

# SENATE BILL REPORT

## SB 6121

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As of January 19, 2024

**Title:** An act relating to biochar production from agricultural and forestry biomass.

**Brief Description:** Concerning biochar production from agricultural and forestry biomass.

**Sponsors:** Senators Van De Wege, Nobles and Randall.

**Brief History:**

**Committee Activity:** Environment, Energy & Technology: 1/19/24.

**Brief Summary of Bill**

- Adds definitions related to biochar production to the Washington Clean Air Act.
- Sets a biochar production fee of \$1.00 per ton of agricultural waste consumed for agricultural outdoor burning permits.
- Includes biochar production as an outdoor burning permit issued and regulated by the Department of Natural Resources on certain lands, and on the list of priorities related to reducing the need for burning in logging and silvicultural operations.

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### SENATE COMMITTEE ON ENVIRONMENT, ENERGY & TECHNOLOGY

**Staff:** Matt Shepard-Koningsor (786-7627)

**Background:** Biochar. Biochar is a solid substance made from burning organic material derived from agricultural and forestry wastes in a limited oxygen environment. Biochar properties vary depending on the material it is produced from and the temperature at which combustion occurs. Biochar can be used as a soil amendment by itself, or it can be blended with other soil amendments. Some benefits of biochar include carbon sequestration, improved crop yields, and soil water retention.

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*This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not part of the legislation nor does it constitute a statement of legislative intent.*

Washington Clean Air Act. Under the Washington Clean Air Act (Act), outdoor burning is generally prohibited in any area of the state where federal or state air quality standards are exceeded for pollutants from outdoor burning, in urban growth areas, or in certain large cities threatening to exceed state or federal air quality standards. Outdoor burning means the burning of material in an open fire or an outdoor container without controlling the fire or emissions.

Restrictions on outdoor burning do not apply to silvicultural burning to improve or maintain fire-dependent ecosystems for rare plants or animals. Outdoor burning may be allowed in the following instances:

- for the exclusive purpose of managing storm- or flood-related debris; and
- when normal, necessary, and customary to ongoing agricultural activities if:
  1. the burn is not conducted during air quality episodes and an impaired air quality determination; and
  2. the agricultural activities preceded the designation as an urban growth area.

Outdoor Burning Permits. The Department of Natural Resources (DNR), the Department of Ecology (Ecology), and certain political subdivisions such as counties, conservation districts, fire protection authorities, and local air authorities, may issue permits under the Act for a variety of outdoor burning activities in their respective jurisdictions, including agricultural burning and silvicultural burning. In general, permit fees for agricultural burning are set by the permitting agency, in consultation with a task force, subject to certain maximum fees for field and pile burning.

DNR is responsible for issuing and regulating permits and associated fees for certain burning activities on lands under its fire protection authority to: (1) abate and prevent fire hazards; (2) facilitate forest firefighting instruction; and (3) enable burning operations to improve fire-dependent ecosystems and otherwise improve state forestlands. DNR must encourage more intense utilization in logging and alternative silviculture practices to reduce the need for burning, and to encourage landowners to develop and use alternative acceptable disposal methods subject to the following priorities:

- slash production minimization;
- slash utilization;
- nonburning disposal; and
- silvicultural burning.

**Summary of Bill:** The following definitions are added to the Act:

- biochar means a carbon-rich material produced during the pyrolysis process or solid material obtained from the thermochemical conversion of biomass in an oxygen-limited environment, derived from clean cellulosic biomass from forest and agricultural sources;
- biochar micro unit means a mobile biochar production unit utilizing fire physics to attain reduced emissions relative to open burning that consumes a maximum of 25

- green tons per month of clean cellulosic biomass;
- biochar mini unit means a mobile biochar production unit utilizing air curtain incinerator technology that consumes a maximum of 150 green tons per month of clean cellulosic biomass; and
- clean cellulosic biomass means those residuals akin to traditional cellulosic biomass, including agricultural and forest-derived biomass, urban wood, corn stover and other biomass crops, bagasse and other crop residues, wood collected from forest fire clearing activities, and several listed examples of each. Clean biomass is biomass that does not contain contaminants at concentrations not normally associated with virgin biomass materials.

A biochar production fee of \$1.00 per ton of agricultural waste consumed applies to outdoor burning permits for agricultural activities.

Producing biochar with biochar micro units or biochar mini units from the burning of clean cellulosic biomass from forestry operations is added to the:

- list of activities for which DNR is responsible for issuing and regulating burning permits and associated fees; and
- list of priorities under which DNR must encourage landowners to develop and use in logging and alternative silviculture practices to reduce the need for burning.

**Appropriation:** None.

**Fiscal Note:** Requested on January 12, 2024.

**Creates Committee/Commission/Task Force that includes Legislative members:** No.

**Effective Date:** Ninety days after adjournment of session in which bill is passed.

**Staff Summary of Public Testimony:** PRO: This is an important bill because there is a lot of forest biomass that needs to be removed and it is often burned with no benefit. This provides value to a lot of logging slash, and value that helps the environment. Biochar is an emerging technology and it is promising. Ecology is lagging a bit in permitting these biochar units. The biochar kilns we use are not burn barrels, but Ecology defines them as such. Burning slash in biochar units prevents catastrophic wildfires. The ring of fire kiln is essentially a wind screen around a kiln. It is a micro kiln emitting much less particulate matter than an open burn. Biochar is a future in sustainability. It takes a byproduct and creates an economic use. This is scientific and complicated, but if we can figure it out, it is a big win for our forests. It is easier to do a prescribed burn than to get a biochar unit permitted.

OTHER: We do not have a position on the bill but want to provide technical information about what is happening in Oregon. Air curtain incinerators show decreased emissions reductions relative to open burning. We have significant concerns because biochar

production releases fine particulate matter and toxic pollutants. To comply with existing state and federal law, biochar production requires submittal of a new source permit application to Ecology or a local air agency. Biochar units using pyrolysis or an air curtain incinerator require an air quality permit under federal rules. DNR does not have delegated authority from the EPA or expertise to permit these units. We have concerns and questions with the definitions in the bill.

**Persons Testifying:** PRO: Senator Kevin Van De Wege, Prime Sponsor; Kelpie Wilson, Wilson Biochar, LLC.; Jill Silver, 10,000 Years Institute; Jake Dailey, U.S. Rake Force; Tony Craven; Jason Callahan, Green Diamond Resource Company.

OTHER: Kathy Taylor, Washington Dept. of Ecology; Jeff Johnston, Olympic Regional Clean Air Agency; Margaret Miller, Oregon Forestry Resources Institute.

**Persons Signed In To Testify But Not Testifying:** No one.