

# Sea-Tac Airport Third Runway 401 Permit Negotiations

## FINAL DRAFT MEETING NOTES

October 6, 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](mailto:kates@floyd-snider.com) with comments on the accuracy of these notes by 5pm, Tuesday 10/10/00.

### ATTENDEES

Elizabeth Leavitt, Port of Seattle  
Keith Smith, Port of Seattle  
Kelly Whiting, King County  
Kevin Fitzpatrick, Dept. of Ecology  
Rick Schaefer, Earth Tech

Paul Fendt, Parametrix  
Jim Dexter, Parametrix  
Kate Snider, Floyd & Snider Inc.  
Rachel McCrea, Floyd & Snider Inc.

### MEETING AGENDA OVERVIEW

- Review notes from 10/2 meeting, discuss progress and further resolution on outstanding issues
- Additional technical discussion of King County Reviewer (KCR) comments on Draft Storm Water Master Plan (SMP)

### 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.

**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
<b>1. Stormwater Master Plan – Detention Sizing</b>				
<u>Key Issues Discussed 10/2</u>				
• 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	✓			
<u>Add'l Issues Discussed 10/6</u>				
• IWS Pump station overflow modeling		✓		
• IWS Pump station land use values	✓			
• IWS Pump station routing of water quality design storm		✓		
• IWS Lagoon capacities	✓			
• Modeling of potential IWS Lagoon overflow			✓	
• Filter Strip BMPs	✓			
• IWS treatment performance			✓	
• SDN1-OFF	✓			
• SDN-6 Cargo	✓			
• SDW1B wetland proximity		✓		

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401 Technical Issues Requiring Resolution	RESOLVED	RESOLUTION PENDING REVIEW OF ADDITIONAL INFORMATION	ACTION ITEMS DEFINED FOR FURTHER DISCUSSION	NOT YET DISCUSSED
• Des Moines Creek Basin Plan consistency			✓	
• All items in the 9/14/00 King County comment letter not specifically listed above	✓			
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				✓

**STORM WATER MASTER PLAN ISSUES**

**PART I: Review of progress on action items from 10/2/00 meeting**

**Issue: Basin Acreage Discrepancies**

RESOLVED: Parametrix provided a supplemental table defining pre- and post- acreages, including conditions for lakes and detention ponds. The table was reviewed and resolved previous questions raised about the information.

**Issue: Project effect on Base Flows**

ACTION ITEMS DEFINED FOR FURTHER DISCUSSION: Parametrix summarized progress on action items applicable to all three basins (Des Moines, Miller and Walker). 1) Work is underway re: allocation of mass balance to determine component contributions to base flow. 2) Norm Crawford, HSPF author, is developing an allocation analysis on a unit basis by soil type. This will provide an independent check and explain implications of perld factors. Results of items 1 and 2 will be included in Appendix F. 3) Pacific Groundwater Group will work with the Port team to discuss correlation/conceptual interface of the "SLICE" modeling performed for Ecology aquifer study and the hydrogeologic modeling done with HSPF by the 3<sup>rd</sup> Runway team. The deliverable for this work will be a technical memo for reviewers that will not be included in the SMP. 4) Parametrix is developing hydrograph output isolating the "AGWO" groundwater input component of base flow for low-flow periods at in-stream points (such as RDF, SR 509, and near mouth for Des Moines Creek). Hydrograph output of all contributions will additionally be developed for comparison. KCR requested that this work additionally include some statistics re: change over 48 years as a % increase or decrease in base flows during critical low-flow periods. KCR will provide requirements for statistics to Parametrix. Model parameters for the fill material will be based on the parameters described on page A-17 of the 8/00 SMP, with the exception of the DEEPFR variable which would be set to value used throughout the stream basin.

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Status of base flow action items will be reviewed at the 10/13 meeting. Objective is to communicate the result regarding potential negative impact to base flows at critical low-flow periods as soon as possible.

**Issue: Use and documentation of HSPF and KCRTS models**

RESOLUTION PENDING REVIEW: Between 10/2 and 10/6, KCR provided new runoff files for Parametrix re-run of the HSPF modeling. Preliminary review of model results for Des Moines and Walker basins show the anticipated consistency between KCRTS runoff files and HSPF output, and confirm sizing of detention facilities. Miller basin results were inconclusive due to possible errors or inconsistencies in runoff files.

King County to review and verify runoff files and resend to Parametrix 10/9/00. New files will include revision to fill parameters. Parametrix submitted electronic files to King County to assist review and verification. King County will also send Parametrix KCRTS rainfall records for comparison with HSPF.

Example reformat of graphs is acceptable to King County.

KCR suggested adjusting orifice capacities so that low end of target flows are still achieved and overflows are minimized. Clarification was made that model can be used with three orifices.

Parametrix submission of model results to KCR for review will be incremental, as follows: 1) Revised Appendix B (Walker Creek Calibration); 2) Revised Appendix A materials separately submitted for each basin [Des Moines, Walker (following number 1, above) and Miller (following resolution of runoff file problem)].

**Issue: North Employees Parking Lot (NEPL)**

RESOLUTION PENDING REVIEW: Acquisition of site-specific soil information is underway. This deliverable will be included in the Miller watershed Appendix A package, defined above.

**Issue: SASA facility compliance with King County off-site restrictions**

RESOLUTION PENDING REVIEW: Compliance will be demonstrated and presented in the Des Moines watershed Appendix A package.

**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. This will be presented in the Des Moines watershed Appendix A package.

**Issue: New information for Walker Creek calibration**

RESOLUTION PENDING REVIEW: Calibration document will be reviewed to determine whether or not the Walker Creek culvert was modeled in the previous SMP draft and already included in the F tables.

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**STORM WATER MASTER PLAN ISSUES**

**PART II: IWS Issues – Discussion of additional SMP comments from King County first focused on issues related to IWS, before systematically going through the King County comment document.**

**Issue: IWS – Pump Station modeling of both pumped and overflow contributions**

RESOLUTION PENDING REVIEW: Check pump station configuration and resultant modeling of both pumped and overflow conditions. If the pump stations are connected in series, modeling of overflow conditions should be confirmed.

**Issue: IWS – The two pump stations (one in Miller, one in DesMoines basins) are modeled with different land use values.**

RESOLVED: Pump station land use values will be adjusted.

**Issue: IWS – Pump station water quality design storm capacity and timing of overflow**

RESOLUTION PENDING REVIEW: Port will review facility design and confirm that downstream pump station will be able to adequately route water quality design storm to IWS. This evaluation will consider timing of receipt of overflow from upstream pump station. Retrofit or redesign of pump stations would be necessary if routing is inadequate. Text addressing this issue will be added to SMP Water Quality section.

**Issue: IWS – Capacity discrepancy in F Tables for lagoon capacity**

RESOLVED: Port will provide a new F Table that uses the accurate (larger) capacity of 249 ac/ft.

**Issue: IWS – Modeling of potential IWS Lagoon overflow**

ACTION ITEMS DEFINED FOR FURTHER DISCUSSION: Modeling completed by Kennedy Jenks for lagoon expansion will be reviewed to determine whether it was based on a continuous flow model. If not, the KCRTS model will be run assuming pump stations don't exist (all water flows directly to lagoons), using continuous flow model with full acreages included. If this effort shows an overtopping concern, then the HSPF model would be adapted to thoroughly model the lagoon. Additionally, the existing HSPF input file notes will be cleaned up re: this issue.

**STORM WATER MASTER PLAN ISSUES**

**PART III: A thorough review of KCR comments in Enclosure 2, dated 9/14/00, was completed. All issues, except those described below, are either being addressed through efforts described above and in the previous meeting, or the issue was discussed briefly and resolved.**

**Item 1, page 2: Page 2-9, Filter Strips**

RESOLVED: Issue acknowledged, SMP should reference requirements under the 402 permit.

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**Item 2, page 3: Page 4.5.3 IWS Treatment Performance**

ACTION ITEMS DEFINED FOR FURTHER DISCUSSION: Port will check whether influent data and evaluation is available in Kennedy Jenks material prepared in support of lagoon expansion.

**Page 6: SDN1-OFF**

RESOLVED: Clarification that all areas within Master Plan projects and existing airport facilities' footprint are being retrofitted. There is no expectation that undeveloped areas would be retrofit.

**Page 6: SDN-6 Cargo**

RESOLVED: Parametrix agreed to include a comment line in F tables for this facility and other basins re: detention pond depth (bottom of live storage to line of riser overflow) for ease of review. SMP Section 6 will be made consistent with facility size in Appendix A.

**Page 13-14: SDW1B**

RESOLUTION PENDING REVIEW: Regarding pond discharge location relative to wetland, if Ecology wetlands review accepts the proposed design, it is acceptable to King County SMP reviewer.

**Issue: KCR Enclosure 1, page 7, regarding Adopted Area Specific Requirements and SMP consistency with Des Moines Creek Basin Plan and Potential RDF**

ACTION ITEMS DEFINED FOR FURTHER DISCUSSION: An action item related to this issue was defined to compare the impervious area assumptions in the Basin Plan and the SMP to provide perspective for further discussions.

**Conclusions and Next Steps**

All Stormwater Master Plan issues have now been discussed, with action items defined for resolution.

In the next week, there is a substantial amount of work to be produced by Parametrix and reviewed by King County related to the re-run of the KCRTS and HSPF modeling, and detention size checks/revisions. That work is underway, and progress material was reviewed in this meeting. Additionally, there is a significant work effort to be conducted and reviewed related to base flow.

At this meeting, the group set a goal to have all SMP issues resolved by Friday 10/13, except for base flow. Some key issues relative to base flow may be resolved, but it is expected that some additional work will continue into the following week.

Proposed agendas for coming meetings include:

October 10:

1. Review status of SMP issues
2. Discuss other 4 items identified beyond SMP (flow augmentation, Borrow Site #3, HPAs, South Access Road/Tyee Pond)
3. Discuss schedule/process forward.

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October 13:

1. Review outstanding issues from previous meetings
2. Status report/discussion re: base flow
3. Schedule check

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