RESPONSIVENESS SUMMARY

Cadet Manufacturing and Port of Vancouver Building 2220

January 7 - February 7, 2008 Public Comment Period

Agreed Order for Interim Action and State Environmental Policy Act (SEPA) Determination of Non-Significance

Prepared by
Washington State Department of Ecology
Southwest Regional Office
Toxics Cleanup Program
300 Desmond Drive
Olympia, Washington 98504-7775

March 2008

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Site Information

Address: 2100 and 2500 West Fourth Plain Blvd.
Site Manager: Craig Rankine, R.G., P. Hg.
Public Involvement Coordinator: Meg Bommarito

The Washington State Department of Ecology (Ecology) and the Port of Vancouver (Port) are entering into an Agreed Order to perform an interim action and complete remedial investigation reports, a feasibility study and a feasibility study report. The interim action, a groundwater pump and treat system, will cleanup groundwater contamination from both the Cadet Manufacturing and Port of Vancouver Building 2220 properties. The contamination resulted from the manufacturing of electric heaters on both properties. The solvent trichloroethylene (TCE) was used to clean metal parts. Some of this solvent was released to the environment.

The comment period for this agreed order and the State Environmental Protection Act (SEPA) Determination of non-significance and checklist ran from January 7 through February 7, 2008. Public comments and Ecology's responses are summarized in this document. An open house and public meeting was hosted by Ecology on January 15. Approximately 12 people attended.

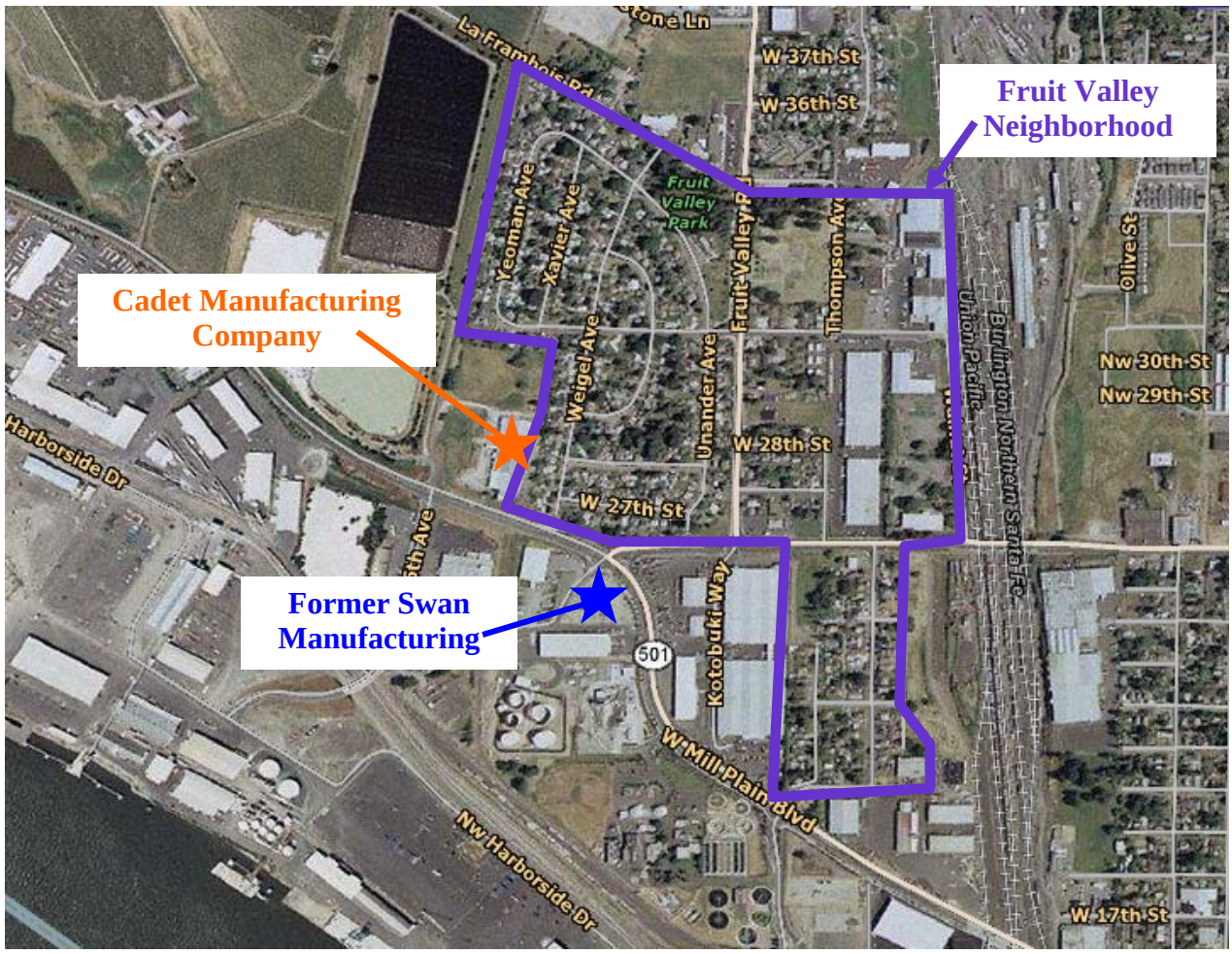
Site Background

Trichloroethylene (TCE), a solvent used in production of electric home heaters (to degrease metal before painting), was found at the Cadet Manufacturing (Cadet) and Port of Vancouver Building 2220 (former Swan Manufacturing Company) properties. In 1997, TCE was discovered in soil and groundwater at the Port of Vancouver Building 2220 property. TCE and other solvents entered the groundwater underneath these properties and traveled beneath the Fruit Valley Neighborhood.

Cadet (still operating) is located at 2500 W. Fourth Plain Boulevard (in 1976, degreasing using TCE stopped). The former Swan Manufacturing was located between 2001 and 2501 W. Fourth Plain Boulevard and moved to the current Cadet property in 1964. Cadet bought Swan Manufacturing in 1972. The Port of Vancouver (Port) is responsible for the cleanup at the Swan Manufacturing property. In May 2006, the Port purchased the Cadet property and assumed cleanup responsibility for that property also.

Cleanup of this site has been underway since 1998 and several steps have been taken to reduce contamination and protect human health and the environment. This agreed order will require completion of the remedial investigation reports, a feasibility study and report for both properties and the installation of a groundwater pump and treat interim action. The goal of the pump and treat system is to provide continued treatment and containment of the contaminated groundwater plume.

Figure 1. Site Map



Comments Received and Ecology Responses

The following comments were received during the January 7 to February 7, 2008 public comment period for the Cadet Manufacturing and Port of Vancouver Building 2220 site. These comments will be added to the site file and made publicly available.

Comment #1 Department of Archaeology & Historic Preservation

STATE OF WASHINGTON

DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501
Mailing address: PO Box 48343 • Olympia, Washington 98504-8343
(360) 586-3065 • Fax Number (360) 586-3067 • Website: www.dahp.wa.gov

January 22, 2008

Ms. Rebecca Lawson
Section Manager, Toxics Cleanup Program
Southwestern Regional Office
300 Desmond Drive
Lacey, WA 98503

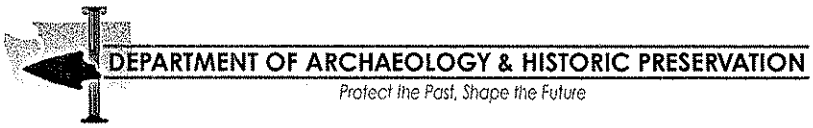
In future correspondence please refer to:
Log: 012208-06-ECY
Property: Cadet SEPA DNS Port of Vancouver Building 2220
Re: Archaeology

Dear Ms. Lawson:

We have reviewed the materials forwarded to our office for the proposed project referenced above. The project involves drilling a well, trenching, laying underground piping and utilities and grading and pouring foundations for buildings, all activities which have the potential to damage or destroy any archaeological resources present. The SEPA checklist states that though the project area is identified in the Clark County Predictive Model as having a "high" probability for archaeological resources, there are no such resources present because the project area is filled or "intensely developed" and already disturbed. The checklist continues to state that if resources are discovered the "office" of archaeology and historic preservation would be contacted.

We recommend that Cultural Resources and Tribal consultation be more comprehensively considered during this project. Though not mentioned in the checklist, the project area is located *within* the Vancouver Lakes Archaeological District, determined Eligible for listing in the National Register of Historic Places. There are hundreds of known archaeological sites in the Vancouver Lakes area, and we have no record indicating this project area has been previously examined for archaeological resources. If you have information to the contrary, we would be happy to review it. While it may be true that this project area is developed and filled, significant archaeological sites throughout western Washington have been found in highly industrialized, waterfront areas. We are therefore concerned that review of this

project has not given archaeological resources the appropriate level of consideration. At a minimum, the work should be monitored by a professional archaeologist and an inadvertent discovery and monitoring plan should be developed that will outline steps to follow and individuals and governments to be notified in the event of a discovery. Alternatively, the project areas could be examined prior to project activities for buried archaeological resources. A thorough investigation with negative findings could negate the need for monitoring. Either way, we recommend that no assumptions be made about the presence or absence of archaeological resources without the appropriate level of investigation and compilation of data.



Ecology Response

This Dept. of Archaeology and Historical Preservation letter indicates "the SEPA checklist states that though the project area is identified in the Clark County Predictive Model as having a 'high' probability for archaeological resources, there are no such resources present because the project area is filled or 'intensely developed' and already disturbed." Areas where soil trenching for the discharge pipe from the water treatment plant is covered with fill soil approximately 6 feet thick. About 120 feet of the 800 foot long pipeline trench is expected to be dug below 8 feet in depth. This depth of excavation is located by the railroad tracks to the east of the proposed water treatment plant. The trench is expected to be no more that 5 feet wide. Any other excavation work is expected be less than 6 feet in depth and in fill soil.

Comment #2 City of Battle Ground

City of Battle Ground

City Hall • Engineering Department
109 S.W. 1st Street, Suite 122 • Battle Ground, WA 98604 • (360) 342-5070 • Fax (360) 342-5057

FEB 2 6 2008

February 25th, 2008

Craig Rankine, Site Manager
WA State Department of Ecology
2108 Grand Blvd.
Vancouver, WA 98661-4622

Subject: **Determination of Nonsignificance, Port of Vancouver Model Toxics Control Act Cleanup, Groundwater Pump and Treat Interim Action**

Dear Mr. Rankine:

The City of Battle Ground strongly supports the accelerated clean up of toxic wastes in groundwater at the Cadet and Swan sites in the Vancouver Lake area. The groundwater sources in this area are an important part of the watershed plans for the Watershed Resource Inventory Areas 27 and 28. These plans were adopted by the combined Boards of Commissioners of Clark, Cowlitz and Skamania Counties in the summer of 2006.

As described in the plans, the aquifer in this area has the capacity to provide water for our growing county far into the future. In order for Clark Public Utilities and the City of Battle Ground to use this water, the toxics from previous activities at the Cadet and Swan sites must be removed. In doing so, as described in the SEPA DNS, the water will become available as a substitution for upstream sources. That, in turn, will result in protecting surface water beneficial uses such as fish habitat.

We urge the expeditious completion of this project. Thank you for this opportunity to comment.

Sincerely,

Rob Charles, Public Works Director

Ecology Response

Thank you for your recommendation.

Comment #3 Clark County Commissioners

BOARD OF CLARK COUNTY COMMISSIONERS
Betty Sue Morris • Marc Boldt • Steve Stuart

proud past, promising future
CLARK COUNTY
WASHINGTON

er, WA 98666-5000 • tel: [360] 397-2232 • fax: [360] 397-6058 • www.clark.wa.gov

February 11, 2008

FEB 14 2008

Craig Rankine, Site Manager
WA State Department of Ecology
2108 Grand Blvd.
Vancouver, WA 98661-4622

Subject: Determination of Nonsignificance, Port of Vancouver Model Toxics Control Act Cleanup, Groundwater Pump and Treat Interim Action

Dear Mr. Rankine:

The Board of County Commissioners strongly supports the accelerated clean up of toxic wastes in groundwater at the Cadet and Swan sites in the Vancouver Lake area. The groundwater sources in this area are an important part of the watershed plans for Watershed Resource Inventory Areas 27 and 28. These plans were adopted by the combined Boards of Commissioners of Clark, Cowlitz and Skamania Counties in the summer of 2006.

As described in the plans, the aquifer in this area has the capacity to provide water for our growing county far into the future. In order for Clark Public Utilities and the City of Vancouver to use this water, the toxics from previous activities at the Cadet and Swan sites must be removed. In doing so, as described in the SEPA DNS, the water will become available as a substitution for upstream sources. That, in turn, will result in protecting surface water beneficial uses such as fish habitat.

We urge the expeditious completion of this project. Thank you for this opportunity to comment.

1300 Franklin Street • P.O. Box 5000 • Vancouver

Sincerely,

Betty Sue Morris, Chair

Marc Boldt, Commissioner

Steve Stuart, Commissioner

Cc: ESA Program

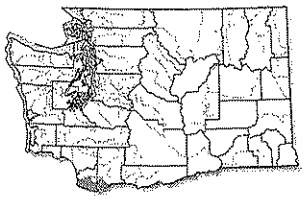
Ecology Response

Thank you for your recommendation.

Comment #4 Department of Ecology Hazardous Waste & Toxics Reduction Program

February 5, 2008

Ms. Rebecca Lawson
Department of Ecology
Toxics Cleanup Program
300 Desmond Drive
Lacey, WA 98503



Dear Ms. Lawson:

Thank you for the opportunity to comment on the determination of nonsignificance for the Groundwater Pump and Treat Interim Action project, located between 2001 and 2501 West Fourth Plain Boulevard in Vancouver as proposed by Patty Boyden, Port of Vancouver. The Department of Ecology (Ecology) reviewed the environmental checklist and has the following comment(s):

HAZARDOUS WASTE & TOXICS REDUCTION: Cristiana Figueroa-Kaminsky (360) 407-6342

Has the applicant considered alternatives to the use of chlorine to prevent biofouling?

Chlorine is a hazardous substance. The following links mention the use of ultraviolet light to prevent biofouling in air strippers:

www3.interscience.wiley.com/cgi-bin/abstract/94519183/ABSTRACT
http://www.wbdg.org/ccb/DOD/UFGS/UFGS%2011%2024%2027.pdf

Ecology's comments are based upon information provided by the lead agency. As such, they do not constitute an exhaustive list of the various authorizations that must be obtained or legal requirements that must be fulfilled in order to carry out the proposed action.

If you have any questions or would like to respond to these comments please contact the appropriate reviewing staff listed above.

Department of Ecology
Southwest Regional Office

(SM: 08-0047)

cc: Cristiana Figueroa-Kaminsky, HWTRS
Patty Boyden, Port of Vancouver (Applicant)

Ecology Response

Thank you for taking the time to be involved in the cleanup process. Ecology has not been informed if the Port has considered alternatives other than "chlorine". It is stated in the SEPA checklist and in the Groundwater Pump and Treat Interim Action Work Plan (dated November 19, 2007) that chlorine to prevent biofouling will come in the form of liquid sodium hypochlorite (NaOCl or bleach) and not as gaseous elemental chlorine gas (Cl2). While bleach can be hazardous if handled incorrectly it is of much less hazard than chlorine gas which requires rigorous handling procedures and containment apparatus.

Comment #5 Cowlitz Indian Tribe

Cowlitz Indian Tribe

P.O. Box 2547 Longview, WA 98632
360.577.8140 577.7432 (f)

January 30, 2008

Stephenie Kramer
Assistant State Archaeologist
State of Washington Department of Archaeology and Historic Preservation
PO Box 48343
Olympia, WA 98504-8343

RE: Log # 012208-06-ECY Archaeology, Cadet SEPA DNS Port of Vancouver Building 2220

Dear Ms. Kramer,

In reference to the project stated above, the Cultural Resources Department of the Cowlitz Indian Tribe would like to state its interest.

We concur with the Department of Archaeology and Historic Preservation that the project area needs a thorough archaeological review before construction is to begin. Please contact us with any questions or concerns you may have.

Thank you for your time and attention.

All My Relations,

dAVe burlingame
Director, Cultural Resources
360.577.6962
508.1677 [c]
577.6207 [f]

CC: Rebecca Lawson, Toxics Cleanup Program

Ecology Response

Please see the response to the comments from the Department of Archaeology & Historic Preservation on page 6 of this document.

Comment #6 Clark Public Utilities

Clark Public Utilities
Customer-owned, customer-focused

MEMO

February 1, 2008

Rebecca S. Lawson, P.E., LHG
Department of Ecology SW Regional Office
300 Desmond Drive
Lacey, WA 98503

Re: Determination of Nonsignificance
Port of Vancouver Model Toxics Control Act Cleanup, Groundwater Pump and Treat Interim Action

Dear Ms. Lawson:

Clark Public Utilities (Clark) appreciates the opportunity to provide formal comment on the Port of Vancouver's proposed "Groundwater Pump and Treat Interim Action" and related DNS.

Clark's interest in this proposal is based on the necessity to utilize the Pleistocene Alluvial Aquifer (PAA) to meet future public water supply demands for the majority of Clark County. This is a federally designated "Sole Source Aquifer" for the region and implementing management objectives that compliment the requirement to sustain the use of this aquifer are critical. WAC 173-592 (June 1988), "Reservation of Future Public Water Supply for Clark County," identifies and reserves this aquifer for future public water supply. Clark's pending water right application (G2-29981) dated April 16, 2001, requested 25,000 gallons per minute from the PAA to meet our future supply needs. It is Clark's expectation that, as this interim action is implemented, processing of the application will move forward.

Clark supports this proposed interim action that will enable the PAA to be put to beneficial use as it was intended when WAC 173-592 was adopted. Clark and the Port have spent considerable time and financial resources to develop a unified ground water model with the sole purpose of being used as a predictive tool. The model will guide the design of containment facilities under existing and projected pumping stresses within this aquifer. It is Clark's expectation that Ecology and the Port are using the unified ground water model in this proposed interim action to insure that properly sized containment and treatment facilities are put into service that will enable unfettered use of the PAA within a reasonable time period.

To demonstrate our commitment to a regional solution, and in order to provide time for the Port of Vancouver to construct the necessary containment and treatment facilities, Clark has requested a water right to withdraw water from the deep Sand and Gravel Aquifer (SGA). Studies have indicated this aquifer has no significant hydraulic connection to the shallow PAA. Clark will incur significant additional costs to utilize the SGA due to well construction depth, treatment needs, and reduced production capacity per well when compared to proposed PAA wells. The SGA is expected to provide possibly five to ten years of water supply, at which time the Port is expected to have gained sufficient removal to allow development of supply wells in the PAA in accordance with our pending request. In recognition of our investment in the SGA, it is understood that the Port will operate containment wells sufficient to prevent contaminant migration.

Clark supports the proposed interim action and SEPA determination with the following expectations:

- The interim action is based on the unified ground water model developed by the Port of Vancouver and Clark.
- The interim action is reviewed and conditioned to reflect effective contaminant capture under increased withdrawals by water purveyors using the PAA in the Vancouver Lake area.
- The interim action will allow Ecology to approve withdrawals from the PAA under Clark's Application #G2-29981 within five to ten years.
- Ecology recognizes Clark's significant contribution to the Port's cleanup process with its plans to utilize the deep SGA and will regulate future contaminant containment by the Port to ensure Clark's unrestricted utilization of the PAA as a regional drinking water supply in accordance with our pending application.

Thank you for the opportunity to comment on the proposed Groundwater Pump and Treat Interim Action and related DNS.

Sincerely,

Douglas A. Quinn, P.E.
Director of Water Services

Dick Wallace, Regional Director, Department of Ecology
Tom Loranger, Supervisor – Water Resources, Department of Ecology
Patty Boyden, Environmental Manager, Port of Vancouver

Ecology Response: See below for responses to individual comments.

Comment 6.1

Clark's interest is this proposal is based on the necessity to utilize the Pleistocene Alluvial Aquifer (PAA) to meet future public water supply demands for the majority of Clark County…Clark' pending water right application (G2-29981) dated April 16, 2001, requested 25,000 gallons per minute from the PAA to meet our future supply needs. It is Clark's expectation that, as this interim action is implemented, process of the application will move forward.

Ecology Response

Thank you for taking the time to be involved in the cleanup process. Ecology is very involved with the protection and development of future public water supplies. It is not anticipated that this interim action will cause any delay in the processing of the water right application. Please contact Philip Crane at the Ecology's Southwest Regional Office [(360) 407-0238] for further assistance with this question.

Comment 6.2

It is Clark's expectation that Ecology and the Port are using the unified ground water model in this proposed interim action to insure that properly sized containment and treatment facilities are put into service that will enable unfettered use of the PAA within a reasonable time period.

Ecology Response

Ecology's expectation is that the most recent and pertinent information is used in the development and implementation of the interim action. Ecology is requesting documentation that the unified model has been used in this process and is also requesting future water quality and aquifer characteristics information be used to check and recalibrate this model.

Comment 6.3

Clark supports the proposed interim action and SEPA determination with the following expectations:

A. The interim action is based on the unified groundwater model developed by the Port of Vancouver and Clark.
B. The interim action is reviewed and conditioned to reflect effective contaminant capture under increase withdrawals by water purveyors using the PAA in the Vancouver Lake area.
C. The interim action will allow Ecology to approve withdrawals from the PAA under Clark's Application #G2-29981 within five to ten years.
D. Ecology recognizes Clark's significant contribution to the Port's cleanup process with plans to utilize the deep SGA (sand and gravel aquifer) and will regulate future contaminant containment by the Port to ensure Clark's unrestricted utilization of the PAA as a regional drinking water supply in accordance with our pending application.

Ecology Response

A. Please see the response to comment 6.2 above.

B. The interim action, as currently proposed in the GPTIA Work Plan, is designed to allow an increase in the GPTIA pumping to offset other pumping centers in the vicinity. A monitoring plan will be developed for the collection of data that will help the Port and Ecology evaluate plume containment in the PAA.

C. Please see answer to question 6.1 on page 14.

D. Ecology greatly appreciates Clark's efforts to pump from the SGA to prevent possible influence on shallow groundwater contamination at the SMC and Cadet sites. Primary goals of the interim action are to achieve hydraulic containment of the SMC/Cadet dissolved-phase volatile organic compound (VOC) plume and remove dissolved-phase VOCs from groundwater. Ecology will be working with the Port to make sure these goals are obtained.

Comment #7 Lower Columbia Fish Recovery Board

LOWER COLUMBIA FISH RECOVERY BOARD
2127 8th Avenue Longview Washington 98632 ~ 360 425-1554

January 30, 2008

Rebecca S. Lawson, P.E., LHG
Department of Ecology SW Regional Office
300 Desmond Drive
Lacey, WA 98503

Subject: Determination of Nonsignificance, Port of Vancouver Model Toxics Control Act Cleanup, Groundwater Pump, and Treat Interim Action

Dear Ms. Lawson:

The WRIA 27/28 Salmon-Washougal and Lewis Watershed Planning Unit appreciates the opportunity to review and comment on the Port of Vancouver's proposed interim groundwater cleanup actions at the Swan Manufacturing and Cadet Manufacturing contaminant sites. We support the Department of Ecology and Port of Vancouver's efforts to move forward with this regionally important clean-up project. After reviewing the above-referenced SEPA determination and environmental checklist, we offer the following comments and recommendations for your consideration.

In July of 2006, the Clark, Skamania, and Cowlitz County Boards of Commissioners adopted the WRIA 27/28 Salmon-Washougal and Lewis Watershed Management Plan ("WRIA 27/28 Plan"). This document establishes integrated strategies for managing water supplies, water quality, and instream flows in southwest Washington through the year 2020. A key management approach outlined in the WRIA 27/28 Plan is development of regional water

development of a new groundwater source in the Vancouver Lake vicinity as a high priority implementation action. The WRIA 27/28 Plan offers the following recommendation in this regard:

"The Planning Unit endorses the development of the Vancouver Lake wellfield. CPU should consider sale of water from this supply source to other purveyors throughout Clark County, for use in meeting future demands. Permitting agencies should make every effort to facilitate the development of the Pleistocene Alluvial Aquifer and encourage its use over other sources" (WRIA 27/28 Plan, Pg 3-19)

Development of the Vancouver Lake wellfield is expected to meet CPUs long-term water supply needs, as well as other needs in adjacent areas of WRIA's 27 and 28, without impacting instream flows. In real terms, this source can be substituted for new and current water supplies that impact stream flows in the East Fork Lewis River and Salmon Creek, which are both low-flow limited watersheds. The East Fork Lewis River in particular supports five primary populations of Endangered Species Act listed salmonids, and has been identified in the WRIA 27/28 Plan as one of the region's highest priority watersheds for management actions targeting stream flow improvements.

The WRIA 27/28 Plan recognizes that CPU's ability to develop a regional water supply in the Vancouver Lake vicinity is directly related to groundwater cleanup efforts, since pumping could potentially alter water table elevations. The WRIA 27/28 Plan offers the following recommendation addressing the need to expedite groundwater cleanup efforts:

> "CPU and the City of Vancouver anticipate working closely with the Port and environmental and health agencies to find a solution. Because of the regional importance of the ground water resource at Vancouver Lake, the Planning Unit recommends that all affected parties work together to create a solution that allows for development of this source of supply as quickly as possible." (WRIA 27/28 Plan, Pg 3-15)

The environmental checklist prepared for this project indicates that the interim action is designed to be implemented prior to CPU's wellfield development and if necessary, will operate such that it will counteract potential impacts of the CPU wellfield on the dissolved-phase groundwater plume. This approach is generally consistent with the above Planning Unit recommendation.

The overall management strategies outlined in the WRIA 27/28 Plan are integrally linked to development of regional water sources. Water demand in Clark County will increase substantially over the next decade and options for addressing supply needs with existing sources are limited. To meet long-term expanding needs while protecting and enhancing stream flows, development of a regional water supply in the Vancouver Lake vicinity will be essential. The WRIA 27/28 Planning Unit therefore supports this proposal and encourages the Department of Ecology and Port of Vancouver to expedite ground water clean-up.

Thank you for the opportunity to provide these comments. Please feel free to contact me at (360) 425-1555 if you have any questions or need additional information.

Sincerely,

Jeff Breckel, Executive Director
Lower Columbia Fish Recovery Board

cc: WRIA 27/28 Planning Unit
Patty Boyden, Port of Vancouver
Doug Quinn, CPU

Ecology Response

Thank you for your recommendation.