

COWLITZ COUNTY HEADQUARTERS LANDFILL

FINAL ENVIRONMENTAL IMPACT STATEMENT



Cowlitz County Building and Planning

July 31, 2013

Note:

Some pages in this document have been purposely skipped or blank pages inserted so that this document will copy correctly when duplexed.

FACT SHEET

Nature and Location of Proposed Action

The Cowlitz County Department of Public Works (Public Works) proposes to acquire the existing Headquarters Landfill, a limited-purpose landfill currently owned and operated by Weyerhaeuser NR Company (a subsidiary of Weyerhaeuser Company), and to permit and operate the landfill as a municipal solid waste (MSW) landfill. In addition, the County proposes to construct a pipeline to convey leachate from the landfill to the Three Rivers Regional Wastewater Plant in Longview, in lieu of hauling leachate by truck and/or rail to the Weyerhaeuser wastewater treatment facility in Longview.

Headquarters Landfill is located in Cowlitz County, Washington, at 3434 South Silver Lake Road in Castle Rock. The landfill is approximately 10 miles northeast of Kelso, 6 miles east of Interstate 5, and 2 miles south of Silver Lake. It is in Sections 22, 23, 24, and 26 of Township 9 North, Range 1 West, Willamette Meridian.

Through the Proposed Action, Public Works seeks to achieve the following objectives:

- Provide a facility for cost-efficient, long-term disposal of Cowlitz County's municipal solid waste
- Provide a facility for cost-efficient, long-term disposal of commercial/industrial waste generated in Cowlitz County and elsewhere in the region
- Facilitate Cowlitz County's economic development and diversification by providing in-county disposal of wastes generated in the region
- Limit the costs of solid waste disposal for Cowlitz County's residents and businesses
- Operate Cowlitz County's solid waste system to minimize adverse effects on the environment and, possibly in the future, to recover energy from landfill gas that would be generated (should energy conversion be proposed in the future, it would be done as a separate proposal and would go through separate permitting, SEPA evaluation, and public review)

Proponent

Cowlitz County Department of Public Works

Lead Agency

Cowlitz County Building and Planning

Lead Agency Responsible Official

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Required Permits and Approvals

Changing the limited-purpose landfill to an MSW landfill would require the following permits and regulatory actions:

- Compliance with the Washington State Environmental Policy Act (SEPA) (several agencies)

Federal

- US Army Corps of Engineers - Clean Water Act, Section 404 Permit Assignment, Affirmation of Mitigation Adequacy

State

- Washington State Department of Ecology (Ecology) - Industrial General Storm Water Permit Reassignment (that is, reassignment of the permit from Weyerhaeuser to Cowlitz County)
- Ecology - State Waste Discharge Permit for discharge of leachate to Weyerhaeuser's permitted wastewater treatment plant
- Southwest Clean Air Agency (SWCAA) - Air Discharge Permit
- SWCAA - Title V Air Operating Permit

Local

- Cowlitz County Environmental Health Unit - Municipal Solid Waste Landfill Permit (with review by Ecology)

Construction of a leachate pipeline could require the following permits:

- Compliance with the Washington State Environmental Policy Act (SEPA) (several agencies)

State

- Ecology - Construction Stormwater General Permit for discharge of leachate to the Three Rivers Regional Wastewater Plant
- Ecology - State Waste Discharge Permit
- Washington State Department of Transportation - utility permit

Local

- Cowlitz County - grading permit
- Cowlitz County - critical areas permit
- Cowlitz County - right-of-way permit
- Cowlitz County - Shoreline Substantial Development permit
- City of Kelso - Shoreline Substantial Development permit
- City of Kelso - right-of-way permit
- City of Kelso - critical areas permit

EIS Author

Herrera Environmental Consultants, Inc.
Heffron Transportation - Section 3.10 Transportation

Draft EIS Comment Period

The Draft EIS was issued on November 30, 2012, and the Draft EIS comment period ended on January 14, 2013. During the comment period, a public meeting to receive oral comments on the Draft EIS was held on December 18, 2012, in Kelso, Washington.

Issue Date of the Final EIS

July 31, 2013

Agency Action

A Municipal Solid Waste Landfill Permit must be approved by the Cowlitz County Environmental Health Unit for this proposal. No decisions can be made until at least 7 days after issuance of this Final EIS. The timing of the decision on the proponent's application for a Municipal Solid Waste Landfill Permit is uncertain, but is likely to be made in Summer 2013. The timing of other agency decisions on permits required for this proposal is uncertain, but likely to occur in the same timeframe.

Date of Final Action

Summer 2013

Availability of the Final EIS

Copies of the Final EIS may be purchased from Cowlitz County Building and Planning at cost. The cost for electronic copies, on compact disc, is \$2.50 each. The cost for printed copies is \$45 each.

Location of Materials Incorporated by Reference

The Draft EIS and other materials incorporated by reference are located at the Lead Agency's address above.

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ABBREVIATIONS/ACRONYMS

ADT	average daily traffic
ASIL	acceptable source impact level
BMP	best management practice
CDL	construction, demolition, and land clearing
CFR	Code of Federal Regulations
CLTTS	closed-loop truck transportation system
CO ₂ e	carbon dioxide equivalent
CQA	construction quality assurance
dB	decibel
dba	A-weighted decibel
DEIS	draft environmental impact statement
Ecology	Washington State Department of Ecology
EIS	environmental impact statement
FEIS	final environmental impact statement
H ₂ S	hydrogen sulfide
HDPE	high-density polyethylene
HELP	Hydrologic Evaluation of Landfill Performance model
HGCS	hydraulic gradient control system
I-5	Interstate 5
LCRS	leachate collection and removal system
L _{dn}	day-night noise level
LDPE	low-density polyethylene
L _{eq}	equivalent sound level
LOS	level of service

mgd	million gallons per day
mph	miles per hour
msl	mean sea level
MSW	municipal solid waste
MT/year	metric tons per year
PET	polyethylene terephthalate
ppm	parts per million
RCW	Revised Code of Washington
scfm	standard cubic feet per minute
SEPA	Washington State Environmental Policy Act
SQER	small quantity emission rate
SR	State Route
SWCAA	Southwest Clean Air Agency
TAP	toxic air pollutant
TOC	total organic carbon
US	United States
US EPA	US Environmental Protection Agency
USACE	US Army Corps of Engineers
USDA	US Department of Agriculture
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation

GLOSSARY

100-year flood - The flood having a 1 percent chance of being equaled or exceeded in any given year.

100-year floodplain - Areas that have a 1 percent chance of being flooded in a given year.

active area - As defined in Washington State's Criteria for Municipal Solid Waste Landfills (WAC 173-351-100), it is the part of a landfill that includes the active portion and portions of a facility that recycle, store, treat, or dispose of solid (including liquid) wastes. The active area includes leachate treatment facilities and runoff ponds. It excludes run-on ponds and on-site roads which are used for any purpose; on-site roads are considered part of the buffer zone. See "active portion" and "buffer zone" below.

active portion - As defined in WAC 173-351-100, it is that part of a landfill that has received or is receiving wastes and that has not been closed in accordance with the standards of WAC 173-351-500 (closure and post-closure care).

ambient noise - All noise generated in an area, including noise from background and incidental sources

aquatic - Pertaining to water.

aquifer - Water-bearing rock or sediments below the surface of the Earth.

base flow - The portion of the stream flow that is not due to storm runoff and is supported by groundwater, large lakes, and swamp seepage into a channel.

best management practices (BMPs) - Physical, structural, or managerial practices that have gained general acceptance for their ability to prevent or reduce environmental impacts.

buffer - A tract or strip of land that separates one type, category, or use of land from another. Buffers typically serve to provide a defined area between a more intensive use of land and a land use that is less intensive.

buffer zone - As defined in WAC 173-351-100, it is that part of a landfill facility that lies between the landfill's active area and the property boundary.

carbon dioxide equivalent (CO₂e) - The term used to express the global warming potential of all greenhouse gases [e.g., the sum of carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O)], expressed as their equivalent in CO₂ emissions. Global warming potential is defined as the cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas.

contaminant - Any chemical, physical, biological, or radiological substance that does not occur naturally or occurs at concentrations and duration as to be injurious to human health or welfare or is shown to be ecologically damaging.

day-night noise level (L_{dn}) - The 24-hour noise level based upon the average hourly L_{eq} in which noise levels measured during the night (10:00 p.m. to 7:00 a.m.) are weighted by adding 10 dB to nighttime L_{eq} values due to humans' increase sensitivity to sound during sleeping hours.

easement - The legal right to use a specified piece of land for a particular purpose.

ecosystem - A biological community together with the chemical and physical environment with which it interacts.

emissions (direct, indirect, other indirect) - Washington State Department of Ecology defines these as follows:

Direct emissions: direct stationary combustion of fossil fuels once the project is complete; vehicle fleet emissions once the project is complete; loss of carbon storage from the permanent conversion of forested lands; and methane emissions from new landfills, wastewater treatment plants, or manure management systems.

Indirect emissions: purchased electricity or steam consumed by the project.

Other indirect or optional indirect emissions: heavy-machinery emissions during site preparation, construction, or clean-up activities; new ongoing product transportation emissions that are caused by the project; vehicle trips generated by the project during construction and operation, including those of employees, customers, vendors, or residents.

equivalent sound level (L_{eq}) - The steady-state sound level that expresses the average overall noise for a specific period and that defines the same acoustical energy as the time-varying sound level during a given time period, usually 1 hour.

fecal coliform - Minute living organisms associate with human or animal feces that are used as an indirect indicator of the presence of other disease-causing bacteria.

fill - Earth, sand, gravel, rock, asphalt, or other solid material placed to raise the ground elevation or to replace excavated material.

floodplain - The low area adjacent to a stream or river channel that is covered with water when the stream overflows during flood stage.

greenhouse gases - Gases contributing to global warming. Greenhouse gases include: water vapor, carbon dioxide (CO_2), methane (CO_4), nitrous oxide (N_2O), ground-level ozone and the pollutants that generate ground-level ozone, and stratospheric ozone-depleting substances such as chlorofluorocarbons and carbon tetrafluoride. Greenhouse gases warm the atmosphere by absorbing infrared radiation given off by the Earth, preventing heat loss to outer space.

groundwater - The water contained in interconnected pores located below the water table in an unconfined aquifer or in a confined aquifer. Under Washington State's Criteria for Municipal Solid Waste Landfills (WAC 173-351), "groundwater" is defined as water below the land surface in the zone of saturation.

habitat - The sum total of all the environmental factors of a specific place that is occupied by an organism, a population, or a community.

hydrology - The science dealing with the properties, distribution, and circulation of water in the atmosphere, on the surface of the Earth, and underground.

intermittent stream - A stream in which water flows only seasonally.

leachate - Water containing dilute concentrations of a variety of organic and inorganic compounds. It is caused primarily by precipitation percolating through waste deposited in a landfill. Once in contact with decomposing solid waste, the percolating water becomes contaminated and if it then flows out of the waste material it is termed leachate.

level of service (LOS) - In transportation analyses, level of service (LOS) is a qualitative measure used to characterize traffic operating conditions. Six letter designations, "A" through "F," are used to define level of service. LOS A and B represent the fewest traffic slow-downs, and LOS C and D represent intermediate traffic flow with some delay. LOS E indicates that traffic conditions are at or approaching congested conditions and LOS F indicates that traffic volumes are at a high level of congestion with unstable traffic flow.

main stem - The principal channel of a stream to which tributaries join.

maximum noise - The highest noise level emitted from a given source.

mitigation - Avoiding, rectifying, minimizing, reducing, compensating for, or eliminating probable significant adverse impacts to a natural resource or environment.

model - Models are conceptual and mathematical descriptions or analogies used to help visualize something that cannot be directly observed. Models provide frameworks that organize concepts, data, and information into a system of inferences that can be presented as mathematical descriptions of situations or conditions.

peak hours - In reference to transportation systems, the hour or hours during which the greatest traffic flow occurs.

Patriot Rail - The owner and operator of the Columbia & Cowlitz Railway and Patriot Woods Railroad (CLC), which connect and operate as one railroad over a total of 37 track miles in southwest Washington. The CLC interchanges with the Union Pacific and BNSF through the Longview Switching Company (jointly owned by the UP and BNSF) in Longview. The Patriot Woods Railroad interchanges directly with the CLC railroad. The CLC owns a locomotive repair facility on the Weyerhaeuser mill site in Longview.

perennial stream - A stream in which water flows throughout the year.

revegetate - Reestablishing vegetation on a disturbed site.

right-of-way - A strip of land held in an easement or separate tract that is occupied or dedicated to be occupied by a publicly or privately dedicated street or railroad, together with property reserved for utilities, transmission lines and extensions, walkways, sidewalks, bikeways, equestrian trails, and other similar uses.

riparian - The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems that mutually influence each other. Riparian habitat begins at the ordinary high water mark and includes riparian areas of wetlands that are directly connected to the stream course; it may include the entire extent of the floodplain.

runoff - Water originating from rainfall and other precipitation that is found in drainage facilities, rivers, streams, springs, seeps, ponds, lakes, and wetlands, as well as shallow groundwater. Under Washington State's Criteria for Municipal Solid Waste Landfills (WAC 173-351), "runoff" is defined as any rainwater, leachate, or other liquid that drains over land from any part of a facility.

run-on - Surface water that flows onto a project site from up-gradient areas. Under Washington State's Criteria for Municipal Solid Waste Landfills (WAC 173-351), "run-on" means any rainwater or other liquid which drains over land onto any part of a facility.

scoping - Part of the SEPA process in which significant issues are identified for detailed analysis.

Section 404 - Section 404 of the Federal Clean Water Act, which regulates the discharge of solid materials into US waters. A Section 404 permit is a federal permit issued by the US Army Corps of Engineers that regulates wetland removal and fill.

sediment - Solid material settled from suspension in a liquid.

sedimentation - The process of settling and depositing suspending matter carried by runoff, usually occurring by gravity when the velocity of the surface water is reduced below the point at which it can transport the suspended material.

self-haul waste - Waste that is hauled to a disposal facility by someone other than a franchise waste hauler or by someone whose primary business is not waste hauling.

sole-source aquifer - An aquifer designated by the US Environmental Protection Agency that provides at least half of an area's drinking water.

stormwater - The portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels, or pipes into a defined surface water channel or a constructed facility.

surface water - An open body of water that flows or is collected on the Earth's surface such as rivers, lakes, reservoirs, ponds, streams, seas, estuaries, etc., and all springs, wells, or other collectors directly influenced by surface water.

turbidity - The state or condition of opaqueness or reduced clarity of a fluid, due to the presence of suspended matter.

viewshed - The area that is visible within the topographic horizon from a particular location.

water quality standards - Limits for water pollution in lakes, rivers, and marine waters in order to protect water quality. The Clean Water Act requires that the water quality standards protect beneficial uses, such as swimming, fishing, aquatic life habitat, and agricultural and drinking water.

watershed - The region drained by or contributing water to a stream, lake, or other body of water.

wetlands - Areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands generally do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities; or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. However, wetlands may include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands.

Weyerhaeuser - As used in this EIS, “Weyerhaeuser” refers to both Weyerhaeuser Company and Weyerhaeuser NR Company, a subsidiary of Weyerhaeuser Company. Weyerhaeuser Company owns timberlands; Weyerhaeuser NR Company owns Headquarters Landfill and the Longview mill and wastewater treatment plant.

