RE: Request for state intervention to halt harmful clearcutting operations in the City of Corvallis drinking water protection area (PWS #4100003)

Dear Ms. Steckel and Mr. Dally, Mr. Mahr and Mr. Robbins,

Drinking watersheds are among the most precious of public waterways and are the very foundation of healthy and resilient communities. The State of Oregon and its designees, including the State Forester and the City of Corvallis have a statutory and constitutional duty to safeguard drinking water supplies for existing and future generations.1 Furthermore, in Oregon, water is a public trust resource and access to drinking water is a protected public use.2 Yet, most water utilities nationwide that depend on surface water draw water primarily from watersheds where they don’t own the majority of the land.3 In Oregon, one third of public water utilities in the coastal region own less than five percent of their source

1 ORS 448.273; ORS 537.332(3), (5); ORS 537.334(2).
watersheds, while less than a quarter own 75 percent or more, with the remainder of the land primarily in private commercial timberland. The city of Corvallis owns approximately 39% of its Rock Creek source watershed. Due to the current and ongoing threats listed below to the City of Corvallis’s drinking water, we the undersigned organizations request that you intervene to halt harmful clearcutting operations in Corvallis’s drinking water supply (PWS #4100003) that are planned for the remainder of 2020.

Decades of clearcuts and mismanagement of forestlands in public water supply (PWS) source areas statewide continue to reduce water flow and water quality, and degrade watershed conditions. As recognized by the Oregon Department of Environmental Quality (DEQ) and Oregon Health Authority, industrial forest practices, including clearcutting, timber plantations, dense networks of logging roads and application of chemical herbicides and fertilizers are primary threats in the City of Corvallis’s drinking water protection area. As you know, the City of Corvallis must take action “to assure that water system facilities are free of public health hazards.” As such, we are writing to request that you protect Corvallis’s drinking water supply (PWS #4100003) from the adverse impacts caused by ongoing clearcut logging practices.

A list of operations of concern are attached as Exhibit A. More details of each can be found by retrieving project plans from Oregon Department of Forestry’s FERNS notification system available online at https://ferns.odf.oregon.gov/e-notification and searching with the notification (NOAP) numbers listed on Exhibit A. These planned operations will create an additional 447.3 acres of clearcut land in a watershed that has already been damaged by industrial logging operations.

These projects, in combination with past, present, and reasonably foreseeable future projects of a similar nature will prevent the City of Corvallis’s from being able to provide stable, clean supplies of water to its customers and increase water treatment costs. These concerns will only be exacerbated by the anticipated effects of climate change. If clearcuts in the Corvallis drinking water source area continue without intervention, residents of Corvallis can expect to face:

- **Depleted water supplies.** Dry season stream flows are today dramatically depleted across western Oregon and the Pacific Northwest as a consequence of extensive

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7 OAR 333-061-0025; ORS 448.115 et seq;
logging and the rapid regrowth of water-hungry young vegetation after logging.\(^8\) Long-term experiments in the Alsea watershed in Coastal Oregon indicate that the conversion of mature and old growth conifer forests to homogenous plantations of Douglas fir produced a persistent summer streamflow of 50 percent less than reference basins in plantations aged 25 to 45 years.\(^9\) Climate change will make matters worse by further reducing dry season flows thereby straining “the ability of existing infrastructure and operations to meet the many and varied water needs of Oregonians.”\(^10\)

- **Warming waters.** As the climate warms and dries in the summer, Oregon’s waterways will also warm. This thermal pollution is intensified by plantation forestry. Department of Forestry modeling concludes that a typical clearcut compliant with the Oregon Forest Practices Act on average, boosts water temperatures by 2.6 degrees Fahrenheit on top of any background increase due to climate change.\(^11\) According to multiple federal agencies, “the evidence is . . . overwhelming that forest practices on private lands in Oregon contribute to widespread stream temperature problems.”\(^12\) Warmer water, in turn, will cause “harmful algal blooms to occur more often, in more waterbodies and to be more intense.”\(^13\)

- **Increased wildfire risk.** Timber plantations burn hotter and faster than natural forests. This is because they lack the moisture content and structural complexity needed to keep wildfires in check. Decades of monitoring by firefighters and researchers show that fires burning in complex natural forests create a mosaic of intensely burned and relatively untouched areas. On the other hand, fires burning in homogenous tree plantations are more likely to be uniformly severe.\(^14\) Two recent court decisions have

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\(^11\) Oregon Department of Forestry (ODF), 2015. Detailed analysis: predicted temperature change results. Agenda Item 7, Attachment 3 to the meeting packet prepared for the Board of Forestry, June 3\(^{rd}\), 2015. Salem, OR: ODF.

\(^12\) EPA-FWS-NMFS, 2/28/01 Stream Temperature Sufficiency Analysis Letter to ODF and ODEQ.


flagged the connections between clearcut-style logging and increased fire hazard and further underscored the need for re-consideration of clearcut style management in areas near communities.  

- **Increased incidence and severity of landslides.** The vast network of clearcuts and logging roads permeating industrial timber plantations present a significant risk of landslides, especially during extreme precipitation events, such as the 1996 floods. Under almost all climate change scenarios for Oregon, the frequency of these events will increase. Maintenance of strong root systems is an important factor in stabilizing soils during these events. Clearcutting reduces the strength of root systems dramatically, and thus is a major factor in increased landslide risk. Logging roads channel water runoff and cause debris torrents that can travel many miles downstream, pick up momentum, and become heavily destructive. Studies indicate that clearcuts exhibit landslide rates up to 20 times higher than background rates. Near logging roads, landslide rates are up to 300 times higher than in forested areas.  

- **Ongoing exposure to toxic chemicals:** Known carcinogens 2,4-D and glyphosate, along with endocrine disruptors atrazine and hexazinone, are the top four chemicals sprayed over forestland after clearcut harvest. As a result of Oregon’s weak logging laws that require a meager 100 ft buffers between aerial chemical spray and public drinking water sources, toxic drift of chemicals into community drinking water supplies is all too common. In the past decade, studies have confirmed the presence of atrazine, 2,4-D and other types of herbicides in the urine of Oregonians, due to ongoing aerial spray practices near drinking water supply areas.  

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- **Increased risk of flooding.** Research has demonstrated that heavily logged watersheds are at a much higher risk of flooding than those maintained in natural forest conditions. For example, Jones and Grant found that logging increased peak discharges by as much as 50% in small basins and 100% in large basins over a 50-year study period. A 2008 Forest Service science synthesis confirmed the detrimental impacts of logging and logging roads on peak flows across western Oregon and Washington.\(^{20}\)

- **Enhanced habitat for invasive species and organisms that put public health at risk.** Invasive species find few barriers in monoculture tree plantations since key natural processes that keep such species in check have been removed. As succinctly stated by Norse, “in monocultures, without barriers to dispersal, insects and pathogens find unlimited resources in all directions.”\(^{21}\) As Oregon’s climate changes, a wide variety of non-native plants, insects, and disease-causing organisms, such as viruses, bacteria, prions, fungi, protozoans, and internal (roundworms, tapeworms) and external (lice, ticks) parasites will spread, adversely affecting the health of humans, livestock, and pets in addition to fish and wildlife. A recent Forest Service assessment concluded “[e]vidence suggests that future climate change will further increase the likelihood of invasion of forests and rangelands by nonnative plant species that do not normally occur there (invasive plants), and that the consequences of those invasions may be magnified.”\(^ {22}\)

- **Elevated risk of harmful algae blooms.** Harmful algal blooms (HAB) are an urgent concern statewide as climate change unfolds. Industrial forest practices greatly amplify this risk through three channels: (a) by warming waters; (b) by decreasing natural flow rates, and (c) by contaminating water supplies with glyphosate, urea along with other chemicals and fertilizers that enhance HAB growth. With the presence of glyphosate and urea in streams, nontoxic algae growth is inhibited and HABs dominate without competition.\(^ {23}\) Modern drinking water treatment costs increase significantly when more rigorous treatment is needed to cleanse contaminated source water. Managing land to prevent source water contamination


may be more cost-effective and may better protect human health than treating water after it has been contaminated. 24

In order to mitigate these threats and comply with the State’s duties to safeguard drinking water supplies, clearcuts in this watershed need to be stopped or drastically reduced. Towards that end, the members and partners of the undersigned organization request that the State Forester and the City of Corvallis take the following actions:

1. Issue a request to the corporate forestland owners identified in Exhibit A asking them to suspend further implementation of the clearcutting projects identified in Exhibit A because of the risks these projects present to existing and future water supplies.

2. Work with forestland owners to support implementation of climate smart, ecological forestry alternatives to these projects to maximize protection of public trust water resources. Such techniques include variable density thinning, individual tree selection, ecological restoration of tree plantations, long rotations and other ecological techniques well documented in scientific literature. 25

3. Pursuant to ORS 527.765, work with the Department of Forestry to adopt watershed-specific best management practices for forestlands within City of Corvallis drinking water protection area (PWS #4100003) to minimize threats from industrial forest practices enumerated above. Clearcutting, application of chemical herbicides, pesticides and fertilizers, as well as construction of new logging roads must be prohibited in drinking water source areas.

4. Create a more transparent and inclusive public process for projects occurring in drinking water source areas. Ensure adequate public notification and a clear process for public participation/engagement whenever there is potential for projects to impact drinking water.

5. Pursuant to Public Trust Doctrine obligations and those of Article XI, Section 4 of Oregon’s Constitution, investigate and begin the process of collecting damages for harms to City of Corvallis drinking water supplies associated with past logging activities by corporate forestland owners. 26


26 As a trustee of drinking water supplies, the State of Oregon and its designees must not only protect drinking water from future impairments but work proactively to restore past damages. See, e.g.
Without immediate action, the 447.3 acres of clearcut projects in Exhibit A below will move forward and continue to perpetuate multiple harms to our communities as described above. We request an opportunity to meet with you to discuss our concerns in more detail and explore avenues toward meaningfully halting these ongoing destructive practices and addressing these issues for future generations.

Please reach out to us at your earliest convenience.

Signed,

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CC Mayor Biff Traber
City of Corvallis
501 SW Madison Ave.
city.council@corvallisoregon.gov

Benton County Board of Commissioners
205 NW 5th Street
Corvallis, OR 97330

Quirke, D. 2016. The Public Trust Doctrine: A Primer. A White Paper of the University of Oregon School of Law, Environmental and Natural Resources Law Center. Eugene, OR: ENR. Article XI, Section 4 of Oregon's constitution prohibits takings of public trust resources by corporations without compensation and has been applied to the taking of water supply by private logging companies.
**Exhibit A:**
Clearcut logging operations proposed in the source water assessment area for Adair Village Water System (PWS # 4100003)—Willamette River

<table>
<thead>
<tr>
<th>NOAP</th>
<th>Landowner</th>
<th>Clearcut acres</th>
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<tbody>
<tr>
<td>2020-551-00369</td>
<td>Darrell Oakes</td>
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<td>Don &amp; Donna Oakes</td>
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<td>2020-551-00591</td>
<td>Ed Parker</td>
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<td>2020-551-00998</td>
<td>Brent Klumph—Oregon State University Research Forests</td>
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<td>2020-551-01055</td>
<td>David Allen Hull</td>
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<td>Audrey Carozzi</td>
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<td>2020-551-02244</td>
<td>Jim Ruthuff</td>
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<td>Jeff Rummel</td>
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<td>2020-551-06078</td>
<td>Jonathan Velez</td>
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**Total:** 447.3

**Exhibit B:**
Large-scale public lands thinning operations proposed in the source water assessment area for Adair Village Water System (PWS # PWS # 4100003)—Willamette River

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<th>NOAP</th>
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<td>2020-551-03096</td>
<td>David Drago—Bureau of Land Management—Northwest Oregon District Mary’s Peak Field Office</td>
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Exhibit C:
Large-scale public lands thinning operations proposed in the source water assessment area for City of Corvallis PWS # 4100225)—Rock Creek

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<td>2020-551-01465</td>
<td>Brenda Barton—Siuslaw National Forest</td>
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