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SUMMARY OF CORRESPONDENCE AND DOCUMENTS RELATED TO
AGREED ORDER MATERIALS

1. Letter from Hellsell Fetterman to Department of Ecology, dated March 9, 2001.
2. Letter from State Legislators to DOE Director Tom Fitzsimmons, dated March 19, 2001.
3. Letter from Hellsell Fetterman to DOE Director Tom Fitzsimmons, dated March 30, 2001.
4. Letter from State Legislators to DOE Director Tom Fitzsimmons, dated April 4, 2001.
5. Letter from DOE Director Tom Fitzsimmons to Kevin Stock, Hellsell Fetterman, dated April 11, 2001.
6. Governor Locke's Certification dated June 30, 1997:

In order to obtain federal approval and funding for its third runway expansion project, FAA regulations require the Port of Seattle to obtain a certification from the Governor of the state in which the project is located certifying that the state has reasonable assurance that the project will be designed, constructed and operated so as to comply with air and water quality standards. Governor Locke issued this certification for the Port on June 30, 1997. The Governor conditioned his certification explicitly upon completion by the Port of a study of the half century's worth of hazardous wastes in the soils and groundwater at the airport site which was to be required by an Agreed Order under the State's Model Toxics Control Act. Ecology and the Port were in the process of negotiating the Agreed Order when Gov. Locke issued his certification. The Agreed Order (discussed in detail below) was finally executed by the Port and DOE on May 25, 1999.

7. Memorandum dated March 11, 1999, from Roger Nye, DOE Project Manager, Sea-Tac Airport Groundwater Study, to Kathy Gerla, Assistant Attorney General, Re: Request for Ruling:

Purpose of the memorandum is to obtain guidance from the AG's Office regarding the Port's request to reinstate a prepaid position within DOE to handle matters related to SeaTac Airport. From 1992 to 1996, DOE had a full-time staffperson devoted exclusively to handling Sea-Tac Airport environmental matters. The Port had requested that this pre-paid position be established to facilitate DOE's review of Port related activities. Such pre-paid positions are governed by contracts which set out the duties and responsibilities of the parties to the contract – the Port and DOE. One requirement for maintaining a pre-paid position was that the Port enter into an Agreed Order with Ecology which would address clean-up of contaminated sites at the Airport. These contaminants were (and still are) for the most part hazardous substances attendant to aircraft operations and maintenance such as spilled or leaking jet fuel, oil, de-icing compounds and chlorinated solvents used to clean aircraft.

The first DOE staffperson in this position, Linda Priddy (1992-94), was unsuccessful in her attempts to get the Port to enter into any Agreed Orders: “she eventually left Ecology when relations between her and the Port [particularly Elizabeth Leavitt – see Nye's 10/16/00 memo to Alexander, discussed below] deteriorated during the process.” Roger Nye filled the pre-paid position from 1994 through 1996, but progress toward a required Agreed Order still stalled. In April 1995, Nye expressed concerns to his DOE superiors about the absence of an Agreed Order. Nye's superiors concluded that an Agreed Order had to be in place for the pre-paid position to continue.

About the same time, “The concept of doing a comprehensive model and study of groundwater at Sea-Tac Airport was being formulated ...,” and “the Port agreed to do the work under an [Agreed] Order.” But there were many issues, “both technical and regarding the scope of work, that were difficult to resolve.” Progress was “very slow,” and finally in July of 1996 DOE decided to cancel the pre-paid position due to the lack of an Agreed Order. (However, the position was not completely eliminated; instead, DOE “temporarily discontinued” it, telling the Port it could have the prepaid position back once an Agreed Order was signed. (see Nye's 8/23/99 memo to Alexander, discussed below).

Work on drafting an Agreed Order continued without a prepaid position, and it finally went out for the required public comment. Many comments expressed skepticism about the impartiality of anyone at DOE whose position was being paid for by the Port; others objected to any work done by a prepaid position not being done pursuant to an Agreed Order and others voiced the opinion that all cleanup actions in which the prepaid position was involved should be open to public participation.

8. Request for Contract Services dated April 21, 1999, from Roger Nye, DOE Project Manager, Sea-Tac Airport Groundwater Study, to Steve Alexander, DOE Section Head, Toxic Cleanup Program, DOE Northwest Regional Office:

This memo clearly states the purpose of the groundwater study required by the Agreed Order: "The purpose of the groundwater study is to evaluate whether or not contamination in groundwater at Sea-Tac Airport poses a risk to surface waters and public water wells in the vicinity of the airport." The study is to include a conceptual model of groundwater, perform computer modeling of groundwater flow and contaminant transport, and conduct field work to verify the modeling and monitor for contamination.

Nye is requesting that DOE contract with outside consultants (which would be paid for by the Port – see subsequent memos, discussed below) to provide technical assistance with review of the groundwater study. Nye says the use of contract services is needed because of: (1) the high level of public interest and the public's demand for independent, impartial evaluation of the groundwater study; and (2) inadequate DOE staff resources, in terms of both time and expertise.

9. Email exchange between Steve Alexander, Section Head, Toxic Cleanup Program, DOE Northwest Regional Office, and Roger Nye, DOE Project Manager, Sea-Tac Airport Groundwater Study, dated May 17-26, 1999:

Here, Nye is continuing his discussion with Alexander regarding the need for contract services for review of the groundwater study. Nye suggests Science Applications International Corporation (SAIC), with which DOE already has a contract:

"After meeting with SAIC, we will have a definitive idea of the scope of work and approximate cost. I will then try to get the Port

of Seattle's agreement to pay for the rest of SAIC's work as part of the Agreed Order. (We have authority under MTCA and the Agreed Order to charge PLP's [potentially liable parties] for contract work.) The idea of the Port paying for a consultant to critique its own consultants may not be too palatable however. ... If the Port is not agreeable to cover SAIC's charges, then I'll get back to you what the options are."

In response, Steve Alexander tells Nye to:

"[T]alk to the Port and determine their support, or lack of, for paying to have Ecology consultants critique the Port's consultants. Don't wait to find out about this, contact them now and discuss the situation and what would work or not work."

Nye then writes back:

"I actually have raised this issue with the Port of Seattle from time to time beginning awhile back. They are luke-warm to the idea of paying for SAIC and have, at this point, not committed to doing it but neither have they said no. They have asked me to provide them with a written request with a detailed account of what SAIC would do, which is what I'm working on now.

FYI: A state senator (Julia Patterson ...) managed to get a bill through that provided \$250,000 to Ecology to study the impacts of gravel mining at Maury Island. The bill also provided \$250,000 to study how construction of the 3rd runway at Sea-Tac Airport would impact aquifers beneath the airport. The NWWQ Section (John Glynn and Kevin Fitzpatrick) put together a recommendation to the governor to veto the bill, but the governor just recently signed it anyway. The Port views this as an attempt to stop the 3rd Runway. Furthermore, the Port is not happy with the situation that they are paying for a comprehensive study of groundwater at the airport through a MTCA Agreed Order, while the state is now funding a study which could largely be duplicative. (Duplicative in terms of developing a comprehensive groundwater flow model for the area of the airport). Anyway there is now the somewhat interesting scenario of TCP and WQ here doing similar separate studies at the airport as far as groundwater modeling. After modeling however, the TCP will use its model to look at contaminant fate and transport, while WQ will use its model to look at hydrological effects of the 3rd Runway.

What this exchange of emails does not address is that the groundwater study funded by the legislature did not require a study or modeling of the fate and transport of known hazardous substances in the soil and the groundwater at the airport reaching the nearby streams and public wells. Nor did the state funded groundwater study ultimately performed by the Pacific Groundwater Group and released in June 2000, assess the risk of third runway construction and related infrastructures on the fate and transport of contaminants at the airport to nearby streams, wetlands, and public wells.

10. Agreed Order dated May 25, 1999:

As stated in the Agreed Order, known hazardous substances exist in the soil and groundwater in the Airport Operations and Maintenance Area ("AOMA") at the Airport. "The primary cause of soil and groundwater contamination [at the Airport] has been leakage from underground storage tanks and associated underground piping." The Order requires the Port to: (1) conduct a groundwater study, (2) model contaminant fate and transport, and (3) confirm model results by obtaining and analyzing groundwater samples. The stated purpose of the study and modeling is to determine whether the aquifer downgradient from the Airport "has been significantly impacted by airport operations," confirm that groundwater underneath the Airport is flowing in a westward direction, and "identify the potential risk posed by contamination originating within the AOMA" to public drinking water supply wells and to Des Moines and Miller Creeks. The Port was to have completed a written report by December 22, 1999.

11. Public Participation Plan, May 1999:

MTCA regulations require "the early planning and development of a site specific public participation plan." This Plan describes the public participation activities for the Agreed Order. Both Ecology and the Port make the following representation on page 2 of the plan:

"The ground water study is one condition the Port must meet to maintain state environmental certification of the Airport expansion project."

The Public Participation Plan also provides that "additional public notice and another comment period will be conducted for the report containing the results of the study and for any additional activities that result from the study." Plan at p. 4.

12. Email from Roger Nye, DOE Project Manager, Sea-Tac Airport Groundwater Study, to Port of Seattle's Elizabeth Leavitt and Paul Agid, dated June 8, 1999 (then forwarded to DOE's John Wietfeld on June 9, 1999):

Nye and the Port have now talked about using SAIC to provide assistance to DOE in the review of technical material regarding the Agreed Order, and per Leavitt's request he is further articulating why SAIC should be involved, ending by stating his "hope" that the Port will find paying for the consultant "agreeable":

"... having SAIC involved would lend credibility and independence to Ecology's own review of the project; ...

"There is the unfortunate possibility of a legislatively mandated completely independent study by Ecology's WQ Program which could in large part duplicate the work done in the Agreed Order regarding a conceptual model of groundwater at STIA. Having SAIC involved in Ecology's review, again, would provide additional credibility to the Port-generated model. ...

"... there would be a problem in terms of [DOE] staff availability ... Using SAIC would help alleviate the problem.

It is hoped that the Port will find the involvement of SAIC in the project as described above agreeable, and furthermore, be agreeable to paying SAIC's charges as part of the project's costs as per the MTCA ([WAC] 173-340-550(a)). ... Ecology would be willing to involve the Port in identifying SAIC's specific activities as the project unfolds. ... I need to hear back from you concerning this situation as soon as you can manage."

13. Memorandum dated August 23, 1999, from Roger Nye, DOE Project Manager, Sea-Tac Airport Groundwater Study, to Steve Alexander, Toxic Cleanup Program Section Head, DOE Northwest Regional Office, Regarding Requested Write Ups Regarding Sea-Tac Airport:

This memo gives a good overview of the DOE Toxic Cleanup Program's historical involvement at Sea-Tac Airport, as well as Nye's then-current workload at Sea-Tac and some anticipated future workloads.

“There are several individual MTCA sites (currently 15) within Sea-Tac Airport. The sites are mostly widely scattered and physically not connected. Jet fuel and gasoline are the most abundant contaminants and deep groundwater (70-90 feet bgs.) is impacted at about 1/3 of the sites. Independent cleanup actions have been/are ongoing at the sites by various responsible parties ...

“There are public water well fields both north and south of the airport, and three suburban streams head near the edges of the airport.

After stating that there are so many known contaminated sites so near to these water sources, however, Nye discounts – before any study has been done – the danger of water contamination:

“Given known information at the individual MTCA sites, the current risk to the wells and streams appears to be minimal.”

He then points out that Sea-Tac has never been assessed for contaminants as a single facility:

“The MTCA sites have always been tracked and dealt with individually. Sea-Tac Airport has never been treated as a single “facility” with the MTCA sites as “operable units.” Sea-Tac Airport has never been ranked as a single facility, nor have any of the individual MTCA sites been ranked.”

Nye then goes through the history of the prepaid position at Sea-Tac Airport, including Linda Priddy’s (Roger Nye’s predecessor) difficulty in getting the Port to agree to an Agreed Order:

“During the summer of 1993, Linda instigated the process to put three or four of the major MTCA sites at the airport under Agreed Orders. Because of its role as property owner, the POS was listed as a PLP at each site along with the responsible Airline Company. This action and/or the manner by which it was implemented greatly antagonized the Port and three Airline Companies. **I heard that the POS told Linda that “this is not what we are paying you for.”** I believe the POS may have considered formally canceling (as per the Prepaid Position Policy) the airport prepaid position, which would have left Linda unemployed. During the fall of 1993, Linda found a job with EPA in Seattle and left Ecology.”

"I was selected as the POS's next prepaid position for Sea-Tac Airport during February 1994. During the interim after Linda left, Ecology management apparently agreed to back off from issuing Agreed Orders for the airport sites. ... My prepaid position role as I understood it was to ... proceed to a formal action only in the face of recalcitrance to accomplish cleanup independently. ...

By the summer of 1995, I had become uncomfortable about what my role as a prepaid position had evolved to at the airport and that it was not in conformance with the Prepaid Position Policy. ... the expectation developed for me to "approve" the various independent cleanup actions, often in writing ... Furthermore, there was no signed Agreed Order at Sea-Tac Airport and little prospect for one. ...

Nye then discusses the DOE meeting in 1995 at which it was decided that there had to be an Agreed Order "at least about something" for the prepaid position to continue.

Nye describes how they came up with what the Agreed Order could address:

After becoming familiar with the MTCA sites, I had recognized the need to do a comprehensive risk assessment regarding the groundwater contamination at the airport (**particularly in regards to possible unidentified solvent contamination**). The POS had already tentatively agreed to do this project. Given the requirement for an Agreed Order to keep the airport prepaid position going, the POS agreed to do this groundwater project under an Agreed Order.

However, over the next year little progress toward an Agreed Order was made, resulting in DOE's withdrawal of the prepaid position:

During the summer of 1996, [DOE] met again to discuss the prepaid position at the airport. During the past year some progress had been made towards an Agreed Order, but it was far from complete. The Port was not enthusiastic about the project. The decision was made to temporarily discontinue my prepaid position effective August 1996. The prepaid position was not permanently "cancelled" as per the procedure in the Prepaid Position Policy; the interagency agreement was simply not renewed by Ecology. The interagency agreement is typically renewed (signed by both parties) each year. I believe [Assistant Attorney General] Kathy Gerla told the POS they could have the

prepaid position back when there was a signed Agreed Order in place.

Work on the Agreed Order continued without the prepaid position, and an unsigned draft went out for public comment in May 1997.

Nye then discusses what he has been doing with regard to Sea-Tac since his prepaid position was terminated, commenting that Airport matters still dominated about 60% of his time. One of his tasks was to work on the required Responsiveness Summary, containing DOE's responses to the public comments on the draft Agreed Order:

“(2) Completed about 2/3 of the Responsiveness Summary (RS). ... The Port wanted to establish language in the RS acceptable to it before signing the Agreed Order. The Port was comfortable with the 2/3 of the RS that was finished and signed the Order.

“Actions (1) [“Completed the final Agreed Order incorporating changes based on public comments.”] and (2) [Nye's work on the Responsiveness Summary] were wordsmithing marathons with a Port attorney and took much time. All that time was charged to and had been paid by the Port.”

Another of Nye's ongoing airport-related responsibilities was:

(5) Ongoing technical assistance (if anything, my role in this regard increased given the many new issues and situations that seemed to constantly arise at Sea-Tac Airport). ... The Port no longer paid for this technical assistance, but most of it was UST or LUST related, and my tie for this was charged to federal dollars.”

Nye then summarizes how the Agreed Order was tied to the Governor's Certification:

(7) Participated in the Governor's Certification process for the Third Runway as TCP member of the "Sea-Tac Team." In order to qualify for federal money to build the runway, the Port had to obtain this certification from the state that the project was "environmentally okay." The Team established several environmental criteria and tasks the Port had to do as a condition for the certification. Completion of the MTCA Agreed Order for the groundwater study was one condition.

Nye then switches to a discussion of his current workload, including ongoing management of the groundwater project itself:

2. ... The Port has agreed there needs to be a balance of expertise on Ecology's side of the table, but was not favorably disposed towards SAIC because of professional opinion and because SAIC has no local modeling expertise. The Port wanted to see if the company selected for the Legislatively-mandated Third Runway study [Pacific Groundwater Group] would be acceptable and could be utilized by Ecology (particularly since that company would be utilizing data from the MTCA groundwater study). PGG was selected to do the Third Runway study and was the Port's particular pick. Unfortunately Ecology either has to use SAIC or put the work up for bid. As per John W., Ecology cannot just directly hire PGG. There is no guarantee that PGG would bid, particularly since they were selected to do both the Third Runway and Maury Island studies, and may have a full plate.

Nye closes by describing his anticipated future workload, which at that time anticipated that Phase I of the Agreed Order would be done at the end of 1999 – but it has still not been completed, some two years later. Finally, he states:

If this Agreed Order shows the need for significant additional cleanup actions at Sea-Tac Airport beyond the independent cleanups at the individual MTCA sites, it may be appropriate for Ecology to initiate another Agreed Order with the Port to accomplish these actions.

14. Ground Water Flow Map from Conceptual Ground Water Study, December 2, 1999:

The Port's consultant, Associated Earth Sciences, Inc. ("AESI") has performed some of the work required by the Agreed Order. As part of that work, AESI prepared a preliminary ground water flow map. The groundwater flow map indicates that ground water contaminated with hazardous substances is flowing in the direction of Miller and Des Moines Creeks and surrounding wetlands.

15. Memorandum dated October 16, 2000, from Roger Nye, DOE Project Manager, Sea-Tac Airport Groundwater Study, to Steve Alexander, Toxic Cleanup Program Section Head, DOE Northwest Regional Office, Regarding Addendum to Update Previous Write up Dated August 23, 1999, Regarding Sea-Tac Airport:

This memo contains more details of how the Sea-Tac prepaid position came about and what happened leading up to execution of

the Agreed Order. Nye reveals another, earlier meeting with the Port, in September 1994, to discuss whether it was appropriate to have a prepaid position without an Agreed Order:

I had raised the idea of possibly doing a large-scale evaluation of groundwater at the airport ... and the idea had been bantered around somewhat but there had been no serious moves towards implementing it at that time. The upshot of the meeting was that the Port agreed to do this groundwater evaluation under an Agreed Order to comply with the prepaid position policy, and [the Port's environmental head] Dave Aggerholm apparently thought the idea was environmentally appropriate. The Port put Paul Agid in charge of the project, who I later found out argued strongly against the Port doing this project. The Port could have refused to do the groundwater project at that time and elected instead to end the prepaid position. It is very doubtful Ecology would have pursued the idea of a groundwater evaluation at the airport further.

As a condition for doing the groundwater evaluation project however, the Port wanted the results of the project (if the results of the project indicated there was no risk) to be incorporated into an Ecology-approved risk-based presumptive remedy scenario applicable to the airport. Sometime in late 1994 or early 1995, I went to [DOE headquarters] and presented the known technical issues of contamination ... The consensus of this [DOE] group was that a risk-based scenario was appropriate for the airport given that the risk of the contamination appeared to be low, and if the groundwater project verified that the risk indeed was low. The group also suggested however, that in return for Ecology's approval of a risk-based remedy scenario at the airport that the Port should be more proactive in preventing contamination at the airport, which is why there is a pollution prevention component to the Agreed Order.

...

The Port wanted the language regarding the risk based remedy scenario to be included in the Agreed Order, but [Assistant Attorney General] Kathy Gerla declined saying that it was inappropriate to include a remedy in the Agreed Order before the groundwater evaluation (RI) had been completed. Consequently the language of the risk based presumptive remedy scenario for the airport was stated in a separate document which became known as the "side letter." The idea was that Mike Gallagher [of DOE] would sign this document and present it to the Port once the

groundwater project was finished given the results of the project demonstrated no risk.

At the very end of his memo, Nye points out the glaring omission in all these negotiations between the Port and DOE:

There is another issue regarding cleanup at Sea-Tac Airport related to this Agreed Order. The Agreed Order contains no language regarding remedial actions that could be taken if the Agreed Order did demonstrate there was a risk that needed to be addressed. In negotiating the language of the Agreed Order I did attempt to go down that road but the Port objected strongly. In the end it was the consensus of Mike Gallagher, Ching-Pi and myself that we wouldn't put that kind of language in the Agreed Order and that Ecology would elect to formally become involved in any subsequent remedial actions if warranted when the time came.

16. Memorandum dated October 16, 2000, from Roger Nye, DOE Project Manager, Sea-Tac Airport Groundwater Study, to Steve Alexander, Toxic Cleanup Program Section Head, DOE Northwest Regional Office, Regarding Clarifications Regarding Issue of Changing Scope of Agreed Order to Include Cleanup Actions or a CAP:

This memo, his second of the same date, provides further details of Nye's current workload including work he was performing related to the Agreed Order.

Nye then describes his difficulties in working with the Port during this period, culminating in Nye's extricating himself from having to deal with the Port's Paul Agid:

During the latter months of 1999 and early 2000, my relation with the Port and in particular Paul Agid, with whom I had worked for nearly four years deteriorated. I became increasingly uncomfortable in attending meetings with the Port and its consultants. **This discomfort derived from a patronizing attitude towards Ecology expressed by the Port and a derisive attitude towards the Agreed Order.** In one meeting with the Port and several tenants and their consultants, one tenant expressed appreciation for assistance that Ecology had rendered and the Port countered that it could offer no such appreciation. **It also appeared to me that the Port was trying to achieve a "whitewash" instead of a sincere effort and also was trying to**

take advantage of the fact that I was overwhelmed with technical submittals, VCPs, and Responsiveness Summary.

When Mr. Agid lost his temper in two successive contacts (a meeting and telephone conversation) expressed a diatribe against Ecology (as he often did) and finally launched into me personally, I cut off the conversation and ended the relation. I related events to John Wietfeld and told him there was no point in my meeting with Mr. Agid any more, and also that progress on the Responsiveness Summary wasn't going very well given all the other work I was trying to do. Subsequently the VCPs were given to others, John has taken over dealing with the Port, and I was left free to finish the R.S.

Attached to this memo is a letter dated July 24, 2000, from John Wietfeld to Elizabeth Leavitt, announcing that he has taken over as project coordinator from Roger Nye.

17. Email exchange between Ray Hellwig, Director of the Department of Ecology's Northwest Regional Office, and Tom Luster, formerly (until late October 2000) in charge of the Department of Ecology's Section 401 certification review of the Port's third runway and related proposals, dated October 23-24, 2000:

Tom Luster was, until his resignation from the Department in late January, 2001, the Department of Ecology's top expert in Clean Water Act Section 401 certifications. He was assigned to head up the Department's review of the Port's third runway proposal in 1996, and held that position until his abrupt removal from the project on approximately October 24, 2000 (when this email exchange occurred). This exchange between Luster and Ray Hellwig, head of Ecology's Northwest Regional Office who now heads up the Ecology team reviewing the Port's proposal, serves as an example of why we believe Luster was removed from the project. Luster was unwilling to ignore problems with the Port's application. He bluntly states that draft meeting notes of a Port-Ecology meeting do not reflect his understanding of Ecology's position on several issues, including the relationship between the Agreed Order and Section 401 review:

The draft meeting notes do not reflect those [internal Ecology] discussions and agreements, and unless the notes are changed, may end up being used to justify issuance of a 401 that does not meet 401 requirements.

With regard to the relationship between 401 certification and the Agreed Order, Luster states:

[T]here was agreement several years ago that the 401 was the only regulatory mechanism available to ensure the conditions of the Governor's certification letter were carried out. At minimum, we need to ensure that the Port (and Ecology) are in compliance with the most current version of the Agreed Order as part of the 401 review. Also, I do not know of any supporting documentation for the statement in the last sentence of this section [of the draft meeting notes], "Construction of the 3rd Runway will not affect Ecology's ability to respond to findings of the groundwater study." At the very least, the statement incorrectly cites just the 3rd Runway as the scope of our review - - the 401 and 404 are reviewing the proposed SeaTac expansion. I don't think we have enough certainty to make such a statement -- we are only starting to put the pieces together on the extent of contamination and its fate and transport around the airport. I recommend at the very least that if we issue a 401, it include a specific reopening based on ongoing findings of the Agreed Order.

Now some six months later, in April 2001, Ecology and the Port are still "only starting to put the pieces together on the extent of contamination and its fate and transport." Yet, since Luster's departure, Ecology has been acting as if the Agreed Order is not connected to the 401 review, while knowing full well that its former 401 certification expert considered the two to be inseparable.

As far as making the change to the notes suggested by Luster, all Ecology did was change "Construction of the third runway will not affect Ecology's ability to respond to findings of the groundwater study," to "Master Plan actions would not preclude any potential Ecology action related to the Agreed Order." This change did not address Luster's primary concern that not enough information was (is) yet available to make any such claim -- all it did was address his remark that it's more than the third runway that is under review.

18. Email exchange between Ray Hellwig, Director of the Department of Ecology's Northwest Regional Office, and Steve Alexander, head of Ecology's Toxic Cleanup Program Section at its Northwest Regional Office, dated October 21-26, 2000:

This email exchange illustrates the vast difference between Tom Luster's careful consideration of issues surrounding the Agreed Order

and Section 401 compliance and Ecology's current position. Hellwig tells Alexander:

We discussed the A.O. [Agreed Order] briefly yesterday at the 3RW meeting [with Port representatives], I'm still comfortable not including the A.O. as an element of the 401. And that was the consensus of the group.

An examination of the October 20 meeting notes (obtained by ACC via public disclosure request) show that there were 15 attendees at that meeting: four from the Department of Ecology, one from King County, two from the professional facilitation service hired to facilitate the Port-Ecology meetings, and eight from the Port and its contractors. It is little wonder, then, that it was the "consensus of the group" that the Agreed Order should not be tied to the 401 review.

Steve Alexander responded to Hellwig as follows: "Works for us in TCP." He goes on to mention more potential problems, while at the same time downplaying their significance and putting the burden on Hellwig to bring any more Ecology attention to bear on them:

A couple of other related issues for your consideration as TCP pursues completion of the A.O. work scope:

1. TCP timelines and the Governor's Certification. For TCP we don't feel driven by the G.C., rather, we set schedules through our own prioritization process in collaboration with POS. It is my understanding that the G.C. is something which may come up between the POS and FAA, however, it would only involve TCP and would be in the context of how can we speed up completion of the A.O. work scope. If there is something more we need to consider, let us know.

2. The scope of the A.O. only looks at contaminant sources within the footprint of the A.O.M.A. [Airport Operations and Maintenance Area]. Does anyone outside T.C.P. need/want to know about known/suspected sites outside the A.O.M.A.?

Those within Ecology responsible for deciding whether to issue a 401 certification should "want to know about known/suspected sites outside the AOMA" that may be disturbed by expansion project construction. If there was a response from Hellwig to this inquiry, ACC has not been provided with a copy.

19. Memo dated November 13, 2000, from Roger Nye , formerly DOE Project Manager, Sea-Tac Airport Groundwater Study, to John Wietfeld and Ching-Pi Wang both at DOE and both assigned as Project Managers for the Sea-Tac Groundwater Study. The memo was distributed to POS at November 16, 2000, meeting regarding Agreed Order status:

“The Agreed Order stipulates that the Port will research existing technical literature, environmental and geological reports, land use data, airport historical information and other appropriate documents. One purpose of this research is to identify known and potential (based on historical operations) areas of soil and groundwater contamination with the AOMA and its ‘near vicinity.’”

...

“On December 13, 1999 the Port presented me with a map showing a list of potential contaminated sites that were identified based on the Port’s research. On February 7, 2000 I provided written comments to the Port that pointed out issues and objections regarding the Port’s list of potential contaminated sites. **The Port never responded to those comments, and during the October 4, 2000 meeting here with the Port, a map/list of the same ‘potential sites’ was presented that was presented to Ecology December 13, 1999.**”

20. Letter dated November 15, 2000, from John Wietfeld, DOE Toxic Cleanup Program, to Paul Agid, Port of Seattle, attaching November 2, 2000, DOE Checklist for Sea-Tac Agreed Order Tasks:

This written notification of what items have been completed was required by Section IV of the Agreed Order, as stated in Wietfeld’s cover letter. Of the 16 “Tasks stipulated in the Agreed Order that the Port must complete,” ten of them were listed as “Not Complete.” These included:

...

3. Research existing information to identify potential unknown areas of soil and groundwater contamination (based on historical operations) within the AOMA and its near vicinity (1/4 mile). *NOT COMPLETE. Status: ... Ecology questioned the thoroughness of this work. ... information from Ecology archives [was provided to the Port] that indicated possible historical sources of solvents not*

identified by the Port. The written comments and attached materials were mailed to the Port on February 7, 1999. The Port did not respond to this material.

4. Research existing information to identify potential preferred pathways of contaminant transport. *NOT COMPLETE. Status: Unknown*

5. Research existing information to identify any publicly recorded, operational, private drinking water supply wells within one mile of the AOMA that could potentially be impacted by contamination within the AOMA. *NOT COMPLETE. Status: Unknown*

...

9. Develop a groundwater flow model. The selection of model software and methodology must be "by agreement of Ecology and the Port." *NOT COMPLETE. Status: A conceptual groundwater flow model ... has been completed. ... The groundwater flow model is apparently not "up and running" however.*

10. Develop a contaminant fate and transport model. The selection of model software and methodology must be "by agreement of Ecology and the Port." *NOT COMPLETE. Status: As part of this work, the locations of potential unknown areas of groundwater contamination within the AOMA and vicinity must be identified. As per Task 3, Ecology has not agreed to an initial set of locations identified by the Port. Software has not been discussed. Modeling methodology in known areas of contamination has not been discussed. Ecology has agreed to "particle tracking" methodology to model contaminant transport in potential unknown areas of contamination.*

11. Evaluate all data and modeling results generated by the previous work and determine a scope of work for any necessary additional investigation activities to be described in an Addendum to the Agreed Order. This work includes determining the need for and locations of up to 10-15 new wells to confirm modeling results conduct characterization of groundwater and/or perform long-term monitoring. The wording in the Agreed Order implies this work will be completed together and in agreement with Ecology. *NOT COMPLETE: Status: All other work must be completed first.*

...

13. Conduct pollution prevention actions specifically for UST systems at Sea-Tac Airport that are deferred or exempt from the Washington UST regulations. These actions are: [lists (a) – (g)] ... The Agreed Order states that “Ecology and the Port will work together” to accomplish this work. *NOT COMPLETE. Status: No work has been done.*

...

In turn, Ecology then listed the status of tasks it was required to complete under the Agreed Order. Of seven tasks listed, two were deemed complete; another was termed 90% complete. The four others' incompleteness was due in large part to the failure by the Port to complete its tasks, as discussed above (e.g., Ecology's enumerated task was to review and approve of POS tasks which are incomplete).

21. Port of Seattle's December 7, 2000 Response to DOE's November 13 and 15, 2000, letters (and attached November 2, 2000, Checklist of complete/incomplete Agreed Order tasks).
22. Letter and Memorandum dated January 21, 2001, from Department of Ecology's Tom Luster to State Senator Julia Patterson:

When Senator Patterson learned in early January 2001 that Tom Luster -- the Department's top Section 401 certification expert, and the person in charge of 401 review for the Port's project from 1996 until he was abruptly reassigned in late October 2000 -- was about to leave the Department to take a position with the California Coastal Commission in San Francisco, she asked him to summarize where the Port's application stood in terms of compliance with 401 certification requirements.

The beginning of Luster's memo outlines DOE's criteria and review processes for handling Clean Water Act Section 401 and 402 applications, such as the Port has pending here. The Act mandates that DOE have "reasonable assurance" that applicable water quality regulations will be met.

Luster then recites what in his view are unresolved issues concerning the Port's application. Topping his list is the fact that the direct, indirect, and cumulative impacts of the proposal -- a very basic piece of the review puzzle, since those impacts are what must be reviewed and addressed -- have not yet been fully determined. Although Luster includes the caveat that he may not be fully up to speed on

recent developments, the Port's most recent submittals (December 2000 - present) have done little to address these concerns.

Another issue Luster calls out as unresolved is "Determine compliance with other associated aquatic resource-related regulations," including the Agreed Order:

"... In addition, Ecology was expecting comments on whether the Port's current proposal as described in the Corps/Ecology Public Notice for 401 review was in compliance with the requirements of the Governor's certification letter to the FAA several years ago. We were awaiting the final project description to determine whether it met requirements of the Clean Air Act and the Agreed Order for cleanup activities, as described in the Governor's letter."

Luster also found many unresolved problems with the Port's required stormwater management plan and stream-flow augmentation plan.

23. Letter dated January 24, 2001, from Paul Agid, Port of Seattle, to John Wietfeld, DOE Toxic Cleanup Section, enclosing Meeting Notes by Port of Seattle (Marilyn Guthrie) of January 23, 2001, meeting between DOE and Port regarding Agreed Order Status:

"Ecology is requesting that the Port go forward with its modeling efforts as soon as possible. The Port is currently limited by not having Ecology approvals to proceed and by lack of sufficient Commission Authorization for expenditures. Currently, lack of Ecology technical approval and lack of commission approval of needed additional funding will prevent the Port of Seattle from going forward with modeling effort until at least March 2001. The status of the model is that the computer flow models have been set up, but Fate & Transport and particle tracking models have not. Ecology also expressed its current shortage of resources, specifically staffing shortages, would limit its level of activity as well.

24. Ray Hellwig's Notes for January 26, 2001, Public Hearing on Port's 401 Application:

Ray Hellwig prepared the following answer in anticipation of questions related to the Agreed Order:

"The AO pertains to a set of circumstances and regulatory requirements separate from the 3RW and associated projects.

Having said that, however, the 401 will be conditioned to indicate that the Port must comply with all other state laws and regulations relating to the project.”

Mr. Hellwig’s answer completely ignores the critical (and obvious) connection between (1) the Agreed Order studies, which are to assess the likelihood of known hazardous substances existing at the Airport reaching downgradient water resources (wetlands, Des Moines Creek and Miller Creek), and (2) the Port’s 401 application, which seeks certification from Ecology under the Clean Water Act that the third runway project will not result in violations of state water quality standards to those same water resources.

25. Memorandum dated February 8, 2001, from John Wietfeld, DOE Toxic Cleanup Section, to Diane Singer, DOE Grants Administrator, requesting audit of the Port of Seattle grant for the Agreed Order (attaching copy of Grant No. G0000052 in the amount of \$430,000 for STIA Phase 1 Ground Water Study Agreement with the Port of Seattle dated September, 1999):

“I would like to request an Audit of the Port of Seattle Grant for Agreed Order #97T-N122 for the following reasons:

There appears to be a possible issue of duplicative funding where costs of this Agreed Order could be covered both by the grant and by cost recovery from other parties.

Additionally an Audit would be appropriate and in the public interest given the high degree of attention and concern this project has experienced.”

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Law Offices
HELSELL
FETTERMAN
A Limited Liability Partnership

March 9, 2001

Peter J. Eglick
Kevin L. Stock
Attorneys At Law

Sent via Fax and Email

Mr. Gordon White
Program Director
Shorelands and Environmental Assistance Program
Department of Ecology
300 Desmond Drive
Lacey, WA 98503

Mr. Jim Pendowski
Program Manager
Toxic Cleanup Program
Department of Ecology
300 Desmond Drive
Lacey, WA 98503

Re: Lack of Enforcement of Agreed Order #97TC-N122 between
Ecology and the Port of Seattle and its Implications for 401
Certification

Dear Messrs. White and Pendowski:

We represent the Airport Communities Coalition ("ACC") whose members are the Cities of Burien, Des Moines, Federal Way, Normandy Park and Tukwila as well as the Highline School District. We are writing to object to the Port of Seattle's failure to comply with Ecology's May 25, 1999 Agreed Order and to request that Ecology take immediate enforcement action against the Port pursuant to RCW 70.105D.050(1) to compel compliance. ACC further requests that Ecology not issue any decision on the Port's 401 application until the Port has fully complied with the Order. In addition, ACC requests that Ecology immediately ask the State Auditor to audit the Port's expenditure of funds granted to the Port by Ecology for purposes of performing the studies required by the Agreed Order.

As stated in the Agreed Order, known hazardous substances exist in the soil and groundwater in the Airport Operations and Maintenance Area ("AOMA") at the Airport. "The primary cause of soil and groundwater contamination [at the Airport] has been leakage from underground storage tanks and associated underground piping." The Order requires the Port to (1) conduct a groundwater study, (2) model contaminant fate and transport and (3) confirm model results by obtaining and analyzing groundwater samples. The stated purpose of the study and modeling is to determine whether the aquifer downgradient from the Airport "has been significantly impacted by airport operations," confirm that groundwater underneath the Airport is

Mr. Gordon White
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Page 2

flowing in a westward direction, and "identify the potential risk posed by contamination originating within the AOMA" to public drinking water supply wells and to Des Moines and Miller Creeks.

In notes prepared for use at the third runway public hearing recently held on January 26 and January 27 (obtained pursuant to a public disclosure request), Ray Hellwig prepared the following answer to the following anticipated question:

"12. The "Agreed Order", how is [sic] being treated in your 401 review process?"

The AO pertains to a set of circumstances and regulatory requirements separate from the 3RW and associated projects. Having said that, however, the 401 will be conditioned to indicate that the Port must comply with all other state laws and regulations relating to the project."

Mr. Hellwig's answer completely ignores the critical (and obvious) connection between (1) the Agreed Order studies, which are to assess the likelihood of known hazardous substances existing at the Airport reaching downgradient water resources, and (2) the Port's 401 application, which seeks certification from Ecology under the Clean Water Act that the third runway project will not result in violations of state water quality standards to those same water resources.

The Port's own preliminary studies conducted by Associated Earth Sciences, Inc. indicate the groundwater flow directions in the shallow (Qva) aquifer in the AOMA vicinity are to the west and northwest. The direction of the flow takes the contaminants through the site of the proposed third runway and toward the headwaters of salmon-bearing Miller and Walker Creeks.

The Port's failure to comply fully, completely and on time with the Agreed Order is particularly egregious given the Port's ongoing massive construction efforts and disturbance of soils relating to the proposed third runway and associated infrastructure. The data submitted by the Port in support of its application for 401 certification makes no assessment of the impacts of the proposed third runway and related infrastructures on the fate and transport of the known hazardous substances in the Airport Operations and Maintenance Area. Without the groundwater study and fate and transport model required by the Agreed Order, neither the Port nor Ecology can predict with any assurance (let alone "reasonable assurance") whether third runway infrastructures will facilitate movement of contaminants to the nearby streams. For example, will the proposed drain field underneath the 20 million cubic yards of imported fill become a preferred pathway for the contaminants from the

Mr. Gordon White
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March 9, 2001
Page 3

AOMA to the headwaters of Miller and Walker Creeks? Will drainage trenches and underground utilities for the third runway expedite the delivery of hazardous substances to the embankment and beyond? Any answer to these questions (and others) in the absence of an accurate and complete groundwater study and fate and transport model is pure speculation and conjecture. The Clean Water Act requires more from Ecology than mere guesswork.

While Mr. Hellwig is correct that the Agreed Order arises under MTCA rather than the Clean Water Act, his carefully crafted answer for the public hearing avoids the fundamental issue raised by the question: Ecology cannot provide a legally defensible "reasonable assurance" that the third runway project will not result in a violation of state water quality standards unless and until the Port completes the groundwater study and fate and transport model that takes into consideration potential preferred pathways created by the third runway project. Ecology cannot avoid the issue by compartmentalizing or departmentalizing the Port's failure to comply with Ecology's Order and the Port's application for 401 certification.

Mic Dinsmore signed the Agreed Order on behalf of the Port on May 25, 1999. Appendix 2 of the Agreed Order provides that the Port was to complete the groundwater flow study and fate and transport model by December 22, 1999. Yet, the only work presented to Ecology by the Port since entry of the Order is a "conceptual ground water model" presented on October 4, 2000. We understand from discussions ACC consultants have had with Ecology staff that, since the October 4 meeting, the Port has failed to perform, and is refusing to perform, any further work required by the Order under the guise of a lack of funding even though the Port is in the midst of a \$6 billion expansion project and even though the Port received partial funding for the studies from Ecology.

Given the lack of progress and the limited work product to date, ACC has very serious concerns about the Port's expenditure of the grant money Ecology provided to the Port to fund 50% of the costs of the studies required by the Agreed Order. Where has the grant money gone and what did the Port spend it on if the studies are nowhere near complete and the Port has "suspended" work on them? We hereby request that Ecology ask the State Auditor, pursuant to RCW 43.09.055, to audit the Port's expenditures of Ecology's grant.

RCW 70.105D.050(1) provides Ecology with a strong enforcement tool:

"Any liable person who refuses, without sufficient cause, to comply with an order or agreed order of the director is liable in an action

Mr. Gordon White
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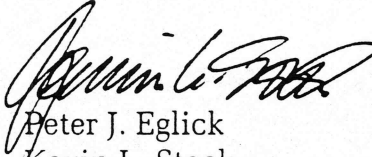
brought by the attorney general for: (a) up to three times the amount of any costs incurred by the state as a result of the party's refusal to comply; and (b) a civil penalty of up to twenty-five thousand dollars for each day the party refuses to comply."

Full and complete compliance with Ecology's Agreed Order is critical from ACC's standpoint. Its member cities and school district are located downgradient from the contaminated areas of the Airport. Des Moines, Miller and Walker Creeks run through the communities. Some of the communities rely upon the aquifer as a sole source for public drinking water. ACC strongly requests that Ecology enforce the May 25, 1999 Agreed Order in accordance with RCW 70.105D.050(1) and not issue any decision on the Port's 401 application until the Port has fully complied with the Order.

Please advise how Ecology will be proceeding on this matter.

Sincerely,

HELSELL FETTERMAN LLP



Peter J. Eglick
Kevin L. Stock

Attorneys for Airport Communities Coalition

cc: Mr. Thomas Fitzsimmons
Mr. Raymond Hellwig
Ms. Ann Kenny (for 401 public record)
Rep. Kelli Linville
Rep. Shay Schual-Berke
Rep. Karen Keiser
Rep. Joe McDermott
Rep. Erik Poulsen
Sen. Julia Patterson
Sen. Dow Constantine
Sen. Tracey Eide

State of
Washington
House of
Representatives



March 19, 2001

Mr. Tom Fitzsimmons, Director
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Re: Ecology's 1999 Agreed Order with the Port of Seattle and the 401
Certification Process

Dear Director Fitzsimmons:

Each of us has now had the opportunity to review the Airport Communities Coalition's March 9, 2001 letter (a copy of which is attached). In that letter, ACC requests, among other things, that Ecology not issue any decision certifying the Port's third runway project under section 401 of the Clean Water Act until the Port has fully complied with the 1999 Agreed Order under the Model Toxics Control Act (MTCA) which the Port entered into with DOE.

As we understand it, preliminary data collected by the Port and DOE indicates that hazardous material on the airport site is migrating toward the construction site for the third runway, the proposed "great wall" of Sea Tac, and the streams beyond. The Agreed Order between DOE and the Port required the Port to prepare an in-depth study of the "fate and transport" of these hazardous substances. Under the Agreed Order, that study was due by December 22, 1999, but has yet to be completed.

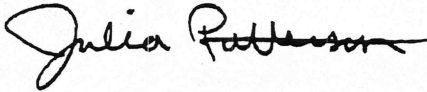
Even if there were no third runway proposal pending we would be very concerned about this failure of the Port to comply with an Agreed Order under MTCA – and with DOE's lack of enforcement in the face of such a violation. We are especially concerned though because there IS a proposal pending for massive disturbance of an area which, based on current data, lies in the path of the migrating hazardous materials. Yet, based on documents obtained by ACC from DOE pursuant to the Public Disclosure Act, it appears that DOE staff in charge of reviewing the third runway project assert that there is no relationship between the two matters.

We understand that Certification under Section 401 of the Clean Water Act means that DOE has reasonable assurance that the proposal will not violate water quality standards. On initial review, we do not see how DOE could make a decision on certification here in the absence of the Agreed Order study and in the face of current indications that transport of hazardous substances to the third runway site is occurring.

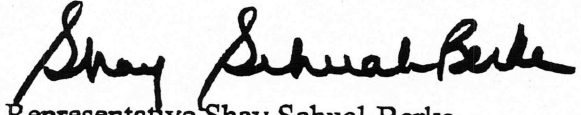
We therefore request an immediate in-person meeting with you to ensure that nothing has been overlooked and to gain a better understanding of how DOE proposes to proceed. At the meeting we can also discuss what steps DOE is taking to enforce the Agreed Order in the face of the Port's refusal to meet its requirements. In addition, the Department can describe what steps it has taken to recover the scarce funding which it gave the Port for the missing study.

This is not a matter that we believe can wait or be resolved by written correspondence. We feel it requires your personal attention. We therefore look forward to hearing from you concerning a date for an early meeting. Please contact Sue Linn, legislative aide to Representative Schual-Berke, at 360-786-7834 to coordinate a convenient time.

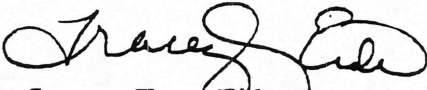
Sincerely,



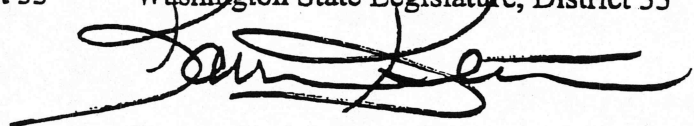
Senator Julia Patterson
Washington State Legislature, District 33



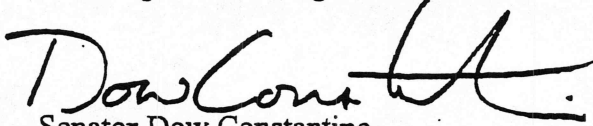
Representative Shay Schual-Berke
Washington State Legislature, District 33



Senator Tracy Eide
Washington State Legislature, District 30



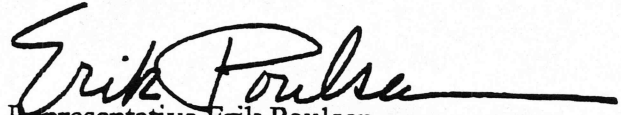
Representative Karen Keiser
Washington State Legislature, District 33



Senator Dow Constantine
Washington State Legislature, District 34



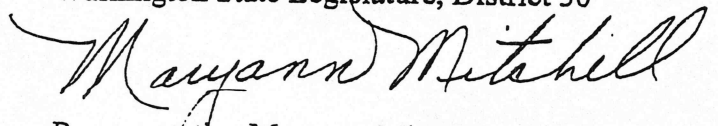
Representative Joe McDermott
Washington State Legislature, District 34



Representative Erik Poulsen
Washington State Legislature, District 34



Representative Mark Miloscia
Washington State Legislature, District 30



Representative Maryann Mitchell
Washington State Legislature, District 30

Law Offices
HELSELL
FETTERMAN
A Limited Liability Partnership

March 30, 2001

Kevin L. Stock
Attorney At Law
EMAIL: kstock@helsell.com
DIRECT DIAL: 206-689-2162

Sent via Fax and Email

Mr. Tom Fitzsimmons
Director
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Re: Ecology's 1999 Agreed Order with the Port of Seattle and the 401
Certification Process

Dear Director Fitzsimmons:

On behalf of the Airport Communities Coalition, thank you for taking the time on Tuesday evening, March 27, 2001, to meet with me, Dr. Peter Willing, Representatives Shay Schual-Berke and Karen Keiser and Senator Dow Constantine. I also appreciate your willingness to bring to the meeting Jim Pendowski, Steve Alexander, Ray Hellwig, Ann Kenny, Kevin Fitzpatrick and Assistant Attorney General Joan Marchioro. The legislators and I were disappointed, however, that Ecology technical staff John Wietfeld and Ching-Pi Wang were not allowed to attend the meeting. As we all ultimately agreed at the meeting, their presence would have been very helpful in furtherance of the discussion on the implications of the Agreed Order for the 401 certification process.

I am writing to confirm the agreement we reached at the meeting that Ecology will participate in another meeting to discuss Agreed Order/401 issues and that Ecology technical staff John Wietfeld, Ching-Pi Wang and Roger Nye will be present at the meeting along with Jim Pendowski, Steve Alexander, Ray Hellwig and Ann Kenny. Gordon White's presence is also critical because we have been told by Ecology that he is responsible for and will be signing Ecology's 401 decision. In addition, several of the same legislators who arranged the initial meeting with you and Ecology staff will also attend this technical meeting including Sen. Julia Patterson, Rep. Shay Schual-Berke and Rep. Karen Keiser. While I encourage your personal participation in this second meeting, I appreciate the many demands on your time. As we agreed, I will shortly be contacting Ray Hellwig to arrange for a mutually convenient time for everyone to meet in Bellevue, Olympia or in the legislators' home districts.

Mr. Tom Fitzsimmons
March 30, 2001
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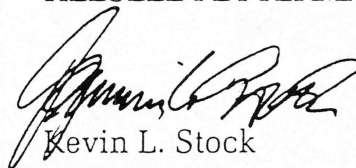
I also am writing to confirm that you assured the legislators and me at our meeting that Ecology would take a fresh look at the issue of whether the Port must fulfill the requirements of the Agreed Order before Ecology can issue any decision on the Port's 401 application. In that regard, we look forward to Ecology's written response to our March 9 letter and the legislators' March 19 letter on the subject.

As I explained repeatedly at our meeting, very strong scientific and legal reasons exist which preclude Ecology from issuing a legally defensible 401 certification before the Port completes its obligations under the Agreed Order. ACC believes that Ecology has gotten off track with respect to enforcement of the Agreed Order and its implications for the 401-certification process. Our meeting with you last Tuesday and the upcoming meeting at which Ecology technical staff will be present will help Ecology renew its commitment to the Agreed Order and the public participation process required by the Agreed Order and help Ecology better understand that the Agreed Order is a condition precedent to issuance of a 401 decision.

Again, thank you and your staff for taking the time to meet with us last Tuesday evening. I look forward to our next meeting.

Very truly yours,

HELSELL FETTERMAN LLP



Kevin L. Stock

cc: Mr. Gordon White
Mr. Jim Pendowski
Mr. Raymond Hellwig
Mr. Steve Alexander
Ms. Ann Kenny (for 401 public record)

Rep. Shay Schual-Berke
Rep. Karen Keiser
Rep. Joe McDermott
Rep. Erik Poulsen
Rep. Mark Miloscia

Mr. Tom Fitzsimmons
March 30, 2001
Page 3

Rep. Maryann Mitchell
Sen. Julia Patterson
Sen. Dow Constantine
Sen. Tracey Eide

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HEISELL BETTERMAN LLP

Washington State Legislature

Olympia

April 4, 2001

Mr. Tom Fitzsimmons, Director
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Re: Ecology's 1999 Agreed Order with the Port of Seattle and the 401 Certification Process

Dear Director Fitzsimmons:

This letter follows up on your meeting with some of us last Tuesday evening March 27 regarding the Department of Ecology's lapse in enforcement of its Agreed Order with the Port of Seattle. We also discussed fiscal issues arising from Ecology's partial funding of work required by the Agreed Order and the relationship between the Agreed Order and the 401 certification process. We regret you were unwilling to invite John Wietfeld, recently a supervisor for DOE Toxics Cleanup Program at Seatac, and Ching-Pi Wang, involved with the groundwater study required by the Agreed Order, to attend as we had requested. We are writing to confirm several commitments you made at the meeting.

With respect to enforcement of the Agreed Order, we appreciate your acknowledgements that Ecology may have "dropped the ball" and that Ecology did not take steps to devote more resources to enforcement of the Agreed Order. On the other hand, we were sorry to hear you state that you were unaware that Ecology could require the Port to pay - even prepay - for expenses incurred by Ecology relating to the Agreed Order. Both the Model Toxics Control Act administered by Ecology since its adoption over ten years ago, and the Agreed Order itself grant Ecology that authority. We are taking seriously your personal commitment to devote more resources to implementation and enforcement of the Agreed Order including requiring the Port of Seattle to reimburse Ecology for such expenses. We note your remarks about Ecology's shortage of personnel and fiscal resources. Given the need to catch up on Agreed Order implementation, we suggest that if Ecology were to retain an independent consultant to review closely the Port's work product under the Agreed Order, at the Port's expense, much like Ecology has done in retaining the services of King County to review the Port's proposed Stormwater Management Plan, the required work would be done in a timely and fiscally responsible manner.

The Department's failure to pursue reimbursement from the Port for expenses incurred to date by Ecology is particularly alarming in light of Ecology's \$430,000.00 grant to the Port to fund the

work required of the Port under the Agreed Order. The failure to date to hold the Port accountable for the funds and the absence of a completed work product is particularly notable in light of the current budget crunch in Olympia. The Department was unable at our meeting to answer basic questions about how much the Port has spent and on what, and, therefore, promised to follow up and provide us with the answers to our questions. We look forward to those answers with interest. In addition, please advise us in writing as to the status of the audit requested by John Wietfeld in his February 8, 2001 memo to Diane Singer, Grants Administrator, including the name of the outside auditor retained by Ecology to conduct the audit and an estimate of when the audit will be completed.

The Port has thus far failed to complete the tasks required of it by the Agreed Order. We believe that this has implications. We strongly disagree with your statement early during our meeting that the Governor's certification does not require completion of the Agreed Order tasks before Ecology can issue a 401 certification. The Governor's certificate very clearly conditions "reasonable assurance" upon completion of the Agreed Order groundwater study including modeling fate and transport of contaminants at the Airport and a review after public comments.

Moreover, it was apparent that the claim that the Port has done enough substance under the Agreed Order to allow Ecology to draw the preliminary conclusion that "there is no possibility" that contaminants at the Airport will reach our districts' water resources is wishful thinking, lacking in any scientific basis. We understand the Port has not even begun to perform the fate and transport modeling required by the Agreed Order. In light of this, we do not see how Ecology can come to any legitimate, scientifically based conclusions at this juncture. The Port must complete the report required by the Agreed Order, and publish it for the required 30-day comment period (including review by independent scientists and concerned downstream cities), before Ecology can come to any conclusion with respect to the potential fate and transport of contaminants at the Airport.

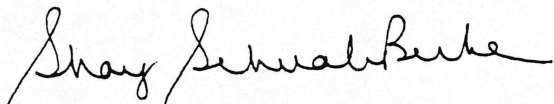
Once again, at our meeting you stated that Ecology's current position is that "there is not a prerequisite for the Agreed Order to be completed before a 401 is issued." However, after much discussion about this at our meeting you stated that you did not want to issue a certification that was not legally defensible; we sensed that you were beginning to understand the scientific and legal reasons why Ecology needs to do a complete reassessment of that position. You committed to reconsider the relationship between what is required of the Port under the Agreed Order and whether Ecology can issue a legally defensible 401 certification in the absence of the Port's compliance with the Agreed Order. In this regard, you may be interested to know that subsequent to our meeting with you, we learned that agency documents obtained by ACC through the PDA reveal that Mr. Luster had emphasized the link between the two in written communications shortly before he was so recently removed from his longtime role as Ecology's 401 coordinator. Please advise us in writing of Ecology's re-visited position on this issue by April 15, 2001.

Finally, some of us will be attending the meeting with Ecology technical staff that you agreed to make available for further discussions regarding the relationship between the Agreed Order and the 401 process. We understand that the following staff will be at this meeting: John Wietfeld,

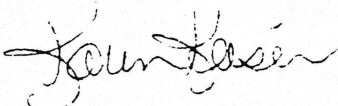
Ching-Pi Wang, Roger Nye, Steve Alexander, Jim Pendowski, Ray Hellwig and Ann Kenny. We request that Gordon White also attend this meeting as we understand from previous discussions with Ecology that Mr. White will be signing Ecology's 401 decision.

We have very serious concerns about Ecology's dealings with the Port of Seattle on the Agreed Order and the Port's application for 401 certification. Please give our concerns your personal attention and serious thought. We look forward to receiving your written response to the questions we have raised. We have sent this letter by both hard copy and e-mail.

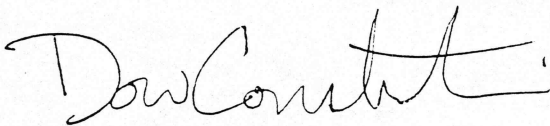
Sincerely,



Shay Schual-Berke, M.D.
State Representative, 33rd District



Karen Keiser
State Representative, 33rd District



Dow Constantine
State Senator, 34th District

cc: Mr. Gordon White
Mr. Jim Pendowski
Mr. Raymond Hellwig
Mr. Steve Alexander
Ms. Ann Kenny (for 401 public record)
Rep. Joe McDermott
Rep. Erik Poulsen
Rep. Mark Miloscia
Rep. Maryann Mitchell
Sen. Julia Patterson
Sen. Tracey Eide
Mr. Bob Sheckler
Ms. Kimberly Lockard
Mr. Kevin Stock
Mr. Peter Eglick
Mr. Peter Willing



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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

HELSELL FETTERMAN LLP

P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

April 11, 2001

Kevin L. Stock
Attorney at Law
Helsell Fetterman, LLP
P.O. Box 21846
Seattle, WA 98171-3846

Dear Mr. Stock:

Re: Your letter of March 30, 2001 regarding Agreed Order #97TC-N122, 401 Certification processes, and commitments made at the March 27, 2001 meeting between Ecology and certain parties, including legislators, representing the Airport Communities Coalition (ACC)

Thank you for your March 30, 2001 letter summarizing your understanding of what was agreed to at the meeting referred to above. In your letter you also request a written response to the March 9, 2001 letter you sent on behalf of the ACC to Gordon White and Jim Pendowski. This letter outlines my understanding of the agreements reached at the March 27 meeting, and Ecology's commitments pursuant to those agreements. It also provides a response to your March 9 letter (which was supported by a letter dated March 19 signed by Senator Julia Patterson and other legislators).

During the March 27 meeting, we discussed legal and technical concerns related to the above referenced Agreed Order as well as the 401 Certification decision-making process for the Port of Seattle's (POS) Third Runway and associated projects (third runway projects). You presented your perspectives about the legal and procedural relationship between the Agreed Order and the 401 Certification process. We did not reach agreement on your views about this area of concern, but we did agree to take a fresh look at the technical and scientific issues your clients have expressed about Third Runway infrastructure, and a belief it might create pathways for contaminants from the Airport Operations and Maintenance Area (AOMA) to proposed runway sites.

As part of taking a fresh look, Ecology committed to hosting a technical meeting wherein technical experts representing the ACC would have an opportunity to provide additional input to Ecology technical staff and ask questions about available technical information. We mentioned we thought this would be beneficial based on previous experiences where similar technical meetings were arranged with ACC consultants and Ecology technical



Mr. Kevin L. Stock
April 11, 2001
Page 2

staff. At the meetings held last summer/fall, information provided by ACC consultants was used to enhance our regulatory review of the POS's proposals.

We welcome ACC technical consultants and representatives, as well as legislators and other interested parties to attend such a technical meeting. We found that previous meetings were effective in part, because the number of meeting participants was relatively low, and the focus was on technical areas of concern. This is probably a factor that potential meeting participants will want to consider. We look forward to planning the technical meeting at a time and location that will be mutually beneficial. Please contact Ray Hellwig at 425-649-7010 for assistance in this regard.

As indicated above, I would also like to provide a response to your letter of March 9, 2001. In the earlier letter, as well as during our recent meeting, you requested that Ecology hold off any decision on the Port of Seattle's 401 application until the Port fully complies with the Agreed Order. We have carefully considered your request and concluded it is not necessary to hold up a decision on the 401 application pending completion of the ground water study under the Agreed Order.

The goal of the ground water study required under the Agreed Order is to evaluate: a) Ground-water flow in the intermediate (Qva) aquifer throughout the AOMA; b) Model contaminant fate and transport in this area, and; c) Confirm model results by obtaining and analyzing ground-water samples. The ground-water study results will: 1) Determine whether or not the intermediate aquifer down-gradient of the AOMA has been significantly impacted by airport operations in the last fifty years; 2) Confirm the predominant flow direction of this aquifer relative to and down-gradient from the AOMA, and; 3) Provide a more comprehensive understanding of the fate and transport of contamination originating within the AOMA. The results would identify the potential risk posed by contamination originating within the AOMA to public drinking water supply wells, any publicly recorded and operating local private drinking water supply wells, Bow Lake, Des Moines Creek, and Miller Creek. Any actions required by Ecology as a result of the ground water study will be enforced pursuant to the terms and conditions of the Agreed Order.

The ground water study does not (nor was it intended to) substantially contribute to our understanding of how the infrastructure for the proposed third runway projects could contribute to the transport of contaminated materials from the AOMA to proposed runway sites. However, we do agree to the need for additional information regarding this concern and we will conduct analyses that include the assessment of data already available to us regarding contamination and groundwater in the AOMA. We will also be asking the Port of Seattle to provide us with additional information regarding the interaction of the third runway projects with the AOMA. Let me assure you that Ecology will not decide to approve or deny the Port's third runway projects until this "pathway" analysis is complete.

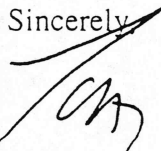
Mr. Kevin L. Stock
April 11, 2001
Page 3

In your March 9 letter you request Ecology to enforce the Agreed Order in accordance with RCW 70.105D.050(1). Please be advised that, at this time, we are planning to fully reinitiate work on this order and will work with POS staff to ensure compliance with its terms and conditions accordingly.

On another note: Ecology's Toxics Cleanup Program has asked our Solid Waste and Financial Assistance Program to conduct an audit of the grant our agency provided to the POS for Agreed Order related work. Concerns revolve around the appropriateness of billings, and grant scope of work. Once this audit is complete we will determine if additional action is necessary.

Thank you for your interest in these matters. If you have further questions regarding the Section 401 water quality certification please call Ms. Ann Kenny at 425-649-4310. If you require more information regarding the status of the Agreed Order you may speak with Mr. Ching-Pi Wang at 425-649-7134.

Sincerely,



Tom Fitzsimmons
Director

cc: Senator Julia Patterson
Senator Dow Constantine
Senator Tracy Eide
Representative Kelli Linville
Representative Shay Schual-Berke
Representative Karen Keiser
Representative Joe McDermott
Representative Mark Miloscia
Representative Maryann Mitchell
Representative Erik Poulsen
Peter J. Eglick, Helsell Fetterman, LLP
Ray Hellwig
Gordon White
Jim Pendowski
Cullen Stephenson
Steve Alexander
Ching-Pi Wang
Ann Kenny
Joan Marchioro



STATE OF WASHINGTON
OFFICE OF THE GOVERNOR

P.O. Box 40002 • Olympia, Washington 98504-0002 • (360) 753-6780 • TTY/TDD (360) 753-6466

June 30, 1997

The Honorable Rodney Slater, Secretary
U.S. Department of Transportation
400 7th Street SW
Washington, DC 20590

Dear Secretary Slater:

The purpose of this letter is to reaffirm the conclusions in the December 20, 1996 letter from Washington Ecology Director Mary Riveland to Mr. Dennis Ossenkop. In that letter, the State of Washington provided reasonable assurance that the proposed airport development project involving the Sea-Tac Airport third runway will be located, designed, constructed and operated so as to comply with applicable air and water quality standards. Since the State provided that assurance, the Port of Seattle and the Federal Aviation Administration have prepared and distributed a supplemental environmental impact statement. With this letter, the State of Washington is again certifying that we will take the necessary actions to assure that the project is built and operated in compliance with applicable air and water quality standards.

The Washington Department of Ecology has reviewed the information contained in the Final Supplemental Environmental Impact Statement for the Proposed Master Plan Update at Seattle Tacoma International Airport and other relevant documents. As a result of that review, the State of Washington reaffirms its earlier findings and hereby provides that there is reasonable assurance that the airport development project involving the Sea-Tac third runway will be located, designed, constructed and operated so as to comply with applicable air and water quality standards, if the Port of Seattle implements the following measures:

1. The Port of Seattle will obtain and comply with all applicable air and water quality regulations, permits and approvals including the air conformity determination required under the Federal Clean Air Act.
2. The Port of Seattle will implement stormwater control measures that comply with the requirements contained in the most current Stormwater Management Manual for the Puget Sound Basin or other equivalent stormwater manuals approved by the Department of Ecology.
3. The Port of Seattle will establish and implement a process for monitoring construction activities to ensure compliance with applicable air and water standards. As part of this



process, the Port of Seattle will perform the following activities after Ecology review and comment:

- a) prepare a new runway construction sediment and erosion plan which adheres to available best management practices (BMPs) and procedures which the Port of Seattle will attach to the bid packages when seeking contractors to construct the runway;
 - b) prepare site-specific sediment and erosion control plans which describe specific BMPs and procedures for individual construction and borrow sites;
 - c) implement procedures for reviewing mitigation requirements with contractors and subcontractors prior to initiating construction activities;
 - d) implement procedures for addressing changes in plans and construction activities and resolving disagreements on the interpretation of mitigation requirements, permit conditions, and allowable construction activities; and
 - e) establish and fund an independent qualified construction pollution control officer to advise on and determine compliance with applicable air and water quality standards.
4. As part of its ongoing efforts to address hazardous substance releases under the Model Toxics Control Act (MTCA), the Port of Seattle will complete a ground water evaluation at the airport as defined in the MTCA Agreed Order which will be finalized after review of public comments. The purposes of this evaluation include:
- a) determine ground water flow characteristics and identifying fate and transport mechanisms;
 - b) modeling to assess potential risks to area drinking water supplies and adjacent surface water bodies; and
 - c) conducting additional characterization of ground water and/or long-term monitoring as necessary.
5. The Port of Seattle will design and construct the third runway such that the project will not cause changes in the location of the hydrologic divide between Miller and Des Moines Creeks in a manner that alters the average instream flow of either creek. The Port of Seattle will evaluate the feasibility of constructing an aquifer under the third runway as a means to control stormwater flows and minimize impacts on instream flows. The Port of Seattle will submit a report to Ecology describing the results of this evaluation.

As stated in the December 20, 1996 letter, the State of Washington expects that the proposed project will be implemented in a manner that is consistent with mitigation requirements under the National Environmental Policy Act/State Environmental Policy Act, other environmental

The Honorable Rodney Slater, Secretary

June 30, 1997

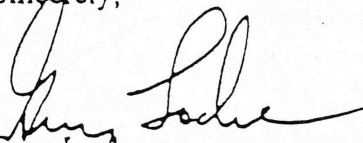
Page 3

monitoring studies, and control measures and permitting actions involving air and water quality at Sea-Tac Airport. In particular, implementation of the proposed project must take into account the air monitoring evaluation being conducted by the Port, the Puget Sound Air Pollution Control Authority (PSAPCA), EPA, and Ecology.

This letter reaffirms and supersedes the December 20, 1996 letter issued by former Ecology Director Mary Riveland. Consequently, this letter constitutes the state certification required under 49 U.S.C. 47101 et seq. All parties are aware that this letter does not constitute a commitment to issue any specific permit. I have directed the Department of Ecology and other state agencies to implement and enforce applicable air and water quality standards in a manner that protects the health of Washington's citizens and the environment.

If you or your staff have questions regarding this letter, please contact Mr. David Bradley (360/407-6907) or Mr. David Williams (425/649-7071).

Sincerely,



Gary Locke
Governor

cc: Tom Fitzsimmons, Department of Ecology
Dennis McLerran, Puget Sound Air Pollution Control Authority
Gina Marie Lindsey, Port of Seattle



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

REC'D ANM-610
PLAN, PGM, & CAP CR

DEC 23 1996

ANM-610_____

December 20, 1996

Mr. Dennis Ossenkop
Federal Aviation Administration
Seattle Airports District Office
1601 Lind Avenue SW
Renton, Washington 98055-4056

Dear Mr. Ossenkop:

I have been delegated the authority by Governor Mike Lowry to respond on behalf of the State of Washington to the August 12, 1996 letter from Ms. Gina Marie Lindsey. In that letter, the Port of Seattle requested a letter of certification concerning air and water quality standards applicable to the proposed runway project at the Sea-Tac airport. As you are aware, 49 U.S.C. 47101 et seq. (formerly known as the Airport and Airway Improvement Act) requires a state to provide reasonable assurance that certain types of FAA-funded projects will be located, designed, constructed and operated in compliance with applicable air and water quality standards.

The Washington Department of Ecology has reviewed the information contained in the Final Environmental Impact Statement for the Proposed Master Plan Update at Seattle Tacoma International Airport and other relevant documents. As a result of that review, the State of Washington hereby provides that there is reasonable assurance that the airport development project involving the Sea-Tac third runway will be located, designed, constructed and operated so as to comply with applicable air and water quality standards, if the Port of Seattle implements the following measures:

1. The Port of Seattle will obtain and comply with all applicable air and water quality regulations, permits and approvals including the air conformity determination required under the Federal Clean Air Act.
2. The Port of Seattle will implement stormwater control measures that comply with the requirements contained in the most current Stormwater Management Manual for the Puget Sound Basin.
3. The Port of Seattle will establish and implement a process for monitoring construction activities to ensure compliance with applicable air and water quality standards. As part of this process, the Port of Seattle will perform the following activities after Ecology review and comment:



- (a) prepare a new runway construction sediment and erosion control plan that adheres to best management practices (BMPs) and procedures, which the Port of Seattle will attach to the bid packages when seeking contractors to construct the runway;
 - (b) prepare site-specific sediment and erosion control plans that describe specific BMPs and procedures for individual construction and borrow sites;
 - (c) implement procedures for reviewing mitigation requirements with contractors and subcontractors prior to initiating construction activities;
 - (d) implement procedures for addressing changes in plans and construction activities and resolving disagreements on the interpretation of mitigation requirements, permit conditions, and allowable construction activities; and
 - (e) establish and fund an independent qualified construction pollution control officer to advise on and determine compliance with applicable air and water quality standards.
4. As part of its ongoing efforts to address hazardous substance releases under the Model Toxics Control Act (MTCA), the Port of Seattle will complete a ground water evaluation at the airport as defined in a MTCA Agreed Order which will be finalized after review of public comments. The purposes of this evaluation include:
- (a) determining ground water flow characteristics and identifying fate and transport mechanisms;
 - (b) determining potential risks to area drinking water supplies and adjacent surface water bodies; and,
 - (c) conducting additional characterization of ground water and/or long-term monitoring, as necessary.
5. The Port of Seattle will design and construct the Third Runway such that the project will not cause changes in the location of the hydrologic divide between Miller and Des Moines Creeks in a manner that alters the average instream flow of either creek. The Port of Seattle will evaluate the feasibility of constructing an aquifer under the third runway as a means to control stormwater flows and minimize impacts on instream flows. The Port of Seattle will submit a report to Ecology describing the results of this evaluation.

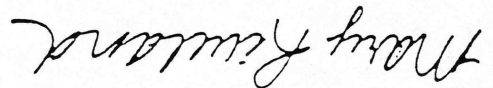
It is also my expectation that the proposed project will be implemented in a manner that is consistent with mitigation requirements under the National Environmental Policy Act/State Environmental Policy Act, other environmental monitoring studies, control measures and permitting actions involving air and water quality at Sea-Tac Airport. In particular, the proposed project should take into account the air monitoring evaluation being conducted by the Port, the Puget Sound Air Pollution Control Authority (PSAPCA), EPA, and Ecology.

This letter constitutes the state certification required under 49 U.S.C. 47101 et seq. All parties are aware that this letter does not constitute a commitment to issue any specific permit. I have directed my staff to implement and enforce applicable air and water quality requirements in a manner that protects the health of Washington's citizens and the environment.

Mr. Dennis Ossenkop
December 20, 1996
Page 3

If you have questions regarding this letter, please contact Mr. David Bradley (360/407-6907) or
Ms. Janet Thompson (206/649-7128).

Sincerely,



Mary Riveland

Director

cc: Gina Marie Lindsey, Port of Seattle



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (425) 649-7000

March 11, 1999

TO: Kathy Gerla
Assistant Attorney General

THRU: Steve Alexander
Section Head, Toxics Cleanup Program, NWRO

FROM: Roger Nye

SUBJECT: Request for Ruling

The Port of Seattle has requested that a full-time prepaid position (me) be reinstated for Sea-Tac Airport. Given issues that have been associated with the prepaid position for the airport in the past and also some new issues, I think there needs to be consideration of reinstating that position from a legal perspective.

There was a prepaid position for Sea-Tac Airport from about 1992 through August 1996. No Consent Decree or Agreed Order with the Port and/or tenants at the airport was consummated during that time. My predecessor in the prepaid position for the airport, Linda Priddy, attempted to put some sites at the airport under Agreed Orders, but she eventually left Ecology when relations between her and the Port deteriorated during the process. The PLP's for the sites Linda tried to put under Orders (United, Continental, and Northwest Airlines) subsequently promised to be more aggressive in pursuing independent cleanup actions if Ecology would not put them under formal Orders. That was the situation when I became the prepaid for the airport in February 1994.

My role as a prepaid evolved into that of providing a constant regulatory "presence" and proactive technical assistance concerning the many independent cleanup actions that were underway at the airport (Mike Gallagher called it the "gorilla in the closet" role). This role actually worked quite well in moving the various independent cleanup actions along. I became increasingly concerned however, whether this was an appropriate use of a prepaid position and also about my level of involvement in the independent cleanup actions. I presented my concerns through Mike Gallagher, and during April 1995, Mary Burg, Mike, you, and I met to discuss whether or not the prepaid position should continue for Sea-Tac Airport. There were two decisions that came out of that meeting. (1) The role of full-time technical assistance was acceptable. This was based on the fact that, although the Prepaid Position Policy did not provide for this, there was specific language in the attendant Interagency Agreement that did provide for ongoing technical assistance.

Kathy Gerla
March 11, 1999
Page 2

(2) There had to be an Agreed Order at least about something concerning Sea-Tac Airport for the prepaid position to continue.

The concept of doing a comprehensive model and study of groundwater at Sea-Tac Airport was being formulated about this time. This project presented an opportunity to have an Agreed Order at the airport, and the Port agreed to do the work under an Order. As it turned out however, there were many issues, both technical and regarding the scope of work, that were difficult to resolve. Progress on the language of the Agreed Order was very slow. Finally, during July 1996, Mike Gallagher and I met with Mary Burg (I don't think you were there), and the decision was to cancel the prepaid position since there was still no signed Agreed Order for Sea-Tac Airport.

What was the justification?

Work did continue without a prepaid position on the Agreed Order for the groundwater project however, and finally it was finished and went out for public comment. Many comments were received that strongly objected to and expressed skepticism about Ecology's prepaid position at the airport (a perceived process where Ecology was "paid" and thus influenced by the Port). There were more specific comments that expressed the position that, as per Ecology's own Prepaid Position Policy, it was illegal for the prepaid person to be involved in cleanup actions at the airport that weren't under an Order or Decree. Or, all cleanup actions that the prepaid person was involved in at the airport were open to public participation.

will require order?

The Port specifically wants a new prepaid position to (1) carry on the groundwater project under the Agreed Order (the project will take about another two years), and (2) attend to putting several sites at the airport through the Voluntary Cleanup Program process. The Port's expectation for the position is also (as it's always been) that the prepaid person be involved as a regulatory presence and provide technical assistance as requested in many other environmental issues that come up at the airport (for example, the construction of a new aircraft fueling system).

There are some issues that, I think, need to be considered before Ecology agrees to reinstate the prepaid position. (1) The agency should make sure it is on firm legal ground before allowing the prepaid position to be used for purposes outside the Agreed Order. Anti-airport groups perhaps would legally challenge this use of the prepaid position. (2) Should there be a new Interagency Agreement established with the Port or is the one from 1992 still applicable (the current boilerplate is not the same)? (3) Would a reinstated prepaid position at the airport have to go out for public comment? If so, there would probably be strong public opposition to it and if that happened, what would we do?

(4) Can pre-paid positions be maintained outside the STCA budget? If not, giving 1.0% of the Agreed Order will be signed during this month or early April and the Port wants the prepaid position reinstated at Sea-Tac Airport at that time. Thank you in advance for your attention to this matter.

to the Port is not appropriate



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (425) 649-7000

April 21, 1999

TO: Steve Alexander
Section Head TCP – NWRO

THROUGH: Joe Hickey
Unit Supervisor TEC Unit

FROM: Roger Nye
Project Manager, Sea-Tac Airport Groundwater Study

SUBJECT: REQUEST FOR CONTRACT SERVICES

The Port of Seattle is conducting an extensive study of groundwater flow and contaminant transport via groundwater flow at Sea-Tac Airport. The study is being conducted under an Agreed Order with Ecology. The purpose of the groundwater study is to evaluate whether or not contamination in groundwater at Sea-Tac Airport poses a risk to surface waters and public water wells in the vicinity of the airport.

The approach of the study is to (1) develop a conceptual model of groundwater at Sea-Tac Airport and surrounding vicinity, (2) perform computer modeling of groundwater flow and contaminant transport, and (3) conduct subsequent field work to verify the modeling and monitor for contamination as appropriate.

The purpose of the contract services is to provide technical assistance regarding these elements of the study. The use of contract services is needed because:

(1) There is keen interest in this project by state representatives, citizen's groups, communities, and public water districts local to the airport as per the many comments received during the public comment period for the Agreed Order. A significant element of the comments was that Ecology must independently evaluate all work performed by the Port of Seattle and its consultants.

(2) The technical aspects of the modeling will be sophisticated. The time and/or expertise (in terms of working with this technology routinely) of in-house Ecology staff to adequately evaluate this extensive modeling in a timely manner are limited.



Steve Alexander
April 21, 1999
Page 2

The specific scope of work for the contract services would be as follows:

- (1) Provide technical assistance to evaluate the conceptual model of groundwater at Sea-Tac Airport developed by Port of Seattle consultants.
- (2) Provide technical assistance to evaluate three-dimensional MODFLOW computer modeling and contaminant transport modeling done by Port of Seattle consultants.
- (3) Provide technical assistance to perform independent simulations utilizing elements of the models done by Port of Seattle consultants.
- (4) Provide technical assistance to evaluate fieldwork to confirm the model and monitor for contamination as proposed by Port of Seattle consultants.

In short, the use of contract services would be to help evaluate the product of others rather than to produce a product, which hopefully, would not be an excessive cost.

Thank you for your attention to this matter. The Port of Seattle will be presenting the conceptual groundwater model during the first week in July.

Alexander, Steve (ECY)

From: Nye, Roger
Sent: Wednesday, May 26, 1999 10:49 AM
To: Alexander, Steve (ECY)
Subject: RE: Request for Contract Services

I actually have raised this issue with the Port of Seattle from time to time beginning awhile back. They are luke-warm to the idea of paying for SAIC and have, at this point, not committed to doing it but neither have they said no. They have asked me to provide them with a written request with a detailed account of what SAIC would do, which is what I'm working on now.

FYI: A state senator (Julia Patterson- from a district surrounding Sea-Tac airport) managed to get a bill through that provided \$250,000 to Ecology to study the impacts of gravel mining at Maury Island. The bill also provided \$250,000 to study how construction of the 3rd Runway at Sea-Tac Airport would impact aquifers beneath the airport. The NWWQ Section (John Glynn and Kevin Fitzpatrick) put together a recommendation to the governor to veto the bill, but the governor just recently signed it-anyway. The Port views this as an attempt to stop the 3rd Runway. Furthermore, the Port is not happy with the situation that they are paying for a comprehensive study of groundwater at the airport through a MTCA Agreed Order, while the state is now funding a study which could largely be duplicative. (Duplicative in terms of developing a comprehensive groundwater flow model for the area of the airport). Anyway there is now the somewhat interesting scenario of TCP and WQ here doing similar separate studies at the airport as far as groundwater modeling. After modeling however, the TCP will use its model to look at contaminant fate and transport, while WQ will use its model to look at hydrological effects of the 3rd Runway.

-----Original Message-----

From: Alexander, Steve (ECY)
Sent: Tuesday, May 25, 1999 5:40 PM
To: Nye, Roger
Subject: RE: Request for Contract Services

Roger: Sorry this has taken so long. This looks good, with one exception: talk to the Port and determine their support, or lack of, for paying to have Ecology consultants critique the Port's consultant's. Don't wait to find out about this, contact them now and discuss the situation and what would work or not work. Thanks.

-----Original Message-----

From: Nye, Roger
Sent: Monday, May 17, 1999 10:19 PM
To: Alexander, Steve
Cc: Hickey, Joe; Wang, Ching Pi
Subject: Request for Contract Services

Hello Steve:

Thank you for considering my request. Here is how the process works for the work I need, and what has been done so far:

Ecology has a consulting company named Science Applications International Corporation (SAIC) currently under contract. This company was selected among several companies that competed for a 5-year contract with Ecology.

I talked with Jan Swanberg, who subsequently met with Chuck Hollander (person at SAIC that

coordinates its work with Ecology) and described the work I want SAIC to do. As per Jan, SAIC can do what I want, and there is a person locally (Mark Dagels) at SAIC's Bothell office that can do it. Sometime this week, I will talk with Chuck Hollander to more extensively describe the work I need, and also to arrange a meeting with SAIC to formulate a more detailed scope of work and establish a cost estimate. Ching-Pi (if he's willing and able) and I will meet with SAIC.

The meter starts running at this meeting. To handle just this meeting, Jan will write up a "Work Assignment Form" to cover SAIC's charges for this meeting (\$200 - 300). We would pay for this meeting and charge it to one of our codes. I will need your signature of approval on the Work Assignment Form covering the cost of the meeting with SAIC.

After the meeting with SAIC, we will have a definitive idea of the scope of work and approximate cost. I will then try to get the Port of Seattle's agreement to pay for the rest of SAIC's work as part of the Agreed Order. (We have authority under MTCA and the Agreed Order to charge PLP's for contract work). The idea of the Port paying for a consultant to critique its own consultants may not be too palatable however.

If the Port agrees to cover SAIC's charges, then their work would just be charged to the established charge code for Sea-Tac Airport. Jan, in consultation with me, would write up another Work Assignment Form describing the rest of SAIC's work to project's end. This Work Assignment for the rest of the project would also be subject to your approval.

If the Port is not agreeable to cover SAIC's charges, then I'll get back to you what the options are. Let me know if you want a meeting to discuss this further. Thanks.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

In the Matter of:)
)
SEA-TAC INTERNATIONAL AIRPORT) AGREED ORDER
)
) # 97TC-N122
)
TO: Port of Seattle
Sea-Tac International Airport
P.O. Box 68727
Seattle, WA 98168-0727

I.

Jurisdiction

This Agreed Order ("Order") is issued pursuant to the authority of RCW 70.105D.050(1).

II.

Findings of Fact

Ecology makes the following Findings of Fact, without admission of such facts by the Port of Seattle.

1. Seattle-Tacoma International Airport (STIA) is a major commercial air facility serving the Pacific Northwest. The Port of Seattle (Port) has owned and operated STIA since it opened in 1944. Airport operations, including passenger terminal operations, baggage and cargo handling, ground transportation, aircraft maintenance, and fueling storage and delivery have been conducted at STIA since its opening within an area of about 1/2 square mile in the southeast quadrant of the airport. This 1/2 square-mile area will subsequently be referred to in this Agreed Order as the "Aircraft Operations and Maintenance Area (AOMA)."

2. Hazardous substances have been released at times within the AOMA during some of these airport operations. By bulk volume, the most abundant contaminant is jet fuel. Other known contaminants include, primarily, gasoline, but also some industrial solvents, mineral spirits, lubricating oil, and aircraft deicing fluids. At this time, thirteen separate areas (sites) within the AOMA are known to have contaminants present in perched ground water and/or significant soil contamination (Appendix 1). Ground water in the Qva aquifer (see Section II.3 below) is also impacted at eight of the thirteen sites. Eight sites are impacted with jet fuel, two sites with gasoline, and three sites are impacted by more than one contaminant. There are also some small areas within the AOMA where the contamination is apparently minor and limited to near-surface soils.

Environmental investigations and/or cleanup actions have been or are currently being conducted independently by STIA tenants and/or the Port in all known contaminated areas. Cleanup actions have been completed at four former sites within the AOMA, and also at some of the areas with minor contamination. Unknown areas of contamination associated with past operations could exist within the AOMA. It is not practicable at this time to conduct a remedial investigation of the entire AOMA in order to identify unknown contaminated areas because: (1) the extensive drilling required would be very difficult given taxiing aircraft, thick concrete in most areas, and the large number of underground utilities, (2) such extensive work over time would represent a significant safety risk to aircraft operations and personnel, (3) extensive drilling could potentially spread contamination, and (4) costs of investigating the 1/2 sq. mile area of the AOMA are not warranted.

3. Zones of perched ground water have been identified at some locations within the AOMA. These zones are small and discontinuous laterally, occur at various depths, and the perched ground water flows in various directions. STIA area perched

groundwater is not a public or private drinking water resource based on current information.

The uppermost aquifer of regional extent beneath the airport is an unconfined aquifer known in the technical literature as the Qva aquifer. The Qva aquifer is not used as a public drinking water supply resource in the general area of STIA. Available information from wells located in the AOMA indicates the Qva aquifer surface is at about 90 ft. below ground surface (bgs) at the north end of the AOMA and about 60 ft. bgs at the south end of the AOMA. Over the same areal extent, the ground surface elevation changes by about 25 ft. At individual sites, the local flow directions of the Qva aquifer are predominantly to the west, that is, from the AOMA towards the interior of the airport (taxiway and runway areas), with northwestward and southwestward flow components at some sites.

4. A project to (1) evaluate ground water flow in the Qva aquifer throughout the AOMA, (2) model contaminant fate and transport, and (3) confirm model results by obtaining and analyzing ground water samples is appropriate because:
 - a) The project results would determine whether or not the Qva aquifer downgradient of the AOMA has been significantly impacted by airport operations within the AOMA during the last 50 years.
 - b) The project results would confirm the predominant flow direction of the Qva aquifer relative to the AOMA and downgradient from the AOMA. If a westward flow direction is confirmed, this would demonstrate that contamination generated within the AOMA would migrate to the interior of the airport property via ground water flow in the Qva aquifer.
 - c) The project results would provide a more comprehensive understanding than is now available of the fate and transport of contamination originating within the AOMA. Project results would identify the potential risk posed by contamination

originating within the AOMA to public drinking water supply wells (specifically the City of Seattle Highline well field north of STIA, the Highline Water District Angle Lake and Des Moines production wells south of STIA, and King County Water District 54 production wells south of STIA); any publicly recorded and operational local private drinking water supply wells; Bow Lake; Des Moines Creek; and Miller Creek. These surface water bodies and drinking water supply wells will hereafter be collectively referred to as "potential local receptors" in this Agreed Order.

- d) The information generated by the project could provide a basis for a consistent approach to cleanup actions within the AOMA.
5. The primary cause of soil and ground water contamination at STIA has been leakage from underground storage tanks (USTs) and associated underground piping. UST systems exist at STIA that are critical to airport/aircraft operations. The various UST systems have different regulatory requirements depending on the size and function of the system. Most small UST systems at STIA are fully regulated under Washington UST regulations (WAC 173-360). The airport hydrant fuel distribution systems (hydrant systems) are specifically deferred from leak detection requirements [WAC 173-360-110(3d)] because of the inherent technical difficulties in accurately testing large, high-throughput systems. The UST systems at STIA that store heating fuel are exempt from all UST regulatory requirements except release reporting [WAC 173-360-110 (2h)].

The UST regulations require that fully regulated UST systems must have been either upgraded to meet specific standards or closed by the end of 1998. The fully regulated UST systems at STIA are reported to be either upgraded to 1998 standards or closed. In recent years, owners/operators of the deferred hydrant systems made credible voluntary efforts to address leak detection on those systems. As of autumn 1998,

there is one operational hydrant system remaining at STIA. The four other hydrant systems have now ceased operations and are, or will be, in the process of formal closure as per the UST regulations.

As part of a project concerning ground water quality at STIA, it is appropriate to evaluate the compliance and adequacy of in-place pollution prevention activities, and also consider the feasibility of additional pollution prevention activities regarding all UST systems at STIA.

III.

Ecology Determinations

1. The Port of Seattle is an "owner or operator" as defined at RCW 70.105D.020(12) of a "facility" as defined in RCW 70.105D.020(4).
2. The facility is known as Sea-Tac International Airport and is located within the city of SeaTac, King County, Washington.
3. The substances found at the facility as described above are "hazardous substances" as defined at RCW 70.105D.020(7).
4. Based on the presence of these hazardous substances at the facility and all factors known to the Department, there is a release or threatened release of hazardous substances from the facility, as defined at RCW 70.105D.020(20).
5. By a letter of December 23, 1996, the Port of Seattle voluntarily waived its rights to notice and comment and accepted Ecology's determination that the Port of Seattle is a "potentially liable person" under RCW 70.105D.040.
6. Pursuant to RCW 70.105D.030(1) and 70.105D.050, the Department may require potentially liable persons to investigate or conduct other remedial actions with respect to the release or threatened release of hazardous substances, whenever it believes such action to be in the public interest.

7. Based on the foregoing facts, Ecology believes the ground water evaluation required by this Order is in the public interest.

IV.

Work to be Performed

Based on the foregoing Facts and Determinations, it is hereby ordered that the Port of Seattle take the following actions and that these actions be conducted in accordance with Chapter 173-340 WAC unless otherwise specifically provided for herein. Two distinct types of action will be performed under this Agreed Order: STIA Groundwater Study Tasks (Tasks IV.1 - IV.5) and STIA Fuel Systems Pollution Prevention Tasks (Tasks IV.6 - IV.7).

1. The Port will research existing technical literature, environmental and geological reports, land-use data, airport historical information, and other appropriate documents. The purposes of the research are:
 - a) To provide a background hydrogeological description of the aquifers at the airport and surrounding area, and their relation to the AOMA and potential local receptors.
 - b) To identify (1) known and potential (based on historical operations) areas of soil and ground water contamination within the AOMA and its near-vicinity (defined, for STIA groundwater study tasks, as within approximately 1/4 mile of the AOMA), and (2) potential preferred pathways of contaminant transport.
 - c) To compile a database of wells screened across the surface of the Qva aquifer throughout the AOMA and its near vicinity. The database will include, to the extent information is available, well locations, construction details, ground water elevation data, ground water quality data, and available hydrogeological data and

existing calculations (flow rate and direction, gradient, slug and pump test results, computed hydraulic conductivity, etc.).

- d) To identify any publicly recorded, operational, private drinking water supply wells within one mile of the AOMA that could potentially be impacted by contamination within the AOMA.

2. Ground water elevation data for the Qva aquifer will be acquired from a set of wells representative of the entire AOMA and its near vicinity. The representative set of wells will consist of approximately 10 - 15 wells selected from the well database compiled for Task IV.1(c). The selected wells will be located in the area of the AOMA and its near vicinity. Wells outside the AOMA will be limited to existing wells that are reasonably accessible and in useable condition. The final representative set of wells will be agreed upon by Ecology and the Port. Four quarterly rounds of ground water elevation data will be collected from the set of representative wells. Ground water elevation contours will be determined from each of the quarterly data sets. The data will be reported to Ecology after each quarterly round. If Ecology and the Port agree that additional hydrogeological data are necessary to complete the modeling described in Task IV.3, the Port will conduct the agreed hydrogeological testing on wells selected by Ecology and the Port from the representative set.

3. A ground water flow and contaminant fate and transport model will be developed utilizing appropriate data obtained in Tasks IV.1 and IV.2. The modeling will evaluate the possibility that known and potential (based on historical operations) contamination within the AOMA could impact the potential local receptors. The modeling will utilize standard software and methodology to be selected by agreement of Ecology and the Port.

4. Following the completion of Tasks IV.1, IV.2, and IV.3, Ecology and the Port will evaluate task-generated data and modeling results. Ecology and the Port will agree to

a scope of work for additional investigation activities agreed necessary, based on the results of Tasks IV.1, IV.2, and IV.3. Additional work will be stipulated in an Addendum to this Agreed Order (STIA Ground Water Study, Phase II). Additional activities could include the installation of up to 10 - 15 new wells to be used to confirm modeling results, to conduct additional characterization of ground water and/or to perform long-term monitoring of ground water as appropriate. Model results will be used by Ecology and the Port to jointly determine the need for, and the location of, new ground water monitoring wells to be installed in the Qva aquifer, or other locations, as agreed appropriate.

5. The Port will prepare a report compiling and evaluating data generated from Tasks IV.1, IV.2, IV.3, and IV.4 (STIA Ground Water Study Phase I Report). An approximate schedule of Tasks IV.1 through IV.5 activities (STIA Ground Water Study Tasks) is provided as Appendix 2.
6. Ecology and the Port will work together to assess the fuel storage and distribution systems at STIA and to identify and address appropriate fuel systems pollution prevention activities:
 - a) Ecology and the Port will consult with the owners/operators of the following fuel facilities: pipelines, fuel racks, and UST systems at STIA that are either deferred or exempt from certain provisions of the UST regulations (i.e., heating oil USTs and hydrant systems). Ecology and the Port will develop an understanding of the technical operations of each of these fuel facilities, review in-place leak detection and prevention methods, and identify technically and economically reasonable leak detection and prevention methods which could possibly be employed in addition to, or in lieu of, the methods in place.

Leak detection and prevention methods to be considered for these facilities could include, but would not be limited to: tank tightness testing, pipeline tightness

testing, internal tank inspection, corrosion protection, fuel inventory control procedures, installation of automatic tank gauging equipment, continuous pressure monitoring, best management practices, etc. Ecology and the Port will also work with owners/operators to identify reasonable time periods in which the identified leak detection and prevention methods could be accomplished.

For the purpose of determining that each deferred and exempt fuel facility is operated to reasonably detect and prevent releases to the soil and ground water, Ecology and the Port will request each owner/operator to implement the identified leak detection and prevention methods. Ecology and the Port will maintain regular contact with owners/operators to track progress and to determine whether the requested leak detection and prevention methods are accomplished within the identified time periods.

- b) Ecology will conduct an inspection of UST systems at STIA that are subject to all provisions of the Washington UST regulations (WAC 173-360). Ecology will compile and/or update system information, provide technical assistance concerning compliance with UST requirements, notify owners/operators of violations, and conduct enforcement as appropriate. Ecology will report updated system information and results of inspections to the Port.
- c) The Port will create a database for all UST systems at STIA. The purpose of the database is to enable the Port to track the changes in operations and equipment of the UST systems at STIA brought about by (1) the procedures requested in Task IV.6(a), and/or (2) the procedures and upgrades of equipment required by the UST regulations to meet the 1998 UST standards. The database will include available UST system information such as tank size, age, construction, leak detection methods, corrosion protection, associated piping, etc., for all Port owned and tenant owned/operated UST systems.

- d) For the requirements of this Agreed Order, the Port will annually, for a period of five years beginning no more than 45 days following the execution of this Agreed Order, present to the owners/operators of UST systems at STIA a written request to provide (1) information identifying changes and upgrades made to UST system equipment and operations during the past year; and (2) specific descriptions of methods and procedures used to perform leak detection/prevention during the past year. The Port will update the UST database [Task IV.6(c)] with information provided in response to these requests.
7. The Port will prepare a report presenting the results of Tasks IV.6(a) and (c), (STIA Fuel Systems Pollution Prevention Report), at the conclusion of subtasks (b) and (c). The Port will include a report prepared by Ecology presenting the results of Task IV.6(b) as an Appendix to this report. The Port will also provide annual reports (STIA Fuel Systems Pollution Prevention Followup Reports) presenting the information generated by completion of Task IV.6(d). In addition, the Port will notify Ecology of apparent differences in UST system regulatory requirements and reported system design and/or operation, as well as apparent deviation from the accomplishment of owner/operator agreed leak detection and prevention measures, whenever such apparent differences or deviations become known. An approximate schedule of Tasks IV.6 and IV.7 activities (STIA Fuel Systems Pollution Prevention Tasks) is provided as Appendix 2.

V.

Terms and Conditions of Order

1. Definitions

Unless otherwise specified, the definitions set forth in ch. 70.105D RCW and ch. 173-340 WAC shall control the meanings of the terms used in this Order.

2. Public Notices

RCW 70.105D.030(2)(a) requires that, at a minimum, this Order be subject to concurrent public notice. Ecology shall be responsible for providing such public notice and reserves the right to modify or withdraw any provisions of this Order should public comment disclose facts or considerations which indicate to Ecology that the Order is inadequate or improper in any respect.

V. 3. Remedial Action Costs

The Port shall pay to Ecology costs incurred by Ecology beginning July 1, 1996, pursuant to this Order. These costs shall include work performed by Ecology or its contractors for investigations, remedial actions, and Order preparation, oversight and administration. Ecology costs shall include costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). Ecology and the Port may enter into an agreement for the prepayment of recoverable MTCA costs related to the Airport. In the event that costs are not covered by a prepayment agreement, the Port shall pay the required amount within 90 days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff, and the amount of time spent by involved staff members on the project. A general description of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Failure to pay Ecology's costs within 90 days of receipt of the itemized statement of costs will result in interest charges.

4. Designated Project Coordinators

The project coordinator for Ecology is:

Roger Nye
Department of Ecology
Northwest Regional Office
3190 160th Ave. SE
Bellevue, WA 98008-5452

The project coordinator for the Port is:

Paul Agid
Port of Seattle
P.O. Box 68727
Seattle, WA 98168

The project coordinator(s) shall be responsible for overseeing the implementation of this Order. To the maximum extent possible, communications between Ecology and the Port concerning implementation of this Order, and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order, shall be directed through the project coordinator(s). Should Ecology or the Port change project coordinator(s), written notification shall be provided to Ecology or the Port at least ten (10) calendar days prior to the change.

5. Performance

All work performed pursuant to this Order shall be under the direction and supervision, as necessary, of a professional engineer or hydrogeologist, or similar expert, with appropriate training, experience and expertise in hazardous waste site investigation and cleanup. The Port shall notify Ecology as to the identity of such engineer(s) or hydrogeologist(s), and of any contractors and subcontractors to be used in carrying out the terms of this Order, in advance of their involvement in the project. The Port shall provide a copy of this Order to all agents, contractors and subcontractors retained to perform work required by this Order and shall ensure that all work undertaken by such agents, contractors and subcontractors will be in compliance with this Order.

Except where necessary to abate an emergency situation, the Port shall not perform any remedial actions at STIA, outside that required by this Order, that would foreclose

or preempt remedial actions under discussion or negotiation with Ecology unless Ecology concurs, in writing, with such additional remedial actions.

6. Access

Consistent with applicable safety and security requirements at STIA, Ecology or any Ecology authorized representative shall have the authority to enter and freely move about the project area at all reasonable times for the purposes of, inter alia: inspecting records, operation logs, and contracts related to the work being performed pursuant to this Order; reviewing the progress in carrying out the terms of this Order; conducting such tests or collecting samples as Ecology or the project coordinator may deem necessary; using a camera, sound recording, or other documentary type equipment to record work done pursuant to this Order; and verifying the data submitted to Ecology by the Port. By signing this Agreed Order, the Port agrees that this Order constitutes reasonable notice of access, and agrees to allow access to the project area at all reasonable times, consistent with applicable safety and security requirements at STIA, for purposes of overseeing work performed under this Order. Ecology shall allow split or replicate samples to be taken by the Port during an inspection unless doing so interferes with Ecology's sampling. The Port shall allow split or replicate samples to be taken by Ecology and shall provide seven (7) days notice before any sampling activity.

7. Public Participation

The Port and Ecology shall prepare a public participation plan for implementation of this Agreed Order. Ecology shall maintain the responsibility for public participation in the project with respect to this Agreed Order. The Port shall help coordinate and implement public participation in the project.

8. Retention of Records

The Port shall preserve in a readily retrievable fashion, during the pendency of this Order and for ten (10) years from the date of completion of the work performed pursuant to this Order, all records, reports, documents, and underlying data in its possession relevant to this Order. Should any portion of the work performed hereunder be undertaken through contractors or agents of the Port, then the Port agrees to include in their contract with such contractors or agents a record retention requirement meeting the terms of this paragraph.

9. Dispute Resolution

The Port may request Ecology to resolve disputes, which may arise during the implementation of this Order. Such request shall be in writing and directed to the signatory, or his/her successor(s), to this Order. Ecology resolution of the dispute shall be binding and final. The Port is not relieved of any requirement of this Order during the pendency of the dispute and remains responsible for timely compliance with the terms of the Order unless otherwise provided by Ecology in writing.

10. Reservation of Rights/No Settlement

This Agreed Order is not a settlement under ch. 70.105D RCW. Ecology's signature on this Order in no way constitutes a covenant not to sue or a compromise of any Ecology rights or authority. Ecology will not, however, bring an action against the Port to recover remedial action costs paid to and received by Ecology under this Agreed Order. In addition, Ecology will not take additional enforcement actions against the Port to require those remedial actions required by this Agreed Order, provided the Port complies with this Agreed Order.

Ecology reserves the right, however, to require additional remedial actions during the project should it deem such actions necessary.

Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the releases or threatened releases of hazardous substances from STIA.

In the event Ecology determines that conditions in the project area are creating or have the potential to create a danger to the health or welfare of the people in the project area or in the surrounding area or to the environment, Ecology may order the Port to stop further implementation of this Order for such period of time as needed to abate the danger.

11. Transference of Property

No voluntary or involuntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of STIA shall be consummated by the Port without provision for continued implementation of all requirements of this Order and implementation of any remedial actions found to be necessary as a result of this Order. Prior to transfer of any legal or equitable interest the Port may have in the project area or any portions thereof, the Port shall ensure that any prospective purchaser, lessee, transferee, assignee, or other successor in such interest shall provide access to Ecology, consistent with applicable health and safety requirements at STIA, to carry out the terms of this Agreed Order. In the event the project area or any portions of the project area are sold to an entity not a party to this order, the Port shall notify Ecology of the contemplated sale at least thirty (30) days prior to finalization of any transfer.

12. Compliance with Other Applicable Laws

- a) All actions carried out by the Port pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits, except as provided in paragraph B of this section.

- b) Pursuant to RCW 70.105D.090(1), no substantive requirements of chapters 70.94, 70.95, 70.105, 75.20, 90.48, and 90.58 RCW and of any laws requiring or authorizing local government permits or approvals for the remedial action under this Order are known to be applicable at the time of issuance of the Order.

The Port has a continuing obligation to determine whether additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order. In the event the Port determines that additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order, it shall promptly notify Ecology of this determination. Ecology shall determine whether Ecology or the Port shall be responsible to contact the appropriate state and/or local agencies. Substantive requirements with respect to the City of SeaTac will be determined consistent with the Interlocal Agreement between Port of Seattle and City of SeaTac dated September 4, 1997. If Ecology so requires, the Port shall promptly consult with the appropriate state agencies and provide Ecology with written documentation from those agencies of the substantive requirements those agencies believe are applicable to the remedial action.

Ecology shall make the final determination on the additional substantive requirements that must be met by the Port under this Order and on how the Port must meet those requirements. Ecology shall inform the Port in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Order.

Ecology shall ensure that notice and opportunity for comment is provided to the public and appropriate agencies prior to establishing the substantive requirements under this section.

- c) Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the exemption from complying with the procedural requirements of the laws referenced in RCW 70.105D.090(1) would result in the loss of approval from a federal agency which is necessary for the State to administer any federal law, the exemption shall not apply and PLP shall comply with both the procedural and substantive requirements of the laws referenced in RCW 70.105D.090(1), including any requirements to obtain permits.

VI.

Satisfaction of this Order

The provisions of this Order shall be deemed satisfied upon the Port's receipt of written notification from Ecology that the Port has completed the activities required by this Order, as amended by any modifications, and that all other provisions of this Agreed Order have been complied with.

VII.

Enforcement

- 1) Pursuant to RCW 70.105D.050, this Order may be enforced as follows:
 - a) The Attorney General may bring an action to enforce this Order in a state or federal court.
 - b) The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for investigative and remedial actions and orders related to the project.
 - c) In the event the Port refuses, without sufficient cause, to comply with any term of this Order, the Port will be liable for:
 - 1) up to three times the amount of any costs incurred by the state of Washington as a result of its refusal to comply; and

- 2) civil penalties of up to \$25,000 per day for each day it refuses to comply.
- d) This Order is not appealable to the Washington Pollution Control Hearings Board.
This Order may be reviewed only as provided under Section 6 of ch. 70.105D
RCW.

Effective date of this Order: 5/25/99

THE PORT OF SEATTLE

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

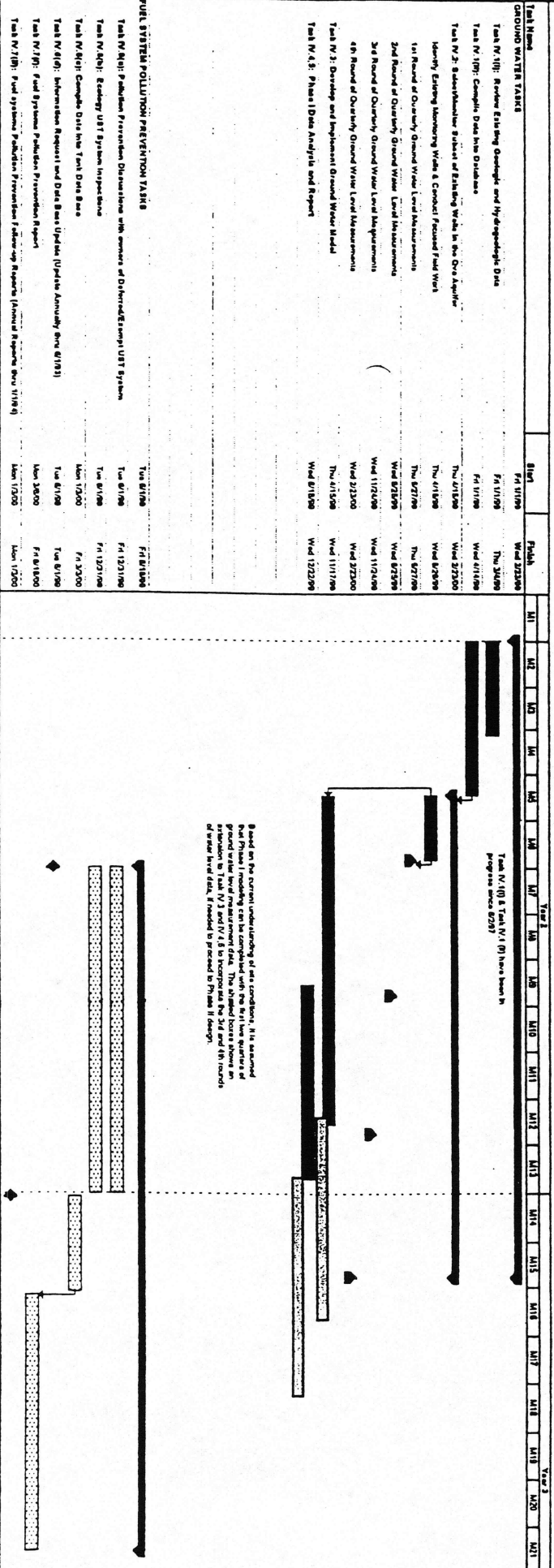
By M. L. Dunsmore By Steve M. Shydel

Appendix 1 – page 2

Sites within the AOMA that are known to have contaminants present in groundwater and/or significant soil contamination: (1)

Site	Perched Groundwater	Qva Aquifer	Jet A Only	Gasoline Only	Mixed Contaminants
United Airlines Fuel Farm/ Continental Airlines Fuel Farm	*		*		
Continental Airlines Hydrant System Closure			*		
Northwest Airlines Fuel Farm	*	*(2)	*		
Northwest Airlines Hydrant System Closure		*	*		
Northwest Airlines Hangar Tanks	*	*			*
South Satellite Baggage Tunnel (NW Airlines Hydrant Line)		*	*		
Gate B2		*			*
Delta Airlines Fuel Farm	*		*		
Delta Airlines Auto-Gas Cluster Tanks	*				*
Pan American Airlines Fuel Farm (3)			*		
Pan American Airlines Avgas Tanks	*	*	*		
Budget Auto Facility		*		*	
RAC Auto Facility (Hertz/National/Avis)		*		*	

-
- (1) Current as of January 1999
 - (2) TPH-Jet A levels in two wells slightly in excess of Method A in some sampling rounds during 1996 & 1997. All TPH-Jet A levels below Method A prior years and 1998.
 - (3) No further cleanup actions at this time. Contaminated soil remains next to active jet fuel lines.



Project ID: GW Study
Date: Fri 1/29/90

Task: Milestones: Summary:

Raised Up Task: Raised Up Milestone:

Raised Up Progress: Extended Task:

Project Summary: Mile:

Raised Up Split:

Page 1

Associated Earth Sciences Inc.

Appendix 2

*Sea-Tac Airport
Ground Water Study*

Public Participation Plan

Prepared By:

The Washington Department of Ecology
The Port of Seattle

May 1999

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1.0 Introduction

Overview

The Washington State Department of Ecology (Ecology) and the Port of Seattle (the Port), operator of Sea-Tac International Airport, are prepared to enter into a voluntary Agreed Order under the Model Toxics Control Act (MTCA, Washington's hazardous waste cleanup law). The Agreed Order is a formal legal agreement which, in this case, calls for the Port to perform two main tasks at the Airport:

- ◆ A comprehensive ground water study
- ◆ Pollution prevention activities for Airport fuel systems

Over the years, jet fuel and other petroleum products have been released to the environment at Seattle-Tacoma International Airport. These substances were released in the Aircraft Operations and Maintenance Area (AOMA, see map in Appendix A) primarily from underground storage tanks, fuel distribution piping systems and, to a lesser degree, due to aircraft maintenance activities. As a result of these historic releases, the soil and ground water beneath some portions of the AOMA are now contaminated.

Thirteen separate areas within the 1/2-square-mile (320 acres) AOMA are currently known to have ground water and/or significant soil contamination. The primary contaminant in these areas is jet fuel. Other contaminants, such as gasoline, industrial solvents, mineral spirits, lubricating oil and aircraft deicing fluids, have also been found, but in much smaller amounts. The jet fuel and other substances released at the Airport are considered hazardous substances under Washington's hazardous waste cleanup law, the Model Toxics Control Act (MTCA, chapter 70.105D, Revised Code of Washington). Environmental studies and/or cleanup activities are underway or are complete at all known contaminated areas at the Airport.

Much is already known about the ground water and the contamination beneath the AOMA. The known contamination appears to be localized and does not appear to threaten public water supplies or area surface water bodies. However, in order to confirm that the contamination is not a threat, now or in the future, a more comprehensive understanding of the ground water beneath the Airport is appropriate.

Ground Water Study

The ground water study will be conducted in two phases. The first phase will include developing a computer model of ground water flow throughout the Airport and additional modeling focused on the movement of the ground water and the contamination beneath the AOMA. The computer modeling will help identify the potential risk of the

contamination in ground water reaching public and private drinking water supply wells and nearby surface water bodies: Bow Lake, Des Moines Creek, and Miller Creek.

The second phase of the study will be described in an addendum to the Agreed Order and will include work needed to complete additional investigation activities. These Phase II activities will include drilling additional groundwater monitoring wells that could be used to verify Phase I results and to perform additional groundwater monitoring and/or investigation work.

The findings from the ground water study will be published in a report. Information from the study may be used by the parties conducting cleanups at the Airport and could provide a basis for a consistent approach to cleanup actions within the AOMA.

The ground water study is one condition the Port must meet to maintain state environmental certification of the Airport expansion project.

Pollution Prevention

The pollution prevention activities outlined in the Agreed Order are intended to enhance current pollution prevention practices at Airport underground storage tank and pipeline facilities by using a strategy of evaluating, implementing and monitoring measures that could be taken to prevent future releases of contamination to soil and ground water. These activities will be conducted by both Ecology and the Port.

The actions outlined in the Agreed Order include:

- ◆ Working with the owners and operators of Airport fueling facilities to improve leak detection and leak prevention measures. Such measures could include: tank tightness testing, pipeline tightness testing, internal tank inspection, corrosion protection, fuel inventory control procedures, installation of automatic tank gauging equipment, continuous pressure monitoring and best management practices.
- ◆ Inspecting all underground storage tank (UST) systems at the Airport for compliance with Washington's Underground Storage Tank Regulations.
- ◆ Creating a database of all UST systems at the Airport. This database will be updated annually using information provided by owners and operators of Airport fueling facilities.
- ◆ Annual reporting to Ecology on the status of all UST systems at the Airport.

The Model Toxics Control Act and Public Participation Commitment

MTCA places significant emphasis on public participation throughout the formal cleanup process. Neighboring residents, businesses and other interested parties are given the opportunity to become involved in cleanup decisions. The regulation requires "the early planning and development of a site specific public participation plan." The plan includes publishing public notices announcing the availability of reports and studies for the site, conducting public comment periods and may also include holding public meetings and hearings. Besides these basic public participation requirements, the law calls for flexibility and creativity in tailoring additional activities appropriate to each affected community. Such activities may include interviews with community members, public workshops and working with existing community groups to "get the word out."

Washington Administrative Code (WAC) section 173-340-600 includes the public participation provisions for MTCA. In addition, WAC 173-340-530 (6) includes a provision for appropriate public participation opportunities when an Agreed Order is in place.

This plan describes public participation activities for the Agreed Order for ground water evaluation and pollution prevention activities at the Seattle-Tacoma International Airport.

This plan includes required public participation activities specified in WAC section 173-340-600 as well as additional activities intended to encourage informed citizen participation in the Agreed Order.

Participants in this Plan

The Port has been identified by Ecology as the potentially liable person (PLP) for the groundwater study. The Port and Ecology are entering a legal agreement called an Agreed Order which outlines the work required of the Port and describes how Ecology and the Port will work together. Ecology's role is to oversee the Port's work to ensure that the requirements of the Agreed Order and the Model Toxics Control Act are met and to ensure that the public participation activities detailed in this plan are carried out. The Port's role is to carry out the tasks specified in the Agreed Order and to assist as needed in public participation activities.

Ecology and the Port have agreed to work in an open, cooperative and coordinated fashion on public participation activities. Each participant shares a common goal of fostering a well-informed public with a clear understanding of the ground water study and its relationship to other activities at the Airport.

Goal of this Public Participation Plan

MTCA states that public participation plans are intended to encourage a coordinated and effective public involvement tailored to the public's needs at a particular facility.

In addition to this, a primary goal of this plan is to promote public understanding of the Agreed Order and ground water study and pollution prevention activities at the Airport so that the public can provide meaningful comments on the project.

Some objectives of this plan are:

- ◆ To identify people and organizations with an interest or potential interest in the ground water study and pollution prevention processes and findings.
- ◆ To identify community concerns related to the ground water study and ways to address those concerns.
- ◆ To design and conduct public involvement activities that are appropriate and meaningful to the local and surrounding communities.
- ◆ To promote public understanding of the Agreed Order and ground water study process and findings.
- ◆ To aid communication and to encourage interaction and collaboration among Ecology, the Port and the community.
- ◆ To meet the Model Toxics Control Act public participation requirements [WACs 173-340-530 (6) and 173-340-600].

2.0 The Public Participation Process at Seattle-Tacoma International Airport

MTCA calls for public participation at important milestones in the investigation and cleanup process. The public must be provided an opportunity to comment before Ecology can give final approval for most key decisions. For this project, formal public notice and a comment period have been conducted for the scope of work for the ground water study and pollution prevention actions in the Agreed Order. Additional public notice and another comment period will be conducted for the report containing the results of the study and for any additional activities that result from the study.

This Public Participation Plan describes only the activities planned and required for the phased scope of work described in the Agreed Order and the final ground water study

report. Public participation activities for any additional phases will be identified later through an amendment to this Plan or through the development of a new Plan.

Roles and Responsibilities

In accordance with MTCA requirements, Ecology retains overall responsibility and approval authority for public participation activities for this project. Ecology, with assistance from the Port, will conduct activities related to formal public notice and comment periods, including soliciting, receiving and considering comments, making final decisions, and preparing responsiveness summaries. The Port, with Ecology's review and approval, may elect to conduct additional, informal activities such as placing project updates in existing Airport newsletters or in surrounding cities' newsletters.

All public participation activities relating to the ground water study and pollution prevention activities must be coordinated through Ecology. Both Ecology and the Port will allow each other adequate advance review time for any materials to be circulated related to this project and will notify each other in advance of any planned public appearances related to this project and immediately following any media contacts related to this project.

Points of Contact

The following people will be the primary points of contact for the general public and media and for coordinating project-related public participation activities:

Ecology:

Christine Corrigan
Public Involvement
Toxics Cleanup Program
Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008-5452
(425) 649-7254

Port of Seattle:

Rachel Garson
Community Relations Manager
Public Affairs
Seattle Tacoma International Airport
P.O. Box 68727
Seattle, WA 98168
(206) 248-6851

Required Activities

The required public participation activities for this project are as follows. Ecology is the lead for these activities; the Port will assist as needed:

1. A **30-day public comment period** for the Agreed Order was held from **May 14 to June 13, 1997**. A second 30-day public comment period will occur after the report on the results of Phase I activities and the Addendum to the Agreed Order describing proposed Phase II activities are complete.

2. Formal **public notice** for the comment periods will include the following:
- a) A mailed **fact sheet** summarizing the Agreed Order and related activities and inviting the public to comment. This fact sheet will be mailed to individuals on a mailing list developed jointly by Ecology and the Port (see description below). This list will include, but will not be limited to the "potentially affected vicinity" including adjacent property owners as well as individuals that request to be placed on the list. As of the printing of this plan, the mailing list includes more than 17,000 people.
 - b) **Display advertisements** announcing the comment period will be placed in the following newspapers: *The Seattle Times South Edition*, the *Highline News* and the *South Country Journal*.
 - c) A **notice** will be published in Ecology's Site Register.

Supporting tasks related to the above-required activities include:

Mailing List

Ecology and the Port will work together to compile and maintain a comprehensive mailing list for the project. The list will include at a minimum, adjacent property owners, individuals, groups, public agencies, elected officials and private firms with a known interest in the airport, appropriate media, as well as anyone who requests to receive project-related mailings. The list will be maintained by the Port with a current copy provided to Ecology as requested. This list will be updated as needed by the Port with Ecology's assistance.

Public Meetings and Workshops

A public meeting was held on May 21, 1997, from 6:30 to 9:00 p.m. at the Burien Library to answer questions and receive oral comments on the Agreed Order.

In addition, Ecology and the Port will conduct a public meeting/workshop after the report on the results of Phase I activities and the Addendum to the Agreed Order describing proposed Phase II activities are complete.

For public meetings during comment periods, Ecology will schedule an appropriate time and secure a meeting place. Ecology will provide public notice of the meeting and provide a record or transcript of the formal comments made at required meetings/hearings. Ecology will provide the record or transcripts to the Port. If necessary, the Port will cooperate with Ecology and assist by providing descriptive materials and personnel as needed for required public meetings. When such assistance is needed, Ecology will give the Port advance notice in order to schedule and prepare

for the meeting. For other meetings that are not required under MTCA, the Port, with Ecology oversight and approval, will take the lead in planning and coordinating meeting logistics.

Information Repositories

Information repositories will be established for the public to access documents pertaining to project activities. Information placed at the repositories will include all project-related documents requiring a comment period (the Agreed Order, for example) and any background information that may be relevant or necessary to adequately review such documents. Other information may include validated laboratory results, status reports, interim reports, fact sheets and newsletters. The following are the repositories for the Sea-Tac Airport groundwater study project:

Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452
Attn: Sally Perkins
(425) 649-7190

Sea-Tac Airport
3rd Floor, Room 301

Burien Library
14700 6th Southwest
Burien, WA

Des Moines Library
21620 11th South
Des Moines, WA

Valley View Library
17850 Military Road South
SeaTac, WA

Responsiveness Summaries

Comments received during the public comment periods will be retained in the Sea-Tac Airport files at Ecology with copies provided to the Port. Responses to comments received during the public comment periods will be compiled in a responsiveness summary prepared by Ecology. A draft responsiveness summary will be provided to the Port for review and comment. Ecology may modify the responsiveness summary based on the Port's comments. The final responsiveness summary will be sent to those who submitted written and/or oral comments and to the information repositories. Notice of the availability of the summary will be printed in Ecology's Site Register.

Additional Activities

Ecology or the Port may elect to undertake additional activities not required by MTCA for this project if deemed appropriate and agreed to by all parties.

The following are additional activities that are currently scheduled for this project:

- Project updates will be published in Sea-Tac Forum, the Airport's newsletter.
- At least one workshop/open house will be held at the conclusion of Phase II activities of the ground water study.
- Informal briefings about the ground water study will be made to local area municipalities upon request.
- Ecology will provide notice of the public comment period and any project related public meetings, hearings, open houses or workshops on Ecology's Toxics Cleanup Program homepage on the Internet. In addition, when possible, documents relating to the project will be made available on the Toxics Cleanup Program's homepage.

The following activities may be undertaken by either Ecology or the Port at appropriate points during the course of the project:

- **Media releases** may be issued to the local newspapers, radio, and TV stations.
- **Public notices** may be posted at the information repositories, in the vicinity of the airport, or any other location appropriate to the interests and needs of the citizens in the airport area.

All additional public participation activities beyond those required by MTCA must be coordinated with the required public notice activities. This means that any party choosing to undertake such activities will notify the other parties in advance and will provide an opportunity to review and comment on any materials before they are made public. Ecology maintains review and approval authority over all additional public involvement activities.

Ecology and the Port will each maintain regular contact with interested community groups and individuals and agree to share information gained from these contacts with each other.

Updates to the Public Participation Plan

This plan will be updated when and if additional phases of the project take place as formal actions.

3.0 Community Profile

Community Background

Sea-Tac Airport, operated by the Port of Seattle, is the international air transportation hub of Washington State and the northwestern area of the United States and serves as the primary commercial airport for the Pacific Northwest. In 1996, 24.6 million passengers used Sea-Tac and 388,000 metric tons of cargo was shipped through Sea-Tac. There are about 1,200 flights per day in and out of Sea-Tac.

The Airport handles about \$5 billion in two-way trade each year. The Port facility, its airline tenants and concessionaires employ 17,000 people at the Airport and indirectly about 20,000 more off-site at Airport-related businesses such as hotels and car rental companies. It also supports the state's growing tourism business.

Sea-Tac Airport is located entirely inside the city limits of SeaTac. The Airport encompasses over 2,500 acres. Other cities adjacent to the City of SeaTac are Des Moines, Tukwila, Burien and some parts of unincorporated King County.

The areas built up in this area are just under 50% residential, 17% open space or agricultural, 12.6% commercial or industrial, 11% airports (Sea-Tac and Boeing Field) and 10% other uses.

Community Concerns

The Port of Seattle has a long history of working and communicating with surrounding communities on issues related to Airport operations. Through these continuing relationships with the local communities, the Port has a good understanding of community concerns and issues.

The communities surrounding the airport have had long-standing concerns about aircraft noise, air pollution, contamination of groundwater and streams near the airport, and other issues related to airport operations and construction. The primary current issue of interest in the community is the proposed expansion of the Airport, specifically the addition of a third runway. There are a wide variety of concerns about the third runway, some of which are related to perceived environmental impacts. The residents in the immediate areas around the Airport receive the greatest impacts from the airport.

There has been particular concern expressed about Airport surface water management. Several legal actions have been filed against the Port on water drainage issues and either have been settled or are awaiting disposition.

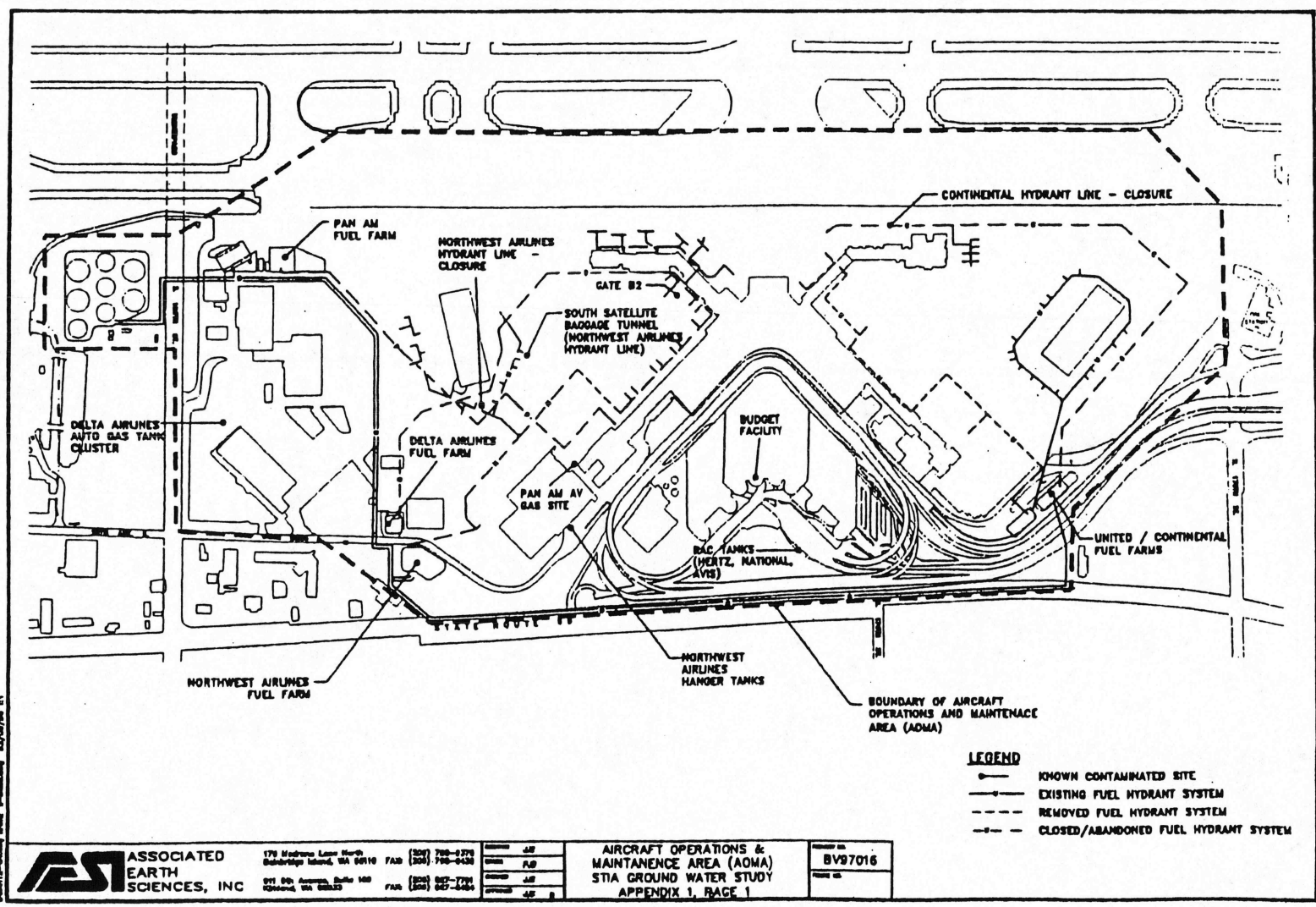
Concerns about ground water have been voiced, especially as they relate to the potential for contamination to impact drinking water. Data now available indicate that such a potential is small. The ground water study is being conducted to increase the level of certainty about these concerns.

During community interviews, a number of people (more than 10) indicated an interest in learning about how the Agreed Order and ground water study will impact decisions related to the National Pollutant Discharge Elimination System permitting process.

The cities around the Airport have expressed concern about Airport growth and its impacts and have formed a coalition, called the Airport Communities Coalition (ACC) to oppose the third runway. The coalition includes Burien, Des Moines, Tukwila, Normandy Park, Federal Way, and the Highline School District. The ACC filed suit against the Port of Seattle and the Puget Sound Regional Council after each approved in 1996 the addition of a third runway at Sea-Tac. The suit contends that the environmental impact statement for the Airport Master Plan that includes the new runway is inadequate. The ACC also alleges that the Port and the Puget Sound Regional Council violated the state's Growth Management Act when they approved the new runway.

In addition to ACC, the formal coalition of cities against the third runway, there are several grass roots groups that oppose expansion of the Airport and also work on environmental issues related to airport operations.

Appendix A
Map of the AOMA



11

15. 04/02/78

	ASSOCIATED EARTH SCIENCES, INC 179 Madison Lane North Sandbridge Island, VA 22110 (804) 798-2276 (804) 798-0038	FAX (804) 798-2276 FAX (804) 798-0038	AIRCRAFT OPERATIONS & MAINTENANCE AREA (AOMA) STA GROUND WATER STUDY APPENDIX 1, PAGE 1	DRAWING NO. BY97016 DATE
	271 8th Avenue, Suite 160 Oakland, CA 94612 FAX (510) 507-7791 (510) 507-6884	FAX (510) 507-7791 (510) 507-6884		DRAWING NO. BY97016 DATE

Appendix B

Community Groups

Airport Communities Coalition (ACC)
City of Des Moines
21630 11th Avenue South
Des Moines, WA 98198

**Regional Commission on Airport Affairs
(RCAA)**
19900 4th Avenue Southwest
Normandy Park, WA 98166

Citizens Against Sea-Tac Expansion (CASE)
31500 1st Avenue South #14-103
Federal Way, WA 98003

Nye, Roger

From: Nye, Roger
Sent: Wednesday, June 09, 1999 3:10 PM
To: Wietfeld, John
Subject: FW: Possible Utilization of Ecology Contract Services

FYI

-----Original Message-----

From: Nye, Roger
Sent: Tuesday, June 08, 1999 11:55 AM
To: 'Paul Agid'; 'Elizabeth Leavitt'
Cc: Wang, Ching Pi
Subject: Possible Utilization of Ecology Contract Services

Hello Both:

We (Elizabeth and I) have talked briefly about the possible use of Ecology's contract consultant (SAIC) to provide assistance to Ecology in the review of technical material regarding the Agreed Order. As per Elizabeth's request here is an E-Mail which further articulates that notion.

1. The project needs as much credibility as possible. This is not to say that Ecology has concerns about the credibility or expertise of the Port or Port consultants.

However:

(a) A large component of the public comments received called for an independent review of the project by Ecology. We do that anyway in the Agreed Order process, but in this situation, having SAIC involved would lend credibility and independence to Ecology's own review of the project (Ecology and its consultant evaluating the Port and its consultant).

Furthermore:

(b) There is the unfortunate possibility of a legislatively-mandated completely independent study by Ecology's WQ Program which could in large part duplicate the work done in the Agreed Order regarding a conceptual model of groundwater at STIA. Having SAIC involved in Ecology's review, again, would provide additional credibility to the Port-generated model.

2. Ecology's review of the technical material regarding the Agreed Order should and will involve more staff than just myself as per our usual internal procedure. However, there could be a problem in terms of staff availability with experience in modeling to accomplish timely review of the material. Utilizing SAIC would help alleviate the problem.

My vision is that SAIC's involvement in the project would be passive. SAIC would provide technical assistance to Ecology as needed in evaluating and

approving the work done by Port consultants in terms of reasonableness, defensibility, what-ifs, etc.

It is hoped that the Port will find the involvement of SAIC in the project as described above agreeable, and furthermore, be agreeable to paying SAIC's charges as part of the project's costs as per the MTCA (173-340-550(a)). Costs for SAIC are not simply additional costs as (1) I believe the project could move along faster, and (2) SAIC's charges would partly be in lieu of additional Ecology staff charges. Ecology would be willing to involve the Port in identifying SAIC's specific activities as the project unfolds.

In order to facilitate the process to procure SAIC's services for review of the conceptual model, I need to hear back from you concerning this situation as soon as you can manage. Thank you.



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (425) 649-7000

August 23, 1999

TO: Steven M. Alexander
Section Head, Toxics Cleanup Program, NWRO

FROM: Roger Nye

SUBJECT: Requested Write Ups Regarding Sea-Tac Airport

You asked me to write up two items: (1) the Toxics Cleanup Program's historical involvement at Sea-Tac Airport, and (2) the current workload regarding Sea-Tac Airport. I have also included anticipated future workload.

(1) Historical Involvement:

There are several individual MTCA sites (currently 15) within Sea-Tac Airport. The sites are mostly widely scattered and physically not connected. Jet fuel and gasoline are the most abundant contaminants and deep groundwater (70- 90 ft. bgs.) is impacted at about 1/3 of the sites. Independent cleanup actions have been / are ongoing at the sites by various responsible parties under different timelines. Responsible parties include tenant airline and rental car companies, Olympic Pipeline Co., and the Port of Seattle (POS).

There are public water well fields both north and south of the airport, and three suburban streams head near the edges of the airport. Given known information at the individual MTCA sites, the current risk to the wells and streams appears to be minimal. The MTCA sites have always been tracked and dealt with individually. Sea-Tac Airport has never been treated as a single "facility" with the MTCA sites as "operable units". Sea-Tac Airport has never been ranked as a single facility, nor have any of the individual MTCA sites been ranked. A new jet fuel pipeline system for the airport owned and operated by Olympic Pipeline Company is in the planning stages.

The original Prepaid Position Policy (attached) came out in April 1991. In May 1991 Glynis Carrosino became a prepaid position for the POS. According to the scope of work in the attendant inter-agency agreement, her focus was primarily on formal actions for cleanup of marine sites. Glynis was also to provide technical assistance regarding the independent cleanups at Sea-Tac Airport. During 1992 the POS decided it wanted a second prepaid position dedicated to Sea-Tac Airport and an interagency agreement with a scope of work specific to Sea-Tac Airport (attached) was formulated. Sometime during 1992 (?) a second prepaid position dedicated to the airport (Linda Priddy) was retained.

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Steve Alexander
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Linda came from the EPA and the POS paid for her move from Washington DC to Seattle. It took Linda some months to learn the regulations and become familiar with the MTCA sites at the airport. During the summer of 1993, Linda instigated the process to put three or four of the major MTCA sites at the airport under Agreed Orders. Because of its role as property owner, the POS was listed as a PLP at each site along with the responsible Airline Company. This action and/or the manner by which it was implemented greatly antagonized the Port and three Airline Companies. I heard that the POS told Linda that "this is not what we are paying you for". I believe the POS may have considered formally canceling (as per the Prepaid Position Policy) the airport prepaid position, which would have left Linda unemployed. During the fall of 1993, Linda found a job with EPA in Seattle and left Ecology.

I was selected as the POS's next prepaid position for Sea-Tac Airport during February 1994. During the interim after Linda left, Ecology management apparently agreed to back off from issuing Agreed Orders for the airport sites. The Airline Companies promised to be more aggressive regarding their independent cleanups (which they subsequently were). My prepaid position role as I understood it was to learn about and become involved in the independent cleanups at Sea-Tac Airport, render technical assistance, and proceed to a formal action only in the face of recalcitrance to accomplish cleanup independently. (As it turned out, much of my time as the Port's prepaid position for Sea-Tac Airport was actually spent working on two Port marine sites - Southwest Harbor Project, and the GATX terminal).

By the summer of 1995, I had become uncomfortable about what my role as a prepaid position had evolved to at the airport and that it was not in conformance with the Prepaid Position Policy. I was not only rendering technical assistance, but was rendering regulatory "arm twisting" towards airport tenants as well. Also, the expectation developed for me to "approve" the various independent cleanup actions, often in writing (there was no IRAP or VCP policy at this time). Furthermore, there was no signed Agreed Order at Sea-Tac Airport and little prospect for one. (There had been one good opportunity for an Agreed Order at a site where cleanup was stalled by finger pointing between multiple PLPs. The POS was adamant however, that all efforts be exhausted to resolve the situation independently first, and it was in the end).

I voiced my concerns to Mike Gallagher, and he, Mary Burg, Kathy Gerla, and myself, subsequently had a meeting regarding continuing the prepaid position at the airport. The decision that came out of the meeting was that the prepaid position could continue status quo, but that there had to be an Agreed Order "at least about something" at the airport. Also, we would reevaluate the situation after another year.

After becoming familiar with the MTCA sites, I had recognized the need to do a comprehensive risk assessment regarding the groundwater contamination at the airport

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(particularly in regards to possible unidentified solvent contamination). The POS had already tentatively agreed to do this project. Given the requirement for an Agreed Order to keep the airport prepaid position going, the POS agreed to do this groundwater project under an Agreed Order.

During the summer of 1996, Mike Gallagher, Mary Burg, Kathy Gerla, and myself met again to discuss the prepaid position at the airport. During the past year some progress had been made towards an Agreed Order, but it was far from complete. The Port was not enthusiastic about the project. The decision was made to temporarily discontinue my prepaid position effective August 1996. The prepaid position was not permanently "cancelled" as per the procedure in the Prepaid Position Policy; the interagency agreement was simply not renewed by Ecology. The interagency agreement is typically renewed (signed by both parties) each year. I believe Kathy Gerla told the POS they could have the prepaid position back when there was a signed Agreed Order in place.

Work did continue on the Agreed Order. By May 1997, an unsigned draft Agreed Order was completed and went out for public comment. I had thought the groundwater study for the airport was a benign, in-the-citizen's-interest, no-one-could-argue-with-it project. To my wonder, there were over 600 comments received (the citizen's say 1,000), all mostly opposing the Agreed Order. About two years later, the final Agreed Order was signed May 25th, 1999, and work on the project is now fully in progress.

Even though the prepaid position ended in August 1996, my involvement with Sea-Tac Airport in some form or another continued to dominate about 60% of my time. Post prepaid-position activities involving Sea-Tac Airport include the following:

1. Completed the final Agreed Order incorporating changes based on public comments.
2. Completed about 2/3 of the Responsiveness Summary (RS). The part of the RS completed includes repetitive comments and global issues sensitive to the Port. Much of the public comment concerned the applicability of Water Quality laws to the project. It was necessary to coordinate with the WQ section regarding its NPDES permit and the permit's attendant response summary. WQ and TCP AGs had to be involved. The Port wanted to establish language in the RS acceptable to it before signing the Agreed Order. The Port was comfortable with the 2/3 of the RS that was finished and signed the Order.

Actions (1) and (2) were wordsmithing marathons with a Port attorney and took much time. All that time was charged to and has been paid by the Port.

3. Answered extensive executive correspondence. The Agreed Order caused a flurry of letters from the public to the Governor, Tom Fitzsimmons, and Mike Rundlett. I drafted all the answers.

4. Ongoing participation in and management of the groundwater project. This included review of submittals, assistance with data compilation, technical discussions, etc. The Port paid for this activity.

5. Ongoing technical assistance (if anything, my role is this regard increased given the many new issues and situations that seemed to constantly arise at Sea-Tac Airport). This technical assistance included reviewing the many independent cleanup reports submitted from sites at the airport. The Port no longer paid for this technical assistance, but most of it was UST or LUST related, and my time for this was charged to federal dollars. Also some of the technical assistance was somewhat related to the Agreed Order and charged to that.

6. In the fall of 1997, Representative Karen Kaiser from the 33rd District declared that an environmental catastrophe was in the making in the form of abandoned home heating oil tanks on Port property north and south of the airport and adjacent to it. She demanded that Ecology investigate the situation and I was handed the project. The Port had purchased and demolished hundreds of homes in the 70's and 80's to establish uninhabited clear aircraft approach and take off zones to the airport. The theory was that hundreds of abandoned oil-filled tanks were buried in these clear zones and would impact the Highline Aquifer and local streams. The north clear zone was adjacent to the City of Seattle's Highline Well Field. I investigated the risk posed by the heating oil tanks and also possible mitigation measures that could be taken. It took me about four months to complete a report that Director Fitzsimmons presented to Representative Kaiser.

7. Participated in the Governor's Certification process for the Third Runway as the TCP member of the "Sea-Tac Team". In order to qualify for federal money to build the runway, the Port had to obtain this certification from the state that the project was "environmentally okay". The Team established several environmental criteria and tasks the Port had to do as a condition for the certification. Completion of the MTCA Agreed Order for the groundwater study was one condition.

8. Ongoing participation in the 401/404 permitting process to build the Third Runway. A condition of the permit is that "toxic material in toxic amounts" cannot be used as fill. As a TCP member of the group, I was requested to provide technical assistance regarding that issue. I negotiated a "clean fill criteria" policy with the Port that provided contaminant screening level guidance for imported fill and a site specific process to insure the screening levels are met. The policy calls for ongoing monitoring by Ecology of the site-specific process. The policy does not preclude the use of contaminated material as fill, but Ecology's approval is required if the Port proposes to do so.

There was no billable time for activities (6), (7), and (8).

(2) Current Workload:

1. Complete the current Responsive Summary for the Agreed Order. The document must be completed at least before the Phase I report comes out (possibly by the end of the year). If I almost didn't work on anything else, I possibly could get it done myself by then. Finding a temporary person to work on the RS could be difficult and time consuming, and is there funding? The person would have to have knowledge of MTCA, Water Quality Regs., have appropriate technical expertise, and be a really quick learner.
2. Ongoing management of the groundwater project itself. This includes evaluation of and approval of various technical aspects of the work presented by the Port's consultants. The intent was for Ecology to get set up with the modeling software and do independent simulations. The use of SAIC or another consulting company could help with this work. The Port has agreed there needs to be a balance of expertise on Ecology's side of the table, but was not favorably disposed towards SAIC because of professional opinion and because SAIC has no local modeling expertise. The Port wanted to see if the company selected for the Legislatively-mandated Third Runway study would be acceptable and could be utilized by Ecology (particularly since that company would be utilizing data from the MTCA groundwater study). PGG was selected to do the Third Runway study and was the Port's particular pick. Unfortunately Ecology either has to use SAIC or put the work up for bid. As per John W., Ecology cannot just directly hire PGG. There is no guarantee that PGG would bid, particularly since they were selected to do both the Third Runway and Maurey Island studies, and may have a full plate.
3. Conduct UST inspections for all USTs at Sea-Tac Airport. This Agreed Order is unique (and commendable) because it mandates pollution prevention actions in the form of conducting UST inspections for all tanks at the airport. Results of these inspections are to be part of the Agreed Order Phase I report. The order also mandates working with unregulated USTs at the airport to establish voluntary leak detection and this work also has to be done.
4. Evaluate environmental implications and proposed closures of MTCA sites related to the South Terminal Expansion Project (STEP). The STEP project is a major expansion of Concourse A involving the demolition of three airline hangars (potential MTCA sites). There are also seven MTCA sites within the footprint of the STEP. Environmental assessments are being done regarding the hangar demolitions. The Port, Delta Airlines, and Northwest Airlines and their respective consultants have collaborated and are proposing basically a walk-away cleanup remedy for their respective sites via the Interim TPH Policy. Delta Airlines and Northwest Airlines have already submitted reports (the Port has yet to do so for its sites). At this point it is not known whether the airlines or the Port are requesting a formal VCP review by Ecology (Northwest Airlines has tentatively indicated it may). Regardless of whether these cleanup actions go through the VCP, it is

important for Ecology to evaluate them because a walk-away cleanup scenario will not set well with the public. We need to make sure the Interim TPH Policy was followed and otherwise evaluate the information as we could be defending ourselves in front of a legislator on short notice.

5. Catch up on the backlog of independent cleanup reports (many as relate to item #5).
6. Catch up on backlog of Initial Investigations and listings of new MTCA sites at the airport.
7. Respond to the ongoing demand for technical assistance regarding airport issues.
8. Participate as member of the internal workgroup overseeing the Legislatively mandated study of the Third Runway. This project has taken significant time to date and has included helping prepare the initial scope of work and RFP; reviewing bid proposals, and participating in the final selection of a consulting company to do the work. This project will continue to take significant time during the life of the project (until next June) in terms of helping to manage the project (there are three of us on the internal workgroup). It is appropriate to participate in this project because it interfaces with the MTCA groundwater study.
9. Ongoing participation in the 401/404 permit process. Although the Clean Fill Criteria Policy is completed, I should help craft the specific language in the permit that implements the policy. This activity is not anticipated to take significant time unless TCP does the reviews and approvals that the policy specifies.
10. Conclude cleanup at the United – Continental cleanup site. I facilitated cleanup at this site while I was the prepaid position by getting multiple PLPs to work together. As a condition for not issuing an Order, the PLP group promised to accomplish specific cleanup actions. Some of these actions have not been accomplished, and there appears to be no intention of accomplishing them. The PLP group should be confronted to keep the promises they made (or provide rationale why they did otherwise.)

(3) Anticipated Future Workload:

After Phase I of the Agreed Order is completed (target date end of this year), the results of Phase I and a draft Addendum to the Agreed Order describing proposed actions based on the results of Phase I will go out for public comment. A public meeting / workshop will be held at that time. The public comment period will most likely generate another very large Responsiveness Summary. The Addendum will be finalized and the activities outlined will be carried out (Phase II of the Agreed Order). These activities will include drilling several monitoring wells, taking water level elevations and groundwater samples

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Steve Alexander
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over time, additional modeling based on the new data, completing a report describing Phase II results, and holding a final public meeting / workshop. A very approximate time for completing Phase II of the Agreed Order is the summer / fall of 2001.

If this Agreed Order shows the need for significant additional cleanup actions at Sea-Tac Airport beyond the independent cleanups at the individual MTCA sites, it may be appropriate for Ecology to initiate another Agreed Order with the Port to accomplish these actions.

October 16, 2000

TO: Steve Alexander, TCP Section Head, NWRO

FROM: Roger Nye

SUBJECT: Clarifications Regarding Issue of Changing Scope of Agreed Order to Include Cleanup Actions or a CAP

The short answer is that Ecology already has an agreement with the Port regarding this issue. Background information must be provided to understand how this came about and what it is.

My predecessor in the prepaid position for Sea-Tac Airport, Linda Priddy attempted to put four of the major MTCA sites where cleanup was going on independently under formal Agreed Orders. In this attempt, Ms. Priddy's relation with the Port, in particular Elizabeth Leavitt, became so bad that Ms. Priddy found another job with the EPA and left Ecology in the fall of 1993. It is my understanding that subsequently Ecology agreed to back off from pursuing these particular Agreed Orders, and the PLPs (airlines) promised to more proactive in conducting their cleanups, which they were.

I competed for and was selected to be the Port's prepaid position for the airport in April, 1994. For some reason that I still don't understand, Ecology allowed the Port to have another prepaid position without the issue of having an Agreed Order at the airport resolved as is required by the prepaid position policy. A meeting was held on September 30, 1994 that involved Mike Rundlett, Mike Gallagher, Kathy Gerla, myself, Dave Aggerholm (head of all environmental things at the Port), Tom Newlon (head attorney for the Port) and Paul Agid. The purpose of the meeting was to discuss whether or not the prepaid position could continue at the airport without an Agreed Order for the airport.

I had raised the idea of possibly doing a large-scale evaluation of groundwater at the airport to account for possible unknown contaminant sources (sort of an RI for groundwater) and the idea had been bantered around somewhat but there had been no serious moves towards implementing it at that time. The upshot of the meeting was that the Port agreed to do this groundwater evaluation under an Agreed Order to comply with the prepaid position policy, and Dave Aggerholm apparently thought the idea was environmentally appropriate. The Port put Paul Agid in charge of the project, who I later found out argued strongly against the Port doing this project. The Port could have refused to do the groundwater project at that time and elected instead to end the prepaid position. It is very doubtful Ecology would have pursued the idea of a groundwater evaluation at the airport further.

As a condition for doing the groundwater evaluation project however, the Port wanted the results of the project (if the results of the project indicated there was no risk) to be incorporated into an Ecology-approved risk-based presumptive remedy scenario applicable to the airport. Sometime in late 1994 or early 1995, I went to Olympia and presented the known technical issues of contamination at the airport and the possibility of doing a risk-based cleanup remedy scenario there. I made the presentation to Curtis Dahlgren, Craig McCormack, Carol Krage, and Lynn Coleman. The consensus of this group was that a risk-based remedy scenario was appropriate for the airport given that the risk of the contamination appeared to be low, and if the groundwater project verified that the risk indeed was low. The group also suggested however, that in return for Ecology's approval of a risk-based remedy scenario at the airport that the Port should be more proactive in preventing contamination at the airport, which is why there is a pollution prevention component to the Agreed Order.

By early 1997 the details of the Agreed Order for a groundwater evaluation and pollution prevention activities had been completed, and also the details of a risk-based presumptive remedy scenario for the airport if the groundwater evaluation demonstrated low risk had been completed. Two years seems like a long time to complete this work, but it must be realized that work on the groundwater project took place only very sporadically. Most of my time was taken up being involved in Port marine projects unrelated to the airport and also many other issues at the airport.

The Port wanted the language regarding the risk based remedy scenario to be included in the Agreed Order, but Kathy Gerla declined saying that it was inappropriate to include a remedy in the Agreed Order before the groundwater evaluation (RI) had been completed. Consequently the language of the risk based presumptive remedy scenario for the airport was stated in a separate document which became known as the "side letter". The idea was that Mike Gallagher would sign this document and present it to the Port once the groundwater project was finished given the results of the project demonstrated no risk.

Paul Agid of the Port and I provided and agreed on the technical details, but the language in the side letter was worked out directly between Kathy Gerla and Tom Newlon of the Port, and later on Jerri Thomas and Tom Newlon. There was a long process arriving at the language of the side letter and it went through many drafts and I have much documentation regarding that process. TCP management including Mary Burg was aware of and approved of this risk-based presumptive remedy approach, and as I remember the mindset was that it was a creative and reasonable approach.

The "side letter" is attached to this write up along with an interim draft. The details of the presumptive risk-based remedy scenario are self-explanatory. Keep in mind this was all done before the Interim TPH policy came about and the ITPH policy has actually rendered much of this risk-based remedy scenario moot.

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There is another issue regarding cleanup actions at Sea-Tac Airport related to this Agreed Order. The Agreed Order contains no language regarding remedial actions that could be taken if the Agreed Order did demonstrate there was a risk that needed to be addressed. In negotiating the language of the Agreed Order I did attempt to go down that road but the Port objected strongly. In the end it was the consensus of Mike Gallagher, Ching-Pi and myself that we wouldn't put that kind of language in the Agreed Order and that Ecology would elect to formally become involved in any subsequent remedial actions if warranted when the time came.

April ?, 1997

Paul Agid
Environmental Management Specialist
Port of Seattle, SeaTac Airport
P. O. Box 68727
Seattle, WA 98111-1209

Dear Mr. Agid:

As you are aware, the Department of Ecology and the Port of Seattle are in the process of implementing a MTCA Agreed Order for conducting a remedial investigation of groundwater at SeaTac International Airport (STIA). This letter is intended to provide informal advice and assistance concerning how information generated by the Agreed Order may relate to cleanup actions at STIA.

The purposes of the groundwater investigation are: (1) to acquire a more comprehensive understanding of groundwater flow characteristics; and (2) to acquire a more comprehensive determination of the nature and extent of any groundwater contamination at the site, particularly downgradient (west) of the Aircraft Operations and Maintenance Area (AOMA) section of STIA.

We have had preliminary discussions about the likely options for cleanup if analyses and modeling of existing data and data acquired through the groundwater investigation shows by comparison with the MTCA standards in effect at the conclusion of the groundwater study: (1) there is not threat to public water wells and surface waters from contamination within the AOMA via a groundwater pathway; and (2) there is no groundwater contamination downgradient (west) of the AOMA. The comprehensive groundwater investigation data would be downgradient groundwater information applicable in general to the individual sites within the AOMA.

Based on the information Ecology has reviewed to date, it appears that a common framework of "standard" cleanup actions for sites within the AOMA would be appropriate because the contaminated sites are very similar. The sites

Paul Agid
April ?, 1997
Page 2

are mostly contaminated with jet fuel, have similar hydrogeology, are capped, are in proximity to each other, and remediation is mostly difficult because of aircraft operations.

If the groundwater study shows there is no threat to human health and the environment as described above, the "standard" cleanup actions would include:

- Site characterization and recovery of free product;
- Concrete or asphalt capping;
- Long-term monitoring; and
- A deed restriction.

No active remediation of contaminated soil or dissolved-phase contaminants in groundwater would be done.

The "standard" cleanup actions would not apply at some sites where site-specific conditions require remediation of soil and dissolved-phase contamination in groundwater. Site-specific conditions could include: sites where contamination is easily accessible, sites with high BTEX values in groundwater, and sites where contamination would likely migrate outside airport property.

Based on what we now know, these are the types of remedies that Ecology would currently accept in any review of independent remedial action reports under the IRAP program for applicable sites at SeaTac Airport, as long as the groundwater study results are as described in this letter.

Please keep in mind this letter is provided as technical assistance pursuant to WAC 173-340-130(3) (1990 ed.), and is not an approval of any cleanup action.

Sincerely,

Michael J. Gallagher
Section Manager
Toxics Cleanup Program
Northwest Regional Office

MJG:rn

cc: Jerri Thomas, Attorney Generals Office



Christine O. Gregoire

ATTORNEY GENERAL OF WASHINGTON

Ecology Division

629 Woodland Square Loop SE 4th Floor • Lacey WA 98503

Mailing Address: PO Box 40117 • Olympia WA 98504-0117

Roger Nye -
Sorry I walked
off w/ your copy, Roger
-Mary

MEMORANDUM

July 2, 1996

ATTORNEY CLIENT
PRIVILEGED
COMMUNICATION

TO: Mary Burg, Program Manager, Toxics Cleanup
Mike Gallagher, Section Head, NWRO
Roger Nye, NWRO

FROM: Kathy Gerla, Assistant Attorney General *KG*

RE: SeaTac Airport--Status Update for July 16 Meeting

Letter Regarding Cleanup Options

On June 14, Tom Newlon (the Port's attorney) and I discussed the SeaTac Airport site--in particular, the letter we proposed in March discussing likely cleanup options after the area-wide groundwater study is completed. A copy of the proposed letter is attached. The Port has indicated it needs this letter, or something like it, in order to proceed with the groundwater study.

The Port would like four changes to our proposed letter:

1. Page 2, second sentence: Replace "sites with good access" with "sites where contamination is easily accessible".
2. Page 2, second sentence: In the phrase "sites where contamination could migrate outside airport property," replace "could" with "would likely".
3. Page 2, second paragraph, first sentence: Change "would likely accept" to "would currently accept".
4. The Port would like the letter signed by someone higher in management than Roger, preferably Mary Burg or above.

While I have no problems with the first two changes (those are technical issues for you, Roger), I do have concerns with the last two, and would like to discuss them at our upcoming meeting.

3/22/96

DRAFT

[LETTER TO PORT OF SEATTLE]

RE: SeaTac Airport

As you are aware, the Port of Seattle and the Department of Ecology are in the process of negotiating an agreed scope of work for conducting a remedial investigation of groundwater at SeaTac International Airport (STIA). This investigation will be performed under a MTCA Agreed Order.

The purposes of the groundwater investigation are: (1) to acquire a more comprehensive understanding of groundwater flow characteristics; and (2) to acquire a more comprehensive determination of the nature and extent of any groundwater contamination at the site, particularly downgradient (west) of the Aircraft Operations and Maintenance Area (AOMA) section of STIA.

We have had preliminary discussions about the likely options for cleanup if analyses and modeling of existing data and data acquired through the groundwater investigation shows: (1) there is no threat to public water wells and surface waters from contamination within the AOMA via a groundwater pathway; and (2) there is no groundwater contamination downgradient (west) of the AOMA. The comprehensive groundwater investigation data would be downgradient groundwater information applicable in general to the individual sites within the AOMA.

Based on the information Ecology has reviewed to date, it appears that a common framework of "standard" cleanup actions for sites within the AOMA would be appropriate because the contaminated sites are very similar. The sites are mostly contaminated with jet fuel, have similar hydrogeology, are capped, are in proximity to each other, and remediation is mostly difficult because of aircraft operations.

If the groundwater study shows there is no threat to human health and the environment as described above, the "standard" cleanup actions would include:

- Characterization and recovery of free product;
- Concrete or asphalt capping;
- Long-term monitoring; and
- A deed restriction.

No active remediation of contaminated soil or dissolved-phase contaminants in groundwater would be done.

DRAFT

The "standard" cleanup actions would not apply at some sites where site-specific conditions require remediation of soil and dissolved-phase contamination in groundwater. Site-specific conditions could include: sites with good access, sites with high BTEX values in groundwater, and sites where contamination could migrate outside airport property.

Based on what we now know, these are the types of remedies Ecology would likely accept in any review of independent remedial action reports under the IRAP program, as long as the groundwater study results are as described in this letter. Please keep in mind this letter is provided as technical assistance, pursuant to WAC 173-340-130(3) (1990 ed.), and is not an approval of any cleanup action.

October 16, 2000

TO: Steven M. Alexander, TCP Section Head, NWRO

FROM: Roger Nye

SUBJECT: Addendum to Update Previous Write up Dated August 23, 1999
Regarding Sea-Tac Airport

Many of the activities identified as "Current Workload" in the previous write up have been ongoing. These have included activities directly related to the Agreed Order such as:

1. The Port provided informational meetings and submitted technical material regarding the data compilation for and computer construction of the groundwater flow model. All submittals were reviewed as time allowed and informal comments provided to the Port along with affirmations that the work appeared to be progressing satisfactorily.
2. Internal Ecology databases were researched to find leaking underground storage tank (LUST) sites and non-LUST sites in the area encompassed by the groundwater flow model data were researched to find boring log information that would provide hydrogeological information in gaps in the Port data. The files for all appropriate sites were reviewed and the boring log information compiled to augment the Port data.
3. Information in Ecology's UST database was compiled regarding all USTs at Sea-Tac Airport and compared to the Port's database regarding the USTs at the airport. Discrepancies were determined and corrected. A complete list of all USTs to be inspected at the airport as per the order was compiled. The inspection of all USTs at the airport is proceeding at this time.
4. The Agreed Order calls for a set of "representative wells" to be selected to provide precise data regarding groundwater flow in the contaminant source area of the airport. Some wells immediately outside the airport not on Port property would have been helpful in this regard and much effort was put into gaining access to wells at various MTCA sites near the airport.
5. A second Fact Sheet regarding progress on the Agreed Order was drafted and sent out to all interested parties.
6. Technical assistance and information was provided regarding the Agreed Order, which included meetings with airlines and their consultants, and letters to citizens.
7. Progress continued on finishing the Responsiveness Summary. At this time the Responsiveness Summary is complete except for final editing.

October 16, 2000
Steve Alexander
Page 2

Other activities regarding sea-Tac Airport included the following.

I participated as a member of the internal workgroup that provided oversight of the Legislatively mandated study of the Third Runway. This participation included reviewing requests for proposals from bidding consultants, reviewing submittals, helping select consultants and reviewing work results. My participation in this project has now ended.

To do at least some of my share of VCP reviews, I attempted to do the ones submitted for sites at the airport, which pertained to MTCA sites in the areas where new airport construction was to take place. The situations regarding some VCPs presented particularly thorny technical issues in regards to residual saturation values and other Interim TPH Policy methodologies used. In trying to resolve these issues, I worked with other personnel here and in Olympia, met with the PLPs and their consultants, and compiled an "effective solubilities" database for the airport.

During the latter months of 1999 and early 2000, my relation with the Port and in particular Paul Agid, with whom I had worked for nearly four years deteriorated. I became increasingly uncomfortable in attending meetings with the Port and its consultants. This discomfort derived from a patronizing attitude towards Ecology expressed by the Port and a derisive attitude towards the Agreed Order. In one meeting with the Port and several tenants and their consultants, one tenant expressed appreciation for assistance that Ecology had rendered and the Port countered that it could offer no such appreciation. It also appeared to me that the Port was trying to achieve a "whitewash" instead of a sincere effort and also was trying to take advantage of the fact that I was overwhelmed with the technical submittals, VCPs, and Responsiveness Summary.

When Mr. Agid lost his temper in two successive contacts (a meeting and telephone conversation) expressed a diatribe against Ecology (as he often did) and finally launched into me personally, I cut off the conversation and ended the relation. I related events to John Wietfeld and told him there was no point in my meeting with Mr. Agid any more, and also that progress on the Responsiveness Summary wasn't going very well given all the other work that I was trying to do. Subsequently the VCPs were given to others, John has taken over dealing with the Port, and I was left free to finish the R.S.



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (425) 649-7000

July 24, 2000

Elizabeth Leavitt
Manager of Aviation Environmental Programs
Port of Seattle
Seattle-Tacoma International Airport
P.O. Box 68727
Seattle, WA 98168

Dear Ms. Leavitt:

Please refer to Agreed Order # 97TC-N122. According to Section V (4.) of the Agreed Order written notice must be provided if there is a change in project coordinators by either Ecology or the Port.

This letter is to inform you that I, John Wietfeld, am now the project coordinator for Ecology regarding this Agreed Order. Please direct all communications, documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order to me.

Please confirm by letter the identity of the current project coordinator for the Port regarding this Agreed Order.

Sincerely,

John Wietfeld
TEC Unit Supervisor

lg

cc: Paul Agid



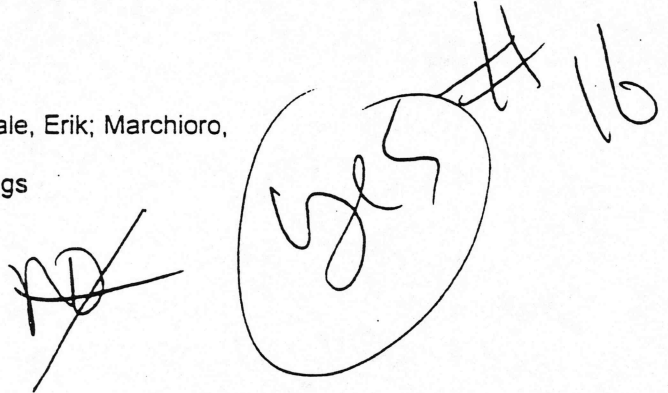
Luster, Tom

From: Hellwig, Raymond
Sent: Tuesday, October 24, 2000 7:39 AM
To: Luster, Tom; Fitzpatrick, Kevin; Stockdale, Erik; Marchioro, Joan (ATG)
Subject: RE: 3rd Runway Notes and Next Meetings

Tom: Thanks for the comments. Apparently we have a somewhat different recollection of where we ended up on some of the concerns we discussed at our internal meeting. I agree with some of your recommendations e.g., we most likely will need language in the 401 to address access/activities near Tye Pond. However, I don't recall discussing matters relating to flow augmentation at DM Creek, temporary work in the SASA footprint, the Agreed Order etc. quite the same as you. I will bring these matters up for discussion as appropriate with Kate and others on Friday.

-----Original Message-----

From: Luster, Tom
Sent: Monday, October 23, 2000 4:07 PM
To: Hellwig, Raymond; Fitzpatrick, Kevin; Stockdale, Erik; Marchioro, Joan (ATG)
Subject: FW: 3rd Runway Notes and Next Meetings
Importance: High



Hi all -

Even though I was not at the 10/20 meeting, I'm providing the following comments based on the discussions and agreements at our internal 10/17 meeting. The draft meeting notes do not reflect those discussions and agreements, and unless the notes are changed, may end up being used to justify issuance of a 401 that does not meet 401 requirements.

Since I wasn't at the meeting and since I am being transitioned away from SeaTac review, I am providing this memo internally for you to decide how they should be reflected in the final notes.

p. 5 Update - NPDES major modification: if the 509 interchange is part of the proposal being reviewed for 404 and 401 (which it is, per the Corps), then the 401 must address any direct/indirect impacts. We may or may not need the final major mod to be issued before the 401, but at the very least, the 401 does need an approved stormwater plan at the interchange for the same reasons that we need a final stormwater plan for the rest of the airport - to determine whether there will be impacts to aquatic resources due to the location/size/etc. of the stormwater facilities.

I recommend adding language to this issue stating that Ecology approval of the stormwater plan for the 509 interchange will be needed for 401 issuance.

p. 5 Update - South Access / Tye Pond: any impacts to Tye Pond due to its use as a spill containment facility may be included as part of the Corps' 404 review; if so, then those impacts would be part of the 401 review. Regardless of the Corps' position, however, I believe Ecology needs to independently evaluate the associated impacts - the Tye Pond is part of the proposed project mitigation and is subject to project-related impacts (e.g., ongoing vegetation removal/disturbance to maintain spill containment and stormwater functions, direct impacts of spills on the wetland functions, etc.), so any maintenance requirements, easement language allowing certain activities, etc. would have to be included as a 401 condition.

p. 5 Update - Des Moines Creek Flow Augmentation: the suggested condition language in these notes does not reflect the discussion at last week's internal meeting. The language in these notes is the language I was concerned about, in that it could allow several years of impacts to Des Moines Creek flows without mitigation in place. The low flow impact is caused not only by adding impervious surfaces, but also by adding fill and then detaining and rerouting stormwater during the construction period well before pavement is added at the top of the fill.

We had agreed last week that, at the very least, the proposed language be changed to not allow any fill to

be placed for the parts of the project in the Des Moines Creek basin until flow augmentation was provided (i.e., certainty about the source of water and Ecology approval of a treatment system). Even though a condition with that language would still be provisional, it would provide a degree of reasonable assurance that is not provided by the current draft language in these meeting notes.

p. 6 Issue - Temporary construction in SASA footprint: It makes no sense to allow this facility before a 401 or 404 is issued, given the issues identified in the Flow Augmentation section above, and given that the work is part of the proposed SeaTac expansion being reviewed for 401/404 (and ESA). Placing fill, adding impervious surfaces, and detaining/rerouting stormwater from a 30-acre site above Des Moines Creek is likely already resulting in lower summer baseflows to the creek, and mitigation has not yet been provided for this impact. The Port needs to either stop work in that area and remove the fill or provide us documentation showing that the fill is not affecting the stream.

p. 6 Issue - Lagoon #3 potential direct impacts: our discussion internally and with the Port has been about both direct and indirect impacts of the Lagoon #3 expansion. The indirect impacts need to be re-added to our issues list - specifically, the hydrologic impacts of removing approximately 10 acres of the area providing surface/groundwater to Wetland #28, and the fate and transport of contaminants in the area of the Lagoon #3 expansion.

p. 7 Issue - 401 relationship with Agreed Order: there was agreement several years ago that the 401 was the only regulatory mechanism available to ensure the conditions of the Governor's certification letter were carried out. At minimum, we need to ensure that the Port (and Ecology) are in compliance with the most current version of the Agreed Order as part of the 401 review. Also, I do not know of any supporting documentation for the statement in the last sentence of this section, "Construction of the 3rd Runway will not affect Ecology's ability to respond to findings of the groundwater study." At the very least, the statement incorrectly cites just the 3rd Runway as the scope of our review - the 401 and 404 are reviewing the proposed SeaTac expansion. I don't think we have enough certainty to make such a statement - we are only starting to put the pieces together on the extent of contamination and its fate and transport around the airport. I recommend at the very least that if we issue a 401, it include a specific reopener based on ongoing findings of the Agreed Order.

-----Original Message-----

From: Rachel McCrea [mailto:rachelm@floyd-snider.com]
Sent: Monday, October 23, 2000 11:30 AM
To: 'Ray Hellwig (E-mail)'; 'Kevin Fitzpatrick (E-mail)';
'tlus461@ecy.wa.gov'; 'Kelly Whiting (E-mail)'; 'Michael Cheyne
(E-mail)'; 'Elizabeth Leavitt (E-mail)'; 'Keith Smith (E-mail)'; 'Paul
S. Fendt (E-mail)'; 'Jim Dexter (E-mail)'; 'Jim Kelley (E-mail)'; 'Rick
Schaefer (E-mail)'; 'david.masters@metrokc.gov';
'mark.lampard@metrokc.gov'; 'Laurie Havercroft (E-mail)'
Cc: Kathryn Snider; Rachel McCrea
Subject: 3rd Runway Notes and Next Meetings
Importance: High

Greetings all - the draft 10/20 notes and final 10/13 notes are attached.
Please forward your comments/edits to the 10/20 notes by c.o.b. Wednesday.

NEXT MEETINGS: Please get these next meetings (dates/times) on your
calendars!

Tuesday 10/24, afternoon. Technical SMP status meeting (attendance limited
to Parametrix, King County and Floyd & Snider).

Friday 10/27, 9:30 - 4:00 at Ecology NWRO. Morning agenda: SMP results.

Afternoon agenda: Base flow update.

Tuesday 10/31, 8:00-11:00 at Ecology NWRO.

<<3rw-401 101300 final.doc>> <<3rw-401 102000 draft.doc>>

Call if you have any questions!
Thank you,

10/23/00 1:53

Rachel McCrea
Floyd & Snider, Inc.
83 S King Street, #614, Seattle, WA 98104
206-292-2078
rachelm@floyd-snider.com

Nye, Roger

From: Alexander, Steve (ECY)
Sent: Thursday, October 26, 2000 4:33 PM
To: Hellwig, Raymond
Cc: Nye, Roger; Wang, Ching-Pi; Wietfeld, John; Pendowski, Jim; Hart, Curt
Subject: RE: Port of Seattle-SeaTac International Airport (POS-STIA) Agreed Order (A.O.) and Remedial Action Grant (RAG)

Works for us in TCP. We will continue to treat this as one of many sites we are working while maintaining an increased level of detail/frequency of communication through RMT.

A couple of other related issues for your consideration as TCP pursues completion of the A.O. work scope:

1. TCP timelines and the Governor's Certification. For TCP we don't feel driven by the G.C., rather, we set schedules through our own prioritization process in collaboration with POS. It is my understanding that the G.C. is something which may come up between the POS and FAA, however, it would only involve TCP and would be in the context of how can we speed up the completion of the A.O. work scope. If there is something more we need to consider, let us know.
2. The scope of the A.O. only looks at contaminant sources within the footprint of the A.O.M.A. Does anyone outside T.C.P. need/want to know about known/suspected sites outside the A.O.M.A.?

-----Original Message-----

From: Hellwig, Raymond
Sent: Saturday, October 21, 2000 8:02 AM
To: Alexander, Steve (ECY)
Subject: RE: Port of Seattle-SeaTac International Airport (POS-STIA) Agreed Order (A.O.) and Remedial Action Grant (RAG)

Looks good. Thanks for meeting with Elizabeth.

We discussed the A.O. briefly yesterday at the 3RW meeting, I'm still comfortable not including the A.O. as an element of the 401. And that was the consensus of the group.

-----Original Message-----

From: Alexander, Steve (ECY)
Sent: Friday, October 20, 2000 5:53 PM
To: Wang, Ching-Pi; Wietfeld, John; Nye, Roger; Gusdal, Lavona (ECY); Singer, Diane
Cc: Colburn, Gail; Cargill, Dan; Hellwig, Raymond; Pendowski, Jim; Luster, Tom; Wilson, Mary Sue (ATG)
Subject: Port of Seattle-SeaTac International Airport (POS-STIA) Agreed Order (A.O.) and Remedial Action Grant (RAG)

All: I have committed John, Ching-Pi, Roger and myself to a closed meeting with POS-STIA (Elizabeth and Paul) at their location for the week of 11/13. We will coordinate with Lavona on our availability and she will set up a meeting through Roberta at POS. At this point, the meeting agenda consists of confirming the adequacy of work completed under the A.O., agreeing on the remaining scope and who completes it, and identifying workscope/RAG related issues (see 5 & 6, below).

The following are action items, with suggested due dates-lead, which I see occurring between now and the November meeting with POS:

1. Notify Ray of final draft Responsiveness Summary release to POS. (10/23 -Steve)
2. Transmit copy of draft Responsiveness Summary to POS. (10/24-27 -Roger)
3. Discuss A.A.G. support with Mary Sue. (>10/24 -Steve)
4. Request (by letter) updated RAG billing from POS. (10/27 -Diane)
5. Determine/write up POS and TCP A.O. tasks performed to date and adequacy of POS submittals. (11/1 -Roger&John)
6. Determine/write up remaining A.O. work scope (both TCP and POS) and timeline for completion.(11/1-Roger&John)

7. Brief Ecology 401 Certification team on 4 & 5, above. (>11/6 -Roger,John,Steve)
8. Update stakeholders on 4 & 5, above. (11/7-10 -?)
9. Brief Jim P. on all of the above. (>11/7 -Steve)

November 13, 2000

TO: John Wietfeld, Ching-Pi Wang

FROM: Roger Nye

SUBJECT: Information to Include in the "Questions-To-Port" List

The Agreed Order stipulates that the Port will research existing technical literature, environmental and geological reports, land-use data, airport historical information, and other appropriate documents. One purpose of this research is to identify known and potential (based on historical operations) areas of soil and groundwater contamination within the AOMA and its "near vicinity" (defined as approximately within ¼ mile of the AOMA as per Appendix 1).

The intent of the Agreed Order is to determine risks posed by the known and potential areas of contamination within the AOMA and "near vicinity" to drinking water wells and surface waters (receptors) near the airport. Since contamination in identified potential areas of contamination will not have been characterized; the modeling methodology of "particle tracking" is to be utilized in the evaluation of contaminant transport in groundwater from these potential areas.

On December 13, 1999 the Port presented me with a map showing a list of potential contaminated sites that were identified based on the Port's research. On February 7, 2000 I provided written comments to the Port that pointed out issues and objections regarding the Port's list of potential contaminated sites. The Port never responded to those comments, and during the October 4, 2000 meeting here with the Port, a map/list of the same "potential sites" was presented that was presented to Ecology December 13, 1999.

The issues regarding the Port's map/list of "potential sites" are as follows:

1. Potential historical sources of solvents weren't identified. The citizens researched Ecology archives and presented information to me, which indicated aircraft washing fluids containing 14% chlorinated solvents were historically drained away to outfalls and/or stored in unlined lagoons. A cleanup following the demolition of the United Airlines hangar appears to corroborate this information since the highest PCE values in soil were found coincident with a "settling pond" outside the hangar.
2. The potential sites identified by the Port appear to be based on "historical facilities" rather than "historical operations". Current facilities such as hangars and the Olympic tank farm that could have had releases from historical operations weren't considered.

Page 2

3. There are major former fueling facilities identified in various cleanup and environmental investigation reports from the airport that were not identified by the Port.
4. As per language the Port agreed to in the "Approach" section of the Responsiveness Summary, "any potentially significant contaminant sources within the operating airport outside the AOMA which, given the modeling results, could pose significant risk to the subject receptors through ground water flow" will be identified. It is not clear whether the Port's map/list includes this agreed-to work.

What is needed is an honest thorough effort to identify, based on historical operations of current and historical facilities, potential significant areas of contamination. It is not acceptable that the citizens could research information on the airport and identify potential contaminated sites that the Port doesn't identify. Once the potential areas of groundwater contamination have been identified, then the demonstration can be made through the Agreed Order or otherwise, whether or not these potential sites pose risks to the receptors.



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

November 15, 2000

Paul W. Agid
Senior Environmental Program Manager
Seattle-Tacoma International Airport
17900 International Blvd. Suite 402
SeaTac, Washington 98188-4238

John Wietfeld
Site Manager for SeaTac Airport Agreed Order
Washington Department of Ecology

Dear Paul:

Attached is a list of items that are currently not completed on Agreed Order 97TC-N122. Also included is notification of all items completed.

The attached list and letter is Washington States Department of Ecology's written notification of the items that are completed as required per Section IV of Agreed Order 97TC-N122.

If you have any questions or concerns, please contact me at (425) 649-7282.

Sincerely,

John O. Wietfeld
Acting Unit Supervisor Tanks Unit
Toxics Cleanup Program
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

Cc: File

Steve Alexander
Roger Nye
Ching Pi Wang
Elizabeth Leavitt R.E.A.



Department of Ecology, NWRO

November 2, 2000

TO: Steve Alexander, TCP Section Head, NWRO
John Wietfeld, TEC Unit Supervisor

FROM: Roger Nye *Roger Nye*

SUBJECT: Checklist for Sea-Tac Agreed Order Tasks

Tasks stipulated in the Agreed Order that the Port must complete, and status of Tasks:

NOTE: The information on status of the Tasks is "as has been reported to Ecology".

1. Research existing information to provide a background hydrogeological description of the aquifers and their relation to the AOMA and to water wells and surface waters. *COMPLETED.*
2. Research existing information to identify known areas of soil and groundwater contamination within the AOMA and its near vicinity (1/4 mile). *COMPLETED.*
3. Research existing information to identify potential unknown areas of soil and groundwater contamination (based on historical operations) within the AOMA and its near vicinity (1/4 mile). *NOT COMPLETE. Status: The Port identified some potential historical areas of contamination but Ecology questioned the thoroughness of this work. Written comments were provided to the Port regarding this work along with information from Ecology archives that indicated possible historical sources of solvents not identified by the Port. The written comments and attached materials were mailed to the Port on February 7, 1999. The Port did not respond to this material.*
4. Research existing information to identify potential preferred pathways of contaminant transport. *NOT COMPLETE. Status: Unknown*
5. Research existing information to identify any publicly recorded, operational, private drinking water supply wells within one mile of the AOMA that could potentially be impacted by contamination within the AOMA. *NOT COMPLETE. Status: Unknown*
6. Research existing information to compile a database of wells screened across the surface of the Qva aquifer throughout the AOMA and its near vicinity (1/4 mile). *COMPLETED.*

Checklist, Page 2

7. Acquire a set of wells representative of the entire AOMA and its near vicinity (1/4 mile) from the database compiled in Task 6. The final selection of the representative set of wells "will be agreed upon by Ecology and the Port". *COMPLETED.*
8. Collect four quarterly rounds of groundwater elevation data from the set of representative wells, determine the groundwater elevation contours, and report the data to Ecology after each quarterly round. *COMPLETED. The Port included some additional data from wells not in the "representative set" over one mile from the AOMA, which was outside the scope of the Task.*
9. Develop a groundwater flow model. The selection of model software and methodology must be "by agreement of Ecology and the Port". *NOT COMPLETE. Status: A conceptual groundwater flow model, which included existing data from over 400 borings and numerous interpreted hydrstratigraphic cross sections, has been completed. The groundwater flow model software (MODFLOW) and methodology regarding this model (boundary conditions, grid, etc.) were selected by the Port and agreed to by Ecology. The groundwater flow model is apparently not "up and running" however.*
10. Develop a contaminant fate and transport model. The selection of model software and methodology must be "by agreement of Ecology and the Port". *NOT COMPLETE. Status: As part of this work, the locations of potential unknown areas of groundwater contamination within the AOMA and vicinity must be identified. As per Task 3, Ecology has not agreed to an initial set of locations identified by the Port. Software has not been discussed. Modeling methodology in known areas of contamination has not been discussed. Ecology has agreed to "particle tracking" methodology to model contaminant transport in potential unknown areas of contamination.*
11. Evaluate all data and modeling results generated by the previous work and determine a scope of work for any necessary additional investigation activities to be described in an Addendum to the Agreed Order. This work includes determining the need for and locations of up to 10-15 new wells to confirm modeling results conduct characterization of groundwater and/or perform long-term monitoring. The wording in the Agreed Order implies this work will be completed together and in agreement with Ecology. *NOT COMPLETE. Status: All other work must be completed first.*
12. Prepare a report (STIA Ground Water Study Phase I Report) compiling and evaluating data generated from all previous work. *NOT COMPLETE. Status: All other work must be completed first.*
13. Conduct pollution prevention actions specifically for UST systems at Sea-Tac Airport that are deferred or exempt from the Washington UST regulations. These actions are:

(a) consult with owners/operators, (b) understand the operations of UST systems, (c) review in-place leak detection/prevention methods (LDPMs), (d) identify additional LDPMs, (e) identify time lines for implementing additional LDPMs, (f) request owners/operators to implement LDPMs, and (g) track the progress of implementing the LDPMs. The Agreed Order states that "Ecology and the Port will work together" to accomplish this work. *NOT COMPLETE. Status: No work has been done.*

14. Create a database for all UST systems at Sea-Tac Airport. *COMPLETED.*
15. Update the Sea-Tac Airport UST database annually for five years with current information. Acquire the current information regarding UST systems by annually presenting all UST owners/operators with a written request to provide information regarding any changes/upgrades that were made to UST systems and the leak detection/prevention methods used. Report the updated UST information annually to Ecology. *NOT COMPLETE. Status: Two updates have been completed and reported to Ecology. The last update will be completed in 2003.*
16. Prepare a report (STIA Fuel Systems Pollution Prevention Report) documenting the results of pollution prevention activities as per the Agreed Order. *NOT COMPLETE. Status: All other work regarding pollution prevention must be completed first.*

Tasks stipulated in the Agreed Order that Ecology must complete, and status of Tasks:

1. Agree to the final selection of the representative set of wells. *COMPLETED.*
2. Agree to the selection of groundwater flow model software and methodology. *COMPLETED.*
3. Agree to the selection of contaminant fate and transport model software and methodology. *NOT COMPLETE. Status: The Port presented identified locations of potential unknown areas of contamination, but Ecology has not agreed with this work. Software has not been discussed. Modeling methodology in known areas of contamination has not been discussed. Ecology agreed to "particle tracking" methodology for use in potential unknown areas of contamination.*
4. Work jointly with the Port to evaluate the results of the data research and modeling, and agree to a scope of work for additional investigation activities to be stipulated in an Addendum to the Agreed Order. *NOT COMPLETE. Status: All other work must be completed first.*

Checklist, Page 4

5. Work jointly with the Port to conduct Pollution Prevention actions regarding the implementation of leak detection/prevention methods for UST systems at the airport that are deferred or exempt from the UST regulations. *NOT COMPLETE. Status: No work has been done.*
6. Conduct an inspection of all UST systems at Sea-Tac Airport that are regulated by the provisions of the UST regulations (WAC 173-360). Report updated information and results of inspections to the Port. *NOT COMPLETE. Status: The UST inspections are 90% complete.*
7. Prepare a report presenting the results of the UST inspection work to be included in The Port's report (STIA Fuel Systems Pollution Prevention Report). *NOT COMPLETE. Status: Report will be prepared when UST inspections and any required follow up actions are complete.*



Port of Seattle

December 7, 2000

Mr. John Wietfeld
Washington Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

RECEIVED

DEC 13 2000

DEPT. OF ECOLOGY

Re: Seattle-Tacoma International Airport
Ground Water Study
Agreed Order # 97TC-122
Response to Questions Received in November 16, 2000 Meeting

Dear John:

Thanks to you, Roger, Ching Pi, and Steve for meeting with us on November 16. The session was a valuable step in progressing with the Ground Water Study. We are working on the meeting notes, and will have them ready for your review in a few days.

During the meeting you provided two memoranda for our review. Thank you for passing on these requests for additional information. We have read through both the November 2 and the November 13 memos from Roger to you and others, and hope that the following information satisfies your needs.

Response to November 2 memo on Agreed Order task completion
(Items numbered as in the November 2 memo.)

1. Research existing information...background hydrogeological description...; completed.
 - Agreed. Note, however, that to a limited degree we are adding new information as it is generated by other construction or other projects. New data are added only to the degree they describe locations or conditions not well represented in the database.
2. Research existing information...known areas of soil and ground water contamination...; completed.
 - Agreed.
3. Research existing information...potential unknown areas of soil and ground water contamination...; not complete.
 - Agree in part, and disagree in part. A detailed discussion follows in the response to the November 13 memo, below.
4. Research existing information...potential preferred pathways...; not complete.
 - Disagree. A detailed discussion follows in the response to the November 13 memo, below.
5. Research existing information...publicly recorded, operational private drinking water wells...; not complete.
 - Disagree. The Phase 1 task is complete. The data base includes all publicly recorded private drinking water supply wells within the target area. The operational status of these wells

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- becomes relevant only in determining whether ground water conditions present a MTCA risk. Therefore, investigation of well operating status would be scoped as an "if necessary" part of Phase 2 should Phase 1 or Phase 2 results indicate wells that are at risk. (Recall also that Agreed Order negotiations included an Ecology commitment to support and assist any survey required to identify the operational status of wells, as it is likely that some property owners would deny access to the Port due to the local political climate.)
- 6. Research existing information and compile a database of wells; completed.
 - Agreed.
- 7. Select representative set of wells, selection to be agreed on by Ecology; completed.
 - Agreed.
- 8. Collect four quarterly rounds of elevation data and report to Ecology; completed.
 - Agreed. Note that the "extra" data mentioned in the memo was obtained from newly installed geotechnical wells associated with the 3rd Runway project, and provide useful ground water level data for model calibration purposes.
- 9. Develop a ground water flow model, to be agreed on by Ecology; not complete.
 - Agreed. Our status stems from accidents of sequencing. We received a verbal approval to proceed to run the model, but prior to proceeding received an independent critique of the conceptual model from the 3rd Runway Gravel Study consulting team. By the time we fully addressed those comments and made appropriate modifications, we had been advised by Ecology not to rely on verbal approvals. Assuming the November 2 memo constitutes a written approval, we will proceed, subject to other schedule issues discussed during our November 16 meeting.
- 10. Develop a contaminant fate and transport model, to be agreed on by Ecology; not complete.
 - Agree in part, and disagree in part. See discussion of the November 13 memo, below, regarding potential unknown sites. Fate and transport conceptual model and modeling methodology were proposed in our October 4 presentation to Ecology. As discussed in that meeting and in previous conversations, we propose to use MT3D software to simulate contaminant migration.
- 11. Evaluate model data; not complete.
 - Agreed.
- 12. Prepare Ground Water Study report; not complete.
 - Agreed.
- 13. Pollution prevention tasks with respect to deferred and exempt tank systems; not complete.
 - Agreed. Note, however, the following two facts:
 - As discussed at length in development of the Agreed Order, this task is an Ecology lead task, wherein Ecology is to initiate discussions with tenant fuel system operators concerning options for improving pollution prevention techniques beyond the current legal requirements. The role of the Port is to provide Ecology facility access, to facilitate communications, and to provide in-meeting and post-meeting support. If Ecology lets us know when it wants to begin the process, we'll make the initial contacts to establish communication links, set meetings, etc.
 - From a logical sequence perspective, it appears that this task would follow completion of Ecology's UST systems inspection (Agreed Order Task IV 6.b.), which

we understand is still in progress. The discussion described by Task IV 6.a. can be conducted most efficiently after Ecology obtains the detailed information that is generated by the Task IV 6.b inspections.

14. Create UST database; completed.

- Agreed.

15. Update database each year for five years; not complete.

- Agreed, but we would prefer that the designation be changed to "Completed to date; additional activity required through 2003."

16. Prepare Pollution Prevention report; not complete.

- Agreed.

With respect to the Ecology task completion status portion of the November 2 memo, we agree with the status conclusion of items 1, 2, 4, 6, and 7. For item 3, see response for Port task 10, above; for item 5, see response for Port task 13, also above.

At the time the Agreed Order was signed, *Forum* was the airport's newsletter. It is no longer being published, however, the Port is currently considering adding construction updates to its website.

Response to November 13 memo on "Potential Site" task completion

We appreciate your passing this memo along to us, as it points out what appears to be a potential misunderstanding that we'll have to resolve in order to proceed.

We think we've completed the "Potential Site List" task in accordance with the Agreed Order scope of work, but for the exceptions and the continuing data collection activities noted below. We have, contrary to the implication of the memo, engaged in an "honest, thorough effort" to complete the task we negotiated in Agreed Order scope of work, and have expended very significant time and resources to do so. We have compiled a list of the airport locations for which one could reasonably conclude the potential of historical release and Qva aquifer impact, as is shown clearly in the following information. If, upon reviewing the remainder of this memo, Ecology determines that we've left something out, please provide us with specific additional locations, and the basis for the agency's concern about those locations, and we'll be happy to consider them.

Memo Issues 2 and 4

Memo Issues 2 (first sentence) and 4 raise questions about the scope of our inquiry, specifically concerning the difference between historical facilities and operations, and concerning the geographic limits of the inquiry.

In conducting our search for "potential sites", we made no distinction between facilities and operations, as should be apparent from the discussion in the remainder of this letter. Our search required identification of any potential significant historical airport source of contamination that was not already on the Agreed Order list of known sites, or that had not been previously characterized and demonstrated to have no impact on, or no reasonable potential to impact, ground water in the Qva.

As we conducted the study, we identified major classes of "contaminated sites" that had potential to impact the Qva aquifer, including both known and "unknown" sites:

- Sites listed in the Agreed Order;
- Sites for which available data indicated no reasonable risk of impacting the Qva;

- Sites for which available data indicated a Qva impact or reasonable potential for impact;
- Potential sites (based on historical operations) for which no data were available.

Sites for which data were in hand prior to signing the Agreed Order but which were not added to the Agreed Order list due to the low probability of Qva impact were not considered further. Similarly, sites for which available data indicated no reasonable risk of impacting the Qva were not considered further. Sites for which Qva impact was known or could reasonably occur, and sites with no data, but with a potential (by historical operation) to impact the Qva were added to the potential sites list.

Our search to identify "potential sites" consisted of a review of historical documents and maps, and interviews of long time Port employees, focused on the general airport operating property, extending well beyond the AOMA. Although we did not establish limiting geographic boundaries when conducting our search, we could describe the boundaries that resulted from the completed search very roughly, and for gross illustration purposes only, as follows: Highway 518 to the north; South 192nd Street to the south; South 24th/ International Boulevard/ Air Cargo Road to the east (this boundary shifts to account for airport activity); and 12th West Avenue to the west.

Memo Issues 1, 2, and 3

Memo Issues 1, 2 (second sentence), and 3 raise questions about the conduct of our inquiry with respect to the inclusion or exclusion of facilities and operations. The memo specifically requests additional information about hangars, the Olympic Fuel Farm, major former fueling facilities, and aircraft washing detention and drainage facilities as "potential sources" not included in the list of potential sites.

Additional information on the status of these facilities and operations, and the basis for their inclusion or exclusion on the potential sites list follows:

- Memo Issue 2 refers to hangars.

Hangars: Data are available for each of the aircraft hangars that we are aware of, and indicate that, with the exception of sites associated with the Hangars that are independently listed in the Agreed Order, Hangar operations caused no reasonable risk of impacting the Qva aquifer. Unless otherwise noted, it is our understanding that documents referred to below are in Ecology's possession.

- Alaska Hangars: We have no information whether Alaska has performed a site assessment in the area of its hangars, however, the following information leads us to conclude that the facilities are not likely to have caused significant subsurface impacts or to have impacted the Qva aquifer. The buildings were constructed in 1966-67 and in 1985, both preceded by construction of the airport IWS system. Consequently, in contrast to the older hangars, the hangars were designed and constructed to dispose wastes to the existing treatment system (as was the practice at that time), significantly reducing the probability of ad hoc waste management. In addition, all of the tank systems associated with the hangars have been tested, have had environmental characterization performed, and are in compliance with current rules. The tanks noted to have had problems in the past have been removed or repaired. Ecology has issued at least one "no further action" letter to Alaska for Hangar area tanks under the Voluntary Cleanup Program.

- Delta Hangar: A 1998 Phase 1 site assessment and two 1999 follow up subsurface investigations were conducted by EMCON on behalf of Northwest (as a prospective purchaser of the facility, and in anticipation of demolishing the Delta Hangar to permit construction of a new Northwest Hangar). Investigation results were reported by EMCON in January and July 1999. Excluding the Delta Autogas Cluster site (a separate site included in the Agreed Order list), data from the Hangar and associated operations areas, including historical fuel facilities, demonstrated limited operational impacts (below cleanup levels consistent with the MTCA Interim TPH policy), and indicated no Qva impacts and no potential for discovered releases to impact the Qva. Summer 2000 demolition generally confirmed these findings. Although several areas of shallow contamination were discovered in addition to those identified in the RI, all contamination was sufficiently shallow to be removed by excavation, or demonstrated using MTCA Interim TPH cleanup levels to be of low enough concentration to remain in place with no risk to ground water. We anticipate that Northwest/Delta has or will publish a compiled construction observation and contaminated materials handling report at the conclusion of site construction.
- Northwest Hangar: A 1998 Phase 1 site assessment and 1999 subsurface investigation were conducted by EMCON for Northwest (in anticipation of building demolition and future airport construction). Investigation results were reported by EMCON in November 1999. Excluding the Northwest Hangar Tank area (a separate site included in the Agreed Order list), data from the Hangar and associated operations areas, including historical fuel facilities, demonstrated limited operational impacts (below cleanup levels consistent with the MTCA Interim TPH policy), and indicated no Qva impacts and no potential for discovered releases to impact the Qva. Northwest Hangar demolition is scheduled for late summer 2001.
- Pan Am Hangar: In 1998 a Phase 1 site assessment and a subsurface investigation were conducted by Floyd & Snider, Inc. on behalf of the Port (which stands as potentially liable party following Pan Am bankruptcy). Investigation results were reported by Floyd and Snider in July 1998. Excluding the Pan Am Avgas Tank area (a separate site included in the Agreed Order list), data from the Hangar and associated operations areas (including the areas used by Hangar tenants following Pan AM's bankruptcy) demonstrated limited operational impacts, and indicated no Qva impacts and no potential for discovered releases to impact the Qva. Pan Am Hangar demolition is currently underway, and, as of this writing, the one unanticipated discovery of impacted material has not yet been characterized.
- United Hangar: This site was discovered to be impacted during hangar demolition in 1991 and was remediated during the demolition process. Converse Consultants, on behalf of the Port (as a as potentially liable party with cost recovery from United) conducted a ground water RI in 1994. The Converse August 1994 report concludes that United Hangar releases had no Qva impact.
- Weyerhaeuser: The small Weyerhaeuser hangar on the west edge of the airfield was constructed in about 1981. The hangar is served by the IWS system, and, therefore, ad hoc waste management practices are unlikely. The fuel tanks associated with the hangar have been tested, have had environmental characterization performed, and are in compliance with current rules. We have no reason to include the

Weyerhaeuser hangar on a list of sites that have had a reasonable potential to adversely impact the Qva.

- Memo Issue 2 refers to the Olympic Fuel Farm.

Olympic Fuel Farm: In the Draft Agreed Order Scope of Work the Olympic Fuel Farm was excluded from the AOMA. The Port and Ecology arrived at this result because Ecology had no reason to believe from available information that fuel farm operations had impacted the Qva. Following receipt of public comment, however, in 1997 Ecology requested, and the Port agreed, to expand the AOMA to include the fuel farm. Ecology comments provided in February 2000 indicated that the fuel farm ought to have been included on the potential sites list as well.

While we were of the opinion that any significant release from the fuel farm to the subsurface would have caused observable effects, we agreed that the fuel farm is a significant facility about which there is limited subsurface data. Given the size of the facility, however, rather than making assumptions about a hypothetical release, the Port began a process by which Olympic would conduct a limited site investigation sufficient to determine whether facility operations had significantly impacted the subsurface. The mid-year change in Olympic ownership and management delayed implementation of the investigation, however, the Port has recently approved Olympic's work plan for a preliminary investigation, and drilling is currently scheduled for early December. Results from this investigation will be reviewed when they become available and, if appropriate, will be incorporated into the computer model.

- Memo Issue 3 refers to major former fueling facilities.

Major Former Fueling Facilities: Excluding the Olympic Fuel Farm, which is discussed above, there are eleven facilities that we assume fall under what the memo refers to as "major fueling facilities". Each will be discussed below. In sum, however, eight of these eleven facilities are listed in the Agreed Order, two of the facilities are included in the December 13, 1999 potential sites list, and one of the facilities has been investigated and determined to represent no reasonable risk of impacting the Qva aquifer. (In addition, an operating portion of a partially closed facility is not categorized.) Unless otherwise noted, it is our understanding that documents referred to below are in Ecology's possession.

- Continental Fuel Farm: Included in Agreed Order list. Tank removal was completed in 1992. Remediation in shallow subsurface is ongoing. Data confirm that there has been no impact to the Qva aquifer above MTCA cleanup levels (Burns and McDonnell, on behalf of PLP group, 1996).
- Continental Hydrant System: Included in Agreed Order list. Characterization investigation completed 1999 and reported by Foster Wheeler, on behalf of Continental, in September 1999. Data indicate no Qva impacts and no potential for discovered releases to impact the Qva. Ecology issued a "no further action" letter in April 2000, in response to Continental's MTCA independent cleanup using Interim TPH Policy.
- Delta Fuel Farm: Included in Agreed Order List. Tank removal completed in 1999. Cleanup was conducted consistent with Interim TPH Policy and reported by ATC Associates, on behalf of Delta, in November 1999 and February 2000. Data indicate no Qva impacts and a review of data consistent with MTCA Interim TPH Policy indicates no potential for discovered releases to impact the Qva.

- Delta Hydrant System: Excluded from both Agreed Order list and Potential Sites list. Characterization investigation was completed in 1998, and reported by ATC Associates, on behalf of Delta, in July 1999. Data indicate no Qva impacts and a review of data consistent with MTCA Interim TPH Policy indicates no potential for discovered releases to impact the Qva.
- Northwest Fuel Farm: Included in Agreed Order list. Tank removal was completed in 1998, and reported by EMCON, on behalf of Northwest, in May 1999. Site contamination was remediated using soil bioventing technology, from March 1999 – January 2000, at which time confirmation sampling demonstrated that Interim TPH Policy cleanup levels had been achieved (EMCON May 2000). Ground water monitoring is ongoing.
- Northwest Hydrant System: Included in Agreed Order list. Consists of a trunk line that provided fuel to two hydrant loops. The older hydrant loop is referred to as the “abandoned” system, which was taken out of service in 1976; the trunk line and the newer loop are referred to as the “closed” (or “current”) system, which was taken out of service in 1997.
 - Northwest “Abandoned” Hydrant System: Characterization investigation completed 1998 and reported by EMCON, on behalf of Northwest, in January 1999. Data indicate Qva impacts adjacent to two hydrant pits at one location along the fuel system. Ground water monitoring ongoing.
 - Northwest “Closed” Hydrant System: Characterization investigation completed 1997 and reported by EMCON, on behalf of Northwest, in February 1998 (revised December 1998). Data indicate Qva impacts adjacent to two hydrant pits at two locations along the fuel system. Prior data describe a third “closed” hydrant system Qva impact location, associated with a 1992 fuel release (included separately in the Agreed Order list as the South Satellite Baggage Tunnel). Ground water monitoring ongoing.
- Pan Am Fuel Farm: Included in Agreed Order list. Constructed-in-place tanks were partially removed in 1990, and site investigations were completed in 1991 and 1992. Site contamination was localized near the floor of the tanks, which were left in place to prevent destabilizing area utilities (including high pressure fuel lines) and surface road. Five years of ground water monitoring demonstrated no impact to the Qva aquifer.
- Pan Am “Avgas” Tanks: Included in Agreed Order list. Four tanks were closed in 1988; two were removed in 1992, and the remaining two will be removed in 2001. (Although aviation fuel, “avgas”, was originally stored in the tanks, Jet A fuel storage was the primary use of the tanks, and is the only fuel contaminant identified in the subsurface.) Various investigations indicate the Qva was impacted by releases of Jet A from tank operations. Ground water monitoring is ongoing.
- Pan Am Hydrant System: Included in Potential Sites list. Characterization investigation planned for 2001- 2002.
- United Fuel Farm: Included in Agreed Order list. Consists of one closed and one operational fuel farm areas.

- United "Closed" Fuel Farm Area: Tank removal was completed in 1993. Remediation is ongoing. Data confirm that there has been no impact to the Qva aquifer above MTCA cleanup levels (Burns and McDonnell, on behalf of PLP group, 1996).
- United "Operating" Fuel Farm Area: Fuel farm is fully operational. Closure currently planned for 2004.
- United Hydrant System: Consists of one abandoned system and one operational system.
 - United "Abandoned" Hydrant System: Included in Potential Sites list. Partially removed in 1991-1992 reconstruction of Concourse D. No environmental data exist for system elements that remain in place.
 - United "Operating" Hydrant System: Excluded from both Agreed Order list and Potential Sites list. System was last tested using Tracer technology in 1993, and determined to be leak-free. System closure is planned in stages, from 2002 - 2004.
- Memo Issue 1 refers to historic detention and drainage of aircraft washing fluids which contained solvents.

Aircraft Washing Lagoons: Prior to receiving the information provided by Ecology in February 2000, the Port included in the December 1999 Potential Sites list one of the two facilities suggested by the Ecology information. While that site (named in Port documents as the Northwest Lagoon or Northwest Sump) does appear on the Potential Sites list, 2000 construction in the vicinity has provided opportunities to acquire site data. Those data are now being reviewed and, if appropriate, will be included in the model.

Information provided by Ecology suggested a potential that another such structure was present, on the North end of the airport. Since receipt of the Ecology information, we have conducted additional research, which indicates a possibility that such a facility may have been employed on the north side of the AOMA, associated with the "settling pond" referred to by Ecology (which was fully remediated, and was shown to have caused no ground water impacts, in 1991-1994). At this time, prior to completion of our review, it appears that data collected from unrelated site investigations, by happenstance, describe the subsurface conditions associated with what may have been a former wash water detention facility. At the conclusion of our review we will discuss with Ecology whether available data warrant inclusion of the possible former facility in either the Agreed Order site list or the Potential Sites list.

Response to Additional Related Issue: November 2 Memo, Item 4

Item 4. of the November 2 Memo designates as incomplete a task to "Research existing information to identify potential preferred pathways of contaminant transport". We have no record of having specifically negotiated about the intent of this term. However, several facts lead us to conclude that the existing study data base and conceptual hydrogeologic model, together with the Potential Sites list, as those may be added to or amended, provide a sufficiently complete picture of the presence and location of significant contamination at the airport to conduct the Ground Water Study computer modeling without specific inclusion of additional preferred

contaminant pathways data. We also presume that generation of an additional preferred pathways presentation is unnecessary.

Our primary focus in our evaluation of preferential pathways has been to identify vertical pathways from the AOMA to the Qva. This work has consisted of mapping the presence and absence of till and other shallow fine-grain units. Places where the till is absent are identified as preferred pathways between the AOMA and the Qva. Some of these pathways are naturally occurring. Others are the result of construction activities, such as portions of the parking garage and the south satellite tunnel, which have been excavated through the till.

Our geologic interpretation of the till thickness has been presented to Ecology within previous hydrogeological submittals and has been reviewed by an Ecology contractor (Pacific Ground Water Group, in the context of the Sea Tac "Gravel Study"). The interpretation has also been peer reviewed by an independent reviewer. Neither Ecology nor either of the independent reviewers voiced significant disagreement with our interpretation of these vertical preferred pathways. Consequently, we have considered this effort to be complete.

With respect to horizontal pathways, the AOMA is underlain throughout by a very significant number of individual utilities of various types: piping for fuel, water, storm water drainage, Industrial Waste System drainage, and sanitary sewer drainage; electrical and communication systems ductbanks; security system ductbanks; subsurface tunnels housing systems for transporting people and baggage between the main terminal and the satellite gate areas; etc. Typical construction practices associated with each of these systems would have created utility backfill zones that act as preferential pathways in the vadose zone and in any perched water zones above the Qva aquifer for migration of liquids and any contaminants that may be present. In macro scale, it is unlikely that any of these represents a major preferred horizontal pathway, as opposed to all of these representing an area-wide spider-web of smaller preferred pathways.

We have concluded that the effort to model the flow, and fate and transport of contaminants, in the Qva would not be significantly enhanced by specifically defining the subsurface utilities in the AOMA, rather than by expressing a general understanding about the presence of these utilities throughout the AOMA. If, on reflection, Ecology desires a different conclusion, we'll be happy to discuss options.

Again, we hope this response satisfies your needs. Please feel free to call me at 206-439-6604 if you have any questions, or to set another meeting to discuss these issues further.

Sincerely,



Paul W. Agid
Sr. Environmental Program Manager

cc: Leavitt



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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January 21, 2001

Honorable Julia Patterson
Washington State Senate
422 John A. Cherberg Building
P.O. Box 40433
Olympia, WA 98504-0433

Dear Senator Patterson:

Thank you for your letter of congratulations last week. I am looking forward to the challenges of my new position in California, though I know I will miss serving the state of Washington. It has been a privilege to work on such challenging issues over the years, and I've appreciated the opportunity to help make a difference in protecting the state's waterbodies.

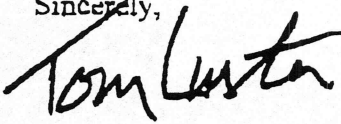
I am also providing this letter in response to your request for information on Ecology's review of the proposed SeaTac expansion under Section 401 of the federal Clean Water Act. Please excuse the lateness of my response, as I have been busy completing all my other work at Ecology. I've included with this letter a brief assessment of my view of the issues – due to several time constraints, it is not complete, but it does focus on what I believe are some of the primary issues to be resolved in the project review.

In all fairness, I must include two caveats with this letter. First, this assessment reflects my own views of the issues based on my work over the past several years to develop a defensible 401 decision. It may not fully reflect the views of others at Ecology. Second, some of the information I've used in my assessment may not be up to date, since I am not aware of all the changes that have occurred with the Port's proposal or Ecology's review since I was taken off the project in October. I recommend you contact Ann Kenny at Ecology's Northwest Regional Office (425-649-4310) for the most up-to-date information on Ecology's review.

Also, as you point out in your letter, with my new position in California, I will not be as available to Ann as had been anticipated when she was assigned to the 401 review; however, I will make myself available by phone or e-mail if necessary and as various questions arise.

Again, thank you for your kind wishes, and thank you for your interest in Ecology's work.

Sincerely,



Tom Luster

Cc: Ecology: Tom Fitzsimmons
Bill Alkire
Gordon White
Ray Hellwig
Paula Ehlers
Ann Kenny

ISSUES RELATED TO ECOLOGY'S SECTION 401 WATER QUALITY CERTIFICATION REVIEW OF THE PROPOSED SEATAC AIRPORT EXPANSION

General Issues: background on the review process –

- Requirements for 401 certification:
 - “Reasonable assurance”
 - Interaction of Sections 401 and 402 of the federal Clean Water Act

Specific Issues Related to Aquatic resource Protection: to be resolved as part of Ecology's 401 review –

- Determine direct, indirect, and cumulative impacts and identify necessary mitigation
- Determine compliance with other associated aquatic resource-related regulations
- Determine standards for “clean fill” material
- Develop an acceptable stormwater plan
- Develop an acceptable streamflow augmentation plan
- Develop an acceptable wetland impacts and mitigation

GENERAL ISSUES:

My primary job duty has been to ensure that our 401 decisions result in clean water. For most proposed projects, this means looking at the full range of known or anticipated impacts associated with the construction and operation of a project, reviewing those impacts against the water quality standards, and determining if the standards will be met and what permit conditions are needed to ensure they are met.

With regards to the proposed SeaTac expansion, the intent of my review throughout the process was to develop a fully defensible 401 decision to ensure that applicable water quality regulations would be met.

Requirements for 401 certification:

The basic requirement of Ecology's review has remained the same throughout the history of this proposed project – to determine whether the proposal will meet the state's water quality standards. The three main questions to be answered with regards to meeting the standards are:

- Will the proposed discharges (construction and operational) meet antidegradation requirements (i.e., no further degradation in the waterbody, and no degradation below a certain level)?
- Will these discharges allow beneficial uses (such as fishing, recreation, water supply, etc.) to be met in the affected waterbodies?
- Will they meet the applicable numeric and narrative water quality criteria?

Issues Related to Ecology's SeaTac Review
January 21, 2001
Page 2 of 7

The federal Clean Water Act and the state water quality standards are structured to apply both to discharges and to the waterbodies being discharged to. Ecology's obligation under the regulations is to review proposed projects to ensure both that the contaminant levels in a proposed discharge meet the water quality standards and that the receiving waterbody is meeting the standards. Essentially, the mechanisms of the Clean Water Act (i.e., permit review under Sections 401 and 402) are intended to result in meeting the goals of the Act (i.e., fishable and swimmable waters, the elimination of toxic discharges, etc.).

"Reasonable Assurance": Review under Section 401 requires Ecology to have "reasonable assurance" that the water quality standards will be met. "Reasonable assurance" is a term of law meaning we must have a "preponderance of evidence" showing that the proposed actions will meet the standards. In addition, "reasonable assurance" recognizes that there is some uncertainty with the decision, given that the proposed actions will occur sometime in the future and cannot be fully predicted. Therefore, once we have the necessary "preponderance of evidence" showing that standards will be met, we can then include conditions that address the remaining areas of uncertainty – for example, conditions can be added to the 401 permit that require monitoring, compliance inspections, review and approval of any design changes, etc.

Interaction of 401 and 402: Another key point in Ecology's review on this particular project is the interaction of two different sections of the Clean Water Act. The proposed SeaTac expansion requires approvals under both Section 401 of the Act (water quality certification) and Section 402 of the Act (NPDES discharge permits). While these sections of the Act are both meant to ensure compliance with water quality standards, they take a different approach that must be rectified when a proposal requires approvals under each.

The Clean Water Act includes different requirements for permit review under Sections 401 and 402. The essential difference is that Section 401(d) establishes that a certification must include all necessary effluent limitations to ensure standards are met, and Section 402(a) allows a permit to either include those limitations or other appropriate measures that will eventually lead to the standards being met.

Ecology has recognized this difference by drafting a policy between its Water Quality Program, which implements Section 402, and its Shorelands and Environmental Assistance Program, which implements Section 401. This policy establishes a review process for proposed projects requiring both permits. Key language of this policy includes the following:

"When a project's discharges are covered by an Individual 402 Permit, and the project is in compliance with that permit as determined by the Water Quality Program, the 401 Certification will require compliance with the Individual 402 Permit as adequate for compliance with the water quality standards, however additional 401 Certification conditions may be necessary to address compliance for stormwater and other water quality impacts or project areas not covered by the 402 Permit."

01-21-2001 04:56pm From-

Issues Related to Ecology's SeaTac Review
January 21, 2001
Page 3 of 7

...and:

"For projects that have not yet obtained a required 402 Permit, the 401 Certification will be held in abeyance for a maximum period of one year, or denied without prejudice until the 402 Permit is received. A 401 Certification can not be approved if a required 402 Permit has not yet been received because reasonable assurance that the standards will be met can not be determined on a proposed future permit."

This difference is also recognized in Ecology's draft Stormwater Management Manual (from Section 1.9.8):

"For projects that require a fill or dredge permit under Section 404 of the Clean Water Act, Ecology must certify to the permitting agency, the U.S. Army Corps of Engineers, that the proposed project will not violate water quality standards. In order to make such a determination, Ecology may do a more specific review of the potential impacts of a stormwater discharge from the construction phase of the project and from the completed project. As a result of that review, Ecology may condition its certification to require:

- Application of the minimum requirements and BMPs in this manual; or
- Application of more stringent requirements."

In essence, when a proposed project requires approval under both Section 401 and Section 402, Ecology must base its 401 decision on whether it has "reasonable assurance" that the 402-regulated activities are meeting the 401 requirement that all applicable effluent limitations be met.

SPECIFIC ISSUES RELATED TO AQUATIC RESOURCE PROTECTION:

As of last October, when I was moved to other duties, none of the following aquatic resource-related issues had been fully resolved for purposes of 401 certification. We were awaiting further information from the Port on many of these issues and were anticipating receipt of public comments during the public comment period that started several weeks ago.

Determine the direct, indirect, and cumulative impacts of the proposal, and identify necessary mitigation:

Ecology's review of this proposed project changed a number of times over the past several years as new information became available about various aspects of the projects. One of the largest areas of change was in determining the extent of the direct, indirect and cumulative impacts associated with the proposed SeaTac expansion.

*Issues Related to Ecology's SeaTac Review**January 21, 2001**Page 4 of 7*

As of last October, Ecology had not yet determined the full or final extent of project-related impacts. Some examples include:

- Auburn wetland mitigation site: the Port had recently informed us that new information about the proposed Auburn wetland site showed existing wetlands at the site were more extensive than originally determined. This had the potential to change the amount and type of wetland mitigation that would be required for the anticipated wetland impacts.
- Proposed South Access Road and expansion of State Route 509: we had not yet fully determined the relationship between these proposed projects and the airport expansion, and had not determined the full extent of wetland impacts due to the proposed road projects.
- Proposed expansion of Industrial Waste System Lagoon #3: the proposed expansion of IWS Lagoon #3 will result in about 10 acres of additional impervious surface being added just north of Wetland 28. This indirect hydrologic impact had not yet been evaluated. In addition, Appendix D of the 1998 Lagoon #3 Expansion Hydrologic Report identifies several deficiencies in the current lagoon that must be corrected as part of the expansion, including reconstructing the eastern containment dike and relocating stormwater piping in the ravine to the east of the lagoon. The area immediately east of the lagoon consists largely of wetlands that have so far been described elsewhere in Port documents as not being impacted by the Port expansion project. This may result in additional direct impacts that have not yet been addressed, and may require additional approvals from Ecology in the form of dam safety permits.
- Ongoing impacts to Northwest Ponds (the "De-icing Study"): the Port's report on de-icing submitted to Ecology last year identified several impacts to waters of the state that have not yet been addressed through either the 401 review or the 402 permitting process. These include the apparent use of the Northwest Ponds as a de facto but unapproved mixing zone for several contaminants (i.e., low dissolved oxygen levels, high metals concentrations) at levels beyond the water quality criteria.

Ecology provided comments to the Port on this initial report, and is expecting a supplemental report sometime in the near future that addresses these comments. These impacts should be evaluated and mitigated through the 401 review process if they are not first addressed through a modification to the NPDES permit. Options include improved source control or stormwater treatment BMPs, or additional mitigation to make up for any loss of wetland functions in the Northwest Ponds due to this ongoing, unapproved impact.

Issues Related to Ecology's SeaTac Review

January 21, 2001

Page 5 of 7

Determine compliance with other associated aquatic resource-related regulations:

Ecology had received comments this past fall regarding the Federal Aviation Administration's (FAA) and Port's compliance with requirements of the National Environmental Policy Act (NEPA). Ecology does not implement this federal law, but the outcome of the FAA's determination could affect the Port's compliance with the State Environmental Policy Act (SEPA), which is a required part of Ecology's review. If there are required changes to NEPA that result in necessary changes to existing SEPA documents, then Ecology must wait until those SEPA changes are completed before making its 401 decision.

In addition, Ecology was expecting comments on whether the Port's current proposal as described in the Corps/Ecology Public Notice for 401 review was in compliance with the requirements of the Governor's certification letter to the FAA several years ago. We were awaiting the final project description to determine whether it met requirements of the Clean Air Act and the Agreed Order for cleanup activities, as described in the Governor's letter.

Determine standards for "clean fill" material:

Ecology had not yet completed its evaluation of what types of material were and were not acceptable to use as clean fill in the airport expansion project. Our evaluation was based on ensuring that fill material would allow groundwater to move through the material to emerge as surface water and not exceed surface water quality standards

Development of an acceptable stormwater plan:

Adequacy of stormwater treatment: at the time of my review, I did not yet have reasonable assurance that the Port's proposed stormwater discharges would meet the applicable water quality criteria; in fact, the documentation I was aware of showed that several criteria would be exceeded. The literature available on the subject of stormwater Best Management Practices (BMPs) showed that the BMPs being proposed by the Port were not adequate to treat stormwater discharges to levels below the criteria for several metals and for fecal coliform. In addition, the Port's annual monitoring reports and recent Discharge Monitoring Reports (DMRs) showed that stormwater discharges to Des Moines and Miller Creeks often had concentrations of several contaminants above the water quality criteria.

The first proposed stormwater management plan submitted by the Port as part of Ecology's 401 review in 1998 included essentially the same BMPs that were being used at the airport at that time and were resulting in the above-noted exceedances. Ecology did a "reasonable potential analysis" based on the known discharges and the modeled effectiveness of those BMPs and determined that they were not effective enough to adequately treat the Port's stormwater discharges to meet several acute water quality criteria. As a result, Ecology's original 401 issued in 1998 required the Port to "double-up" on its BMPs in order to provide more treatment. That original stormwater plan and 401 certification were withdrawn shortly after the 401 was issued, based on new information about wetland impacts. Ecology, however, did consider the stormwater requirements of that 401 as the "baseline" for any future 401s that might be issued.

Issues Related to Ecology's SeaTuc Review
January 21, 2001
Page 6 of 7

When the Port submitted its next proposed stormwater plan, Ecology contracted with King County to provide additional expertise to review the Port's proposal. Over the past year or so, Ecology and the County have been working with the Port to ensure first that their proposed stormwater management plan met the minimum requirements of the Ecology and King County stormwater manuals, and then to determine what additional measures might be needed to ensure the stormwater discharges would meet water quality standards.

As of October of this year, the proposed stormwater plan under review included only the minimum BMPs required under the King County stormwater manual (which are similar to what is in place at the airport now) and did not include all the BMPs required under Ecology's previous certification. I had anticipated that any additional source control or treatment requirements would be evaluated after the County had determined the proposed plan met the minimum technical requirements of the two manuals. This delay in the additional evaluation was due to the likelihood that the County's review would result in additional stormwater detention above what is currently in place at the airport. This additional detention was likely to provide some additional treatment before stormwater flows were discharged to the local creeks.

This anticipated evaluation for additional treatment requirements was important for reaching a defensible 401 decision for several reasons:

- the new and expanded stormwater discharges anticipated from the proposed project are similar to those currently being discharged from the Port; therefore, the effectiveness of the existing BMPs and the resulting water quality exceedances are likely to be similar.
- the state's water quality standards do not allow a compliance schedule for new discharges. Because Ecology must at the time of its 401 decision have "reasonable assurance" that the standards would be met, there must be some measures taken to improve the performance of the existing BMPs.
- a recent Ninth Circuit Court decision (*Defenders of Wildlife v. Browner*) suggested that stormwater discharges associated with industrial NPDES permits (such as the one held by the Port) were subject to water quality based standards (i.e., numeric water quality criteria). The Court's decision included the following:

"As is apparent, Congress expressly required industrial storm-water discharges to comply with the requirements of 33 U.S.C. S 1311. See 33 U.S.C. S 1342(p)(3)(A) ("Permits for discharges associated with industrial activity shall meet all applicable provisions of this section and section 1311 of this title.") (emphasis added). By incorporation, then, industrial storm-water discharges "shall . . . achiev[e] . . . any more stringent limitation, including those necessary to meet water quality standards, treatment standards or schedules of compliance, established pursuant to any State law or regulation (under authority preserved by section 1370 of this title)." 33 U.S.C. S 1311(b)(1)(C) (emphasis added); see also Sally A. Longroy, *The Regulation of Storm Water Runoff and its Impact on Aviation*, 58 *J. Air. L. & Com.* 555, 565-66 (1993) ("Congress further singled out industrial storm water dischargers, all of which are on the

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Issues Related to Ecology's SeaTac Review
January 21, 2001
Page 7 of 7

high-priority schedule, and requires them to satisfy all provisions of section 301 of the CWA [33 U.S.C. S 1311]. . . . Section 301 further mandates that NPDES permits include requirements that receiving waters meet water quality based standards." (emphasis added). In other words, industrial discharges must comply strictly with state water-quality standards."

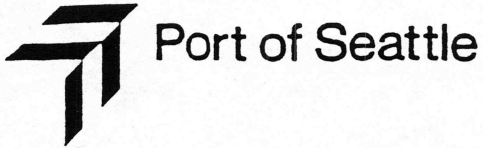
Without fully incorporating the above factors into the review, I was concerned that we would not have a fully defensible 401 decision.

Development of an acceptable streamflow augmentation plan:

During Ecology's 401 review, the Port provided documentation showing that the fill placed for the South Aviation Support Area (SASA) and the impervious surface associated with that development would diminish stream flows in Des Moines Creek to some degree. Ecology had also reviewed the Des Moines Creek Basin Plan, which had been prepared by King County, the Port, and several local jurisdictions, which showed that the creek experienced a number of problems due to existing development in the watershed and would likely experience increased problems due to proposed or expected future development. Among the problems were some violations of water quality standards caused in part by low summer streamflows.

Given this documentation, we informed the Port that part of their proposed mitigation package had to include an acceptable form of streamflow augmentation to prevent and minimize existing and anticipated impacts to the creek. As part of Ecology's 401 approval, the Port had to provide a confirmed source of flow augmentation water and a confirmed treatment system, if necessary, to ensure that the augmentation water met water quality standards.

At the time of my review, the Port had proposed several possible sources of water and a conceptual treatment system, but they had not yet been developed to the level of certainty that provided me with reasonable assurance that the standards would be met.



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January 24, 2001

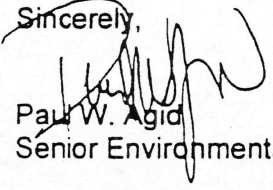
Mr. John Wietfeld
Washington Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

Re: Port of Seattle
Seattle-Tacoma International Airport
MTCA Ground Water Study

Dear Mr. Wietfeld:

I have enclosed for your review minutes of the last Ecology – Port meeting concerning the STIA Ground Water Study that we are now conducting under MTCA Agreed Order 97TC-N112. Please call if you have any questions or comments. We are also awaiting any response Ecology might provide on the responses we sent in early December to the Ecology memos you provided to us at this November 16 meeting. Please let me know if we'll be hearing more on the issues discussed in those documents.

Sincerely,



Paul W. Agid

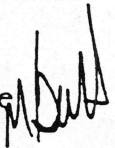
Senior Environmental Program Manager

Seattle-Tacoma
International Airport
P.O. Box 68727
Seattle, WA 98168 U.S.A.
TELEX 703433
FAX (206) 431-5912



Memo

To: Paul Agid

From: Marilyn Guthrie 

CC:

Date: 1/23/01

Re: Meeting Notes - Agreed Order Status 11/16/00

Attendees:

Steve Alexander (Department of Ecology - DOE)

John Wietfeld (DOE)

Roger Nye (DOE)

Ching Pi Wang (DOE)

Elizabeth Leavitt (Port of Seattle)

Paul Agid (POS)

Marilyn Guthrie (POS)

Meeting:

It is Ecology's position that the current Agreed Order between Ecology and the Port of Seattle is a unique one. It currently only includes:

1. A Hydrogeologic Study and
2. A Review of the Fuel Operations Area

Usually an Order would include a mechanism to take the site through clean up. The Agreed Order will end with statement of groundwater contamination pathways and risks to identified receptors. If any follow up clean up is determined necessary, it will be undertaken by the Port outside the scope of this Agreed Order, probably as an Independent Action.

It is anticipated that after the Agreed Order is complete, other mechanisms such as VCP, etc. will be used to complete work at all sites. The Port expressed concern that once the Port completed the Agreed Order activities, Ecology might require additional actions on sites shown to pose no MTCA risks. The

Port indicated that VCPs would be submitted on major sites and Independent clean ups would be completed if additional action were necessary. Ecology conceptually agreed with this approach.

It is also important to Ecology that the scope of the Agreed Order does not become enlarged as the project progresses. Scope creep must not happen. The need for flow model boundaries that extend beyond identified potential receptors, and that establish technically desirable boundary conditions were discussed. Ecology is unsure of validity of using new 3rd RW geotechnical wells for ground water level measurement in context of task to measure water levels from a select subset of wells. Is this scope expansion? (Response is included in response to two memos, submitted to Ecology in December 2000.)

The Hydrogeologic study covers the area outside the Airport Operations and Maintenance Area (AOMA). Therefore, the model covers an area outside the AOMA. This also needs to be memorialized in a letter to Ecology. (Response to Ecology memoranda of study status and questions on "potential sites" was provided to Ecology in December 2000 and is also well defined in the response summary.)

The set of receptors were mutually agreed to by the Port and Ecology, and are listed in the Agreed Order.

All sites (contaminated source areas) involved in the agreed order should be agreed upon by both the Port and Ecology. This needs to be memorialized in a letter to Ecology. A November 15, 2000 letter and a second letter dated November 13, 2000 were handed out during the meeting listing Ecology's understanding of the items completed and not completed on Agreed Order 97TC-N122. Responses to those letters were provided to Ecology in December 2000.

Ecology is requesting that the Port go forward with its modeling efforts as soon as possible. The Port is currently limited by not having Ecology approvals to proceed and by lack of sufficient Commission Authorization for expenditures. Currently, lack of Ecology technical approval and lack of commission approval of needed additional funding will prevent the Port of Seattle from going forward with modeling effort until at least March 2001. The status of the model is that the computer flow models have been set up, but Fate & Transport and particle tracking models have not.

Ecology also expressed it's current shortage of resources, specifically staffing shortages, would limit its level of activity as well.

Public Participation plan:

Response summary and Airport newsletters.

Page 6 of The Public Participation Plan indicates that a Workshop will occur after the report on the results of Phase I activities and the Addendum to the Agreed Order describing proposed Phase II activities are complete. Ecology believes that the Public should be more involved in general, and in response the Port expressed concern about public involvement beyond the scope of the of the Agreed Order, cost of scope control, and our ability to be open while in litigation with certain Public groups. Ecology is requesting additional public workshops to review the responsive summary, changes in scope and progress on modeling and other issues.

Fuel System database set up complete. Inspections by Ecology ongoing.

Steve Alexander requested a schedule in the form of a time line (gant chart), which includes Public Participation events. (POS will provide once any scope changes are agreed to and approvals to run the models are granted.)

Steve Alexander has requested that he be included in commission meetings.

Comments to consider:

If it is better to modify the scope by amending the scope and sending it out for public comment than to have Ecology and the Port exchanging letters, then we should amend the scope. Paul suggests adding any additional scope changes to those already shown in the Responsive Summary. Therefore, there would be only one set of changes to the original proposed Scope of Work.

Thanks! Please call me if you have questions.

Marilyn Guthrie
Environmental Specialist
Ph. (206) 988-5508
Fax (206) 988-5636
guthrie.m@portseattle.org
17900 International Blvd., Suite 402
SeaTac, WA 98188

1/25/01

Comments - may be useful

Notes for the 3RW Public Meetings and Hearings - January 26 and 27 '01

- My name is Ray Hellwig and I am the Director of Ecology's NW Region. I am a member of the agency's SMT and I consult regularly with other managers, policy and technical staff and our attorneys regarding runway-related proposals.
- With me is Ann Kenny. Ms. Kenny is a senior Environmental Specialist at our region with over 10 years of regulatory experience including extensive experience with 401 WQ Certifications. She is a veteran reviewer of major projects including the RTA heavy rail project. Ms. Kenny works with personnel in other Ecology programs, such as WQ and Shorelands/Wetlands to determine whether a project should be approved, conditioned or denied.

I hired Ms. Kenny as a 401 reviewer about 3 years ago when we regionalized the function. She received training from Tom Luster who worked out of our HQ Office.

1. When will Ecology make a decision?

When we have received sufficient information from the Port, and have sufficient time to review it.

2. Has Ecology already made up its mind?

No. Ecology is currently in the process of reviewing the Port's application. We will not approve the project unless we are convinced it will comply with all pertinent environmental laws and regulations and that we can achieve our environmental objectives.

3. Why is the process closed, and why do you have so many meetings, some secret, with the Port?

It's a routine part of our job to meet with project proponents and clarify for them what is required by the law, and what would be necessary for us to be able to approve their project. We won't approve the project until those requirements are met. Ecology has received comments from those concerned about the project and we have considered those concerns as the process has moved forward. We held a few meetings with groups opposed to the project.

4. What is your role in the project review process?

I am the spokesperson for the Director in the region. My job includes pulling together technical experts from multiple programs to work through issues and solve problems associated with numerous proposals.

5. Why did you reassign staff already reviewing the 3RW?

Reassigning staff is one of the many functions associated with workload management. We did not anticipate that review of the runway project would last as long as it has, we

For Q & A
Portion

have needed to assign staff back to other priority work that has not received adequate attention. Mr. Erik Stockdale asked me to facilitate his reassignment to other priorities.

6. Why are you using contractors paid for by the POS to review the Port project?

It's a capacity issue. We review thousands of various types of projects and make scores of 401 Certification recommendations each year. We advised the Port that we would not have time to review their project in the timeframe they were interested in without additional resources. The Port agreed to pay for consultants that report to Ecology i.e., they are Ecology's consultants, the Port pays for them, but they do not report to the POS. The Port does not have direct access to the consultants, all communications are through Ecology.

7. How can you move ahead with review of the project when SEPA has not been properly followed?

The federal agencies have the lead for NEPA, and the POS has the lead for SEPA. We will evaluate the adequacy of SEPA more thoroughly as part of our CZM consistency determination.

8. Why is Ecology not considering the 509 temporary interchange as part of the 401 review for the runway?

The interchange will be regulated through a MM to the Port's NPDES permit as a temporary construction facility. The permit needs to identify Walker Creek. There are no direct impacts to wetlands.

9. Why has the Port been allowed to build a parking lot and work in/on the SASA site without a 401 Certificate?

This work is authorized through the temporary construction facility provisions in the NPDES permit. The Port submitted a SWPPP and monitoring plan.

10. Why doesn't your 401 review include the South Access Road?

This is a separate project. When the application is received from the DOT, it will be reviewed and evaluated for impacts – a mitigation plan would have to be developed and approved before the SAR project could move forward.

11. Why did Ecology start to withhold information through the public disclosure process?

We make every effort to be open with documents. In very limited instances we hold back materials that are attorney client privilege, or pursuant to the deliberative process exemption provided for in the PRA. The exemption recognizes that employees in state agencies need to be permitted to internally *debate and work through complex issues*. *Once the issues are worked out, the materials can be released.*

12. The "Agreed Order", how is being treated in your 401 review process?

The AO pertains to a set of circumstances and regulatory requirements separate from the 3RW and associated projects. Having said that, however, the 401 will be conditioned to

- indicated that the Port must comply with all other state laws and regulations relating to the project.

13. What about the Governor's Certificate?

The project will have to comply with all other pertinent state laws and regulations, including the GC. The 401 will be conditioned accordingly.

14. What are you going to do about the ESA?

We don't enforce the ESA but we need to take it into account when we make decisions. We make decisions consistent with our laws and authority – that are defensible vis a vis the requirements of the ESA (i.e., decisions that provide protection pursuant to the "take" provisions of the ESA.)

15. Why isn't the Port proposing flow augmentation? Won't Ecology require this?

The Port's proposal will need to include provisions addressing how it will compensate for impacts its project has on base-flows. We are in the process of evaluating their proposal accordingly.

16. Is the Port receiving special treatment or consideration? Has the Governor put pressure on Ecology to approve the project?

The Port is receiving attention for this project commensurate its size i.e., it is a major project and requires resources adequate to review it.

The Governor support Ecology's decision making process for this project i.e., that ECY should only make a decision once it has sufficient information and sufficient time to review it.


17. How can you consider a 401 permit when the Port is out of compliance with its 402 permit?

We have not determined that the Port is currently out of compliance with their permit. In the past, the Port has taken appropriate action when there have been compliance issues.

DEPARTMENT OF ECOLOGY
Northwest Regional Office

February 8, 2001

TO: Diane Singer
Grants Administrator
SWFAP-HQ

FROM: John Wietfeld 
Site Manager, Sea-Tac Airport
Washington State Department of Ecology
Toxics Cleanup Section
Northwest Regional Office

SUBJECT: Port of Seattle
Sea-Tac Airport Grant for Agreed Order #97T-N122

I would like to request an Audit of the Port of Seattle Grant for Agreed Order # 97T-N122 for the following reasons:

There appears to be a possible issue of duplicative funding where costs of this Agreed Order could be covered both by the grant and by cost recovery from other parties.

Additionally an Audit would be appropriate and in the public interest given the high degree of attention and concern this project has experienced.

Thank you for your attention to this matter.

Cc: Steve Alexander
Ching-Pi Wang
Roger Nye

JW: lg

Grant No. G0000052
STIA Phase 1 Ground Water Study
Agreement with the Port of Seattle

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY
AND
PORT OF SEATTLE

This is a binding agreement entered into by and between the state of Washington Department of Ecology, hereinafter referred to as the DEPARTMENT, and the Port of Seattle, hereinafter referred to as the RECIPIENT, to carry out the activities described herein.

RECIPIENT ADDRESS	P.O. Box 1209 Seattle, WA 98111
RECIPIENT REPRESENTATIVE	David Aggerholm
RECIPIENT TELEPHONE NUMBER	(206) 439-6604
FAX	(206) 431-5912 988-5636
RECIPIENT PROJECT COORDINATOR	Paul Agid
DEPARTMENT PROJECT OFFICER	Steve Loftness, (360) 407-6060
DEPARTMENT FAX	(360) 407-7157
DEPARTMENT TECHNICAL STAFF	Roger Nye (425) 649-7251
FUNDING SOURCE	Local Toxics Control Account
MAXIMUM ELIGIBLE COST	\$861,000
STATE GRANT SHARE	\$430,500
LOCAL SHARE	\$430,500
STATE MAXIMUM GRANT PERCENT	50%
FEDERAL TAX IDENTIFICATION NO.	91-6001025

The effective date of this grant is March 1, 1997. Any work performed prior to the effective date of this agreement without prior written authorization and specified in the Scope of Work will be at the sole expense and risk of the RECIPIENT.

The project described herein must be completed on or before June 30, 2001.

This agreement shall expire no later than June 30, 2001.

Grant No. G0000052
STIA Phase 1 Ground Water Study
Agreement with the Port of Seattle

PROJECT DESCRIPTION

The Port of Seattle has entered into an Agreed Order with the Department of Ecology to conduct a comprehensive ground water study related to airport fuel systems at Seattle-Tacoma International Airport (STIA). The study is a response to local resident concerns about the potential that airport operations could adversely impact ground water resources.

The Port has owned and operated STIA since it opened in 1944. Over the years, jet fuel and other petroleum products have been released to the environment in the Aircraft Operations and Maintenance Area (AOMA) of STIA. The AOMA is a one-half square mile area in the southeast quadrant of the airport. These substances were released primarily from underground storage tanks, fuel distribution piping systems, and to a lesser degree, from aircraft maintenance activities.

The first phase of the ground water study will include collecting and evaluating a significant volume (over 44,000 entries) of existing data. The data will be used to develop a computer model of ground water flow to help identify the potential risk of contamination reaching public drinking water supply wells and nearby surface water bodies.

The grant will cover part of the cost of the study, but will not pay for associated pollution prevention work under the Agreed Order. The grant will also assist in paying for the scoping of Phase 2 of the study, which will involve drilling more ground water monitoring wells.

SCOPE OF WORK

The task(s) set forth below summarize the RECIPIENT's activities, budget(s) and schedule(s).

1. **PROJECT TASK: PHASE 1 & 2 DESIGN AND SCOPING**

Maximum Eligible Cost: \$18,000

Schedule: March 1, 1997 to June 30, 2001

Project Description:

- a. Review ground water issues, source issues, and potential exposure issues.
- b. Review characteristics of Qva and deeper aquifers in the STIA vicinity.
- c. Maintain consistency with MTCA rule developments.
- d. Prepare scopes of work and designs for Phases 1 & 2 of the studies.

Grant No. G0000052
STIA Phase 1 Ground Water Study
Agreement with the Port of Seattle

2. PROJECT TASK: REVIEW EXISTING DATA

Maximum Eligible Cost: \$74,000

Schedule: March 1, 1997 to June 30, 2001

Project Description:

- a. Review project files from previous remedial actions.
- b. Review files from South King County Ground Water Management Plan, City of Seattle Highline Wellfield data, Highline Water District data, USGS files, Metro files, and Ecology files.
- c. Develop a thorough understanding of local hydrogeologic conditions.

3. PROJECT TASK: DEVELOP COMPREHENSIVE DATA BASE

Maximum Eligible Cost: \$222,000

Schedule: March 1, 1997 to June 30, 2001

Project Description:

- a. Enter coordinates and names of all representative locations (156 on-site wells, 100 off-site wells, 112 on-site borings for a total of 368 locations).
- b. Enter existing sample information (date, matrix, requested analyses, depth, etc.) for all samples. Assume 1,497 samples.
- c. Compile data into the GIS-compatible EnviroEDGE information system.
- d. Input aerial photos, surface maps, and geologic maps to prepare three-dimensional presentations.

4. PROJECT TASK: MONITOR SUBSET OF EXISTING WELLS

Maximum Eligible Cost: \$91,000

Schedule: March 1, 1997 to June 30, 2001

Project Description:

- a. Select a subset of existing wells screened in the Qva aquifer to test, check, or monitor for hydrogeologic information in the "source area" and/or to form part of a ground water monitoring system. Assume 17 wells monitored quarterly for one year.

Grant No. G0000052
STIA Phase 1 Ground Water Study
Agreement with the Port of Seattle

b. Update data base, conduct focused field investigations, and develop conceptual model.

5. PROJECT TASK: DEVELOP & IMPLEMENT GROUND WATER MODEL

Maximum Eligible Cost: \$148,000

Schedule: March 1, 1997 to June 30, 2001

Project Description:

- a. Combine ground water modeling with soil analysis and contaminant transport modeling to build theoretical model for the area.
- b. Based on model, evaluate possibility of contamination from AOMA impacting Highline well field, publicly recorded and operational private drinking water supply wells, Bow Lake, Des Moines Creek, and Miller Creek.

6. PROJECT TASK: PHASE 1 DATA ANALYSIS AND REPORTING

Maximum Eligible Cost: \$42,000

Schedule: March 1, 1997 to June 30, 2001

Project Description:

- a. Present the results of the Phase 1 modeling in a summary report.
- b. Recommend proposed scope of Phase 2 study, including locations of new monitoring wells.

7. PROJECT TASK: CONSULTANT PROJECT MANAGEMENT

Maximum Eligible Cost: \$114,000

Schedule: March 1, 1997 to June 30, 2001

Project Description:

- a. Provide leadership, direction, and quality control.
- b. Prepare and manage changes of contract scope, cost estimates, and schedule as required.
- c. Prepare monthly status reports.

Grant No. G0000052
STIA Phase 1 Ground Water Study
Agreement with the Port of Seattle

8. **PROJECT TASK: PORT PROJECT MANAGEMENT**

Maximum Eligible Cost: \$152,000

Schedule: March 1, 1997 to June 30, 2001

Project Description:

- a. Coordinate with the consultant and the Department.
- b. Assure compliance with Agreed Order.
- c. Manage all financial aspects of project.

BUDGET

<u>Project Task</u>	<u>Maximum Eligible Cost</u>
1. Phase 1 & 2 Design and Scoping	\$ 18,000
2. Review Existing Data	74,000
3. Develop Comprehensive Database	222,000
4. Monitor Subset of Existing Wells	91,000
5. Develop & Implement Ground Water Model	148,000
6. Phase 1 Data Analysis & Reporting	42,000
7. Consultant Project Management	114,000
8. Port Project Management	152,000
TOTAL	\$861,000

Grant No. G0000052
 STIA Phase 1 Ground Water Study
 Agreement with the Port of Seattle

FUND SOURCE

Total Eligible Project Cost		\$861,000
<u>Fund</u>	<u>Fund Share (%)</u>	<u>Maximum Fund Amount</u>
Local Toxics Control Account	50%	\$430,500
<u>Match Requirement</u>	<u>Match Share (%)</u>	<u>Match Amount</u>
Cash Match	50%	\$430,500

ADDITIONAL BUDGET CONDITIONS

1. Overhead is eligible; the RECIPIENT may charge 25 percent of the RECIPIENT salaries and benefits applied directly to the project as overhead.
2. The fiscal office will monitor expenditures at the task level. A letter amendment is required to redistribute costs among tasks. A formal amendment is required to increase state funding.
3. The maximum allowable amount from LTCA is \$430,500. All remaining costs will be paid by cash match.

SPECIAL TERMS AND CONDITIONS

A. MINORITY AND WOMEN'S BUSINESS PARTICIPATION

The RECIPIENT agrees to solicit and recruit, to the maximum extent possible, certified minority-owned (MBE) and women-owned (WBE) businesses in purchases and contracts initiated after the effective date of this Agreement.

In the absence of more stringent goals established by the RECIPIENT's jurisdiction, the RECIPIENT agrees to utilize the DEPARTMENT'S goals for minority- and women-owned business participation in all bid packages, request for proposals, and purchase orders. These goals are expressed as a percentage of the total dollars available for the purchase or contract and are as follows:

Construction/Public Works	10% MBE	6% WBE
Architecture/Engineering	10% MBE	6% WBE
Purchased Goods	8% MBE	4% WBE
Purchased Services	10% MBE	4% WBE
Professional Services	10% MBE	4% WBE

Meeting these goals is voluntary and no contract award or rejection shall be made based on achievement or non-achievement of the goals. Achievement of the goals is encouraged,

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however, and the RECIPIENT and ALL prospective bidders or persons submitting qualifications shall take the following affirmative steps in any procurement initiated after the effective date of this Agreement:

1. Include qualified minority and women's businesses on solicitation lists.
2. Assure that qualified minority and women's businesses are solicited whenever they are potential sources of services or supplies.
3. Divide the total requirements, when economically feasible, into smaller tasks or quantities, to permit maximum participation by qualified minority and women's businesses.
4. Establish delivery schedules, where work requirements permit, which will encourage participation of qualified minority and women's businesses.
5. Use the services and assistance of the State Office of Minority and Women's Business Enterprises (OMWBE) and the Office of Minority Business Enterprises of the U.S. Department of Commerce, as appropriate.

By signing this Agreement, the RECIPIENT certifies that the above steps were, or will be followed. Any contractor engaged by the RECIPIENT under this agreement shall be required to follow the above five affirmative steps in the award of any subcontract(s).

The RECIPIENT shall report to the DEPARTMENT at the time of submitting each invoice, on forms provided by the DEPARTMENT, payments made to qualified firms. The report will address:

1. Name and state OMWBE certification number of any qualified firm receiving funds under the voucher, including any sub-and/or sub-subcontractors.
2. The total dollar amount paid to qualified firms under this invoice.

B. USE OF EXISTING CONTRACTS

The RECIPIENT may use existing contracts that conform to adopted procurement procedures and applicable state laws. The RECIPIENT shall notify the DEPARTMENT if it used contracts entered into prior to the execution of the grant agreement for performance of grant funded activities.

C. ALL WRITINGS CONTAINED HEREIN

This agreement, the appended "General Terms and Conditions," and the DEPARTMENT's Administrative Requirements for Ecology Grants and Loans, WDOE 95-701, contain the entire understanding between the parties, and there are no other understandings or representations except as those set forth or incorporated by reference herein. No subsequent modification(s) or amendment(s) of this grant agreement shall be of any force or effect unless in writing, signed by authorized representatives of the RECIPIENT and DEPARTMENT and made part of this agreement; EXCEPT a letter of amendment will suffice to redistribute the budget without increasing the total eligible project cost or to change the DEPARTMENT's Project Officer or the

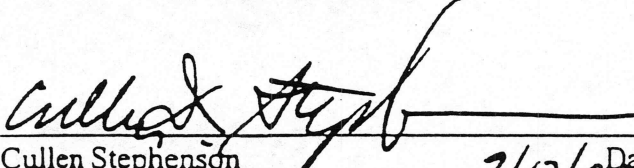
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RECIPIENT's Project Coordinator or to extend the period of performance as set forth in the
Grant Agreement.

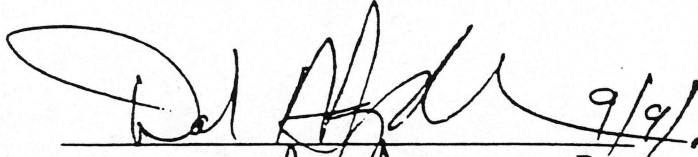
IN WITNESS WHEREOF, the parties hereby execute this Grant:

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PORT OF SEATTLE



Cullen Stephenson
Program Manager
Solid Waste and Financial Assistance
7/17/99 Date



Date 9/9/99
DAVID A. AGGERHOLM
(printed name)
MANAGER, Health, Safety &
(title) ENVIRONMENTAL SERVICE

Approved as to form only by Assistant Attorney General.