

Sea-Tac Airport Third Runway 401 Permit Negotiations

FINAL DRAFT MEETING NOTES

October 2, 2000

9:00 – 4:00

These draft meeting notes have been prepared by Kate Snider, Floyd & Snider Inc. Please reply to Kate at (206) 292-2087, fax (206) 682-7867, kates@floyd-snider.com with comments on the accuracy of these notes by 5pm, Thursday 10/5/00.

ATTENDEES

Ray Hellwig, Dept. of Ecology
Kevin Fitzpatrick, Dept. of Ecology
Tom Luster, Dept. of Ecology
Michael Cheyne, Port of Seattle
Elizabeth Leavitt, Port of Seattle
Keith Smith, Port of Seattle
Jim Thompson, Port of Seattle
Kelly Whiting, King County

Mark Lampard, King County
David Masters, King County
Rick Schaefer, Earth Tech
Paul Fendt, Parametrix
Jim Dexter, Parametrix
Jim Kelley, Parametrix
Kate Snider, Floyd & Snider Inc.
Rachel McCrea, Floyd & Snider Inc.

MEETING AGENDA OVERVIEW

- Brief Introduction to process
- Technical discussion of King County Reviewer comments on Draft Storm Water Master Plan (SMP)
- Schedule and approach for future meetings

TECHNICAL COORDINATION MEETINGS

A series of technical coordination meetings between Port and Ecology staff and their consultants is anticipated, with the goal of resolving technical concerns related to five key issues listed below. Meetings will be facilitated and documented by Floyd & Snider.

1. Storm Water Master Plan, detention sizing
2. Flow augmentation for Des Moines Creek
3. Potential South Access Road impacts to Tyee Pond
4. Borrow Site #3 hydrology
5. HPA / 401 issuance relationship

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DEFINITION OF TERMS USED IN THESE NOTES

Resolution (general): The use of the terms "resolution" and "resolved" are for the purposes of these negotiations and refer only to the work of these technical negotiations between the Port of Seattle and the Department of Ecology. The terms are not intended to imply that, through these negotiations only, any issue has reached "final" resolution. Final resolution is subject to Ecology's receipt and approval of necessary documentation, subsequent public review and comment, evaluation of public comment and the final permit decision.

Resolved: The term "resolved" is used in these notes to mean that subsequent discussion of the issue is not necessary in these negotiations. This term assumes that subsequent documentation submitted on these issues will be consistent with the meeting discussions, and receive approval from Ecology.

Resolution Pending Review of Additional Information: This phrase is used to indicate that a possible or likely solution to the issue was identified in the meeting. Additional information will be submitted for review, and further discussion in these meetings will determine whether the issue is "resolved".

Action Items Defined for Further Discussion: This phrase is used to indicate that the issue was discussed, and action items defined for the production of additional information or documentation. Following submittal of such additional information, the issue requires further discussion.

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SUMMARY OF TECHNICAL ISSUE DISCUSSION

The following summary table has been developed to track discussion and resolution status of outstanding 401 Permit technical issues. Definition of these issues and actions to resolve are included in meeting notes.

401 Technical Issues Requiring Resolution	RESOLVED	RESOLUTION PENDING REVIEW OF ADDITIONAL INFORMATION	ACTION ITEMS DEFINED FOR FURTHER DISCUSSION	NOT YET DISCUSSED
1. Stormwater Master Plan – Detention Sizing				
• Basin Acreage Discrepancies		✓		
• Use of different Target Flow Regimes for different basins	✓			
• Permeability assumptions of Airport fill material	✓			
• Infiltration evaluation of existing pond locations	✓			
• Project effect on Base Flows			✓	
• Use and documentation of HSPF and KCRS models		✓		
• North Employees Parking Lot		✓		
• SDW2 land use conditions	✓			
• SASA facility volumes	✓			
• SASA facility compliance with KC off-site flow restrictions		✓		
• SDS-7, SDS3-A, SDS-3, SDS-2, 5, 6 collection areas		✓		
• New information for Walker Creek calibration		✓		
• IWS model input consistency with SMP	✓			
• SDE-3 conditions	✓			
• <i>Other SMP issues, see Note 1</i>				
2. Flow augmentation for Des Moines Creek				✓
3. Potential South Access Road impacts to Tyee Pond				✓
4. Borrow Site #3 hydrology				✓
5. HPA / 401 issuance relationship				✓

Note 1: Bulleted items listed under the Stormwater Master Plan category are 10 key issues for resolution (and some sub-issues) identified in an Ecology summary of King County Stormwater Master Plan review comments. Additional SMP issues identified by King County requiring discussion will be addressed during the next two meetings of this group.

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STORM WATER MASTER PLAN ISSUES

Following Draft SMP review by King County, Ecology compiled a list of major items of concern identified in the King County review. The items identified on the Ecology list were discussed at the 10/2 meeting. Issues were either resolved through discussion, or action items defined to reach resolution.

Issue: Basin Acreage Discrepancies

RESOLUTION PENDING REVIEW: Parametrix provided a table describing how watershed areas were grouped that clarifies information and likely resolves discrepancy. Possible explanation is that Walker Creek acreages were double counted during review. King County will review table to confirm.

An additional 80-acre discrepancy is due to the difference between pre- and post- conditions for lakes and detention ponds. Parametrix will describe this discrepancy, as a table with annotations. King County will review.

Issue: Use of different Target Flow Regimes for different basins

RESOLVED: All detention facilities will be designed based on 75% Forested, 15% grass, 10% impervious surface target flow regime. This will result in re-design of basins such as SDW-3A, SDW-1A, SDW-1B, SDW-2, SDN-2X, SDS-2, SDS-5 and SDS-6.

Issue: Permeability assumptions of Airport fill material

RESOLVED: Permeability of fill material used for the Draft SMP is acceptable. However, artifacts remain in SMP text based on fill permeability assumptions from previous versions of the SMP. SMP text will be revised to remove discrepancies.

Issue: Infiltration evaluation of detention ponds

RESOLVED: Although the Port will evaluate the infiltration potential of detention ponds, detention volumes will not be reduced based on this evaluation, nor will the evaluation be used to request base-flow mitigation credit.

Designed infiltration into embankments will not be considered, based on Port geotechnical evaluation and long-term embankment stability concerns. Port will send memo documenting geotechnical evaluation to Ecology.

Issue: Project effect on Base Flows

ACTION ITEMS DEFINED FOR FURTHER DISCUSSION: Port will summarize modeling conclusions related to base flow. This work will include: 1) review allocation of mass balance re: component contributions to base flow; 2) convert HSPF model output to hydrograph form to better define base flow conditions during critical summer low flow periods.

Based on that documentation, Ecology, King County and Port will further discuss: 1) conclusions regarding potential negative impacts to base flow; 2) use of offset for other non-hydrologic factors; 3) contributions to base flow from embankment discharge.

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Issue: Use and documentation of HSPF and KCRTS models

RESOLUTION PENDING REVIEW: All agreed that use of HSPF model is appropriate, and HSPF results are authoritative for detention decisions. The KCRTS model will continue to be used for preliminary sizing and definition of input parameters for HSPF.

Inconsistencies between the KCRTS results presented in Attachment F of Appendix A of the Draft SMP and HSPF input parameters will be resolved through the following action items: 1) King County will provide runoff files for use in running KCRTS model; 2) Parametrix will use runoff files to rerun KCRTS model, adjust HSPF input parameters (F tables) and re-run HSPF; 3) a revised Appendix A will be delivered to King County for review. Revised flow duration graphs will be plotted using a normal scale. Electronic files will additionally be delivered to King County.

Group assumptions are that resultant revisions will have the following characteristics: 1) KCRTS and HSPF input should be the same, with the exception of input regarding grading of detention ponds. Any additional discrepancies need documentation. 2) Output from the two models will be different because the models vary in approach. However, output from the two models should be very similar, and resultant stage/discharge curves should line up; 3) Performance goals for detention are unchanged.

SDN-1 (SDN-1, SDN-1LWR) was originally not modeled in HSPF. This modeling has been completed and will be included in the deliverables listed above.

The revisions described above should address specific King County questions regarding performance of Facility 3X and others. King County provided a written description of specific facility performance concerns that should be addressed by this work.

Issue: North Employees Parking Lot (NEPL)

RESOLUTION PENDING REVIEW: NEPL detention requirements will be re-evaluated based on the following changes in evaluation technique: 1) effect of new runoff files received from King County; 2) pre-condition soil parameters will be checked using site-specific soils information from NEPL design; 3) the NEPL and M6 basins will be combined to determine detention requirements.

Issue: SDW2 does not meet King County requirement for 1979 land use conditions or better

RESOLVED: Detention calculations will be revised using 1.71 acres of impervious surface (1994 conditions) to set the target flow regime, with the 2006 sub-basin boundary. Associated clarifying text will be added to the SMP.

Issue: SASA facility model volume estimate vs. proposed storage volume

RESOLVED: Revised modeling of the SASA area will include the following: 1) 1994 calibration will be used for offsite areas in existing conditions; 2) Onsite areas will be modeled with future landuse and 10-15-75 target flow regime, using proposed flow control facilities; 3) only the pond sizing that has been selected for construction will be modeled; 4) comparison at the evaluation point will only address port facilities, not whole watershed retrofit. Note: SASA facility

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may require redesign if calculations described below re: off-site flow input do not show compliance with King County manual requirements.

Issue: Is SASA facility, proposed as an in-stream, non-regional facility, in compliance with King County manual requirements restricting percentage of off-site flow?

RESOLUTION PENDING REVIEW: Calculations will be made to determine compliance with this requirement. 100-yr off-site peak flows to the facility are required to be less than ½ 100-yr onsite peak flows to the facility - from SASA, SDS-1 and SDE-4.

Issue: SDS-7, SDS3-A, SDS-3, SDS-2, 5, 6 demonstration of feasibly meeting flow control performance standard.

RESOLUTION PENDING REVIEW: Parametrix will demonstrate feasibility of meeting flow control performance standard with point of compliance just upstream of NW ponds.

Issue: New information for Walker Creek calibration

RESOLUTION PENDING REVIEW: Port will evaluate new information regarding a culvert on Des Moines Way that reportedly drains the large wetland, and determine need for calibration adjustment and F table revision.

Issue: IWS model input consistency with lagoon expansion proposed in SMP

RESOLVED: HSPF modeling will be revised to be consistent with facilities actually planned for construction in the Des Moines Creek watershed. This will address a current inconsistency between the SMP and HSPF input. Note: there are additional comments on IWS modeling that have not yet been discussed.

Issue: Is SDE-3 addressed properly?

RESOLVED: SDE-3 was determined to be a mapping error.

Conclusions and Next Steps

In general, the group determined that the discussions at this meeting addressed approximately 75% of the issues identified in King County and Ecology comments on the Draft Storm Water Master Plan. It was decided that a meeting would be scheduled shortly for review of revised materials based on action items defined at this meeting. At that time, additional comments on the Draft SMP will be reviewed to identify items needing further discussion.

Additional meetings of this group will be scheduled to occur shortly to both review status of SMP issue resolution and address the additional items identified as 401 permit issues of concern.

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