

2019 SFI® Public Summary Report

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

Date: November 1, 2019

Project Scope and Objectives

PricewaterhouseCoopers LLP (PwC) completed a Maintenance 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) with Sean Pledger, MSc, FIT, EMS(LA), PwC 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 the indicators in the SFI Forest Management Standard were within the scope of the assessment. There were no substitute indicators.

Assessment Process

Between June 11th-13th, 2019, the assessment team conducted interviews and reviewed appropriate documentation to assess policies and procedures, and tested the implementation of SFI program requirements. On June 11th and 12th, 2019, the assessment team visited the regional office (Colville, WA) and conducted field assessments in the NE Region and on June 13th the assessment team visited the regional office (Ellensburg, WA) and conducted field assessments in the SE Region. In total, the audit team spent 6 audit days on-site for office and field assessments. In total 9 harvesting and road construction units, 7 silviculture units, 3 recreation sites and 1 natural area preserve were sampled during the 2019 assessment. The audit report was dated November 1, 2019.

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	Evidence of Conformity
<p>Objective 1. Forest Management Planning To ensure forest management plans include long-term sustainable harvest levels and measures to avoid forest conversion</p>	<p><i>Evidence: Interviews with DNR staff. Review of Draft Eastside Volume Harvest Estimates 06062019, Land Resource Manager (LRM), Silviculture Prescription Report Generator (SPRG), Timber Sale Document Center (TSDC), and 20-Year Forest Health Strategic Plan.</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).</p> <p>DNR is in the process of developing their Eastside Sustainable Harvest Calculation. This is a long term multiyear process which has progressed over the past year. They have developed a model to align Lidar and photo data with ground plots, with updated Lidar data being incorporated periodically. The final model results are anticipated in the second half of 2019 to develop an updated inventory and growth curves for the entire Eastside forest land base. The model which relates remote sensing data to ground plots includes a range of environmental variables, many of which are combined into a Climate Water Deficit descriptor of stand types. Upon completion of the updated inventory and G&Y curves, work will begin on a forest estate model using Woodstock to generate harvest scenarios to be presented to the Board of Natural Resources. The Board is then responsible for making a final determination of the Eastside harvest level.</p> <p>Plot data is continually being collected as part of their Remote Sensing-Forest Resource Inventory System (RS-FRIS). 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.</p> <p>Harvest volumes are tracked via invoicing in the NatureE database. The last two East Side sustainable harvest levels were set in 1985 at 87.5 million BF and 1996 at 76.5 million BF. Recent analysis shows that standing timber stocks would reduce marginally over the coming decade with an annual harvest level set at 87.5 million BF. This is in alignment with the objectives of reducing the proportion of overstocked stands. In practice, harvest levels have been dropping annually since their peak in 2007. In the past 7 years only one year saw harvest levels above 80 million BF, and the past 3 years have all been below 60 million. Currently, DNR is not exceeding their most recent AAC (Eastside) on a 10 year average.</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>On the west side of the state, 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>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><i>No Nonconformities were identified related to this performance measure. One Opportunity for Improvement as identified during this assessment.</i></p> <ul style="list-style-type: none"> The DNR has recently moved to Land Resource Manager (“LRM”) as a spatially integrated platform for record keeping for each timber sale. During the assessment, it was noted that the treatment records for the one harvest unit, showed that there was a “site prep – ground mechanical” treatment in 01/2019 which did not actually occur. DNR staff may wish to review whether this issue was an isolated incident or more systemic and to address any errors in records found for timber sale records. 	
<p>Objective 2. Forest Health and Productivity To ensure long-term forest productivity, carbon storage and conservation of forest resources through prompt reforestation, afforestation, minimized chemical use, soil conservation, and protecting forests from damaging agents.</p>	<p><i>Evidence: Interview with silviculture staff, SFI Procedures, SFI 2019 - Silviculture Reports, HCP 2018 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. Targets in the NE Region are 150 stems/acre. 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 bare land discounted cash flow at 5% and 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 land base such as yearly harvest treatments at the county level. Species planted include: Ponderosa pine, lodgepole pine, Douglas fir, western larch, white pine, spruce and cedar. 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. Currently LRM requires the user to capture species, natural and planted trees per acre (tpa), survival and any notes (competition and damage) for "Survival Surveys". This is the case for other (FG or Free Growing) surveys.</p> <p>DNR uses a variety of silviculture systems, from partial retention and shelterwoods to even-aged management (CC). The type of operation depends 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</p>

and confirmed in field. Harvests are mainly Variable Retention Harvests (VRH) with some thinnings.

The DNR has procedures for the use of chemicals. 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. 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 worker safety considerations.

The DNR uses Integrated Pest Management (IPM) including a variety of ground and aerial herbicide applications 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.

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.

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.

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.

Foresters are on-site frequently to monitor soil 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.

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.

No Nonconformities were identified related to this performance measure. Two Opportunities for Improvement were identified during this assessment.

- One timber sale has been designated as a natural regeneration site and at three years post-harvest, there is little natural regeneration present due to a lack natural seedling germination and brush competition. This unit may not meet the five-year regeneration window in the SFI Standard. DNR may wish to reassess the Silviculture Prescription at this time to determine options for remediating the site and conduct a “lessons learned” review of the treatment for any opportunities to improve natural regeneration success in future units like this one.
- On one forest health driven timber sale, local staff have worked hard to ensure that the timber sale has been approved and sold in a timely manner, but were not able to have salvage harvesting commence before the hatching of the next seasonal cycle (~July 1) of the tussock moth. In situations like this, DNR may wish to consider ways/mechanisms to expedite timber sale approvals for forest health reasons, to improve efforts to both salvage value from affected stands as well as protect remaining timber stands while still meeting SEPA requirements and other legal obligations on the land base.

<p>Objective 3. Protection and Maintenance of Water Resources</p> <p>To protect the water quality of rivers, streams, lakes, wetlands and other water bodies through meeting or exceeding best management practices.</p>	<p><i>Evidence: Interviews with DNR staff, various District level staff, SFI Procedures, HCP 2018 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 cover 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 has 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>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) 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 has 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 roads are 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.</p>
<p><i>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</i></p>	
<p>Objective 4. Conservation of Biological Diversity</p> <p>To manage the quality and distribution of wildlife habitats and contribute to the conservation of biological diversity by developing and implementing stand-and landscape-level measures that promote a diversity of types of habitat and successful stages, and the</p>	<p><i>Evidence: Interviews with DNR staff. Review of 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, Lynx Habitat Management Plan 2006 and selection of harvest plans and Timber sale contracts.</i></p> <p>Eastern Washington has a number of listed and priority species with specific management considerations, including Lynx, Grizzly Bear, Western Grey Squirrel and Northern Goshawk, among others. Lynx have specific management requirements first outlined in a 1996 Management Plan which was updated in 2006. Other species have varying levels of regulatory and voluntary protection, such as Grizzly Bear Recovery Zones. The goal for non-regulated protection is to ensure that populations are stable to ensure regulated protection remains unnecessary. DNR maintains a statewide natural heritage database for rare plant ecosystems to assist internal forest managers and private land owners with the protection of rare species. Stand Level retention for any specific wildlife features will be prescribed by a wildlife biologist and included in the site specific harvest plans.</p> <p>DNR has forest cover and inventory data based on Lidar, air photo and ground plot information, with updates to be completed in 2019. In response to listed or priority species, DNR manages habitat types to ensure no net loss of suitable habitat. For threatened and</p>

<p>conservation of forest plants and animals, including aquatic species, as well as threatened and endangered species, Forests with Exceptional Conservation Value, old-growth forests and ecologically important sites.</p>	<p>endangered species such as lynx, they operate special management zones that are shared with Federal and private land owners. In these areas they communicate with neighbors to ensure habitat is maintained, replaced, or enhanced.</p> <p>During timber sale planning, foresters communicate with Wildlife Biologists to determine if any additional assessments or management constraints are required for an area. Foresters and Biologists will assess areas on the ground when there is a chance of certain priority species being identified. Riparian assessments are conducted in the unit planning phase and DNR has a comprehensive GIS database which lists areas of ecological significance and riparian features.</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 (HCP) addresses diversity conservation within the range of the northern spotted owl in both western and eastern Washington.</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 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><i>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</i></p>	
<p>Objective 5. Management of Visual Quality and Recreational Benefits To manage the visual impact of forest operations and provide recreational opportunities for the public.</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 is considered in the early stages of harvest unit planning. When there are potential concerns along highway corridors, efforts are made to retain a visual screen in front of the unit. For areas with local residence or stakeholders, consultations take place to determine what concerns (if any) they have pertaining to visual management. To lessen the visual impact of harvest units, the DNR implements a number of possible approaches including leave strip buffers, strategically designed unit boundaries, in-block retention patches, and/or scattered single stem retention.</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 exceed 100 acres, additional reviews and approvals must take place. In 2018, the average clearcut size was 33 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>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>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>
<p><i>No Nonconformities were identified related to this performance measure. One Opportunity for Improvement as identified during this assessment.</i></p> <ul style="list-style-type: none"> It was noted during the assessment that in general, the DNR is doing an excellent job of providing recreational opportunities to the public in a manner which is generally consistent with forest management objectives. This includes working with various user groups to help maintain and control trail use which is not detrimental to forest management. During the tour of the Southeast Region, a number of unauthorized UTV/ATV trails were noted during the audit in one area. Staff in the Southeast Region may wish to consider additional methods/efforts to help reduce/control these unauthorized uses of trails in the area including additional education of local residents or additional enforcement efforts if necessary. 	
<p>Objective 6. Protection of Special Sites To manage lands that are geologically or culturally important in a manner that takes into account their unique qualities.</p>	<p><i>Evidence: Review of Cultural resource policy, GIS layers and management plans.</i></p> <p>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 abandoned 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 in accordance with state law that prevents the disclosure of archaeological site locations. 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.</p>
<p><i>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</i></p>	
<p>Objective 7. Efficient Use of Fiber Resources To minimize waste and ensure the efficient use of fiber resources.</p>	<p><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></p> <p>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.</p>
<p><i>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</i></p>	

<p>Objective 8. Recognize and Respect Indigenous Peoples' Rights To recognize and respect Indigenous Peoples' rights and traditional knowledge.</p>	<p><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></p> <p>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.</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>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 spatial database of features of cultural interest to tribes.</p>
<p><i>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</i></p>	
<p>Objective 9. Legal and Regulatory Compliance To comply with applicable federal, provincial, state, and local laws and regulations.</p>	<p><i>Evidence: Interview with staff, SFI Procedures, HCP 2018 Annual Report, Forest Roads Guidebook, WAC Forest Regulations</i></p> <p>All staff are aware of WACs (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 DNR foresters who conduct pre-work meetings, active inspections and close out inspections to ensure compliance with forest practices rules. Additionally, DNR Forest Practices compliance officers will conduct spot checks during operations and close out inspections on state timber sales as they would any other forestland manager in the state.</p> <p>DNR staff are able to review any compliance issues against their operations via the online Statewide Forest Practices Enforcement report. Between 2012 and 2019 DNR has had 52 compliance issues on their operations. These include deviations from approved plans and violations of Forest Practices Act and/or rules, as well as self-reported violations where no environmental damage has occurred. 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> <p>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.</p>
<p><i>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</i></p>	
<p>Objective 10. Forestry Research, Science and Technology To invest in forestry research, science and technology,</p>	<p><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) and Adaptive Management Database.</i></p> <p>DNR maintains an Adaptive Management Database of their research projects across the organization. In the Northeast region they are currently involved in 8 major projects</p>

<p>upon which sustainable forest management decisions are based and broaden the awareness of climate change impacts on forests, wildlife and biological diversity.</p>	<p>including: A Coarse Filter Comparison between historic range variation in Forest Structure and Current Conditions in the Washington Cascades; Carlton Complex Post-Fire Salvage Reforestation and Vegetative Recovery; Intermountain Forestry Cooperative at University of Idaho; Long-Term PCT studies on DNR Lands; PCT of Western Larch in Lynx Habitat on the Loomis State Forest; Reforestation Postfire and Salvage on Highly Productive Eastside Sites; Stock Type Trials; and Tracking Natural Tree Regeneration in Eastern Washington Forests Following Large Wildfires.</p> <p>The DNR is an active member of the Washington SIC and provides administrative support for the organization. DNR Forest Practices 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.</p> <p>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> <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>
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No Nonconformities or Opportunities for Improvement were identified related to this performance measure.

<p>Objective 11. Training and Education To improve the implementation of sustainable forestry practices through appropriate training and education programs.</p>	<p><i>Evidence: Interviews with DNR staff. Review of DNR website, Strategic Plan 2018-2021, 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 full-time positions responsible for 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 Washington Contract Loggers Association administers a Master Logger Program (“MLP”), a voluntary education program that accredits individual loggers and the company they represent. 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 maintain valid first aid certification and complete continuing education requirements.</p>
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	<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>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><i>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</i></p>	
<p>Objective 12. Community Involvement and Landowner Outreach To broaden the practice of sustainable forestry through public outreach, education and involvement, and to support the efforts of SFI Implementation Committees.</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>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>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><i>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</i></p>	
<p>Objective 13. Public Land Management Responsibilities To participate and implement sustainable forest management on public lands.</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 the development of 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>Objective 14. Communications</p>	<p><i>Evidence: Interview with DNR staff, DNR SFI compliance matrix, past SFI annual reports</i></p>

<p>and Public Reporting To increase transparency and to annually report progress on conformance with the SFI 2015-2019 Forest Management Standard.</p>	<p>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.</p>
<p><i>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</i></p>	
<p>Objective 15. Management Review and Continual Improvement To promote continual improvement in the practice of sustainable forestry by conducting a management review and monitoring performance.</p>	<p><i>Evidence: Interview with DNR staff, DNR SFI compliance matrix, various communication processes.</i></p> <p>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.</p> <p>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.</p>
<p><i>No Nonconformities or Opportunities for Improvement were identified related to this performance measure.</i></p>	

Specific Good Management Practices are noted below:

- DNR’s has begun implementing an Individuals, Clumps and Openings (ICO) harvesting system that is designed to produce high quality habitat while meeting Trust fiduciary objectives.
- The continued use and experimentation with Lidar data has enabled the use of crown cover data in harvest planning for ICO operations. Combined with an ICO application tool (App.) for harvesting operators to identify suitable clump and/or leave areas shows a progressive and creative use of technology in forest management.
- Internal collaboration and communication between Planning Foresters and various groups within DNR, such as Fire Unit Foresters, Geologists, and Archeologists helps improve the quality of total chance planning efforts.
- DNR has an extensive recreation program, providing numerous opportunities for responsible public use of DNR managed lands. This includes the expansion and upgrading of campgrounds and trail networks with regular involvement from user groups and community volunteers.
- Good protection of advanced regeneration and retention across a range of serial stages was observed on multiple sites, including Dominion FIT and Wild Plum Sorts. This is enabling the use of natural regeneration while maintaining high quality habitat.
- The use of waterbars and slash piling on deactivated skid trails was seen to be a good way to maintain long term soil integrity.

Conclusion

The Company has maintained conformance with the requirements of the Sustainable Forestry Initiative Forest Management Standard [2015-2019]. The Certificate 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 2020. The registration expires on September 13, 2023.