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POLLUTION CONTROL HEARINGS BOARD
FOR THE STATE OF WASHINGTON

AIRPORT COMMUNITIES)	
COALITION,)	No. 01-160
)	
Appellant,)	THIRD DECLARATION OF WILLIAM
)	A. ROZEBOOM RELATING TO ACC'S
v.)	MOTION FOR STAY
)	
STATE OF WASHINGTON,)	(Section 401 Certification No.
DEPARTMENT OF ECOLOGY; and)	1996-4-02325 and CZMA concurrency
THE PORT OF SEATTLE,)	statement, Issued August 10, 2001,
)	Reissued September 21, 2001, under
Respondents.)	No. 1996-4-02325 (Amended-1))
_____)	

William A. Rozeboom declares as follows:

1. I am over the age of 18, am competent to testify, and have personal knowledge of the facts stated herein.

2. This is my third declaration to the Pollution Control Hearings Board (PCHB) in the matter of Section 401 Certification No. 1996-4-02325. My first declaration to the PCHB, in support of ACC's motion for stay, was dated 11 September 2001. My second declaration to the PCHB, in support of ACC's reply on motion for stay, was dated 8 October 2001.

3. I am a professional civil engineer licensed in the State of Washington. I am employed as a senior engineer with Northwest Hydraulic Consultants. I have over 20 years of specialized experience in surface water hydrology and hydraulics. My curriculum vitae was attached as Exhibit A to my first declaration.

THIRD DECLARATION OF WILLIAM A.
ROZEBOOM - 1

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AR 019080

1 4. Northwest Hydraulic Consultants has been retained since October 1999 on behalf
2 of the Airport Communities Coalition (ACC) to provide technical reviews of stormwater
3 facilities and related streamflow impacts from the proposed 3rd runway and other development
4 at SeaTac Airport. I have been responsible for this review work.. I have reviewed all
5 stormwater management plans, natural resources mitigation plans, low flow analyses, and related
6 documents which have been prepared by or for the Port of Seattle for airport improvements. My
7 review findings were expressed to Ecology and/or the Corps of Engineers in a series of letters
8 dated 11/24/1999, 5/3/2000, 7/31/2000, 9/7/2000, 9/21/2000, 9/25/2000, 9/27/2000, 2/15/2001,
9 4/30/2001, 6/25/2001, 7/23/2001, 8/6/2001, and 11/26/01. Internal review and quality assurance
10 for these letters was provided by co-signer Dr. Malcolm Leytham, PE, who is a principal with
11 NHC. Independent reviews by King County and Pacific Groundwater Group, under separate
12 contracts to Ecology, have generally corroborated the concerns expressed by our review letters.
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14

15 5. The main purpose of this third declaration is to have the record include my
16 November 26, 2001 comment letter to the U.S. Army Corps of Engineers, regarding the Port of
17 Seattle's Low Flow Mitigation. That letter is attached as Exhibit A. The letter provides a review
18 of recently-obtained documents and identifies significant technical deficiencies in the Port's low
19 flow analyses. The consequence of these deficiencies is that low flow impacts will be
20 underestimated and that storage vaults proposed to store low flow augmentation water will be
21 undersized. These latest technical deficiencies with the Port's low flow analysis and mitigation
22 plan compound the still-unaddressed problems and uncertainties identified in my first and second
23 declarations.
24

25 THIRD DECLARATION OF WILLIAM A.
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1 6. A secondary purpose of this declaration is to respond to the third declaration of
2 Paul Fendt, dated 26 November 2001 and submitted to the PCHB with the Port of Seattle's 26
3 November 2001 response to ACC's motion to supplement. That declaration contains unsupported
4 and/or inaccurate statements.

5 7. Paragraph 15 of Mr. Fendt's third declaration states, "Ecology has required that a
6 small amount of total site stormwater be retained for use during low-flow periods to mitigate for
7 low flow reductions." Paragraph 23 asserts that "It is also important to realize the project's low
8 flow impacts involve relatively small amounts of water." I disagree with these characterizations of
9 the amount of water required for low flow mitigation. Tables in the July 2001 draft low streamflow
10 analysis show that a total of 24 acre-feet of storage, in enclosed vaults, is required for low
11 streamflow augmentation. For context, an Olympic-size swimming pool holds about 4000 cubic
12 meters or 3.24 acre-feet of water. The volumes of site stormwater required under the Port's draft
13 document for low flow mitigation are large and significant and will require construction of
14 watertight storage facilities equivalent to more than seven Olympic-size swimming pools.

15 8. Paragraph 18 of Mr. Fendt's third declaration states that "whatever the requirements
16 for low streamflow mitigation, there is ample stormwater to retain and mitigate those impacts."
17 Paragraph 20 states that "the amount of stormwater to be collected and released can be adjusted"
18 and that "stormwater would be available for storage." These statements are not substantiated by any
19 analyses or documentation. Also, the more difficult issue is not whether stormwater is available for
20 capture, but rather what storage volume must be constructed now, at significant cost. Due to even
21 larger costs of retrofit construction, and probable disruption to airport operations, it is in my opinion
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25 THIRD DECLARATION OF WILLIAM A.
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1 unrealistic to propose that the capacity of reserve storage vaults for low flow augmentation (which
2 limits the amount of stormwater which can be collected) would ever be enlarged beyond the sizes
3 which are constructed at the time of the other Master Plan Update projects.

4 9. Paragraph 21 of Mr. Fendt's third declaration states (in bold font) that "**The Revised**
5 **Modeling Analysis Will Show That Total Impacts Will Not Be Significantly Different Than**
6 **Originally Anticipated.**" This statement predicts a future outcome and is speculative. Also, it
7 conflicts with the prediction made by the Port just one month earlier. An October 24, 2001 letter
8 from the Port (Keith Smith) to Ecology (Ann Kenny) requested an extension to the deadline for
9 submitting a revised low streamflow analysis because "the modeled embankment flow was 1/24 of
10 what it should have been" . . . "the actual impacts to summer low flow will be less than previously
11 thought, and the facilities proposed to offset the impacts can be reduced in size." Now, Mr. Fendt's
12 declaration indicates that the Port's previous prediction is in error and that no change is expected.
13 The revised analysis appears to be a work in progress and the impacts to be shown by that analysis
14 are not known. The adequacy of that revised analysis in responding to previously identified issues
15 and uncertainties is also not known.

18 10. Recent documents obtained by ACC public disclosure requests indicate that the low
19 flow analysis is in a state of flux and that the proposed analysis methods continue to change. Notes
20 from the Port and Ecology 401 Permit - Post-Issuance Clarification Low Flow Analysis Meeting of
21 October 30, 2001 indicate that numerous changes are proposed to the low flow modeling methods.
22 Changes include but are not limited to a "revised approach to modeling of impervious area at
23 embankment filter strips" and use of "a 1-dimensional version of the Hydrus model, rather than the

25 THIRD DECLARATION OF WILLIAM A.
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1 2-d version used previously." The recent documents indicate that the schedule for completing a
2 revised low flow analysis is also in flux. Ecology's 401 Certification conditions originally specified
3 that a revised low flow analysis be submitted by November 5, 2001. The Port's October 24, 2001
4 letter to Ecology requested that the submittal date be extended to November 21, 2001. Most
5 recently, Mr. Fendt's third declaration states at Paragraph 17 that the revised analysis will be
6 submitted to Ecology by December 17, 2001. With this record of changes, it is uncertain what
7 specific analysis methods will eventually be used for the low streamflow analysis, or when coherent
8 documentation of that analysis will be available for independent technical review.
9

10 11. Our previous comments in this matter are on record and remain unresolved. By
11 my letter of November 26, 2001, attached as Exhibit A, additional serious technical problems are
12 identified in the latest versions of the Port's low flow analyses. The documentation of the low
13 streamflow evaluation continues to be so poor as to make an informed review virtually
14 impossible. There continues to be an absence of critical design and project operation
15 information necessary to demonstrate how the system will function in practice. Because of these
16 deficiencies, the Port's proposal does not provide any assurance that impacts to low streamflows
17 will be adequately identified or mitigated.
18

19 DATED this 28 day of November 2001, at Tukwila, Washington.

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21 
22 William A. Rozeboom, P.E.

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25 THIRD DECLARATION OF WILLIAM A.
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