March 9, 2023

Dear Chair Dembrow and Members of the Senate Education Committee,

Families for Climate is a state-wide non-profit organization based in the Portland area. From 2021-2022 we helped craft Portland Public Schools' Climate Crisis Response, Climate Justice, and Sustainable Practices Policy, which includes a strong curriculum component. This reinforced a 2016 board resolution to develop a climate literacy implementation plan. The first course rolled out at all high schools in 2020, during the pandemic.

SB 854 includes many positive aspects that would improve student health and the climate resilience of our workforce and economy; it also contains areas that will need more work to improve its chances of effective implementation. **We support the spirit of this bill and offer the following four friendly amendments that would close loopholes and require state agencies to take a lead role,** since climate curriculum roll-out has proven to be so challenging at PPS.

We request that the Senate Education Committee amend SB 854 to 1) prioritize the rapid development of standards and model curricula at the state level, and 2) allow districts to subsequently adopt model curricula or develop an equivalent that meets state academic content standards, drawing from a list of approved activities, resources and materials.

Specifically, we ask that the Committee:

- Require the Oregon Health Authority, in partnership with a team of mental health professionals and the Oregon Department of Education, to develop a model curriculum by early 2024 that supports the mental health of students; integrate new curricula into existing Oregon Health Education Standards by July 2024, and coordinate with school district liaisons to design and implement a training process for relevant staff so that curricula and mental health supports are available to all middle and high school students throughout the state by January 2025 or sooner. Youth mental health crises are at an all-time high and there are no beds available in residential treatment facilities; **our kids need hope and tools to cope, STAT**.

- Drop Sections 2.1 and 2.2 from this bill and, instead–
- Require the Oregon Department of Education to develop 1) new academic content standards for climate resilience by 2024 and 2) science-based and developmentally appropriate model curricula for K-12 students that integrate Oregon's 2022 Science Standards (which already denote standards proximal to climate

change),[1] Oregon's high school civics standards (SB 513), and other relevant standards by 2025. Ensure that Districts have adopted model curricula or an equivalent "climate change instructional program that meets the academic content standards no later than the 2026-2027 school year." (In alignment with Section 2.4.B.)

- Strike *"and other interested stakeholders"* from sections 2.4.a. and section 2.4.c. to safeguard against undue influence of industries fighting climate regulation (see pg. 4 for details).

Background:

1. **We are greatly heartened that the Oregon Health Authority is a key stakeholder in shaping curricula.** Ever since the release of the June 2022 report on youth mental health, Families for Climate has been asking about next steps. Schools hold the most potential for helping children process and find support for strong feelings related directly or indirectly to climate adaptation and mitigation pressure. Yet, Oregon has a very small pool of mental health professionals who specialize in youth climate anxiety/trauma. This legislation has the potential to extend much-needed guidance and support to school districts, growing the number of caring adults trained to offer support to students integrated within existing classes and through lunchtime/afterschool support groups.

    a. The following strategies for nurturing hope and resilience were identified in the OHA report and should be cornerstones of climate curricula for Oregon's students.
        i. Create space for youth to come together and share their feelings about climate.
        ii. Engage together in making social change.
        iii. Nurture a stronger relationship with nature and our physical environment.

    b. In addition to creating space for youth to come together and share their feelings, we believe that **teaching youth skills that strengthen their ability to engage together in making change** is essential to giving them hope and agency essential for mental health in these challenging times. These leadership and collaborative problem-solving skills were not specifically listed in Section 2.2. regarding academic standards, but should be included, and expanded by soliciting recommendations from youth climate leaders: civic engagement (enhancing democracy, meeting with legislators, testifying), consensus building, mediation, persuasive writing, public speaking, video production, project management, event planning, meeting facilitation, coalition building, finding common ground across differences, social media strategy, etc.

    c. Districts should consider creating **incentives for students to engage together in making change through civic leadership**, such as offering independent study credit, creating paid internships for income-qualifying students, or developing a special certificate toward graduation. Many of today's youth climate leaders invest 10-20 hours/week on top of their existing studies, jobs, and family obligations. This is physically, mentally, and emotionally taxing – they are carrying more than their share of the burden to bring about necessary change in their communities and our state. Oregon's youth climate leaders often take time off school to focus on climate leadership and work, but these things do not need to be at odds.

[1] "The adopted 2022 Oregon Science Standards include the foundational understanding of weather, climate, and human impacts on natural resources in Kindergarten through Grade 5. The standards also specifically identify global climate change and human impact on earth's system as a disciplinary core idea in middle school and high school."

d. Educators may benefit from OHA-developed resources and forming support groups to manage their own climate anxiety, so they can show up for their students and provide the necessary grounded, pragmatic guidance needed to grow our Oregon's future leaders.

2. We strongly support Section 2.4 requiring ODE to develop science-based and developmentally appropriate academic standards and model curricula.
    a. To nourish the resilience of Oregon's next generation, it is essential that K-12 climate curricula be **tailored for children across a wide range of developmental stages**. It makes sense for the Department of Education to take a leadership role in developing age-appropriate climate curricula because it has capacity to ensure standards and curricula are reviewed by pediatric/educational psychologists with experience in youth climate anxiety. For example, it is the role of K-5 teachers to provide a strong foundation in math fundamentals, the science of reading and foster connection and curiosity about the world around them through scientific inquiry.[2] Grades 6-12 is the time to introduce more complex analysis, apply scientific principles, and help children learn how to engage as citizens. Educators will also need training to be able to signal hope and provide scaffolding for the knowledge, skills and abilities necessary to meet the challenge before all of us: aligning our economic, energy, transportation, materials, food (and other) systems with planetary constraints as we adapt to changing weather patterns and wildfire.
    b. These standards should be **supported by tribal governments**[3] **and align with Oregon's climate strategies in multiple sectors**, from energy, as described in the Renewable Portfolio Standard, to forests, farms, transportation and other sectors with potential for climate solutions. Several course-setting bills are currently being considered (Nature-based Solutions, Building Resilience, the TREES Act, Worker Safety and more). To date, there has been a great deal of division over Executive Order 20-04, and the legislation working its way through a democratic process in this session may finally codify Oregon's climate strategy into law. Consider removing the academic standards section 2.2 from SB 854, to be finalized by DOE in early 2024 so Oregon's new strategies may be integrated.
    c. Academic standards and model curricula should be **informed by research/best thinking about climate drivers & solutions.** The list of instructional requirements for climate change instruction listed in Section 2.2 requires more thoughtful consideration, significant editing, vetting by child psychologists and is not ready to be made into law. Most of the standards listed in the proposed legislation are appropriate for high school curricula, not K-8. The following is a sample of the necessary edits and resources to help guide the next round of standards/curricula.
        i. 2.2.J. Please revise to: "Examine world views driving the crisis, including historic and contemporary western beliefs, alongside Indigenous practices and principles for approaching environmental sustainability and ecological knowledge." Resources: Braiding Sweetgrass for Young Adults, Braiding Sweetgrass Teaching Guide (UO), Scene on Radio, "The Repair", The Mother Tree Project
        ii. 2.2.b. Please revise to: "Examine systems change, durable change, and personal choice. How should a person invest limited time and energy to have the most positive impact on Earth's physical and biological systems?" Resources: *The Big Fix*, A Matter of Degrees, TreeHugger,
        iii. Revise 2.2.k. "Teach students to assess the relative positive and negative impacts of their household's choices with regard to energy sources, consumption/solid waste, transportation habits, ecological stewardship, and community-building/inspiring change, including the short-

[2] See overview of Oregon's 2022 Science Standards
[3] Have these proposed standards already been reviewed by educators from tribal governments?

and long-term impacts on human communities and larger ecosystems." (Students need to understand that human impacts can also be positive and increase resilience.)

iv. Revise 2.2.f. "Teach students to generate solutions to current issues in their communities through resilience-building activities such as engaging in stewardship activities to connect with nature, deepening connection with people holding different perspectives, civic participation, proposing new policy."

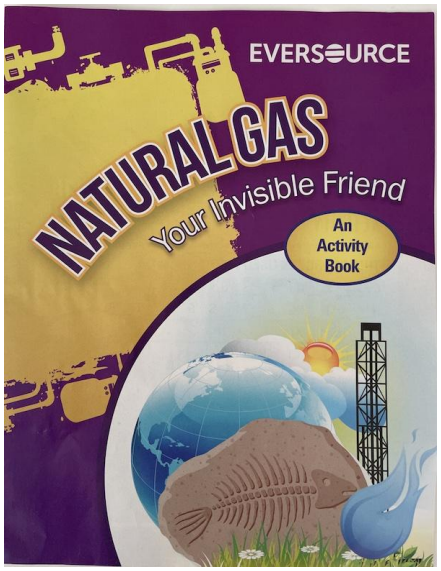
v. Well-ordered policy language conveys the authors' theory of change.
   1. Section 2.2.f - Tools and skills to intervene in systems change should immediately follow psychological skills (2.2.c), since collective action is a positive coping mechanism.
   2. Position L and g after b to link how economic, political, and social systems interact with physical and biological systems.
   3. Co-locate 2.2.d. and 2.2.h. and add information about regional climate justice issues such as the Thacker Pass lithium mine, recent laws passed (and opposition) to make sure that communities experiencing climate change first and worst have access to safe working conditions and are protected from energy price hikes, tree canopy disparities in Oregon cities. Resource: Branch Out PDX mapping tool to explore the connection between social justice communities, low tree canopy and high heat.

vi. Other resources for those drafting academic standards and model curricula:
   1. Miseducation: How Climate Change is Taught in America by Katie Worth
   2. The Future We Choose, by Christiana Figueres
   3. All We Can Save, an anthology with resources for educators
   4. Dismantling White Supremacy to Address the Climate Crisis, Me and White Supremacy - young readers edition by Layla F. Saad
   5. Yale Center for Climate Communications

d. Model curriculum must be **grounded in science and the writing process should guard against influence by industry actors fighting state climate regulation.** *Please strike "~~and other interested stakeholders~~" from sections 2.4.a and section 2.4.c.* Schools are a great way to spread messages; that's why industry groups develop and package curricula to "help" busy teachers.

i. For example, Oregon Forest Resources Institute provides K-12 educational materials, but a 2021 Secretary of State audit found that OFRI acts on behalf of the forestry products industry, not in the public interest. Currently, conservation groups are working to eliminate state-funded OFRI educational programming.

ii. Similarly, over the past three years NW Natural passed at least $500K to fund a program through Bonneville Environmental Foundation that paid Oregon teachers to develop science curriculum for use in classrooms. The curriculum suggests that we can turn waste into methane and continue its combustion in Oregon's buildings. This is not a climate solution supported by research.[4] (Renewable



[4] The gross potential of this technology in Oregon is <5% of 2018 natural gas use. See Biogas and Renewable Natural Gas Inventory SB 334 Report to the Legislature. Available at: https://www.oregon.gov/energy/Data-and-Reports/Documents/2018-RNG-Inventory-Report.pdf

Natural Gas is costly to produce and should be reserved for special industrial processes and marine transport applications.) Student organizers paused the roll-out of the NW Natural-funded curriculum to Oregon teachers in January, 2023. As further evidence that the fossil fuel industry sees schools as a vehicle to win the hearts and minds of future customers, please see a 2021 Oregonian story about NW Natural offering children's activity books to teachers (above, full text).

iii. The nuclear industry is also keen to get its K-12 curricula inserted into climate education efforts, as described by this 2018 Greenwire article. To date, Oregonians have not chosen to pursue nuclear energy because of the carbon cost of uranium processing, and well-known risks, which the Department of Energy manages from nuclear hazards to our north.

The Oregon Department of Education and the schools it oversees should be independent from logging, fossil fuel, nuclear, and other industry propaganda.

3. **Please carefully consider language related to "climate-focused sustainability career pathways."** We would not want to mislead students that specific careers in sustainability exist. Rather, there is a wide array of occupations that can make a big impact. As Dr. Leah Stokes underscores in this Matter of Degrees podcast episode, all jobs can be climate jobs. That's why it is important for students in career and technical education programs to receive integrated climate mitigation and adaptation instruction, just like every other student. Becoming an HVAC technician or an electrician is an essential climate career pathway right now, since 1 billion machines need to be switched to high-efficiency electric heat pumps, and that will require rewiring a majority of homes. Learning to build homes using advanced framing technology and other envelope-pushing techniques can make a big impact. Studying and implementing best practices in soil carbon management to enroll your family's farm in a carbon farming program is an important career path. Going full-bore on math to become an engineer or an architect who can design zero energy homes and buildings could be a sustainability career pathway. Becoming a building operator who geeks out on pumps and efficiency, a teacher who can impart care and connectedness or a logistics manager who can minimize fossil gas waste – are all important. Anybody can lead change: more than one Portland beauty salon owner is a beacon of climate care, powering their business with renewable energy, minimizing waste, and offering discounts to customers who arrive by bike. And, if the Natural Climate Solutions bill, the TREES Act and federal IRA money come through, students will be able to access living wage jobs in urban and rural forest care.

> "**To address our climate emergency, we must rapidly, radically reshape society. We need every solution and every solver.** As the saying goes, to change everything, we need everyone. What this moment calls for is a mosaic of voices- the full spectrum of ideas and insights on how we can turn things around."
>
> — Ayana Elizabeth Johnson, *All We Can Save: Truth, Courage, and Solutions for the Climate Crisis*

Hats off to the many teachers, students, legislators and staff who came together to write and advance this bill – you are the hope of Oregon.

Thank you for your consideration,

Noelle Studer-Spevak, MS, MPA
Families for Climate Board of Directors