



## **RESPONSIVENESS SUMMARY**

**NuStar Energy site**

**October 1 – 30, 2007 Public Comment Period**

**Agreed Order for Remedial Investigation, Feasibility Study and  
Interim Actions**

**Prepared by  
Washington State Department of Ecology  
Southwest Regional Office, Lacey, Washington**

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## Site Information

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**Address:** 2565 NW Harborside Drive, Port of Vancouver Terminal #2

**Site Manager:** Rod Schmall

**Public Involvement Coordinator:** Meg Bommarito

**The Washington State Department of Ecology (Ecology) is asking for your comments on the proposed Agreed Order for a Remedial Investigation, Interim Actions and Feasibility Study at the NuStar Energy L.P. site (formerly Valero L.P.).**

- Complete the Remedial Investigation of the site.
- Take Interim Actions to reduce contamination and risk to human health and the environment.
- Complete a Feasibility Study to identify and evaluate cleanup remedies.

Ecology completed a **State Environmental Policy Act (SEPA)** review of the site and determined that the proposed Interim Actions will not result in significant harm to the environment (Determination of Non-Significance (DNS)). The SEPA checklist and DNS were also available for public review and comment.

**The comment period for this agreed order ran from October 1 –30, 2007. Public comments and Ecology's responses are summarized in this document.**

## Site Background

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The NuStar Energy L.P. site is located at the Port of Vancouver Terminal #2, 2565 NW Harborside Drive in Vancouver and is next to the Columbia River (south of site, see map on this page). Since 1998, ST Services (now operating as NuStar Energy L.P.) has operated the site as a ship terminal that receives, stores and transfers bulk chemicals and fuel. The property is owned by the Port of Vancouver and is leased by ST Services.

Various materials (including fertilizer, jet fuel, biodiesel and wood preservatives) are received and shipments occur by pipeline, railroad cars and trucks at the terminal. Other operations at the site include blending, packaging and storage of chemicals.

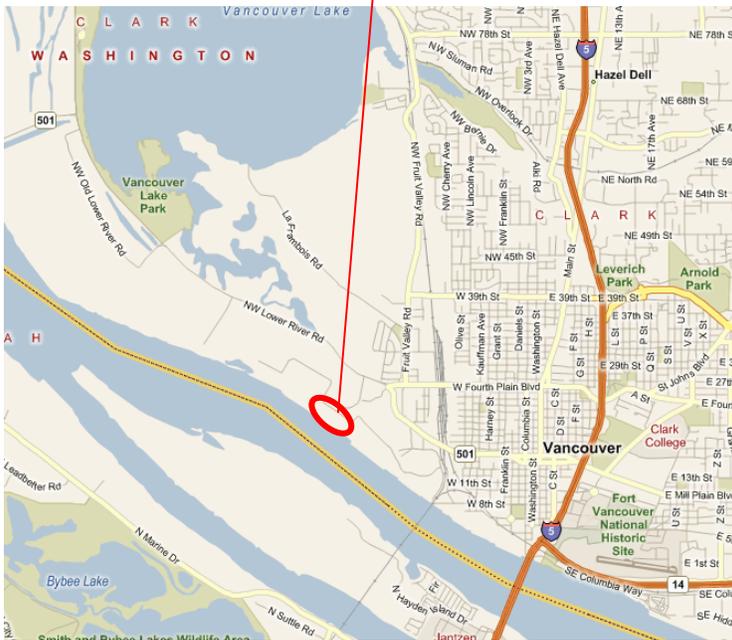
Prior to 1998, the terminal was owned and operated by GATX. During GATX ownership, contamination of soil and groundwater was discovered on site.

Initial investigations to determine extent of contamination found several contaminants above MTCA cleanup levels including the chlorinated solvents perchloroethylene (PCE) and trichloroethylene (TCE). Chlorinated solvents have not been handled on the site since 1994.

In 1998, ST Services (after purchasing GATX) entered into an Agreed Order with Ecology to complete a Remedial Investigation, Feasibility Study and Interim Actions.

Before these activities could be completed, Kaneb, the parent company of ST Services, was purchased by Valero L.P. who then assumed responsibility for cleanup of this site. Valero recently changed its name to NuStar Energy L.P. An Agreed Order has been drafted to continue the investigation and characterize the extent of contamination at this site.

# Site Map





*Commissioners*

Nancy E. Barnes  
Carol J. Curtis  
Byron H. Hanke

*Chief Executive Officer/  
General Manager*

Wayne W. Nelson

October 12, 2007

Rod Schmall, VFO  
Department of Ecology  
2108 Grand Blvd.  
Vancouver, WA 98661-4622

OCT 15 2007

Re: Clark Public Utilities Extension Request

Dear Mr. Schmall:

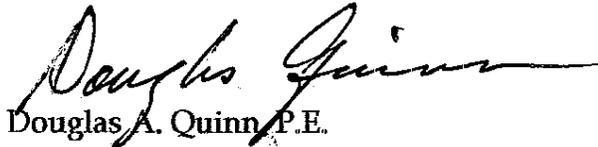
I am writing on behalf of Clark Public Utilities ("CPU") to request an extension to the public comment period for Ecology's proposed agreed order with ST Services for a remedial investigation, feasibility study, and interim actions. The thirty day comment period is not sufficient for CPU to undertake the review needed to meaningfully comment on the proposed action.

CPU is the public water purveyor for unincorporated Clark County, which has a growing population and a well-documented need for additional water supply. Implementation of the ST Services agreed order may significantly affect CPU's ability to make use of important water supply resources that have been contaminated by releases from the ST Services facility. Water supply use of the ground water resource in question has been determined by Ecology regulation to "result in the maximum net benefit for the people of the state. . . ." WAC 173-592-070(1). CPU wants to ensure that MTCA cleanup decisions for the ST Services site do not preclude, or unnecessarily delay, future use of the reserved ground water for the very purpose for which Ecology established the Water Supply Reservation rule adopted on August 13, 1986.

CPU's evaluation of the proposed agreed order will require more than the thirty days specified in Ecology's notice. CPU has only recently become aware of the notice and will need to retain technical assistance to evaluate the impact of the proposed actions on the aquifer in question. We therefore request that Ecology extend the comment period by an additional thirty days. We also request that Ecology provide all documentation concerning the interim action that is anticipated by the agreed order, as the information available with the public notice is insufficient for meaningful public comment.

Thank you for your assistance in this matter. If you have any questions, please call me at 360-992-8022.

Very truly yours,

A handwritten signature in cursive script that reads "Douglas A. Quinn".

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

SP:lw



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

MS: S-70 • 2108 Grand Boulevard • Vancouver, Washington 98661-4622 • (360) 690-7171

October 23, 2007

HAND DELIVERED

Mr. Douglas Quinn  
Director of Water Services  
Clark Public Utilities  
P.O. Box 8900  
Vancouver, WA 98668

SUBJECT: Response to CPU Comment on ST Services/NuStar Energy Agreed Order and SEPA  
Review of Proposed MTCA Interim Action (Request for extension of public comment period)

Dear Mr. Quinn:

Ecology received your 10/12/07 letter requesting an extension of the current public comment period for the ST Services Agreed Order. A concurrent SEPA review comment period for a MTCA Interim Action associated with the Agreed Order is also underway.

Although Ecology is committed to keeping the interim action project moving forward, we are also committed to working with CPU to ensure a clean and adequate local water supply. We will consider your comments, and encourage you to submit any you may have as soon as possible.

The subject public comment period ends October 30, 2007, but we will review your comments—even if received after that date—for substantive indications that the Agreed Order or the proposed Interim Action project could adversely impact CPU's plans to utilize water resources in the proximity to the ST Services/Nustar site. Please be aware that the subject location is the NuStar/ST Services site located within the Port of Vancouver adjacent to the Columbia River—not the NuStar/STOP tank farm site located 2.5 miles farther north on Fruit Valley Road adjacent to CPU's planned well field.

The agreed order under review does not address any final cleanup action. Other than additional investigations, monitoring, reporting, etc. it prescribes only the implementation of an interim action—without specifying a particular remediation process. A new agreed order will be developed in the future for the final site cleanup action plan, which will be specified by Ecology.

Like the current NuStar-proposed interim action (soil vapor extraction combined with enhanced bioremediation limited to a one-half acre area), any *significant action* at the site—including the final cleanup plan—will need to undergo a project-specific SEPA review which would provide CPU and others an opportunity to comment. Project-related "action" as used in the SEPA review process is essentially any new or continuing activities entirely or partly financed, assisted, conducted, regulated, or approved by an agency. An action that has a reasonable likelihood of more than a moderate adverse impact on environmental quality would be considered significant.

Ecology does not plan to extend the current public comment period. We will, however, continue to accept and consider comments on the Agreed Order and on the agency's SEPA *Determination of Nonsignificance* for the proposed Interim Action.



After you've read this letter and decided whether to comment or not, we would appreciate a brief call or e-mail apprising us of your plans. If you will be submitting comments, your letting us know in advance when we are likely to receive them would be very helpful.

Please contact me if you have questions (360/690-4798 // rosc461@ecy.wa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "RAS Schmall". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Rod Schmall, P.E., Site Manager  
Southwest Regional Office - Toxics Cleanup Program - Vancouver Field Office

- cc: Rebecca S. Lawson, P.E., LHG, TCP Section Manager  
Dan Alexanian, P.G., P.Hg., Ecology  
Craig Rankine, P.G., P.Hg., Ecology  
Nels Johnson, Office of the Attorney General



*Commissioners*

Nancy E. Barnes  
Carol J. Curtis  
Byron H. Hanke

*Chief Executive Officer/  
General Manager*

Wayne W. Nelson

October 30, 2007

NOV 02 2007

Rod Schmall  
Washington Department of Ecology  
Vancouver Field Office  
2108 Grand Blvd.  
Vancouver, WA 98661

Re: ST Services Agreed Order and SEPA Determination

Dear Mr. Schmall:

I am writing on behalf of Clark Public Utilities (CPU) to comment on the draft agreed order requiring ST Services to perform a Remedial Investigation/Feasibility Study and interim actions at their Harborside Drive facility in Vancouver. At the outset, let me make clear that CPU supports the remediation of the groundwater resources that have been contaminated by the ST Services facility. Due to our desire to see those resources cleaned up as quickly as possible, we note that the interim actions will indeed provide significant environmental benefits. However, we are concerned that this latest interim action provides only a small part of the necessary remediation, despite the length of time that Ecology and ST Services have been aware of the problem.

ST Services and Ecology entered into an agreed order in 1998 to perform a remedial investigation and interim actions. Now, nearly 10 years later, Ecology is proposing a new agreed order for additional interim actions and a remedial investigation. Although we are gratified that additional cleanup measures are being required, we are extremely concerned with the slow pace at this site and the possibility that Ecology will rely on a series of interim actions to accomplish some, but not all, of the Model Toxic Control Act's goals.

The groundwater resource in question is one of nearly inestimable value to the public. In fact, it makes up a significant portion of the Clark County groundwater resources that have been reserved by Ecology regulation for water supply use. There is no question that Ecology must ultimately require a full cleanup under MTCA that expeditiously restores the damaged aquifer to contaminant levels that allow for its use as a public water supply. As such, Ecology must ensure that the RI/FS is completed quickly leading to a Cleanup Action Plan that provides a full and final cleanup that restores the damaged resource as rapidly as possible. We trust that Ecology will not settle for a series of interim actions and a remedial investigation that drags on and on.

CPU has asked Maul Foster & Alongi (MFA) to provide a technical review of the proposed interim action. MFA's evaluation is attached. Due to the brief period of time available for public comment, MFA could not conduct a rigorous review of all technical aspects of the proposed action. However, MFA's review makes a number of key points with respect to the proposed action:

1. The regional groundwater resource may already have been impacted.

MFA's review notes that the vertical extent of groundwater impacts has not yet been delineated. Despite the passage of nine years since ST Services first signed up to an agreed order for a remedial investigation, Ecology does not yet know the true extent of groundwater contamination. The deepest concentrations of PCE and TCE from the sampling that has occurred to date are "orders of magnitude above their respective MCLs or MTCA Method A cleanup levels for groundwater" according to the MFA review. CPU recognizes that deep sampling is costly. However, loss of the resource in question would be many orders of magnitude costlier than an expeditious sampling effort that accurately delineates the actual extent of contamination so that a full cleanup can be designed and implemented.

2. The interim action will not restore groundwater sufficiently for human use.

Ecology has apparently determined that the proposed interim action would address a significant vapor pathway issue. CPU supports the interim action to the extent it accomplishes that goal. However, CPU also notes what the proposed interim action does not accomplish. It does not bring the groundwater resource even close to being ready for beneficial use for water supply purposes. In fact, according to the MFA review, achieving the projected reduction in concentrations of the target hazardous substances would still leave concentrations "well above MCLs or MTCA Method A cleanup levels for groundwater," which are the applicable requirements that must be met for this resource. We understand that applicable requirements need not all be met by an interim action, but that simply underscores the need for a full and final cleanup rather than a continuing series of interim actions.

3. The interim action will not restore the resource in a timely manner.

Ecology has estimated that the inhalation pathway remedial action objective will be met in three years, at which time a final remedy is projected to be implemented. MFA has concluded that there is a significant possibility that PCE DNAPL is present in the groundwater. In that event, even meeting the limited objectives of the interim action will take significantly longer than three years. CPU would appreciate assurances from Ecology that the agency will move forward as quickly as possible with a full remedy, rather than waiting for the interim action to meet its limited objectives. According to MFA, it may be a long wait for even those objectives to be met.

As the public water purveyor for unincorporated Clark County, CPU has a keen interest in the ST Services agreed order and the remediation of Vancouver Lowlands groundwater generally. As the agency charged with implementing MTCA, Ecology has a legal mandate to require the restoration of this resource for the benefit of the public and the environment. Ecology's and CPU's goals in this matter should be identical, especially given that Ecology has already

determined by regulation that water supply use of this resource results in “the maximum net benefit for the people of the state . . .” WAC 173-592-070(1). CPU supports Ecology in its efforts to clean up the groundwater contamination at the ST Services site. CPU would simply like to ensure that those efforts comport with MTCA requirements to fully address the contamination in a timely manner and in full compliance with all applicable regulatory requirements.

Thank you for your consideration of CPU’s comments on the proposed ST Services agreed order. If you have any questions, please call me at (360) 992-8022.

Very truly yours,



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

SP/lw  
Enclosure

cc. Dick Wallace, Department of Ecology  
Rebecca Lawson, Department of Ecology  
Tom Loranger, Department of Ecology  
Larry Paulson, Port of Vancouver



ENVIRONMENTAL & ENGINEERING CONSULTANTS

7223 NE Hazel Dell Avenue, Suite B | Vancouver, Washington 98665 | Phone 360.694.2691 | Fax 360.906.1958 | www.MFAinc.org

October 30, 2007  
Project No. 0352.01.01

Mr. Doug Quinn  
Director of Water Services  
Clark Public Utilities  
P.O. Box 8900  
Vancouver, Washington 98668

Re: Proposed Interim Remedial Action Measure  
NuStar Energy L.P.  
2565 NW Harborside Drive, Vancouver, Washington

Dear Mr. Quinn:

At your request, Maul Foster & Alongi, Inc. (MFA) has reviewed available documents regarding the proposed interim action (IA) at the above-referenced site. The objective of MFA's review was to:

- Evaluate the adequacy of site characterization (e.g., nature and extent of contamination in soil and/or groundwater).
- Assess adequacy of the proposed IA with respect to its effectiveness in restoring the groundwater resource for drinking water purposes.
- Evaluate the likely timeframe associated with restoration.

MFA understands that Clark Public Utilities (CPU) intends to develop groundwater resources in the area of the NuStar Energy L.P. (NuStar) site and that the presence of contamination could limit CPU's ability to do so in the future. The Agreed Order (the Order) executed between NuStar and the Washington State Department of Ecology (Ecology) identifies the work that needs to be performed by NuStar, and has been published for public comment. MFA has prepared the following comments on behalf of CPU.

### **General Comments**

MFA reviewed the *Proposed Agreed Order for a Remedial Investigation, Interim Actions, and Feasibility Study at the NuStar Energy L.P. (formerly Valero L.P.)*, as well as portions of the following two documents prepared by Ash Creek Associates, Inc. (ACA):

- *Site Investigation Data Summary Report*, dated October 18, 2006
- *Interim Action Analysis Report*, dated November 28, 2006

The documents prepared by ACA summarize the data set and provide the basis for selecting the proposed IA. Soil and groundwater at the site are impacted by chlorinated solvents, primarily tetrachloroethene (PCE) and trichloroethene (TCE). ACA has proposed an IA consisting of soil vapor extraction (SVE) for the unsaturated soil (i.e., the vadose zone), and enhanced bioremediation (EB) using vegetable oil for groundwater.

In general, these two technologies have demonstrated success at mitigating or eliminating environmental impacts similar to those described at the NuStar site. The implementation and mechanisms for both technologies are well-understood. However, variations in site characteristics can significantly affect system performance. ACA acknowledges that certain parts of the IA design may require adjustment as performance monitoring data becomes available.

The Order includes a requirement to perform a supplemental Remedial Investigation (RI) in the scope of work, suggesting that the nature and extent of impacts has not been delineated to the satisfaction of Ecology. The data provided in the ACA reports confirms that additional characterization is necessary. Thus, while the IA may be effective for a limited portion of the site, additional investigation is required before a final remedy can be proposed. **Consequently, the timeframe for restoring the groundwater cannot be estimated at this time. Given that a complete RI is required prior to determining a final remedy, and the current average time for more complex sites to reach a remedy decision is 10 or more years, the remedy is not timely.**

**The proposed action is an interim action only.** MFA believes that additional action will be necessary at the site, as acknowledged by ACA. The timing and scope of work for additional action(s) has not been determined. **The IA will not be adequate for restoring groundwater resources.**

### Specific Comments

1. There are multiple lines of evidence suggesting that PCE is present as a dense, non-aqueous phase liquid (DNAPL). These include the vertical geometry of the groundwater plume (i.e., increased lateral coverage with depth) and the analytical data (i.e., detected concentrations exceed 10 percent of the aqueous solubility). The nature of the products handled at the facility (i.e., pure products, as opposed to wastewater mixtures) also suggests that PCE may have been released as a DNAPL. If PCE DNAPL is present, the proposed IA may require significant adjustment(s) (e.g., increased vapor extraction rates, additional injections). More importantly, if PCE DNAPL is present, the vertical extent of

groundwater impacts may extend significantly deeper than currently projected and addressed by the IA.

2. The subsurface data are presented by ACA as sums of chloroethenes. While this approach may be useful for providing a generalized view of site conditions, the data cannot be directly compared to regulatory levels (e.g., maximum contaminant levels [MCLs] established by the U.S. Environmental Protection Agency, or Model Toxics Control Act [MTCA] Method A cleanup levels for groundwater). Future submittals should be more detailed regarding the regulated contaminants.

3. The objective of the IA is to treat a hot spot in soil and groundwater only near one presumed point of release. The groundwater data strongly suggest that multiple releases have occurred. If shown to be successful, additional SVE and/or EB may be necessary to fully remediate the site.

4. The proposed IA is intended to meet interim remedial action objectives (RAOs). RAOs are site-specific objectives for protecting human health and the environment. The interim RAOs identified by ACA are related to ecological receptors at the groundwater-surface water interface (in the Columbia River), and for vapor inhalation by humans. The potential risk to human health via drinking water has not been assessed but is acknowledged to be a reason for implementing the proposed IA.

5. The projected duration of the SVE portion of the IA is three years, at which time NuStar anticipates implementing a final remedy for the site. It is important to note that only the vapor inhalation RAO is anticipated to be met within the three-year duration timeframe, while the timeframe for achieving the ecological RAO is not estimated (but acknowledged to be longer). If PCE DNAPL is present, the estimated timeframe to meet the RAOs are likely to be longer than three years. Also, it is unlikely that the proposed IA will achieve RAOs for drinking water.

6. As stated above, the vertical extent of impacts has not been delineated. While ACA suggests that impacts do not extend significantly into the underlying gravel, the deepest concentrations of PCE and TCE (assuming a 50:50 mix, based on ACA's characterization) are still orders of magnitude above their respective MCLs or MTCA Method A cleanup levels for groundwater. These data suggest that the regional groundwater resource may already have been impacted.

7. The chloroethene plume from the NuStar facility is likely to be co-located or commingled with similar groundwater plumes from nearby or adjoining facilities (e.g., the Cadet site). If so, the additional complication could extend the amount of time required to complete the RI, further delaying restoration of the groundwater resource.

Mr. Doug Quinn  
October 30, 2007  
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Project No. 0352.01.01

## Conclusion

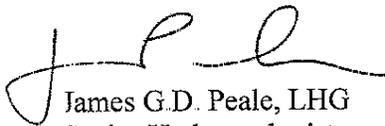
It is MFA's opinion that the proposed IA, while likely to reduce concentrations of PCE and TCE in soil and groundwater, will not sufficiently restore the groundwater resource to a reliable use, protective of human health.

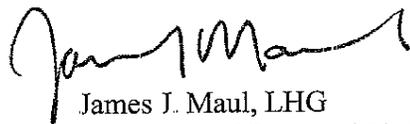
- Based upon the information reviewed by MFA, the nature and extent of contamination at the site is not fully characterized, and therefore, remedy selection cannot be considered to be complete.
- Beneficial use of groundwater should be considered as a potentially complete exposure pathway.
- At the concentrations present in groundwater, even a 90 percent reduction (as estimated) will leave residual contamination well above MCLs or MTCA Method A cleanup levels for groundwater.
- Additional characterization will likely change the existing conceptual site model, impacting future site-wide remedial decisions.
- The identified IA will not restore the resource in a timely manner.

Please contact either of us at (360) 694-2691 if you have any questions.

Sincerely,

Maul Foster & Alongi, Inc.

  
James G.D. Peale, LHG  
Senior Hydrogeologist

  
James J. Maul, LHG  
President and Principal Hydrogeologist



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

MS: S-70 • 2108 Grand Boulevard • Vancouver, Washington 98661-4622 • (360) 690-7171

November 27, 2007

Certified Mail / Return Receipt Requested-- USPS

# 7007 0220 0000 7753 4792

Mr. Douglas Quinn  
Director of Water Services  
Clark Public Utilities  
P.O. Box 8900  
Vancouver, WA 98668

SUBJECT: Response to 10/30/07 CPU Comment on ST Services/NuStar Energy Agreed Order and  
SEPA Review of Proposed MTCA Interim Action

Dear Mr. Quinn:

On November 2, 2007 Ecology received your 10/30/07 letter commenting on the ST Services Agreed Order and an associated Interim Action. Attached to your letter was one prepared by Maul Foster Alongi (MFA) assessing the ST Services situation in terms of potential implications to CPU's planned groundwater withdrawals for public water supply. This Ecology letter is a response to CPU's—and MFA's—comments.

You have made it clear that although CPU supports remediation of groundwater resources, it is disturbed by the "slow pace" of the cleanup process at the ST Services Site and is concerned that path-forward efforts will not be implemented or conducted expeditiously enough to ensure the prevention of impacts at the planned well field.

Regarding the initial 1998 agreed order, you stated: "Now, nearly 10 years later, Ecology is proposing a new agreed order for additional interim actions and remedial investigations." Please be advised that one of the reasons for issuing a new agreed order was the lack of compliance periods in the previous order. The replacement order specifies timelines. Another was a change of ownership of the site. NuStar Energy L.P., the new parent of ST Services, has stated—and demonstrated—a strong commitment to remediating the Site. To ensure efficiency, effectiveness, and the compatibility of efforts, NuStar has seriously engaged in information transfer and coordination of actions with the Port of Vancouver, which has assumed clean-up responsibility for two other chlorinated solvent release sites in the Vancouver lowlands.

As indicated in my October 23<sup>rd</sup> letter to you, the agreed order for the ST Services Site (and the two other significant Port sites) address investigation, a feasibility study, and interim actions—not the final cleanup action plan (CAP). A new agreed order will be developed in the future for that plan, which will be specified by Ecology. The CAP could be extraordinarily complex because of the proximity of the three in-Port sites and the commingled plume that exists. The current need for compatibility of multiple site interim actions will also exist for any final actions.

CPU comment 1: *The regional groundwater resource may already have been impacted*

Neither Ecology nor NuStar disputes that the upper zones of groundwater are impacted. It is also true that the nature and extent of contamination at the ST Services Site has not been completely determined. This is why additional investigations have been performed by ST Services/NuStar after acquiring ownership and why the Agreed Order requires even more site characterization work.



CPU comment 2: *The interim action will not restore groundwater sufficiently for human use,* [and]

CPU comment 3: *The interim action will not restore the resource in a timely manner.*

The agreed order requires an interim action, but does not specify the type of action (any proposed action would need Ecology approval and a SEPA review, just like the specific proposal made by ST Services which was the subject of the just-ended SEPA public comment period) Ecology had no expectations that an interim action alone would restore the groundwater to a level suitable for human consumption. The proposed interim action meets the criteria for an *interim action* designation as described in WAC 173-340-430. We are pleased that NuStar chose an approach which, if found to be effective at the interim action project site, could possibly remediate the entire Site much faster than more conventional approaches such as pump and treat. With respect to this “pilot test,” it is particularly aligned with 173-340-430 (1)(c), and will provide valuable information for the Feasibility Study required by the Agreed Order.

Ecology does not desire or intend to have a “continuing series of interim actions,” nor a remedial investigation “that drags on and on.” We desire timely progress with RI and FS completion. If, however, it becomes apparent that valuable information can be obtained via another interim action—perhaps discovering a more expeditious approach to satisfy the clean-up goals in the long term—we would consider approval.

#### Maul Foster Alongi Comments – (October 30<sup>th</sup> MFA letter report to CPU)

The *General Comments*, *Specific Comments*, and *Conclusions* presented by MFA are generally correct. Ecology offers the following comments for several items that need clarification:

- The duration of a cleanup remedy is dependent on numerous site attributes, including hazard risk based on contaminant type, site location, geology, groundwater characteristics and use, etc. The “timely” term as used in both the CPU letter and MFA report (*General Comments* and the *Conclusions* sections) are relative to a particular need, the satisfaction of which has a time constraint requiring a remediation duration short enough to meet it. CPU’s situation is indeed time dependent in terms of its well field start up and the desire to have contaminant-free water

However, reducing contaminant concentrations to cleanup standards at the three main cleanup sites in the Port of Vancouver may not be the only way to keep the water you withdraw acceptable.

Keeping the contaminants from reaching the well field via containment may also work. Containment could be implemented specifically for that purpose or incidentally by the treatment approach—e.g., pump & treat. The Port of Vancouver will soon be implementing a pump-&-treat interim action for the Cadet and Swan sites, which are closer [*than ST Services*] to the CPU well-field location. This action will provide significant containment and will have capacity enhancement capability. There will be a SEPA review for the Port’s interim action and Ecology will be the lead agency.

Ecology will examine the Feasibility Studies conducted for all three of the in-Port sites and develop the CAP(s) with cognizance of CPU’s planned use of groundwater.

- (MFA Specific Comment No. 1) The likely presence of pure-form (un-dissolved) DNAPL is not disputed. It is, however, difficult to locate and quantify.
- (MFA Specific Comment No. 2) With the presence of multiple chloroethenes compounds (PCE, TCE, DCE, VC), expressing contaminant concentrations as total chloroethenes ( $\mu\text{mole/L}$ ) is very useful for determining contaminant fate and transport—especially when some are degradation products of the others. For compliance confirmation, Ecology requires compound-specific concentration expressions for comparison to the compound-specific cleanup standards. NuStar/Ash Creek and Ecology have discussed this issue.

Letter to Douglas Quinn – Clark Public Utilities – November 27, 2007  
Agency response to CPU comments on NuStar/St Services Agreed Order and SEPA Review

- (MFA Specific Comment No. 3) It is indeed true that there were release areas other than the interim action location. These were described in the Ash Creek reports. The interim action is focused on the most significant (by far) suspected release area.
- (MFA Specific Comment No. 7) Commingling of the Cadet and Swan Site groundwater contamination plumes is undisputed. Whether the ST Services plume has commingled with another plume (Swan's alone or the commingled Swan and Cadet plume) is far less certain. The agreed order (or orders) for the final CAP will address the commingled plumes.
- (MFA fourth conclusion bullet) Additional characterization may change the conceptual site model. The use of "likely change" is unsubstantiated unless more indicative data are obtained. It is conceivable that another former chlorinated solvent source (release area) exists outside the northwest leased property area. Ash Creek Associates is investigating this possibility.
- (MFA fifth conclusion bullet) See comment on duration and timeliness on page 2.

Please contact me if you have questions (360/690-4798 // rosc461@ecy.wa.gov)

Sincerely,



Rod Schmall, P.E., Site Manager  
Southwest Regional Office - Toxics Cleanup Program - Vancouver Field Office

cc: Rebecca S. Lawson, P.E., LHG, TCP Section Manager  
Lisa Pearson, P.E., Ecology  
Craig Rankine, P.G., P.Hg., Ecology  
Nels Johnson, Office of the Attorney General

October 17, 2007

Rebecca S. Lawson, Section Manager, Toxics Cleanup Program  
Southwest Regional Office  
Washington Department of Ecology  
300 Desmond Drive  
Lacey, Washington 98503

RE: Support Terminal Services, Inc. (dba NuStar Energy L.P.)

Dear Ms. Lawson:

The Southwest Clean Air Agency (SWCAA) was recently notified that your agency has issued/will issue a SEPA Determination for the above project. Please be advised that SWCAA administers/enforces a number of regulations that may apply to the proposed project. The applicability of these regulations depends on the exact nature of the project in question. The following paragraphs provide a brief summary of the requirements for the general types of activity that may be affected for this project.

**New Source Review of Air Pollution Sources (SWCAA 400-109,110)**

1. SWCAA's General Regulations regulate the installation and/or modification of any building, structure, or facility that emits or may emit an air contaminant. An air contaminant is defined as "...dust, fume, mist, smoke, other particulate matter, vapor, gas, odorous substance, or any combination thereof." Section 400-109 of the General Regulations requires the project proponent to submit an Air Discharge Permit Application for any proposed installation or modification that creates a new or increased source of air contaminants. In addition, Section 400-110 requires the issuance of an Air Discharge Permit prior to commencing construction of any project that constitutes a new or increased source of air contaminants. If the proposed project includes any new or modified air pollutant sources, the proponent should consult with SWCAA to determine if an Air Discharge Permit application is required.

The proponent of this project may contact SWCAA at 360-574-3058 x24 for more information on asbestos and other requirements. Notification forms and regulations are available on the internet at [www.swcleanair.org](http://www.swcleanair.org).

Sincerely,

David L. Joyner  
Program Support Specialist