

Board of Natural Resources
1111 Washington Street SE
MS 47000
Olympia, WA 98504

Hon. Hilary Franz
Commissioner of Public Lands

Dear Members of the Board of Natural Resources and Commissioner Franz:

On behalf of Washington Environmental Council, Washington Conservation Voters, and the Washington Forest Law Center, the UW Regulatory Environmental Law & Policy Clinic is writing to request that the Board of Natural Resources (BNR) adopt a formal, stand-alone forest carbon policy—or initiate rulemaking governing the management of the state forests—to address climate change. Climate change poses a severe threat to the well-being and livelihoods of all Washington’s residents, and also to the health and productivity of the forests that BNR manages for today and tomorrow’s beneficiaries. Every aspect of forest management affects and is affected by climate change. The impacts are occurring today and are rapidly getting more severe. It is no longer tenable to manage the state’s valuable forests without an express, stand-alone policy addressing the exigent crisis of climate change.

Climate change will have extensive and harmful effects on Washington’s lands and people. Temperature increases and precipitation decreases in summer will increase wildfire risk, burning more forests and endangering our communities. Warmer winters will increase flooding, resulting in damage to roads and dangerous landslides. Warmer stream temperatures and an increasingly acidic ocean will critically endanger the state’s famous salmon and oyster stocks. In every corner of Washington, climate change poses a threat.

The BNR controls approximately two million acres of state forest land.¹ Every BNR action on these acres affects the atmospheric global greenhouse gas (GHG) balance. Some BNR decisions will affect the rate of global climate change by sequestering carbon that would otherwise contribute to global warming. Other BNR decisions will affect the rate of global climate change by making net greenhouse gas contributions to the atmosphere.

Yet the BNR has no policy dealing with this new reality—the new normal in which BNR decisions both affect and are affected by climate change. Given the range of challenges and opportunities presented by climate change, as well as the pressing need for fast action, the BNR is obligated to develop a stand-alone policy with forest carbon and climate as its sole, dedicated focus.

Such a holistic forest carbon or climate policy would: specifically address the significant dangers climate change poses to the forests it manages, consider the possible contributions those forests could make to carbon sequestration, and capture the novel opportunities carbon payments could create for the residents who benefit from those lands. Sound management principles, and Washington law, require such a policy.

The BNR cannot fulfill its constitutional, statutory, and fiduciary obligations to prudently manage state trust lands for the public benefit without a policy specifically addressing the new regime created by climate change. Therefore, the BNR should and must adopt a policy—or initiate equivalent rulemaking—to address climate change in the management of its forest lands. As part of that policy, the BNR must:

- assess the risks to state forest lands from climate change and how to mitigate those risks through changed forest practices;

¹ DNR also manages approximately one million acres of agricultural and grazing lands, which also are affected by and affect climate change, but are beyond the scope of this petition.

- assign value to the carbon sequestration capacity of our forests, as well as value to management practices that increase climate resilience of the forest resource;
- adopt forest carbon management principles and practices that provide the greatest public benefits and protections to present and future generations of state forest beneficiaries and Washington residents; and,
- account for the carbon impacts of all project and nonproject actions via SEPA .

The need for a formal BNR policy is great. The BNR has constitutional and statutory authority, and a fiduciary obligation, to shift management in response to climate change—what Commissioner Franz refers to as “the biggest economic and environmental challenge facing our generation.”² Failing to do so is both unlawful and unwise.

I. The need for climate action is great and recognized

The urgency of the moment requires accelerated, dynamic solutions to maintain the public forest resource. The remaining window is small for taking global action soon enough to stave off irreversible consequences in the decades ahead; by one prominent analysis, that window is now under two years.³

Scientific studies released within the last year demonstrate that the threat of climate change is more dire than we knew before. In the past year alone the science of climate change, and the urgency of its associated warnings, have only become stronger. To name only a few among the more prominent recent warnings calling for immediate leadership:

² Hilary Franz, *Issue Priorities*, <http://www.hilaryfranz.com/issues/> (last visited Apr. 15, 2019).

³ C. Figueres et al, *Three years to safeguard our climate*, NATURE 546, 593-95 (2017). See also *World has three years left to stop dangerous climate change, experts warn*, THE GUARDIAN, 28 June 2017, available at <https://www.theguardian.com/environment/2017/jun/28/world-has-three-years-left-to-stop-dangerous-climate-change-warn-experts> (last visited April 15, 2019)

- The Intergovernmental Panel on Climate Change has concluded that global net CO2 emissions would need to be cut by 45% by 2030, and net zero emissions would need to be reached by 2050, to limit warming to 1.5 degrees Celsius.⁴
- The federal government’s Fourth National Climate Assessment laid out in stark terms how climate change will, and already has, caused tremendous human suffering and economic damage across our country.⁵
- In our state, the University of Washington Climate Impacts Group released an updated study further emphasizing its earlier predictions that climate change is likely to increase flooding events in Western Washington as mountain precipitation increasingly falls as rain rather than snow.⁶

With the safety and prosperity of Washington communities at stake, the State of Washington can no longer delay taking meaningful action to address climate change. Washington, among the most heavily forested states in the U.S., is admittedly “already experiencing impacts from a changing climate” and the Department of Natural Resources (DNR) projects detrimental impacts to state forest, aquatic, and agricultural resources.⁷ Washington livelihoods are threatened by climate change as the projected impacts could

⁴ Coral Davenport, *Major Climate Report Describes a Strong Risk of Crises as Early as 2040*, NEW YORK TIMES (Oct. 7, 2018), <https://www.nytimes.com/2018/10/07/climate/ipcc-climate-report-2040.html>.

⁵ U.S. Global Climate Change Research Program, *Fourth National Climate Assessment* (2018).

⁶ Climate Impacts Group University of Washington, *Effect of Climate Change on Flooding in King County Rivers: Using New Regional Climate Model Simulations to Quantify Changes in Flood Risk* (May 2018), https://cig.uw.edu/wp-content/uploads/sites/2/2018/10/UW-CIG_KingCounty_ClimateAndFlooding_FINAL-compressed_v10192018.pdf.

⁷ *Assessment of Climate Change-Related Risks to DNR’s Mission, Responsibilities and Operations, 2014-2016 Summary of Results*, Department of Natural Resources, 1, https://www.dnr.wa.gov/publications/em_climate_assessment010418.pdf?ovn8b8.

affect over 300,000 natural resource jobs within the state.⁸ The health and safety of Washington families are at risk as heat-related illnesses and water-borne diseases become more prevalent due to climate change.⁹

We agree with Commissioner Franz’s statements that all hands in the state are needed. The BNR will need to join with the other arms of the state as leaders in “innovation, technology, and sustainable natural resources management—all of which are needed to combat climate change.”¹⁰ And indeed there is accelerating momentum across the state government to recognize the increasing threat posed by climate change and the need for rapid action.

More than a decade ago, the Washington legislature set GHG limits in statute. Anticipating the harms of climate change—“damage done by droughts, wildfires, floods and windstorms”—the legislature passed HB2815 into law and prioritized climate action in Washington by creating a framework for reducing the state’s greenhouse emissions.¹¹ This legislation acknowledged that Washington “has long been a national and international leader on energy conservation and environmental stewardship.”¹² In enacting that bill, the Washington legislature wisely recognized the special opportunities created by

⁸ Hilary Franz, *Letter to Legislators*, 2 (2018), https://www.dnr.wa.gov/publications/em_cpl_carbon_principles.pdf (last visited Apr. 15, 2019)

⁹ *Id.*

¹⁰ *Id.*

¹¹ H.B. 2815, 60th Leg., Reg. Sess. (Wash. 2008); Governor Chris Gregoire, *Climate Change Bill Signing*, (2008) <https://www.digitalarchives.wa.gov/GovernorGregoire/speeches/speech-view.asp?SpeechSeq=135> (last visited May 17, 2019). The resulting statute was codified at RCW 70.235. Like all state agencies, DNR is subject to the statutory emission limits and is obligated by RCW 70.235.050 to meet its first GHG reduction by July 1, 2020. A stand-alone, targeted climate policy, as proposed in this petition, would help facilitate DNR’s compliance.

¹² H.B. 2815, 60th Leg., Reg. Sess. (Wash. 2008)

“Washington’s unique emissions portfolio” including “the opportunities presented by Washington’s abundant forest resources.”¹³

This year the Washington legislature passed multiple bills that ambitiously address major contributors to climate change and doubled down on clean energy.¹⁴ The legislature set ambitious and laudable provisions that address many sectors contributing to climate change: 100% carbon-free energy by 2045, sustainable building standards, prohibiting major climate pollutants, and incentivizing electric vehicles.¹⁵ These bills were written with the firm understanding that climate change poses an urgent threat that requires immediate action. And these laws demonstrate that the Washington legislature will not leave families and businesses vulnerable to forest fires, droughts, or any of the other devastating harms associated with a changing climate.

In the same vein, Governor Inslee’s office has recognized that immediate actions can and must be taken to protect families and businesses from the threat of climate change. According to the governor, Washington leaders simply “cannot be passive witnesses to catastrophic change.”¹⁶ Governor Inslee, through executive order, has directed all Washington agencies to consider how their actions contribute to climate change and to find

¹³ *Id.*

¹⁴ S.B. 5223, 66th Leg., Reg. Sess. (Wash. 2019); H.B. 1112, 66th Leg., Reg. Sess. (Wash. 2019); H.B. 1114, 66th Leg., Reg. Sess. (Wash. 2019); H.B. 1257, 66th Leg., Reg. Sess. (Wash. 2019); H.B. 1126, 66th Leg., Reg. Sess. (Wash. 2019); H.B. 5588, 66th Leg., Reg. Sess. (Wash 2019).

¹⁵ H.B. 1112, 66th Leg., Reg. Sess. (Wash. 2019) (“Because the impacts of climate change will not wait until congress acts to clarify the scope of the environmental protection agency's authority, it falls to the states to provide leadership on addressing hydrofluorocarbons”).

¹⁶ Governor Jay Inslee, *Climate Impacts in Washington State*, <https://www.governor.wa.gov/issues/issues/energy-environment/climate-impacts-washington-state> (last visited May 17, 2019).

solutions that will reduce greenhouse gas emissions.¹⁷ In the Governor’s own words, “if we don’t act, our children and grandchildren will inherit these problems on a scale that’s hard to imagine.”¹⁸

Commissioner Franz ran for Public Lands Commissioner with a promise to address climate change in the management of State lands, and has a broad public mandate to fulfill that promise. Since the election, Commissioner Franz has urged lawmakers to act on climate change by adopting effective, smart carbon policy in Washington State that reduces carbon pollution, strengthens the health and resilience of Washington’s natural resources, accelerates carbon sequestration, and invests in climate change mitigation strategies.¹⁹ Under Commissioner Franz’s leadership DNR has conducted internal assessments that examine “how climate change directly impacts [the DNR’s] responsibilities as the steward of state-owned and -managed lands and waters.”²⁰

These are important statements, but they have not yet translated into action by the BNR, which Commissioner Franz chairs. As the world changes rapidly, the BNR has remained static, and almost perfectly silent on this critical topic. And while broad, bold legislative action is important, the BNR does not need to wait for the legislature to take large-scale, substantive action on climate change. The legislature has already given the BNR the authority—in fact, the duty—to immediately begin the process of adopting a climate policy.

¹⁷ Exec. Order 18-01, State Efficiency and Environmental Performance (Jan. 16, 2018).

¹⁸ Governor Jay Inslee, *Climate Impacts in Washington State*.

¹⁹ Hilary Franz, *Letter to Legislators*, 3 (2018); Department of Natural Resources, *Smart Carbon Policy for Washington*, <https://www.dnr.wa.gov/climate-change> (last visited Apr. 15, 2019).

²⁰ Department of Natural Resources, *Smart Carbon Policy for Washington*, <https://www.dnr.wa.gov/climate-change> (last visited Apr. 15, 2019).

Whether considering the emission or sequestration side of the state's carbon balance, the BNR can no longer purport to manage state forest resources intentionally or intelligently without a comprehensive climate policy—one that *expressly* accounts for the accelerating climate science and the attendant warnings for immediate climate action.

II. Climate change implicates every aspect of forest management.

Without a formal climate or carbon policy, the BNR fails to recognize the value of the sequestration potential of state trust lands and has not adequately guarded these lands against the harmful effects of climate change. Its inaction has therefore endangered the welfare of Washington's lands and residents.

The aims of a BNR climate change policy should be twofold: (a) to protect resources held in trust against the impacts of climate change, and (b) to harness the power of Washington's state forests to mitigate climate change by sequestering carbon and to gain value from providing such benefits.

(a) The BNR must protect the resources with which it is entrusted against climate change-related harms.

The BNR is entrusted with the prudent management of the forests, roads, waters, and trails on state trust lands. Despite predicting extensive and harmful climate change-related impacts on these lands, the BNR has neglected to consider such effects in the formulation of its management policies.

Although the BNR has not engaged in meaningful climate change analysis, the DNR—through its Sustainable Harvest Calculation (SHC)—has forecasted climate change's effects on state trust lands, which suggest the many considerations the BNR would need to

incorporate into a policy.²¹ All models cited by the DNR in its SHC predict increased temperatures and decreased precipitation in the Puget Sound Region.²² As a result, the DNR expects an increased likelihood of wildfires and at least a doubling of area burned relative to historical fires.²³

Moreover, several recent studies strongly suggest that intensive plantation forestry characterized by young forests and spatially homogenized fuels tend to make wildfires burn faster and more intensely, presenting a critical danger to forest ecology; in certain western forests, burn severity tended to be higher in areas with more intense management.²⁴ ²⁵ Shorter rotation tree farming maintains a high percentage of young stands, which keeps high fuel loads close to the ground. Natural and mature forests, however, have more fire-resistant bark, higher canopies, and more complex fuel distribution, which hinders the movement of fires.²⁶ Short-rotation forestry also degrades the critical ecological services of water storage and flood control, leaving Washington communities vulnerable to the effects of increasing climate change-caused natural disasters.²⁷

²¹ Sustainable Harvest Calculation Draft Environmental Impact Statement (DEIS), at 3-6 (2016), available at <https://www.dnr.wa.gov/shc> (last visited May 17, 2019)

²² *Id.* at 3-7.

²³ *Id.* at 3-8.

²⁴ Curtis M Bradley et al., *Does increased forest protection correspond to higher fire severity in frequent-fire forests of the western United States?*, *ECOSPHERE*, 7(10), 9 (2016), <https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/ecs2.1492>.

²⁵ Harold S. Zald and Christopher J. Dunn, *Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape*, *ECOL. APPLICATIONS*, 28(4), 1068 (2018). <https://esajournals.onlinelibrary.wiley.com/doi/pdf/10.1002/eap.1710>.

²⁶ *Id.*

²⁷ Bill Moomaw et al., *The Great American Stand U.S. Forests and the Climate Emergency*, The Dogwood Alliance, at 6 (2017). <https://www.dogwoodalliance.org/wp-content/uploads/2017/03/The-Great-American-Stand-Report.pdf> (last visited May 14, 2019).

Decreased snowpack and increased precipitation falling as rain will also have a damaging effect on DNR-managed lands. Warmer stream temperatures and decreased summer flows will present thermal and physical barriers to salmon and steelhead migration.²⁸ Meanwhile, winter flooding will have negative effects on salmon eggs.²⁹

A climate change policy addressing the dangers climate change poses to state forests and their associated resources—roads, waters, and trails, among others—is a necessity if we are to mitigate these harms. The BNR’s failure to adopt such a policy will result in a failure to realize maximum effective use of these lands.

(b) There is significant value in the sequestration ability of Washington’s forests.

Increasing the sequestration abilities of Washington’s forests will benefit all the people of Washington as well as the specified trust beneficiaries. By managing forests for greater resilience to climate risk, the state can avoid costs to taxpayers and lost trust revenue. Forestry practices that reduce risk of loss can also pull more carbon pollution from the atmosphere, allowing the state to benefit from financial incentives for carbon drawdown, while ensuring the long-term health and welfare of its lands and people.

Forests are currently responsible for the capture and storage of an estimated 25 percent of global carbon emissions.³⁰ A mature tree can sequester up to 48 lbs. of carbon per year, making mature forests one of the best tools we have against climate change.³¹ If

²⁸ DEIS, at 3-10.

²⁹ *Id.*

³⁰ N.L. Harris et al., *Attribution of net carbon change by disturbance type across forest lands of conterminous United States*, Carbon Balance Management, 1 (2016) https://www.fs.fed.us/nrs/pubs/jrnl/2016/nrs_2016_harris_001.pdf.

³¹ Stand4Forests, *Resources*, <https://stand4forests.org/resources/> (last visited May 14, 2019).

deforestation-related activities were halted on a global scale, without altering our emissions behavior, we could reduce global net emissions by 75 percent in the next 50 years.³²

Logging practices, even when conducted as a forest fuel reduction treatment, result in a net loss of forest carbon storage, and an increase in forest carbon emissions.³³ Eighty-six percent of wood product carbon is released back into the atmosphere in 100 years.³⁴ The DNR, like most forest management bodies, measures carbon emissions as a result of logging activities as offset by the sequestration of the forests it manages.³⁵ However, it is estimated that logging accounts for 85 percent of emissions from U.S. forests and that logging diminishes the potential forest carbon sink by 35 percent.³⁶ Although the EPA does not report annual emissions from logging activities, one study suggests that carbon emissions from logging from 2006 to 2010 averaged 584 MMT of CO₂ per year.³⁷ We cite this emerging research, not in opposition to logging and active forest management, but in support of the BNR undertaking a thoughtful analysis of what types of logging and forest management meet its legal mandates and provide the greatest benefit in the context of rapidly-worsening climate change.

³² Bill Moomaw et al., *The Great American Stand U.S. Forests and the Climate Emergency*, The Dogwood Alliance, at 6 (2017).

³³ John L. Campbell et al., *Can fuel-reduction treatments really increase forest carbon storage in the western US by reducing future fire emissions?*, FRONTIERS IN ECOL. AND ENVIRON., at 8 (2011), <https://ir.library.oregonstate.edu/concern/articles/vd66w041v?locale=en>.

³⁴ Stand4Forests, *Resources*.

³⁵ DEIS, at 4-10.

³⁶ Stand4Forests, *Resources*.

³⁷ Bill Moomaw et al., *The Great American Stand U.S. Forests and the Climate Emergency*, The Dogwood Alliance, at 6 (2017).

The forests of the Pacific Northwest are among the most carbon-dense ecosystems on the planet.³⁸ But current forest practices do not take on this opportunity to sequester carbon.³⁹ Short rotations and intensive harvesting significantly reduce our forests' ability to sequester carbon.⁴⁰

The value of this lost sequestration potential could be realized in both emerging carbon payment systems and in the broader benefit to Washington's residents by offsetting emissions. New opportunities for payments for forest carbon storage seem to emerge daily.⁴¹ By failing to fairly weigh or even calculate this potential value, the BNR has fallen short of its statutory and trust responsibilities in ensuring the maximum beneficial value in the management of our forests.

It is not enough that some carbon is stored in finished wood products. Carbon stored in wood products is far less than the carbon stored in the forests where they were grown. Sixty percent of carbon sequestered in a temperate forest is in its soil⁴² and another large portion is sequestered in limbs and roots that do not end up in wood products.⁴³

Carbon sequestration can be dramatically increased by changes in forest management without necessarily sacrificing wood production. A recent large-scale study

³⁸ Erica A. H. Smithwick et al., *Potential Upper Bounds of Carbon Stores in the Pacific Northwest*, ECOL. APPLICATIONS 12(5), 1303, 1313(2002).

³⁹ David D. Diaz et al., *Tradeoffs in Timber, Carbon, and Cash Flow under Alternative Management Systems for Douglas-Fir in the Pacific Northwest*, 9(8) 447 (2018).

⁴⁰ *Id.*

⁴¹ "King County is the nation's first local government to offer a certified carbon credit program that protects local forests."
<https://www.kingcounty.gov/elected/executive/constantine/news/release/2019/May/9-forest-carbon-program.aspx>

⁴² Rattan Lal, *Forest Soils and Carbon Sequestration*, *Forest Ecology and Management*, 220(1-3) 442, 444 (2005).

⁴³ Mark E. Harmon et. al., *Effects of Partial Harvest on the Carbon Stores in Douglas-fir/Western Hemlock Forests: A Simulation Study*, *Ecosystems*, 12, 777 (2009).

suggests that carbon sequestration in Washington’s forests could be increased by 44% and timber production by 2% through adoption of Forest Stewardship Council management standards coupled with longer rotations.⁴⁴ Longer rotations, reserving some forest for sequestration, and actively managing forests to sequester more carbon are all options that the BNR should consider, and indeed must consider in order to fulfill its statutory mandate—to establish policies to ensure that its forest management is based on sound principles designed to achieve the maximum effective development and use of such lands and resources.

Commissioner Franz has called for an investment in statewide carbon sequestration programs that maximize carbon stored in trees and soils.⁴⁵ The BNR can answer that leadership call by establishing a policy that considers the carbon sequestration value of state-owned forests in all future planning efforts, and that uses such consideration to evaluate methods to implement carbon-friendly forestry on state forestlands.

III. The BNR today lacks a clear, meaningful forest carbon policy or mitigation rules governing state timber harvest in light of the threats facing forests due to climate change

The BNR, though well aware of the grave threat to Washington’s forests and people, has taken no evident account of climate change, and adopted no formal policy, to address the fact that DNR is actively logging forests that constitute vast sinks of sequestered forest carbon. This is no small oversight because the Board and DNR’s adopted environmental and social policies are crucial to managing our state forests.

⁴⁴ Davies et al, *Climate Smart Forestry for a Carbon-Constrained World* (Sept. 12, 2017) us.fsc.org/download.ecotrust-forest-carbon-report.415.htm.

⁴⁵ Hilary Franz, *Letter to Legislators*, 3 (2018).

When the BNR adopts policies, those policies matter and are consequential to its decision-making. Policies drive actions. The BNR as well as the DNR frequently cite (or “tier” to) the BNR’s broad policy statements when making lower-level programmatic decisions, or when conducting specific actions on state forest lands. DNR regularly incorporates the Board’s adopted environmental policies in its commitments to obtaining and maintaining DNR’s 70-year ESA Section 10 “habitat conservation plans” (HCPs). The bottom line is that the Board’s adopted policies govern many state-authorized actions and dictate DNR’s compliance with the law.

In 2006, in its most recent substantial policy adoption process, BNR gave only passing acknowledgement to the existence of climate change. The 2006 Policy for Sustainable Forests (PSF) refers to climate once, and only secondarily in the context of pest management. That sole reference to climate change in the PSF declares: “A number of silvicultural activities, including prescribed fire, can be used to keep forests healthy and resistant to insects, disease, catastrophic fire and the effects of drought and climate changes.”⁴⁶ The PSF does mention the capacity of state forests to hold carbon, but only in passing, taking note of “carbon sequestration” as one of many examples of worthwhile “ecological and social” benefits that might be, or become, economically valuable.⁴⁷

Thus, the BNR’s most up-to-date governing policy, the PSF, does not reference climate change in any substantive way, gives no meaningful consideration to the role forest management plays in either releasing or sequestering carbon, and does not begin to address the manifold impacts that accelerating climate change will have on the state’s

⁴⁶ Washington State Dep’t. of Natural Resources, *Policy for Sustainable Forests*, at 31 (2006).

⁴⁷ *Id.*, p. 26.

forests. Climate science and climate impacts have grown exponentially in the 13 years that have passed since the last policy. Yet BNR is setting its highest-level management principles as if it is still 2006. The PSF marked something important in its time, but climate change requires an entirely different policy – a policy specifically tailored to climate challenges and carbon opportunities.

In the absence of any BNR climate policy, the DNR managers are left without firm direction when exercising their delegated duties on state forest lands. DNR, not BNR, develops details of the most significant long-term non-project actions on state forest lands, such as the Sustainable Harvest Calculation (SHC).

The SHC will guide, limit, or facilitate future timber management and sales—starting with the next 10 years, a crucial window for climate action, and projecting effects out as far as 50-100 years, when the strong effects of climate change will steadily manifest in our forests. The 2016 Draft Environmental Impact Statement (DEIS) for the SHC illustrates well the short shrift and insufficient consideration given to climate and carbon management on state forest lands in the absence of a clear policy.⁴⁸ DNR candidly admits that it “does not currently have a policy that specifically addresses climate change.”⁴⁹ In the absence of such a policy, DNR broadly—and rather imprecisely—points to the 2006 PSF for guidance: “existing language in the [PSF] provides both silvicultural flexibility and forest health and natural disturbance-response guidance that should facilitate an adaptive agency response to a changing climate.” That existing language, however, provides essentially no direction for managing forests in a climate-changed world: the PSF says almost nothing about

⁴⁸ Sustainable Harvest Calculation Draft Environmental Impact Statement (DEIS) (2016), available at <https://www.dnr.wa.gov/shc> (last visited Apr. 15, 2019)

⁴⁹ DEIS 3-11.

climate or carbon. The PSF surely does not provide any actual guidance that could be applied with confidence to a major decadal management plan such as the SHC.

Without a clear climate policy for state forest lands, DNR is left to carry out many calculations, as it does in the 2016 DEIS for the SHC, without setting those calculations in the reality of a changing climate. DNR properly acknowledges the massive amounts of carbon already sequestered in DNR-managed lands in western Washington—an amazing 145,193,000 tonnes of stored carbon.⁵⁰ And DNR does tabulate overall net carbon storage in western Washington state forests under various alternatives, and over 10- and 50-year planning horizons.⁵¹ By pooling the carbon sequestered on all western Washington DNR lands—taking very large sequestration credit for growth on the great majority of land that is not cut—the SHC shows that net carbon sequestration *increases* over the 10- and 50-year horizons.⁵² On the lands where cut does occur, however, DNR uses a literature-based average to conclude that there is a net *loss* of carbon sequestration of 1.08 tonnes of carbon per (harvested) acre in western Washington forests.⁵³

Taking these calculations to be accurate for the sake of argument, it is still not apparent how the DNR should take such figures into account in its forest management decisions. For that, DNR would need context—here, they would need a climate-policy context set deliberately by the BNR. A BNR climate policy would guide SHC and other major actions on state lands by helping with questions such as:

⁵⁰ DEIS, 3-11.

⁵¹ DEIS, 4-11 (Fig. 4.2.2).

⁵² *Id.*

⁵³ DEIS, 4-9 (following Sonne, J. Environ. Qual. 35:1439–1450 (2006)).

- How does DNR need to adjust forest management to account for changed climate conditions? For example, as wildfire becomes a statewide threat, can DNR justify continued use of even-aged harvest and regrowth of densely stocked, fire prone tree plantations, or does prudent management require fire prevention management statewide?
- On what basis could DNR assess whether a 10-or 50-year increase in carbon sequestration on state land was just right, too little, or (though it might be hard to justify) too much?
- If every harvested acre emits 1.08 tonnes of carbon over 50 years, how does DNR justify that harmful contribution to global climate change from public lands? Has it deliberately weighed the value of climate harm to trust benefit?
- Should the state be building up a savings account of stored carbon – for forest resilience, for future monetization, or for reduction in fire risk – rather than spending out carbon today for shorter-term gain?

The answers to these questions are not self-evident. And the PSF certainly does not begin to answer them. Only an express climate and carbon policy set by the BNR could provide the necessary frame.

IV. The BNR has the authority and the duty to adopt a clear, meaningful policy governing how the State’s forests should be managed in light of climate change

Const. art. 16, § 1 requires the state to manage the public lands “for all the people.”

The Board also has the authority and duty to “adopt and enforce rules as may be deemed

necessary and proper for carrying out the powers, duties, and functions imposed upon it.”⁵⁴ Indeed, the Board can manage forests to standards over and above that which is merely required by law: the Board has the authority to adopt forest management policies and long-term environmental commitments “that exceed minimum standards governing the use of the trust lands if doing so reflects a reasonable balancing of short-term interests and the protection of trust productivity in the long-term.”⁵⁵

In furtherance of the constitutional Article 16, § 1 directive, the state public lands act authorizes and directs that the BNR “shall . . . [e]stablish policies to ensure that the acquisition, management, and disposition of all lands and resources within the department's jurisdiction are based on sound principles designed to achieve the maximum effective development and use of such lands and resources consistent with laws applicable thereto.”⁵⁶ Put simply: there is no conceivable way for BNR to comply with this statutory mandate in the long term without an express climate policy.

Taking the statutory mandate piece by piece (with emphasis added):

- BNR *shall* establish policies; BNR has no discretion to not adopt key policies.
- Such policies have to *ensure* certain things; it is not enough for the policies to gesture, or merely tend, toward the ends they must serve.
- The scope of the required policies must include the *management...of all lands and resources* the BNR oversees; BNR policies must take in a full sweep of forest assets.

⁵⁴ RCW 43.30.215 (6).

⁵⁵ 1996 A.G.O. Op. No. 11, at 6.

⁵⁶ RCW 43.30.215 (2).

- BNR land and resource management must be based on *sound* principles; not just any principle will do -- a sound principle must have some broad, external referent that provides a sophisticated technical basis for the principle.
- Any sound principle that the BNR applies to its lands must drive firmly toward maximum effective *development and use*, in tandem; the ultimate end of a BNR policy is not maximum extraction or maximum preservation but maximum effective tending-to, broadly considered.

Drawing these pieces back together, the statute dictates that the BNR must do more than establish any kind of land management policies. BNR policies must ensure effective use and development of the full array of BNR resources, must do so weighing use and development on a level basis, and must do so with reference to some external standard that has wide acceptance and technical substance. Certainly, the required BNR policies must incorporate considerations beyond merely maximizing timber harvest; the statute requires that the policies serve not only maximum “development” but also ensure—on a fully equal basis—“use” of all BNR “lands and resources.” This language is expansive enough to give the BNR not only the authority, but also the obligation, to consider climate change as part of its mandatory policy development.

Climate change will be the dominant long-term force shaping the BNR’s resources for the conceivable future. By entirely failing to account directly for climate risks, and by failing to account directly for the mitigating potential of forest carbon sequestration, the BNR is failing to consider what is likely *the* most important aspect of long-term forest management. Without a climate and carbon policy, the BNR fails to satisfy a foundational statutory mandate—to *ensure*, in the face of massive transition, that the forests will be

managed to their maximum potential, and managed with reference to the very sound and very clear science describing a climate-changed future.

The BNR has stepped up to a similar task in the past, with the PSF. The PSF sets guidelines for multiple non-harvest policy considerations including forest health, old-growth stand conservation, wildlife habitat conservation, and riparian conservation.⁵⁷ These non-harvest policy considerations were then, and remain, well within the BNR’s purview, are consistent with the public lands act mandate, and are within the state’s authority as recognized by the state courts to “withdraw limited acreage of public lands from certain uses ‘[f]or the purpose of providing increased continuity in the management of public lands and of facilitating long range planning by interested agencies.’”⁵⁸ Similarly, climate change—both its effect on state trust forest lands, and the potential effects of Washington’s forest management on climate change—are well within the scope of BNR’s policy-making authority, as recognized previously in another context by BNR and the courts.

A sound BNR climate policy for state forests would be wholly consistent with the long-term interests of the trusts, however the trust mandate is defined.⁵⁹ Under the public

⁵⁷ Washington State Dep’t. of Natural Resources, *Policy for Sustainable Forests*, at 3 (2006).

⁵⁸ *Chuckanut Conservancy v. Washington State Dep’t. of Natural Resource*, 232 P.3d 1154, 1161 (Wash. Ct. App. 2010) (quoting RCW 79.10.210).

⁵⁹ 1996 AGO No. 11; Daniel J. Chasan, *A Trust for All the People: Rethinking the Management of Washington’s State Forests*, 24 Seattle Univ. L. Rev. 1 (2000); John B. Arum, Comment, *Old-Growth Forests on State School Lands—Dedicated to Oblivion?—Private Trust Theory and the Public Trust*, 65 WASH. L. REV. 151 (1990); PETER GOLDMAN, WASHINGTON FOREST LAW CENTER, THE “TRUST MANDATE” GOVERNING STATE-OWNED AND MANAGED FORESTS ALLOWS THE BOARD OF NATURAL RESOURCES TO EXCEED MINIMAL REQUIREMENTS OF FEDERAL AND STATE LAW WHEN ADOPTING STATE FOREST MANAGEMENT PLANS AND CONSERVATION POLICIES IF THE BOARD DEEMS SUCH MEASURES ARE IN THE PUBLIC INTEREST, (July 25, 2018)

lands act, the BNR has a statutory obligation to establish a climate policy ensuring that the state is providing for sound long-term forest management. That policy will necessarily speak to maintaining forest assets securely for the long term. Planning for climate-resilient forestry, accounting for emerging carbon sequestration payments, and adjusting climate-risk factors in projecting future economic returns all facilitate preservation of the trust corpus – the long-term productivity of the forests. Whether the benefits of stable, productive forests are thought to accrue to “all the people” generally or to discrete beneficiaries, the BNR must write a climate policy ensuring sound long-term forest management in a changed climate regime. The trust mandate in no way prevents the BNR from pursuing a sound climate policy in accordance with statute. To the contrary, satisfying the trust mandate’s requirements for preserving the trust corpus and assuring intergenerational equity require the BNR to adopt a sound climate policy for state forests.

V. As part of its climate change policy and SEPA’s role in state forest management, the BNR must include carbon in its SEPA analyses

In addition to adopting a policy or rules that govern carbon-oriented forest management, the BNR must also adopt policies on how it uses SEPA to account for forest carbon emissions at the scale of the programmatic level or, if appropriate, at the timber sale level. The failure to conduct a programmatic analysis leaves both BNR and DNR vulnerable to sale-by-sale legal challenges for an absence of analysis of site-specific and cumulative impacts of climate change.⁶⁰

⁶⁰ Consider, for example, the many suits brought against individual federal coal, oil, and gas leases because individual project NEPA analyses failed to take the cumulative effects of

SEPA applies to all major actions significantly affecting the quality of the environment,⁶¹ and applies unless there is an applicable statutory or administrative exemption such as there is for Classes I-III forest practices.⁶² In the case of state timber sales and adopted policies, DNR has a duty to apply SEPA to all “major actions having a probable significant environmental impact.”⁶³ In 1997, DNR formally memorialized its duty to conduct SEPA for state timber sales authorized by the BNR in regulation by enacting WAC 332-41-833.⁶⁴ WAC 332-41-833 (1) gives the DNR the authority to determine which decisions to sell timber from public lands require SEPA review. WAC 332-41-833 (2) asks the question this way: “What is the threshold for determining that timber sale decisions are exempt from SEPA?” The answer:

[S]mall sales not requiring approval by the board of natural resources and have low volume and low acreage. **DNR has not extended this determination to sales requiring approval by the board of natural resources because of the public values associated with public lands. However, this determination is not intended to alter DNR's SEPA compliance responsibility for regulatory decisions concerning forest practice applications for state and private lands** under RCW 76.09.050 and WAC 222-16-050.⁶⁵

greenhouse gas emissions into account. (SEPA’s section on environmental impacts statements is almost identical to NEPA. See USC § 4332; RCW 43.21C.030.) These could have been avoided had the federal government adopted a programmatic NEPA analysis. *W. Org. of Res. Councils v. U.S. Bureau of Land Mgmt.*, No. CV 16-21-GF-BMM, 2018 WL 1475470, at *9 (D. Mont. Mar. 26, 2018), appeal dismissed, No. 18-35836, 2019 WL 141346 (9th Cir. Jan. 2, 2019); *High Country Conservation Advocates v. United States Forest Serv.*, 52 F. Supp. 3d 1174, 1190 (D. Colo. 2014); *WildEarth Guardians v. United States BLM*, 870 F.3d 1222 (10th Cir. 2017); *WildEarth Guardians v. Jewell*, 738 F.3d 298, 309 (D.C. Cir. 2013); *WildEarth Guardians v. U.S. Forest Serv.*, 828 F. Supp. 2d 1223, 1239 (D. Colo. 2011); *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41 (D.D.C. 2019).

⁶¹ 43.21C.030 (1)(c)

⁶² See RCW 43.21C.037 (1).

⁶³ RCW 43.21C.031 (1); *Noel v. Cole*, 98 Wn.2d 375, 380, 655 P.2d 245 (1982).

⁶⁴ Wash. State Register 07-08-021.

⁶⁵ WAC 332-41-833 (2)(b) (emphasis added).

Not only does WAC 332-41-833 (1) explicitly state that timber sale approvals by the BNR are subject to SEPA, it even distinguishes DNR timber sales on *public* land from DNR’s “regulatory decisions concerning forest practice applications.” DNR’s regulation makes plain that SEPA applies to decisions to sell timber, regardless of the classification of the underlying permit, so long as the timber sales are of sufficient acreage and volume.

Multiple other DNR documents assume that DNR will conduct site-specific SEPA for state timber sales. For example, the state public lands act requires DNR every ten years to calculate the “sustainable harvest” on DNR lands.⁶⁶ In the EIS for its 2004 Sustainable Harvest calculation (SHC), DNR stated that higher level environmental review was not feasible reasoning that

Site-specific analyses under guidance of the State Environmental Policy Act will occur for “projects” such as thinning, road construction, or other forest management activities that constitute a governmental action subject to the State Environmental Policy Act.⁶⁷

DNR has also cited the fact that it conducts SEPA review at the timber sale level in programmatic documents affecting vast areas of DNR’s managed forests. For example, in DNR’s SEPA checklist accompanying its determination of non-significance (DNS) for a proposed “minor amendment” to DNR’s HCP relative to the marbled murrelet, DNR wrote in response to “Question 7” on its SEPA checklist:

DNR plans to carry out timber sales and related activities that are individually identified and consistent with its sustainable harvest policy adopted by the Board of Natural Resources. This proposal addresses changes to a landscape level interim habitat plan for management of lands covered by

⁶⁶ RCW 79.10.320.

⁶⁷ EIS for 2004 SHC, at ES-1.

DNR's HCP for the described planning units. **For each individual timber sale or other authorized activity subject to SEPA, there will be a site-specific analysis of the environmental impacts in conjunction with the SEPA threshold determination process.**

Similarly, in the "Animals" section of DNR's SEPA checklist for its proposed "minor amendment," in response to the question whether "any threatened or endangered species [were] known to be on or near the site," DNR wrote:

For each individual timber sale or other authorized activity subject to SEPA, there will be a site-specific analysis of its environmental impacts in conjunction with the SEPA threshold determination process.

There are other examples. DNR regularly defers conducting environmental analysis on broad programmatic documents by citing its legal responsibility and commitment to conduct sale-by-sale SEPA review in the future.

As an integral part of its climate change policy, the BNR must include net carbon impact as part of all its non-exempt and non-project SEPA analyses. When our legislature passed the State Environmental Policy Act it affirmed that "each person has a fundamental and inalienable right to a healthful environment."⁶⁸ The Washington Supreme Court has recognized that "the choice of this language in SEPA indicates in the strongest possible terms the basic importance of environmental concerns to the people of this state."⁶⁹ One of SEPA's purposes is "to promote efforts which will prevent or eliminate damage to the environment and biosphere."⁷⁰ Climate change is the biggest threat to the health of the

⁶⁸ RCW 43.21C.020.

⁶⁹ *Leschi Imp. Council v. Washington State Highway Comm'n*, 84 Wash. 2d 271, 280, 525 P.2d 774, 781, opinion corrected, 84 Wash. 2d 271, 804 P.2d 1 (1974).

⁷⁰ RCW 43.21C.010(2)

environment in Washington and the stability of the worldwide biosphere. The BNR cannot ignore net carbon emissions and still fulfill its obligations under SEPA.⁷¹

California's environmental analysis scheme offers valuable guidance for a potential BNR SEPA policy related to climate change. Following a statutory mandate, the California Natural Resources Agency has developed regulations that define how California agencies must consider greenhouse gas emissions within the environmental analysis required by the California Environmental Quality Act (CEQA).⁷² Compliance with CEQA's greenhouse gas emissions analysis follows three basic steps: "identify and quantify the greenhouse gas emissions; determine the significance of those emissions in the context of climate change; and if the impact is found to be significant, identify alternatives and/or mitigation measures that will reduce the impact below significance."⁷³ The BNR should utilize the tools already developed in California to develop a SEPA policy that quantifies greenhouse gas emissions, determines a threshold for impact of those emissions, and plans for mitigation strategies.

VII. Conclusion

The BNR has the authority and duty to both the public and current and future generations of trust beneficiaries to adopt a sound forest carbon management policy or rules.

⁷¹ See *Columbia Riverkeeper v. Cowlitz County* (Shoreline Hearings Board (deciding that a methanol terminal must consider carbon emissions in its SEPA analysis)).

⁷² S.B. 97, 2007-2008 Reg. Sess. (Ca. 2007); 14 CCR § 15064.4; 15 CCR § 15183.5.

⁷³ Office of Planning and Research, *CEQA and Climate Change Advisory Discussion Draft*, 7 (2018), http://opr.ca.gov/docs/20181228-Discussion_Draft_Climate_Change_Advisory.pdf.

BNR manages forest land with a carbon sequestration potential that is globally significant. But the BNR cannot take full advantage of the available opportunities, or satisfy its obligations, without establishing a broad climate policy – one that adapts its forest management practices to the expected effects of climate change on the forests, and that harnesses the potential for the forests to mitigate climate change through carbon sequestration. We believe the BNR is obligated to immediately begin a process for setting such a climate policy (or adopting an equivalent rule), along with accompanying SEPA analyses to account for the carbon impact of all non-exempt and non-project BNR actions.

We look forward to working with the BNR on developing the policy or equivalent rules requested in this petition. Thank you for your attention to this important matter.