

# Carbon and Forest Management Work Group

A Progress Report to the Washington State Legislature



Neil Taberner / Forterra

December 1, 2023



WASHINGTON STATE DEPARTMENT OF  
**NATURAL RESOURCES**

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*Prepared by*



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# Executive Summary

The Washington Department of Natural Resources (DNR) manages 2.1 million acres of forested [state trust lands](#) in Washington State. DNR manages these lands to generate revenue for trust beneficiaries such as counties, schools, and universities, and to meet a suite of ecological objectives such as biodiversity.



**Forested state trust lands**

In addition, DNR also has special obligations and responsibilities toward Tribes because the lands that DNR manages are the ancestral homelands and territories of native people. DNR has deep respect for and gratitude towards these original and active stewards of the region. In respect of the sovereignty of Tribal Nations and their rights, titles, and treaties, one responsibility is to engage in government-to-government relationships to ensure access, protection of cultural resources, and sustainable use of shared natural resources. DNR operates under a set of guiding principles as described in the Commissioner's Order on Tribal Relations and DNR's Tribal Consultation Policy.

The future of DNR-managed forests and the multitude of services they provide is currently at risk due to climate change. According to the U.S. Department of Agriculture's Northwest Climate Hub, the average, annual temperature in Washington State has increased by nearly 2° Fahrenheit (F) since 1900, and some of the hottest years on record have occurred in the past 20 years<sup>1</sup>. Depending on the concentration of carbon in the atmosphere, future warming could range from 2°F to as much as 8.5°F by 2050<sup>2</sup>. Warming can result in longer, hotter, drier summers, which can stress trees and leave them more susceptible to insect infestation and disease. Warming also could lead to longer and more intense wildfire seasons and stronger winter storms with powerful winds that can break or topple trees.

In its fiscal year 2023-25 Capital Budget, the Washington State Legislature granted DNR \$2.5 million to find innovative ways to meet its fiduciary responsibilities and support rural economies while also mitigating climate change. Specifically, this proviso ([Chapter 474](#), Laws of 2023, Section 3130 (3)) involves contracting with a facilitator to convene a work group, whose role is to collaborate on management approaches related to the following:

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<sup>1</sup> <https://www.climatehubs.usda.gov/hubs/northwest/topic/climate-change-impacts-northwest>

<sup>2</sup> <https://cig.uw.edu/wp-content/uploads/sites/2/2020/12/snovertalsok2013sec5.pdf>

- Conserving and managing older, carbon-dense, structurally complex forests on DNR-managed lands;
- Increasing carbon sequestration (absorption) and storage in forests and harvested wood products from DNR-managed lands;
- Generating predictable beneficiary revenue;
- Maintaining timber supplies that support local industry; and
- Addressing economic needs in rural counties.



**A structurally complex forest on state trust lands in western Washington**

Potential management approaches developed by the work group will be shared with research contractors, who will quantify their impacts on carbon budgets as well as regional wood supplies, jobs, mills, and rural economies. This data-driven approach will enable work group members and DNR to understand clearly the pros and cons of each approach. In addition, a research contractor will complete a wood supply study to help the work group understand both current and future wood supply and demand, and how changes in wood supplies may affect the timber industry. This work complements other climate change initiatives that DNR has undertaken in recent years (Text Box ES 1).

DNR is prioritizing western Washington forests for this project because these forests are highly productive. In addition, most of the structurally complex forests on state trust lands are located in this portion of the state. Management approaches for eastern Washington forests, which are markedly different in terms of annual rainfall and forest types, will be addressed as time and funding allow.

#### **Text Box ES 1. Examples of DNR’s Climate Change Initiatives**

- Establishment of the Carbon Sequestration Advisory Group under a [2019 budget proviso](#). This group prepared a [final report](#) in 2020. As part of this proviso, DNR and the U.S Forest Service prepared the [Washington Forest Ecosystem Carbon Inventory](#), the state’s first comprehensive assessment of forest ecosystem carbon stocks, flux, and trends. DNR also prepared the [Summary of Natural and Working Lands Carbon Inventories and Incentive Programs in Washington](#), and an [estimate of the carbon stored in harvested wood products](#).
- Development of DNR’s [Plan for Climate Resilience](#), which highlights actions DNR can take to ensure it is prepared for, and adapting to, climate-related changes.
- Development of the [DNR Carbon Playbook](#), which describes opportunities to implement or support carbon projects in Washington that will provide real and verifiable climate benefits.
- Exploration of the possibility to lease state trust lands for carbon sequestration and storage at a price that is reflective of the economic value of logging, diversifying revenue streams and providing greater financial stability and certainty to trust beneficiaries ( the “[Carbon Project](#)”).

DNR has made significant progress on this project. To date, DNR has contracted with BluePoint Planning for meeting facilitation, formed the work group, and issued requests for qualifications and quotes for the two research contractors who will analyze the proposed management approaches. DNR expects the research contractors to begin work in January 2024. To form a work group comprised of a balanced representation of Tribal interests and stakeholders, DNR sent over 200 invitations to a broad range of organizations and received 25 applications. After carefully screening applicants for their experience, knowledge, and expertise, DNR selected 12 members: three each representing trust beneficiaries, conservation organizations, and the timber industry, two representing Tribes, and one representing an environmental justice organization<sup>3</sup> (Text Box ES 2).

### **Text Box ES 2. Carbon and Forest Management Work Group Members**

#### **Tribes:**

- Ryan Miller, Director of Tulalip Treaty Rights and Government Affairs, The Tulalip Tribes
- Pat Tonasket, Elected Official, Confederated Tribes of the Colville Reservation

#### **Trust beneficiaries:**

- Heidi Eisenhour, Commissioner, Jefferson County
- Randy Johnson, Commissioner, Clallam County
- Russ Pfeiffer-Hoyt, Chair, Washington State School Directors Association

#### **Timber industry:**

- Matthew Comisky, Washington Manager, American Forest Resources Council
- Ed Murphy, Information and Ecosystems Services Manager, Sierra Pacific Industries
- Jason Spadaro, Executive Director, Washington Forest Protection Association

#### **Conservation organizations:**

- Bryan Pelach, State Forestlands Program Manager, Washington Conservation Action
- Paula Swedeen, Senior Director of Policy, Conservation Northwest
- John Talberth, President and Senior Economist, Center for Sustainable Economy

#### **Environmental justice:**

- Hannah Jones, Trainings Manager, Firelands Workers United

The first meeting was held on November 8, 2023. At this meeting, work group members learned about state trust lands and DNR's policy framework, and discussed the budget proviso, project timeline, and goals. Going forward, the work group will meet at four- to six-week intervals until the end of the 2023-25 biennium. All meetings will be held remotely and will be open public meetings.

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<sup>3</sup> Environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

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# Part 1: Introduction

In 1957, the legislature created the Washington Department of Natural Resources (DNR) to manage state trust lands for the people of Washington. State trust lands are managed to generate revenue for specific trust beneficiaries such as school districts, universities, and counties.

In addition, DNR also has special obligations and responsibilities toward Tribes because the lands that DNR manages are the ancestral homelands and territories of native people. DNR has deep respect for and gratitude towards these original and active stewards of the region. In respect of the sovereignty of Tribal Nations and their rights, titles, and treaties, one responsibility is to engage in government-to-government relationships to ensure access, protection of cultural resources, and sustainable use of shared natural resources. DNR operates under a set of guiding principles as described in the Commissioner's Order on Tribal Relations and DNR's Tribal Consultation Policy.

Approximately 2.1 million acres of state trust lands in Washington are forested. On these lands, a prevalent revenue-generating activity that DNR performs is timber harvest.

DNR manages forested state trust lands in compliance with state and federal laws and its own policies, including the [Policy for Sustainable Forests](#). DNR also meets the requirements of the 1997 [State Trust Lands Habitat Conservation Plan](#) (HCP), which is a contractual agreement between DNR and the Federal Services<sup>4</sup>. The HCP describes how DNR will protect at-risk species while carrying out forest management and other activities to generate revenue for trust beneficiaries.

The HCP includes four conservation strategies: riparian (streamside forests), northern spotted owl, marbled murrelet, and multispecies. Each of these strategies requires DNR to manage certain areas for specific habitat conservation objectives. Over time, forests in these areas should develop the structural complexity needed by marbled murrelets, northern spotted owls, and other at-risk species. A structurally complex forest includes snags, down wood (fallen trees) and trees of a variety of heights and diameters. In general, most other areas can be actively managed for timber harvest in the context of laws and policies.

According to a recent study completed by DNR<sup>5</sup>, between 1999 and 2017 there was little net change in the number of acres of forest on state trust lands that are either have, or are beginning to develop, the attributes of structural complexity. However, the location of these forests has shifted:



Northern spotted owl

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<sup>4</sup> U.S. Fish and Wildlife Service and NOAA Fisheries

<sup>5</sup> Halofsky, J. and D. Donato, Assessing the Efficacy of a Large-scale Habitat Conservation Plan in Western Washington, USA. In revision, publication expected in 2024.



- In areas **actively managed for timber harvest**, acreage of these forests has **decreased**, as anticipated.
- In areas **managed under the conservation strategies**, acreage of these forests has **increased** as forests have developed, consistent with HCP expectations.

In other words, implementing the HCP has effectively **reorganized the landscape**, enabling DNR to focus more on revenue generation in some areas while promoting habitat conditions in strategic locations to support the needs of at-risk species and provide connectivity with habitat on adjacent federal lands.

Over the last several years, DNR has received requests from stakeholders to cancel the harvest of forests in specific age classes, such as stands that generated prior to 1945, in the actively managed areas. One of their primary concerns is the loss of carbon stored in the wood and soil of these forests. Setting these areas aside from timber harvest could have implications for trust beneficiaries, timber-dependent rural communities, regional wood supplies, and the timber industry.

In its 2023 legislative session, the Washington State Legislature passed a budget proviso to address the relationship between carbon storage and forest management on forested state trust lands. Specifically, Section 3 of this proviso ([2023 c 474 §3130\(3\)](#)) directs DNR to hire a facilitator to convene a work group to collaborate on approaches related to the following:

- Conserving and managing older, carbon-dense, structurally complex forests;
- Increasing carbon sequestration and storage in forests and harvested wood products;
- Generating predictable beneficiary revenue;
- Maintaining timber supplies that support local industry; and
- Addressing economic needs in rural counties.

Section 3 of the proviso also directs DNR to hire two research contractors: one contractor to analyze proposed forest management approaches for their effect on carbon sequestration and storage (the “carbon contractor”) and one contractor to analyze the management approaches for their effects on region wood supplies and rural economies (the “wood supply contractor”). The wood supply contractor also will complete a Washington State wood supply study. This work is described in the following section of this report. A copy of Section 3 of this proviso is included in Appendix A.

DNR looks forward to exploring the role that forested state trust lands can play in climate mitigation in the context of its fiduciary and legal responsibilities. As stated in the [Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change](#), "In the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fiber, or energy from the forest, will generate the largest sustained mitigation benefit."

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## Part 2: Project Approach

The work group will address forest management on state trust lands east and west of the Cascade Crest separately, because these lands are markedly different in terms of annual rainfall, dominant tree species, and prevalent types of natural disturbance. The work group's first priority will be to develop possible approaches for western Washington forests, since these forests are highly productive. Also, most of the structurally complex forests on state trust lands are located in this portion of the state. Eastern Washington will be addressed as time and funding allow.

In the following section, DNR will discuss the major steps of this project.



Ponderosa pine in eastern Washington

### Establishing the Work Group

DNR reached out to nearly 200 organizations to solicit applications for the work group. DNR conducted and facilitated this work through its [Office of Equity and Environmental Justice](#), which works to find well-qualified individuals for appointment and supports DNR's boards and commissions. Applicants were invited to apply through the [Boards and Commissions webpage](#) of [DNR's website](#).

The organizations contacted included the following:

- Tribes and the Northwest Indian Fisheries Commission;
- Trust beneficiaries, including counties, school districts, the Washington State Association of Counties, and the Office of the Superintendent of Public Instruction;
- Timber industry organizations;
- Conservation organizations; and
- Environmental justice organizations<sup>6</sup>.

To encourage more participation, DNR extended the original application deadline, sent reminders, and reached out to individual groups.

DNR received 25 applications from the groups invited. To keep the size of the group manageable, DNR limited membership to three representatives from each of the five groups. DNR carefully screened the applicants for their experience, skills, and knowledge.

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<sup>6</sup> Environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

DNR received two Tribal applications representing both sides of the state and one environmental justice application, resulting in a work group size of 12. Following is the list of work group members and their affiliations.

**Tribes:**

- Ryan Miller, Director of Tulalip Treaty Rights and Government Affairs, The Tulalip Tribes
- Pat Tonasket, Elected Official, Confederated Tribes of the Colville Reservation

**Trust beneficiaries:**

- Heidi Eisenhour, Commissioner, Jefferson County
- Randy Johnson, Commissioner, Clallam County
- Russ Pfeiffer-Hoyt, Chair, Washington State School Directors Association

**Timber industry:**

- Matthew Comisky, Washington Manager, American Forest Resource Council
- Ed Murphy, Information and Ecosystems Services Manager, Sierra Pacific Industries
- Jason Spadaro, Executive Director, Washington Forest Protection Association

**Conservation organizations:**

- Bryan Pelach, State Forestlands Program Manager, Washington Conservation Action
- Paula Swedeen, Senior Director of Policy, Conservation Northwest
- John Talberth, President and Senior Economist, Center for Sustainable Economy

**Environmental justice:**

- Hannah Jones, Trainings Manager, Firelands Workers United

## Selecting Contractors

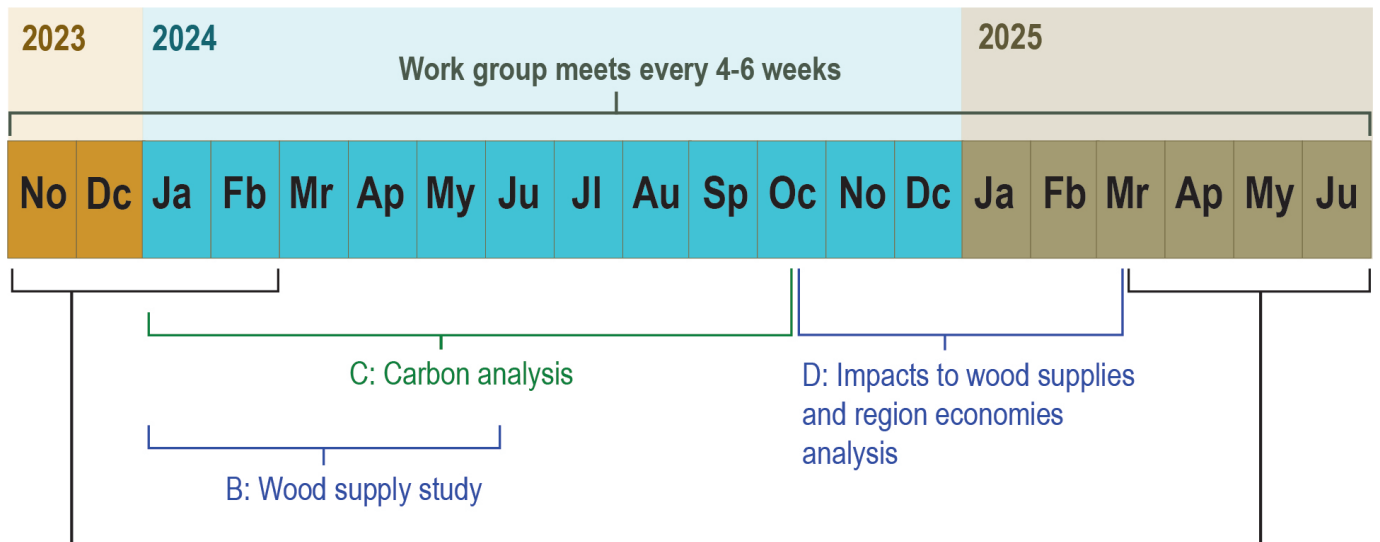
In September 2023, DNR selected BluePoint Planning for meeting facilitation through a competitive process. BluePoint will schedule, lead, and document all meetings of the work group, creating a cooperative environment in which all work group members feel comfortable sharing their views, knowledge, and ideas.

DNR is in the process of hiring the carbon and wood supply contractors. DNR posted the request for qualifications and quotations for both contracts on October 9, 2023. Proposals were due on November 28, 2023, and DNR expects to make a final selection in December 2023. These contractors should begin work in January 2024.

# Timeline and Project Steps

Figure 1 summarize the overall timeline for this project. Following is an explanation of each major step on the timeline.

Figure 1. Project Timeline



A: Work group collaborates on possible approaches to forest management.

E: Work group reviews analysis results and develops a final list of approaches for DNR to consider

## A: Collaboration on Possible Approaches

In late 2023 and early 2024, the work group will collaborate on possible approaches to forest management related to the goals of the budget proviso. Examples of ideas to consider may include, but are not limited to, harvest rotation length, harvest methods, harvest treatments, deferrals, and selection of tree species for climate adaptation.

## B: Wood Supply Study

In January 2024, the wood supply contractor will begin developing the wood supply study, which is due in mid-June. The contractor will estimate the existing and future supply and demand for wood in Washington State by region, including levels required to maintain existing industry-related infrastructure; and assess what is currently known about the needs of existing forest industry infrastructure and what information gaps exist. Forest industry infrastructure includes mills and logging equipment, trucks, and roads.

## ***C and D: Scenario Analysis***

In early 2024, the carbon and wood supply contractors will attend a work group meeting to explain the methodologies they will use to analyze the proposed forest management approaches. Both contractors will use established, peer-reviewed methodologies to complete their work, and the methodology used by the carbon contractor will be consistent with the most current guidance from the Intergovernmental Panel on Climate Change (IPCC) and emerging, peer-reviewed research.

When the management approaches have been identified, they will be provided to the carbon contractor for the carbon analysis. In this analysis, the contractor will estimate the potential increase or decrease in carbon sequestration and storage in both forests and harvested wood that could result from implementing each approach. The contractor will analyze DNR's current forest management practices as well for comparison purposes.

The wood supply contractor will analyze each management scenario to determine how it may affect region wood supplies and rural economies, including jobs. The regions used in the analysis will represent common timbers supply areas that consist of aggregates of counties.

## ***E: Final Selection***

In the spring of 2025, the work group will review all analysis results, consider the proposed pros and cons of each approach, and develop a final list of forest management approaches for DNR to consider.

## **Work Group Meetings**

All meetings will be held virtually during normal working hours and will be a half or full day in length. These will be open public meetings; members of the public may attend as observers.

The work group met for the first time on November 8, 2023. This meeting was an opportunity for work group members to get to know one another; become familiar with the budget proviso, project timeline, and goals; and develop an understanding of state trust lands and DNR's policy framework.

The next meetings are scheduled for December 6, 2023, and January 10, 2024. Subsequent meetings will be scheduled at four- to six-week intervals.

Throughout the project, DNR will post meeting agendas, presentations, recordings, reports, and other information as it becomes available on the [project webpage](#). DNR staff also will provide periodic updates on this project to the [Board of Natural Resources](#).

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## Conclusion

Over the past year alone, the world has experienced major wildfires, catastrophic flooding, high ocean temperatures, and heat waves that have kept some areas sweltering in record heat for weeks. It is not possible to ascribe any single specific event to climate change. Yet taken together, these events highlight the dangers of a warming world.

DNR is firmly committed to addressing climate change. One example is development of the [DNR Carbon Playbook](#), which lays out opportunities to implement or support carbon projects in Washington that will provide real and verifiable climate benefits. DNR is also continuing to explore leasing state trust lands for carbon sequestration and storage through its innovative [Carbon Project](#), and has developed the [DNR Plan for Climate Resilience](#). DNR also has prepared the [Summary of Natural and Working Lands Carbon Inventories and Incentive Programs in Washington](#), and an estimate of the [carbon stored in harvested wood products](#), and worked with the U.S. Forest Service to prepare the [Washington Forest Ecosystem Carbon Inventory](#), the state's first comprehensive assessment of forest ecosystem carbon stocks, flux, and trends.

At the same time, DNR has a fiduciary responsibility to provide perpetual revenue to trust beneficiaries and is committed to supporting the rural communities that depend on timber revenue for jobs and funding for essential services. DNR's hope is that this work group develops innovative and creative solutions that help to mitigate climate change and secure a healthy and prosperous future for current and future generations of trust beneficiaries and Washington residents.

DNR will provide a second progress report to the State Legislature on December 1, 2024, and expects to deliver a final report in the following year.

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# Acknowledgments and Primary Contacts

## DNR Steering Committee

- Cameron Crump, Forest Resources Division Manager
- Duane Emmons, Assistant Deputy Supervisor for State Uplands
- Csenka Favorini-Csorba, Policy Director
- Mona Griswold, State Uplands Special Projects Coordinator
- William Wells, Strategic Advisor

## DNR Technical Team

- Cathy Chauvin, Environmental Planner
- Daniel Donato, Natural Resource Scientist
- Glynis Gordon, Environmental Planner
- Joshua Halofsky, Natural Resource Scientist
- Kristoffer Larson, Lead Economist
- Kate McBurney, Assistant Division Manager, Forest Informatics
- Denise Roush-Livingston, Environmental Planner
- Justin Schmal, Assistant Division Manager, Projects and Planning

## Meeting Facilitation, BluePoint Planning

- Nora Bailey, Project Associate
- Mindy Craig, Principal-in-Charge
- Lauren Schmitt, Project Manager
- Christopher Mendosa, Mendosa Environmental LLC, Sub-consultant

## Carbon and Forest Management Work Group

- Matthew Comisky, American Forest Resource Council
- Heidi Eisenhour, Jefferson County
- Randy Johnson, Clallam County
- Hannah Jones, Firelands Workers United
- Ryan Miller, The Tulalip Tribes
- Ed Murphy, Sierra Pacific Industries
- Bryan Pelach, Washington Conservation Action
- Russ Pfeiffer-Hoyt, Washington State School Directors Association
- Jason Spadaro, Washington Forest Protection Association
- Paula Swedeen, Conservation Northwest
- John Talberth, Center for Sustainable Economy
- Pat Tonasket, Elected Official, Confederated Tribes of the Colville Reservation

## Primary DNR Contacts

Duane Emmons, Assistant Deputy Supervisor for State Uplands

[duane.emmons@dnr.wa.gov](mailto:duane.emmons@dnr.wa.gov)

Brian Considine, Legislative Director

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# Appendix A: Fiscal Year 2023-25 Capital Budget Proviso, Carbon Sequestration Forests

[Chapter 474](#), Laws of 2023, Section 3130 (3a), pages 149-150

(3) \$2,500,000 of the appropriation is provided solely for the department to:

- a) Contract with an independent facilitator to convene a stakeholder group comprised of a balanced representation of relevant stakeholders and tribal interests to:
  - I. Collaborate on approaches related to the conservation and management of older, carbon dense, structurally complex forest stands located on lands managed by the department; increasing carbon sequestration and storage in forests and harvested wood products from department managed forestlands; generating predictable beneficiary revenue; maintaining timber supplies that support local industry; and addressing economic needs in rural counties
  - II. Develop an understanding of current timber supply by region and the effect of potential changes to forest management practices on regional wood supply for the timber market, including an analysis of what is currently known about the needs of existing forest industry infrastructure and what information gaps exist
  - III. Explore concepts and strategies relevant to the sequestration and storage of carbon in forests and wood products from forested state trust lands managed by the department, including the effect of potential changes to forest management practices, that satisfy the department's trust management responsibilities
- b) Contract with universities or other researchers or consultants for additional analysis or existing research that is beneficial in the execution of this section, which must include an analysis of:
  - I. The existing and future demand for wood supply by region, including levels required to maintain existing industry related infrastructure, and modeled impacts on wood supply increases or decreases based on potential changes to forest management practices;
  - II. Carbon accounting and quantification methodologies outlined by the intergovernmental panel on climate change as well as emerging scientific research. The methodologies considered must be used to verify and assess the potential increases or decreases in carbon sequestration and storage, in both forests and harvested wood products based on potential changes to management practices on forested state trust lands that also account for increases or decreases in the availability of wood products harvested from forests managed by the department.