International Paper Company Facility

DEPARTMENT OF ECOLOGY
State of Washington

Aerial view of International Paper Company, Ecology 2007.

Draft environmental documents available for former International Paper Company facility

Comments accepted:
August 17 to October 2, 2017

Submit comments online at:
http://wt.ecology.commentinput.com/?id=TUZuk

Or to:
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Document review locations:
Longview Public Library
1600 Louisiana Street
Longview WA 98632
360-442-5300
Hours: M–W 10 a.m. to 8 p.m.
Thurs–Sat 10 a.m. to 5 p.m.

Ecology's Southwest Region Office
300 Desmond Drive SE
Lacey WA 98503
360-407-6300
Hours: M–F 8 a.m. to 5 p.m.

Website
https://fortress.wa.gov/ecy/gsp/sitepage.aspx?csid=3685

Facility Site ID #: 1080

An area at the former International Paper Company (International Paper) facility in Longview is ready to be cleaned up. The property, now owned by the Port of Longview, is the site of historic wood treatment operations. International Paper found contamination at the Maintenance Facility Area (MFA) during cleanup activities on another part of the property, called the Treated Wood Products (TWP) Area. In the past, wastewater from the wood-treating process was placed in a ditch in the MFA. This caused dangerous chemicals to enter soil and groundwater.

A draft report called a remedial investigation and feasibility study (RI/FS) is ready for public comment and review. The report:

- Determines site features such as groundwater flow.
- Defines the type and extent of contamination.
- Assesses potential effects on human health and the environment.
- Establishes cleanup criteria.
- Evaluates cleanup options.
- Evaluates cost estimates of cleanup options.

Site background

Between 1937 and 1982, International Paper treated wood in the Treated Wood Products (TWP) Area (see map on page 7). Between 1947 and 1953, wastewater from the wood-treatment process was moved through a ditch to a nearby impoundment located in the area now called the MFA. In 1953, International Paper stopped discharging liquid wastes to the MFA and switched to two ponds within the TWP Area. In 1982, International Paper stopped treating wood. In 1985, International Paper excavated some of the contaminated soils in the TWP Area. In 1989, the remaining contaminated soils were capped.

In 1997-1998, International Paper performed additional cleanup in the TWP Area, including:

- Constructing a below-ground barrier wall around the area formerly occupied by treatment operations.
- Capping the area with additional clean soil.
- On-site (in situ) treatment of contaminants within the subsurface barrier wall using native bacteria, nutrients, and oxygen (biosparging and bioventing).

During construction, International Paper found contaminated soils beyond the barrier wall. They investigated the type and extent of soil and groundwater contamination in the MFA and studied possible cleanup alternatives.

Soil and groundwater contamination

Soil and groundwater in and near the MFA are contaminated with dangerous chemicals. About 6,470 cubic yards of soil are contaminated with diesel-range organics, polycyclic aromatic hydrocarbons (PAHs), and pentachlorophenol (PCP) above soil cleanup levels that protect groundwater. Groundwater is contaminated with the same chemicals.

Some health risks to workers on site

International Paper evaluated potential exposure pathways in the MFA for:

- Future construction and cleanup workers through touching and accidentally ingesting contaminated soils and breathing in vapors coming from soil and groundwater.
- Future industrial workers to contaminated groundwater if a water supply well was installed.

These potential exposure pathways to construction, cleanup, and industrial workers were considered incomplete. Existing asphalt pavement limits ingestion, direct contact, and inhalation of soil particles. No water supply wells are currently installed near the ditch in the MFA. Current and future construction projects must follow existing institutional controls and a soil management plan at the site. The soil management plan will be developed during the cleanup action plan process. It will describe existing institutional controls at the site and procedures to use when excavating, handling, and disposing of contaminated soil.

International Paper conducted air sampling in the Mechanics Shop building located in the MFA to evaluate whether industrial workers could be exposed to vapors moving through underlying soil into the indoor air of the building. Naphthalene was detected below cleanup levels at one location in the building. No other chemicals were detected. International Paper concluded the vapor intrusion pathway was complete but insignificant since the single detection was below industrial air cleanup levels. You can learn more in the 2010 Vapor Intrusion Assessment Report, Port of Longview Maintenance Facility Area, also out for public comment.

Wildlife is not at risk from contamination

Groundwater contamination is isolated to an area beneath asphalt pavement and doesn't migrate to nearby surface water bodies. Contaminated soils are covered by buildings, paved roads, pavement, or other barriers that prevent plants and wildlife from being exposed to contamination.

How will the site be cleaned up?

Cleanup options are available for public review and comment. Cleanup action alternatives were developed and evaluated using a four-step process:

1. Screening cleanup action alternative components.
2. Developing cleanup action alternatives.
3. Evaluating cleanup action alternatives using MTCA[1] criteria.
4. Comparative evaluation of cleanup action alternatives.

Soil cleanup options

There are ten soil cleanup options outlined in the draft RI/FS prepared by International Paper as well as another alternative proposed by the Port of Longview. The options include a variety of excavation, disposal, and treatment activities. All soil cleanup options include:

- An environmental covenant that places conditions on future excavation at the site until soil cleanup levels are achieved.
- An asphalt pavement to prevent direct contact because some contaminated soil will remain on site.
- Groundwater monitoring to ensure contamination is not moving.

We highlight three cleanup options here, but all options are described in the draft RI/FS. Ecology wants to hear what you think about all the options before deciding which cleanup action would be best for this site.

[1] Model Toxics Control Act

Alternative S1- Baseline alternative

This remedy includes excavating and landfilling or treating off site all soil located above a silt layer containing dangerous chemicals at concentrations exceeding the cleanup level. Cleanup levels would be met within two years of implementation.

Alternative S5B - International Paper's preferred alternative

This alternative divides the MFA into three zones.

- Zone 1 is an area the Port of Longview is considering for future development. Soils in Zone 1 would be excavated down to a silt layer and backfilled using clean soil. The excavated soils from Zone 1 would be moved to Zones 2 and 3.
- The relocated soils from Zone 1 and the soils in Zone 2 would be mixed with materials to solidify the soil. Three feet of clean material would be placed above the solidified soil, which would allow the Port of Longview to perform utility and other shallow site work without restrictions.
- The relocated Zone 1 soils and the soils in Zone 3 would be solidified with 1 foot of clean material above the solidified soil.

Cleanup levels would be met within two years of implementation.

Port of Longview's proposed preferred alternative

The Port of Longview has proposed to Ecology and International Paper another alternative not included in the draft RI/FS. They propose excavation and off-site disposal of less contaminated soils and on-site treatment of more heavily contaminated soils remaining in the MFA. The Port has offered to pay the difference between International Paper's preferred alternative and their proposed alternative.

Soil Cleanup Alternatives

	Alternative S1 – Baseline Alternative	Alternative S5B – International Paper's Preferred Alternative	Port of Longview's Preferred Alternative
Soil management	Excavation, treatment (if needed), and off-site disposal of all soils with contamination above cleanup levels. Soils may be disposed in a hazardous waste or solid waste landfill.	Soils in Zone 1 would be excavated and relocated to Zones 2 and 3. Relocated soils and soils in Zone 2 solidified with 3 ft. of clean material above. Relocated soils and soils within Zone 3 would be solidified with 1 foot of clean material above.	Soil containing DNAPL under and outside building would be solidified. Contaminated soil, not containing DNAPL, under and outside building would be excavated, transported off site for treatment (if necessary), and disposed. Depending on the level of contamination, may be disposed in a hazardous waste or solid waste landfill.
Volume of contaminated soil removed from MFA	6,500 cubic yards	0 cubic yards	3,570 cubic yards

	Alternative S1 – Baseline Alternative	Alternative S5B – International Paper's Preferred Alternative	Port of Longview's Preferred Alternative
Volume of contaminated soil remaining in MFA	Contaminated soils within a silt layer would not be excavated because of risk of contaminating lower aquifer.	11,830 cubic yards	4,100 cubic yards
Cost			

Groundwater cleanup options

There are four groundwater cleanup options outlined in the draft RI/FS. International Paper's preferred alternative is Alternative GW4 – monitored natural attenuation. The Port of Longview's preferred alternative is Alternative GW2 with active treatment postponed or eliminated if groundwater monitoring after soil cleanup activities indicates that treatment is not necessary.

Alternative GW1 – Electrical resistance heating and enhanced biodegradation

This remedy uses electricity to heat the ground to vaporize or degrade chemicals. It also uses bacteria (microorganisms) to breakdown contamination. Cleanup levels would be met within six years of implementation.

Alternative GW2 – Chemical oxidation and monitored natural attenuation

This remedy would inject reactive chemicals into groundwater to degrade the contamination. This alternative also includes monitoring groundwater concentrations to ensure contaminants are degrading at an appropriate rate under natural conditions. Cleanup levels would be met within seven years of implementation.

Alternative GW3 – Active biosparging

This remedy would inject native bacteria (microorganisms), food for the bacteria, and oxygen into the groundwater to degrade the contamination. Cleanup levels would be met within 20 years of implementation.

Alternative GW4 – Monitored natural attenuation

This remedy would monitor groundwater concentrations to ensure contaminants are degrading at an appropriate rate under natural conditions. However, this alternative has a condition that if it does not work as predicted, they will implement Alternative GW2 – chemical oxidation. Cleanup levels would be met within 40 years of implementation.

Groundwater Cleanup Alternatives

	Alternative GW1	Alternative GW2	Alternative GW3	Alternative GW4
Treatment depths	15-50 ft. below ground	12-50 ft. below ground	15-50 ft. below ground	NA

	Alternative GW1	Alternative GW2	Alternative GW3	Alternative GW4
Groundwater treatment area	55,000ft^2	55,000ft^2	55,000ft^2	NA
Natural attenuation area	240,000 ft^2	240,000 ft^2	240,000 ft^2	240,000 ft^2
Active treatment time	2 years	2 years	16 years	0 years
Long term monitoring after treatment	4 years	6 years	4 years	30 years
Total remedy time	6 years	8 years	20 years	30 years
Cost	$11.2 million	$4.6 million	$2.0 million	$1.4 million

Learn more and provide comments

All of the documents are available online[2] and at the Longview Public Library[3]. You can also join Ecology staff for an open house and public hearing on Thursday Sept. 28th at the Cowlitz County Event Center.[4] Open house begins at 5:00 p.m. and the public hearing begins at 6:00 p.m.

Next steps

Once Ecology has reviewed the public comments, we will decide which remedy will be used to cleanup this site. We will respond to comments in a responsiveness summary that will be available to the public. Once we've decided on a remedy, we will draft a cleanup action plan and seek additional public comments.

Special Accommodations

To request materials in a format for the visually impaired, call the Hazardous Waste & Toxics Reduction Program, 360-407-6700. Persons with impaired hearing may call Washington Relay service at 711. Persons with speech disability may call TTY at 877-833-6341.

[2] https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=3685
[3] http://www.longviewlibrary.org/
[4] http://www.cowlitzeventcenter.com/

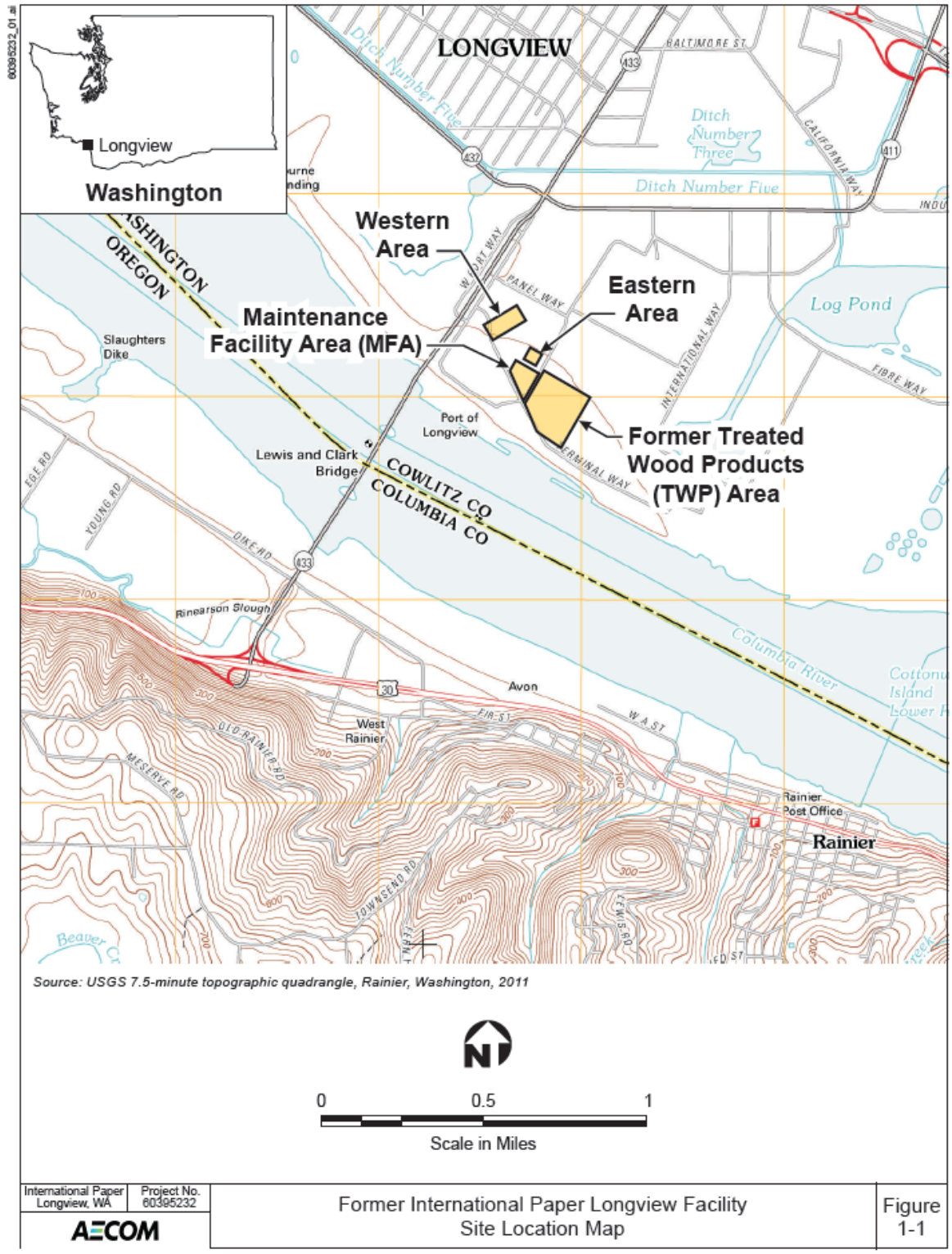

Figure 1. Former International Paper Longview facility site location map.

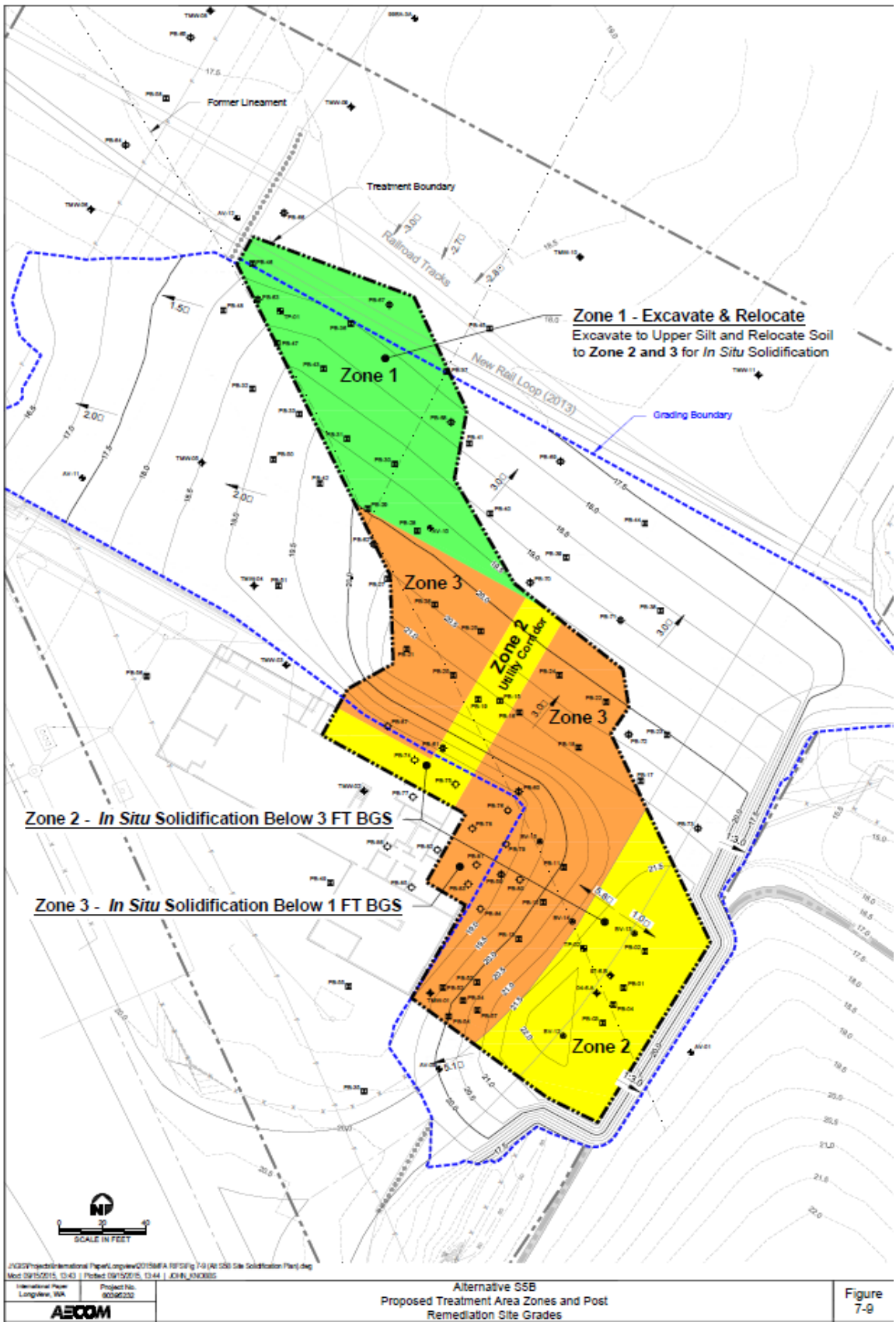

Figure 2. Alternative S5B, Proposed treatment area zones and post remediation site grades.