



**DEPARTMENT OF
NATURAL RESOURCES**

**OFFICE OF THE
COMMISSIONER OF PUBLIC LANDS**
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June 30, 2024

The Honorable Bernard Dean
Chief Clerk of the House
338B Legislative Building
Olympia, WA 98504

The Honorable Sarah Bannister
Secretary of the Senate
312 Legislative Building
Olympia, WA 98504

Dear Chief Clerk Dean and Secretary Bannister:

Please accept the enclosed legislative report on the research and cooperation with Finland and Finnish Organizations regarding sustainable forestry practices. This report, submitted on behalf of Department of Natural Resources (DNR), was required in Sec. 310 (34) of the 2023-25 Operating Budget (ESSB 5187). The bill provided funding for DNR to engage in this work and report on how the funding was used, what kinds of research and cooperation were accomplished, and recommendations for further collaboration. The report is due to the appropriate committees of the legislature by June 30, 2024.

Should you have any questions, please contact me at 360-486-3469 or Brian.Considine@dnr.wa.gov.

Sincerely,

Brian Considine
Legislative Director
Office of the Commissioner of Public Lands

Enclosure: Legislative Report – Finland Sustainable Forestry Cooperation

cc: Members of the Senate Ways and Means Committee
Members of the House Appropriations Committee
Senator Marko Liias, 21st LD

Sustainable Forestry Research and Cooperation with the Republic of Finland

A Report to the Legislature in Response to ESSB 5187 Section 310 (34)

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June 30, 2024



WASHINGTON STATE DEPARTMENT OF
NATURAL RESOURCES

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Executive Summary

This report provides the appropriate committees of the legislature with a summary of how the Washington State Department of Natural Resources (DNR) used legislative funding to advance research and cooperation with governmental agencies of Finland and Finnish organizations to implement sustainable forestry practices, as described in the following 2023 budget proviso.

Sec. 310 (34): \$70,000 of the general fund—state appropriation for fiscal year 2024 and \$30,000 of the general fund—state appropriation for fiscal year 2025 are provided solely for the department to advance research and cooperation with governmental agencies of Finland and Finnish organizations to implement sustainable forestry practices. The department must report to the appropriate committees of the legislature by June 30, 2024, on the use of the funds and the research conducted and cooperation accomplished, and make recommendations for further opportunities for collaboration.

DNR has made steady progress over the past two years to strengthen the relationships between the Republic of Finland and the State of Washington, including the public, private, and academic sectors. Through those relationships, we have identified opportunities for future research and collaboration.

These include:

- Sustainable Forestry;
- Wood Building, including the fabrication & use of mass timber/cross laminated timber (CLT);
- Expanding Washington State’s Bioeconomy.

Legislative Leadership

This opportunity to engage with national and international partners is due to the leadership of the Legislature, notably Senator Marko Liias and Representative Kristine Reeves. Since early 2022, Washington has formally engaged with the Government of Finland and Finnish organizations, helping grow both economies through the sharing of knowledge, research, and professional relationships. We thank the Legislature for this additional year for funding and look forward to building off this investment.

Partnership Timeline

Since April 2022, the Washington State Department of Natural Resources (DNR) has been coordinating with the Finnish Embassy, Business Finland, and other partners to collaborate in the areas of sustainable forestry, wood building, and expanding our bioeconomy. With this second year of funding, we've increased the scope of our network, deepened professional relationships, and taken tangible action to advance this work within the state. Based on last year's recommendations, these actions included:

- Joining the PNW Mass Timber Tech Hub and applying for a grant from the Economic Development Administration to increase mass timber fiber supply in Washington
- Hiring a policy advisor to advance the bioeconomy
- Supporting the Department of Commerce's Forest Products Roundtable
- Starting the first major biomass lease for DNR
- Drafting a bioeconomy playbook (forthcoming in 2024)
- Providing technical assistance and support for forest product campuses and hubs in Chelan County, Darrington, Port Angeles, and Seattle.

DNR furthered these partnerships through several in-person events and activities, including:

World Bioeconomy Forum, Washington DC (December 2023)

Two DNR employees attended an international forum held at the Finland embassy in Washington DC. This daylong gathering included presentations about the global bioeconomy, the state of the Finland-USA collaborations, developing national and regional biostrategies, financing the bioeconomy, sustainable use of bioresources, forest-based value chains, and establishing a global hub for the bioeconomy. Staff attended a second day of meetings with their Finnish colleagues, planning for future delegation visits in 2024 and discussing bioeconomy research opportunities with the University of Washington and Washington State University.

Washington Sustainable Forestry Tour (December 2023)

In late 2023, DNR hosted a delegation of academic leaders from Finland for a two-day meeting to discuss DNR research and explore potential areas of mutual research interest and collaboration.

Participants include representatives and researchers from the University of Eastern Finland, part of the Finnish-American Research and Innovation Accelerator (FARIA). The Finnish delegation met with DNR in Olympia and learned about the Olympic Experimental State Forest, watershed-scale sediment production and transportation, forest management, and remote sensed inventory systems.

International Mass Timber Conference (March 2024)

In March 2024, two DNR staff attended the International Mass Timber Conference in Portland, Oregon. Staff participated in sessions on mass timber policy, supply chain dynamics, and carbon sequestration in the built environment. DNR also hosted meetings with mass timber/CLT industry leaders, state and local representatives, and participants from last year's delegation to Finland. Discussions included the new Mass Timber Tech Hub, a recent Economic Development Administration (EDA) designation and joint effort between Oregon and Washington to create a globally competitive mass timber industry in the Pacific Northwest.

Sustainable Forestry and Wood Building Delegation to Finland (June 2024)

The second year of DNR's partnership with the Finnish Embassy and Business Finland concluded with DNR leading a 14-person delegation from Washington State to Finland. The delegation participated in a week of tours and workshops to better facilitate research, collaboration, and business opportunities intended to lead to additional economic development and trade between Washington State and Finland. The Washington State delegation was joined by similar delegations from the forested states of Minnesota, Michigan, Colorado, the Southeast US, and Nova Scotia.

The Washington delegation included elected officials and government representatives at both the state and local level, industry leaders in forestry, and academic leaders from the University of Washington.

The tour was divided into two groups, one focused on Wood Building Products and CLT and another on Forestry.

The Wood Building Products group participated in the following activities:

- Visit to KiraHub and toured WoodCity Helsinki, a business incubator for the wood products, urban design, and architecture
- Visit to Koskisen, a state-of-the-art sawmill
- Visit to Veisto / HewSaw, a manufacturer of sawmill factory parts
- Visit to Metsa Fibre and Pro Nemus Visitor Center, a €2 billion pulp and papermill, integrated with other bio-based sidestream businesses
- Visit to Pinomatic, a manufacturer of sawmill factory parts
- Presentations about mass timber and carbon impacts with City of Tampere, Business Tampere, and University of Tampere
- Visit to Isokuusi wooden daycare and school, a mass timber building
- Visit to Metsä Group Nemus Futurum, a working regenerative forest and demonstration site
- Architecture tour in Helsinki of mass timber buildings and other urban design infrastructure projects

The Forestry group participated in the following activities:

- Visit to Valmet, a developer and supplier of process technologies, automation, and services for the pulp, paper, and bioenergy industries
- Visit to Veisto/HewSaw, a manufacturer of sawmill factory parts
- Visit to Metsa Fibre and Pro Nemus Visitor Center, a €2 billion pulp and papermill, integrated with other bio-based sidestream businesses
- Visit to Ponsse's factory, a manufacturer of cut-to-length logging machinery
- Visit to Riveria Valtimo forest machine training school
- Visit to Koli National Park and surrounding forests, to learn about forestry practices in Finland
- Visit to Joensuu for forest thinning operation, to see active logging using cut-to-length machinery

The delegates jointly participated the following:

- Visit to Stora Enso, a leader in renewable products, packaging, and wood construction
- Visit to UPM Biofore, a leader in biobased products
- A full-day workshop "Shaping the Future of Forestry: Finnish – North American Collaborative Workshop in Helsinki", which included:
 - Presentations from ambassadors and government officials
 - Workshop about:
 - Sustainable Forestry and Biodiversity
 - Policy Development and Future Scenarios
 - Biomass and Biobased Products
 - Wood Construction
 - Finnish Forest Bioeconomy Science Panel

Future Collaboration Opportunities

Throughout the delegation's trip to Finland, as well as through the engagements over the past year, DNR staff have identified a number of opportunities for future collaboration with Finland.

- Connect Washington mills and wood product manufacturers with Finnish companies to share learnings and opportunities related to innovation in the forest-based products industry. DNR and Commerce can convene these parties through the Forest Products Roundtable and at future events, like the International Mass Timber Conference or the World Bioeconomy Forum.
- Invite Finnish companies to Washington State to open US subsidiaries.
- Share funding opportunities for bi-lateral academic research, like a recent National Science Foundation grant that DNR shared with Finnish colleagues.
- Create a shared library of mass timber policies from other countries and states.
- Provide training and research to Finland in areas where the U.S. leads, like biodiversity and endangered species protection, pest and disease, and wildfire management.
- Consider the potential application of Finnish co-op models with Washington's small forest landowners.
- Connect with additional government officials and nonprofits in Finland, to add more policy and social context to the business opportunities and get more in-depth insight into their lessons learned from 10 years of a nationwide Bioeconomy Strategy.
- Convene with other members of the 2023 delegation to share learnings and work from shared foundational knowledge obtained during the trip.

Recommendations

Statewide Strategy

Develop a comprehensive bioeconomy strategy for Washington State. The forest products industry in Finland has embraced the bioeconomy as part of its brand and identity; it has helped Finland respond to changing pulp and paper markets while also preparing for future challenges like climate change. A bioeconomy strategy for Washington state would help unify and align public, private, and academic institutions, Tribal Nations, and nonprofits. Since our natural resources differ from Finland, we can build from their successes but adapt our strategies to meet Washington's unique environmental conditions, markets, and residents. A successful strategy will both highlight and build from Washington's strong forest management practices. This strategy should include a holistic approach to supply chains and markets and clearly identify bottlenecks and opportunities for catalytic investments. Specific themes within the strategy include workforce development, research opportunities, the role of the private sector, data gathering and reporting, and increasing forest resilience and value by advancing new markets that utilize wood fiber.

Integrated Infrastructure

Invest in integrated wood product campuses. Several tours and site visits on the Finland trip showed the benefits of co-locating sawmills, energy, and manufacturing facilities, especially with small-diameter wood. These provided economic and operational efficiencies and served to recruit outside businesses. Efforts are already underway in Washington, like in Chelan County, Darrington, and Port Angeles, and there are opportunities to support these hubs or campuses more holistically, rather than as individual projects. Washington can build on existing sawmill infrastructure by emphasizing small-diameter wood processing and utilizing waste or side stream for biobased products.

Equity and Just Transition

Ensure all communities benefit from the bioeconomy. Wood products, like mass timber buildings, provide biophilic¹ benefits to end-users and residents. Yet only 4,000 mass timber buildings exist in the United States. As we support this growing industry, we should invest not just in mass timber housing, but also other public spaces like schools, daycare facilities, libraries, hospitals, and community centers, so that all Washington residents may benefit from these spaces.

The broader bioeconomy has tremendous growth potential, especially for value-added wood bioproducts like medical applications, hard carbon (batteries), and textiles. If we invest in

¹ A design concept that supports humanity's inherent affinity for and connection with the natural environment. This is especially important as more and more people live in urban areas.

growing the bioeconomy, we need to ensure that the producers of the raw materials (wood fiber from forests), especially Washington's rural small forest landowners who currently manage 3 million acres of Washington's forests, also share in any economic prosperity.

Connections and Collaborations

Support on-going collaboration within Washington and between states. In addition to developing formal relationships between Washington State and Finland, DNR staff have also built and strengthened relationships with colleagues across the state and country. DNR can scale-up its impact by participating in new efforts like the Wood Products Roundtable (Department of Commerce) and the PNW Mass Timber Tech Hub. Additionally, there is a need for students and researchers to better advertise new, innovative products made at universities to forest product companies.

Messaging

Tell the story of Washington's bioeconomy. While forestry is part of Finnish society and identity, government investments and private marketing have also reinforced that narrative, leading to widespread acceptance and support for the country's forests and forest-based economy. Their wood products industry is broad and inclusive, sitting largely under the umbrella of the bioeconomy. As Washington tells its own story of sustainable and climate-smart forestry, we can draw inspiration from effective Finnish talking points to increase public understanding of and appreciation for Washington's strong forest management practices and bioeconomy. These include the efficient 100% utilization of wood, decarbonizing the built environment, biophilic design, clean energy, and transitioning to superior renewable products.

Appendix – Photos



Examining a multi-story storage tower at HewSaw (Finland) made from CLT panels from Vaagen Timbers (Washington)



A live demonstration of cut-to-length logging equipment.



Learning about regenerative forest practices at Metsä's Nemus Futurum (future forest)



Site visit to Metsä Fibre, a €2 billion state-of-the-art bioproduct mill with 250% electricity self-sufficiency and numerous co-located manufacturing facilities.



Visit to an active thinning site, using Finnish cut-to-length logging equipment.



Site visit to WoodCity Helsinki, one of the many wood buildings in Finland.