

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

POLLUTION CONTROL HEARINGS BOARD
FOR THE STATE OF WASHINGTON

AIRPORT COMMUNITIES COALITION,
Appellant,
v.
STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY, and THE
PORT OF SEATTLE,
Respondents.

PCHB No. 01-160

DECLARATION OF DONALD E.
WEITKAMP, PH.D IN SUPPORT OF
PORT'S OPPOSITION TO ACC'S
MOTION FOR PARTIAL SUMMARY
JUDGMENT

DONALD E. WEITKAMP declares as follows:

1. Identity of Declarant. I am over the age of 18 years, am competent to testify as a witness herein, and have personal knowledge of the facts stated in this declaration.

2. Resume and Experience. I am a fish biologist with experience in freshwater and marine aspects of the biology of salmonids, resident fishes, and invertebrates of the Pacific Northwest. My experience has been with the freshwater spawning, rearing and migrations of salmonids together with the estuarine rearing and migration of juvenile salmonids. I have over 30 years professional experience working as a fisheries and resource biologist throughout the United States, Central America, and China. A true and correct copy of my professional resume is attached as Exhibit A to this declaration.

DECLARATION OF DONALD E. WEITKAMP, PH.D. IN SUPPORT OF
PORT'S OPPOSITION TO ACC'S MOTION FOR PARTIAL S.J
PAGE 1

MARTEN BROWN INC
421 S. CAPITOL WAY, SUITE 303
OLYMPIA, WASHINGTON 98501
(360) 786-5057

1 3. Involvement With Project. With respect to the Port of Seattle's planned Master Plan
2 Update (MPU) projects at Seattle-Tacoma International Airport ("STIA"), I have assisted in the
3 preparation of the Biological Assessment for the federal Fish and Wildlife Service and the National
4 Marine Fisheries Service for the various projects at STIA. I am thoroughly familiar with existing
5 stream conditions and flow conditions in the area of STIA. I have reviewed the existing and proposed
6 stormwater management plans for STIA and the proposed low flow analysis and mitigation plan for
7 the Port's projects.

8 4. Materials Reviewed. I have reviewed the Biological Assessment, Master Plan Update
9 Improvements, Seattle-Tacoma International Airport (Parametrix 1999) that was prepared for the
10 federal agencies, the Biological Opinion issued by the United States Fish and Wildlife Service, the
11 Essential Fish Habitat assessment prepared for the services, the Low Streamflow Analysis and the
12 Summer Low Flow Impact Offset Facility Proposal prepared for the STIA projects, the Natural
13 Resources Mitigation Plan prepared for the Corps of Engineers, the Stormwater Management Plan for
14 the STIA projects, the §401 Certification issued by the Department of Ecology, and the declarations
15 submitted by ACC declarants.

16 5. Potential Adverse Impacts to Aquatic Biota of Area Streams. The MPU projects and
17 conditions provided in the §401 Certification will adequately protect water resources around the
18 STIA, preventing harm to sensitive streams and aquatic life. In my opinion, the water quality
19 controls and conditions of the project design, and those placed on the project in the §401
20 Certification, including stormwater best management practices, are adequate to protect area streams
21 and other aquatic resources. Water quality criteria are commonly promulgated in a conservative
22 manner that prevents detectable impacts to aquatic resources. Meeting these criteria will adequately
23 protect the aquatic resources of the STIA area streams.

24 6. The streams adjacent to STIA have been highly altered by existing urban development
25 independent of STIA. This urban development has substantially altered the stream's hydraulic and
26 chemical characteristics. Runoff from developed urban areas is highly altered from pre-development
27 stream conditions by changes in the rate of runoff, and the presence of roadway pollutants, fertilizers

28 DECLARATION OF DONALD E. WEITKAMP, PH.D. IN SUPPORT OF
 PORT'S OPPOSITION TO ACC'S MOTION FOR PARTIAL S/J
 PAGE 2

MARTEN BROWN INC
421 S. CAPITOL WAY, SUITE 303
OLYMPIA, WASHINGTON 98501
(360) 786-5057

AR 019242

1 and pesticides. Treatment of STIA runoff prior to discharge to these streams mitigates some of the
2 existing impacts produced by untreated runoff from the airport communities.

3 7. Fish and Salmon Use of STIA Area Creeks. Those portions of Miller, Walker and Des
4 Moines Creek near STIA are not inhabited by chum and chinook salmon based on any evidence I have
5 seen. Portions of the streams near STIA are the headwaters of these small creeks and are smaller than
6 most natural waters inhabited by these species. The streams in STIA area have several warm water
7 fish species that are exotic or introduced species, including yellow perch, black crappie and
8 pumpkinseed sunfish. These species commonly inhabit streams having characteristics adverse to
9 salmonids and are not commonly found in the same habitats as salmonids. Most likely the effects of
10 urbanization have sufficiently altered the streams to make them more suitable for these warm water
11 species than for cold water salmonids. The presence of these warm water species together with the
12 small size of the headwater reaches of Miller, Walker, Des Moines and Gilliam Creeks (which
13 constitute the portions of those creeks near STIA) indicates that salmonids are not likely to inhabit
14 the portions of these streams in the STIA vicinity.

15 8. Juvenile salmon migrating along the shorelines of Puget Sound from other streams are
16 not likely to enter Miller, Walker, or Des Moines Creeks. Some of these migrants are likely to be
17 briefly present in Puget Sound waters where those creeks enter the Sound. The studies prepared for
18 the federal agencies' consultation under the Endangered Species Act state that there is no data or
19 observations to support the presumed use of these creek estuaries by chinook. It is likely that a few
20 chinook will hold near the mouth of those streams during migration along Puget Sound's shoreline, but
21 it is unlikely any would venture upstream past the vicinity of the stream mouth. Young salmonids,
22 including chum and chinook, commonly frequent the discharge of small tributaries into mainstem
23 streams, lakes and estuarine areas. This association is likely due to the food sources the streams carry
24 in their discharges. Stream discharges carry aquatic insects into estuarine habitats providing
25 concentrated sources of prey the young salmon commonly have been consuming during their
26 freshwater rearing phase. Chum and coho salmon have been found in the lower portions of the
27 streams, some distance from STIA. In the vicinity of STIA, however, these streams are not of

28 DECLARATION OF DONALD E. WEITKAMP, PH.D. IN SUPPORT OF
PORT'S OPPOSITION TO ACC'S MOTION FOR PARTIAL S/J
PAGE 3

MARTEN BROWN INC
421 S CAPITOL WAY, SUITE 303
OLYMPIA, WASHINGTON 98501
(360) 786-5057

AR 019243

1 adequate size to provide habitat for most salmon. Only small numbers of cutthroat and possibly
2 coho are likely to be found in this vicinity.

3 9. Biological Assessment Prepared for Federal Agencies. Following the requirements of
4 the Endangered Species Act, the Port prepared a Biological Assessment, for the actions being taken
5 pursuant to the Port's Master Plan Update at STIA, for the National Marine Fisheries Service and
6 the U.S. Fish & Wildlife Service (collectively, the "Services"). The Services are the agencies with
7 responsibility for protection of species listed under the Endangered Species Act. The Biological
8 Assessment concluded that the Master Plan Update projects at STIA are not likely to adversely
9 affect the listed species under the Endangered Species Act. A copy of the Biological Assessment is
10 attached as Exhibit B to my first declaration, submitted in opposition to ACC's motion for stay.

11 10. Letter of Concurrence from NMFS Concludes Not Likely to Adversely Affect. The
12 National Marine Fisheries Service has issued a letter of concurrence with the finding that the project is
13 not likely to adversely affect chinook salmon. A copy of the letter of concurrence is attached as
14 Exhibit C to my first declaration.

15 11. Biological Opinion from USF&WS Concludes Not Likely to Adversely Affect. The
16 U.S. Fish & Wildlife Service has issued a Biological Opinion indicating concurrence with the finding
17 that the Master Plan Update project is not likely to adversely affect their listed species. A copy of
18 that Biological Opinion is attached as Exhibit D to my first declaration.

19 12. Essential Fish Habitat Study Concludes No Long-Term Adverse Affects will Occur.
20 An analysis of Essential Fish Habitat has also been conducted by the Federal Aviation Agency
21 ("FAA") and U.S. Army Corps of Engineers to comply with the provisions of Section 305(b) of the
22 Magnuson-Stevens Act (MSA). The FAA assumed the role of lead federal agency for purposes of
23 this consultation and designated the Port of Seattle as its non-federal representative for the purposes
24 of preparing this Essential Fish Habitat assessment. See 50 C.F.R. § 600.920(b)-(c). In addition to
25 species listed under the ESA, the Essential Fish Habitat analysis included other, non-listed fish
26 species such as coho salmon. That analysis concluded that the Port's Master Plan Update projects,
27 including the projects for which the §401 Certification was issued, would have no adverse effects to

1 chinook or pink salmon, and no long-term effects will occur to coho salmon. The Essential Fish
2 Habitat assessment concluded that those restoration projects planned for Miller Creek as part of the
3 Master Plan Update would provide a long-term benefit to coho. Construction associated with the
4 habitat restoration projects planned for Miller Creek may produce some short-term effects on coho
5 salmon. A copy of the Essential Fish Habitat analysis is attached as Exhibit E to my first declaration.

6 13. Is Stormwater Detention Appropriate to Mitigate Impacts of Increased impervious
7 Surface Area? Stormwater detention in urban areas of increased impervious surface area is an
8 appropriate means of mitigation. Man-made detention of water volumes that would have otherwise
9 naturally infiltrated into and been detained in the soil column is appropriate to maintain natural stream
10 discharge rates. Previous development in the affected basins has already altered natural stream flows.
11 The Master Plan Update project would add additional impervious surface area that would further
12 alter stream discharge rates in the absence of mitigation measures. Thus, stormwater detention is
13 proposed to replicate the natural detention that would have occurred in the absence of the project.
14 Stormwater detention is to be provided in amounts and during low flow periods so as to maintain pre-
15 development low flows. Stormwater is not being detained longer than would have naturally occurred
16 in pre-development conditions.

17 14. Will Flows In Area Streams Below 1.0 CFS Have an Adverse Impact on Fish? Des
18 Moines, Miller and Walker Creeks all flow at less than 1.0 cubic feet/second (cfs) during low flow
19 periods. Stream flows have decreased to less than 1.0 cfs (7 day avg.) for every year of record except
20 one year for one creek. Parametrix and others examined this record covering the past fifty years in
21 preparation of the Low Flow Analysis for the §401 Certification and the Biological Assessment for
22 the federal agencies. These pre-project low flow conditions establish the carrying capacity of the
23 streams and demonstrate that the streams do not provide (either currently or at any time during the
24 period of record) desirable salmonid habitat in the vicinity of STIA. Even without low flow
25 mitigation, the project will not materially change these limiting flow conditions for any of the four
26 streams. Small changes in flow are not likely to produce measurable effects on temperature and
27 dissolved oxygen. Local weather and water source conditions have a much greater effect on these

28 DECLARATION OF DONALD E. WEITKAMP, PH.D. IN SUPPORT OF
PORT'S OPPOSITION TO ACC'S MOTION FOR PARTIAL S.J
PAGE 5

MARTEN BROWN INC
421 S. CAPITOL WAY, SUITE 303
OLYMPIA, WASHINGTON 98501
(360) 786-5057

AR 019245

1 stream characteristics. Small decreases in stream flow are unlikely to cause stranding or mortality of
2 any fish. Regardless, the project's stormwater management plan is designed to mitigate low stream
3 flow preventing adverse impacts.

4 15. Is the Timing of Low Flow Mitigation Appropriate? The timing of low flow impacts
5 and appropriate mitigation is determined by the historical occurrence of low flows. It is during this
6 late summer period that mitigation of stream flows is most important and of most value to the aquatic
7 biota. Parametrix reviewed data collected over nearly 50 years for area streams. In all but a few of
8 those years, the low flow events in the creeks occurred in August and September. This is consistent
9 with stream gauge data from most Puget Sound lowland streams, which commonly show lowest flows
10 from late July through early September. In all but a few years of the nearly 50 years reviewed, the
11 mean flow in Des Moines, Walker, and Miller Creeks decreased slowly from June through late
12 October, with the lowest mean flows in August through early October. Stream flows then tend to
13 increase rapidly after mid- to late-October with the autumn rains in the Puget Sound region. The
14 required low flow mitigation plan provides a level of flow during low flow periods that is equivalent
15 to current flow levels, and will provide protection for the aquatic resources of the streams. On site
16 stormwater detention of this nature is a common requirement to protect aquatic resources in
17 developed portions of Washington State where impervious surface area exceeds natural conditions.

18 16. Adequacy of Biological Information Necessary to Estimate Impacts. A substantial
19 amount of information is available on the species of fish present in the four streams of the STIA area.
20 The fish species present have been identified, and appropriate information exists in the literature and
21 water quality criteria to determine the actions appropriate to protect these species. The Port has
22 conducted numerous habitat surveys and incorporated other (non-Port) survey data into its analysis
23 of conditions in Miller, Walker and Des Moines creeks. These surveys consist of data on fish, other
24 aquatic species, water quality, water quantity, habitat features, and stream stability. Surveys include:

- 25 • Ames 1970
- 26 • Aquatic Resources Consultants, Inc. 1996
- 27 • Batcho 1999 personal communication

28 DECLARATION OF DONALD E. WEITKAMP, PH.D. IN SUPPORT OF
PORT'S OPPOSITION TO ACC'S MOTION FOR PARTIAL S/J
PAGE 6

MARTEN BROWN INC
421 S. CAPITOL WAY, SUITE 303
OLYMPIA, WASHINGTON 98501
(360) 786-5057

AR 019246

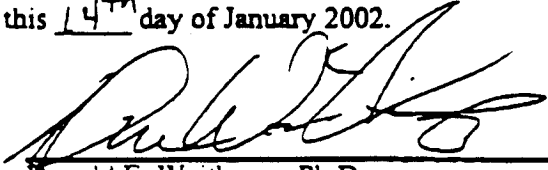
- 1 • Des Moines Creek Basin Committee 1997
- 2 • Herrera Environmental Consultants, Inc. 1995, 1996 and 1997
- 3 • Hillman et al. 1999
- 4 • King County Surface Water Management 1997
- 5 • Luchessa 1995
- 6 • Pacific Groundwater Group 2000
- 7 • Parametrix, Inc. 1997, 1999a
- 8 • Port of Seattle 1994
- 9 • Resources Planning Associates et al 1994
- 10 • Trout Unlimited 1993

11 These surveys were used to determine the existing conditions prior to the Port's Master Plan Update
12 Improvements (which include the projects for which a §401 Certification was required). Specifically,
13 "baseline conditions" were established in the Biological Assessment (Parametrix 2000a) and Essential
14 Fish Habitat Consultation (Parametrix 2000b) for salmonids and salmonid habitat. The United States
15 Fish and Wildlife Service issued a Biological Opinion that accepted the baseline conditions established
16 by the Port in those documents.

17 17. In conclusion, based on my review of the project and scientific evidence, the
18 stormwater mitigation measures required by the §401 Certification provide reasonable assurance that
19 the Master Plan Update projects will not cause significant adverse impact to fish and aquatic biota.

20 I declare under penalty of perjury under the laws of the state of Washington that the foregoing
21 is true and correct.

22 Executed at Kirkland, Washington, this 14th day of January 2002.

23
24 
25 _____
26 Donald E. Weitkamp, Ph.D.

27
28 DECLARATION OF DONALD E. WEITKAMP, PH.D. IN SUPPORT OF
PORTS OPPOSITION TO ACC'S MOTION FOR PARTIAL S/J
PAGE 7

MARTIN BROWN INC.
421 S. CAPITOL WAY, SUITE 303
OLYMPIA, WASHINGTON 98501
(360) 786-5057

TOTAL P. 22

AR 019247