

**DEPARTMENT OF ECOLOGY
Memorandum**

8/13/01

To: Tom Fitzsimmons, Director

From: Ray Hellwig, Director

Subject: Briefing Decision – for the Port of Seattle Sea-Tac International Airport
Third Runway Proposals - *(Expanded Version for Tuesday Meeting)*

Following an extensive and thorough regulatory review and decision-making process, we have reached a recommendation to approve a 401 Water Quality Certification for the Port of Seattle's (Port) Third Runway and related project proposals. The Port has submitted plans that, together with what we believe are necessary 401 conditions, satisfy requirements pursuant to all pertinent environmental laws and regulations. The Port's Stormwater Management and Low-Flow Management Plans (SMP and LFMP), and Natural Resource Mitigation Plan (NRMP), together with our proposed conditions regarding construction Best Management Practices (BMPs), additional natural resource mitigation, and requirements for clean fill, give us reasonable assurance water quality and other aquatic resources will be protected.

Below is a summary of the Port's proposals; known and expected project impacts; permit requirements; agency environmental objectives; mitigation requirements; and major areas of concern surrounding the decision-making process/adequacy of the Port's proposals.

THE PORT'S PROPOSAL:

Implement selected projects from the Port of Seattle (POS) Sea-Tac International Airport (STIA) list of Master Plan improvements.

Specifically: Construct an 8,500 - foot (1.6 mile) parallel third runway west of existing runways at STIA. Construct two new Runway Safety Areas (RSAs) on the north end of existing runways; construct the South Aviation Support Area (SASA) for increased airport support and maintenance facilities.

LOCATION:

King County, City of SeaTac. The Green-Duwamish Watershed/Basin, Des Moines Creek, Miller Creek and Walker Creek sub-basins. City of Auburn, is the location for the Port's off-site wetland mitigation.

IMPACTS:

Implementation of the work involves development and/or redevelopment of approximately 700 acres in uplands (outside of U.S. Army Corps of Engineers [ACOE]

jurisdiction). Fill in wetlands includes 8.17 acres of forested, 1.08 acres of scrub-shrub and 7.22 acres of emergent wetlands.

The proposed work also requires filling and reconstruction of approximately 980 linear feet of Miller Creek, 1,290 linear feet of drainage channels in Miller Creek sub-basin, and 100 linear feet of drainage channel in the Des Moines Creek sub-basin.

In addition to the permanent wetland impacts totaling 18.7 acres, up to 2.05 acres of wetlands would be subjected to temporary impacts. Temporary impacts would result from construction of stormwater facilities (sediment fencing, conveyance channels, and sedimentation ponds) to protect down-slope water quality.

Note: The embankment will require more than 20 million cubic yards of material – To get a sense of what this would look like, one might first imagine two football fields side-by-side, with material piled up 300 feet high – this would equal about 1 million cubic yards. Next step, imagine 20 of these side-by-side football fields stacked with 300 feet of material, all lined up in a row. The amount of fill makes this project unprecedented.

PERMIT REQUIREMENTS / ENVIRONMENTAL OBJECTIVES:

Permits: Federal Clean Water Act Section 401 Water Quality Certification, then ACOE Section 404 permit; Coastal Zone Management Program consistency determination.

Environmental Objectives: Since 1998, Ecology's objectives have been clearly and consistently articulating to the Port, and to the organized runway opposition groups.

- Ensure the Port's project will meet requirements of all applicable aquatic resource laws and regulations
- Fulfill agency responsibility to protect, maintain, and mitigate for impacts to water quality, water quantity, hydrology, food-chain support functions, and aesthetics of the Miller, Walker, and Des Moines Creek sub-basins in and around STIA – from impacts associated with the third runway and associated projects
- Recognize that agency responsibilities are linked to ensure the protection of all beneficial uses in receiving waters including water quality, water quantity and fish
- Achieve agency objectives by requiring appropriate wetland, floodplain, stream and riparian mitigation, as well as all necessary water quality, stormwater treatment and detention management practices
- Ensure wetlands are replaced on a one-to-one basis "on-site" to ensure compensation for lost infiltration, water quality and wetland functions (off-site in-basin mitigation shall be required on at least a 2-1 basis)
- The success of required mitigation will be dependent upon appropriate stormwater detention measures in some instances

An overriding objective has been to ensure that project impacts are minimized or avoided. Where they are unavoidable, the objective is to make sure they are fully mitigated, and if possible, have necessary mitigation result in a net benefit to the environment.

The agency's ultimate goal has been a decision that is scientifically sound, technically feasible and legally defensible.

PRIMARY MITIGATION REQUIREMENTS – WHAT THE PORT IS PROPOSING:

Stormwater: The Port is proposing to construct 15 major stormwater pond and vault facilities and several temporary ones. The largest vault, built at the southern at the south end of the runway embankment, would detain up to 88 acre-feet of stormwater. Several ponds will hold as much as 20 to 40 acre-feet of stormwater.

Stormwater will be detained to manage peak-flows and to ensure water adequate to mitigate impacts to low-flows (create capacity to mimic the natural hydrologic cycle).
Total stormwater management related detention requirements = 390.1 AF

Total detention for peak-flow management = 344.1 AF
Total detention for low-flow management = 46.0 AF

Note: The amount of stormwater to be detained is substantial. The 88 AF vault may be the biggest underground facility of its kind in the country – it is equal to as many as 30 King County/Weyerhaeuser Aquatic Center Pools (the World Class Olympic sized pool located in Federal Way).

Wetlands/Aquatic Resource/Habitat Mitigation and Restoration: The Port is proposing a total of 201.14 acres of mitigation (wetland restoration/enhancement and buffer enhancement) – 84.87 for which they expect mitigation credit.

On-site mitigation = 67.01, POS expects credit for 20.97
Off-site mitigation in-basin = 134.39, POS expects credit for 63.9

The Port has put a lot of mitigation on the table – the on-site and off-site wetland mitigation ties back to stated agency the environmental objectives. The Port had argued that the FAA rules would not allow mitigation within 10,000 feet of the runway due to the Bird Air-strike Hazard (BASH). On-site mitigation previously imposed at Paine Field led us to believe there was flexibility in the FAA rules.

About a year and a half ago, we organized a meeting with the Port and FAA, where agreement in principle was reached for a MOA to allow on-site mitigation under some circumstances. This resulted in the development of a Wildlife Hazard Management Plan that accompanies the Port's NRMP – the plan allows for quality wetland mitigation on-site and accounts for the need to manage the BASH concern.

Regarding off-site in-basin mitigation. Relatively new state law encourages off-site/in-basin mitigation for major infrastructure projects. The 134 acres of out of basin mitigation in Auburn is within the same basin – WRIA 9.

Other Mitigation/Restrictions:

- Removal of existing development (including removal residential stream bank bulkheads, septic tanks, underground storage tanks, ornamental vegetation, invasive species, and water uses)

- Creation of buffers along Miller Creek – 6,500 linear feet will be vegetated with native woody vegetation
- Restoration of in-stream habitat at four locations in the Miller Creek channel
- Installation of large woody debris along approximately 6,500 linear feet of Miller Creek channel
- Imposition of restrictive covenants

The Port has had concerns with the covenants in so much as they restrict potential future commercial development. But the covenants will help us manage the cumulative impacts issues associated with future Master Plan improvements, DOT projects etc. i.e., provide certainty that mitigation for future projects, if they happen, will be imposed consistent with project impact and level of risk.

MAJOR AREAS OF CONCERN:

1. Stormwater Management Plan (SMP) / Low-Flow Mitigation (LFM)

Stormwater management, including low-flow mitigation has been challenging from a technical as well as political/economic standpoint. But numerous iterations of plan submittals from the Port finally resulted in a very good comprehensive set of stormwater management plans – plans that are scientifically, technically and legally defensible.

As Part of its SW management plan, the Port needs to manage water as best as possible to mimic the natural hydrologic cycle – to ensure stream flows in late summer and fall are adequate to support water quality and beneficial uses.

The need for water for low-flow mitigation is substantial. For example, the project will take away nearly one-third of the base flow in Des Moines Creek at the most critical time of the year. The Port needs to manage stormwater such that it can offset this impact during a 90-day period starting in late July each year.

(Note: Because the Port is managing stormwater in way to mimic the natural hydrologic cycle, and not "augment" flows, or to address a specific beneficial use e.g., using stormwater for an industrial cooling water facility, the we will not require the Port to obtain a water right.)

Thorough technical review has been essential. The amount of water needed for Des Moines Creek is significant. Updated analysis shows the need increasing from approximately 1.8 acre feet to 12.2 acre feet (over one million gallons)

** Our King County Consultant advises that the Port's SMP and LFMP exceed the technical requirements of the King County Stormwater Management Manual. The King County Stormwater Management Manual is more stringent than the current State Department of Ecology Stormwater Management Manual.*

2. Natural Resource Mitigation (NRMP) - and Wildlife Hazard Management Plan

The Port's proposals are very substantial. Together with the WHMP, our additional mitigation required for temporary impacts, and monitoring and oversight requirements, these proposals provide the level of assurance we need.

3. Acceptable Fill Criteria and related issues

The 401 includes extensive conditions addressing the need for clean fill. Federal law states that toxic fill in toxic amounts is not allowed for fill projects, but there is no guidance provided. With no established criteria on which to rely, we decided it is appropriate to use Model Toxic Control Act (MTCA) clean up level A criteria. Runway opponents have argue this is a misuse of MTCA – the agency acknowledges that MTCA was not created for fill project purpose, but we explain we are not invoking MTCA authority but, for lack of any other available tools, it is appropriate to use the stringent tools developed for MTCA.

This approach is sound for this project. Admittedly, these are unprecedented requirements in a 401, and the Port has argued the requirements are too stringent and unfair. Our position is that this is no ordinary project in terms of scope and uncertainty with respect to how the fill embankment might affect natural resources. We believe the conditions are necessary for our reasonable assurance and defensibility of our decision.

4. Governor's Certification (for FAA funding) and MTCA Agreed Order Groundwater Study (AOGW) – Need for Pathways Analysis

Runway opponents have argued that ECY must wait for the AOGW study outlined in the Governor's Certification letter to be completed before making a 401 decision. We have explained that the AO GW and 401 are not legally or procedurally linked. But we have agreed to look into the substantive concerns of opponent groups i.e., that the infrastructure for the runway construction would create pathways for contaminants from the Airport Operations and Maintenance Area (AOMA [area for MTCA AOGW study]) to be transported to runway sites

TCP staff completed a pathway analysis to inform the 401 decision – and have recommended BMP language for the 401. We are satisfied water quality will be protected from runway infrastructure near the AOMA.

5. Air Quality

No new issues since the EIS – conformity is not an issue

6. CZM

Done – the project will be consistent with the state's Coastal Zone Management Program

RELATED ISSUES:

1. Relationship between the 401 and existing individual 402 NPDES Industrial Stormwater Permit – retrofitting existing stromwater facilities and constructing new facilities.

The Port has an existing individual NPDES industrial stormwater permit – it will be up for renewal in about a year. After considerable policy related discussions, we ultimately agreed that the 402 would continue to be the tool to manage existing facilities – and that

new facilities covered by the 401 would be incorporated into Ports 402 when it came up for renewal. However, the 401 does have a schedule for retrofitting existing facilities.

Concern has been that the 401 is a one time shot under the law to arrive at reasonable assurance water quality will be protected. Under the 402, the Port can ratchet up BMPs to satisfy requirements, instead of shooting for a higher level of treatment/management that ultimately might not be required. Although runway opponents disagree, we believe the flexibility allowed by 402 is appropriate for this project.

2. NPDES 402 Major Modification

A Major Modification to the Port's NPDES permit had been issued. The modification allows for the construction of the 509 interchange recently issued. It allows the Port to move materials and equipment onto Port property runway sites. The modification ratchets up monitoring and discharge limits/requirements beyond the base NPDES permit requirements. It's a heads-up to the Port, that when the 402 is renewed in a about a year, it will be more stringent than it's existing permit, this could be controversial. (The 401 is needed for placing the stockpiled fill into the wetlands, thus enabling construction of the third runway embankment – the port has proceeded at its own risk with respect to the interchange.)

3. Agreed Order Groundwater Study Audit

This is almost a "side issue" with respect to the 401 decision (see above – AOGW not linked to 401). But the audit has shown that the Port needs to tighten up financial controls related to grant supported projects – opponents have made issue of this, and there has been Public Disclosure Request related work that staff and lawyers have needed to deal with.

4. Schedule

This has been a constant concern of the Port and runway opponents alike. Our position has remained constant – we are neither a proponent or opponent of the Port's proposals, we have said we will make a decision when we have adequate information to determine if the project will comply with pertinent laws and regulations and that agency objectives will be achieved.

One related and significant concern is the degree to which the 401 can be provisional in nature. This has to do with how much the agency might rely on future submittals of information when arriving at reasonable assurance water quality will be protected.

The degree to which there is organized opposition to a project may be a factor in this. We are looking at permit review procedures to fully understand this issue. The "Battle Mountain Gold" decision clearly points to a need to not develop permit conditions that rely too heavily on future submittal of key technical information. Our decision on the Port's runway and related proposals does not do this. A key example is the requirement the Port complete key technical work related to low-flow impacts prior to a 401 decision.

5. Oversight and Monitoring

- The POS agreed to fund a minimum of 3 FTEs, as many as 5 FTEs

A capacity issue. To ensure compliance with the terms and conditions of this permit, ECY needs additional resources. The agency/NW Region will need a senior WQ engineer, a WQ compliance inspector and a wetlands/habitat specialist at least. We have letter from Port where it agrees to fund at least 3 FTEs, and as many as 5 FTEs if workload justifies it (for the additional 2 FTEs). This is an unprecedented accommodation by the Port, but is necessary and helps show Ecology will have the capacity to ensure permit terms and conditions will be complied with.

6. Cumulative impacts – e.g., DOT 509 South Access Road

Runway opponents contend that the DOT SR 509 South Access Road and other, yet to be fully conceptualized, projects by the Port be incorporated into the review for the runway and related projects. We don't believe it is reasonable to wait the number of years that may be necessary for all future DOT and the Port STIA related projects to be fully developed prior to making a decision on the third runway and related projects. We have developed restrictive covenants to deal with possible environmental impacts associated with future yet to be fully planned projects.

MISCELLANEOUS POINTS:

1. Need for facilitator and structured process (technical and management meetings)

After determining the Port's project was not approvable last September, we told the Port we would need to deny the project if the 401 application was not withdrawn. The Port subsequently withdrew. At the same time, we also agreed to a process we thought would help us arrive at a defensible decision in about a 5 month period (we knew this would be very difficult).

The Port agreed to pay for a facilitator to assist with a very structured technical review process where we have documented very clearly for the Port what it needed to submit to us to satisfy our requirements for a defensible decision. While the agreed to approach increased our ability to work through critical issues with the Port, the 5 month timeframe was too optimistic as we had suggested earlier. We are just now at an end point in our review/decision-making process. We would not have reached this point without the help our consultants and the very structured facilitated process.

2. Use of consultants

- King County has provided excellent support for SMP and LFMP review

Part of our success in reaching a decision for the Port's project was dependent upon the Port's agreement to pay for the services of consultants to support Ecology's review. A year and a half ago, with Port financing, we contracted with King County for support in reviewing the SMP and LFMP. Support from County included management and technical assistance backup for the senior engineer. King County provided excellent support, utilizing highly competent and credible expertise to complete the work we asked for in our contract. The County's primary job was to determine if the Port's proposals would meet the technical requirements of the King County Stormwater Management Manual. As mentioned above, the County has determined that the Port's project not only

satisfies these requirements, but exceeds them. This is significant in so much as the KC Manual is more stringent than Ecology's own Stormwater Management Manual.

- Shannon and Wilson Inc. for the NRMP

The Port also paid for the very good consulting services of this firm to assist in the review of the Ports NRMP.

The above consultants, although funded by the Port, contracted with/reported to Ecology for purposes of completing our regulatory/decision making review work. The work was done in coordination with Ecology experts/received oversight from Ecology experts.

3. Public Disclosure workload

- 60-70 requests for information since last Sept. (primarily from opposition group)

This workload has been unprecedented. We have made every attempt to make the regulatory/decision making process open to the public. At the same time we have tried to stay committed to an efficient and effective decision-making process. The PDA work has taken substantial resources.

ORGANIZED OPPOSITION:

1. Airport Communities Coalition (ACC), Cities of Federal Way, Tukwila, Burien, Des Moines, Normandy Park, and the Highline School District

This is a well-funded organization supported by skilled technical and legal experts. It is supported by local legislators and Congressman. Ultimately, public involvement by this and other groups (below) and individuals has resulted in a more defensible decision by Ecology. Several points brought to our attention by opponent groups have enhanced our review.

2. Citizens Against SeaTac Expansion (CASE)

CASE and RCAA – have some overlapping membership with ACC

3. Regional Council on Airport Affairs (RCAA)

LAST:

Approval of the Port's 401 does not eliminate the possible need for future 401 amendments based on further evaluation of the Port's proposals, or the availability of new information.