PUBLIC PARTICIPATION PLAN

GLACIER NORTHWEST, INC. SEATTLE, WASHINGTON

Prepared by
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Introduction

The Washington State Department of Ecology (Ecology) developed this public participation plan according to the Model Toxics Control Act (MTCA). This plan is designed to promote meaningful community involvement during the investigation and cleanup of the Glacier Northwest, Inc. Site located in Seattle, Washington next to the Lower Duwamish Waterway (LDW). This plan outlines and describes the tools Ecology will use to inform the public about Glacier Northwest, Inc. Site cleanup activities, and it describes how the community can become involved in this process.

Ecology and the potentially liable persons (PLPs), Glacier Northwest, Inc. and Reichhold, Inc., have negotiated a legal agreement called an Agreed Order that formally describes their working relationship. Under the Agreed Order, the PLPs will conduct a Remedial Investigation (RI) and Feasibility Study (FS) at the Site. The Remedial Investigation and Feasibility Study are required under the Washington Administrative Code (WAC) 173-340-350 and are part of the cleanup process for this Site. The RI will determine the nature and extent of contamination in the upland area soil, groundwater, stormwater and stormwater solids, seeps and sediments. The FS will use the results of the RI to evaluate and select cleanup action alternatives for the Site.

Cleanup actions might be identified during the RI that will eliminate or minimize current releases of contamination to Lower Duwamish Waterway sediments or that are necessary to prevent an imminent threat to human health or the environment. Ecology will consider implementing such cleanup actions as interim actions under the existing Agreed Order.

Project Description

Location

This Glacier Northwest, Inc. Site (Site) is located at 5900 West Marginal Way SW in Seattle, Washington on the west bank of the Lower Duwamish Waterway (LDW). The Site includes the adjacent intertidal bay. The site is bordered to the north by Duwamish

Shipyard, to the south by Port of Seattle Terminal 115 property, to the west by West Marginal Way SW and to the east by the LDW in a mainly industrial area (See figure on page ten). Site boundaries will be defined by the extent of contamination determined during the RI

Site Background

Glacier Northwest, Inc. (Glacier Northwest) is the current owner/operator of a cement terminal and warehouse located at 5900 West Marginal Way SW in Seattle.
The property has had many previous owners including Carlisle Lumber Company, the U.S. Army, the Port of Seattle, Kaiser Cement Company, and Lone Star Northwest, Inc., and tenants, including Ash Grove Cement West, Inc., and Reichhold Chemical, Inc.

In the north end of the Site, Glacier Northwest currently has several cement storage silos, a cement conveyance system, and railhead for transfer of bulk cement. There is also a warehouse building, a portion of which is used for general office storage, a small parts warehouse, and an employee lunch room. The remainder of the warehouse building is used for light maintenance of the trucks such as tire change-outs and light bulb replacement. There is a large dock adjoining the Lower Duwamish Waterway. The south end of the Site is unpaved gravel. Historically, as many as 50 ready-mixed concrete trucks were parked daily at the south end of the Site.

From 1943 to 1947, the Site was used by the U.S. Army to produce whetlerite, a copper impregnated, activated charcoal filter used in gas masks that the Army utilized during World II.

Reichhold Chemical, Inc. (Reichhold) leased the Site from the U.S. Army from about 1947 to 1961, and manufactured adhesives and water-soluble glues used in plywood manufacturing dry plywood animal glue, wood-preserving resins such as phenol formaldehyde, and pentachlorophenol. Hydrochloric acid was produced as a by-product of pentachlorophenol manufacturing.

A number of releases or spills occurred at the Site prior to late 1955; a 1955 Washington Pollution Control Commission (WPCC) memo reported a complaint made by the Department of Fisheries of a green-colored material being discharged from the sanitary sewage outfall into the Duwamish River. A downstream sample contained 18,000 mg/L total phenols, and over 300 dead fish were reported within a 30-minute period (Nielson 1955, WDF 1955).

An impounding basin, 50 feet-wide by 150 feet long by 6-foot deep, and one 20,000 gallon wooden tank were constructed around 1955. The wooden tank accepted wastewater from the tank farm and sumps under the resin reactors. All sewer outfalls combined into one catch basin which discharged through a deep water outfall 240 feet into the Duwamish River. Reichhold moved the operations to Tacoma in 1958, but did not dismantle the plant at this site and continued to use it for offices and laboratory procedures. Reichhold's lease of the property expired in 1961.

From 1964 to 1969, the Site was owned by the Port of Seattle and leased to Kaiser Cement Company. In 1965, the former Army buildings and Reichhold additions were demolished, including the tank farm, and the Site was leveled. The cement terminal and dock were constructed during this time. From 1965 to 1969, Kaiser installed silo structures for cement storage, truck receiving and loading areas, offices, a marine dock, and a conveyor gallery for trans-shipment of cement materials from barges to the upland storage areas. Kaiser Cement Company purchased the property in 1969 and continued operations of the cement terminal until 1987.

In 1974 Kaiser leased all or portions of the Site to Parsons, a modular construction company, and a concrete recycling company. In 1987, Kaiser Cement Company sold the Site to Lone Star Northwest, a general partnership.

Lone Star leased the cement terminal portion of the Site to Ash Grove Cement West, Inc. immediately following the purchase of the property in April 1987. Ash Grove reportedly used a 0.2-acre area in the southwest portion of the Site for waste concrete slurry disposal

and stored waste concrete in the southern portion of the Site. Lone Star leased the remainder of the property to Coastal Container Services, a company storing large mobile containers from April 1987 to mid-1988. The Site was used to store construction debris and heavy equipment until June 1990. Prior to 1990 the south and southwest portions of the Site were covered with a gravel/rock surface fill. In 1991, Ash Grove's lease expired.

In October 1990, Lone Star notified Ecology that elevated levels of pentachlorophenol were discovered in a groundwater sample collected at the property during Site characterization studies performed by Parametrix, Inc. These levels had previously been found during sampling performed in June and July 1990.

According to an Ecology inspection report, the site was used to receive, store, and distribute bulk cement during this time period. The facility discharged washwater from the exterior of cement trucks and stormwater to the Duwamish River. This was done without an NPDES permit. Ecology advised Lone Star to obtain an NPDES permit for the truck washwater or discharge it to the sanitary sewer. On the day of the inspection, turbid discharge was traced to a lumber yard operated by Gene Summy Lumber. Turbid stormwater was created by truck traffic coming into the lumber yard from an unpaved yard. Gene Summy Lumber was a tenant of Lone Star from April 1993 to April 1998. A 1998 letter from Lone Star indicates that the cleanup actions would include well installation, ozone sparging, arsenic fixation, and sampling and analysis. In January, 2002 Lone Star changed its name to Glacier Northwest, Inc. Current on-site activities include a cement terminal and warehouse.

Contaminants of Concern

Contamination at this site is due to historical uses and practices including manufacture of pentachlorophenol, glues and resins. The Site has been the subject of several environmental investigations and cleanups beginning in 1985. According to the Lower Duwamish Waterway Glacier Bay Source Control Area, Summary of Existing

Information and Identification of Data Gaps prepared by SAIC in June, 2007 for the Department of Ecology, the following contaminants were found:

Soil samples contained concentrations above screening levels including:

- Total Petroleum Hydrocarbons (TPH)
- Polynuclear Aromatic Hydrocarbons (PAHs)
- Semivolatile and Volatile Organic Compounds (SVOCs and VOCs)
- Metals including arsenic, mercury and zinc

The following contaminants were found in the groundwater above MTCA Method B cleanup levels:

- Pentachlorophenol, 2,4,6-tricholorophenol
- Arsenic silver

In the seep water there are concentrations of the following above State Water Quality chronic and acute criteria:

- Arsenic

The Stormwater has not yet been evaluated. Glacier Northwest, Inc. has coverage under the Sand and Gravel General Permit for discharges of stormwater related to the cement storage and distribution facility. There are two discharges, one to groundwater and one to surface water, namely the Duwamish Waterway.

In the Lower Duwamish sediments near the Site, there are concentrations of the following constituents above the Washington State sediment management standards:

- Dioxin/Furan TEQs
- Polychlorinated biphenyls (PCBs)
- Arsenic

Previous Cleanup Work

Dissolved arsenic in groundwater was treated using an oxidative process where hydrogen peroxide was injected into the saturated zone. The hydrogen peroxide was expected to result in geochemical fixation of the arsenic. Injections were applied February/March of 2000 and July/August 2000. Reductions of arsenic in groundwater concentrations were noted in post-treatment sampling; however samples collected in 2003 reported concentrations that were observed above MTCA Method C levels for arsenic in groundwater within the treatment zone and one well at the Site outside the treatment zone.

Pentachlorophenol in groundwater was treated using in-situ ozonation. The ozone system utilized air sparging to inject ozone. Air sparging is the introduction of air under pressure below the water table. The system was installed in March, 2000 with groundwater treatment beginning in May, 2000. After the ozonation system was turned off for compliance monitoring, eventual rebounding occurred in two wells. Additional ozone injections were performed and groundwater concentrations were observed above MTCA Method C levels for pentachlorophenol for one well at the Site. The system operated almost continuously for six years.

Current Cleanup Activity

The draft Agreed Order for the Glacier Northwest, Inc. Site is for a remedial investigation followed by a feasibility study and a Draft Cleanup Action Plan (dCAP).

Lower Duwamish Waterway Site Cleanup

The Glacier Northwest, Inc. Site is located adjacent to the LDW site and within the LDW source control study area. The LDW site is a Superfund site that consists of the 5.5 mile stretch of the Duwamish River that flows north into Elliot Bay at the south end of Harbor Island. The LDW site is designated as a contaminated site under both state and federal

law due to contaminants in the river and intertidal sediments. The ICS site is one of several sites near the LDW that will be cleaned up to reduce the threat to human health and the environment from releases of hazardous substances, and to assist in preventing recontamination of the sediments after the LDW site cleanup is complete.

The sediments in the LDW site contain a wide range of contaminants due to years of industrial activity and runoff from urban areas. Ecology and EPA are working together to clean up contaminated sediments in the LDW site and to control sources of recontamination from nearby areas.

In 2000, EPA and Ecology entered into an Administrative Order on Consent with King County, the Port of Seattle, the City of Seattle, and The Boeing Company. This legal agreement requires these four parties perform a Remedial Investigation (RI) and Feasibility Study (FS) of sediment contamination in the waterway. Information about the RI/FS for the LDW site is located at http://yosemite.epa.gov/r10/cleanup.nsf/sites/lduwamish.

EPA is leading the RI/FS work, and Ecology is leading source control efforts. The source control efforts will prevent recontamination of the waterway after cleanup. Source control is the process of finding and then stopping or reducing releases of pollution to the river from various sources such as direct discharges via piped outfalls, bank erosion from adjacent properties, surface runoff from adjacent properties, groundwater discharge, air deposition, and spills. It includes identifying and managing sources of contamination to waterway sediments in coordination with sediment cleanups.

Ecology is coordinating these source control efforts with the City of Seattle, King County, the Port of Seattle, the City of Tukwila, and EPA. Ecology partners with these other agencies through the Source Control Work Group. Their work includes a business inspection program; monitoring sediments from storm drain systems; permitting to prevent direct discharges to the waterway; contaminated site cleanups; and testing

various household products/materials to determine if they contain chemicals found in waterway sediments.

As part of these source control efforts, Ecology is developing Source Control Action Plans (SCAPs) for the 24 subbasins (or source control areas) that drain to the LDW site. The SCAPS identify potential contamination sources and the actions needed to keep sediments from being contaminated again after cleanup occurs. In addition, the SCAPs describe source control actions that are planned or currently underway, and sampling and monitoring activities that will be conducted to identify additional sources.

The Glacier Northwest, Inc. site is located within the River Mile 1.2 to 1.6 West (Glacier Bay) Source Control Area. The SCAP for this area is based on a thorough review of available information pertinent to sediment recontamination in this source control area, as presented in the *Lower Duwamish Waterway, RM 1.2 to 1.6 (Glacier Bay) Source Control Area -Summary of Existing Information and Identification of Data Gaps Report* (SAIC June 2007). This report and the Source Control Action Plan for this source control area are located on Ecology's website: http://www.ecy.wa.gov/programs/tcp/sites/lower_duwamish/sites/glacierbay/glacierbay.htm.

The Duwamish River Cleanup Coalition

The Duwamish River Cleanup Coalition (DRCC) is an advisory group to EPA and Ecology and works with the South Park and Georgetown neighborhoods and other stakeholders to ensure a Duwamish River cleanup that is accepted by and benefits the community and is also protective of aquatic life, wildlife and human health.

DRCC was formed by an alliance of community, environmental, tribal, and small business groups affected by ongoing pollution and cleanup plans for the LDW. The coalition members include: Community Coalition for Environmental Justice, the Duwamish Tribe, The Green-Duwamish Watershed Alliance, I'M A PAL Foundation, Environmental Coalition of South Seattle, Georgetown Community Council, People for

Puget Sound, Puget Soundkeeper Alliance, South Park Neighborhood Association, Washington Toxics Coalition, and Waste Action Project.

DRCC is a formal "community advisory group" recognized by EPA and representing the interests of the community toward the cleanup work along the LDW. DRCC receives public participation grant funding from Ecology. They also receive technical assistance grants from EPA for technical advisors to review all LDW Superfund cleanup related studies and plans. They are involved in many aspects of the proposed Superfund cleanup and related MTCA cleanups. DRCC is working with Ecology to ensure that the cleanup and source control measures meet community standards.

Enhanced Public Participation

Ecology will work with EPA and stakeholders according to the enhanced public participation efforts that occur for the LDW Superfund site. Ecology site managers and community involvement coordinators may participate in community meetings and events as needed. Ecology will coordinate with the DRCC throughout the public involvement process. This may include such activities as coordination for public meetings and sharing drafts of documents with DRCC for review, as appropriate.

Community Profile

For decades much of the land along to the LDW -has been industrialized. Current commercial and industrial operations include cargo handling and storage, marine construction, boat manufacturing, marina operations, concrete manufacturing, paper and metals fabrication, food processing, and airplane parts manufacturing.

Although the LDW is viewed primarily as an industrial corridor, two residential neighborhoods border the banks of the river: South Park and Georgetown. The South Park neighborhood is on the western shore of the LDW, and the Georgetown neighborhood is on the eastern side of the Duwamish Waterway. The residents of the community are well known for their commitment to neighborhood issues particularly

related to the ongoing site cleanups along the LDW. A description of these communities is provided below.

South Park Community Description

The South Park neighborhood is located in South Seattle, on the west bank of the LDW. Native Americans of the Duwamish Tribe were the first residents of South Park who lived on the shores of the Duwamish River for thousands of years. This area was once a small farming town composed of Italian and Japanese farmers who supplied fresh produce to Seattle's Pike Place Market. South Park became part of the City of Seattle in 1907. By 1920 the Duwamish River was straightened out into a straight, deep channel that would accept ocean-going ships and barges. This change in the Duwamish greatly impacted South Park. The curving meanders had been straightened, which made it easier for industry to develop along the banks of the waterway.

In the mid 1960s, South Park was rezoned as industrial. Over 4,000 people complained and the City of Seattle changed the zoning to low-density residential. The City of Seattle built the South Park Community Center in 1989 which remains a vital resource within the community. The South Park Community Center offers a wide variety of free and low cost programs and special events. Special events include free breakfasts and family events. The community center provides before and after-school programs and school break camps for students. They also offer adult classes ranging from yoga to technology to English classes. South Park is also served by the City-owned neighborhood center, managed by the South Park Neighborhood Association. The neighborhood center houses several non-profit and city services including the South Park Food Bank, City-sponsored South Park Action Agenda, and the Environmental Coalition of South Seattle.

The Seattle Public Library opened the new South Park branch at 8604 Eighth Avenue South (at Cloverdale Street) in September 2006. This new branch is 5,019 square feet and has the capacity to hold 18,700 books and materials (about one-third of the collection is Spanish-language, including bilingual children’s materials and Spanish Language

fiction and non-fiction). The library also has bilingual staff on hand to answer questions and to help patrons.

The South Park neighborhood is comprised of about 3,717 people of various ethnicities: 37% Hispanic, 34% white, 14% Asian, 7 % Black, 5% multiracial, 2% American Indian, 1% Native Hawaiian/Pacific Islander. The average age is 31 years old and the average income is $20,917 (based on records from 2005). A variety of retail and service businesses are located along 14th Avenue South. Data from the Seattle Office of Economic Development lists the primary categories of employment in South Park as wholesale trade, transportation and utilities; construction/resources; manufacturing; and services.

Georgetown Community Description

The Georgetown neighborhood is located in South Seattle, on the east side of the LDW across the river from South Park. Georgetown is Seattle's oldest neighborhood, settled by Luther Collins in 1851. It was incorporated as the City of Georgetown from 1904-1910, and later annexed by the City of Seattle.

According to records from 2005, just over 1,100 people live in Georgetown. The largest local employers in Georgetown are in the arts, entertainment, and recreation industries. The Georgetown neighborhood is home to large employers such as The Boeing Company and King County International Airport.

The community is host to local events such as art walks, an annual Arts and Garden Tour. The neighborhood is home to historic buildings such as the Old Georgetown City Hall, the Georgetown Steam Plant. The South Seattle Community College has recently revitalized its Georgetown Campus and is home to the Puget Sound Industrial Excellence Center Apprenticeship and Education Center. The campus offers more than 25 apprenticeship programs including masonry, meat cutters, electricians, iron workers, and cosmetology. The neighborhood is also home to The Georgetown Community Council meets once a month and is very active in the community.

Key Community Concerns and Issues

Ecology and EPA conducted interviews with community members, environmental organizations, and community organizations in October 2002 for the LDW Site Community Involvement Plan. The Glacier Northwest, Inc. Site is located within the larger LDW site. Ecology conducted an abbreviated version of community interviews in 2006 and determined that the concerns raised in 2002 were still pertinent. In 2008, Stakeholder groups provided comments to EPA and Ecology on the LDW Remedial Investigation Draft Report developed for the LDW Superfund Site. Although these comments are directed to the entire Superfund site, they are relevant for the Glacier Northwest Site because it is part of this larger Superfund site. The stakeholder comments indicated that their concerns have remained constant with the concerns outlined below.

There is clear interest in this cleanup process along the LDW . The following is representative of significant concerns and issues expressed during the community interviews. Ecology will work to respond to community concerns through the cleanup process and through coordination with EPA, other organizations, such as state and local health agencies, and the community advisory group that has been established for the site.

- **Health:** Stakeholders are concerned that living close to the LDW could affect their health. They expressed concern about consumption of all bottomfish and parts of other fish, as well as contamination from chemicals, bacteria and viruses. There is concern about exposure to contaminated sediments through contact at public access parks, employment at industries on the waterway, restoration work, and other cleanup work. Some said that there should be limited access to the river if there is a health risk.

- **Wildlife:** Stakeholders expressed concern for fish and wildlife. Sea lions, salmon, bottomfish, crabs, mussels, clams, shrimp, opossums, squirrels, ducks and other birds were mentioned, as well as concern about the disappearance of herons and for herons

on Kellogg Island in the Duwamish Waterway.

- **Domestic animals:** There is concern about dogs eating garbage from the river and horses being on a greenbelt above the river.

- **River and groundwater contamination:** There is concern that the river is dying and that it contains contaminants, including PCBs and mercury. There is concern about the effect of septic systems near the river; sewer overflows; surface water runoff, including oil, antifreeze and fertilizers; unreported spills and illegal dumping; and pumping of waste into the river or groundwater. There is concern that permits for discharges to the river are not being enforced or will be revised to be less strict. There is concern that sources of PCBs are not being addressed and that calculated cleanup levels for many contaminants will not be strict enough. There is also concern that the current efforts to control ongoing sources of pollution will not be enough to actually control the sources.

- **Economics:** Some people interviewed are concerned about contamination lowering property values. Others are concerned that businesses will leave the area due to the designation of the LDW as a Superfund site.

- **Cleanup:** Some people are concerned that South Park and the businesses on the water will be affected by cleanup activities, such as increased truck or barge traffic and potential accidents. There are concerns about the costs of damages to natural resources and the possibility that parties responsible for contamination will do some early cleanup activities but nothing more.

- **Information:** Several people expressed concern about a lack of warning signs for fishermen and recreational users and suggested that such signs should be installed. People are concerned about whether adequate information reaches the Spanish-speaking and other non-English-speaking communities and whether the average person and immigrants understand the risks.

- **Image:** While some people described the LDW neighborhood as an industrial area, others are concerned that it is perceived as a dumping ground.

- **Tribal Rights:** Some community members are concerned that the tribal rights to harvest fish and shellfish in the LDW are not being honored at a level protective of these treaty rights.

Other public concerns may be identified over the course of the cleanup through: public comment periods; further community interviews; surveys; meetings; and other contacts with individuals, community groups, or organizations.

Ecology will work to respond to community concerns through the cleanup process and coordination with other regulatory agencies and property owners as necessary.

Public Participation Activities and Responsibilities

The purpose of this Public Participation Plan is to promote public understanding and participation in the MTCA activities planned for this site. This section of the plan addresses how Ecology will share information and receive public comments and community input on the Site activities.

Public Participation Activities

Ecology uses a variety of activities to facilitate public participation in the investigation and cleanup of MTCA sites. Ecology will evaluate input provided by community residents, businesses, and other stakeholders. Ecology will integrate this input into its decisions as much as is feasible. Ecology will endeavor to allow the PLPs 14 days to review public participation materials in advance of public notice.

The following is a list of the public involvement activities that Ecology will use, their purposes, and descriptions of when and how they will be used during this site's investigation and cleanup.

Formal Public Comment Periods

Comment periods are the primary method Ecology uses to get feedback from the public on proposed investigation and cleanup decisions. Comment periods usually last 30 days and are required at key points during the investigation and cleanup process before final decisions are made.

During a comment period, the public can submit comments in writing, orally, and via e-mail. After formal comment periods, Ecology reviews all comments received and may respond in a document called a Responsiveness Summary.

Ecology will consider the need for changes or revisions based on input from the public. If significant changes are made, then a second comment period may be held. If no significant changes are made, then the draft document(s) will be accepted and finalized.

Future public comment periods will be held for other documents and legal agreements that are developed for the site.

Public Meetings and Hearings

Public meetings may be held at key points during the investigation and cleanup process. Public comment is accepted during public meetings. Ecology also may offer public meetings for actions expected to be of particular interest to the community. Ecology will endeavor to give written notice to the public and the PLPs 14 days in advance of the date of the public meeting. These meetings will be held at locations convenient to the community.

Information Repositories

Information repositories are places where the public may read and review site information, including documents that are the subject of public comment.

Ecology has established two repositories for the Glacier Northwest, Inc. Site:

- Washington State Department of Ecology, 3190 160th Avenue SE, Bellevue, WA 98008, (425) 649-7190. Please call for an appointment.
- Seattle Public Library South Park Branch, 8604 Eight Ave S. at Cloverdale St. Seattle, WA

Site information also will be posted on Ecology's web site at: http://www.ecy.wa.gov/programs/tcp/sites/glacierNW_LDWW/glacierNW_LDWW_hp.html

Site Register

Ecology's Toxics Cleanup Program uses its bimonthly *Site Register* to announce all of its public meetings and comment periods, as well as many other activities. To receive the *Site Register* in electronic or hard copy format, contact Linda Thompson at (360) 407-6069 or by e-mail at ltho461@ecy.wa.gov. It is also available on Ecology's web site at: http://www.ecy.wa.gov/programs/tcp/pub_inv/pub_inv2.html

Mailing List

Ecology has compiled a mailing list for the site. The list includes individuals, groups, public agencies, elected officials, private businesses, potentially affected parties, and other known interested parties. The list will be maintained at Ecology's Northwest Regional Office and will be updated as needed.

To have your address added or deleted from this mailing list, please contact Ecology's Site Manager Donna Ortiz at (425) 649-7231 or dort461@ecy.wa.gov.

Fact Sheets

Ecology will mail fact sheets to persons and organizations interested in the Glacier Northwest, Inc. Site to inform them of public meetings and comment opportunities and important site activities. Ecology also may mail fact sheets about the progress of site activities.

Newspaper Display Ads

Ecology will place notices in the *Seattle Times* and other appropriate newspapers to announce public comment periods and public meetings or hearings for the Site.

Ecology's goal is to be transparent to the community and all other stakeholders. This will be done by posting electronic documents on Ecology's website for stakeholder review at key points in the ICS site cleanup process. The stakeholders will be able to see the planned schedule for the next phase of work at the ICS site by reviewing the Agreed Order for the Site.

Public Participation Plan Update

This public participation plan may be updated as the project proceeds. If an update is necessary, the revised plan will be submitted to the public for comment.

Points of Contact

If you have questions or need more information about this plan or the Glacier Northwest, Inc. site, please contact:

Donna Ortiz, Site Manager
Washington State Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008
Tel: (425) 649-7231
Email: dort461@ecy.wa.gov

APPENDIX C
GLOSSARY

Agreed Order: A legal document issued by Ecology which formalizes an agreement between the department and potentially liable persons (PLPs) for the actions needed at a site. An agreed order is subject to public comment. If an order is substantially changed, an additional comment period is provided.

Applicable State and Federal Law: All legally applicable requirements and those requirements that Ecology determines are relevant and appropriate.

Area Background: The concentration of hazardous substances that is consistently present in the environment in the vicinity of a site which are the result of human activities unrelated to releases from that site.

Arsenic: A metallic element that forms a number of poisonous compounds, arsenic is found in nature at low levels mostly in compounds with oxygen, chlorine, and sulfur.

Cleanup Action: Any remedial action, except interim actions, taken at a site to eliminate, render less toxic, stabilize, contain, immobilize, isolate, treat, destroy, or remove a hazardous substance that complies with cleanup levels; utilizes permanent solutions to the maximum extent practicable; and includes adequate monitoring to ensure the effectiveness of the cleanup action.

Cleanup Action Plan: A document which identifies the cleanup action and specifies cleanup standards and other requirements for a particular site. After completion of a comment period on a Draft Cleanup Action Plan, Ecology will issue a final Cleanup Action Plan.

Cleanup Level: The concentration of a hazardous substance in soil, water, air or sediment that is determined to be protective of human health and the environment under specified exposure conditions.

Comment Period: A time period during which the public can review and comment on various documents and proposed actions. For example, a comment period may be provided to allow community members to review and comment on proposed cleanup action alternatives and proposed plans.

Contaminant: Any hazardous substance that does not occur naturally or occurs at greater than natural background levels.

Environment: Any plant, animal, natural resource, surface water (including underlying sediments), ground water, drinking water supply, land surface (including tidelands and shorelands) or subsurface strata, or ambient air within the state of Washington.

Facility: Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly-owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, vessel, or aircraft; or any site or area where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed or, placed, or otherwise come to be located.

Groundwater: Water found beneath the earth's surface that fills pores between materials such as sand, soil, or gravel. In aquifers, groundwater occurs in sufficient quantities that it can be used for drinking water, irrigation, and other purposes.

Hazardous Sites List: A list of sites identified by Ecology that requires further remedial action. The sites are ranked from 1 to 5 to indicate their relative priority for further action.

Hazardous Substance: Certain categories of substances defined by law and regulation that pose a threat to human health and/or the environment. Typical hazardous substances are materials that are toxic, corrosive, ignitable, explosive, or chemically reactive.

Hazardous Waste Site: Any facility where there has been a confirmation of a release or threatened release of a hazardous substance that requires remedial action.

Independent Cleanup Action: Any remedial action conducted without Ecology oversight or approval, and not under an order or decree.

Information Repository: A file containing current information, technical reports, and reference documents available for public review. The information repository is usually located in a public building that is convenient for local residents such as a public school, city hall, or library.

Interim Action: Any remedial action that partially addresses the cleanup of a site.

Model Toxics Control Act (MTCA): Washington State's law that governs the investigation, evaluation and cleanup of hazardous waste sites. Refers to RCW 70.105D. It was approved by voters at the November 1988 general election and known is as Initiative 97. The implementing regulation is WAC 173-340.

Monitoring Wells: Special wells drilled at specific locations on or off a hazardous waste site where groundwater can be sampled at selected depths and studied to determine the direction of groundwater flow and the types and amounts of contaminants present.

Natural Background: The concentration of hazardous substance consistently present in the environment which has not been influenced by localized human activities.

National Priorities List (NPL): EPA's list of hazardous waste sites identified for possible long-term remedial response with funding from the federal Superfund trust fund.

Owner or Operator: Any person with any ownership interest in the facility or who exercises any control over the facility; or in the case of an abandoned facility, any person who had owned or operated or exercised control over the facility any time before its abandonment.

Pentachlorophenol: Pentachlorophenol is a manufactured chemical which is used industrially as a wood preservative. Exposure to high levels of pentachlorophenol can cause increases in body temperature, liver effects, damage to the immune system, reproductive effects, and developmental effects.

Polycyclic Aromatic Hydrocarbon (PAH): A class of organic compounds, some of which are long-lasting and carcinogenic. These compounds are formed from the combustion of organic material and are ubiquitous in the environment. PAHs are commonly formed by forest fires and by the combustion of fossil fuels.

Potentially Liable Person (PLP): Any person whom Ecology finds, based on credible evidence, to be liable under authority of RCW 70.105D.040.

Public Notice: At a minimum, adequate notice mailed to all persons who have made a timely request of Ecology and to persons residing in the potentially affected vicinity of the proposed action; mailed to appropriate news media; published in the local (city or county) newspaper of largest circulation; and opportunity for interested persons to comment.

Public Participation Plan: A plan prepared under the authority of WAC 173-340-600 to encourage coordinated and effective public involvement tailored to the public's needs at a particular site.

Release: Any intentional or unintentional entry of any hazardous substance into the environment, including, but not limited to, the abandonment or disposal of containers of hazardous substances.

Remedial Action: Any action to identify, eliminate, or minimize any threat posed by hazardous substances to human health or the environment, including any investigative and monitoring activities of any release or threatened release of a hazardous substance and any health assessments or health effects studies.

Remedial Investigation/Feasibility Study: Two distinct but related studies. They are usually performed at the same time, and together referred to as the "RI/FS." They are intended to:

-Gather the data necessary to determine the type and extent of contamination;
-Establish criteria for cleaning up the site;
-Identify and screen cleanup alternatives for remedial action; and
-Analyze in detail the technology and costs of the alternatives.

A comment period on the draft report is required.

Responsiveness Summary: A summary of oral and/or written public comments received by Ecology during a comment period on key documents, and Ecology's responses to those comments The Responsiveness Summary is mailed, at a minimum, to those who provided comments and its availability is published in the Site Register.

Silver: A chemical element which is a soft, white, lustrous transition metal, it has the highest electrical conductivity of any element and the highest thermal conductivity of any metal. Silver has long been valued as a precious metal, used to make ornaments, jewelry, high-value tableware and utensils (hence the term *silverware*) and currency coins. Today, silver metal is used in electrical contacts and conductors, in mirrors and in catalysis of chemical reactions. Its compounds are used in photographic film and dilute solutions of silver nitrate and other silver compounds are used as disinfectants.

Site: Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, vessel, or aircraft; or any site or area where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, or placed, or otherwise come to be located.

Site Characterization Report: A written report describing the site and nature of a release from an underground storage tank, as described in WAC 173-340-450 (4) (b).

Site Register: Publication issued every two weeks of major activities conducted statewide related to the study and cleanup of hazardous waste sites under the Model Toxics Control Act. To receive this publication, please call (360) 407-7200.

Superfund: The federal government's program to clean up the nation's uncontrolled hazardous waste sites.

Surface Water: Lakes, rivers, ponds, streams, inland waters, salt waters, and all other non-underground waters and courses within the state of Washington or under the jurisdiction of the state of Washington.

TCP: Toxics Cleanup Program at Ecology

Total Petroleum Hydrocarbons (TPH): A scientific measure of the sum of all petroleum hydrocarbons in a sample (without distinguishing one hydrocarbon from another). The "petroleum hydrocarbons" include compounds of carbon and hydrogen that are derived from naturally occurring petroleum sources or from manufactured petroleum products (such as refined oil, coal, and asphalt).

Toxicity: The degree to which a substance at a particular concentration is capable of causing harm to living organisms, including people, plants and animals.

2,4,6-Trichlorophenol: 2,4,6-Trichlorophenol has been used in various pesticide formulations and as a wood preservative, such as fungicides, glue preservatives, insecticides, and bactericides. It occurs as yellow to pinkish orange flakes or colorless crystals, with a strong phenolic odor. Animal studies have observed increases in incidences of leukemias or lymphomas.

Zinc: Zinc is a metallic chemical element; it has a white color with a bluish tinge. It has a high resistance to atmospheric corrosion. A major use is as a protective coating for iron and steel sheet and wire. Excess zinc in the body interferes with the metabolism of other minerals in the body.