

ORIGINAL

RECEIVED

MAR - 7 2002

ENVIRONMENTAL
HEARINGS OFFICE

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

**BEFORE THE POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON**

AIRPORT COMMUNITIES
COALITION,

Appellant,

CITIZENS AGAINST SEA-TAC
EXPANSION,

Intervenor/Appellant,

v.

STATE OF WASHINGTON,
DEPARTMENT OF ECOLOGY; and
PORT OF SEATTLE,

Respondents.

PCHB No. 01-160

DIRECT TESTIMONY OF ANN
KENNY SUBMITTED ON BEHALF
OF THE DEPARTMENT OF
ECOLOGY

AR 002914

1 Ann Kenny declares as follows:

2 **I. My Background**

3 1. I am currently employed by the Department of Ecology (Ecology) as an
4 Environmental Planner 4 in the Northwest Regional Office (NWRO). I have held that position
5 since mid-January, 2002. Prior to transferring to my current position, I was an Environmental
6 Specialist 4 in the NWRO's Shorelands and Environmental Assistance (SEA) program. A
7 copy of my resume is attached to my testimony as Attachment A.

8 2. Ecology's review of the Port's Sea-Tac International Airport (STIA) Master
9 Plan Update Improvements began sometime in 1995 or 1996. The Port filed an initial Joint
10 Aquatic Resources Permit Application (JARPA) to the U.S. Army Corps of Engineers (Corps)
11 and Ecology in December, 1997. On July 20, 1998, Ecology issued a Clean Water Act § 401
12 Certification (401 Certification) for the project. That certification was later withdrawn when
13 the Port discovered additional wetlands that would be impacted. The Port submitted a second
14 JARPA in September, 1999, but withdrew that application in September, 2000, shortly before
15 the expiration of the one-year decision deadline imposed by the Clean Water Act. On October
16 25, 2000, the Port filed a new JARPA for the project with the Corps and Ecology. A public
17 hearing on the Port's application was held on January 26 and 27, 2001, and 52 day written
18 public comment period provided. Ecology continued to receive and review comments on the
19 Port's project beyond the expiration of the formal comment period.

20 3. I have been the 401 Certification Reviewer for the Port of Seattle's (Port's) 401
21 Certification application since late October, 2000. With the assistance of the team of experts
22 assembled by Ecology to review the Port's application, I drafted the 401 Certifications and
23 Coastal Zone Management Act (CZMA) Consistency Concurrence statements issued to the
24 Port on August 10, 2001, and September 21, 2001.

25 4. I continue to manage the ongoing review by Ecology of documents submitted to
26 it by the Port in compliance with the 401 Certification. I am responsible for tracking the Port's

1 compliance with the terms of the 401 Certification. I disperse documents to appropriate staff
2 for review and comment, and, where necessary, I facilitate communication between Ecology
3 and Port staff by arranging meetings and site visits.

4 5. Over the course of my involvement I have participated in numerous technical
5 meetings relating to Ecology's review of this project. I participated in nearly all of the
6 meetings facilitated by Kate Snider and Rachel McCrae of Floyd and Snider, Inc. that
7 pertained to stormwater management, wetlands, and low flow issues. I have personally visited
8 the areas that will be impacted by the project and the proposed mitigation sites on several
9 occasions. I have also spent many hours consulting with Ecology's technical and policy
10 experts and consultants for this project on all aspects of the project. I consulted with the
11 Ecology staff including: Erik Stockdale (wetlands, impacts to aquatic resources); Katie Walter
12 of Shannon & Wilson, Inc. (wetlands, impacts to aquatic resources); Kevin Fitzpatrick (general
13 water quality issues, stormwater management, Port's compliance with its NPDES permit,
14 acceptable fill criteria); Kelly Whiting of King County's Department of Natural Resources
15 (Comprehensive Stormwater Management Plan and low flow issues); John Drabek, Ed Abbasi
16 and Ron Devitt (water quality issues); Ching-Pi Wang (preferred pathways analysis,
17 embankment fill seepage monitoring plan, MTCA Agreed Order); Roger Nye (historical basis
18 of the fill criteria and background regarding the MTCA Agreed Order); Chung Yee (fill
19 criteria); Dave Garland (embankment modeling and groundwater science); and Jerald
20 LaVassar (dam safety). I also consulted with staff from other agencies including Michelle
21 Walker and Gail Terzi of the Army Corps of Engineers; Nancy Brennan-Dubbs of U.S. Fish
22 and Wildlife Service; Tom Sibley of the National Marine Fisheries Service; Phil Schneider and
23 Tony Opperman of Washington Department of Fish Wildlife.

24 6. Those consultations, combined with the recommendations and advice of
25 Ecology's technical experts, formed the basis for my recommendation to Gordon White,
26

AR 002916

1 Program Manager of the SEA Program, that Ecology had the reasonable assurance necessary to
2 issue the Port a 401 Certification and CZMA Consistency Concurrence statement.

3 II. Port's Project

4 7. The Port has identified a number of projects in its Master Plan Update (MPU) in
5 order to allow it to efficiently meet existing and future regional air travel demands. In its Joint
6 Aquatic Resources Permit Application the Port states:

7 The airfield operates inefficiently during poor weather because it accommodates
8 aircraft in a single arrival stream only. As a result, significant arrival delay
9 occurs during poor weather. Aircraft are either held on the ground in their
originating city, slowed en route, or they are placed in holding patterns to await
clearance to land at STIA.

10 To improve this situation the Port identified a number of projects through a master planning
11 process.

12 8. Some of the MPU projects impact wetlands in the Miller and Des Moines Creek
13 watersheds. Specific projects with direct impacts to wetlands, floodplains, stream, and
14 drainage channel impacts include:

15 Adding an 8,500 foot long third parallel runway with associated taxiways and
16 navigational aids on an embankment consisting of 17 to 20 million cubic yards
of imported fill.

17 Establishing standard Runway Safety Areas for the existing runways.

18 Relocating South 154th Street north of the extended runway safety areas and the
19 new third runway.

20 Using on-site borrow sources for the third runway embankment.

21 Other components of the MPU improvements, including construction of the proposed South
22 Aviation Support Area (SASA), the proposed stormwater management system to manage
23 runoff from the new impervious surfaces, and the proposed relocation of Miller Creek, were
24 analyzed for impacts to water quality including impacts to low flows. The major plans that
25 Ecology reviewed for this project were: the Natural Resource Mitigation Plan (NRMP)
26 (December 2000), the Comprehensive Stormwater Management Plan (CSMP) (December

1 2000, July 2001), the Low Flow Analysis (December 2000), and the Low Flow Analysis
2 Impact Offset Facility Proposal and Attachments (July 23, 2001).

3 **III. Reasonable Assurance and the Process Ecology Used to Reach It**

4 9. Appellants' major issue of contention in this case is whether Ecology had
5 reasonable assurance when it issued its 401 Certification on August 10, 2001 and issued the
6 Amended 401 Certification on September 21, 2001. Ecology defines reasonable assurance and
7 applies that definition when reviewing projects as described below. It is, in brief, a two step
8 process that this Board detailed in *Friends of the Earth v. Ecology*, PCHB No. 87-63 (1988):

9 **Step 1:** Determine, through a "preponderance of evidence", that water quality
10 standards can and will be met, and identify any areas of uncertainty.

11 **Step 2:** Address the areas of uncertainty by including measures that will remove
or reduce the uncertainty.

12 For all of the technical issues involved with this project Ecology had substantial information
13 before it to determine through a "preponderance of the evidence" that water quality standards
14 could and would be met. Where there were areas of uncertainty, Ecology developed conditions
15 to remove or reduce that uncertainty.

16 10. Where a 401 Certification includes conditions, part of Ecology's reasonable
17 assurance is that the recipient of the certification will comply with those conditions. Ecology
18 addresses failure to comply with a condition of the certification on a case-by-case basis. In my
19 deposition, I was asked whether the Port's compliance with particular conditions of the 401
20 Certification (*e.g.*, submittal of a revised Low Streamflow Plan) was necessary for reasonable
21 assurance. I answered yes and my answer is consistent with Ecology's approach. Ecology
22 makes a determination of reasonable assurance based on a preponderance of the evidence
23 before it and where there are uncertainties Ecology imposes conditions in the 401 Certification.
24 The conditions generally address areas where Ecology needs additional information (*e.g.*,
25 revised or clarified plan sheets) or has made a determination that more stringent standards than
26 those proposed by the applicant are appropriate (*e.g.*, requiring additional mitigation or

1 requiring a longer mitigation monitoring period). It is important that Ecology verify that any
2 additional information it requires has been submitted and that it is adequate. It is also
3 important that the applicant comply with any additional requirements placed in the
4 certification. However, the key point is that when Ecology issues the certification it has
5 determined that the project and the mitigation proposed is adequate and that the project will not
6 result in water quality discharges that violate state water quality standards or that result in
7 further degradation of beneficial uses, so long as the conditions in the 401 Certification are
8 fully complied with.

9 11. Furthermore, if the applicant is out of compliance with a particular condition of
10 Ecology's certification, Ecology continues to have reasonable assurance regarding water
11 quality. The agency has several options for ensuring an applicant's ongoing compliance with
12 Ecology's certification conditions. First, Ecology encourages the applicant to voluntarily
13 comply with the certification condition. Second, if this approach does not produce satisfactory
14 results Ecology uses its enforcement authority to compel compliance. Third, the 401
15 Certification is adopted in whole by the Corps into its 404 permit. If an applicant fails to
16 comply with the 401 Certification conditions Ecology will refer the matter to the Corps for
17 enforcement. Finally, the 401 Certification is also issued as an administrative order under
18 RCW 90.48 and Ecology has and will use its own enforcement authority under this statute to
19 compel compliance with the terms of the 401 Certification. Because Ecology ensures an
20 applicant's ongoing compliance with Ecology's certification conditions an applicant's
21 temporary lack of compliance with those conditions does not mean Ecology no longer has
22 reasonable assurance regarding water quality.

23 12. The above two-step process for determining reasonable assurance is consistent
24 with Ecology's Draft 401 Certification Desk Manual prepared by Tom Luster for use by
25
26

AR 002919

1 Ecology staff reviewing applications for 401 Certification.¹ In the remainder of my testimony,
2 I detail how Ecology applied this two step process to its review of the Port's project.

3 13. As stated above, in September of 2000, Ecology advised the Port that it would
4 deny the Port's application due to deficiencies in the Port's submittals, particularly its
5 stormwater management plan. The Port agreed to withdraw its pending application and submit
6 a new application. In order to facilitate clear communication between Ecology and the Port,
7 both parties agreed to use a neutral facilitator and to hold a series of facilitated meetings. The
8 purpose of the meetings was to identify all of the issues requiring resolution and the steps the
9 Port needed to take before Ecology could determine whether it had reasonable assurance and
10 could issue a 401 Certification. The purpose of the facilitated meetings is set forth in the Final
11 Draft October 31, 2000 Floyd and Snider, Inc. meeting notes:²

12 The purpose of these technical discussions is to clarify known issues and
13 submittal requirements for documents adequate for Ecology and public review.
14 Discussions of potential 401 condition language in these notes are subjective
15 only. Language included in these notes does not in any way presuppose an
16 Ecology decision regarding 401 issuance or preclude development of 401
17 requirements or conditions following review of the full record.

18 14. Through this process the parties identified and worked through a complete list
19 of issues. Notes summarizing all of the meetings held between October 2 and December 8,
20 2000 best capture the evolution of the process.³ The parties anticipated that at the conclusion
21 of these discussions the Port would have sufficient guidance from Ecology to prepare revised
22 documents to submit to Ecology and the Corps. Those documents would be included in the
23 Corps Public Notice and Ecology's Notice of Application for Water Quality Certification and
24 Certification of Consistency with the Washington Coastal Zone Management Program. The
25 Port prepared final documents and submitted them to Ecology and the Corps in late December
26 2000.

¹ Department of Ecology Federal Permits Team Desk Manual, January 24, 2000.

² Floyd & Snider, Inc. Meeting Notes – October 31, 2000. All notes of the facilitated meetings are included in Ecology's exhibits.

³ Floyd & Snider, Inc. Meeting Notes Summary October 2 – December 8, 2000.

AR 002920

1 15. Ecology began its review of the Port's December 2000 revised plans upon
2 receipt. The agency's review showed that although the Port had made significant
3 improvements in the plans and had come much closer to resolving the issues leading to the
4 Port's withdrawal in September 2000, some concerns remained. Ecology identified two areas
5 of concern where the agency determined it would be beneficial to continue the facilitated
6 process (CSMP; Low Streamflow Analysis) and other areas where it was determined the issues
7 could be easily resolved through a less formal process (*e.g.*, NRMP).

8 16. On March 9, 2001, Ecology and Port project management staff met to map out a
9 process to resolve the remaining issues. The Floyd and Snider, Inc. draft final meeting notes of
10 March 9, 2001 document this meeting.⁴ Ecology and the Port agreed to two sets of purely
11 technical meetings to address issues related to stormwater management and to low flow. These
12 issues were identified by Kelly Whiting of King County's Department of Natural Resources,
13 Ecology's consultant reviewing the Port's CSMP and Low Streamflow Analysis. These
14 technical meetings are documented in meeting notes prepared by Floyd and Snider, Inc.⁵ The
15 parties determined to use a less formal process to address other issues, such as Ecology's
16 review of the NRMP and addressing public comments regarding the relationship of the MTCA
17 agreed order to the 401 Certifications.⁶

18 17. The meetings and the Port's submittal of a substantial amount of additional
19 information demonstrated to Ecology that "through a preponderance of the evidence" the Port
20 could and would meet water quality standards if Ecology granted a 401 Certification. In the
21 few areas where Ecology had remaining concerns, Ecology conditioned the Certification issued
22 to the Port, eliminating or significantly reducing any potential uncertainty. The 401
23 Certification that Ecology issued on August 10, 2001 and later re-issued on September 21,
24 2001 evidences this process.

25 ⁴ Floyd & Snider, Inc. Meeting Notes – March 9, 2001.

26 ⁵ Floyd & Snider, Inc. Meeting Notes March 14, 2001 through October 30, 2001.

⁶ Floyd & Snider, Inc. Meeting Notes – March 9, 2001.

AR 002921

1 **IV. Stormwater Management Provisions**

2 18. In Section J of the 401 Certification Ecology approved the Port's December
3 2000 CSMP, as revised by the replacement pages submitted in July 2001. Ecology's approval
4 was based on Mr. Whiting's review of the revised pages and his findings that the revisions
5 brought the CSMP into compliance with the King County Stormwater Manual. The approval
6 was also based on the determination of Ecology's Water Quality Program staff, Kevin
7 Fitzpatrick and John Drabek, that the revised CSMP would be protective of water quality.

8 19. Messers. Whiting, Fitzpatrick and Drabek developed conditions for the 401
9 Certification regarding the Port's implementation of the CSMP. Condition J.1.requires the
10 Port to implement the CSMP its entirety. The Port cannot change the CSMP without prior
11 review and written approval from Ecology. Condition J.1.b. requires the Port to implement the
12 project according to the schedule provided in Table A-3 of the CSMP. Condition J.1.c.
13 imposes an aggressive schedule on the Port to retrofit existing stormwater facilities, providing
14 that for every 10 percent of new impervious surfaces being constructed, the Port is required to
15 retrofit 20 percent of their existing stormwater facilities. The Port must maintain this rate of
16 retrofitting unless it can demonstrate to Ecology's satisfaction that such a rate in not feasible;
17 such a showing does not alleviate the Port from completing the retrofit.

18 20. Condition J.2.a. addresses concerns raised during public comment that current
19 airport stormwater facilities are not meeting water quality standards and, therefore, future
20 stormwater discharges from surfaces related to the third runway and associated project will
21 also not meet water quality criteria. As discussed by Kevin Fitzpatrick in his prefiled
22 testimony, the regulation of stormwater and the determination of whether a stormwater
23 discharge is in compliance with state water quality standards is a technically complex issue.
24 The purpose of Condition J.2.a. is to (a) require the Port to complete site specific studies to (b)
25 allow Ecology to establish appropriate effluent limitations in the Port's NPDES permit. Until
26 such time as these two steps occur, Ecology prohibits the Port from releasing any stormwater

1 from pollution generating impervious surfaces related to the third runway and associated
2 projects to nearby surface waters. The Port may discharge stormwater from the third runway
3 and associated projects with permission to a municipal stormwater management system or to
4 the Port's Industrial Wastewater Treatment System (IWS).

5 21. Since Ecology issued the 401 Certification, the Port has initiated work with
6 Ecology staff to define the scope of the site specific study in compliance with the last sentence
7 of Condition J.2.a. This study is expected to be completed during the spring of 2002. Ecology
8 intends to evaluate the study and include appropriate effluent limitations in the NPDES permit
9 when it is renewed this summer. Either way—through the establishment of limitations in the
10 NPDES permit or by discharging to a municipal stormwater treatment facility or the Port's
11 IWS—Ecology has reasonable assurance that stormwater generated by the third runway will
12 meet water quality standards. It was not necessary to delay a decision on the 401 Certification
13 until the study was completed.

14 V. Natural Resource Mitigation Plan (NRMP)

15 22. The issue of whether Ecology had reasonable assurance with regard to the
16 NRMP is discussed in detail in the pre-filed testimony of Erik Stockdale and Katie Walter.
17 Mr. Stockdale and Ms. Walter, engaged in a comprehensive and extremely thorough review of
18 the NRMP. That review led to a series of meetings and discussions between Mr. Stockdale,
19 Ms. Walter, and James Kelley, the Port's lead for wetland mitigation issues. I participated in a
20 majority of those meetings and conversations. Ecology's review of the NRMP resulted in the
21 conditions included in Section D of the 401 Certification. Although that section is lengthy, no
22 one should conclude that Ecology had major doubts about the overall adequacy of the NRMP.
23 The NRMP and its appendixes are lengthy and highly detailed documents.

24 23. Ms. Walter developed a list of relatively minor changes and clarifications that
25 the Port needed to make to those documents and discussed those changes with the Mr. Kelley.
26 In order to ensure that the items identified by Ms. Walter were addressed in the final NRMP, I

1 turned Ms. Walter's list into a set of conditions. The length of those conditions reflects the
2 detailed nature of the NRMP and Ms. Walter's review. One example is Attachment B to the
3 401 Certification. This attachment identifies numerous minor plan sheet revisions
4 recommended by Ms. Walter. These changes were never considered critical to the success or
5 failure of the proposed mitigation as a whole. Ecology discussed its concerns regarding the
6 plans sheet comments with Mr. Kelley and he agreed to the changes. Again, I included them in
7 Attachment B so that Ecology could ensure that the changes were made.

8 24. During my deposition Mr. Stock directed me to give "yes" or "no" answers to
9 questions that greatly overstated the relative importance of the plan sheet changes identified in
10 Attachment B. Although each small detail is in and of itself important, each is not enough by
11 itself to tip Ecology's determination that it had reasonable assurance regarding the NRMP as a
12 whole. The location of a particular root wad in a specific section of Miller Creek or the as-
13 built design detail of an area where shade cloth is used was not critical to Ecology's
14 determination of reasonable assurance. The plan sheet changes, which set forth the items
15 Ecology had already requested of the Port and the Port agreed to provide, were included as an
16 attachment in order for Ecology to ensure that the agency and the Port accounted for those
17 items in the revised NRMP.

18 25. Another reason conditions were set forth in Section D was in response to public
19 comments. One example is Condition D.4. Mr. Stockdale drafted this condition in response to
20 concerns raised by Amanda Azous concerning the temporal losses that would occur from
21 temporary impacts to wetlands due to the construction of temporary stormwater management
22 facilities. Ecology agreed that Ms. Azous raised some legitimate concerns and added this
23 mitigation requirement as a result. Ecology felt there was no need to delay approval of the
24 NRMP until receiving a draft mitigation plan for the Wetland A-17 Complex because the
25 agency knew this wetland was on Port-owned property and the mitigation actions described in
26

AR 002924

1 the condition constituted an expansion of the mitigation already required in the NRMP for
2 Miller Creek.

3 26. The detail and complexity of the NRMP demonstrate that care was taken to
4 ensure that the project's impacts to wetlands and aquatic resources were adequately mitigated.
5 The thorough review of the NRMP and the resulting conditions in the 401 Certification support
6 Ecology's determination that there is reasonable assurance the project will meet applicable
7 water quality standards with regard to wetland impacts.

8 VI. Acceptable Fill Criteria

9 27. Ecology's Kevin Fitzpatrick and Chung Yee developed "acceptable fill" criteria
10 to prohibit certain types of fill from being used in the third runway project and to provide
11 quantitative limits for potential contaminants in fill imported for use on site. Under Clean
12 Water Act § 307, the Corps requires that fill must be "free from toxic materials in toxic
13 amounts." In developing the fill criteria, Ecology was also guided by the requirements of
14 WAC 173-201A-040(1) ("[t]oxic substances shall not be introduced above natural background
15 levels in waters of the state which have the potential either singularly or cumulatively to
16 adversely affect characteristic water uses") and the antidegradation standard in WAC
17 173-201A-070(4)(a) ("[e]xisting instream uses and the level of water quality necessary to
18 provide full support to those uses must be maintained and protected").

19 28. Because compliance with those requirements in the context of the introduction
20 of fill material is not defined, Ecology determined it should provide the Port additional
21 guidance to ensure that fill used at the project site met those requirements. As a result Ecology
22 developed the fill criteria included in Condition E of the August 10, 2001 Certification. These
23 criteria were later superceded by the more stringent set of criteria contained in Appendix E of
24 the September 21, 2001 Certification. In his testimony, Kevin Fitzpatrick discusses the history
25 and details of the development of the fill criteria. I want to clarify for this Board the intent of
26 the conditions in Condition E.

AR 002925

1 29. Under Condition E.1c., there are only three sources from which the Port is
2 allowed to obtain fill: state-certified borrow pits, contractor-certified borrow pits, and Port of
3 Seattle-owned properties. Condition E.1.a. requires that all fill considered for use by the Port
4 for Port 404 projects (described below) from any of the above sources must go through a Phase
5 I or Phase II Environmental Site Assessment (ASTE E 1527-00 and E1903-97). The fill is
6 then sampled. The sampling schedule set forth in Condition E.1.a.iv. is the minimum number
7 of samples that must be taken for a source with no likelihood of environmental contamination.
8 If the Phase I Environmental Site Assessment uncovers potential sources of contamination or
9 complex site conditions the Port is required to consult with Ecology for the appropriate number
10 of samples to take.

11 30. Under condition E.1.d (Prohibited Fill Sources) if any of this fill is determined
12 to be “contaminated” the Port is prohibited from using the material for the project. Even if it
13 has been remediated, it cannot be used. “Contaminated” means that samples of fill done under
14 the Phase II Environmental Site Assessment show that the constituents exceed the standards
15 established in Condition E.1.b. The standards established in Condition E.1.b of the August 10,
16 2001 Certification were superseded by the more stringent standards established in Table One
17 of Attachment E in the September 21, 2001 401 Certification.

18 31. The fill criteria established in the August 10, 2001 401 Certification are derived
19 primarily from the Model Toxics Control Act (MTCA) Level A Cleanup Standards. Ecology
20 also required a more stringent set of criteria for the top six feet of fill being placed over the
21 drainage layer. Ecology determined that the criteria used in the August 10, 2001 Certification
22 were protective of surface and ground water quality and, therefore, there was reasonable
23 assurance that the Port’s use of fill complying with the terms of Condition E would not violate
24 applicable water quality standards. The amendment of the fill criteria in the September 21,
25 2001, Amended Certification strengthened that reasonable assurance determination by
26 establishing an even more stringent set of criteria.

AR 002926

1 32. The standards in Table One of Attachment E to the September 21, 2001
2 Certification constitute a combination of the standards applied by Ecology in its August 10,
3 2001 Certification and the standards set by the U.S. Fish and Wildlife Service's (FWS)
4 Biologic Opinion for the proposed third runway project.⁷ In essence, Ecology adopted the
5 conclusions and requirements of the Biological Opinion by reference. To best understand the
6 fill criteria and the rationale for their use one needs to refer to Enclosure A and B of the
7 Biological Opinion. As stated in Section 1.b.ii. of Attachment A, the values established by
8 Ecology for RCRA (Resource Conservation Recovery Act) metals under MTCA Method A
9 standards are protective of groundwater as a drinking water source.

10 33. After Ecology issued the 401 Certification to the Port on August 10, 2001, the
11 Port contacted Ecology to discuss some concerns it had regarding the fill criteria. The Port's
12 major concern was that the fill criteria in the 401 Certification differed from the criteria
13 imposed by the FWS in its Biologic Opinion. This scenario set up a potential conflict between
14 the two set of criteria. Ecology agreed with the Port's concerns and subsequently met with the
15 Port to discuss resolution of this issue. The result was the language included in the Stipulated
16 Agreement between Ecology and the Port of September 20, 2001. This language was then
17 incorporated verbatim into the Amended 401 Certification issued on September 21, 2001.

18 34. The September 21, 2001 Amended 401 Certification continues to apply the
19 same standards established in the August 10, 2001 Certification. The Port is permitted to
20 obtain fill only from the same three types of sources and all sources of fill must go through the
21 Phase I and Phase II Environmental Site Assessment Process. The Port must sample and the
22 fill must meet the criteria set forth in Table One of Attachment E. The changes that occurred
23 in the September 21 401 Certification are as follows:

- 24 • As an alternative to placing the "ultra clean" layer of fill in at a uniform depth
25 of six feet over the drainage layer, Ecology agreed the Port could use the

26 ⁷ U.S. Fish & Wildlife Service Biological Opinion dated May 22, 2001.

AR 002927

1 “wedge” concept required by the FWS. This “drainage layer cover” is a layer
2 of ultra clean fill that is 40 feet thick at the face of the embankment and reduces
3 in a height to the east at a rate of two percent. The Port requested this change
4 not only to make our requirements consistent with those of the FWS but
5 because of practical construction related concerns. The Port explained that
6 placing a uniform layer of fill six feet deep on steeply sloped terrain would be
7 nearly impossible. Ecology agreed and determined that the “wedge” concept
8 would provide a comparable level of protection.

- 9 • A new and more restrictive set of criteria were established. The Port agreed to
10 use the most stringent of the Ecology and FWS service requirements for the
11 drainage layer cover. (See Table One, Attachment E, to the September 21, 2001,
12 401 Certification). Ecology previously determined that the criteria established
13 in the August 10 401 Certification provided reasonable assurance that water
14 quality standards would be met, however, Ecology concluded that, if the Port
15 requested and agreed to implement more stringent standards, it was appropriate
16 to amend the certification to require those standards. For example, the standard
17 Ecology set for arsenic dropped from 20 milligrams per kilogram (mg/kg) to 7,
18 which is the Puget Sound background concentration at the 90th percentile.
19 Likewise, the standard for lead dropped from 220 mg/kg to 24. The standard
20 for mercury dropped from 2 mg/kg to 0.07., etc.
- 21 • Ecology allowed the Port to use the Synthetic Precipitation Leaching Procedure
22 (SPLP) for metals that exceed the criteria set for the embankment drainage layer
23 cover (the first six feet of the fill or the “wedge”). This test simulates acid rain
24 conditions and determines if metals will leach or be mobilized and move
25 through soils in liquid form. If testing demonstrates that metals will not leach,
26 then the Port may use soils with concentrations of metals that exceed the criteria

1 set forth in Column 4 of Table One, Attachment E. In no case may the
2 contaminant levels exceed the standards set in Column 5 of Table One,
3 Attachment E.

- 4 • Another change was made in order to clarify the applicability of the fill criteria.
5 As written in the August 10, 2001 Certification the fill criteria applied to every
6 load of fill to be imported anywhere on Port property regardless of whether that
7 fill material was being placed in waters of the state or near waters of the state.
8 For example, fill may be used as construction back fill in areas that are not
9 wetlands, are not located next to wetlands or streams and will be capped with
10 concrete or asphalt such that the fill is never exposed to rain. The August 10,
11 2001 fill criteria would apply to this type of fill. Ecology agreed it was
12 reasonable to limit the application of the fill criteria to those areas of the Port's
13 project that could have a direct impact on state waters (such as the placement of
14 fill in wetlands to construct the third runway or the relocation of Miller Creek).
15 We also realized that there are other Master Plan Update projects with the
16 potential to impact state waters, we therefore retained the authority to determine
17 exactly which projects must meet the fill criteria. The first sentence of
18 Condition E states: "The use of imported fill for projects for which the §404
19 permit was sought, e.g. Third Runway, Runway Safety Areas, South Aviation
20 Support Area, and other appropriate Master Plan Update Improvements as
21 determined by the Department of Ecology (Port 404 Projects) may result in
22 impacts to wetlands or to waters of the state."(Emphasis added.) Ecology is
23 presently engaged in discussions with Port staff to identify the specific projects
24 to which fill criteria apply. We are evaluating how close a project is to surface
25 or ground water, whether the project will be capped, volume, and type and
26 source of the material. Thus far we have identified two phases of the

1 embankment construction that will impact wetlands and the relocation of South
2 154th Street as projects that must meet the fill criteria.

3 35. In both 401 Certifications Ecology required the Port to develop an embankment
4 seepage monitoring plan. The Port submitted the plan in full compliance with the 401
5 Certification and Ecology is presently reviewing the plan. Ecology anticipates completing its
6 review of this plan within the next several weeks.

7 36. In closing, the inclusion of fill criteria in the August 10, 2001 401 Certification
8 was unprecedented in the history of the Department. The fill criteria constitute the most
9 stringent set of criteria for the use of imported fill material ever imposed by Ecology in any
10 401 Certification. The Amended 401 Certification strengthened Ecology's determination it
11 had reasonable assurance regarding fill criteria.

12 **VII. Low Stream Flow Analysis and Summer Low Flow Impact Offset Facility Proposal**

13 37. As described above, between April 2001 and July 2001 Ecology and the Port
14 held a series of technical meetings regarding the Low Stream flow Analysis and Summer Low
15 Flow Impact Offset Facility proposal. These meetings are documented in notes by the meeting
16 facilitator, Kate Snider of Floyd and Snider, Inc.⁸ During the course of these meetings Ecology
17 directed the Port to continue to refine the low flow analysis submitted to it in December 2000
18 so that the parties could have confidence that the predicted impacts to low flow were based on
19 sound modeling and that the proposed system for offsetting impacts was technically feasible to
20 implement. The Port revised its modeling for the "slice" model to address Dave Garland's
21 concerns that the model as integrated over the 5,400 foot portion of the embankment along
22 Miller Creek may have overstated the delayed drainage contribution to that stream
23 (Memorandum of March 9, 2001 to Kevin Fitzpatrick and Ann Kenny). On August 7, 2001 Mr.
24 Garland sent me another memorandum (Memorandum from Dave Garland to Ann Kenny dated
25 August 7, 2001, regarding review of Low Flow Analysis, Flow Impact Offset Facility

26 ⁸ Floyd & Snider, Inc. Low Flow Analysis Meeting Notes April 2001 through July 2001.

Proposal) with comments on the July 2001 Low Flow Analysis, Flow Impact Offset Facility Proposal. He states:

This most recent report presents considerable improvements in analysis and mitigation for predicted impacts of the proposed third runway on late summer streamflows . . . After re-evaluating 47 years of streamflow records for Miller, Walker, and Des Moines Creeks, this more recent analysis uses a 3-month period for proposed low-flow augmentation. This provides a margin of safety for future climate aberrations and as pointed out by King County DNR, constitutes substantial streamflow mitigation for the third runway project.

Mr. Garland concludes:

1. The Port has provided more detailed integration of the PGG "slice model" (PGG, June 2000) over the length of the proposed runway embankment along Miller and Des Moines creeks. This more detailed consideration of fill thickness and fill soil characteristics yields improved low flow estimates for delayed embankment drainage to Miller and Des Moines creeks during the summer low flow months.

38. Another area where Ecology requested refinement was in the Port's estimation of non-hydrologic effects (e.g., the cessation of water withdrawal from Miller Creek and the removal of septic tanks as a part of the buyout area). Ecology discussed its concerns not only in the facilitated meetings between October and December 2000 but continued to raise concerns upon review of the December 2000 Low Flow Analysis. These concerns were discussed in King County's comment to Ecology of February 22, 2001. Ecology discussed its concerns at the facilitated meetings during April and July, 2001. (See the June 25, July 9 and July 24, 2001 meeting notes). The Port continued to revise their estimates of non-hydrologic effects until their work met Ecology's approval.

39. At the end of July 2001 the Port submitted a Final Low Streamflow Analysis and Summer Low Flow Impact Offset Facility proposal to Ecology for review, which Ecology's consultant, Mr. Whiting, reviewed.⁹ Kelly Whiting of King County provided

⁹ Letter dated July 23, 2001 from Keith Smith, Port of Seattle to Ann Kenny, Ecology summarizing Port's evaluation of summer low streamflow impacts in Des Moines, Miller, and Walker Creeks; letter dated July 25, 2001 from Keith Smith, Port of Seattle to Ann Kenny, Ecology providing clarifications to July 23, 2001 letter;

1 Ecology with technical support both in the context of evaluating the validity of the highly
2 complex modeling being used to estimate low flow impacts and in evaluating the technical
3 feasibility of the proposed low flow offset system. Mr. Whiting's review showed that the
4 impacts being predicted by the Port's modeling were reasonable and that the proposed system
5 would be technically feasible to implement. Mr. Whiting's comments are reflected in his
6 August 3, 2001 letter where he concludes:¹⁰

7 This review summary concludes that the low flow report proposes substantial
8 mitigations for offsetting low flow impacts annually during the time period
when most low flow events occur. (Enclosure 1, page 1, Ex. 41)

9 The flow frequency plots of ranked annual low flow events show substantially
10 complete mitigation of the annual minimum low-flow events by providing
augmentation during the time period when streams are at their historically
11 lowest flow levels (August-October). (Enclosure 1, page 2, Ex. 41)

12 Based upon these conclusions from Mr. Whiting and Mr. Garland's opinion that the modeling
13 concerns he had about the integration of the slice had been fully resolved, I determined that we
14 had reached a point of reasonable assurance on this issue. Where Mr. Whiting had areas of
15 concern, I placed conditions in Section I the 401 Certification to provide Ecology with the
16 certainty it needed to determine reasonable assurance.

17 40. The ACC through Mr. Luster has argued that Ecology should have required the
18 Port to mitigate beyond the impacts of their project. The ACC would like to see the Port
19 augment flows to restore full beneficial uses in Miller, Walker and Des Moines creeks.
20 Ecology reviewed this issue and determined that it has jurisdiction only over the impacts to
21 flow actually caused by the Port's construction of the third runway and associated projects.
22 While Mr. Luster and the ACC would like to see the Port augment flows in these creeks to
23 ameliorate the impacts of decades of urbanization, Ecology does not believe that it has the

24 _____
25 Low Flow Analysis Impact Offset Facility Proposal and attachments dated July 23, 2001; letter dated July 31,
2001 with attached conceptual drawings for Low Flow Impact Offset Facility Proposal.

26 ¹⁰ Letter from Pam Bissonnette, King County Department of Natural Resources to Ann Kenny, Ecology
dated August 3, 2001 regarding the County's review of the Port of Seattle's Comprehensive Stormwater
Management Plan (revised July 2001).

1 authority under the Clean Water Act or RCW 90.48 to do so. As a result we required the Port
2 to identify the impacts their project would have on flows and to offset that impact on a one-to
3 one basis.

4 41. In October 2001 the Port advised Ecology that in reviewing the Low Flow
5 Analysis to address our conditions they discovered that they had inadvertently made an error
6 that had the potential to substantially overstate the impact in Miller Creek. Ecology agreed to
7 meet with the Port and the outcome of that meeting was documented in the notes taken by
8 Kate Snider on October 30, 2001 (Floyd & Snider Meeting Notes – October 30, 2001). We
9 agreed to a strategy for the Port to correct the error and to make several other minor changes.
10 The Port submitted the revised plan in compliance with the Certification on December 12,
11 2001. Ecology has nearly completed its review of the revised document and has found that
12 the Port has substantially complied with the conditions in the September 21, 2001
13 Certification. Mr. Whiting reviewed the December 2001 Low Flow Plan on behalf of
14 Ecology and found his concerns regarding the July 2001 plan had been mostly addressed or
15 rendered moot. He had some additional comments which were in the nature of requesting
16 some refinements and checks. I am confident that these additional issues will be addressed
17 shortly. The Port has been very responsive to our requests over the last year and a half and I
18 expect them to continue to be responsive. My reasonable assurance on this issue is based on
19 the fact that we have set in place a process of review and approval that ensures that the Low
20 Flow Plan will adequately identify and mitigate low flow impacts. Also, the Port has
21 submitted substantial proposals that we have found to be based on scientifically sound and
22 feasible methodologies. While further refinements to the Low Flow Plan may be needed, I do
23 not believe we lack reasonable assurance as a result.

24 42. One issue raised by the ACC is that the impacts from lining Lagoon 3 of the
25 Industrial Wastewater Treatment System at the Port should be included in calculations of
26 impacts to low flow from the third runway and its associated projects. First, we have been

1 advised by the Port, and we agree, that it would be very difficult to calculate potential seepage
2 from Lagoon 3 prior to lining. Second, the lining of Lagoon 3 is an activity that benefited
3 water quality and occurred under the NPDES permit. It was not and never has been
4 considered a part of the third runway project. Therefore, Ecology has no jurisdiction to
5 require the Port to include any potential loss of baseflow to Des Moines Creek due to the
6 lining of Lagoon 3 in its assessment of impacts to low flow related to the third runway and
7 other Master Plan Update projects.

8 **VIII. Other Water Quality Related Issues and Reasonable Assurance**

9 43. The 401 Certification contains other conditions to provide reasonable assurance
10 that water quality standards will be met. In Condition A.2.a. Ecology required that the Port
11 submit for review and approval a monitoring plan for each in-water or shoreline construction
12 project at least thirty days prior to the start of construction. This condition will allow Ecology
13 to ensure that the best management practices are used by the Port its in-water work.

14 44. The ACC alleges that Ecology has authorized a mixing zone without complying
15 with applicable procedures. As discussed in mine and Mr. Fitzpatrick's declarations this is an
16 erroneous understanding of the intent of Conditions A.2.d. and g. To fully understand these
17 conditions, one must also consider Condition A (1), which provides that the water quality
18 criteria of WAC 173-201A-030(1) and 173-201A-040 apply to this project and that temporary
19 exceedences of the water quality standards beyond the limits of WAC 173-201A-110(3) are
20 not permitted. However, in order to allow in-water work to occur, WAC 173-201A-110(3)
21 establishes a temporary mixing zone during and immediately after necessary in-water or
22 shoreline construction activities that result in the disturbance of in-place sediments. Condition
23 A (2)(d) applies to in-water or shoreline constructions projects only and requires the mixing
24 zone allowed by WAC 173-201A-110(3) to be minimized. This means that if the Port can
25 meet the turbidity standards in an area that is smaller than that allowed by WAC 173-201A-
26 110(3), it must do so. Condition A (2)(g) requires the Port to monitor turbidity at the boundary

1 of the mixing zone and to either slow down work or implement additional BMPs to control
2 turbidity. Conditions A (1) and A (2) taken in their entirety are designed to give Ecology
3 reasonable assurance that water quality standards will be met when the Port undertakes the
4 construction projects associated with the portions of their project which require in-water or
5 shoreline work.

6 45. Another area we examined in detail were public comments that construction of
7 the third runway and associated projects would create pathways for contamination to migrate
8 from the Port's Airport Operations and Maintenance Area (AOMA) to surface waters via
9 conduits such as utility lines, etc. Ecology investigated this concern carefully and based on our
10 expertise and knowledge of the contamination at the AOMA we determined that this potential
11 situation was highly unlikely to occur. (See the testimony of Ching Pi Wang.) We did,
12 however, place a condition in the 401 Certification, Condition F, that required the Port to
13 develop Best Management Practices for construction in order to prevent any possible
14 interception of contaminated groundwater by utility corridors and a plan to monitor potential
15 contaminant transport to soil and groundwater via subsurface utility lines. This plan was
16 submitted in compliance with the 401 and Mr. Ching Pi Wang approved it on March 6, 2002 as
17 submitted.

18 IX. Compliance with the Coastal Zone Management Program

19 46. As a part of my review of this project I reviewed the Port's request CZMA
20 Consistency Concurrence.¹¹ Mr. White's testimony provides a description of the process the
21 401 Certification Reviewer uses to make a determination that a proposed project is consistent
22 with the CZMA. Using that process I verified that the Port had complied with the enforceable
23 policies of Washington's CZMP by doing the following:

24
25
26 ¹¹ Fax transmittal from Elizabeth Leavitt, Port of Seattle, to Ann Kenny, Ecology, dated January 11, 2001
with revised Coastal Zone Management Consistency Statement signed by Elizabeth Leavitt on January 10, 2001.

- 1 a. I verified that the Port, the lead agency for State Environmental Policy Act
2 review, had completed its SEPA review.¹²
- 3 b. I verified that the Port had obtained a shoreline exemption from the City of
4 Auburn for the proposed mitigation site.¹³
- 5 c. I verified that the Port had obtained a general NPDES stormwater permit from
6 Ecology for construction of the Auburn mitigation site.¹⁴
- 7 d. I verified that the Port had an Industrial Stormwater NPDES permit for the
8 airport site.¹⁵
- 9 e. I verified that the Port had the appropriate discharge permits from the Puget
10 Sound Clean Air Agency and that nothing had changed in the scope of the
11 project that would have altered Ecology's determination that the SeaTac area
12 was in compliance with National Ambient Air Quality Standards for carbon
13 monoxide and nitrous oxide (1996-1997 Carbon Saturation Study, Sea-Tac
14 International Airport Area, Washington State Department of Ecology and
15 conversation with Doug Brown).¹⁶
- 16 f. Compliance with the Clean Water Act was determined when Ecology issued its
17 401 Certification to the Port.

18
19 ¹² Final Environmental Impact Statement for Proposed Master Plan Update Development Actions at
20 STIA dated February 1, 1996; Final Supplemental Environmental Impact Statement for Proposed Master Plan
21 Update Actions at STIA dated May 13, 1997; SEPA Addendum to Final Environmental Impact Statement and
22 Final Supplemental Impact Statement for Proposed Master Plan Update Development Actions at STIA, dated
23 January 24, 2000; Port of Seattle Addendum to the Final Supplemental Environmental Impact Statement for the
24 Master Plan Update Development Actions at STIA, Auburn Wetland Mitigation Project, May 5, 2000.

25 ¹³ Fax transmittal to Tom Luster and Erik Stockdale, Ecology, dated August 11, 2000 with attached
26 copies of Shoreline Permit Exemption Letter issued by the City of Auburn to the Port of Seattle for the Auburn
Wetland Mitigation Site on August 9, 2000 and Hydraulic Project Approval No. 00-E6607-01 issued to the Port of
Seattle for the Auburn Wetland Mitigation Site on July 28, 2000.

¹⁴ Fax transmittal from Ralph Wessels, Port of Seattle, to Ann Kenny, Ecology, dated August 9, 2001
with attached copy of Port's Stormwater General Permit for Construction Activity No. SO3-004191 for the
Auburn Wetland Mitigation Project issued by Ecology on April 4, 2001.

¹⁵ National Pollutant Discharge Elimination System Waste Discharge Permit No. WA-002465-1, Port of
Seattle, STIA, modified May 29, 2001.

¹⁶ Letter from Maggie Corbin, Port of Seattle, to Ann Kenny, Ecology, dated March 21, 2001 attaching
copy of Port's synthetic minor permit issued by the Puget Sound Clean Air Agency on September 21, 1999.

1 173-175-020, -040 and was therefore not subject to regulation by Ecology.²¹ The Dam Safety
2 regulations pertain to structural issues and I had been advised that the MSE wall was not
3 subject to regulation by the state as a dam. Ecology was aware that there were facilities
4 proposed as a part of the Port's project that would require a Dam Safety Permit from Ecology
5 and Ecology therefore required the Port in Condition G to obtain the necessary Dam Safety
6 Permits from Ecology prior to beginning construction of any such facility. Ecology had
7 reasonable assurance that water quality standards would not be violated at the time we issued
8 the 401 Certification because Ecology had reviewed the sizing of the vaults and determined
9 that they were appropriately sized for stormwater collection purposes. Ecology also required
10 that the Port come back for review and written approval if any of the stormwater facilities
11 changed during final design.

12 **XI. Conclusion**

13 49. Ecology's review of this project constitutes the most thorough and
14 comprehensive review of any 401 certification application that I personally have ever been
15 involved with and I am not aware of any other project requiring a 401 certification that has
16 been subjected to this level of scrutiny. Since my involvement at the end of October 2000, I
17 have seen the Port's plans evolve from proposals that were unapprovable (such as the
18 Comprehensive Stormwater Plan) or poorly defined (such as the Low Flow Analysis) to plans
19 that are complete, comprehensive, and impressive in the mitigation that they provide. The
20 Natural Resource Mitigation Plan stands as an outstanding model for wetland and habitat
21 mitigation in an urban area.

22
23
24 ²¹ Email from Gus Ordonez, Ecology, to Ann Kenny, Ecology dated February 7, 2001 with attached
25 memorandum from Jerald LaVassar dated February 7, 2001 to Tom Luster evaluating MSE wall; email from Ann
26 Kenny, Ecology, to Andrea Grad and Peter Eglick, Hellsell Fetterman, dated February 18, 2001 with response to
inquiries regarding how Ecology would regulate the MSE wall, includes Jerald LaVassar memo; email from
Jerald LaVassar, Ecology, to Ann Kenny, Ecology, dated February 26, 2001 regarding Ecology's determination
that the MSE wall is not a dam that would be regulated under state dam safety laws.

Ann E. Kenny
425-649-4310
E-mail: aken461@ecy.com

Employment

Washington Department of Ecology, Northwest Regional Office, Bellevue, Washington.

Environmental Specialist 4. Shorelands and Environmental Assistance Program. August 1999 to present date.

- Senior Permit Specialist with the Department of Ecology's Permit Assistance Center.
- Provide information regarding environmental permits and regulations to businesses, local governments, and citizens.
- Provide internal cross-program permit coordination services for large, complex projects in areas such as commuter and light rail, natural gas pipeline development, and natural gas co-generation projects impacting wetlands, water quality, air quality and shorelines.
- Coordinate and consult with the US Army Corps of Engineers, National Marine Fisheries Service, US Fish and Wildlife Service, Washington Department of Fish and Wildlife and other agencies regarding permitting requirements.
- Since November 2000 worked on special assignment as the project manager for the Port of Seattle's proposed Third Runway 401 Water Quality Certification. Coordinated a cross-program, interagency team of technical experts and wrote the certification. The certification, issued in August 2001, is unprecedented in its scope and complexity and stands as one of the most environmentally stringent water quality certifications ever issued by the agency.

Environmental Specialist 3. Shorelands and Environmental Assistance Program. February 1998 to July 1999.

- Federal Permit Coordinator at Ecology's Northwest Regional Office responsible for providing Section 401 review of permits issued by the US Army Corps of Engineers under Section 404 of the Clean Water Act. Also coordinated Coastal Zone Management Act review of projects.
- Reviewed projects for compliance with state aquatic resource protection laws including state water quality standards, storm water management provisions and wetland mitigation requirements. Recommended approval, denial or modification of projects. Prepared and issued Public Notices concerning projects and issued Section 401 Water Quality Certifications.
- Coordinated with US Army Corps, Environmental Protection Agency, National Marine Fisheries Service, US Fish and Wildlife Service, and Washington Fish and Wildlife and local government staff concerning project impacts.
- Provided technical assistance to project applicants, contractors, and citizens and local governments concerning permitting requirements, environmental laws, and design concerns.

Environmental Specialist 3. Shorelands and Environmental Assistance Program. October 1996 to February 1998.

- Shoreline Permit Specialist responsible for reviewing shoreline permits issued by local governments for compliance with the jurisdiction's shoreline master program and with the Shoreline Management Act. Worked closely with local government planning, wetlands and other staff to make recommendations for approval, denial or conditioning of permits.
- Provided technical assistance to project applicants, local government staff and the public regarding Shoreline Management Act requirements and environmental issues such as bank stabilization and bluff management.

Environmental Planner 2. Hazardous Waste and Toxics Reduction Program. February 1994 to October 1996.

- Toxics Reduction Planner. Provided procedural and industry specific technical assistance to over 100 pollution prevention planners. Coordinated business assistance visits by section staff to over 80 auto, photo, and printing shops.
- Helped planners and dangerous waste generators to comply with Dangerous Waste Regulations.

Environmentalist 3. Solid and Hazardous Waste Program. April 1991 to January 1994.

- Moderate Risk Waste Coordinator responsible for Moderate Risk Waste (MRW) planning and implementation. Helped to define management of MRW in Washington.
- Provided MRW plan development assistance and technical assistance to local governments regarding MRW collection, recycling, disposal and compliance issues. Also worked closely with county health departments.
- Reviewed and commented on MRW Fixed Facility permit applications.

Environmentalist 2. Waste Reduction and Recycling and Litter Control Program. September 1990 to April 1991.

- Environmental Educator for "A-Way with Waste" program.
- Provided waste reduction and recycling technical assistance to local governments, educators, students, and civic groups.

Other Employment.

Education and Public Involvement Intern. King County Solid Waste Division. June 1989 to June 1990.

- Implemented successful waste reduction and recycling program at 40 elementary schools.
- Developed program design and action plan for educational component of the county's high school recycling program.

Teaching Assistant. University of Washington, Department of Political Science. Fall 1988. Winter 1989.

- Prepared and lead two weekly discussion sections, graded exams and papers and assisted students as needed.

Chief Document Clerk. Diamond and Sylvester. December 1986 to June 1987.

- Responsible for all aspects of document production for large construction litigation case.
- Supervised and scheduled the work of up to 13 document clerks.

Lead Trial Paralegal. King County Prosecuting Attorney's Office. October 1985 to April 1986.

- Assisted attorneys in preparation and presentation of two cases involving the Cedar Hills Regional Landfill.

Paralegal Assistant II. Montana Department of Revenue, Legal Division. August 1982 to June 1985.

- Managed department's administrative rule-making process and bankruptcy claim program.
- Assisted in the preparation of judicial and administrative cases.
- Researched and drafted proposed legislation.

Education

University of Washington. Graduate School of Public Affairs. 1990.
Master's Degree in Public Administration.

University of Montana School of Law. 1980-1981. Earned 30 semester hours.

Montana State University. 1980. Bachelor of Arts, Political Science, Pre-Law.

References available upon request

AR 002941