorporating in-block retention patches, and/or incorporating scattered single stem retention.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
	<p><i>Performance Measure 5.2 Program Participants shall manage the size, shape and placement of clear-cut harvests.</i></p>	<p><i>Evidence: Interviews with DNR Staff. Review of Maximum Size for Even-Aged Final Harvest Units Procedure PR-14-005-050, SFI Annual Report, Forestry Handbook, and site visit and file review for various timber sales.</i></p> <p>The DNR has procedures in place limiting their maximum clearcut size to 100 acres when the resulting plantation will be an even aged stand. This can be exceeded in exceptional circumstances such as forest health concerns or salvage. There is no unit-size limitation for thinning/shelterwood style harvests. If a proposed regeneration harvest will</p>

		<p>exceed 100 acres, additional reviews and approvals must take place. In 2017, the average clearcut size was 26 acres.</p> <p>Records of clearcut size are maintained in several places. Individual sale folders contain prescriptions, contracts, plans and maps that all indicate harvest unit size. This information is also stored in the Timber Sale Document Center (TSDC). The DNR's GIS system contains geospatial data of all harvest units. The Land Resource Manager (LRM) documents each unit area and the schedule of activities on a unit by unit bases.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
	<p><i>Performance Measure 5.3 Program Participants shall adopt a green-up requirement or alternative methods that provide for visual quality.</i></p>	<p><i>Evidence: Interviews with DNR staff. Review of Maximum Size for Even-Aged Final Harvest Units Procedure PR-14-005-050, WAC 222-30-025, Forestry Handbook, GIS layers, and site visit and file review for various timber sales.</i></p> <p>During the initial planning stages of a harvest unit the responsible forester will conduct an assessment of the proposed unit boundaries and what proportion of the boundary will abut against plantation less than 5 years of age. The DNR's GIS database can be queried to identify neighboring harvest units of specific age ranges to determine conformance with green up requirements.</p> <p>State law (WAC 222-30-25) regulates the size and timing of even aged harvest openings. Forest practices rules require that the perimeter of an even aged harvest unit is at least 30% bordered by trees 30 years of age or older, at least 60% bordered by trees 15 years of age or older, or at least 90% bordered by trees that are either 5 years of age or older or an average of at least four feet tall. No violations of this rule were identified during harvest unit file reviews or field visits.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
	<p><i>Performance Measure 5.4 Program Participants shall support and promote recreational opportunities for the public.</i></p>	<p><i>Evidence: Interviews with DNR Staff. Review of DNR recreation website (https://www.dnr.wa.gov/go), Forestry Handbook and WAC 332-52. Site visit to various recreational sites.</i></p> <p>DNR develops trail networks for motorized (4x4, quads, and dirt bikes) and non-motorized (hikers, mountain bikers, and equestrians) users. These trail networks are typically segregated for safety purposes and clustered into geographic regions to insure users keep to the appropriate trails. In total, DNR manages approximately 1,100 miles of trails and 160 acres of recreation sites. The DNR is in the process of developing a new campground and the DNR worked with a local mountain bike club and harvesting contractors to identify leave trees, and to design and build trails in areas with active logging.</p>

	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
Objective 6. Protection of Special Sites	<i>Performance Measure 6.1 Program Participants shall identify special sites and manage them in a manner appropriate for their unique features.</i>	<i>Evidence: Review of Cultural resource policy, GIS layers and management plans.</i> Special sites on DNR land primarily consist of cultural and archeological sites. Some historic sites are present, mainly associated with past logging. These features include steam donkeys, railroad beds and trestles. All existing and newly discovered special sites are mapped and incorporated in their GIS system and flagged in the development of management plans. These features are protected when identified. DNR has a cultural resource policy in place, and at each district one or more foresters are trained and certified as cultural resource technicians. This role involves reviewing management plan proposals and providing direction regarding protection specifications.
	No Nonconformities were identified related to this performance measure. One Opportunity for Improvement was identified pertaining to DNR’s GIS database. They maintain an extensive GIS database which includes special features across state lands. On one unit, a large and older cherry tree was identified and retained as a special feature but it was unclear if that feature was added as a special feature to the GIS layer. DNR may wish to review their process for ensuring that special features identified in the harvest unit planning process are incorporated into this database in a timely fashion.	
Objective 7. Efficient Use of Fiber Resources	<i>Performance Measure 7.1 Program Participants shall employ appropriate forest harvesting technology and in-woods manufacturing processes and practices to minimize waste and ensure efficient utilization of harvested trees, where consistent with other SFI 2015-2019 Forest Management Standard Objectives.</i>	<i>Evidence: Interviews with DNR staff. Review of Forestry Handbook, Timber Sale Contract Handbook, and site visit and file review for various timber sales.</i> The DNR's contracts for timber sales include clauses to insure utilization targets are met. These include rights of contract administrators to halt operations if they deem utilization is insufficient. Utilization is discussed during pre-work meetings and specified in clauses of timber sale contracts. During site visits low levels of slash were noted and little difference was identified between lump sum sales and stumpage sales.
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
Objective 8. Recognize and Respect Indigenous Peoples’ Rights	<i>Performance Measure 8.1 Program Participants shall recognize and respect Indigenous Peoples’ rights.</i>	<i>Evidence: Interviews with DNR staff. Review of Statutory requirements, Commissioner's order, Cultural resource and indigenous people Policies, and various agreements and MOU's with tribes.</i> State law and the Commissioner's order mandate the DNR’s relationship/policies regarding interactions with tribes. Government to Government relationships are recognized and implemented. The DNR conforms to laws addressing protection of indigenous peoples’ rights.
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
	<i>Performance Measure 8.2</i>	<i>Evidence: Interviews with DNR staff. Review of Statutory requirements, Commissioner's order, Cultural resource and</i>

	<p><i>Program Participants with forest management responsibilities on public lands shall confer with affected Indigenous Peoples with respect to sustainable forest management practices.</i></p>	<p><i>indigenous people Policies, various agreements and MOU's with tribes, and Training material for Cultural Resource Technicians.</i></p> <p>Tribes act as reviewers of the DNR's SEPA documents and Forest Practice applications for timber harvests and major planning efforts on State lands. Cedar bark harvests and tribal vehicle access agreements are examples of the DNR's support to tribal interests.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
	<p><i>Performance Measure 8.3 Program Participants are encourage to communicate with and shall respond to local Indigenous Peoples with respect to sustainable forest management practices on their private lands.</i></p>	<p><i>Evidence: Interviews with DNR staff. Review of Statutory requirements, Commissioner's order, Cultural resource and indigenous people Policies, various agreements and MOU's with tribes, and Training material for Cultural Resource Technicians.</i></p> <p>Along with DNR's SEPA center, the agency's Cultural Resources and Archaeology Program and the Tribal Relations Office are the main avenues of communication with tribes. Specialists regularly confer with tribes to understand their interests, concerns and needs. The Cultural Resources and Archaeology Program is closely linked with the WA State Department of Archeological and Historic Preservation, who maintains a database and mapping of features of cultural interest to tribes.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
<p>Objective 9. Legal and Regulatory Compliance</p>	<p><i>Performance Measure 9.1 Program Participants shall comply with applicable federal, provincial state and local forestry and related social and environmental laws and regulations.</i></p>	<p><i>Evidence: Interview with staff, SFI Procedures, HCP 2017 Annual Report, Forest Roads Guidebook, WAC Forest Regulations</i></p> <p>All staff are aware of WAC (WA State forest practices rules) and frequently attend training. The DNR's State Lands management staff frequently helps draft proposed state legislation. DNR has a strong system to achieve compliance with all laws and regulations. Staff are well trained and educated to carry out compliant management activities. All activities are underwritten by strong legal contracts. Contracts require all bidders to be qualified under the WCLA training (on site crew supervision) and all activities are closely monitored by "compliance" foresters who conduct Pre-work meetings, active inspections and close out inspections. Overall rates of compliance are good.</p> <p>In general, compliance rates are reasonable considering the more than 200+ harvesting and roads and silviculture activities which take place on the DNR lands annually. From 2017-2018, the DNR had a limited number of infractions most of which were Notices to Comply (the lowest type of violation of WAC regulations). The DNR has a detailed procedure which documents response which includes Root Cause Analysis and review from a variety of levels and Departments within the DNR.</p>

	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
	<i>Performance Measure 9.2 Program Participants shall take appropriate steps to comply with all applicable social laws at the federal, provincial, state and local levels in the country in which the Program Participant operates.</i>	<i>Evidence: Evidence: Interview with staff, SFI Procedures.</i> The DNR has a policy in place to comply with all applicable social laws at all levels (PO01-001 equal opportunity and non-discrimination addresses workers rights). ILO Core Conventions are addressed in policies for Collective Bargaining, Trafficking and the elimination of all forms of forced or compulsory labor, Wages and Working Conditions of Minors and Equal Opportunity/ Non-discrimination in respect of employment and occupation.
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
Objective 10. Forestry Research, Science and Technology	<i>Performance Measure 10.1 Program Participants shall individually and/or through cooperative efforts involving SFI Implementation Committees, associations or other partners provide in-kind support or funding for forest research to improve forest health, productivity and sustainable management of forest resources, and the environmental benefits and performance of forest products.</i>	<i>Evidence: Review of DNR membership in research cooperatives includes vegetation management (OSU), stand management (UW) tree improvement (OSU, UI), center for intensive planted-forest silviculture, Intermountain forestry cooperative (UI), Hardwood silviculture (OSU), Inland NW Growth and Yield (U MT).</i> The DNR is a cooperator in a number of forestry research programs addressing forest productivity and management. Their total annual contributions are approximately \$200,000. The DNR has no involvement in research on genetically engineered trees.
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
	<i>Performance Measure 10.2 Program Participants shall individually and/or through cooperative efforts involving SFI Implementation Committees, associations or other partners – develop or use state, provincial or regional analyses in support of their sustainable forestry programs.</i>	<i>Evidence: Interviews with DNR staff. Review of DNR contribution to the SIC including admin support, G&Y reports, compliance monitoring report, Family forest information, and economic forecasts.</i> The DNR is an active member of the Washington SIC and provides administrative support for the organization. DNR also provides a Forest Practices Compliance monitoring report for the SIC and supported the Family Forests Office and species information sheets. Additionally, DNR provides quarterly Economic Revenue Forecasts.
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
	<i>Performance Measure 10.3 Program Participants shall – individually and/or through cooperative efforts involving SFI Implementation Committees, associations or other partners – broaden the awareness of climate change impacts on forests, wildlife and biological diversity.</i>	<i>Evidence: Interviews with DNR staff. Review of various research reports, management plans and the HCP.</i> The DNR has numerous natural resource specialists who maintain current information and report on forest health, risk analyses, HCP implications, and sustainable harvest implications analyses. Forest health specialists and climate change scientists monitor and participate in climate change research.

		<p>The DNR’s forest health programs include pathology and entomology specialists who consider effects of climate change as it relates to these problem areas. Consequences of climate change are part of the HCP and sustainable harvest calculations state wide. A climate change resilience process is ongoing to develop a long-term climate change strategy.</p> <p>The DNR has designated staff to maintain current information on climate change effects relative to state lands and has produced or contributed to a number of peer-reviewed papers on effects of climate change relative to wildfire, wildlife habitat and sustainable management in NW forests. Climate change implications are being built into the developing Marbled Murrelet strategy.</p>
	<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>	
<p>Objective 11. Training and Education</p>	<p><i>Performance Measure 11.1 Program Participants shall require appropriate training of personnel and contractors so that they are competent to fulfill their responsibilities under the SFI 2015-2019 Forest Management Standard.</i></p>	<p><i>Evidence: Interviews with DNR staff. Review of DNR website, Strategic Plan 2014-2017, DNR training videos, upcoming training schedule, DNR's Learning Management System, Forestry Handbook, Timber Sale Contract Handbook, Master Logger website (http://loggers.com/master-logger-program/), and site visit and file review for various timber sales.</i></p> <p>The DNR has committed to maintaining third party certification across all of their forestland. This commitment can be found in their 2014-2017 Strategic Plan as well as on their website. Currently they have 2.4 million acres certified under SFI and 176,000 acres dual certified to SFI and FSC. The DNR has two part time positions dedicated to maintaining their forest management certifications. These include a Forest Certification Program Lead and a Forest Certification Program Specialist.</p> <p>The DNR has implemented an adaptive and comprehensive training program in recent years, with a focus on keeping staff learning throughout their careers. They are continuing to develop training videos for internal and public audiences (YouTube), and are designing their courses to ensure participants stay engaged through videos and interactive participation. Basic courses are required for new hires with some requiring annual attendance. Additional courses are offered on intermediate and advanced topics depending on an individual’s role and responsibilities. These are all tracked and/or mandated through their Learning Management System.</p> <p>The State of Washington has a Master Logger Program (“MLP”), which is a prerequisite for loggers to bid on timber sales on State Lands. The program is administered by the Washington Contract Loggers Association and includes required coursework. The program is designed to exceed the training requirements set out by the Washington State SFI Implementation Committee and requires 4 days of coursework in silviculture and ecology, safety and compensation, forest practices act and regulations, and business management. In addition, Master Loggers must</p>

		<p>maintain valid first aid certification and complete continuing education requirements.</p> <p>All DNR timber sales require proof of Master Logger or Onsite Supervisor Certification for a company to work as a prime harvesting contractor. Contract requirements state that a "Purchaser shall have at least one person on-site during active operations that have completed training according to the requirements outlined within the SFI program Standard."</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
	<p><i>Performance Measure 11.2 Program Participants shall work – individually and/or with SFI Implementation Committees, logging or forestry associations, or appropriate agencies or others in the forestry community – to foster improvement in the professionalism of wood producers.</i></p>	<p><i>Evidence: Interviews with DNR staff. Review of 2017 SFI report, SIC website (http://www.wasfi.org/), Forestry Handbook, Timber Sale Contract Handbook and Master Logger website (http://loggers.com/master-logger-program/).</i></p> <p>DNR staff are active participants in the Washington SIC which publishes brochures and white papers on a range of topics impacting forest management. Educational efforts include offering college scholarships and working with the Washington Contract Loggers Association on the Master Logger Program.</p> <p>In order to maintain Master Logger certification, participants are required to complete 8 hours of qualifying continuing education training per year. Credits can be banked so loggers who complete more than 8 hours per year are able to extend their MLP certification expiry out for multiple years.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
<p>Objective 12. Community Involvement and Landowner Outreach</p>	<p><i>Performance Measure 12.1 Program Participants shall support and promote efforts by consulting foresters, state, provincial and federal agencies, state or local groups, professional societies, conservation organizations, Indigenous Peoples and governments, community groups, sporting organizations, labor, universities, extension agencies, the American Tree Farm System® and/or other landowner cooperative programs to apply principles of sustainable forest management.</i></p>	<p><i>Evidence: Interview with DNR staff, DNR SFI compliance matrix, past SFI annual reports</i></p> <p>The DNR supports the WA State SFI SIC through in-kind donations. The DNR's Forest Certification Program Lead is the SIC Secretary and Web Master and DNR pays for the web domain for the WA SIC.</p>
	<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>	
	<p><i>Performance Measure 12.2</i></p>	<p><i>Evidence: Interview with DNR staff, DNR SFI compliance matrix, past SFI annual reports</i></p>

	<p><i>Program Participants shall support and promote, at the state, provincial or other appropriate levels, mechanisms for public outreach, education and involvement related to sustainable forest management.</i></p>	<p>The DNR have supported a large variety of conservation planning efforts within the State including the following: 416 - WA State Natural Heritage Plan - 2007 Plan, 2009 & 2011 updates, and 2018 plan. Other publications include: 709 Field Guide: Managing Wetlands on State Forest Lands in Washington (June 2000), 710 Guide: Recognizing Wetlands and Wetland Indicator Plants on Forests in Washington (June 2000), 540 - Brochure: Identifying Mature and Old Forests in Western Washington by Robert Van Pelt, June 2007 (old growth) (Linked to on DNR’s external “Identifying Mature and Old Forests in Washington webpage), 541 - Brochure: Identifying Old Trees and Forests in Eastern Washington by Robert Van Pelt, September 2008 (old growth) (Linked to on DNR’s external “Identifying Mature and Old Forests in Washington webpage), 555. Seed Zone Info: a. Manual: WA Tree Seed Transfer Zones (Summer 2002), 1010 c. – Field Guide for Identifying Stream Channel Types and Habitat Units in Western Washington (2015).</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
	<p><i>Performance Measure 12.3 Program Participants shall establish at the state, provincial or other appropriate levels, procedures to address concerns raised by loggers, consulting foresters, employees, unions, the public or other Program Participants regarding practices that appear inconsistent with the SFI 2015-2019 Forest Management Standard principles and objectives.</i></p>	<p><i>Evidence: Interview with DNR staff, DNR SFI compliance matrix, past SFI annual reports</i></p> <p>SIC (Sustainable Forestry Initiative Implementation Committee) - Participation: (Doug Kennedy is Secretary and Webmaster). Examples of support for documenting inconsistent practices include: SIC agendas, SIC meeting highlights, SIC brochure regarding inconsistent Practices / flowchart, a white paper on a verifiable auditing / monitoring program, a WA SIC resources list, WA Contract Loggers Association Master Logger Program training curriculum, and WA SIC Annual Reports including a roll-up of inconsistent practices reporting.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		
<p>Objective 13. Public Land Management Responsibilities</p>	<p><i>Performance Measure 13.1 Program Participants with forest management responsibilities on public lands shall participate in the development of public land planning and management processes.</i></p>	<p><i>Evidence: Interview with DNR staff, DNR SFI compliance matrix, SFI planning processes</i></p> <p>All DNR lands are public lands and the public has a variety of means to be involved in development plans. All major planning documents go through a public consultation process. There are a wide array of procedures/methods for soliciting public feedback including: soliciting public comment on Timber Sales, the Board of Natural Resources website with board members, Forest Land Planning Public Process including examples: local knowledge / stakeholder workshops: agenda, meeting announcements to stakeholders and tribes, outcomes, stakeholder outreach list, scoping meeting info and summary of Public Comments received in scoping.</p>
<p>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</p>		

Objective 14. Communications and Public Reporting	<i>Performance Measure 14.1 A Program Participant shall provide a summary audit report, prepared by the certification body, to SFI Inc. after the successful completion of a certification, recertification or surveillance audit to the SFI 2015-2019 Forest Management Standard.</i>	<i>Evidence: Interview with DNR staff, DNR SFI compliance matrix, past SFI annual reports</i> All past SFI public summary reports are posted on DNR’s public website (https://www.dnr.wa.gov/programs-and-services/product-sales-and-leasing/timber-sales/forest-certification) and on the SFI website.
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
	<i>Performance Measure 14.2 Program Participants shall report annually to SFI Inc. on their conformance with the SFI 2015-2019 Forest Management Standard.</i>	<i>Evidence: Interview with DNR staff, DNR SFI compliance matrix, past SFI annual reports</i> All SFI annual reports are posted on DNR’s public website (https://www.dnr.wa.gov/programs-and-services/product-sales-and-leasing/timber-sales/forest-certification) and on the SFI website.
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
Objective 15. Management Review and Continual Improvement	<i>Performance Measure 15.1 Program Participants shall establish a management review system to examine findings and progress in implementing the SFI 2015-2019 Forest Management Standard, to make appropriate improvements in programs, and to inform their employees of changes.</i>	<i>Evidence: Interview with DNR staff, DNR SFI compliance matrix, various communication processes.</i> Management continually solicits and gathers information from staff and then makes improvements to DNR’s management systems. Meetings include: regular internal staff meetings, Senior Leadership meetings, Forest Resource Division Leadership Team meetings and All-Hands meetings, State Lands Operational Team meetings, Regional Management/Division Management meetings and various specialists’ meetings. Regular public input meetings (in addition to project-specific meetings) include: Monthly Board of Natural Resources meetings, Annual Tribal Summits and an Annual Culvert Injunction Report from Engineering.
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	

Specific Good Management Practices are noted below:

- DNR is adopting new technologies to their forest management practices. Examples include the use of tablets (GPS enabled) to complete inspection reports, drones for conducting surveys and collecting inventory data, collecting Lidar data across all state lands, producing online training programs, and the development and implementation of their new inventory system based on Lidar, photogrammetry, and sample plots.
- DNR has implemented a training regime that is flexible, rigorous, and provides ample opportunity for continuing education. They have implemented a restructuring to their career progression process to become a more attractive employer for skilled and experienced professionals.

- The efforts to protect and enhance riparian areas, generate late seral stage conditions and provide additional habitat for Spotted Owls and other old growth dependent species are being implemented on the ground with success.
- Stakeholder consultation and recreation management were observed to be very thorough, including the development of a new campground area and the inclusion of a local mountain biking club in the harvest unit design process.
- DNR trains and certifies loggers (“Cutter” program) to identify which stems to harvest based on basal area and stem count constraints in selective thinning operations.

Conclusion

The Company has maintained conformance with the requirements of the Sustainable Forestry Initiative Forest Management Standard [2015-2019]. The Certificate can be can be obtained by contacting Doug Kennedy of Washington’s Department of Natural Resources at (360) 902-1283. More information on DNR’s sustainable forestry program can be found at: <https://www.dnr.wa.gov/> or <https://www.dnr.wa.gov/programs-and-services/product-sales-and-leasing/timber-sales/forest-certification>.

The next SFI Assessment will be a Maintenance Assessment and is planned for June, 2019. The registration expires on September 13, 2023.