

RECEIVED

SEP 12 2001

ENVIRONMENTAL
HEARINGS OFFICE

POLLUTION CONTROL HEARINGS BOARD
FOR THE STATE OF WASHINGTON

AIRPORT COMMUNITIES COALITION,)

No. 01-133

Appellant,)

DECLARATION OF PETER J. EGLICK
IN SUPPORT OF ACC'S MOTION FOR
STAY

v.)

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

(Section 401 Certification No.
1996-4-02325 and CZMA concurrency
statement, issued August 10, 2001,
Related to Construction of a Third
Runway and related projects at Seattle
Tacoma International Airport)

Respondents.)
_____)

Peter J. Eglick declares as follows:

1. I am one of the attorneys for the Airport Communities Coalition. I make this declaration based on personal knowledge and am competent to do so.

2. Incorporated herein by reference (but not attached) are ACC's Notice of Appeal and its attachments, which were filed with the Board and served on the Department of Ecology and Port of Seattle on August 23, 2001. Three additional copies were transmitted to the Board on September 6, 2001:

a. Department of Ecology Water Quality Certification and Statement of CZM Consistency (Cover Letter and Order No. 1996-4-02325), dated August 10, 2001; and Port of

HELSELL FETTERMAN LLP
1500 Puget Sound Plaza
1325 Fourth Avenue
Seattle, WA 98101-2509

Rachael Paschal Osborn
Attorney at Law
2421 West Mission Avenue
Spokane, WA 99201

DECLARATION OF PETER J. EGLICK IN
SUPPORT OF ACC'S MOTION FOR STAY - 1

ORIGINAL

AR 007881

1 Seattle's Application (JARPA Form) for Water Quality Certification, dated October 26, 2000

2 (Attachment 1 to Notice of Appeal);

3 b. Draft letter denying Water Quality Certification from the Department of
4 Ecology to the Port of Seattle, dated September 28, 2000 (Attachment 2 to Notice of Appeal);

5 c. U.S. Army Corps of Engineers Second Revised Public Notice of Application
6 for Permit for Project No. 1996-4-02325, dated December 27, 2000 (Attachment 3 to Notice of
7 Appeal);

8 d. Department of Ecology Agreed Order No. 97TC-N122, in the matter of Sea-
9 Tac International Airport, dated May 25, 1999 (Attachment 4 to Notice of Appeal); and

10 e. Letter from Governor Gary Locke to Rodney Slater, Secretary, U.S.
11 Department of Transportation, dated June 30, 1997 (Attachment 5 to Notice of Appeal);

12 3. Attached to this declaration are true and correct copies of the following documents:

13 Exhibit A: DOE Press Release, August 10, 2001.

14 Exhibit B: *PUD No. 1 v. Washington Dept. of Ecology*, 511 US 700, 114 S.
15 Ct. 1900, 128 L. Ed. 2d 716 (1994).

16 Exhibit C: Letter to Col. Butler, Army Corps of Engineers, from Gordon
17 White, Department of Ecology, dated September 29, 2000.

18 Exhibit D: *US v. Akers*, 1985 U.S. Dist. LEXIS 23436 (1985).

19 Exhibit E: Water Quality Guidelines for Wetlands, DOE Pub. No. 96-06
20 (April, 1996).

21 Exhibit F: Memorandum dated 8/13/01 from Ray Hellwig to Tom
22 Fitzsimmons.

23
24
25
HELSELL FETTERMAN LLP
1500 Puget Sound Plaza
1325 Fourth Avenue
Seattle, WA 98101-2509

Rachael Paschal Osborn
Attorney at Law
2421 West Mission Avenue
Spokane, WA 99201

DECLARATION OF PETER J. EGLICK IN
SUPPORT OF ACC'S MOTION FOR STAY - 2

AR 007882

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

Exhibit G: Email from Chung K. Yee to Kevin Fitzpatrick, June 13, 2001.

Exhibit H: Email thread from Peter Kmet to Kevin Fitzpatrick, June 27, 2001.

Exhibit I: Hart Crowser presentation to Port's Technical Review Board, November, 16 -17, 2000, Pages 90-91

Exhibit J: Fax to Ann Kenny from King County dated August 3, 2001.

Exhibit K: *Amoco Production Co., et al. v. Village of Gambrell, et al.*, 480 U.S. 531,545 (1987)

Exhibit L: *California, et al. v. Marsh, et al.*, 687 F. Supp. 495, 501 (N.D. CA 1988)

Exhibit M: Excerpt from Port of Seattle website, September 8, 2001.

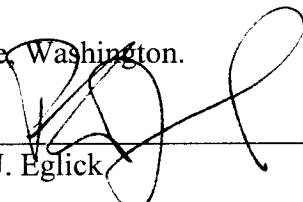
Exhibit N: Walker & Associates aerial photograph of airport, May 6, 2001.

Exhibit O: Port of Seattle's March 2000 map entitled "Wetland and Stream Impacts in the Des Moines Creek Basin."

Exhibit P: July 25, 2001 letter from Port of Seattle to Department of Ecology.

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

DATED this 12th day of September, 2001, at Seattle, Washington.



Peter J. Eglick

g:\lu\acc\pchb\eglick-decl-stay.doc

DECLARATION OF PETER J. EGLICK IN
SUPPORT OF ACC'S MOTION FOR STAY - 3

HELSELL FETTERMAN LLP
1500 Puget Sound Plaza
1325 Fourth Avenue
Seattle, WA 98101-2509

Rachael Paschal Osborn
Attorney at Law
2421 West Mission Avenue
Spokane, WA 99201

AR 007883

Department of Ecology News Release - August 10, 2001

01-137

Ecology Department approves permit for new airport runway

BELLEVUE - The state Department of Ecology (Ecology) has approved the Port of Seattle's environmental permit to construct a third runway and related projects at Seattle-Tacoma International Airport.

The water-quality permit is the final state permit needed to build the project. The port must now pursue a federal permit from the U.S. Army Corps of Engineers.

"This is one of the largest public-works projects ever attempted in the state of Washington," said Ecology Director Tom Fitzsimmons. "The potential effects on water quality and the natural environment are enormous, but the port agreed up front that the project should meet the highest environmental standards."

"The challenge has been to design the project to meet this test," he said. "We are confident that the port's proposal satisfies all local, state and federal environmental protection regulations."

This is the third time the port has sought water-quality certification from Ecology under the federal Clean Water Act. In 1998, the agency issued a permit for the runway proposal, but the port had Ecology rescind the permit because the proposal at that time had identified only about half the wetlands affected by the project. In September 2000, the port withdrew a second permit application because it needed more time to finish key components of the proposal.

The third runway will be located west of the airport's two existing runways. More than 17 million cubic yards of fill will be used to construct the massive, 8,500-foot-long project - the equivalent of 34 football fields, each stacked 300 feet high with material.

Three salmon-bearing creeks - Des Moines, Miller and Walker - are contiguous to the planned runway site. In addition, nearly 20 acres of wetlands will be filled, but the port will replace or enhance wetland functions in each creek basin and create a new 60-acre wetland next to the Green River in Auburn.

"Some people have said the permit process took too long. But given the unprecedented size, scope and complexity of the project, it's a remarkable accomplishment to put together a plan within two years that meets the high environmental standards we all agreed to," said Ray Hellwig, the regional director for Ecology.

"I am proud of the job we've done," he said. "Our review has been thorough, and we have reached a decision that is scientifically sound, technically feasible and legally defensible."

AR 007885

From the beginning, there were three primary environmental concerns that the port needed to address during and after construction. The final plan submitted by the port last week calls for:

- Managing storm water to avoid polluting Des Moines, Miller and Walker creeks. The port will construct 15 stormwater ponds and vault facilities. One of the underground vaults will detain up to 88 acre-feet of storm water, equal to nearly 30 Olympic-sized swimming pools. Several other ponds will hold as much as 20 to 40 acre-feet. The port will retrofit its existing stormwater facilities to bring the entire airport property into compliance with state stormwater regulations.
- Protecting and restoring wetland habitat. The port will create or enhance 201 acres of wetlands and aquatic habitat, including creating a new 60-acre wetland near the Green River in Auburn. In addition, nearly 6,500 linear feet of Miller Creek will be enhanced to provide better wildlife habitat, leaving the creek in better condition than it was. Nearly 300 septic tanks and tons of garbage also are being removed from the creeks and surrounding areas.
- Mitigating low flows in the three creeks, especially during dryer months. The port will capture and store storm water during wet months, then return the water to the creeks to maintain adequate flows during dry months.

Fitzsimmons said that when port officials delivered their final, revised runway plans to Ecology last week, the package was nearly complete. "We plugged in only a few minor adjustments to make the environmental protections complete."

Those conditions include requiring the port to:

- Screen the 17 million cubic yards of fill needed to construct the runway to make sure surface and ground waters will not be contaminated.
- Route storm water to Walker Creek detention facilities.
- Provide two additional acres of wetland buffers in the Miller Creek basin and widen other buffers around one of the port's gravel pits.
- Increase water quality monitoring during runway construction and operation.

In addition, the port has agreed to pay for three to five Ecology staff positions to oversee how the port complies with the terms of its permit. Hellwig also said it is possible the permit may need to be amended in the future based on new information or further evaluation of the construction plan.

Contact: Curt Hart, Public Information Manager, 425-649-7009; pager 206-663-1785

AR 007886

**E
X
H
I
B
IT**

AR 007887

Service: LEXSEE®
Citation: 511 us 700

*511 U.S. 700, *; 114 S. Ct. 1900, **;
128 L. Ed. 2d 716, ***; 1994 U.S. LEXIS 4271*

PUD NO. 1 OF JEFFERSON COUNTY AND CITY OF TACOMA, PETITIONERS v. WASHINGTON
DEPARTMENT OF ECOLOGY, ET AL.

No. 92-1911

SUPREME COURT OF THE UNITED STATES

511 U.S. 700; 114 S. Ct. 1900; 128 L. Ed. 2d 716; 1994 U.S. LEXIS 4271; 62 U.S.L.W. 4408;
38 ERC (BNA) 1593; 94 Cal. Daily Op. Service 3843; 94 Daily Journal DAR 7236; 24 ELR
20945; 8 Fla. L. Weekly Fed. S 172

February 23, 1994, Argued
May 31, 1994, Decided

DISPOSITION: 121 Wash. 2d 179, 849 P.2d 646, affirmed.

CORE TERMS: water, water quality, certification, stream, license, designated, regulation,
Clean Water Act, state water, antidegradation...

COUNSEL: Howard E. Shapiro argued the cause for petitioners. With him on the briefs were
Michael A. Swiger, Gary D. Bachman, Albert R. Malanca, and Kenneth G. Kieffer.

Christine O. Gregoire, Attorney General of Washington, argued the cause for respondents. With
her on the briefs were Jay J. Manning, Senior Assistant Attorney General, and William C.
Frymire, Assistant Attorney General.

Deputy Solicitor General Wallace argued the cause for the United States as amicus curiae
urging affirmance. With him on the brief were Solicitor General Days, Acting Assistant Attorney
General Schiffer, James A. Feldman, and Anne S. Almy. *

* Briefs of amici curiae urging reversal were filed for the American Forest & Paper Association
et al. by John R. Molm, Winifred D. Simpson, and James A. Lamberth; for Niagara Mohawk
Power Corp. by Edward Berlin, Kenneth G. Jaffe, Paul J. Kaleta, Brian K. Billinson, and Timothy
P. Sheehan; for the Northwest Hydroelectric Association by Richard M. Glick and Lory J. Kraut;
for Pacific Northwest Utilities by Sherilyn Peterson and R. Gerard Lutz; and for the Western
Urban Water Coalition by Benjamin S. Sharp and Guy R. Martin.

Briefs of amici curiae urging affirmance were filed for the State of Vermont et al. by Jeffrey L.
Amestoy, Attorney General of Vermont, and Ronald A. Shems, Assistant Attorney General,
Robert Abrams, Attorney General of New York, and Kathleen Liston Morrison, Assistant
Attorney General, Grant Woods, Attorney General of Arizona, Winston Bryant, Attorney
General of Arkansas, Daniel E. Lungren, Attorney General of California, Richard Blumenthal,
Attorney General of Connecticut, Charles M. Oberly III, Attorney General of Delaware, Robert
A. Butterworth, Attorney General of Florida, Michael J. Bowers, Attorney General of Georgia,
Robert A. Marks, Attorney General of Hawaii, Larry EchoHawk, Attorney General of Idaho,
Roland A. Burris, Attorney General of Illinois, Pamela Fanning Carter, Attorney General of
Indiana, Bonnie J. Campbell, Attorney General of Iowa, Robert T. Stephan, Attorney General of
Kansas, Chris Gorman, Attorney General of Kentucky, Michael E. Carpenter, Attorney General

AR 007888

of Maine, J. Joseph Curran, Jr., Attorney General of Maryland, Scott Harshbarger, Attorney General of Massachusetts, Frank J. Kelley, Attorney General of Michigan, Hubert H. Humphrey III, Attorney General of Minnesota, Mike Moore, Attorney General of Mississippi, Jeremiah W. Nixon, Attorney General of Missouri, Joseph P. Mazurek, Attorney General of Montana, Don Stenberg, Attorney General of Nebraska, Frankie Sue Del Papa, Attorney General of Nevada, Jeffrey R. Howard, Attorney General of New Hampshire, Fred DeVesa, Acting Attorney General of New Jersey, Tom Udall, Attorney General of New Mexico, Michael F. Easley, Attorney General of North Carolina, Heidi Heitkamp, Attorney General of North Dakota, Lee Fisher, Attorney General of Ohio, Susan B. Loving, Attorney General of Oklahoma, Theodore R. Kulongoski, Attorney General of Oregon, Ernest D. Preate, Jr., Attorney General of Pennsylvania, Jefferey B. Pine, Attorney General of Rhode Island, T. Travis Medlock, Attorney General of South Carolina, Charles W. Burson, Attorney General of Tennessee, Dan Morales, Attorney General of Texas, Jan Graham, Attorney General of Utah, Stephen D. Rosenthal, Attorney General of Virginia, Darrell V. McGraw, Jr., Attorney General of West Virginia, James E. Doyle, Attorney General of Wisconsin, Joseph B. Meyer, Attorney General of Wyoming, and John Payton, Corporation Counsel of the District of Columbia; and for American Rivers et al. by Paul M. Smith.

OPINION: [*703] [***723] [**1905] JUSTICE O'CONNOR delivered the opinion of the Court.

[***HR1A] [1A]

Petitioners, a city and a local utility district, want to build a hydroelectric project on the Dosewallips River in Washington State. We must decide whether respondent state environmental agency (hereinafter respondent) properly conditioned a permit for the project on the maintenance of specific minimum stream flows to protect salmon and steelhead runs.

[*704] I

This case involves the complex statutory and regulatory scheme that governs our Nation's waters, a scheme that implicates both federal and state administrative responsibilities. The Federal Water Pollution Control Act, commonly known as the Clean Water Act, 86 Stat. 816, as amended, 33 U.S.C. § 1251 et seq., is a comprehensive water quality statute designed to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." § 1251(a). The Act also seeks to attain "water quality which provides for the protection and propagation of fish, shellfish, and wildlife." § 1251(a)(2).

To achieve these ambitious goals, the Clean Water Act establishes distinct roles for the Federal and State Governments. Under the Act, the Administrator of the Environmental Protection Agency (EPA) is required, among other things, to establish and enforce technology-based limitations on individual discharges into the country's navigable waters from point sources. See §§ 1311, 1314. Section 303 of the Act also requires each State, subject to federal approval, to institute comprehensive water quality standards establishing water quality goals for all intrastate waters. §§ 1311(b) (1)(C), 1313. These state water quality standards provide "a supplementary basis . . . so that numerous point sources, despite individual compliance with effluent limitations, may be further regulated to prevent water quality from falling below acceptable levels." EPA v. California ex rel. State Water Resources Control Bd., 426 U.S. 200, 205, n. 12, 48 L. Ed. 2d 578, 96 S. Ct. 2022 (1976).

A state water quality standard "shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses." 33 U.S.C. § 1313(c)(2)(A). In setting standards, the State must comply with the following broad requirements:

AR 007889

"Such standards shall be such as to protect the public health or welfare, enhance

the quality of water and **[*705]** serve the purposes of this chapter. Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational [and other purposes.]" *Ibid.*

See also § 1251(a)(2).

A 1987 amendment to the Clean Water Act makes clear that § 303 also contains an "antidegradation policy" -- that is, a policy requiring **[**1906]** that state standards be sufficient to maintain existing beneficial uses of navigable waters, preventing their further degradation. Specifically, the Act permits the revision of certain effluent limitations or water quality **[***724]** standards "only if such revision is subject to and consistent with the antidegradation policy established under this section." § 1313(d)(4)(B). Accordingly, EPA's regulations implementing the Act require that state water quality standards include "a statewide antidegradation policy" to ensure that "existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." 40 CFR § 131.12 (1993). At a minimum, state water quality standards must satisfy these conditions. The Act also allows States to impose more stringent water quality controls. See 33 U.S.C. §§ 1311(b)(1)(C), 1370. See also 40 CFR § 131.4(a) (1993) ("As recognized by section 510 of the Clean Water Act[, 33 U.S.C. § 1370], States may develop water quality standards more stringent than required by this regulation").

The State of Washington has adopted comprehensive water quality standards intended to regulate all of the State's navigable waters. See Washington Administrative Code (WAC) 173-201-010 to 173-201-120 (1986). The State created an inventory of all the State's waters, and divided the waters into five classes. 173-201-045. Each individual fresh surface water of the State is placed into one of these classes. 173-201-080. The Dosewallips River is classified AA, extraordinary. 173-201-080(32). The water quality **[*706]** standard for Class AA waters is set forth at 173-201-045(1). The standard identifies the designated uses of Class AA waters as well as the criteria applicable to such waters. n1

-----Footnotes-----

n1 WAC 173-201-045(1) (1986) provides in pertinent part:

"(1) Class AA (extraordinary).

"(a) General characteristic. Water quality of this class shall markedly and uniformly exceed the requirements for all or substantially all uses.

"(b) Characteristic uses. Characteristic uses shall include, but not be limited to, the following:

"(i) Water supply (domestic, industrial, agricultural).

"(ii) Stock watering.

"(iii) Fish and shellfish:

"Salmonid migration, rearing, spawning, and harvesting.

"Other fish migration, rearing, spawning, and harvesting.

...

"(iv) Wildlife habitat.

AR 007890

"(v) Recreation (primary contact recreation, sport fishing, boating, and aesthetic enjoyment).

"(vi) Commerce and navigation.

"(c) Water quality criteria

"(i) Fecal coliform organisms.

"(A) Freshwater -- fecal coliform organisms shall not exceed a geometric mean value of 50 organisms/100 mL, with not more than 10 percent of samples exceeding 100 organisms/100 mL.

"(B) Marine water -- fecal coliform organisms shall not exceed a geometric mean value of 14 organisms/100 mL, with not more than 10 percent of samples exceeding 43 organisms/100 mL.

"(ii) Dissolved oxygen [shall exceed specific amounts].

...

"(iii) Total dissolved gas shall not exceed 110 percent of saturation at any point of sample collection.

"(iv) Temperature shall not exceed [certain levels].

...

"(v) pH shall be within [a specified range].

"(vi) Turbidity shall not exceed [specific levels].

"(vii) Toxic, radioactive, or deleterious material concentrations shall be less than those which may affect public health, the natural aquatic environment, or the desirability of the water for any use.

"(viii) Aesthetic values shall not be impaired by the presence of materials or their effects, excluding those of natural origin, which offend the senses of sight, smell, touch, or taste."

-----End Footnotes-----

[*707] In addition to these specific standards applicable to Class AA waters, the State has adopted a statewide **[***725]** antidegradation policy. That policy provides:

"(a) Existing beneficial uses shall be maintained and protected and no further degradation which would interfere with or become injurious to existing beneficial uses will be allowed.

"(b) No degradation will be allowed of waters lying in national parks, national recreation areas, national wildlife refuges, national scenic rivers, and other areas of national ecological importance.

AR 007891

...

"(f) In no case, will any degradation of water quality be allowed if this degradation interferes with or becomes injurious to existing water uses and causes long-term

[1907]** and irreparable harm to the environment." 173-201-035(8).

As required by the Act, EPA reviewed and approved the State's water quality standards. See 33 U.S.C. § 1313(c)(3); 42 Fed. Reg. 56792 (1977). Upon approval by EPA, the state standard became "the water quality standard for the applicable waters of that State." 33 U.S.C. § 1313(c)(3).

States are responsible for enforcing water quality standards on intrastate waters. § 1319(a). In addition to these primary enforcement responsibilities, § 401 of the Act requires States to provide a water quality certification before a federal license or permit can be issued for activities that may result in any discharge into intrastate navigable waters. 33 U.S.C. § 1341. Specifically, § 401 requires an applicant for a federal license or permit to conduct any activity "which may result in any discharge into the navigable waters" to obtain from the State a certification "that any such discharge will comply with the applicable provisions of sections [1311, 1312, 1313, 1316, and 1317 of this title]." 33 U.S.C. § 1341(a). Section 401(d) further provides that "any certification **[*708]** . . . shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant . . . will comply with any applicable effluent limitations and other limitations, under section [1311 or 1312 of this title] . . . and with any other appropriate requirement of State law set forth in such certification." 33 U.S.C. § 1341(d). The limitations included in the certification become a condition on any federal license. *Ibid.* n2

-----Footnotes-----

n2 Section 401, as set forth in 33 U.S.C. § 1341, provides in relevant part:

"(a) Compliance with applicable requirements; application; procedures; license suspension

"(1) Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State . . . that any such discharge will comply with the applicable provisions of sections 1311, 1312, 1313, 1316, and 1317 of this title.

...

"(d) Limitations and monitoring requirements of certification

"Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 1311 or 1312 of this title, standard of performance under section 1316 of this title, or prohibition, effluent standard, or pretreatment standard under section 1317 of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section."

-----End Footnotes-----

AR 007892

[*726]** II

Petitioners propose to build the Elkhorn Hydroelectric Project on the Dosewallips River. If constructed as presently planned, the facility would be located just outside the Olympic National Park on federally owned land within the Olympic National Forest. The project would divert water from a 1.2-mile reach of the river (the bypass reach), run the **[*709]** water

through turbines to generate electricity and then return the water to the river below the bypass reach. Under the Federal Power Act (FPA), 41 Stat. 1063, as amended, 16 U.S.C. § 791a et seq., the Federal Energy Regulatory Commission (FERC) has authority to license new hydroelectric facilities. As a result, petitioners must get a FERC license to build or operate the Elkhorn Project. Because a federal license is required, and because the project may result in discharges into the Dosewallips River, petitioners are also required to obtain state certification of the project pursuant to § 401 of the Clean Water Act, 33 U.S.C. § 1341.

The water flow in the bypass reach, which is currently undiminished by appropriation, ranges seasonally between 149 and 738 cubic feet per second (cfs). The Dosewallips supports two species of salmon, coho and chinook, as well as steelhead trout. As originally proposed, the project was to include a diversion dam which would completely block **[**1908]** the river and channel approximately 75% of the river's water into a tunnel alongside the streambed. About 25% of the water would remain in the bypass reach, but would be returned to the original riverbed through sluice gates or a fish ladder. Depending on the season, this would leave a residual minimum flow of between 65 and 155 cfs in the river. Respondent undertook a study to determine the minimum stream flows necessary to protect the salmon and steelhead fishery in the bypass reach. On June 11, 1986, respondent issued a § 401 water quality certification imposing a variety of conditions on the project, including a minimum stream flow requirement of between 100 and 200 cfs depending on the season.

A state administrative appeals board determined that the minimum flow requirement was intended to enhance, not merely maintain, the fishery, and that the certification condition therefore exceeded respondent's authority under state law. App. to Pet. for Cert. 55a-57a. On appeal, the **[*710]** State Superior Court concluded that respondent could require compliance with the minimum flow conditions. *Id.*, at 29a-45a. The Superior Court also found that respondent had imposed the minimum flow requirement to protect and preserve the fishery, not to improve it, and that this requirement was authorized by state law. *Id.*, at 34a.

The Washington Supreme Court held that the antidegradation provisions of the State's water quality standards require the imposition of minimum stream flows. 121 Wash. 2d 179, 186-187, 849 P.2d 646, 650 (1993). **[***727]** The court also found that § 401(d), which allows States to impose conditions based upon several enumerated sections of the Clean Water Act and "any other appropriate requirement of State law," 33 U.S.C. § 1341(d), authorized the stream flow condition. Relying on this language and the broad purposes of the Clean Water Act, the court concluded that § 401(d) confers on States power to "consider all state action related to water quality in imposing conditions on section 401 certificates." 121 Wash. 2d at 192, 849 P.2d at 652. We granted certiorari, 510 U.S. 810 (1993), to resolve a conflict among the state courts of last resort. See 121 Wash. 2d 179, 849 P.2d 646 (1993); Georgia Pacific Corp. v. Dept. of Environmental Conservation, 159 Vt. 639, 628 A.2d 944 (1992) (table); Power Authority of New York v. Williams, 60 N.Y.2d 315, 457 N.E.2d 726, 469 N.Y.S.2d 620 (1983). We now affirm.

III

[*HR1B]** [1B]

The principal dispute in this case concerns whether the minimum stream flow requirement that the State imposed on the Elkhorn Project is a permissible condition of a § 401 certification under the Clean Water Act. To resolve this dispute we must first determine the scope of the State's authority under § 401. We must then determine whether the limitation at issue here, the requirement that petitioners maintain minimum stream flows, falls within the scope of that authority.

AR 007893

[*711] A

There is no dispute that petitioners were required to obtain a certification from the State pursuant to § 401. Petitioners concede that, at a minimum, the project will result in two

possible discharges -- the release of dredged and fill material during the construction of the project, and the discharge of water at the end of the tailrace after the water has been used to generate electricity. Brief for Petitioners 27-28. Petitioners contend, however, that the minimum stream flow requirement imposed by the State was unrelated to these specific discharges, and that as a consequence, the State lacked the authority under § 401 to condition its certification on maintenance of stream flows sufficient to protect the Dosewallips fishery.

[*HR2A]** [2A]

If § 401 consisted solely of subsection (a), which refers to a state certification that a "discharge" will comply with certain provisions of the Act, petitioners' assessment of the scope of the State's certification authority would have considerable force. Section 401, however, also contains subsection (d), which expands the State's authority to impose conditions on the certification of a **[**1909]** project. Section 401(d) provides that any certification shall set forth "any effluent limitations and other limitations . . . necessary to assure that *any applicant*" will comply with various provisions of the Act and appropriate state law requirements. 33 U.S.C. § 1341(d) (emphasis added). The language of this subsection contradicts petitioners' claim that the State may only impose water quality limitations specifically tied to a "discharge." The text refers to the compliance of the applicant, not the discharge. Section 401 (d) thus allows the State to impose "other limitations" on the project in general to assure compliance with various provisions of the Clean Water Act and with "any other appropriate **[***728]** requirement of State law." Although the dissent asserts that this interpretation of § 401(d) renders § 401(a)(1) superfluous, *post*, at 726, we see no such anomaly. Section 401 (a)(1) identifies the category of activities **[*712]** subject to certification -- namely, those with discharges. And § 401(d) is most reasonably read as authorizing additional conditions and limitations on the activity as a whole once the threshold condition, the existence of a discharge, is satisfied.

Our view of the statute is consistent with EPA's regulations implementing § 401. The regulations expressly interpret § 401 as requiring the State to find that "there is a reasonable assurance that the *activity* will be conducted in a manner which will not violate applicable water quality standards." 40 CFR § 121.2(a)(3) (1993) (emphasis added). See also EPA, Wetlands and 401 Certification 23 (Apr. 1989) ("In 401(d), the Congress has given the States the authority to place any conditions on a water quality certification that are necessary to assure that the applicant will comply with effluent limitations, water quality standards, . . . and with 'any other appropriate requirement of State law'"). EPA's conclusion that *activities* -- not merely discharges -- must comply with state water quality standards is a reasonable interpretation of § 401, and is entitled to deference. See, e. g., Arkansas v. Oklahoma, 503 U.S. 91, 110, 117 L. Ed. 2d 239, 112 S. Ct. 1046 (1992); Chevron U.S. A. Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837, 81 L. Ed. 2d 694, 104 S. Ct. 2778 (1984).

[*HR3A]** [3A]

Although § 401(d) authorizes the State to place restrictions on the activity as a whole, that authority is not unbounded. The State can only ensure that the project complies with "any applicable effluent limitations and other limitations, under [33 U.S.C. §§ 1311, 1312]" or certain other provisions of the Act, "and with any other appropriate requirement of State law." 33 U.S.C. § 1341(d). The State asserts that the minimum stream flow requirement was imposed to ensure compliance with the state water quality standards adopted pursuant to § 303 of the Clean Water Act, 33 U.S.C. § 1313.

AR 007894

[*HR2B]** [2B]

[*HR3B]** [3B]

We agree with the State that ensuring compliance with § 303 is a proper function of the § 401 certification. Although § 303 is not one of the statutory provisions listed in § 401(d), **[*713]** the statute allows States to impose limitations to ensure compliance with § 301 of the Act, 33 U.S.C. § 1311. Section 301 in turn incorporates § 303 by reference. See 33 U.S.C. § 1311(b) (1)(C); see also H. R. Conf. Rep. No. 95-830, p. 96 (1977) ("Section 303 is always included by

reference where section 301 is listed"). As a consequence, state water quality standards adopted pursuant to § 303 are among the "other limitations" with which a State may ensure compliance through the § 401 certification process. This interpretation is consistent with EPA's view of the statute. See 40 CFR § 121.2(a)(3) (1992); EPA, Wetlands and 401 Certification, *supra*. Moreover, limitations to assure compliance with state water quality standards are also permitted by § 401(d)'s reference to "any other appropriate requirement of State law." We do not speculate on what additional state laws, if any, might be incorporated by this language. n3

*****729** ****1910** But at a minimum, limitations imposed pursuant to state water quality standards adopted pursuant to § 303 are "appropriate" requirements of state law. Indeed, petitioners appear to agree that the State's authority under § 401 includes limitations designed to ensure compliance with state water quality standards. Brief for Petitioners 9, 21.

-----Footnotes-----

n3 The dissent asserts that § 301 is concerned solely with discharges, not broader water quality standards. *Post*, at 730, n. 2. Although § 301 does make certain discharges unlawful, see 33 U.S.C. § 1311(a), it also contains a broad enabling provision which requires States to take certain actions, to wit: "In order to carry out the objective of this chapter [viz. the chemical, physical, and biological integrity of the Nation's water] there shall be achieved . . . not later than July 1, 1977, any more stringent limitation, including those necessary to meet water quality standards, . . . established pursuant to any State law or regulations . . ." 33 U.S.C. § 1311(b)(1)(C). This provision of § 301 expressly refers to state water quality standards, and is not limited to discharges.

-----End Footnotes-----

B

*****HR1C** [1C]

*****HR4A** [4A]

Having concluded that, pursuant to § 401, States may condition certification upon any limitations necessary to ensure ***714** compliance with state water quality standards or any other "appropriate requirement of State law," we consider whether the minimum flow condition is such a limitation. Under § 303, state water quality standards must "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses." 33 U.S.C. § 1313(c)(2)(A). In imposing the minimum stream flow requirement, the State determined that construction and operation of the project as planned would be inconsistent with one of the designated uses of Class AA water, namely "salmonid [and other fish] migration, rearing, spawning, and harvesting." App. to Pet. for Cert. 83a-84a. The designated use of the river as a fish habitat directly reflects the Clean Water Act's goal of maintaining the "chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). Indeed, the Act defines pollution as "the man-made or man induced alteration of the chemical, physical, biological, and radiological integrity of water." § 1362(19). Moreover, the Act expressly requires that, in adopting water quality standards, the State must take into consideration the use of waters for "propagation of fish and wildlife." § 1313(c)(2)(A).

Petitioners assert, however, that § 303 requires the State to protect designated uses solely through implementation of specific "criteria." According to petitioners, the State may not require them to operate their dam in a manner consistent with a designated "use"; instead, say petitioners, under § 303 the State may only require that the project comply with specific numerical "criteria."

AR 007895

*****HR4B** [4B]

We disagree with petitioners' interpretation of the language of § 303(c)(2)(A). Under the statute, a water quality standard must "consist of the designated uses of the navigable waters involved *and* the water quality criteria for such waters based upon such uses." 33 U.S.C. § 1313(c)(2)(A) (emphasis added). The text makes it plain that water quality standards contain

two components. We think the language **[*715]** of § 303 is most naturally read to require *****730** that a project be consistent with *both* components, namely, the designated use *and* the water quality criteria. Accordingly, under the literal terms of the statute, a project that does not comply with a designated use of the water does not comply with the applicable water quality standards.

Consequently, pursuant to § 401(d) the State may require that a permit applicant comply with both the designated uses and the water quality criteria of the state standards. In granting certification pursuant to § 401(d), the State "shall set forth any . . . limitations . . . necessary to assure that [the applicant] will comply with any . . . limitations under [§ 303] . . . and with any other appropriate requirement of State law." A certification requirement that an applicant operate the project consistently with state water quality standards -- *i. e.*, consistently with the designated uses of the water body and the water quality criteria -- is both a "limitation" to assure "compl[iance] with . . . ****1911** limitations" imposed under § 303, and an "appropriate" requirement of state law.

EPA has not interpreted § 303 to require the States to protect designated uses exclusively through enforcement of numerical criteria. In its regulations governing state water quality standards, EPA defines criteria as "*elements* of State water quality standards, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports a particular use." 40 CFR § 131.3(b) (1993) (emphasis added). The regulations further provide that "when criteria are met, water quality will *generally* protect the designated use." *Ibid.* (emphasis added). Thus, the EPA regulations implicitly recognize that in some circumstances, criteria alone are insufficient to protect a designated use.

Petitioners also appear to argue that use requirements are too open ended, and that the Act only contemplates enforcement of the more specific and objective "criteria." But this argument is belied by the open-ended nature of the criteria **[*716]** themselves. As the Solicitor General points out, even "criteria" are often expressed in broad, narrative terms, such as "there shall be no discharge of toxic pollutants in toxic amounts." Brief for United States as *Amicus Curiae* 18. See *American Paper Institute, Inc. v. EPA*, 302 U.S. App. D.C. 80, 996 F.2d 346, 349 (CADC 1993). In fact, under the Clean Water Act, only one class of criteria, those governing "toxic pollutants listed pursuant to section 1317(a)(1)," need be rendered in numerical form. See 33 U.S.C. § 1313(c)(2)(B); 40 CFR § 131.11(b)(2) (1993).

Washington's Class AA water quality standards are typical in that they contain several open-ended criteria which, like the use designation of the river as a fishery, must be translated into specific limitations for individual projects. For example, the standards state that "toxic, radioactive, or deleterious material concentrations shall be less than those which may affect public health, the natural aquatic environment, or the desirability of the water for any use." WAC 173-201-045(1)(c)(vii) (1986). Similarly, the state standards specify that "aesthetic values shall not be impaired by the presence of materials or their effects, excluding those of natural origin, which offend the senses of sight, smell, touch, or taste." 173-201-045(1)(c)(viii). We think petitioners' *****731** attempt to distinguish between uses and criteria loses much of its force in light of the fact that the Act permits enforcement of broad, narrative criteria based on, for example, "aesthetics."

Petitioners further argue that enforcement of water quality standards through use designations renders the water quality criteria component of the standards irrelevant. We see no anomaly, however, in the State's reliance on both use designations and criteria to protect water quality. The specific numerical limitations embodied in the criteria are a convenient enforcement mechanism for identifying minimum water conditions which will generally achieve the requisite water quality. And, in most circumstances, satisfying the criteria will, as EPA recognizes, be sufficient to maintain the **[*717]** designated use. See 40 CFR § 131.3(b) (1993). Water quality standards, however, apply to an entire class of water, a class which contains numerous individual water bodies. For example, in the State of Washington, the Class AA water quality standard applies to 81 specified fresh surface waters, as well as to all "surface waters lying

within the mountainous regions of the state assigned to national parks, national forests, and/or wilderness areas," all "lakes and their feeder streams within the state," and all "unclassified surface waters that are tributaries to Class AA waters." WAC 173-201-070 (1986). While enforcement of criteria will in general protect the uses of these diverse waters, a complementary requirement that activities also comport with designated uses enables the States to ensure that each activity -- even if not foreseen by the criteria -- will be consistent with the specific uses and attributes of a particular body of water.

Under petitioners' interpretation of the statute, however, if a particular criterion, such as turbidity, were missing from the list **[**1912]** contained in an individual state water quality standard, or even if an existing turbidity criterion were insufficient to protect a particular species of fish in a particular river, the State would nonetheless be forced to allow activities inconsistent with the existing or designated uses. We think petitioners' reading leads to an unreasonable interpretation of the Act. The criteria components of state water quality standards attempt to identify, for all the water bodies in a given class, water quality requirements generally sufficient to protect designated uses. These criteria, however, cannot reasonably be expected to anticipate all the water quality issues arising from every activity that can affect the State's hundreds of individual water bodies. Requiring the States to enforce only the criteria component of their water quality standards would in essence require the States to study to a level of great specificity each individual surface water to ensure that the criteria applicable to that water are sufficiently detailed and individualized to fully protect the **[*718]** water's designated uses. Given that there is no textual support for imposing this requirement, we are loath to attribute to Congress an intent to impose this heavy regulatory burden on the States.

The State also justified its minimum stream flow as necessary to implement the "antidegradation policy" of § 303, 33 U.S.C. § 1313(d)(4)(B). When the Clean Water Act was enacted in 1972, the water quality standards of **[***732]** all 50 States had antidegradation provisions. These provisions were required by federal law. See U.S. Dept. of Interior, Federal Water Pollution Control Administration, Compendium of Department of Interior Statements on Non-degradation of Interstate Waters 1-2 (Aug. 1968); see also Hines, A Decade of Nondegradation Policy in Congress and the Courts: The Erratic Pursuit of Clean Air and Clean Water, 62 Iowa L. Rev. 643, 658-660 (1977). By providing in 1972 that existing state water quality standards would remain in force until revised, the Clean Water Act ensured that the States would continue their antidegradation programs. See 33 U.S.C. § 1313(a). EPA has consistently required that revised state standards incorporate an antidegradation policy. And, in 1987, Congress explicitly recognized the existence of an "antidegradation policy established under [§ 303]." § 1313(d)(4)(B).

EPA has promulgated regulations implementing § 303's antidegradation policy, a phrase that is not defined elsewhere in the Act. These regulations require States to "develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy." 40 CFR § 131.12 (1993). These "implementation methods shall, at a minimum, be consistent with the . . . existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." *Ibid.* EPA has explained that under its antidegradation regulation, "no activity is allowable . . . which could partially or completely eliminate any existing use." EPA, Questions and **[*719]** Answers on Antidegradation 3 (Aug. 1985). Thus, States must implement their antidegradation policy in a manner "consistent" with existing uses of the stream. The State of Washington's antidegradation policy in turn provides that "existing beneficial uses shall be maintained and protected and no further degradation which would interfere with or become injurious to existing beneficial uses will be allowed." WAC 173-201-035(8)(a) (1986). The State concluded that the reduced stream flows would have just the effect prohibited by this policy. The Solicitor General, representing EPA, asserts, Brief for United States as *Amicus Curiae* 18-21, and we agree, that the State's minimum stream flow condition is a proper application of the state and federal antidegradation regulations, as it ensures that an "existing instream water use" will be "maintained and protected." 40 CFR § 131.12(a)(1) (1993).

AR 007897

Petitioners also assert more generally that the Clean Water Act is only concerned with water "quality," and does not allow the regulation of water "quantity." This is an artificial distinction. In many cases, water quantity is closely related to water quality; a sufficient lowering of the **[**1913]** water quantity in a body of water could destroy all of its designated uses, be it for drinking water, recreation, navigation or, as here, as a fishery. In any event, there is recognition in the Clean Water Act itself that reduced stream flow, *i. e.*, diminishment of water quantity, can constitute water pollution. First, the Act's definition of pollution as "the man-made or man induced alteration of the chemical, physical, biological, and radiological integrity of water" encompasses the effects of reduced water quantity. 33 U.S.C. § 1362(19). This broad conception of pollution -- one which **[**733]** expressly evinces Congress' concern with the physical and biological integrity of water -- refutes petitioners' assertion that the Act draws a sharp distinction between the regulation of water "quantity" and water "quality." Moreover, § 304 of the Act expressly recognizes that water "pollution" may result from "changes **[*720]** in the movement, flow, or circulation of any navigable waters . . . , including changes caused by the construction of dams." 33 U.S.C. § 1314(f). This concern with the flowage effects of dams and other diversions is also embodied in the EPA regulations, which expressly require existing dams to be operated to attain designated uses. 40 CFR § 131.10(g)(4) (1992).

Petitioners assert that two other provisions of the Clean Water Act, §§ 101(g) and 510(2), 33 U.S.C. §§ 1251(g) and 1370(2), exclude the regulation of water quantity from the coverage of the Act. Section 101(g) provides "that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this chapter." 33 U.S.C. § 1251(g). Similarly, § 510(2) provides that nothing in the Act shall "be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters . . . of such States." 33 U.S.C. § 1370. In petitioners' view, these provisions exclude "water quantity issues from direct regulation under the federally controlled water quality standards authorized in § 303." Brief for Petitioners 39 (emphasis deleted).

This language gives the States authority to allocate water rights; we therefore find it peculiar that petitioners argue that it prevents the State from regulating stream flow. In any event, we read these provisions more narrowly than petitioners. Sections 101(g) and 510(2) preserve the authority of each State to allocate water quantity as between users; they do not limit the scope of water pollution controls that may be imposed on users who have obtained, pursuant to state law, a water allocation. In California v. FERC, 495 U.S. 490, 498, 109 L. Ed. 2d 474, 110 S. Ct. 2024 (1990), construing an analogous provision of the Federal Power Act, n4 we explained that "minimum stream **[*721]** flow requirements neither reflect nor establish 'proprietary rights'" to water. Cf. First Iowa Hydro-Electric Cooperative v. FPC, 328 U.S. 152, 176, 90 L. Ed. 1143, 66 S. Ct. 906, and n. 20 (1946). Moreover, the certification itself does not purport to determine petitioners' proprietary right to the water of the Dosewallips. In fact, the certification expressly states that a "State Water Right Permit (Chapters 90.03.250 RCW and 508-12 WAC) must be obtained prior to commencing construction of the project." App. to Pet. for Cert. 83a. The certification merely determines the nature of the use to which that proprietary right may be put under the Clean Water Act, if and when it is obtained from the State. Our view is reinforced by the legislative history of the 1977 **[**734]** amendment to the Clean Water Act adding § 101(g). See 3 Legislative History of the Clean Water Act of 1977 (Committee Print compiled for the Committee on Environment and Public Works by the Library of Congress), Ser. No. 95-14, p. 532 (1978) ("The requirements [of the Act] may incidentally affect individual water rights. . . . **[**1914]** It is not the purpose of this amendment to prohibit those incidental effects. It is the purpose of this amendment to insure that State allocation systems are not subverted, and that effects on individual rights, if any, are prompted by legitimate and necessary water quality considerations").

-----Footnotes-----

AR 007898

n4 The relevant text of the Federal Power Act provides: "That nothing herein contained shall

be construed as affecting or intending to affect or in any way to interfere with the laws of the respective States relating to the control, appropriation, use, or distribution of water used in irrigation or for municipal or other uses, or any vested right acquired therein." 41 Stat. 1077, 16 U.S.C. § 821.

-----End Footnotes-----

IV

Petitioners contend that we should limit the State's authority to impose minimum flow requirements because FERC has comprehensive authority to license hydroelectric projects pursuant to the FPA, 16 U.S.C. § 791a et seq. In petitioners' view, the minimum flow requirement imposed here interferes with FERC's authority under the FPA.

[*722] The FPA empowers FERC to issue licenses for projects "necessary or convenient . . . for the development, transmission, and utilization of power across, along, from, or in any of the streams . . . over which Congress has jurisdiction." § 797(e). The FPA also requires FERC to consider a project's effect on fish and wildlife. §§ 797(e), 803(a)(1). In California v. FERC, supra, we held that the California Water Resources Control Board, acting pursuant to state law, could not impose a minimum stream flow which conflicted with minimum stream flows contained in a FERC license. We concluded that the FPA did not "save" to the States this authority. Id., 495 U.S. at 498.

[*HR1D]** [1D]

No such conflict with any FERC licensing activity is presented here. FERC has not yet acted on petitioners' license application, and it is possible that FERC will eventually deny petitioners' application altogether. Alternatively, it is quite possible, given that FERC is required to give equal consideration to the protection of fish habitat when deciding whether to issue a license, that any FERC license would contain the same conditions as the state § 401 certification. Indeed, at oral argument the Deputy Solicitor General stated that both EPA and FERC were represented in this proceeding, and that the Government has no objection to the stream flow condition contained in the § 401 certification. Tr. of Oral Arg. 43-44.

Finally, the requirement for a state certification applies not only to applications for licenses from FERC, but to all federal licenses and permits for activities which may result in a discharge into the Nation's navigable waters. For example, a permit from the Army Corps of Engineers is required for the installation of any structure in the navigable waters which may interfere with navigation, including piers, docks, and ramps. Rivers and Harbors Appropriation Act of 1899, 30 Stat. 1151, § 10, 33 U.S.C. § 403. Similarly, a permit must be obtained from the Army Corps of Engineers **[*723]** for the discharge of dredged or fill material, and from the Secretary of the Interior or Agriculture for the construction of reservoirs, canals, and other water storage systems on federal land. See 33 U.S.C. §§ 1344(a), (e); 43 U.S.C. § 1761 (1988 ed. and Supp. IV). **[***735]** We assume that a § 401 certification would also be required for some licenses obtained pursuant to these statutes. Because § 401's certification requirement applies to other statutes and regulatory schemes, and because any conflict with FERC's authority under the FPA is hypothetical, we are unwilling to read implied limitations into § 401. If FERC issues a license containing a stream flow condition with which petitioners disagree, they may pursue judicial remedies at that time. Cf. Escondido Mut. Water Co. v. La Jolla Band of Mission Indians, 466 U.S. 765, 778, n. 20, 80 L. Ed. 2d 753, 104 S. Ct. 2105 (1984).

In summary, we hold that the State may include minimum stream flow requirements in a certification issued pursuant to § 401 of the Clean Water Act insofar as necessary to enforce a designated use contained in a state water quality standard. The judgment of the Supreme Court of Washington, accordingly, is affirmed.

So ordered.

AR 007899

CONCURBY: STEVENS**CONCUR:** JUSTICE STEVENS, concurring.

While I agree fully with the thorough analysis in the Court's opinion, I add this comment **[**1915]** for emphasis. For judges who find it unnecessary to go behind the statutory text to discern the intent of Congress, this is (or should be) an easy case. Not a single sentence, phrase, or word in the Clean Water Act purports to place any constraint on a State's power to regulate the quality of its own waters more stringently than federal law might require. In fact, the Act explicitly recognizes States' ability to impose stricter standards. See, e. g., § 301(b)(1)(C), 33 U.S.C. § 1311(b)(1)(C).

DISSENTBY: THOMAS**DISSENT:** **[*724]** JUSTICE THOMAS, with whom JUSTICE SCALIA joins, dissenting.

The Court today holds that a State, pursuant to § 401 of the Clean Water Act, may condition the certification necessary to obtain a federal license for a proposed hydroelectric project upon the maintenance of a minimum flow rate in the river to be utilized by the project. In my view, the Court makes three fundamental errors. First, it adopts an interpretation that fails adequately to harmonize the subsections of § 401. Second, it places no meaningful limitation on a State's authority under § 401 to impose conditions on certification. Third, it gives little or no consideration to the fact that its interpretation of § 401 will significantly disrupt the carefully crafted federal-state balance embodied in the Federal Power Act. Accordingly, I dissent.

I

A

Section 401(a)(1) of the Federal Water Pollution Control Act, otherwise known as the Clean Water Act (CWA or Act), 33 U.S.C. § 1251 et seq., provides that "any applicant for a Federal license or permit to conduct any activity . . . , which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates . . . that any such **[***736]** discharge will comply with . . . applicable provisions of [the CWA]." 33 U.S.C. § 1341(a)(1). The terms of § 401(a)(1) make clear that the purpose of the certification process is to ensure that discharges from a project will meet the requirements of the CWA. Indeed, a State's authority under § 401(a)(1) is limited to certifying that "any discharge" that "may result" from "any activity," such as petitioners' proposed hydroelectric project, will "comply" with the enumerated provisions of the CWA; if the discharge will fail to comply, the State may "deny" the certification. *Ibid.* In addition, under § 401(d), a State may place conditions on a **[*725]** § 401 certification, including "effluent limitations and other limitations, and monitoring requirements," that may be necessary to ensure compliance with various provisions of the CWA and with "any other appropriate requirement of State law." § 1341(d).

The minimum stream flow condition imposed by respondents in this case has no relation to any possible "discharge" that might "result" from petitioners' proposed project. The term "discharge" is not defined in the CWA, but its plain and ordinary meaning suggests "a flowing or issuing out," or "something that is emitted." Webster's Ninth New Collegiate Dictionary 360 (1991). Cf. 33 U.S.C. § 1362(16) ("The term 'discharge' when used without qualification includes a discharge of a pollutant, and a discharge of pollutants"). A minimum stream flow requirement, by contrast, is a limitation on the amount of water the project can take in or divert from the river. See *ante*, at 709. That is, a minimum stream flow requirement is a limitation on intake -- the opposite of discharge. Imposition of such a requirement would thus appear to be beyond a State's authority as it is defined by § 401(a)(1).

AR 007900

The Court remarks that this reading of § 401(a)(1) would have "considerable force," *ante*, at 711, were it not for what the Court understands to be the expansive terms of § 401(d). That subsection, as set forth in 33 U.S.C. § 1341(d), provides:

"Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that *any applicant* for a Federal license or permit **[**1916]** will comply with any applicable effluent limitations and other limitations, under section 1311 or 1312 of this title, standard of performance under section 1316 of this title, or prohibition, effluent standard, or pretreatment standard under section 1317 of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal **[*726]** license or permit subject to the provisions of this section." (Emphasis added.)

According to the Court, the fact that § 401(d) refers to an "applicant," rather than a "discharge," complying with various provisions of the Act "contradicts petitioners' claim that the State may only impose water quality limitations specifically tied to a 'discharge.'" *Ante*, at 711. In the Court's view, § 401(d)'s reference to an applicant's compliance "expands" a State's authority beyond the limits set out in § 401(a)(1), *ibid.*, **[***737]** thereby permitting the State in its certification process to scrutinize the applicant's proposed "activity as a whole," not just the discharges that may result from the activity, *ante*, at 712. The Court concludes that this broader authority allows a State to impose conditions on a § 401 certification that are unrelated to discharges. *Ante*, at 711-712.

While the Court's interpretation seems plausible at first glance, it ultimately must fail. If, as the Court asserts, § 401(d) permits States to impose conditions unrelated to discharges in § 401 certifications, Congress' careful focus on discharges in § 401(a)(1) -- the provision that describes the scope and function of the certification process -- was wasted effort. The power to set conditions that are unrelated to discharges is, of course, nothing but a conditional power to deny certification for reasons unrelated to discharges. Permitting States to impose conditions unrelated to discharges, then, effectively eliminates the constraints of § 401(a)(1).

Subsections 401(a)(1) and (d) can easily be reconciled to avoid this problem. To ascertain the nature of the conditions permissible under § 401(d), § 401 must be read as a whole. See *United Sav. Assn. of Tex. v. Timbers of Inwood Forest Associates, Ltd.*, 484 U.S. 365, 371, 98 L. Ed. 2d 740, 108 S. Ct. 626 (1988) (statutory interpretation is a "holistic endeavor"). As noted above, § 401(a)(1) limits a State's authority in the certification process to addressing concerns related to discharges and to ensuring that any discharge resulting from a project will comply with specified provisions of the Act. It is reasonable **[*727]** to infer that the conditions a State is permitted to impose on certification must relate to the very purpose the certification process is designed to serve. Thus, while § 401(d) permits a State to place conditions on a certification to ensure compliance of the "applicant," those conditions must still be related to discharges. In my view, this interpretation best harmonizes the subsections of § 401. Indeed, any broader interpretation of § 401(d) would permit that subsection to swallow § 401(a)(1).

The text of § 401(d) similarly suggests that the conditions it authorizes must be related to discharges. The Court attaches critical weight to the fact that § 401(d) speaks of the compliance of an "applicant," but that reference, in and of itself, says little about the nature of the conditions that may be imposed under § 401(d). Rather, because § 401(d) conditions can be imposed only to ensure compliance with specified provisions of law -- that is, with "applicable effluent limitations and other limitations, under section 1311 or 1312 of this title, standard[s] of performance under section 1316 of this title, . . . prohibition[s], effluent standard[s], or pretreatment standard[s] under section 1317 of this title, [or] . . . any other

AR 007901

appropriate requirement[s] of State law" -- one should logically turn to those provisions for guidance in determining the nature, scope, and purpose of § 401(d) conditions. Each of the four identified CWA provisions describes discharge-related limitations. See § 1311 (making it unlawful to discharge any pollutant except in compliance with enumerated provisions of the Act); § 1312 (establishing effluent limitations on point source discharges); *****738** § 1316 (setting national standards of performance ****1917** for the control of discharges); and § 1317 (setting pretreatment effluent standards and prohibiting the discharge of certain effluents except in compliance with standards).

The final term on the list -- "appropriate requirement[s] of State law" -- appears to be more general in scope. Because ***728** this reference follows a list of more limited provisions that specifically address discharges, however, the principle *ejusdem generis* would suggest that the general reference to "appropriate" requirements of state law is most reasonably construed to extend only to provisions that, like the other provisions in the list, impose discharge-related restrictions. Cf. *Cleveland v. United States*, 329 U.S. 14, 18, 91 L. Ed. 12, 67 S. Ct. 13 (1946) ("Under the *ejusdem generis* rule of construction the general words are confined to the class and may not be used to enlarge it"); *Arcadia v. Ohio Power Co.*, 498 U.S. 73, 84, 112 L. Ed. 2d 374, 111 S. Ct. 415 (1990). In sum, the text and structure of § 401 indicate that a State may impose under § 401(d) only those conditions that are related to discharges.

B

The Court adopts its expansive reading of § 401(d) based at least in part upon deference to the "conclusion" of the Environmental Protection Agency (EPA) that § 401(d) is not limited to requirements relating to discharges. *Ante*, at 712. The agency regulation to which the Court defers is 40 CFR § 121.2(a)(3) (1993), which provides that the certification shall contain "[a] statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards." *Ante*, at 712. According to the Court, "EPA's conclusion that *activities* -- not merely discharges -- must comply with state water quality standards . . . is entitled to deference" under *Chevron U.S. A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 81 L. Ed. 2d 694, 104 S. Ct. 2778 (1984). *Ante*, at 712.

As a preliminary matter, the Court appears to resort to deference under *Chevron* without establishing through an initial examination of the statute that the text of the section is ambiguous. See *Chevron, supra*, 467 U.S. at 842-843. More importantly, the Court invokes *Chevron* deference to support its interpretation even though the Government does not seek ***729** deference for the EPA's regulation in this case. n1 That the Government itself has not contended that an agency interpretation exists reconciling the scope of the conditioning authority under § 401(d) with the terms of § 401(a)(1) should suggest to the Court that there is no "agency construction" directly addressing the question. *Chevron, supra*, at 842.

-----Footnotes-----

n1 The Government, appearing as *amicus curiae* "supporting affirmance," instead approaches the question presented by assuming, *arguendo*, that petitioners' construction of § 401 is correct: "Even if a condition imposed under Section 401(d) were valid only if it assured that a 'discharge' will comply with the State's water quality standards, the [minimum flow condition set by respondents] satisfies that test." Brief for United States as *Amicus Curiae* 11.

-----End Footnotes-----

AR 007902

In fact, the regulation to which the *****739** Court defers is hardly a definitive construction of the scope of § 401(d). On the contrary, the EPA's position on the question whether conditions under § 401(d) must be related to discharges is far from clear. Indeed, the only EPA regulation that specifically addresses the "conditions" that may appear in § 401 certifications speaks exclusively in terms of limiting discharges. According to the EPA, a § 401 certification

shall contain "[a] statement of *any conditions* which the certifying agency deems necessary or desirable *with respect to the discharge of the activity.*" 40 CFR § 121.2(a)(4) (1993) (emphases added). In my view, § 121.2(a)(4) should, at the very least, give the Court pause before it resorts to *Chevron* deference in this case.

II

The Washington Supreme Court held that the State's water quality standards, promulgated **[**1918]** pursuant to § 303 of the Act, 33 U.S.C. § 1313, were "appropriate" requirements of state law under § 401(d), and sustained the stream flow condition imposed by respondents as necessary to ensure compliance with a "use" of the river as specified in those standards. As an alternative to their argument that § 401(d) conditions must be discharge related, petitioners assert that **[*730]** the state court erred when it sustained the stream flow condition under the "use" component of the State's water quality standards without reference to the corresponding "water quality criteria" contained in those standards. As explained above, petitioners' argument with regard to the scope of a State's authority to impose conditions under § 401(d) is correct. I also find petitioners' alternative argument persuasive. Not only does the Court err in rejecting that § 303 argument, in the process of doing so it essentially removes all limitations on a State's conditioning authority under § 401.

The Court states that, "at a minimum, limitations imposed pursuant to state water quality standards adopted pursuant to § 303 are 'appropriate' requirements of state law" under § 401 (d). *Ante*, at 713. n2 A water quality standard promulgated pursuant to § 303 must "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses." 33 U.S.C. § 1313(c)(2)(A). The Court asserts that this language "is most naturally read to require that a project be consistent with *both* components, namely, the designated use *and* the water quality criteria." *Ante*, at 715. In the Court's view, then, the "use" of a body of water is independently enforceable through § 401(d) without reference to the corresponding criteria. *Ibid*.

-----Footnotes-----

n2 In the Court's view, § 303 water quality standards come into play under § 401(d) either as "appropriate" requirements of state law or through § 301 of the Act, which, according to the Court, "incorporates § 303 by reference." *Ante*, at 713 (citations omitted). The Court notes that through § 303, "the statute allows States to impose limitations to ensure compliance with § 301 of the Act." *Ibid*. Yet § 301 makes unlawful only "the [unauthorized] *discharge* of any pollutant by any person." 33 U.S.C. § 1311(a) (emphasis added); cf. *supra*, 511 U.S. at 727. Thus, the Court's reliance on § 301 as a source of authority to impose conditions unrelated to discharges is misplaced.

-----End Footnotes-----

[*740]** The Court's reading strikes me as contrary to common sense. It is difficult to see how compliance with a "use" of a body of water could be enforced without reference to the **[*731]** corresponding criteria. In this case, for example, the applicable "use" is contained in the following regulation: "Characteristic uses shall include, but not be limited to, . . . salmonid migration, rearing, spawning, and harvesting." Wash. Admin. Code (WAC) 173-201-045(1)(b) (iii) (1986). The corresponding criteria, by contrast, include measurable factors such as quantities of fecal coliform organisms and dissolved gases in the water. 173-201-045(1)(c)(i) and (ii). n3 Although the Act does not further address (at least not expressly) the link between "uses" and "criteria," the regulations promulgated under § 303 make clear that a "use" is an aspirational goal to be attained through compliance with corresponding "criteria." Those regulations suggest that "uses" are to be "achieved and protected," and that "water quality criteria" are to be adopted to "protect the designated use[s]." 40 CFR §§ 131.10(a), 131.11(a) (1) (1993).

AR 007903

-----Footnotes-----

n3 Respondents concede that petitioners' project "will likely not violate any of Washington's water quality criteria." Brief for Respondents 24.

-----End Footnotes-----

The problematic consequences of decoupling "uses" and "criteria" become clear once the Court's interpretation of § 303 is read in the context of § 401. In the Court's view, a State may condition the § 401 certification "upon *any limitations* necessary to ensure compliance" with the "uses of the water body." *Ante*, at 713-714, 715 (emphasis added). Under the Court's interpretation, then, state environmental agencies may pursue, through § 401, their water goals in any way they choose; the conditions imposed on certifications need not relate to discharges, nor to water quality criteria, nor to any objective or quantifiable standard, so long as they tend to **[**1919]** make the water more suitable for the uses the State has chosen. In short, once a State is allowed to impose conditions on § 401 certifications to protect "uses" in the abstract, § 401(d) is limitless.

To illustrate, while respondents in this case focused only on the "use" of the Dosewallips River as a fish habitat, this particular river has a number of other "characteristic uses," **[*732]** including "recreation (primary contact recreation, sport fishing, boating, and aesthetic enjoyment)." WAC 173-201-045(1)(b)(v) (1986). Under the Court's interpretation, respondents could have imposed any number of conditions related to recreation, including conditions that have little relation to water quality. In *Town of Summersville*, 60 F.E.R.C. P61,291, p. 61,990 (1992), for instance, the state agency required the applicant to "construct . . . access roads and paths, low water stepping stone bridges, . . . a boat launching facility . . ., and a residence and storage building." These conditions presumably would be sustained under the approach the Court adopts today. n4 In the end, it is difficult to conceive of a condition that would fall outside a **[***741]** State's § 401(d) authority under the Court's approach.

-----Footnotes-----

n4 Indeed, as the § 401 certification stated in this case, the flow levels imposed by respondents are "in excess of those required to maintain water quality in the bypass region," App. to Pet. for Cert. 83a, and therefore conditions not related to water quality must, in the Court's view, be permitted.

-----End Footnotes-----

III

The Court's interpretation of § 401 significantly disrupts the careful balance between state and federal interests that Congress struck in the Federal Power Act (FPA), 16 U.S.C. § 791 et seq. Section 4(e) of the FPA authorizes the Federal Energy Regulatory Commission (FERC) to issue licenses for projects "necessary or convenient . . . for the development, transmission, and utilization of power across, along, from, or in any of the streams . . . over which Congress has jurisdiction." 16 U.S.C. § 797(e). In the licensing process, FERC must balance a number of considerations: "In addition to the power and development purposes for which licenses are issued, [FERC] shall give equal consideration to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of, fish and wildlife (including related spawning grounds and habitat), the protection of recreational **[*733]** opportunities, and the preservation of other aspects of environmental quality." *Ibid.* Section 10(a) empowers FERC to impose on a license such conditions, including minimum stream flow requirements, as it deems best suited for power development and other public uses of the waters. See 16 U.S.C. § 803(a); *California v. FERC*, 495 U.S. 490, 494-495, 506, 109 L. Ed. 2d 474, 110 S. Ct. 2024 (1990).

AR 007904

In *California v. FERC*, the Court emphasized FERC's exclusive authority to set the stream flow levels to be maintained by federally licensed hydroelectric projects. California, in order "to protect [a] stream's fish," had imposed flow rates on a federally licensed project that were significantly higher than the flow rates established by FERC. *Id.*, at 493. In concluding that California lacked authority to impose such flow rates, we stated:

"As Congress directed in FPA § 10(a), FERC set the conditions of the [project] license, including the minimum stream flow, after considering which requirements would best protect wildlife and ensure that the project would be economically feasible, and thus further power development. Allowing California to impose significantly higher minimum stream flow requirements would disturb and conflict with the balance embodied in that considered federal agency determination. FERC has indicated that the California requirements interfere with its comprehensive planning authority, and we agree that allowing California to impose the challenged requirements would be contrary to congressional intent regarding the Commission's licensing authority and would constitute a veto of the project that was approved and licensed by **[**1920]** FERC." *Id.*, 495 U.S. at 506-507 (citations and internal quotation marks omitted).

California v. FERC reaffirmed our decision in *First Iowa Hydro-Electric Cooperative v. FPC*, 328 U.S. 152, 164, 90 L. Ed. 1143, 66 S. Ct. 906 (1946), in which we warned against "vesting in [state authorities] **[*734]** a veto power" over federal hydroelectric projects. Such authority, we concluded, could "destroy the effectiveness" of the FPA and "subordinate to the control of the State the 'comprehensive' **[***742]** planning" with which the administering federal agency (at that time the Federal Power Commission) was charged. *Ibid.*

Today, the Court gives the States precisely the veto power over hydroelectric projects that we determined in *California v. FERC* and *First Iowa* they did not possess. As the language of § 401 (d) expressly states, any condition placed in a § 401 certification, including, in the Court's view, a stream flow requirement, "shall become a condition on any Federal license or permit." 33 U.S.C. § 1341(d) (emphasis added). Any condition imposed by a State under § 401(d) thus becomes a "term . . . of the license as a matter of law," *Department of Interior v. FERC*, 293 U.S. App. D.C. 182, 952 F.2d 538, 548 (CADC 1992) (citation and internal quotation marks omitted), regardless of whether FERC favors the limitation. Because of § 401(d)'s mandatory language, federal courts have uniformly held that FERC has no power to alter or review § 401 conditions, and that the proper forum for review of those conditions is state court. n5 Section 401(d) conditions imposed by States are **[*735]** therefore binding on FERC. Under the Court's interpretation, then, it appears that the mistake of the State in *California v. FERC* was not that it had trespassed into territory exclusively reserved to FERC; rather, it simply had not hit upon the proper device -- that is, the § 401 certification -- through which to achieve its objectives.

AR 007905

-----Footnotes-----

n5 See, e. g., *Keating v. FERC*, 288 U.S. App. D.C. 344, 927 F.2d 616, 622 (CADC 1991) (federal review inappropriate because a decision to grant or deny § 401 certification "presumably turns on questions of substantive state environmental law -- an area that Congress expressly intended to reserve to the states and concerning which federal agencies have little competence"); *Department of Interior v. FERC*, 952 F.2d at 548; *United States v. Marathon Development Corp.*, 867 F.2d 96, 102 (CA1 1989); *Proffitt v. Rohm & Haas*, 850 F.2d 1007, 1009 (CA3 1988). FERC has taken a similar position. See *Town of Summersville*, 60 F.E.R.C. P61,291, p. 61,990 (1992) ("Since pursuant to Section 401(d) . . . all of the conditions in the water quality certification must become conditions in the license, review of

the appropriateness of the conditions is within the purview of state courts and not the Commission. The only alternatives available to the Commission are either to issue a license with the conditions included or to deny" the application altogether); accord, Central Maine Power Co., 52 F.E.R.C. P61,033, pp. 61,172-61,173 (1990).

----- -End Footnotes- -----

Although the Court notes in passing that "the limitations included in the certification become a condition on any federal license," *ante*, at 708, it does not acknowledge or discuss the shift of power from FERC to the States that is accomplished by its decision. Indeed, the Court merely notes that "any conflict with FERC's authority under the FPA" in this case is "hypothetical" at this stage, *ante*, at 723, because "FERC has not yet acted on petitioners' license application," *ante*, at 722. We are assured that "it is quite possible . . . that any FERC license would contain the same conditions as the state § 401 certification." *Ibid*.

The Court's observations simply miss the point. Even if FERC might have no objection to the stream flow condition established by respondents *in this case*, such a happy coincidence will likely prove to be the exception, rather than the rule. In issuing licenses, FERC must balance the Nation's power needs together with the need for energy conservation, **[***743]** irrigation, flood control, fish and wildlife protection, and recreation. 16 U.S.C. § 797(e). State environmental agencies, by contrast, need only consider parochial environmental interests. Cf., *e. g.*, Wash. Rev. Code § 90.54.010(2) (1992) (goal of State's water policy is to "insure that waters of the state are protected and fully utilized for the greatest benefit to the people of the state of Washington"). As a result, it is likely that conflicts will arise between a **[**1921]** FERC-established stream flow level and a state-imposed level.

Moreover, the Court ignores the fact that its decision nullifies the congressionally mandated process for resolving such state-federal disputes when they develop. Section 10(j)(1) of the FPA, 16 U.S.C. § 803(j)(1), which was added as part **[*736]** of the Electric Consumers Protection Act of 1986 (ECPA), 100 Stat. 1244, provides that every FERC license must include conditions to "protect, mitigate damage to, and enhance" fish and wildlife, including "related spawning grounds and habitat," and that such conditions "shall be based on recommendations" received from various agencies, including state fish and wildlife agencies. If FERC believes that a recommendation from a state agency is inconsistent with the FPA -- that is, inconsistent with what FERC views as the proper balance between the Nation's power needs and environmental concerns -- it must "attempt to resolve any such inconsistency, giving due weight to the recommendations, expertise, and statutory responsibilities" of the state agency. § 803(j)(2). If, after such an attempt, FERC "does not adopt in whole or in part a recommendation of any [state] agency," it must publish its reasons for rejecting that recommendation. *Ibid*. After today's decision, these procedures are a dead letter with regard to stream flow levels, because a State's "recommendation" concerning stream flow "shall" be included in the license when it is imposed as a condition under § 401(d).

More fundamentally, the 1986 amendments to the FPA simply make no sense in the stream flow context if, in fact, the States already possessed the authority to establish minimum stream flow levels under § 401(d) of the CWA, which was enacted years before those amendments. Through the ECPA, Congress strengthened the role of the States in establishing FERC conditions, but it did not make that authority paramount. Indeed, although Congress could have vested in the States the final authority to set stream flow conditions, it instead left that authority with FERC. See California v. FERC, 495 U.S. at 499. As the Ninth Circuit observed in the course of rejecting California's effort to give *California v. FERC* a narrow reading, "there would be no point in Congress requiring [FERC] to consider the state agency recommendations on environmental matters and **[*737]** make its own decisions about which to accept, if the state agencies had the power to impose the requirements themselves." Sayles Hydro Associates v. Maughan, 985 F.2d 451, 456 (1993).

Given the connection between § 401 and federal hydroelectric licensing, it is remarkable that

AR 007906

the Court does not at least attempt to fit its interpretation of § 401 into the larger statutory framework governing the licensing process. At the very least, the significant impact the *****744** Court's ruling is likely to have on that process should compel the Court to undertake a closer examination of § 401 to ensure that the result it reaches was mandated by Congress.

IV

Because the Court today fundamentally alters the federal-state balance Congress carefully crafted in the FPA, and because such a result is neither mandated nor supported by the text of § 401, I respectfully dissent.

Service: **LEXSEE®**

Citation: **511 us 700**

View: **Custom** - [Modify](#)

Segments: Concur, Concurby, Counsel, Dissent, Dissentby, Opinion

Date/Time: Monday, September 10, 2001 - 6:41 PM EDT

[About LexisNexis](#) | [Terms and Conditions](#)

[Copyright ©](#) 2001 LexisNexis, a division of Reed Elsevier Inc. All rights reserved.

AR 007907

**E
X
H
I
B
I
T**

AR 007908

September 29, 2000

Colonel Randall J. Butler, District Engineer
Department of the Army
Corps of Engineers, Portland District
P.O. Box 2946
Portland, OR 97208-2946

Mr. Lee Daneker, Manager
U. S. Environmental Protection Agency
Aquatic Management Division
1200 Sixth Avenue ECO-083
Seattle, WA 98101-3188

RE: Request for 401 Certification for Proposed Columbia River Channel Improvements

Dear Colonel Butler and Mr. Daneker:

The Department of Ecology has reviewed all of the pertinent information available to us pertaining to the two actions proposed in the draft and final NEPA documents for the Integrated Feasibility Report for Channel Improvements and the Corps' request for water quality certification pursuant to Section 401 of the Clean Water Act. The two actions are (1) the deepening of the Columbia River navigation channel by three feet, from river mile +3 to 106.5, and (2) the designation of two ocean disposal sites. At this time, Ecology is unable to certify that there is reasonable assurance that these actions will be done in a manner that will meet applicable State water quality standards. Thus the request for water quality certification is hereby denied without prejudice. Ecology's decision to deny without prejudice allows the Corps, if it so desires, to continue to work with the State on the issues of concern and to reapply for certification.

Ecology is issuing this denial without prejudice because there is not yet sufficient information to have reasonable assurance that water quality standards will be met. Based on the information we currently have, we are unable to certify that this proposed project will meet antidegradation requirements and protect and maintain beneficial and characteristic uses (such as fish, shellfish, wildlife habitat, recreation), as required by state water quality standards (Chapter 173-201A WAC).

The reasons that Ecology is unable to certify the project at this time include but are not limited to the following:

1. **Impacts on estuarine aquatic/marine resources, including ESA listed species, as a result of dredging the estuary 3 feet deeper.** Channel deepening and subsequent removal of sediment from the river will change the estuarine bathymetry and substrate characteristics. These modifications will, in turn, influence physical processes such as salinity and temperature patterns, flushing rates, nutrient and detrital transport. Changes to these processes ultimately influence water quality, nearshore habitat productivity, and community structure. Concerns about the physical changes to the estuary caused by deepening and the subsequent effect on ecological conditions were

reasons that the National Marine Fisheries Service recently withdrew its biological opinion of "no jeopardy". Additional information regarding the effects of deepening on ecological conditions in the estuary is necessary in order to provide Ecology with reasonable assurance that this project could be implemented in a manner that would meet water quality standards.

2. **Impacts to coastal resources from disposal of Columbia River sand at upland disposal sites and a deep-water ocean disposal site.** The deepening project removes a large quantity of sand from the lower Columbia River, estuary, and adjacent nearshore region. Columbia River sand is needed to maintain the beaches between Point Grenville, Washington and Tillamook Head, Oregon. The proposed project, via both upland disposal and deep-water ocean disposal will result in a net removal of sand from the system that will cause significant unacceptable shoreline recession of the Long Beach Peninsula over the life of the project.
3. **Dungeness crab abundance in the areas of dredging and disposal, the impact of dredging and disposal on crab, mitigation plans for unavoidable adverse impacts.** Construction of a deeper channel and disposal of dredged sediments as proposed is likely to impact crab habitat through disturbance of available food resources and removal of coarse protective cover substrate. Laboratory experiments have indicated moderate levels of suspended sediments and burial can be lethal to molting adults. Additional information regarding the temporal and spatial variability in crab abundance and distribution throughout their life stages as well as impacts of burial and suspended sediment is necessary in order to provide Ecology with reasonable assurance that this project could be implemented in a manner that would meet water quality standards.
4. **Impact of dredging and flow lane disposal on white sturgeon.** Additional information is necessary to determine the potential impact of the proposal on the white sturgeon population.
5. **Impacts on wetlands.** Ecology has not received from the Corps complete wetland determinations and delineations for all proposed upland/wetland disposal sites. In addition, Ecology has not received final, approvable mitigation plans for wetland/habitat losses.

Additionally, a 401 water quality certification cannot be issued at this time because the requirements of the State Environmental Policy Act (SEPA) have not been fulfilled. SEPA requires that likely significant adverse environmental impacts be assessed in an EIS along with alternatives and mitigation measures for those impacts. SEPA allows for the adoption of a NEPA EIS to satisfy SEPA, provided the analysis sufficiently addresses all likely significant adverse environmental impacts identified by the state. If the analysis is found to be inadequate then a supplemental analysis must be done, typically in the form of a Supplemental EIS (SEIS). Ecology has determined that the Columbia River Integrated Feasibility Report for Channel Improvement NEPA FEIS is insufficient in several subject areas. Most of the State's concerns were previously outlined in official comment letters on the Draft and Final EIS. Ecology may not issue a 401 certification until SEPA has been complied with.

AR 007910

Appeal Process. This decision to deny 401 certification without prejudice is subject to appeal. The Corps of Engineers, as applicant, can appeal up to thirty (30) days after receipt of this decision. All other parties can appeal up to 30 days from the postmarked date of this decision. The appeal must be filed with the Washington Pollution Control Hearings Board, PO Box 40903, Olympia, WA 98504-0903. Concurrently, a copy of the appeal must be served on the Department of Ecology, Enforcement Section, PO Box 47600, Olympia, WA 98504-7600. The appeal must be filed and served within the 30-day period. These procedures are consistent with the provisions of Chapter 43.21B RCW and the rules and regulations adopted thereunder.

Sincerely,

Gordon White, Program Manager
Shorelands and Environmental Assistance Program

cc: State of Oregon Department of Environmental Quality
Department of Natural Resources
Washington Department of Fish and Wildlife
Diane Perry
Crab Fisherman Association
Pacific County
Wahkiakum County
Washington State Parks
Carol Jolly, Governor's Office
CREST
CDOG

AR 007911

EXHIBIT D

AR 007912

Service: LEXSEE®
Citation: 1985 U.S. Dist. Lexis 23436

1985 U.S. Dist. LEXIS 23436, *; 22 ERC (BNA) 1238

UNITED STATES OF AMERICA, Plaintiff, v. ROBERT W. AKERS, Defendant

No. Civ. S-84-1276 RAR

UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF CALIFORNIA

1985 U.S. Dist. LEXIS 23436; 22 ERC (BNA) 1238

January 14, 1985, Decided; January 15, 1985, Filed

CORE TERMS: wetland, water, exemption, Clean Water Act, dike, fill, farming, channel, exempt, regulation, dredged, ditch, irrigation, preliminary injunction, conclusions of law, circulation, drainage, lawsuit, irreparable injury, navigable waters, impaired, upland, soil, farm, convert, cease and desist order, earth-moving, incidental, discing, irrigation ditch

OPINIONBY: [*1]

RAMIREZ

OPINION: FINDINGS OF FACT AND CONCLUSIONS OF LAW; ORDER GRANTING PRELIMINARY INJUNCTION

PAUL A. RAMIREZ, UNITED STATES DISTRICT JUDGE

The motion of plaintiff, UNITED STATES OF AMERICA, for a preliminary injunction came on regularly for hearing before the undersigned on October 24, 1984. John Wittenborn, Special Assistant United States Attorney, and Geoffrey Worstell, Esq., of the United States Army Corps of Engineers, appeared on behalf of plaintiff, UNITED STATES OF AMERICA. Lanny T. Winberry, Esq., appeared on behalf of defendant, ROBERT W. AKERS. Having considered the voluminous pleadings, declarations and exhibits filed in support of and in opposition to the motion, the arguments of respective counsel, the proposed findings of fact and conclusions of law, as well as the objections and counter-proposed findings of fact and conclusions of law, the Court now issues the following Findings of Fact and Conclusions of Law and Order Granting Preliminary Injunction pursuant to Rule 52 and Rule 65, Federal Rules of Civil Procedure.

FINDINGS OF FACT

I

The evidence before the Court shows that Mr. Akers is the owner of certain real property he acquired in the early part [*2] of 1984, consisting of approximately 9,600 acres located partly in Modoc County and partly in Lassen County California. The Army Corps of Engineers has determined that between one-fourth and one-third of the acreage, to wit, 2,889 acres known locally as the Big Swamp, is wetlands acreage subject to Corps regulation under the Clean Water Act, 22 U.S.C. § 1251, et seq. The District Engineer has also found that the primary agricultural activity in this area has been the haying of native vegetation.

II

AR 007913

The present lawsuit does not represent the first time that the ongoing controversy between Mr. Akers and the Corps of Engineers has been before this Court. The Court can and does take judicial notice of the case file relating to a prior lawsuit filed by Mr. Akers on May 4, 1984,

entitled *Akers v. United States, et al.*, Civ.S-84-0598 RAR. The prior lawsuit arose after Mr. Akers developed a farming plan for his property which, in effect, provided for the leveling and filling of the Big Swamp area and diversion of the waters which normally feed it. The Corps of Engineers advised Mr. Akers that he needed a permit for the proposed work, pursuant to § 404 of the Clean Water Act, 33 [*3] U.S.C. § 1244.

III

Mr. Akers rejected the Corps' position and filed his lawsuit, in which he sought injunctive relief to preclude the Corps from exercising regulatory jurisdiction over his land or project. After a full hearing on May 15, 1984, this Court denied Mr. Akers' motion for a preliminary injunction. The Court determined that Mr. Akers had established no likelihood of success on the merits. It also found that he had failed to demonstrate a possibility or probability of irreparable harm, as opposed to monetary injury, and had likewise failed to establish a balance of hardships tipping sharply in his favor and/or serious questions for litigation. Thereafter, Mr. Akers dismissed his lawsuit voluntarily.

IV

Prior to the voluntary dismissal of Akers' suit, the Corps had entered into a contract with the U.S. Army Corps of Engineers Waterways Experiment Station (WES) for an extensive study and determination of the extent and boundaries of the naturally occurring wetlands on the Akers' property, and for an investigation and report on the nature and extent of past agricultural practices on the land. On August 30, 1984, Col. Arthur Williams, District Engineer, Sacramento District, [*4] notified Mr. Akers by letter that he had determined that the land included 2,889 acres of wetlands subject to regulation under the Clean Water Act. He also notified Mr. Akers that the proposed farming plan was not exempt from the permit requirements of the Clean Water Act on the basis of the historical farming practices.

V

The wetland determination made by WES and adopted by Col. Williams was based upon an extensive analysis of vegetation, hydrology and soils and resulted from the study of maps, photographs and nine days of actual on-site investigation. Indeed, Dana Sanders states in his declaration that the wetland report of the Waterways Experiment Station (WES) was based on more technical data than is available in more than 99 percent of all wetland determinations ever made by the Corps of Engineers. Furthermore, the defendant himself conceded for purposes of the preliminary injunction hearing only that wetlands regulated by the Corps under the Clean Water Act do exist on his property.

VI

During the course of its investigation of Mr. Akers' activities and its assessments of his future plans, the Corps consulted with the United States Environmental Protection Agency (EPA) concerning [*5] the application of § 404(f) of the Clean Water Act. EPA concurred in the Corps' conclusion that the proposed dredging and construction work on Mr. Akers' property was not exempt from § 404 permit requirements.

AR 007914

VII

In late July, the Corps issued a cease and desist order to stop Mr. Akers from building a dike across the western portion of the wetland. Relying on Mr. Akers' attorney's representation that Mr. Akers was merely reconstructing an existing dike, the Corps withdrew its cease and desist order. In September 1984, the Corps investigated reports that earth-moving activities were being conducted on Mr. Akers' property in Big Swamp. The Corps' aerial inspections confirmed the on-going construction of an earthen dike, running east-west the length of the wetlands, dividing them roughly in half, as well as other activities, as described more fully below. On

September 13, 1984, the Corps issued a cease and desist order to Mr. Akers. The cease and desist order did not mention channels of the Pit River. Nevertheless, Mr. Akers continued to fill in channels of Ash Creek on the east side of his land, apparently based upon his own interpretations of the exemptions to the Clean Water Act. **[*6]**

VIII

There is persuasive evidence that Mr. Akers or his agents have recently engaged in the following earth-moving activities in Big Swamp, to wit: (1) the construction of an east-west dike, now approximately three miles long, which bisects the wetland; (2) the leveling of portions of the wetland area south of the east-west dike, including the filling of certain Ash Creek channels by use of discing equipment; (3) construction of a road across the northwest portion of his property which blocks several overflow channels of the Pit River; and (4) construction of a large ditch and the filling of several Ash Creek channels on the east side of the property. Heavy earth-moving equipment was used to disc and scrape wetland soil from wide swathes on either side of the three mile dike. The soil was then used to construct the three mile dike. Various sections of the southern wetlands were disced with farm equipment. Prior to the discing, the areas were ripped with a chisel plow (or "ripper") which was used to slice through the soil so that the discing would more effectively pulverize the soil.

IX

The road in the northwest portion of the property has not been culverted, bridged or otherwise **[*7]** designed so as to prevent restriction of flood flows; in fact, it closes overflow channels of the Pit River. The three mile east-west dike and the dikes and ditches running north to south at either end of the three mile dike may, if not broken or dismantled, prevent the natural flow of water to the southern wetlands, causing them to dry up.

X

It appears likely that if this work is allowed to remain in place, or allowed to be expanded, an extensive area of the Big Swamp wetlands will be converted to non-wetland, thereby significantly reducing the reach of Big Swamp. In addition, the flow and circulation in Ash Creek and the overflow channels of the Pit River may be impaired. Furthermore, many highly significant aquatic functions now performed by the Big Swamp wetlands area will be lost or impaired.

XI

Mr. Akers does not have, and has not applied for, a § 404 Clean Water Act permit from the Corps of Engineers for any work on his property.

XII

The government has submitted evidence to establish that the Big Swamp is considered an important waterfowl wintering area and that it attracts significant numbers of waterfowl in the spring and summer months for nesting and staging activities. **[*8]** Bald eagles and peregrine falcons, both federally listed endangered species, are known to occur in the area, as are golden eagles, which are federally listed as rare species. Cackling geese, whose numbers in California have dwindled seriously in recent years, use the Big Swamp as a staging area in the spring. More common waterfowl species also use and inhabit the Big Swamp in large numbers.

AR 007915

XIII

The defendant asks this Court to look at each of his earth-moving activities individually, rather than to scrutinize the overall cumulative impact of his activities. But this Court does not agree

with either the proposed methodology or the conclusion to which the defendant contends it should lead. Moreover, although Mr. Akers had contended that his recent work is only intended to be an intensification of his past farming activities, experts and others who have witnessed his work and assessed its effects, have persuaded this Court that the work will subject his property to new uses potentially detrimental to the Waters of the United States.

XIV

This Court finds that Mr. Akers has either misunderstood or callously disregarded the potential environmental consequences of his activities. The [*9] evidence supports an inference that Mr. Akers' activities, if not enjoined, will have the effect of splitting the Big Swamp into northern and southern halves, with the potential eventual effect of drying up the southern portion. Unless Mr. Akers has a different plan not disclosed to this Court, it appears that he intends this effect in order to pursue new and previously untried agricultural activities in the Big Swamp area.

XV

Although the defendant contends vigorously that isolated instances of farming of upland crops has taken place during the past decades in various sectors of his land, he has not persuasively disputed the Corps' contention that the only established farming operation in the wetland portion of his land prior to his recent construction work was the haying of native wetland grasses. The record also supports the Corps' finding that the ongoing irrigation practices on the land consisted of the use of temporary low spreader dams placed annually in various channels on his property to spread water more evenly over the, acreage.

XVI

The United States filed suit against Mr. Akers on October 3, 1984, seeking permanent injunctive relief, restoration of the property to its [*10] natural condition and civil penalties. The government also sought temporary and preliminary injunctive relief to restrain Mr. Akers from depositing dredged or fill material into the wetlands and channels on his land during the pendency of this lawsuit, alleging that otherwise the wildlife, plant life and hydrological regime in the area would be threatened with irreparable injury.

XVII

The government's application for a temporary restraining order (hereinafter "TRO") was heard and granted on October 6, 1984. Mr. Akers was restrained from discharging dredged or fill material into the waters on his property unless and until he invited the Corps to determine, and the Corps did determine, which waters he could work in without a permit. Waters are not subject to Corps regulations if they are not "waters of the United States" within the meaning of the Clean Water Act.

XVIII

The United States now seeks a preliminary injunction to extend the application of the prohibitory provisions of the restraining order throughout the pendency of this lawsuit. The court is persuaded by the government's arguments in reaching its decision to issue the preliminary injunction. The findings now made [*11] by this Court regarding plaintiff's preliminary injunction motion necessarily follow closely the findings set forth in the temporary restraining order, since the same standard and facts are involved. Due to the extensive briefing by both sides since the hearing regarding the TRO, however, the Court now has a much clearer and more detailed understanding of the facts underlying this dispute and the manner in which counsel for both sides view and interpret the law. Therefore, the Court now has the opportunity and ability to make these detailed findings of fact and to set forth the following conclusions of law.

AR 007916

CONCLUSIONS OF LAW

To establish its right to a preliminary injunction, the moving party may meet its burden by demonstrating either (1) a combination of probable success on the merits and possibility of irreparable injury or (2) that serious questions are raised and the balance of hardships tips sharply in its favor. These are not separate tests, but the outer reaches "of a single continuum." Los Angeles Memorial Coliseum Com's v. National Football League, 634 F.2d 1197 (9th Cir. 1980).

II

The plaintiff has established a strong likelihood of success on the merits [*12] of its claims under the Clean Water Act, 33 U.S.C. § 1251, et seq.

III

The objective of the Clean Water Act is to restore and maintain the physical, chemical, and biological integrity of the nation's waters. 33 U.S.C. § 1251(a).

IV

Subject to certain exemptions, §§ 301 and 404 of the Clean Water Act, 33 U.S.C. §§ 1311 and 1344, prohibit the discharge of dredged or fill material from point sources into the waters of the United States without a permit from the Corps of Engineers. By defining the term "navigable waters" in the Clean Water Act to mean "the Waters of the United States, including the territorial seas," 33 U.S.C. § 1362(7), Congress intended to assert federal jurisdiction over the nation's water "to the maximum extent permissible under the Commerce Clause of the Constitution." Natural Resources Defense Council v. Callaway, 392 F.Supp 685 (D.D.C. 1975); Leslie Salt Co. v. Froehlike, 578 F.2d 742, 754-756 (9th Cir. 1978); Utah v. Marsh, 740 F.2d 799, 802-804 (10th Cir. 1984); Avoyelles Sportman's League v. Marsh, 715 F.2d 897, 914-916 (5th Cir. 1983); United States v. Byrd, 609 F.2d 1204, 1209-1211 (7th Cir. 1978). The term specifically includes [*13] adjacent wetlands. 33 C.F.R. § 323.2. Avoyelles, supra; Byrd, supra. This Court concludes that plaintiff has established a strong likelihood that a substantial portion of the property in question constitutes waters of the United States subject to the Clean Water Act.

V

The construction of the dikes, road, ditches, and channel fills, and possibly some of the discing (to the extent it may level that land so as to fill channels or convert wetlands to uplands) involve the discharge of dredged or fill material. The heavy equipment used to move and deposit the earth are point sources. Avoyelles Sportman's League v. Marsh, supra.

VI

The defendant contends that his recent activities fall within any of several exemptions to the permit requirement set forth in § 404(f)(1) of the Clean Water Act, 33 U.S.C. § 1344(f). Mr. Akers bears the burden of establishing that his activities are all exempt. United States v. Frezzo Bros., Inc., 546 F. Supp. 713 (E.D. Penn. 1980), appeal after remand, 703 F.2d 62 (3rd Cir. 1983). The general rule requires the one claiming the benefits of an exception to the prohibition of a statute to establish the applicability of the statutory [*14] exception. U.S. First City National Bank of Houston, 386 U.S. 361, 366, 87 S.Ct. 1088, 1092 (1967). The Court finds a strong likelihood that Mr. Akers will not be able to do so.

VII

AR 007917

Section 404(f)(1) states that:

Except as provided in paragraph (2) of this subsection, the discharge of dredged or fill material [from activities specified in (A) through (F)] is not prohibited by or otherwise subject to regulation under this section or section 301(a) or 402 of this Act (except for effluent standards or prohibitions under section 307).

The specific exemptions follow. But the 404(f)(1) exemptions are limited by § 404(f)(2), commonly referred to as the "recapture provision," which provides:

Any discharge of dredged or fill material into the navigable waters incidental to any activity having as its purpose bringing an area of the navigable waters, into a use to which it was not previously subject, where the flow or circulation of navigable waters may be impaired or the reach of such waters be reduced, shall be required to have a permit under this section.

Thus, in order to be exempt from regulation, a discharge must not only fall within § 404(f)(1), but must also [*15] escape recapture under § 404(f)(2).

VIII

The legislative history of the 1977 Amendments to the Clean Water Act evidences a strong Congressional intent to limit the scope of the § 404(f)(1) exemptions. As Senator Muskie, sponsor of the legislation explained, "New subsection 404(f) provides that Federal permits will not be required for those narrowly defined activities that cause little or no adverse effects either individually or cumulatively." 3 Leg. Hist. 474 (emphasis added). See also statements by Rep. Harsha, *id.* at 420, and Senator Wallop, *id.* at 530. The numerous statements in the legislative history concerning what § 404 does not exempt are also telling. For example, Senator Muskie explained, "[T]he exemptions do not apply to discharges that convert extensive areas of water to dry land or impede circulation or reduce the reach or size of the water body." 3 Leg. Hist. 474; see also statement of Senator Baker, *id.* at 523. As Senator Stafford stated, "[P]ermits will continue to be required for those farm, forestry, and mining activities that involve the discharge of dredged or fill material that connect [sic - presumably intended [*16] to be "convert"] water to dry land including, for example, those occasional farm or forestry activities that involve dikes, levees or other fills in wetland or other waters." 3 Leg. Hist. 485. See also, Senate Report, 4 Leg. Hist. 710 (permit review necessary for discharges to convert a hardwood swamp to another use through dikes or drainage channels).

IX

The defendant attempts first and foremost to rely upon the exemption set forth in § 404(f)(1) (A) which applies to the discharge of dredged or fill material:

from normal farming, silviculture, and ranching activities such as plowing, seeding, cultivating, minor drainage, harvesting for the production of food, fiber, and forest products or upland soil and water conservation practices . . .

Defendant contends that because his recent activities are related to his intentions to farm crops, they are exempt as "normal farming" activities.

X

AR 007918

Defendant's contention is patently incorrect. The exemption for "normal farming" applies only to activities which are:

part of an established (i.e., on-going) farming, silviculture, or ranching operation. Activities on areas lying fallow as part of a conventional [*17] rotational cycle are part of an established operation. Activities bringing an area into farming, silviculture, or ranching use are not part of

an established operation. An operation ceases to be established when the area on which it was conducted has been converted to another use or has lain idle so long that modifications to the hydrological regime are necessary to resume operations. 33 C.F.R. § 323.4(a)(1)(ii).

The plaintiff has amply demonstrated that the area of the Big Swamp has never been subjected to any established upland farming operation. Accordingly, defendant's proposed farming plans with its extensive diking and ditching is not within the scope of the "normal farming" exemption.

XI

Defendant has failed to show that his dike and road-building activities are either enumerated in § 404(f)(1)(A) or are similar in nature to those listed. Indeed, as the statement of Senator Stafford cited above indicates, dikes and levees in wetlands are not exempt. See also, 33 C.F.R. § 323.4(a)(1)(iii)(C)(2)

XII

The plaintiff has offered ample evidence to prove that the recent work has significantly modified the hydrological regime in the wetlands area, and the defendant himself [*18] has consistently argued that unless he is allowed to complete the work he has started, he will be unable to engage in the farming activities he plans. By his own admission, therefore, defendant's proposed work is not part of an "ongoing" or "established" farming practice. Indeed, it appears that major hydrologic modifications will be required for defendant's farming plan to succeed. Consequently, the defendant is unlikely to establish that his activities fall within the exemptions for "normal farming."

XIII

Even if Mr. Aker's activities did fall within the "normal farming" exception of § 404(f)(1)(A), they would remain subject to permit requirements under the exception to the exemption contained in subsection (f)(2). Read together, these two subparagraphs of § 404(f) provide a narrow exemption for agricultural and silvicultural activities that have little or no adverse effect on the nation's waters. Avoyelles Sportman's League, Inc. v. Marsh, 715 F.2d 897, 926 (5th Cir. 1983). It is clear that Mr. Akers' activities are bringing the southern wetlands into a use to which they have not previously been subject, and which is resulting in an impairment of water flow and circulation [*19] as well as a reduction of the wetlands' reach.

XIV

Mr. Akers argues that his activities will not bring Big Swamp into a use to which it was not previously subject, on the ground that upland crops could have been grown there, whether or not they actually were. This Court declines to adopt such a strained interpretation of the term "subject to in § 404(f)(2). The proper inquiry is not what could have been done but what was done in the past and its relationship to what Mr. Akers is attempting to do now. Furthermore, Mr. Akers' argument ignores the question of whether there will be a change in Big Swamp from wetlands (i.e., waters of the United States) to dry land (no longer waters of the United States). Whether or not there have been isolated incidents of attempted farming of upland crops in the swamp during dryer periods, there is little doubt that the area is still a wetland within the meaning of the Clean Water Act. Mr. Akers' activities taken as a whole appear to this Court to be incidental to an effort to convert the area so that it may be farmed in a way which is inconsistent with its remaining a wetland.

XV

AR 007919

Furthermore, § 404(f)(2) indicates that a permit is necessary [*20] even for discharges that are only "incidental to" an activity which is intended to or will foreseeably bring about the

destruction of the wetland (or other change in use. Where the reach of the waters will be reduced or their flow or circulation impaired. In order to trigger § 404(f)(2), the discharges themselves need not be the sole cause of the change in use or impairment of reach, flow, or circulation. Therefore, this Court rejects defendant's request that it look at each activity in isolation or assess their impacts individually. While this Court cannot look into the mind of Mr. Akers to discern his full intentions, the reasonably foreseeable consequence of his activities as a whole is the destruction of a significant wetland.

XVI

Accordingly, plaintiff has established a probability of success on its claim that defendant's recent activities are not encompassed within the reach of § 404(f)(1)(A) and, in any event, would fall within the subsection (f)(2) exception to the (f)(1)(A) exception.

XVII

Defendant also argues that his activities are exempt under § 404(f)(1)(C) which provides that a permit is not required for a discharge of dredged or fill material:

for the purpose **[*21]** of construction or maintenance of farm or stock ponds or irrigation ditches, or the maintenance of drainage ditches

The primary problem with defendant's attempt to invoke the irrigation ditch exemption is that his recent activities have not involved the construction of any irrigation ditch in the wetlands. Instead, his major structure is a dike approximately three miles in length. Defendant nevertheless contends that his work, including his dike, constitutes "irrigation facilities" within the meaning of 33 C.F.R. § 323.4(a)(3)(1983) which provides in relevant part:

Discharges associated with irrigation facilities in the waters of the United States are included within the exemption unless the discharges have the effect of bringing these waters into a use to which they were not previously subject and the flow or circulation may be impaired or reach reduced of such waters.

Defendant's proposed reading of the language of the regulation is obviously overbroad. The regulation cannot expand the scope of the statutory exemption, and the statute exempts from permit requirements only stock ponds, irrigation ditches, and the maintenance of drainage ditches. Obviously, **[*22]** then, the term "irrigation structures" as used in the interpretive regulation constitutes no more than a shorthand term for the activities set out at greater length in the statute. Moreover, defendant's attempt to argue that a dike can be an "irrigation facility" within the meaning of 33 C.F.R. § 323.4(a)(3) is at direct odds with the language of the interpretive regulation defining "minor drainage" as that term is used in the "normal farming" exemption, § 404(f)(1)(A). That regulation, 33 C.F.R. § 323.4(a)(1)(iii)(C)(2) provides in relevant part:

In addition, minor drainage does not include the construction of any canal, ditch, dike or other waterway or structure which drains or otherwise significantly modifies a . . . wetland or aquatic area constituting waters of the United States. Any discharge of dredged or fill material into the waters of the United States incidental to the construction of any such structure or waterway requires a permit. [Emphasis added]

Indeed, the text of 33 C.F.R. § 323.4(a)(3) set forth above has just been changed in order to clarify "the types of appurtenant structures to irrigation facilities for which the discharges associated **[*23]** with such structures are exempt from the provisions of these regulations." 49 F.R. at 39479. The new text of the regulation was published in the Federal Register on October 5, 1984, and it confirms that "discharges associated with major dams and diversion projects and other large-scale facilities which are not subsidiary to irrigation ditches are clearly not included in the exemption." Id. The complete new text of 33 C.F.R. § 323.4(a)(3) provides

AR 007920

simply:

Construction or maintenance of farm or stock ponds or irrigation ditches, or the maintenance [but not construction] of drainage ditches. Discharges associated with siphons, pumps, headgates, wingwalls, weirs, diversion structures, and such other facilities as are appurtenant and functionally related to irrigation ditches are included in this exemption.

Defendant's three mile dike is not one of the types of structures specified in the new regulation and is clearly not subsidiary to any irrigation ditch.

XVIII

Finally, even if defendant's activities otherwise qualified for exemption under the "irrigation ditch" provision, the exemption is further qualified by subsection (f)(2) which, as discussed above, subjects the [*24] defendant's activities to permit requirements even if the (f)(1) exemptions apply.

XIX

Defendant also asserts that § 404(f)(1)(E) serves to exempt his road-building activity in the northwest area of his property, but the very text of the exemption belies his claim. Subsection (f)(1)(E) provides in relevant part that no permit is required for the discharge of dredged or fill material:

for the purpose of construction or maintenance of farm roads where such roads are constructed and maintained, in accordance with best management practices, to assure that flow and circulation patterns and chemical and biological characteristics of the navigable waters are not impaired, that the reach of the navigable waters is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized

Defendant has neither claimed nor established that any attempt was made by him to minimize the adverse effects of his road construction and the result of his activity has been to block over-flow channels of the Pit River, which feed the wetlands of his property.

XX

These statutory criteria have been translated by regulation into a number of required best management [*25] practices (BMP's) which must be complied with for the exemption to apply. 33 C.F.R. § 323.4(a)(6). Among those BMP's is a requirement that roads be culverted, bridged or otherwise designed to prevent restriction of flood flows. The evidence clearly indicates that Akers failed to comply with any such management practices. Accordingly, defendant has not demonstrated that his road is exempt under 404(f)(1)(E).

XXI

Moreover, the road construction exemption, like all the subsection (f)(1) exemptions, is further subject to the (f)(2) exception which requires a permit for defendant's activities for the reasons discussed above.

AR 007921

XXII

Defendant also argues that the Clean Water Act either constitutes an impermissible violation of his state water rights or that the Act automatically exempts activities which can be traced to the exercise of state water rights. This argument, as presented by counsel for defendant in his briefs and at oral argument, is meritless. Clearly, the Clean Water Act itself does not impermissibly violate state water rights. Moreover, any argument that a grant of state water rights somehow prevents the United States from asserting jurisdiction within its constitutional

[*26] limits is obviously groundless. See United States v. Ciampitti, 583 F.Supp. 483, 495-96 (D.N.J. 1984).

XXIII

Nor does the Clean Water Act automatically exempt from regulation any activities which have some bearing on individual exercise of state-allocated water rights. As the legislative history of § 101(g) of the Act makes clear,

The requirements of section 402 and 404 permits may incidentally affect individual water rights . . . It is not the purpose of this amendment to prohibit those incidental effects . . .

It is designed to protect historic rights from mischievous abrogation by those who would use an act, designed solely to protect water quality and wetlands, for other purposes. It does not interfere with the legitimate purposes for which the act was designed. (Emphasis added)

Statement of Senator Wallop (sponsor of § 101(g)), 3 Leg. Hist. 532.

XXIV

Having determined that the government is likely to prevail on the merits of its claim, the Court turns its attention to the question of resulting injury. There is some authority for the proposition that the government need not even make a showing of irreparable injury in order to qualify for **[*27]** injunction relief under the Clean Water Act. See, e.g., United States v. Ciampitti, supra, 585 F.Supp. at 498, n.12. This Court need not grapple with the issue, however, because the government has clearly made a showing of irreparable injury in this case.

XXV

Wetlands serve a variety of on-going ecological and aesthetic functions, and the Big Swamp wetland is no exception. They are particularly notable for their role in supporting migratory birds and in controlling erosion and protecting down-stream water quality. In numerous declarations of hydrological and wetland experts, the United States has established that Mr Akers' recent earth-moving activities have already, at least temporarily, cut off the southern half of the wetlands on his property from their natural water sources. These recent activities as well as those which Mr. Akers could reasonably be expected to carry out during the pendency of this litigation if not enjoined, have disrupted and/or are likely to continue to disrupt significantly the ecological functions of Big Swamp. Disruption of those functions constitutes an irreparable injury to a valuable public resource. Should Mr. Akers continue his activities, **[*28]** including the leveling of his land through discing, the placement of fill material in channels and the construction of dikes and other structures, damage to the area will be compounded.

AR 007922

XXVI

Since the Court has determined that the United States is likely to prevail on the merits of its claims and has demonstrated the probability of irreparable injury if the preliminary injunction is denied, it remains only to be considered whether the granting of the injunction will cause a balance of hardships tipping sharply in Mr. Akers' favor. The Court finds that it will not. Mr. Akers claims that the injunction will cause him such financial damage that he "might" lose his property which "could conceivably result in bankruptcy. Such speculative statements fall far short of a showing of irreparable injury. Furthermore, as this Court observed during the course of Mr. Akers' prior related case, Mr. Akers either knew or should have known when he purchased the property that he might become involved in a regulatory dispute with the Corps of Engineers. His tactics in proceeding with the work without authorization have brought him to his current financial situation. Therefore, any injury is self-inflicted. **[*29]** The Court notes

that had Mr. Akers applied for a permit at the conclusion of the prior case, the dispute might well have been resolved by now.

XXVII

To the extent that any of the foregoing Findings of Fact are deemed to be Conclusions of Law, or to the extent that any of the foregoing Conclusions of Law are deemed to be Findings of Fact, the same shall be deemed Conclusions of Law or Findings of Fact as the case may be.

Therefore,

IT IS HEREBY ORDERED that Mr. Akers, his agents, employees and all persons under his control and supervision, are restrained from engaging in any and all deposits of dredged or fill material into the waters on his property, including the wetlands previously delineated by the Corps of Engineers, as well as all channels, unless he:

- (1) Obtains a permit from the Corps of Engineers; or
- (2) Submits a proposal for dredge or fill activities, which he asserts are not within the Corps of Engineer's regulatory jurisdiction, and
 - (a) is informed in writing by the District Engineer that a permit is not necessary for the work he proposes; or
 - (b) is not informed in writing by the District Engineer whether a permit is necessary for the work he [*30] proposes within fifteen (15) days of receipt of his proposal by the District Engineer (including weekends and holidays).

Notwithstanding any provision of this Order, Mr. Akers shall comply in good faith with all lawful cease and desist orders issued to him by the Corps of Engineers with respect to dredge and fill activities on his property. n1

n1 Thus, in the event that Mr. Akers submits a proposal for dredge and fill activities which he asserts are not within the Corps' jurisdiction, to which the Corps does not respond in writing within fifteen (15) days, Mr. Akers may immediately begin work on the activities within his proposal. However, should a subsequent cease and desist order by the Corps of Engineers order him to halt work on these activities, Mr. Akers must comply with this and all other lawful orders of the Corps.

IT IS SO ORDERED.

DATED: January 14, 1985.

Service: LEXSEE@
Citation: 1985 U.S. Dist. Lexis 23436
View: Full
Date/Time: Monday, September 10, 2001 - 6:40 PM EDT

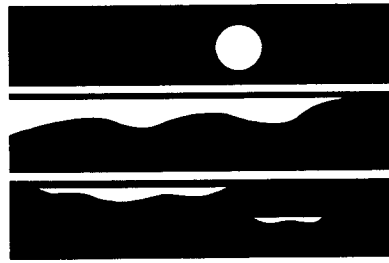
[About LexisNexis](#) | [Terms and Conditions](#)

Copyright © 2001 LexisNexis, a division of Reed Elsevier Inc. All rights reserved.

AR 007923

**E
X
H
I
B
I
T**

AR 007924



WASHINGTON STATE
DEPARTMENT OF
E C O L O G Y

Water Quality Guidelines for Wetlands

Using the Surface Water Quality Standards for Activities Involving Wetlands

April 1996
Publication No. 96-06

AR 007925



2Printed on Recycled Paper

AR 007926

Water Quality Guidelines for Wetlands

Using the Surface Water Quality Standards for Activities Involving Wetlands

Prepared by:

Washington State Department of Ecology
Shorelands and Water Resources Program

April 1996
Publication No. 96-06

AR 007927



3Printed on Recycled Paper

For additional copies of these guidelines, contact:

Department of Ecology
Publications Office
PO Box 47600
Olympia, WA 98504-7600
Telephone: (360) 407-7472

The Department of Ecology is an equal opportunity agency and does not discriminate on the basis of race, creed, color, disability, age, religion, national origin, sex, marital status, disabled veteran's status, Vietnam Era veteran's status or sexual orientation.

For more information or if you have special accommodation needs, please contact Ecology's Water Division at (360) 407-7256.

Ecology Headquarters telecommunications device for the deaf (TDD) number is (360) 407-6006. Ecology Regional Office TDD numbers are as follows:

<i>SWRO (TDD)</i>	<i>(360) 407-6306</i>
<i>NWRO (TDD)</i>	<i>(206) 649-4259</i>
<i>CRO (TDD)</i>	<i>(509) 454-7673</i>
<i>ERO (TDD)</i>	<i>(509) 458-2055</i>

AR 007929

Table of Contents

Acknowledgements	iii
Section 1: Introduction.....	1
What Are Water Quality Standards?	1
How Are the Standards Used?	2
Overview of Guidelines.....	3
Section 2: Surface Water Quality Standards	4
Characteristic Uses and Beneficial Uses	4
Wetland Beneficial Uses	6
Water Supply (domestic, industrial, agricultural)	6
Stock Watering.....	10
Fish and Shellfish	10
Wildlife Habitat.....	12
Recreation	14
Commerce and Navigation.....	15
Aesthetics	16
Other Wetland Beneficial Uses.....	16
Groundwater Exchange.....	16
Stormwater Attenuation.....	17
Shoreline Stabilization.....	18
Water Quality Criteria.....	19
Antidegradation Policy.....	20
Tier 1: Existing uses shall be maintained and protected.....	21
Tier 2: Protection of Water Quality in High Quality Waters.....	22
Tier 3: Outstanding Resource Waters.....	23
Wetland Mitigation	23
References.....	25
Section 3: Antidegradation Decision-Making Process	26
Description	26
Antidegradation Decision-Making Process.....	26
Step 1: Will the Project Affect a Wetland?	28
Step 2: Are There Reasonable Alternatives that Avoid or Reduce Wetland Impacts?	32
Step 3: Considering Several Factors, Will the Project Degrade or Destroy Wetland Beneficial Uses or Have Other Significant Adverse Environmental Consequences?	35
Step 4: Is Compensatory Mitigation Appropriate?.....	43

Documenting Decisions Under the Water Quality Standards	47
Conclusion.....	47
For More Information.....	48
References.....	49
Appendix A: Legal Considerations	50
Appendix B: Glossary	54

AR 007931

Acknowledgements

The development of this guidance document was funded by the U.S. Environmental Protection Agency, Region X with a grant to the Wetlands Section of the Department of Ecology (US EPA Grant Number X-000588-01-0). The grant aims “to effectively utilize water quality standards for wetlands by providing a guidance document and other technical information to assist water quality permit writers and others in the use of wetland water quality criteria.”

We wish to acknowledge the generous assistance of the state of Wisconsin Department of Natural Resources in sharing their work on the antidegradation process.

We wish to acknowledge the generous help of the many reviewers whose thoughtful comments improved this document:

The Water Quality Program section supervisors and staff, especially Kathy Cupps, Joanne Schuett-Hames, Ann Wessel and Mark Hicks
Tom Hruby, Wetlands Section
Ginny Broadhurst, Puget Sound Water Quality Authority

A special thank you to Rebecca Todd, Assistant Attorney General for Ecology, for her excellent, thorough review and her legal advice. And a special thank you to Andy McMillan, Wetlands Section, for his contributions to the sections on mitigation and for his support.

We sincerely appreciate the expert assistance of Sharon Aboe in preparing the manuscript.

Jaime C. Kooser
Department of Ecology
Northwest Regional Office
3190 160th Ave. SE
Bellevue, WA 98008-5452
(206) 649-4310
FAX (206) 649-7098

Perry Lund
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, Washington 98504-7775
(360) 407-7260
(360) 407-6305

If you have comments and suggestions for future revised editions, we welcome them. Please direct them to Jaime Kooser.

Citation:

Kooser, J.C., P. Lund. 1996. Water Quality Guidelines for Wetlands; Using the Surface Water Quality Standards for Activities Involving Wetlands. Shorelands and Water Resources Program, Washington State Department of Ecology, Olympia, WA, Publication #96-06.

AR 007932

Section 1: Introduction

Wetlands are waters of the state that are important and diverse areas of transition between land and water. Washington has a tremendous range of geomorphology that defines the kinds of wetlands that can be found in our state. Wetlands range from alpine and subalpine meadows in the Cascade and Olympic mountain ranges to salt marshes along the Pacific coast; river mouth estuaries within Puget Sound; and vast areas of freshwater marshes in the Columbia Basin. Although quite variable, wetlands share common characteristics arising from their hydrology, which in turn structures their special soils and vegetation.

Wetlands are integral to the functioning of both surface and groundwater systems. Their position in the watershed allows for stormwater detention and desynchronization; water quality improvement through biofiltration of sediment and pollutants; maintenance of hydraulic interactions between uplands, other wetlands, surface and groundwater within the watershed; low flow augmentation; shoreline stabilization and erosion abatement; and critical food chain support and habitat for both terrestrial and aquatic ecosystems.

Wetland water quality, like other surface waters, is protected by the federal Clean Water Act (CWA; 33 U.S.C. 1251 et seq.) and the state Water Pollution Control Act (Chapter 90.48 RCW). The Surface Water Quality Standards (Chapter 173-201A WAC) are the means for implementing these laws. This guidance document describes Washington's water quality standards and how the standards apply to wetlands.

Ecology staff, in issuing permits and reviewing projects, determine if the project or permit will meet the water quality standards. These guidelines assist the project reviewer in making that determination. Further, the guidelines aim to ensure the equitable and consistent regulation of activities which have the potential to degrade or destroy the water quality of a wetland. Consistent application of the water quality standards on a statewide basis will contribute to the protection of the state's important wetland resource. Just as important as consistency in decision making is flexibility. The guidelines assist Ecology staff in making effective decisions that best protect the resource, and that balance the effects of such actions on the total environment, including economic considerations. We recognize that the guidelines are dynamic, not static; they will change as our information changes.

What Are Water Quality Standards?

Section 303 of the federal Clean Water Act and 40 CFR Part 131 of the Federal Regulations direct states to set water quality standards for all waters of the United States, subject to the review and approval of the Environmental Protection Agency (EPA). Federal regulations include wetlands as "waters of the United States" (40 CFR §122.2). EPA describes the purpose of state water quality standards in the Water Quality Standards Regulations:

"A water quality standard defines the water quality goals of a water body, or a portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. States adopt water quality standards to protect public health or

welfare, enhance the quality of water and serve the purposes of the Clean Water Act (the Act). 'Serve the purposes of the Act' (as defined in Sections 101(a)(2) and 303(c) of the Act) means that water quality standards should, wherever attainable, provide water quality protection and propagation of fish, shellfish and wildlife and for recreation in and on the water and take into consideration their use and value of public water supplies, propagation of fish, shellfish and wildlife, recreation in and on the water and agricultural, industrial, and other purposes including navigation." (40 CFR §131.2)

The state Water Pollution Control Act directs the Department of Ecology to develop water quality standards to "maintain the highest possible standards for all waters of the state..." (RCW 90.48.035). The water quality standards are reviewed and updated at least every three years to ensure Washington is addressing pollution problems using the best available information on water quality management. This process is known as the triennial review.

Washington's surface water quality standards protect a wide range of beneficial uses. Beneficial uses, called characteristic uses in the standards, include domestic, agricultural and industrial water supplies; recreation and aesthetic values; wildlife habitat; fish and shellfish (migration, rearing, spawning, and harvesting); commerce and navigation; and any other legitimate use of a waterbody. The standards contain chemical, physical, and biological criteria to support these beneficial uses.

How Are the Standards Used?

The water quality standards are used by Ecology to protect and maintain beneficial uses when issuing permits (such as National Pollutant Discharge Elimination System (NPDES) permits that set limits on discharges to surface waters), conditioning permits (such as federal permits affecting state waters), and reviewing proposed projects to ensure that water quality of surface waters is protected. These responsibilities usually are carried out on a site-specific basis when reviewing individual projects or permit applications. These permits and reviews cover a wide range of activities, including discharging wastewater and stormwater, filling wetlands, construction activities requiring short-term standards modifications, aquatic herbicide applications, activities reviewed under the State Environmental Policy Act (SEPA), and activities regulated under the Shoreline Management Act (SMA).

The primary permits, certifications and reviews for wetland protection include:

- CWA §401 water quality certifications, given in conjunction with the request for a §404 permit from the Army Corps of Engineers, can be approved, denied or conditioned, so that wetland impacts are mitigated.
- Short-term standards modifications are conditioned to reduce wetland impacts.
- Aquatic herbicide permits are conditioned to reduce wetland impacts.
- In reviewing projects under the Shoreline Management Act, we ensure that projects are consistent with the goals and requirements of shoreline master programs and specify wetland

AR 007934

protection measure for conditional use permits and variances. The SMA involves protection of floodplains and associated wetlands.

- Projects are reviewed under SEPA to secure the best wetland protection.

The primary means for protecting water quality in wetlands is through implementing the antidegradation section of the water quality standards. The antidegradation policy in the water quality standards establishes the bottom line for water quality protection in Washington's waters: "Existing beneficial uses shall be maintained and protected and no further degradation which would interfere with or become injurious to existing beneficial uses shall be allowed." (WAC 173-201A-070). The beneficial uses of wetlands are many, and the water quality standards are a valuable and effective tool for ensuring the protection of Washington's wetland resources.

Overview of Guidelines

Ecology staff who review and comment on proposed projects which may affect wetlands often cite "best professional judgement" as a deciding factor when making a decision. These guidelines describe the thought process behind a decision based on "best professional judgement" and present a framework for using best professional judgement to make well documented, well informed, and reasonable decisions.

Section 2 describes the surface water quality standards, detailing beneficial uses and the criteria used to protect them. Section 3 specifies how a water quality decision is reached regarding wetlands using the Antidegradation Decision-Making Process. This includes understanding the role of wetland mitigation in meeting the antidegradation requirement. Appendix A, Legal Considerations, presents a detailed description of Ecology's authority to regulate wetlands as waters of the state. Our authority comes from the state Legislature via the state Water Pollution Control Act as well as the federal Clean Water Act. Finally, Appendix B contains a glossary of terms.

Section 2: Surface Water Quality Standards

States are required to establish water quality standards to meet the goals of the CWA. There are three basic elements that are required in each state's water quality standards (40 CFR 131):

Use designations consistent with the provisions of §101(a)(2) and 303(c)(2) of the CWA

Water quality criteria sufficient to protect the designated uses

An antidegradation policy

This section describes these elements of the state surface water quality standards as they relate to wetlands. Other sections of the water quality standards are discussed as necessary.

Characteristic Uses and Beneficial Uses

Federal regulations require states to specify appropriate water uses to be achieved and protected. These designations must be consistent with the provisions of the CWA that all waters support the propagation of fish, shellfish, wildlife, and recreation in and on the water. Federal guidelines refer to these uses as “designated uses” and Washington's water quality standards refer to them as “characteristic uses”; these terms are essentially synonymous. Water uses are, however, most frequently referred to as “beneficial uses”. The various water classes in the state water quality standards share many of the same uses:

- (i) Water supply.
- (ii) Fish and shellfish:
 - Salmonid migration, rearing, spawning, and harvesting.
 - Other fish migration, rearing, spawning, and harvesting.
 - Clam, oyster, and mussel rearing, spawning, and harvesting.
 - Crustaceans and other shellfish (crabs, shrimps, crayfish, scallops, etc.) rearing, spawning, and harvesting.
- (iii) Wildlife habitat.
- (iv) Recreation (primary contact recreation, sport fishing, boating, and aesthetic enjoyment).
- (v) Commerce and navigation.
- (vi) Aesthetics.

Water quality protection for wetlands, or any waterbody, is not limited to these uses. The Water Pollution Control Act extends protection to all beneficial uses of a waterbody (RCW 90.48.020), and the antidegradation policy (WAC 173-201A-070) prohibits any degradation of existing beneficial uses of waters of the state.

Because the water quality standards refer to “characteristic uses” and “beneficial uses”, it is important to note how the terms are different. Characteristic uses is the term Washington uses to be consistent with the concept of “designated uses” as used in the federal water quality standards

rules. Characteristic uses refers only to the specific list of assigned designated uses in the water quality standards. Beneficial uses has a broader meaning, incorporating any attribute of a waterbody that contributes to the economic, social, or natural environment. Although “characteristic uses” is more narrowly defined than “beneficial uses”, often the terms tend to be used interchangeably. In these guidelines, we use the term “beneficial uses”, except when needing to refer specifically to the list of characteristic uses in the standards. For a more detailed discussion of these terms, as well as “existing uses”, please see page 21.

For wetlands it is necessary to clarify two more terms: functions and values. These terms are used almost universally when discussing wetland processes and wetland regulation. Wetland functions are the physical, chemical, and biological processes that occur in a wetland, or under the direct influence of a wetland. They include hydrologic functions such as the conveyance or storage of flood water, chemical functions such as biogeochemical cycling, and biological functions such as primary and secondary productivity. Many of the functions performed by wetlands result in direct or indirect benefits and services to society. These benefits and services have been called wetland values. Perceived values arise out of the functional ecological processes wetlands perform, but they are determined also by the location of a particular wetland, the human population pressures on it, and the extent of the wetland resource (Mitsch and Gosselink, 1986).

Two examples of the distinction between wetland functions and values can be made easily with two functions wetlands perform: temporary water storage and trapping of suspended materials. By itself, temporary water storage is simply a physical process that occurs in a wetland. But this process becomes important because of the value to society that results from it. Flood water attenuation and groundwater recharge are extremely valuable services provided to society by the water storage function. The same is true for the process of trapping suspended material in a wetland; the water quality improvement that results from that process is the value provided to society.

Simply put, wetland functions and values are roughly equivalent to the beneficial uses of a wetland. For consistency, these will be collectively referred to as beneficial uses. With wetlands, as with other surface waters, it is necessary to understand the biological processes and the resultant benefits to ensure effective protection of the beneficial uses.

Using the water quality standards for wetland protection requires that these beneficial uses be identified in order to be protected. The characteristic uses listed in the water quality standards for Class AA and Class A waters apply to wetlands because wetlands are generally classified waters (see page 20). However, the protective umbrella of the water quality standards is not limited to only those uses listed; the antidegradation policy extends to all existing beneficial uses, whether or not they are listed.

It is important to identify and evaluate beneficial uses which are occurring in a wetland because the uses need to be protected whether they are listed in the standards or not. One way to do this is to determine if a wetland is likely to perform a function that is an attribute of a particular beneficial use. For example, for a wetland to provide stormwater attenuation, it would be necessary for the wetland to have the necessary vegetation density and type as well as depressional storage.

Another reason for determining which functions a wetland is performing is to ensure that a beneficial use is not exploited to the point where the beneficial use is not being maintained and protected. A wetland may be contributing to the water supply by providing nutrient or sediment removal of stormwater runoff. However, by exploiting that use, the natural capacity of the wetland to filter sediment could be quickly overwhelmed. The water quality standards are, therefore, used to protect and maintain the natural qualities of a wetland.

Wetland Beneficial Uses

This section 1) describes each of seven beneficial uses in general terms and how wetlands directly or indirectly support that use (because these are the uses listed in the standards, they are correctly called characteristic uses), 2) describes the specific indicators of the functions wetlands perform and how the resultant values directly or indirectly support a particular beneficial use; and 3) describes the potential impacts to the beneficial use when a wetland's ability to function has been degraded or destroyed. The uses are listed here with a discussion of their relevance to wetlands.

In the discussion of impacts to beneficial uses, note that filling a wetland will completely eliminate most, if not all, the beneficial uses. Therefore, filling a wetland is not addressed directly in this section. However, the complete loss of a beneficial use is certainly considered a significant impact and must be addressed as such.

Water Supply (domestic, industrial, agricultural)

Description

Water is the most critical feature that defines a wetland. The water regime in a wetland is usually referred to as hydroperiod. Hydroperiod is defined as the periodic or regular occurrence of flooding and/or saturated soil conditions; it encompasses depth, frequency, duration, and seasonal pattern of inundation. Different hydroperiods will usually create different types of wetlands (tidal, nontidal, semipermanently flooded, permanently flooded) and will require that certain water quality characteristics be evaluated differently.

One way to look at water supply as a protected, beneficial use is the maintenance of the water in the wetland itself. It is first necessary to maintain the water in the wetland in order for the wetland to provide some water supply benefit to the public. In fact, most wetland water quality functions are tied directly or indirectly to the hydroperiod, and many impacts to wetlands directly or indirectly affect the hydroperiod of the wetland (Nelson and Randall, 1990). This makes all aspects of wetland hydrology extremely important for the purposes of the water quality standards.

AR 007938

Indicators

There are water quality and water quantity indicators for water supply; wetlands provide support for both aspects. Wetlands receiving surface water flow will have the greatest opportunity to provide this beneficial use. Wetlands act as natural water purification mechanisms. They remove silt and filter out, transform, and absorb nutrients and many pollutants such as waterborne toxic chemicals. Wetlands serve to maintain water supplies by functioning as groundwater recharge sites and augmenting low flows in adjacent streams and lakes.

Wetlands play an important role in the landscape through their ability to improve water quality and thereby protect the water supply in adjacent rivers, lakes, streams and marine waters. This buffering function, however, can be overused, leading to the degradation of beneficial uses in wetlands (Robb, 1992). Wetlands maintain the water quality of receiving waters by removing nutrients. Nutrients can be removed from the water column into plants and sediments. This process is usually referred to as nutrient removal/transformation. This function involves the retention of nutrients, the transformation of inorganic nutrients to their organic forms, and the transformation of nitrogen into its gaseous form. Nitrogen and phosphorus are probably the most significant nutrients in terms of wetland process and potential impact.

There are several biological, chemical, and microbial processes which function to remove or transform nutrients in wetlands. Nutrients can be taken up and stored by wetland vegetation. Once the plants die or defoliate, the nutrients are either returned to the water and sediment or flushed to downstream waters (this process is described later; see fish and shellfish support). Nutrients also bond to wetland sediments.

Denitrification is the conversion of dissolved nitrogen to gaseous nitrogen by microbes under anaerobic conditions. Because it is dependent upon nitrate formed under aerobic conditions, this process proceeds most rapidly with fluctuations in or in close proximity to oxygenated and anoxic conditions. Nitrogen fixation is the opposite of denitrification, and may be the source of significant nitrogen for some wetlands. Nitrogen fixation involves the conversion or fixation of gaseous nitrogen into organic forms by bacteria, blue-green algae, and some plants, e.g., red alder, *Alnus rubra*. Ammonium volatilization also involves the removal of nitrogen from wetlands. Ammonium volatilization is an abiotic process that results in the removal of ammonium by evaporation. The process occurs at high temperatures and at a pH of greater than 7.5 (Marble, 1992).

The efficiency of nutrient removal and transformation is greater with longer retention times and relatively low loading rates. A wetland that functions to retain and transform nutrients must be capable of physically detaining the nutrients. This is accomplished when the water velocity entering a wetland slows so that nutrients have time to react. The density and type of vegetation in the wetland greatly influences this function; the more dense the vegetation is, the greater the wetland's ability to remove and store nutrients. Water detained for a long period of time has greater potential for biological processing of nutrients. Biological processes, however, may be limited by the oxygen content of the water.

Soil conditions also determine the degree to which a wetland removes nutrients. Permanently saturated or flooded wetland soils favor phosphorus retention. Phosphorus is also most easily removed by complexing with aluminum, calcium, and iron in wetland sediments, and the rapid fluctuation between anaerobic and aerobic conditions favor nitrogen removal (Marble, 1992).

Sediments frequently contain chemically and physically attached contaminant materials such as heavy metals, pesticides and other organic toxicants. Toxicants associated with sediments can be removed temporarily or permanently from the water column by sediment deposition. Toxicants carried by sediments into the wetland can be removed by burial, chemical breakdown, and/or assimilation into plant and animal tissues. Sediments may be temporarily retained by a wetland before moving further downstream. The longer the retention time in the wetland, the more the sediments are likely to settle. Lighter particles, such as colloidal clays, have the longest sedimentation rate. The wetland type is important in determining the sediment trapping ability. Estuarine wetlands encourage the flocculation of clays at the freshwater/salt water interface.

Wetlands with organic soils are more likely to complex with metals and synthetic organic toxicants. Minimal fetch and exposure of the wetland to wind and wave action will discourage the resuspension and transport of sediment out of the wetland and encourage the retention of sediments for long periods of time. Wetland vegetation also contributes to the organic content of the bottom sediments which in turn helps retain toxicants associated with sediments.

Wetlands also provide support for water supplies by maintaining water quantity. Primarily this is through augmentation of stream flows during low flow periods and other surface waters and groundwater augmentation. By their very nature, wetlands are able to retain water for long periods of time; obviously, the quantity of water stored is dependent on the size and type of wetland. The slow release of these stored waters into other surface water or groundwater is critical to the maintenance of many other water bodies.

Impacts and Effects

Water clarity, nutrients and chemical content, physical and biological content, dissolved gas levels, pH, and temperature contribute to a wetland's life-sustaining capabilities. Changes in the clarity, color, odor, and taste of water through the addition of contaminants such as suspended particulates and dissolved materials can reduce or eliminate the suitability of a wetland for direct or indirect maintenance of water supply.

Loading rates of incoming water should not exceed the wetland's ability to assimilate sediments, nutrients or toxicants. The introduction of nutrients or organic material to a wetland can lead to a high biochemical oxygen demand (BOD), which in turn can lead to reduced dissolved oxygen. Increases in nutrients can favor one group of organisms such as algae to the detriment of other types such as submerged aquatic vegetation, potentially causing adverse health effects, objectionable tastes and odors, detrimental impacts to aquatic organisms and wildlife, and other problems.

Changes in hydroperiod can significantly affect a wetland's ability to provide water quality and water quantity support to the beneficial use of water supply. Severe water fluctuations will limit

denitrification and phosphorus retention. Changes in pH to more acidic conditions can reduce the wetland's ability to process nitrogen and phosphorus. Increases in water volume and/or velocity will increase loading and decrease sedimentation rates in the wetland, thereby decreasing the effectiveness of the wetland's ability to remove and retain nutrients and sediments. Increased velocities can also cause decreased water storage time in the wetland which will reduce the opportunity for the wetland to serve as a groundwater recharge source. Drawdown of wetland water levels often concentrates and mobilizes nutrients locked up in the exposed substrate.

Changes to a wetland's outlet can also significantly affect the hydroperiod. Wetlands with no outlets or constricted outlets have an increased probability of adsorption, biological processing, and retention of nutrients. Alterations to the outfall which increase the flow out of the wetland will reduce the ability of the wetland to perform these functions. These alterations could be significant enough to change the wetland type (e.g., permanently flooded to seasonally flooded) which would have a dramatic affect on how the wetland functioned to benefit water supply.

Different vegetation types act to remove nutrients in different ways. Dense emergent vegetation offers frictional resistance to water, grows and takes up nutrients rapidly, and releases the nutrients seasonally. Trees are often able to store greater amounts of nutrients for longer periods of time but generally offers less frictional resistance to water. A diversity of vegetation classes will result in the most effective nutrient cycling processes. Accordingly, impacts to wetlands which result in a reduction of vegetation density or types (e.g., change from emergent to open water or mixed vegetation to monotypic vegetation) can decrease the wetland's ability to provide the beneficial use of water supply support.

The sediment load of the incoming water is an important factor to consider. If incoming sediment loads are high, the wetland's assimilation and storage capacity may be compromised over time, ultimately affecting the wetland's ability to function. If a wetland is unable to assimilate the nutrients or toxicants it is receiving, there could be an increased threat to the ecosystem and other wetland functions. If the wetland is functioning as a groundwater recharge site, the sediment could seal the bottom of the wetland and create an impervious surface, preventing the wetland from providing a beneficial use.

According to Marble (1992), wetland characteristics which enhance the water supply beneficial use include:

- A wetland with a constricted outlet or no outlet will slow water and hold it in the basin.
- A gentle gradient in the wetland basin will slow water velocity.
- Dense wetland vegetation will act to slow water velocity, to force water to flow through a longer course, to retain it longer in the basin, and to discourage resuspension of bottom sediments.
- A long duration and extent of seasonal flooding allows for longer water retention time.

- Shallow water depth increases frictional resistance and slows water velocity. Vegetation which persists throughout the year is optimal for this function.
- The larger the wetland relative to the watershed, the greater the proportional amount of suspended sediment likely to be retained.
- Runoff from a watershed which is predominantly urban, agricultural, and/or disturbed land is more likely to carry sediment and the nutrients and toxicants associated with them.

Stock Watering

Description

Stock watering is listed as a characteristic use for all water classes except Class C (fair). Class C has been applied to low quality water and is presently limited to only one marine water (Commencement Bay).

Wetlands are often located in the transition zone from deep water habitat (e.g., river, stream or lake) to upland, where the deep waterbody is actually being used for stock watering, but the wetland receives significant damage as a result of the trampling and grazing from livestock. Best management practices (BMPs) related to stock watering, such as fencing and riparian vegetation buffers, can reduce the degradation to wetlands caused by livestock.

There is considerable debate concerning the use of wetlands for stock watering. Overuse of any waterbody, wetland or other, by livestock can cause severe damage to vegetation, soils, and water quality. Stock watering is a characteristic use of waters of the state and must, therefore, be protected. However, stock watering cannot significantly degrade a waterbody's ability to perform other beneficial uses (e.g., fish and wildlife habitat). Finding this balance through BMPs and other regulatory and nonregulatory efforts is essential to ensuring wetlands and other waterbodies can support all legitimate beneficial uses possible.

Fish and Shellfish

Description

Under the water quality standards, fish and shellfish support includes:

- Salmonid migration, rearing, spawning, and harvesting.
- Other fish migration, rearing, spawning, and harvesting.
- Clam, oyster, and mussel rearing, spawning, and harvesting.
- Crustaceans and other shellfish (crabs, shrimps, crayfish, scallops, etc.) rearing, spawning, and harvesting.

Being among the most productive ecosystems in the world, wetlands support a large number of both animal and plant aquatic species for some or all of their life history. Impacts to water quality can variously affect populations of fish, crustaceans, mollusks and other aquatic organisms as

adults, juveniles, larvae, or eggs. Through photosynthesis, wetland plants convert sunlight into plant material, or biomass, and produce oxygen as a byproduct. This biomass serves as food and shelter for a number of aquatic and terrestrial organisms. Degraded water quality can result in the proliferation of an undesirable competitive species of plant or animal at the expense of the desired resident species.

Indicators

Generally, direct grazing by aquatic organisms of wetland plants is limited, so the vegetation's major food value is produced when it dies and fragments, forming detritus. This detritus forms the base of an aquatic food web which supports higher consumers. Wetlands can be regarded as the farmlands of the aquatic environment, producing great volumes of food annually. The majority of nonmarine aquatic animals depend, either directly or indirectly, on this food source (USEPA, 1985).

Most freshwater fishes can be considered wetland dependent for many reasons. Many species feed in wetlands or upon wetland produced food, many other fish use wetlands as nursery grounds, and almost all important recreational fish spawn in the aquatic portions of wetlands (USEPA, 1985). Many fish and shellfish feed along the edges of salt marshes and in shallow marsh ponds and move up into the marsh at high tides. Many estuarine organisms benefit from both the shelter afforded by marshes and the organic production exported from them (Mitsch and Gosselink, 1986).

Impacts and Effects

Suspended particulates settling on attached or buried eggs can smother the eggs by limiting or sealing off their exposure to oxygenated water. Water quality impacts to wetlands may result in the debilitation or death of sedentary organisms by smothering, exposure to chemical contaminants in dissolved or suspended form, exposure to high levels of suspended particulates, reduction in food supply, or alteration of the substrate upon which they are dependent. Increases in turbidity can also cause a shift in vegetation community structure, affecting the quality of habitat and food supply for aquatic organisms.

Mollusks are particularly sensitive to impacts of pollution during periods of reproduction, growth, and development due primarily to their limited mobility. They can be rendered unfit for human consumption by tainting, by production and accumulation of toxins, or by ingestion and retention of pathogenetic organisms, viruses, heavy metals or persistent synthetic organic chemicals.

Degradation of water quality from all forms of pollution can redirect, delay, or stop the reproductive and feeding movements of some species of fish and crustacea, thus preventing their aggregation in accustomed places such as spawning or nursery grounds and potentially leading to reduced populations. Reduction of detrital feeding species or other representatives of lower trophic levels can impair the flow of energy from primary consumers to higher trophic levels. The reduction or potential elimination of food chain organism population decreases the overall productivity and nutrient export capability of the wetland ecosystem.

Nutrient loading can cause shifts in vegetation communities to more aggressive, invasive species (USEPA, 1990). Submersed and floating leaved vegetation usually respond more strongly to higher nutrient inputs than does emergent vegetation. This can be detrimental to bottom dwelling organisms as a result of increased shading and biological oxygen demand (BOD). Decreased emergent species richness can also result from high nutrient inputs which can degrade the quality of habitat and food supply for fish and shellfish. Ambient pH can be one of the most important factors affecting community composition of emergent and aquatic bed vegetation. Continuous inputs of water to a wetland beyond the natural hydrologic budget can affect the pH.

Numerous changes can detrimentally affect fish and shellfish. Increasing or decreasing water fluctuation levels, frequency, or duration can increase water temperatures or make habitat unsuitable for certain organisms by changing inundation patterns. Ditching or draining a wetland can cause significant changes in water regime which not only affect the wetland, but can also have serious downstream impacts such as sediment loading and increased flooding potential. Changes in substrate elevation or composition can also have a detrimental impact on fish and shellfish life histories. Discharging dredge or fill material to convert wetland habitat to upland is the most obvious and common alteration of a wetland substrate. Instream and upland vegetation are a critical component of fish and shellfish habitat. The loss or reduction of vegetative cover can significantly raise water temperatures and increase ambient light levels, both of which are detrimental to aquatic life forms.

Water quality impacts from point and nonpoint sources are perhaps the most serious threats posed to fish and shellfish use of wetlands. Wetlands are frequently overloaded from inputs of toxins and nutrients and these compounds are then flushed downstream or often stored in the substrate where they can become available to bottom dwellers and feeders.

Wildlife Habitat

Description

Wildlife habitat is defined as “the waters of the state used by, or that directly or indirectly provide food support to, fish, other aquatic life and wildlife for any life history stage or activity” (WAC 173-201A-020). Wetlands serve as a transition area between land and water (an area often called an ecotone) and are among the richest wildlife habitats in the world. Wildlife associated with wetland ecosystems are resident and transient mammals, birds, reptiles, and amphibians. Wildlife are an integral part of the values and functions of wetlands because wildlife are disproportionately dependent on wetlands, in comparison to uplands, for resting, feeding and breeding (King County, 1991).

Indicators

Many wildlife species such as beaver, frogs and salamanders depend on wetlands for their survival. Other species such as deer, wood ducks, herons, and raccoons depend on wetlands as a source of drinking water, food and cover. The unique characteristics of individual wetlands allows each wetland to provide wildlife habitat more suited for particular species. Each wetland then contributes to the collective diversity of habitat and wildlife found in Washington state. This

is another reason why impacts to individual wetlands must be considered on a regional scale; widespread protection of wetlands is important in order to protect the regional biodiversity.

Wetland type, vegetation type, and water regime are all critical factors in determining the ability of a wetland to provide wildlife habitat. These same factors will also determine the kind of habitat that is provided. A wetland that may not have enough water for ducks may be perfect for frogs or salamanders. Scrub-shrub or forested wetlands provide a certain kind of habitat as do open water wetlands. Each wetland must be evaluated on the basis of the habitat it is providing.

Impacts and Effects

Many, if not all, of the impacts described in the previous section on fish and shellfish also affect the ability of a wetland to provide quality wildlife habitat; that discussion will not be repeated here. Also, the impacts described here may be important considerations for the support of fish and shellfish habitat as a beneficial use.

Sedimentation can kill emergent and woody vegetation when deposition is enough to bury trunks or stems or cut off root oxygen exchange. Severe sedimentation may also change the water regime in a wetland leading to further changes in vegetation community structure, affecting the quality of wildlife habitat the wetland is able to provide. Sedimentation can also cause decreases in species richness and diversity in invertebrate communities. Many species of wildlife that use wetlands for any life history stage are directly or indirectly dependent on these invertebrate communities as a food source.

Changes in water regime are perhaps most significant to wildlife. Increases in water level, the frequency or duration of inundation, and the frequency, duration, and degree of fluctuations can all have a significant affect on vegetation community structure (King County, 1991). Many species of wildlife have narrow habitat requirements (niche) and are not able to adapt to rapid or frequent changes in their immediate surroundings. Often, other aggressive, invasive or non-native species are able to take advantage of these conditions and become dominant.

Water quality impacts to wetlands can result in the loss or change of breeding and nesting areas, escape cover, travel corridors, and preferred food sources for resident and transient wildlife species associated with the aquatic ecosystem. These adverse impacts upon wildlife habitat may result from changes in water levels, water flow and circulation, salinity, chemical content, and substrate characteristics and elevation. Increased water turbidity can adversely affect wildlife species which rely upon sight to feed, and disrupt the respiration and feeding of certain aquatic wildlife and food chain organisms. The accumulation of contaminants from water quality impacts may lead to the bioaccumulation of such contaminants in wildlife. Changes in such physical and chemical factors of the environment may favor the introduction of undesirable plant and animal species at the expense of resident species and communities. In some aquatic environments, lowering plant and animal species diversity may disrupt the normal functions of the ecosystem, leading to reductions in overall biological productivity.

Recreation

Description

Wetlands support recreation as a beneficial use, both directly and indirectly. Wetland related recreation encompasses activities undertaken for amusement and relaxation; many different activities can be considered as recreation. Primary contact recreation (generally defined as complete submergence, i.e., swimming) may not occur frequently in wetlands, but it certainly can occur in some wetlands. In order to protect human health, EPA requires states to set criteria to reflect swimming if it appears that primary contact recreation could occur (USEPA, 1983). It is also recommended that "common sense and good judgment" be used to set appropriate uses and criteria. Regulatory decisions based on the ability of a wetland to support primary contact recreation would be made on a case-by-case basis. Swimming aside, wetlands support a great number of recreational activities from fishing, nature walks, photography, hunting, and boating.

Indicators

Public enjoyment of the state's waters is a beneficial use (RCW 90.48.010, 020) protected by the federal Clean Water Act (40 CFR §230.53). Public enjoyment of a wetland can be passive (nature walks) or active (fishing and hunting). Aesthetic values associated with wetland ecosystems consist of the perception of beauty through a combination of the senses of sight, hearing, touch and smell. Aesthetics of wetlands contributes to the quality of life enjoyed by the general public and property owners (40 CFR 230).

Recreational and aesthetic values of wetlands are also related to the position of the wetland on the landscape, the relative scarcity or abundance of that wetland type, and the proximity of the wetland to potential users. For example, in an urban setting, a wetland that may be far from pristine still provides local residents an opportunity to enjoy a "natural" environment. When evaluating a wetland for its recreational or aesthetic qualities, one should consider how effectively the wetland could be cleaned up. A trashy wetland could easily be the focus of a neighborhood clean-up campaign.

Impacts and Effects

The impacts described above for fish and shellfish, and wildlife habitat are also important for consideration here. An impact that degrades or destroys a beneficial use such as wildlife habitat will also have a significant impact on the recreational quality of the wetland for hunting, fishing, bird watching, etc. Again, impacts that cause a change in the character of the wetland such as severe sedimentation or changes to the water regime have the greatest potential for degrading the recreational quality of a wetland.

Pollution can degrade the recreational and aesthetic qualities of a wetland by degrading water quality, creating unpleasant and distracting disposal sights, and by destroying vital elements that contribute to the compositional harmony or unity, visual distinctiveness, or diversity of an area. Further, pollution may adversely modify or destroy water use for recreation by changing turbidity, suspended particulates, temperature, dissolved oxygen, dissolved materials, toxic materials, pathogenetic organisms, quality of habitat, and the aesthetic qualities of sight, taste, odor, and color.

Pollution can adversely affect the particular features, traits, or characteristics of a wetland which make it valuable to property owners. Activities which degrade water quality, disrupt natural substrate and vegetational characteristics, deny access to or visibility of the resource, or result in changes in odor, air quality, or noise levels may reduce the value of a wetland to adjacent private property owners.

Commerce and Navigation

Indicators

Activities directly associated with commerce and navigation are often conducted in wetlands. Hunting and fishing, photography, birding and sightseeing are all activities which contribute to the local commerce. The potential affects of pollution and other detrimental impacts to water quality in wetlands is much the same for commerce and navigation as it would be for recreation. Pollution can seriously impair a wetland's ability to provide opportunities for activities related to commerce and navigation.

Impacts and Effects

Pollution and other negative impacts to wetlands can degrade the qualities of a wetland important to commerce and navigation by degrading water quality, creating unpleasant and distracting disposal sights, and by destroying vital elements that contribute to the compositional harmony or unity, visual distinctiveness, or diversity of an area.

Aesthetics

Indicators

Aesthetics is listed separately as a characteristic use as well as being listed as a subset of recreation (see above). Public enjoyment of the state's waters is a beneficial use (RCW 90.48.010, 020) protected by the state Water Pollution Control Act and the federal Clean Water Act (40 CFR §230.53). Public enjoyment of a wetland can be passive (nature walks) or active (fishing and hunting). Aesthetic values associated with wetland ecosystems consist of the perception of beauty by one or a combination of the senses of sight, hearing, touch and smell. Aesthetics of wetlands applies to the quality of life enjoyed by the general public and property owners (40 CFR 230).

The discussion of recreation as a beneficial use, above, applies directly to aesthetics as well and is not repeated here.

Other Wetland Beneficial Uses

As discussed above, the CWA, state Water Pollution Control Act, and the water quality standards make it clear that all existing beneficial uses of a waterbody are to be protected, not just those

listed specifically in the standards (RCW 90.48.020, WAC 173-201A-070). This is an important consideration for wetlands when evaluating the potential for an activity to impair water quality. Some of the functions performed by wetlands which are protected as beneficial uses include:

- Groundwater exchange
- Stormwater attenuation
- Shoreline stabilization

Groundwater Exchange

Description

Groundwater is frequently used for public or private water supplies. Groundwater supplies are recharged by precipitation that seeps into the ground and by surface waters. Those wetlands that are connected to groundwater systems or aquifers are important areas for groundwater exchange.

By retaining water, they provide time for infiltration to occur. Such movement of surface water into the groundwater system is called groundwater recharge.

During periods of low streamflow (or low lake water levels), the slow discharge of groundwater often helps maintain minimum water levels, a process known as groundwater discharge. In addition, wetlands located along streams, lakes, and reservoirs may release stored water directly into these systems, thus also contributing to their maintenance. The many intricate connections of wetlands with groundwater, streamflow, and lake and reservoir water levels make wetlands essential in the proper functioning of the hydrologic cycle.

Stormwater Attenuation

Description

Stormwater attenuation is the storage or conveyance of flood waters or groundwater and the retention or detention of runoff that occurs in the depression containing the wetland. Geomorphic variables and other characteristics of the wetland determine how much water is stored.

Indicators

The location and distribution of wetlands within a watershed influence how flow is detained and distributed. Wetlands located in headwaters generally desynchronize tributary and main channel peaks, and lakes and wetlands with restricted outlets hold back flood water and attenuate flood peaks. The extent of depression storage is an important characteristic determining the ability of a wetland to retain water. Wetlands within watersheds characterized by gently sloping topography will have more ability to store water than those where slopes are steep. Basins with irregular, sinuous shorelines have the potential to slow flood waters through physical resistance, in contrast to watersheds where streams have been heavily channelized.

AR 007948

Flood flows are affected by the percentage of wetland area in the watershed and the size of a wetland relative to the size of the watershed. Flood flows in watersheds with a high percentage of wetlands (30-40 percent) can be reduced by as much as 80 percent. Wetland losses from basins initially having little wetland area may have a greater impact on stream flow than wetland losses from basins initially having large percentages of wetland area. A wetland which is large relative to watershed size can result in significant moderation of peak flows since inflowing water is spread out as a thin layer over the entire wetland surface.

The frictional resistance of a wetland is a critical characteristic that influences water storage. Frictional resistance varies depending on the width of the wetland, density of vegetation or other obstructions and the rigidity of these obstructions. Wetlands with relatively low proportions of open water to vegetation are more capable of altering flood flows than open water ponds or lakes. Vegetation slows flood waters by creating frictional drag in proportion to stem density.

Organic soils in wetlands also increase water retention capacity. These soils are generally more porous but less permeable than most mineral soils and therefore allow infiltration of water but inhibit its movement. The type of vegetative cover is also an important characteristic for flood storage. Because of their rigidity and persistence, trees and shrubs are the most important vegetative cover for water storage.

Table 1 Importance of Various Wetland Characteristics to Water Storage

Wetland Feature	Importance to Water Storage
Landscape Position	High
Depressional Storage	High
Gradient to Watershed	Moderate
Wetland to Watershed Ratio	High
Outlet Characteristics	High
Vegetation Density	Moderate
Vegetation Type	Moderate

Shoreline Stabilization

Description

Shoreline stabilization refers to the role of wetlands in protecting the shorelines of streams, rivers, and lakes from erosive forces. The vegetative cover of a wetland is the key to determining its ability to stabilize a shoreline or stream bank. Vegetation both dissipates erosive forces and anchors the sediments of the stream bank in place. Since certain species of trees and shrubs have deep roots, layering ability (the ability to root and sprout once buried), high regenerative capacity, and a long life-span, both trees and shrubs are essential for shoreline anchoring.

Indicators

AR 007949

The opportunity for a wetland to stabilize a shoreline is related to the magnitude of erosion in the watershed as well as the erodability of the adjacent lands. Urbanization contributes to greater peak flows from an increase in impervious surface area. The erodability of an area adjacent to a wetland is related to the steepness of the basin gradient, erodability of bank soils, evidence of scour, and evidence of flow.

Table 2 Importance of Various Wetland Characteristics to Stream Bank Stabilization

Wetland Feature	Importance to Stream Bank Stabilization
Vegetation Type	Moderate
Vegetation Width	High
Land Use in Watershed	Moderate
Fetch/Exposure	High

Table 3 Aspects of Wetlands Changed by Water Quality Impacts

PHYSICAL

changes to hydrology include alterations to:

- hydroperiod (water regime)
- volume of incoming water
- velocity of incoming water
- wetland outlet
- outfall rates

changes to the substrate include alterations to:

- elevation
- composition

CHEMICAL

changes to the quality of incoming water include alterations to:

- clarity
- color
- odor
- taste
- sediment load
- turbidity
- pH
- toxins
- pathogenic organisms
- metals
- nutrient loading

BIOLOGICAL

changes to the vegetation include alterations to:

- density

AR 007950

Water Quality Criteria

A water quality standard defines the water quality goals of a waterbody, or a portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect those uses. States must adopt those water quality criteria that protect the designated (characteristic) use. For waters with multiple use designations, the criteria shall support the most sensitive use (40 CFR 131).

The Washington water quality standards use a combination of numeric and narrative criteria to protect beneficial uses of state waters. The numeric criteria are specific to waterbody class (e.g., Class AA, Class A, etc.). Numeric criteria include fecal coliform organisms, dissolved oxygen, total dissolved gas, temperature, pH, and turbidity. There are also numeric criteria established for toxic materials based on EPA's "Gold Book" (1986). These numeric toxic criteria are often referred to as aquatic life criteria because of the testing methods used by EPA. The direct application of existing aquatic life criteria to wetlands is assumed to be reasonable in most cases (Hagley and Taylor, 1991). The aquatic life criteria are found in WAC 173-201A-040.

Narrative criteria are particularly important for wetlands, since many wetland impacts cannot be fully addressed by numeric criteria. EPA's Water Quality Regulations (40 CFR 131) states that "States should...include narrative criteria in their standards where numeric criteria cannot be established or to supplement numeric criteria."

Ecology relies on the antidegradation policy (WAC 173-201A-070) which requires the protection of existing beneficial uses and establishes that, if the natural conditions of a waterbody are of a lower quality than the assigned criteria, the natural conditions become the criteria. This occurs most typically with criteria such as pH, dissolved oxygen, temperature, and fecal coliform. The natural conditions of a wetland often exceed the criteria for these parameters.

The general classifications section (WAC 173-201A-120) states, among other things, that any unclassified surface waters that are tributaries to Class AA waters are classified Class AA. All other unclassified surface waters are classified Class A. Thus most wetlands are classified Class A. However, wetlands are classified as Class AA if they are associated with Class AA waters; if they are in national parks, national forests, and/or wilderness areas; and if they are tributaries to lakes.

The water quality standards for Class AA (extraordinary) and Class A (excellent) surface waters are in WAC 173-201A-030 (1) and (2) respectively.

Antidegradation Policy

There are several narrative criteria and statements used in Washington's water quality standards (e.g., aesthetic values, toxics). Perhaps the most important component of the water quality standards regulation as it applies to wetlands is the antidegradation policy, WAC 173-201A-070:

- “(1) existing beneficial uses shall be maintained and protected and no further degradation which would interfere with or become injurious to existing beneficial uses shall be allowed.
- (2) Whenever the natural conditions of said waters are of a lower quality than the criteria assigned, the natural conditions shall constitute the water quality criteria.
- (3) Water quality shall be maintained and protected in waters designated as outstanding resource waters in WAC 173-201A-080.
- (4) Whenever waters are of a higher quality than the criteria assigned for said waters, the existing water quality shall be protected and waste and other materials and substances which will reduce the existing quality shall not be allowed to enter such waters, except in those instances where:
- (a) It is clear, after satisfactory public participation and intergovernmental coordination, that overriding considerations of the public interest will be served;
- (b) All wastes and other materials and substances discharged into said waters shall be provided with all known, available, and reasonable methods of prevention, control, and treatment by new and existing point sources before discharge. All wastes and other materials and substances discharged into said waters from nonpoint sources shall be provided with all known, available, and reasonable best management practices; and
- (c) When the lowering of water quality in high quality waters is authorized, the lower water quality shall still be of high enough quality to fully support all existing beneficial uses.
- (5) Short-term modification of water quality may be permitted as conditioned by WAC 173-201A-110.”

The antidegradation policy applies to any action that may lower water quality or adversely affect existing uses in any water of the state. Both point and nonpoint sources of pollution are covered. Federal regulations specify several requirements for states when developing their antidegradation policy and implementation procedures (40 CFR §131). States are required to develop programs that provide waters with three levels of protection, usually referred to as tiers. The water quality criteria, antidegradation policy, and the implementation methods define how the state will:

Protect existing beneficial uses and the water quality necessary to protect the uses (tier 1).

Determine, on a case-by-case basis, whether, and to what extent, water quality may be lowered where water quality exceeds levels necessary to support propagation of fish and shellfish, wildlife, and recreation in and on the water (tier 2).

Define, designate, and protect waters that constitute an outstanding national resource (tier 3).

The following sections discuss these tiers in more detail.

AR 007952

Tier 1: Existing uses shall be maintained and protected

The antidegradation policy requires the protection of existing uses and the level of water quality to protect those uses (tier 1; WAC 173-201A-070(1)). To provide adequate protection for existing uses, it is important to differentiate “existing use” from “characteristic use.” The following definitions appear in the Water Quality Standards Regulations (40 CFR §131.3):

“(e) Existing uses are those uses actually attained in the waterbody on or after November 28, 1975 [the date of EPA's first water quality standards regulation], whether or not they are included in the water quality standards.

(f) Designated uses [referred to as characteristic uses in Washington] are those uses specified in water quality standards for each waterbody or segment whether or not they are being attained.”

The critical distinction here is that existing beneficial uses do not need to be specified in the water quality standards in order to receive the protection of the antidegradation policy. This is important for wetlands which have beneficial uses such as shoreline stabilization or nutrient filtration that are not specifically mentioned. Yet these uses support on-site or down-stream fish and wildlife habitat, recreation, and other water-quality related activities. An existing use can be established by demonstrating that fishing, swimming, or other uses have actually occurred since November 28, 1975, or that the chemical water quality is suitable to support all the uses to be attained - unless there are physical problems, such as substrate or flow, which preclude the use.

For Washington state, characteristic uses are established for each waterbody class (see discussion on characteristic uses, above). A characteristic use that is not an existing use may, in some circumstances, be removed under 40 CFR §131.10(g) of the water quality standards regulation, in a process known as Use Attainability Analysis (UAA). (Washington currently does not conduct UAAs). An existing use, however, must be protected whether or not it is also a characteristic use. Because federal and state regulations require the most sensitive use be protected by the water quality standards, the level of protection necessary must still be sufficient to protect all existing uses.

For example, although commerce may occur on some wetlands with commercial harvesting of fish, berries or grain crops, it is not an activity that is conducted on a lot of wetlands. However, even though a wetland would not have to be protected for commerce, it must still be protected for wildlife habitat or recreation. Wildlife habitat or recreation would require just as stringent protection as commerce, if not more so.

Tier 2: Protection of Water Quality in High Quality Waters

Tier 2 provides the opportunity for Ecology to make decisions that may lower water quality in high quality waters, provided existing uses are maintained, and appropriate public participation occurs. All actions that may lower water quality in high quality waters must undergo an antidegradation review as described above (WAC 173-201A-070(4)).

EPA has identified five tasks that should be completed when making antidegradation determinations for high quality waters. Often one or more of these steps requires minimal effort for any particular project or plan review. Other proposals may require extensive review or evaluation. The level of review required should be directly correlated to the severity of the environmental impact of the project; this concept is reflected in Task 1.

1. Identify actions that require a detailed antidegradation review including water quality and economic impact analysis.
2. Determine that lower water quality will protect existing uses.
3. Determine that lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.
4. Determine that the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control have been achieved.
5. Complete intergovernmental coordination and public participation.

Tier 3: Outstanding Resource Waters

Tier 3 of the antidegradation policy provides protection to Outstanding Resource Waters (ORW). The CWA regulations allow states to designate ORWs “[w]here high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance...” (40 CFR §131.12(a)(3)). The regulations further state that water quality will be maintained and protected in these waters. This designation fits very well for wetlands, whose overall ecological value may be higher than sheer numerical high quality. For example, subalpine bogs are exceptional wetlands that are ecologically significant due to their rarity and irreplaceability, but they may not be pristine waters. The language in the water quality standards reads:

“(3) Water quality shall be maintained and protected in waters designated as outstanding resource waters in WAC 173-201A-080.”

ORWs will be nominated and designated through a public process similar to rule-making. The designated waterbodies would be identified in the water quality standards. At this time there are no waterbodies in the state that have been specifically identified as ORWs.

Wetland Mitigation

EPA addresses the issue of consistency with the antidegradation policy in terms of wetland fill in its guidance to states *Questions and Answers on: Antidegradation* (USEPA 1985b) as follows:

“Since a literal interpretation of the antidegradation policy could result in preventing the issuance of any wetland fill permit under Section 404 of the Clean Water Act, and it is logical to assume that Congress intended some such permits to be granted within the framework of the Act, EPA interprets 40 CFR §131.2(a)(1) of the antidegradation policy to be satisfied with regard to fills in wetlands if the discharge did not result in “significant degradation” to the aquatic ecosystem as defined under Section 230.10(c) of the Section 404(b)(1) guidelines. If any wetlands were found to have better water quality than “fishable/swimmable,” the State would be allowed to lower water quality to the no

significant degradation level as long as the requirements of Section 131.12(a)(2) were followed. As for the ONRW [Outstanding National Resource Water] provision of antidegradation (131.12(a)(3)), there is no difference in the way it applies to wetlands and other waterbodies.”

This interpretation allows states to adopt a system approach to wetland management. This means that the reviewer considers the effect of the project in a larger context, such as a watershed, where losses in some areas may be less serious than others given how the overall wetland functions. Mitigation is often used as the tool to maintain the integrity of the wetland aquatic ecosystem and to avoid “significant degradation” of the system.

Generally, mitigation can be thought of as any action taken to eliminate or reduce an impact to the environment. Specifically, wetland mitigation is usually defined in terms of a series of steps which should be taken in sequential order. They are:

1. Avoiding adverse impacts (usually by either not doing the project, revising the project, or finding another site);
2. Minimizing adverse impacts by limiting the degree of impact or changing the location of a project's footprint within the site;
3. Rectifying adverse impacts by restoring the affected environment;
4. Reducing the adverse impacts by preservation and maintenance operations over the life of the project;
5. Compensating for adverse impacts by replacing or providing substitute resources or environments; and
6. Monitoring the impacts and taking appropriate corrective measures.

Following this process is referred to as “sequencing”. Most people equate wetland mitigation with step 5, and this has led to the use of the term “compensatory mitigation” to distinguish this type of mitigation from the broader definition. In most cases, Ecology requires that an applicant demonstrate that they have followed this sequence in developing their project before permit approval is granted. However, Ecology has taken the position that lower quality wetlands (Category 4 wetlands; see page 43) do not warrant the first step of avoiding the impact altogether. This is based on our assumption that these types of wetlands can be successfully replaced. With other wetlands, particularly higher quality wetlands, we are usually stringent in requiring that applicants demonstrate that they have followed the sequence.

Ecology can be flexible in approving practical options that provide the most protection to the resource and that balance the effects of such actions on the total environment. Mitigation is often implemented through the use of best management practices. For example, a stormwater detention and retention facility could be used to reduce the threat of pollution in a wetland. Best

management practices can be established in permits, orders, rules, or directives from Ecology. Mitigation is discussed more fully on page 48.

References

Marble, A.D. 1992. *A Guide to Wetland Functional Design*. Lewis Publishers Inc., Chelsea, MI.

Hagley, C.A., D.L. Taylor. 1991. *An Approach for Evaluating Numeric Water Quality Criteria for Wetlands Protection*. Asci Corporation, Duluth MN.

King County. 1991. *Development of Guidance for Managing Urban Wetlands and Stormwater, Final Report*. King County Environmental Division, Seattle, WA.

Mitsch, W.J., J.G. Gosselink. 1986. *Wetlands*. Van Nostrand Reinhold, New York.

Nelson, R.W., R. Randall, Eds. 1990. *National Guidance: Water Quality Standards for Wetlands: Phase II--Long Term Development*. USEPA, Washington, DC.

Robb, D.M. 1992. *The Role of Wetland Water Quality Standards in NonPoint Source Pollution Control Strategies*. Ecological Engineering, 1: 143-148.

USEPA. 1983. *Water Quality Standards Handbook*. USEPA, Washington, DC.

USEPA. 1985a. *Freshwater Wetlands for Wastewater Management Handbook*. USEPA, Region IV, Atlanta, GA.

USEPA 1985b. *Questions and Answers on: Antidegradation*. USEPA, Washington, DC.

USEPA. 1986. *Quality Criteria for Water 1986*. USEPA, Washington, DC.

USEPA. 1990. *Impacts on Quality of Inland Wetlands of the United States: A Survey of Indicators, Techniques, and Applications of Community-Level Biomonitoring Data*. USEPA Environmental Research Laboratory, Corvallis, OR.

AR 007956

Section 3: Antidegradation Decision-Making Process

Description

This section describes the process for using the antidegradation policy (WAC 173-201A-070) for determining if a project that may have a water quality impact on wetlands will comply with the water quality standards. The process is intended to provide the necessary steps required for making a water quality determination for wetlands. Every case must be evaluated on its own merits, taking into consideration the individual wetland and the proposed project, as well as the position of the wetland in the landscape and its role in the watershed (e.g., flood attenuation). These guidelines are not rules and are not intended to be used as such.

Flexibility in decision making is essential in order to make decisions that provide the most environmental benefit. However, these guidelines ensure the consistency in how Ecology determines when to be flexible. These guidelines present a reasonable means of making decisions by taking into account all the appropriate aspects of a proposed project and the aquatic environment that may be affected.

Antidegradation Decision-Making Process

The antidegradation decision-making process consists of identifying if the project will affect a wetland, evaluating reasonable alternatives that avoid or reduce wetland impacts, assessing if the project will degrade or destroy beneficial uses or have other significant environmental consequences, and determining if and what kind compensatory mitigation is appropriate. These steps are outlined in Table 4, followed by a step-by-step explanation that clarifies the meaning of the terms, factors to be considered, and decision criteria.

Table 4 Antidegradation Decision-Making Process

Step 1. Will the project affect a wetland?

Will there be any direct or indirect effects to a wetland?

YES: Proceed to Step 2.	NO: You need not continue with the antidegradation water quality standards process.
--------------------------------	--

Step 2. Are there reasonable alternatives that avoid or reduce wetland impacts?

Is there an affordable, reasonable, and available option which will not harm wetlands or cause other significant harm to the environment? Is the proposed activity water dependent?

YES: Compliance with water quality standards for project as planned has not been achieved.	NO: Proceed to step 3.
---	-------------------------------

Step 3. Will the project degrade or destroy the beneficial uses of a wetland or have other significant environmental consequences?

After considering alternatives to avoid and/or minimize impacts, will there be a significant adverse impact upon wetland beneficial uses, water quality, or other significant environmental consequences?

YES: Compliance with water quality standards for project as planned has not been achieved.	NO: Water quality standards are met. Your project is in compliance with state water quality requirements.
---	--

Step 4. Is compensatory mitigation appropriate? If so, what kind?

If the project degrades or destroys the beneficial uses of a wetland, is compensatory mitigation possible and appropriate? If so, has applicant provided an adequate mitigation plan?

YES: Water quality standards are met. Your project is in compliance with state water quality requirements.	NO: Compliance with water quality standards for project as planned has not been achieved.
---	--

AR 007958

Step 1: Will the Project Affect a Wetland?

What Is a Wetland?

Like other states, Washington uses the CWA definition of wetlands. This definition is found in federal regulations 40 CFR §232.2(r):

“Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

This definition is used by Ecology to maintain consistency with the federal regulatory programs. The term “wetland” describes an area where hydrology, vegetation, and soils interact to form a unique community of plants and animals.

The water quality standards apply to all wetlands of the state, regardless of size and quality. Wetland inventories can greatly aid the early identification process necessary for project planning. Ecology has a complete set of National Wetland Inventory (NWI) maps in a Geographical Information Systems (GIS) data base for Washington. NWI mapping is done by classifying wetlands hydrologic and physical characteristics based on the Cowardin classification system (Cowardin et al., 1979).

NWI maps provide a good “first cut” at identifying wetlands. These maps were drawn using aerial photographs at a very small scale, thus the accuracy of the maps can be poor. Wetlands should be delineated to verify the boundaries on the ground. A wetland delineation consists of determining the landward edge of the wetland. Ground verification by delineation is necessary for most project applications.

When delineating wetlands for CWA purposes (e.g., §401 water quality certifications), Ecology and the federal agencies use the 1987 *U.S. Army Corps of Engineers Wetlands Delineation Manual* in conjunction with the “Washington Regional Guidance on the 1987 Wetland Delineation Manual”. Previously Ecology and the federal agencies (Corps, EPA, Soil Conservation Service (now the Natural Resources Conservation Service) and the U.S. Fish and Wildlife Service) had formally adopted the 1989 *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* as the preferred manual. Now, however, the Corps of Engineers is required by federal law to use the 1987 manual, and the EPA adopted its use in 1993. In 1995, the state Interagency Wetlands Review Board decided that Ecology should also use the 1987 manual for regulatory consistency. Because many jurisdictions in Washington have specifically adopted either the 1987 or 1989 manual for their local ordinances, project proponents are encouraged to check the local ordinances to ensure that they are using the correct delineation method.

In addition, the state legislature passed a law in 1995 directing Ecology to adopt a state wetland delineation manual that is consistent with the federal delineation manual (1987 Corps of Engineers manual). Ecology will be developing and adopting this state manual under the SMA regulations

during the coming year. For consistency, once the state manual is adopted, local governments will be required to use it in implementing their Shoreline Management Act and Growth Management Act regulations. Until the state manual is adopted, Ecology will use the 1987 Corps manual with the regional guidance issued by the Corps Seattle District in May 1994.

What Does "Affect" Mean?

Wetlands can be affected directly by filling, draining, mowing, and plowing, or indirectly by non-point source pollution or changing the wetland's water regime. Because pollution is broadly defined as any alteration of the chemical, physical, or biological properties of a water of the state (RCW 90.48.020), affect can be construed as meaning pollution. These properties of a waterbody, in turn, support the beneficial uses of that water. The determination of "affect" is simply the first step in the decision-making process; not all activities which may have an affect on wetlands are regulated.

Activities which result in chemical and physical changes to the wetland can cause changes in water clarity, color, odor, and taste. Water clarity, nutrients and chemical content, physical and biological content, dissolved gas levels, pH, and temperature contribute to a wetland's life-sustaining capabilities. Changes in the clarity, color, odor, and taste of water through the addition of contaminants such as suspended particulates, viruses and pathogenic organisms, and dissolved materials can reduce or eliminate the suitability of a wetland for direct or indirect maintenance of aquatic organisms, and affect other beneficial uses.

Loading rates of incoming water that exceed the wetland's ability to assimilate sediments, nutrients or toxicants can cause a harmful effect. The introduction of nutrients or organic material to a wetland can lead to a high biochemical oxygen demand (BOD), which in turn can lead to reduced dissolved oxygen (DO). Increases in nutrients can favor one group of organisms such as algae to the detriment of other types such as submerged aquatic vegetation, potentially causing adverse health effects, objectionable tastes and odors, detrimental impacts to aquatic organisms and wildlife, and other problems.

Changes in hydroperiod (e.g., increased duration or extent of water level fluctuations) can significantly affect wetland water quality. Severe fluctuations in water level will limit denitrification and phosphorus retention. Changes in pH to more acidic conditions can reduce the wetland's ability to process nitrogen and phosphorus. Increases in water volume and/or velocity will increase loading and decrease sedimentation rates in the wetland, thereby decreasing the effectiveness of the wetland's ability to remove and retain nutrients and sediments. Increased velocities can also cause decreased water storage time in the wetland which will reduce the opportunity for the wetland to serve as a groundwater recharge source.

Different vegetation types act to remove nutrients in different ways. Dense emergent vegetation offers frictional resistance to water, grows and takes up nutrients rapidly, and releases the nutrients seasonally. Trees are often able to store greater amounts of nutrients for longer periods of time but generally offer less frictional resistance to water. A diversity of vegetation will result in the most effective nutrient cycling processes. Accordingly, impacts to wetlands which result in a reduction of vegetation density or types (e.g., change from emergent to open water or mixed

vegetation to monotypic vegetation) can decrease the wetland's ability to provide some beneficial uses.

Detrimental effects on beneficial uses can result from increasing or decreasing natural fluctuations in water levels. Changing the frequency or duration of inundation can increase water temperatures or make habitat unsuitable for certain organisms. Ditching or draining a wetland can cause significant changes in hydrology which not only affect the wetland, but can also have serious downstream impacts such as sediment loading and increased flooding potential. Significant changes in a wetland's hydroperiod can also cause a change in vegetation species composition to a non-native, invasive community. Such vegetation changes may, in turn, affect the ability of the wetland to provide habitat for native species of fish or wildlife.

Changing the substrate can also have a detrimental impact on wetlands. Discharging dredge or fill material to convert wetland habitat to upland is the most obvious and common alteration of a wetland substrate. Instream and upland vegetation are a critical component of fish and shellfish habitat. The loss or reduction of vegetative cover can significantly raise water temperatures and increase ambient light levels, both of which are detrimental to some aquatic life. Water quality impacts from point and nonpoint sources are perhaps the most serious threat to fish and shellfish use of wetlands. Wetlands are frequently overloaded from inputs of toxins and nutrients and these compounds are then flushed downstream or often stored in the substrate where they can become available to bottom dwellers and feeders.

Some project proponents may propose artificially supplementing surface water flows to maintain wetland water regime and therefore avoid "affecting" a wetland. Some project proponents may argue that such a proposal would avoid the need of going through the antidegradation decision process. Engineering the water regime or similar measures are strategies for minimizing impacts to wetlands and should be considered later during the "review other factors" portion of Step 3. Alternatives that avoid wetland impacts altogether are preferred over alternatives where impacts are minimized through engineering.

Stormwater discharges deserve special mention because wetlands are often affected by them. Stormwater runoff from urban areas has been shown to contain many different types of pollutants, depending on the nature of the activities in those areas. The runoff from roads and highways is contaminated with oil, grease, lead, cadmium, and other pollutants. Uncontrolled runoff from industrial areas can contain PCBs, heavy metals, high pH concrete dust, and many other toxic chemicals. Residential areas contribute herbicides, pesticides, fertilizers, and animal waste runoff. All of these contaminants can seriously impair beneficial uses of receiving waters.

Short-term changes in water quality from stormwater can restrict contact recreation, stress aquatic organisms, and damage shellfish beds. Long-term impacts on wetland morphology often occur when urbanization changes natural water regimes. The long-term accumulation of pollutants in receiving waters can also create problems that can be particularly difficult to correct, such as eutrophication, polluted groundwater, and contaminated sediments.

In considering the effect of stormwater in a wetland, the interrelationships between hydrology, pollutant loading, and the wetland ecosystem need to be recognized. Factors such as the

stormwater source, velocity, and flow rate; contaminant loading rate; concentrations of toxic substances; wetland biological renewal rate; and level and frequency of inundation have a major bearing on the chemical and physical properties of the wetland and how it reacts to stormwater loading. These properties can, in turn, influence the character and health of the whole watershed.

Some of the desirable water quality improvement function of wetlands can be obtained by constructing a wetland to replicate the water quality improvement capabilities found in natural wetlands. Because such wetlands are constructed and maintained primarily for the treatment of wastewater or stormwater, they are considered a part of the treatment system and are regulated as such.

It should be recognized that other jurisdictions and agencies are involved in the development of stormwater management plans, including local governments, Washington Department of Health, Washington Department of Fish and Wildlife, U.S. Environmental Protection Agency, and, if stormwater projects are constructed in wetlands, the U.S. Army Corps of Engineers. Critical area ordinances of local governments developed under the Growth Management Act may apply, as well as municipal stormwater general permits and industrial and construction site stormwater permits.

When wetlands are created to mitigate for the loss of existing wetlands, they are also regulated as waters of the state. Because a stormwater discharge is likely to overwhelm the capability of a mitigation wetland to withstand changes in hydroperiod, process the nutrient load, and absorb toxic substances, it is not likely that treatment would occur. Further, it is also very unlikely that the objective of stormwater treatment could be consistent with the goal of replacing a natural ecosystem. Thus, mitigation wetlands are not appropriate components of a stormwater treatment system.

The Department of Ecology has published the "Stormwater Management Manual for the Puget Sound Basin" (Manual), that describes many different best management practices intended to prevent or reduce stormwater pollution. Although written for the Puget Sound region, many of the techniques and methods described in the Manual are applicable statewide. The Manual covers best management practices for all waters, but it does have specific information on wetlands. For example, Chapter III-5 (Natural Wetlands and Stormwater Management) provides the guidelines developed by the Puget Sound Wetlands and Stormwater Research Project for managing stormwater in natural wetlands. Another pertinent chapter is that on hydrologic analysis, Chapter III-1.

In the Surface Water Quality Standards, the Manual is included in the definition of AKART (all known, available, and reasonable methods of prevention, control, and treatment) as an appropriate means of developing best management practices. This means that using the manual is one way of demonstrating that one is meeting the water quality requirements.

AR 007962

What Type of Wetland Will Be Affected?

To fully evaluate the potential impact of a project, it is necessary to have an understanding of the wetland that will be affected. Perhaps the most commonly used classification system is the Cowardin system. The Cowardin system is hierarchical, placing wetlands in Systems, Subsystems and Classes, and thus provides several levels of detail in classifying wetlands. Ecology has developed another classification system, the *Washington State Wetlands Rating System*, with versions available for eastern and western Washington. The rating system is used in part to determine what level of protection is necessary for a particular wetland. These are just two examples of the kinds of systems available for describing biological, morphological, and habitat information on wetlands. The reviewer can then use this information to assess the significance of the impact of the proposal.

This section represents only a brief example of what can affect a wetland. More information on what affects a wetland can be found in Section 2, Beneficial Uses. More information on the kinds of wetland assessment methodologies available can be found below in Step 3. As with other aspects of the antidegradation decision process, decisions on what constitutes an effect on the wetland will need to be determined by Ecology on a case-by-case basis.

Step 2: Are There Reasonable Alternatives that Avoid or Reduce Wetland Impacts?

Alternatives Analysis

Determining if reasonable alternatives exist involves understanding a process known as the “practicable alternatives analysis” under the federal Clean Water Act. Before issuing a 404 permit, the Corps of Engineers conducts an analysis of alternatives using the “404(b)(1) guidelines”. These guidelines were developed by EPA for use by the Corps of Engineers in determining the suitability of a fill project (40 CFR Part 230). The guidelines provide for the identification of adverse impacts to wetlands and discourage avoidable fills in wetlands: “no discharge of dredged or fill material shall be permitted if there is a practicable alternative to proposed discharge which would have less adverse impacts on the aquatic ecosystem.” If the fill can be avoided or placed somewhere else and the same purpose be achieved, the permit must be denied. If the project is not water dependent, it is presumed that other practicable alternatives exist unless proven otherwise; if water dependent, impacts are to be minimized to the greatest extent possible (40 CFR 230.10(a)(3)). Analysis of alternatives must include cost, logistics, and technology. If no practicable alternatives exist, impacts must be minimized, and mitigation requirements are usually incorporated into the permit.

What Is the Definition of “Reasonable”?

The state Water Pollution Control Act, and the state surface water quality standards, both use the term “reasonable” as a measure of compliance (RCW 90.48.010, WAC 173-201A-020).

“Reasonable” is not defined in Chapter 90.48 RCW or Chapter 173-201A WAC. *Webster’s Dictionary* defines reasonable as:

1. Capable of reasoning: rational.
2. Governed by or in accordance with reason or sound thinking.
3. Within the bounds of common sense.
4. Not extreme or excessive: fair.

The term “practicable” is not defined in state regulations, but is defined in federal regulations as “available and capable of being done after taking into consideration cost, existing technology and logistics in light of overall project purposes” (40 CFR §230.3(q)). Practicable is often used to

The question of practicability or reasonability is an essential factor in the review of a project. It is a necessary question to consider in order for Ecology to make the determination that all “reasonable” means have been taken to prevent pollution.

How Does Ecology Decide If an Alternative Is Reasonable?

The question of whether a project is reasonable is a key element of the antidegradation compliance test. This is a measure of whether all reasonable methods have been employed to prevent and control pollution of a wetland. Alternatives that avoid wetland impacts should be considered early in the project plan development. Early consultation with Ecology staff is encouraged to discuss potential for compliance with water quality requirements.

A key element in the determination of reasonableness is whether or not the activity is water dependent. Water dependent means a use or a portion of a use which requires direct contact with the water and cannot exist at an upland location due to the basic project purpose. For example, someone proposing a lakeside restaurant may argue their project needs to be located adjacent to a particular lake. The “basic purpose” of the project, generally seen as the generic function of activity, is food service. It need not be located in or adjacent to a lake or wetland. For activities that are not water dependent, the pursuit of alternatives that avoid adverse wetland impacts must be more substantial.

The determination of water dependency must be made on a case-by-case basis. It may be that certain portions of a large project will be water dependent. Such a determination would not make the entire project water dependent. Examples of activities that may be considered water dependent under certain circumstances include aquatic plant management actions, construction of bridge abutments through a wetland, and construction of a boardwalk through a wetland for educational purposes.

Reasonableness of alternatives must be defined in the context of the specific activity proposed. Due to the large variety in the types of projects that can affect wetland water quality, it is difficult to establish specific criteria for an analysis of alternatives. The burden of proof is on the applicant to show that no reasonable alternative exists that will not adversely impact wetlands. Ecology staff reviewing projects will need to employ some element of best professional judgement based on knowledge of the types of projects, associated technological constraints, cost considerations,

and the local availability of alternative sites. For complex projects, staff may need to rely on special consultants to help determine the viability of certain alternatives.

The following list is an example of the kinds of questions asked in an evaluation of reasonableness. At a minimum, Ecology should require a report that addresses alternatives. The applicant's report should state the project purpose, determine the water dependency of the activity, list alternatives considered, evaluate the alternatives based on costs, logistics, and technology, and justify the selected option. The report should be substantial enough to show that if the selected alternative will impact a wetland, no reasonable alternative exists that would avoid wetlands or otherwise cause significant harm to the environment. If the project proponent is not able to provide sufficient information, the application for the permit may be denied.

Table 6 Information Needed for Evaluation of Reasonableness

- I. Detailed outline of the background of the project
 - A. Describe the purpose and need for the project.
 - B. Explain why the project is water dependent (i.e., must be located in or adjacent to wetlands.)
 - II. Alternatives
 - A. How could the project be redesigned to fit the site without affecting wetlands?
 - B. What other sites were considered?
 - 1. What geographical area was searched for alternative sites?
 - 2. How did you determine whether other nonwetland sites were available for development in the area?
 - C. What are the consequences of not building the project?
 - III. Comparison of alternatives
 - A. How do the costs compare for the alternatives considered in II above?
 - B. Are there logistical (location, access, transportation, etc.) reasons that limit the alternatives considered?
 - C. Are there technical limitations for the alternatives considered?
 - D. Are there other reasons certain alternatives are not feasible?
 - IV. If you have not chosen an alternative which would avoid wetland impacts, explain:
 - A. Why was your alternative selected?
 - B. What do you plan to do to minimize the adverse effects on the wetlands?
-

It is important to remember that the evaluation of reasonableness includes the evaluation of costs, logistics and technology. Therefore, even if an upland site is available, other factors may make the alternative not reasonable. A wide array of arguments can be expected and applicants are encouraged to put forth all viable explanations and issues surrounding the practicability of various

alternatives. Ecology staff who review projects may need to suggest certain alternatives for consideration based on staff knowledge of a particular area.

Step 3: Considering Several Factors, Will the Project Degrade or Destroy Wetland Beneficial Uses or Have Other Significant Adverse Environmental Consequences?

What Factors Need To Be Reviewed?

There are several factors that should be considered in making the determination concerning the significance of wetland impacts. In addition to evaluating reasonable alternatives to the proposal that will avoid and/or minimize impacts to the wetland, consider:

- possible violations of other water quality standards (e.g., toxic substances and human health criteria)
- cumulative and secondary impacts
- downstream impacts
- adverse impacts to the beneficial uses of a wetland

Even if a project must be located in or adjacent to a wetland, there may be available alternatives to avoid the impacts. Reconfiguration of the project, erosion control measures, slope restrictions, or other appropriate BMPs may be required in order for Ecology to conclude that the activity will not degrade or destroy the beneficial uses of the wetland.

What Are the Beneficial Uses of Wetlands?

Wetland “functions” and “values” are almost synonymous with beneficial uses. These terms are used almost universally when discussing wetland processes and wetland regulation. Wetland functions are the physical, chemical, and biological processes that occur in a wetland, or under the direct influence of a wetland. They include hydrologic functions such as the conveyance or storage of flood water, chemical functions such as biogeochemical cycling, and biological functions such as primary and secondary productivity. Many of the functions performed by wetlands result in direct or indirect benefits and services to society. These benefits and services have been called wetland values. Perceived values arise out of the ecological processes wetlands perform, but they are determined also by the location of a particular wetland, the human population pressures on it, and the extent of the wetland resource. Section 2 provides detailed information on the beneficial uses of wetlands and clarification of terms; this section presents a brief discussion of beneficial uses.

Temporary water storage illustrates the distinction between wetland functions and values. By itself, temporary water storage is a function - a physical process that occurs in a wetland. This process becomes important because of the value to society which results from it. Flood water

attenuation and groundwater recharge are extremely important values provided by the wetland as a result of the water storage function.

Another function is the process of trapping suspended material in a wetland; the water quality improvement which results from that process is the value provided to society. Simply put, wetland functions and values are equivalent to the beneficial uses of a wetland, and are to be provided protection under the water quality standards. With wetlands, as with other surface waters, it is necessary to understand the processes and the resultant benefits to ensure effective protection of the beneficial uses through using the water quality standards.

Using the water quality standards for wetland protection requires that beneficial uses be identified in order to be protected. The protective umbrella of the water quality standards is not limited to only those uses listed; all existing beneficial uses are protected, whether or not they are listed in the water quality standards. Seven beneficial uses are described below; uses one through four are examples of beneficial uses protected under the standards that are not specifically listed in the standards.

1. Storm/flood water storage and retention and moderation of water level fluctuation extremes

Peak flows from groundwater and surface water can be detained as they travel down slope and through wetlands. When several wetland basins perform this function within a watershed, they can individually release water gradually, causing a staggered or moderated discharge that reduces flood peaks. Studies show that flood flows are significantly lower in basins with substantial lake and wetland area than in basins with no lake or wetland area. This function provides a direct benefit to the public by reducing the need for structural flood controls such as dikes and levees and by reducing costly flood damage.

2. Hydrologic functions including maintenance of dry season stream flow, the discharge of groundwater to a wetland, the recharge of groundwater from a wetland, and the flow of surface water through a wetland

Groundwater recharge is the process by which surface water moves into the groundwater system. Recharge usually occurs in the higher portion of the watershed, and some wetlands can provide a valuable service of replenishing groundwater supplies. Groundwater discharge, which more commonly occurs in wetlands in Washington, can be important for stabilizing stream flows, especially during dry months. This results in an enhancement of the fish and aquatic life communities in the downstream areas.

3. Filtration and storage of sediments, nutrients, or toxic substances that would otherwise adversely impact the quality of other waters of the state

Wetlands can store or filter nutrients, such as phosphorus and nitrogen, which would otherwise flow into other groundwater or surface waters. Wetlands can store the nutrients on a short term basis within wetland plant tissue or on a longer term basis in substrates. The short term storage of nutrients is beneficial because downstream waters may be highly sensitive to nutrients at the time of year that the wetland is storing them. Also, wetlands can transform nitrogen to its gaseous state (denitrification), thereby removing it from the aquatic environment. Sediment storage often occurs in wetlands because of their low slope and flow characteristics (water retention capacity). Many toxic substances can also be stored or transformed to a less toxic state within wetland sediments.

Although a very important function of wetlands, the use of wetlands to filter or store sediments or nutrients for an extended period of time will result in changes to the wetland. Sediments will eventually fill in wetlands and nutrients will eventually modify the vegetation by changing the species composition. Such changes may result in the loss of this beneficial use over time.

Conditions that allow a wetland to perform filtration and storage can also be conditions that allow for serious impact to the wetland. For example, a riverine wetland that is downslope from a field of row crops is likely to provide a significant water quality function as the wetland slows runoff waters and allows settling and uptake of nutrients before the materials reach the stream portion of the surface water system. However, too much runoff can change the plant community and excess nutrients can affect the productivity of the system.

Evaluating the impacts to a wetland requires considering when the beneficial use is used to the point of exploitation that adversely affects the wetland.

4. Shoreline protection against erosion through the dissipation of wave energy and water velocity and anchoring of sediments

Wetland vegetation can hold soil particles and reduce wave energy. Benefits include the protection of habitat, buildings, other structures, and land that may otherwise be lost to erosion. Also, a wetland which reduces erosion also reduces sedimentation to other nearby waterbodies. If the water is a navigational channel, the reduction in sedimentation can reduce the frequency of channel dredging.

5. Habitat for aquatic organisms

Wetlands provide food and habitat for a variety of biota which in turn support fish and other organisms. Benefits include providing support for valuable fish species important for both the sport and commercial fishing industries. For example, coho salmon use wetlands in the first and second years of their life cycle.

AR 007968

1 dissolved gas shall not exceed 110 percent of saturation at any point of sample collection.”

AR 007969

Temperature: "Temperature - no measurable change from natural conditions."

pH: "pH - no measurable change from natural conditions."

Turbidity: "Turbidity shall not exceed 5 NTU over background conditions."

Toxic substances: "Toxic, radioactive, or deleterious material concentrations shall be below those which have the potential either singly or cumulatively to adversely affect characteristic water uses, cause acute or chronic conditions to the most sensitive biota dependent upon those waters, or adversely affect public health (see WAC 173-203-040 and 050)."

Aesthetics: "Aesthetic values shall not be impaired by the presence of materials or their effects, excluding those of natural origin, which offend the senses of sight, smell, touch, or taste."

Narrative criteria make the most sense for wetlands because the conditions in wetlands are too variable to be able to apply a single numeric criterion. Narrative criteria are general statements designed to protect a specific designated use or set of uses. Washington's water quality standards apply narrative criteria to all beneficial uses for all water classes. EPA's Water Quality Regulations (40 CFR §131) states that "States should...include narrative criteria in their standards where numeric criteria cannot be established or to supplement numeric criteria."

Washington's antidegradation policy (WAC 173-201A-070) provides two standards that are essential to protecting wetlands:

- 1) "Existing beneficial uses shall be maintained and protected and no further degradation which would interfere with or become injurious to existing beneficial uses shall be allowed."
- 2) "Whenever the natural conditions of said waters are of a lower quality than the criteria assigned, the natural conditions shall constitute the water quality criteria."

These statements in the antidegradation policy indicate how we use the water quality standards to protect wetland beneficial uses when the numeric criteria in the standards do not always apply to wetlands. For example, pH in a wetland may naturally occur at lower values than the Class A criterion of 6.5 to 8.5. We need to protect the pH that is necessary to support beneficial uses of the wetland, e.g., low pH for a bog, neutral pH for an emergent marsh; the naturally occurring pH constitutes the water quality criteria.

There are people who believe that "natural" conditions no longer exist so it is unrealistic to use it as a standard. However, the term is used in this context to identify conditions other than the standard that are normal. These waters are not being held to a higher standard, rather they are being maintained at existing levels, as long as the existing conditions are sufficient to maintain beneficial uses. The language (in WAC 173-201A-070(2)) does not mean that if the existing conditions were degraded from human-caused impacts, then the existing conditions would

become the standard. If this were true, a wetland, no matter what its present condition or what was being done to it, would always be in compliance with the water quality standards. Instead, existing beneficial uses must be maintained and protected.

Overall, the antidegradation policy is the best existing approach we have in the standards for protecting water quality in wetlands. However, it is important to consider whether the Class AA, A, and Lake criteria are appropriate, and to use them if they are. Ultimately, our goal is to develop specific numeric criteria for wetlands, but we can protect water quality using our current standards.

What Techniques Are Available and Acceptable for Evaluating Wetland Beneficial Uses and the Project Impacts?

In order to determine if the requirements of the antidegradation policy are being met, existing beneficial uses must be identified, and the impact of the project upon them must be assessed. There are several wetland evaluation methods that would identify wetland beneficial uses that characterize the types of functions performed by wetlands. Some of these methods generalize the extent to which these functions are performed. They range from simple rapid assessments to more sophisticated computer driven models. The various functional assessment methods currently available all have drawbacks and cannot be heavily relied upon to base regulatory decisions. Some of these methods can provide useful information to assist in making a regulatory decision but we are still left with applying "best professional judgment" in determining wetland functional performance.

We currently do not have a quantitative method for determining wetland function or value that is scientifically valid and applicable in a regulatory setting. What is needed is a rapid method of quantifying wetland functional performance that is scientifically supported. To address this concern, Ecology, with funding from an EPA grant, is coordinating the development of a quantitative function assessment method for Washington state over the next two years. It is our intent that the Wetland Function Assessment Project will result in methods useful in making regulatory decisions and establishing mitigation banking credits and debits.

The following is a list of some wetland evaluation methods available. Please note that this list is not comprehensive, and any method that addresses all relevant wetland beneficial uses and is appropriate for the scope of the proposed project can be employed.¹ Methods include:

- Habitat Evaluation Procedures (HEP) - HEP is designed to provide a "habitat suitability index" for a particular species of wildlife for a particular wetland. A number of species indices can be pooled for a wetland. Wetlands can be compared using the HEP. For the species that it covers, HEP addresses most of the essential structural indicators of habitat suitability. However, for some applications, a sufficient number of published habitat

¹ Other methods, such as Reppert and the Wetland Characterization Method are not accepted by Ecology. The Wetland Characterization Method was developed by Ecology for use with inventory-level planning efforts and is not appropriate for assessing functions for regulatory decisions on a specific site. The original Reppert method contains serious flaws that make it ineffective - however, more recent revised "Repperts" may provide useful information in estimating wetland functional performance.

suitability models may not be available to allow analysis, or they are not appropriate for conditions in Washington State. In these cases, it is best to choose another method for evaluating the beneficial use of wildlife habitat.

- Wetland Evaluation Technique (WET) - WET, developed by Paul Adamus et al., is perhaps the most well known assessment method. WET evaluates wetland beneficial uses based on the wetland's opportunity to fulfill a certain function; the effectiveness of the wetland to fulfill a given function based on its physical, chemical, and biological characteristics; and the social significance of the function. WET provides an assessment of several common wetland functions: groundwater recharge, groundwater discharge, flood flow alteration, sediment stabilization, sediment/toxicant removal, nutrient removal/transformation, production export, aquatic diversity/abundance, and wildlife diversity/abundance. Perhaps the most significant limitation of WET is that after wetlands are scored with a fairly elaborate process, the wetland is placed in one of three categories: high, moderate, or low. This limited sensitivity may result in several quite different wetlands being in the same category, making it difficult to differentiate wetlands that need to be compared to assess the project.
- The *Washington State Wetlands Rating System*; for *Eastern Washington* and *Western Washington* - The rating system was developed by the Department of Ecology to rate wetlands based on wetland functions and values, sensitivity to disturbance, rarity, and irreplaceability. The rating system only approximates certain wetland functions and values - it does not even attempt to measure them. The rating system was designed to be used with local development regulations to ascertain appropriate protective measures for a particular wetland. Thus, the rating system is not useful in evaluating the adequacy of a particular mitigation plan, but is helpful in determining the appropriate buffers for a site and in establishing mitigation parameters such as sequencing and replacement ratios.
- Indicator Value Assessment (IVA) - Ecology is also developing this assessment technique. IVA is a semi-quantitative assessment of value for individual wetlands within a specific region or watershed for a particular function. The estimate of relative value is based on the assumption that wetlands that have specific wetland indicators are more valuable than those that do not have those indicators. Indicators are the environmental variables that are characteristic of wetland functions. IVA can be tailored to any particular region or watershed and is designed to fit local priorities.
- Oregon Method - Oregon has developed a method based on a modified New Hampshire method. The Oregon method has a much greater likelihood of being usable in Washington, due to similarities in climate and geomorphology.
- Wetland and Buffer Functions Semi-Quantitative Assessment Methodology - This provides a quick method for identifying and quantifying potential wetland functions. It has been modified to be more applicable to Northwest wetlands, and will be revised periodically in response to field tests.

AR 007972

In addition to using one of the above methods, applicants are encouraged to provide site specific information on wetland characteristics such as location in the watershed, inlet/outlet character, basin storage capacity, vegetation type, species abundance and distribution, interspersion, structural diversity, etc. to assist in making an individual assessment of wetland function.

What Are Secondary and Cumulative Impacts?

It is often difficult to differentiate between primary and secondary effects of a project. Project review should consider both direct and indirect impacts from a project. Activities that are near, but not directly in wetlands may have very significant secondary impacts. Impacts to one wetland or portion of a wetland may have far reaching effects on other wetlands and surface waters. Secondary impacts may also occur over time. For example, filling a very small wetland area may allow for future building activities which will lead to increased erosion and sedimentation of other wetlands nearby. In such a scenario, the actual impacts of the immediate action were minor, but the secondary impacts in the future may be significant.

Federal regulations (40 CFR §1508.7) define cumulative impact as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions regardless of what agency...or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

Consideration of cumulative impacts requires evaluating the impacts of the current project in relation to past or reasonably anticipated future actions. Evaluation of cumulative effects can include those impacts expected from repeated actions of the same type, or related actions or other activities occurring locally that can be reasonably anticipated to compound impacts.

The state Water Pollution Control Act, Chapter 90.48 RCW, clearly states that the potential for an activity to cause pollution is within Ecology's jurisdiction to regulate. RCW 90.48.020, in the definition of pollution, includes the phrase:

“...any alteration of the physical, chemical, or biological properties, of any water of the state, ... as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare...” (emphasis added).

RCW 90.48.080, Discharge of Polluting Matter Prohibited, states:

“It shall be unlawful for any person to throw, drain, run, or otherwise discharge into any waters of this state, or to cause, permit or suffer to be thrown, run, drained, allowed to seep or otherwise discharged into such waters any organic or inorganic matter that shall cause or tend to cause pollution of such waters according to the determination of the department...” (emphasis added).

These statements indicate the need for Ecology to evaluate a project's potential to degrade or destroy wetlands, immediately or over time.

Again, the evaluator must consider the ramifications of the action beyond the immediate scope of the proposed project. A very minor fill may set precedent for other minor fills in an area, thereby eventually causing the destruction of scarce habitat in an urbanizing setting.

What Is Meant by “Other Significant Adverse Environmental Consequences?”

Reviewers need to consider other significant adverse environmental consequences to balance concerns about other aspects of the environment with wetland concerns. For some projects, the overall environmental good of a project or the potential for adverse impacts to other important natural resources may outweigh any adverse impacts to the wetland. Such a determination is made only in very special cases, however. An example would be a hazardous waste clean-up site where the only alternative for preventing human health impacts and/or further damage to the ecosystem may require significant adverse impacts to a wetland.

Step 4: Is Compensatory Mitigation Appropriate?

Mitigation must be used in some form or another to make the antidegradation policy work. As explained earlier, mitigation can be thought of as any action taken to eliminate or reduce an impact to the environment. Specifically, wetland mitigation is usually defined in terms of a series of steps which should be taken in sequential order. They are:

1. Avoiding adverse impacts (usually by either not doing the project, revising the project, or finding another site);
2. Minimizing adverse impacts by limiting the degree of impact or changing the location of a project's footprint within the site;
3. Rectifying adverse impacts by restoring the affected environment;
4. Reducing the adverse impacts by preservation and maintenance operations over the life of the project;
5. Compensating for adverse impacts by replacing or providing substitute resources or environments; and
6. Monitoring the impacts and taking appropriate corrective measures.

Following this process is referred to as “sequencing”. Most people equate wetland mitigation with step 5, and this has led to the use of the term “compensatory mitigation” to distinguish this type of mitigation from the broader definition. In most cases, Ecology requires that an applicant demonstrate that they have followed this sequence in developing their project before permit approval is granted. However, Ecology has taken the position that lower quality wetlands (Category 4 wetlands in our rating system) do not warrant the first step of avoiding the impact altogether. This is based on our assumption that these types of wetlands can be successfully replaced. With other wetlands, particularly higher quality wetlands, we are usually stringent in requiring that applicants demonstrate that they have followed the sequence.

AR 007974

Beginning with avoidance, the intent of any mitigation requirement is to prevent the loss of wetland beneficial uses. The mitigation process allows Ecology to make decisions that consider the wetland resource on a system scale. Without this system perspective, it would be difficult, if not impossible, to allow any wetland impact and meet the requirements of the antidegradation policy to prevent any degradation of existing beneficial uses.

When adverse wetland impacts are truly “unavoidable” an applicant is required to develop a compensatory mitigation plan. This can include creation of a new wetland, restoration of a former wetland, enhancement of a degraded wetland or some combination of the three. In some instances, preservation of high quality wetlands and/or adjacent high quality uplands may be acceptable as part of an overall mitigation “package”.

Historically, creation of new wetlands in upland sites has been problematic, primarily due to the difficulty in establishing an adequate water regime to sustain wetland conditions. Thus, Ecology emphasizes restoration of former wetlands or enhancement of significantly degraded wetlands as the preferred methods of compensation. With these methods, establishing an adequate water regime is usually more certain.

The primary questions we ask in determining the adequacy of a compensatory mitigation method, location or plan are:

- What are the type and extent of functions being impacted by the project?
- How will the proposed mitigation replace these functions?
- Will the proposed mitigation be successful and sustainable?

Thus, the appropriate type of compensatory mitigation will depend on the individual circumstances of the project. It will also depend on the opportunities for mitigation in the area of the project since we usually require that the replacement wetland be located in the same drainage basin. It is difficult to replace hydrologic and fish habitat functions in a different drainage basin and impossible to replace them in a different watershed. However, the notion that compensatory mitigation must be “on-site” is now seldom required since adequate opportunities are seldom available on a given project site. In fact, we are increasingly directing applicants to look off their property in order to find sites which address the above primary questions.

Another historically required provision of compensatory mitigation was that it must be “in-kind”, usually meaning that the replacement wetland must be the same type of wetland as the one being impacted (e.g., cattail marsh for a cattail marsh). This is still often a requirement since it is difficult to replace lost functions with a different type of wetland. However, Ecology makes an individual assessment in each case and has occasionally decided to accept, or even encourage, out-of-kind replacement. This is usually due to one or more of several factors. Sometimes the wetland being impacted is of low value or an undesirable type such as a reed-canarygrass dominated depression. In other cases there may not be adequate opportunities to recreate or restore the same type of wetland in the area and there may be an excellent opportunity to create a different, usually higher-value wetland in the area. In other cases, a different type of resource restoration makes more ecological sense in a particular situation. For example, we have allowed

the restoration of stream and riparian corridors in exchange for a minimal loss of wetlands in areas where stream resources have been significantly degraded, particularly in eastern Washington.

Another mitigation concept is the use of replacement ratios. A replacement ratio is the amount of wetland area created, restored or enhanced in relation to the amount of wetland area impacted. For example, historically a replacement ratio of 1:1 was common. This means for every acre of wetland impacted an acre of wetland would be created. In recent years the ratio has increased and seldom is a 1:1 ratio acceptable to any regulatory agency. This increase is due primarily to two factors: 1) the likelihood of success of the compensatory mitigation and 2) the length of time it takes to successfully create or restore a wetland.

Since compensatory wetland mitigation has historically had varied success rates (different studies have determined that roughly half of the attempts to create wetlands have failed) and we are learning that it takes anywhere from several years to several decades to create a fully-functioning wetland, we have raised the replacement ratio as a means of equalizing the tradeoff. While the goal is always to replace the lost functions at a 1:1 ratio, it is almost always necessary to increase the replacement acreage in order to accomplish this. At present Ecology recommends replacement ratios based on the rating of the wetland and/or the type of wetland. For more information on replacement ratios and their scientific rationale, see *Wetland Mitigation Ratios: Defining Equivalency*, Ecology publication # 92-8.

The recommended ratios are listed in Table 5.

Table 5 Mitigation Replacement Ratios

		<u>Creation and Restoration</u>	<u>Enhancement*</u>
Category 1 wetland	(all types)	6:1	12:1
Category 2 or 3 wetland	Forested	3:1	6:1
	Scrub/shrub	2:1	4:1
	Emergent	2:1	4:1
Category 4 wetland	(all types)	1.25:1	2.5:1

* For wetland enhancement the ratios are doubled. Enhancement as compensation for wetland losses results in a net loss of wetland area and the net gain in wetland function from enhancement is usually less than from creation or restoration.

These ratios are general guidelines that are adjusted up or down based on the likelihood of success of the proposed mitigation and the expected length of time it will take to reach maturity. Good hydrologic information on the proposed mitigation site is necessary to establish a likelihood of success. In addition, the track record of the type of proposed compensatory mitigation is an important factor. If the person responsible for designing and constructing the compensatory mitigation can demonstrate that they or anyone else have successfully conducted a similar project, our confidence in the likely success is increased. Likewise, a lack of documentation that the type of mitigation proposed has been successful elsewhere may lead to even higher ratios.

AR 007976

There are many details that must be considered in the development of an acceptable mitigation plan. Ecology typically likes to work with the applicant in developing a conceptual plan prior to extensive work being done on a detailed plan. This can prevent unnecessary expenditures of time and money for all parties. Ecology, in conjunction with the Washington Department of Fish and Wildlife, EPA, the US Army Corps of Engineers, and the U.S. Fish and Wildlife Service, has developed mitigation guidelines entitled: *Guidelines for Developing Freshwater Wetlands Mitigation Plans and Proposals* (Publication #94-29). These guidelines detail what is expected in a mitigation plan and how Ecology will review proposed mitigation plans for projects.

Given the poor track record of compensatory mitigation, it is critical to have an adequate monitoring plan for a mitigation site. The standard length of time for monitoring a mitigation site has increased over the years as we have learned more about how slowly wetlands evolve. At present, five years is the minimum requirement and in many cases, especially where forested wetlands are being created or restored, a much longer time is required. Increasingly, invasion of a created or restored wetland with aggressive, non-native plant species is a major concern. It is essential that the mitigation plan take into account the potential for invasion and include monitoring and maintenance provisions to ensure success.

Mitigation banking is a concept that is receiving increasing attention and support. The general idea is to create or restore a large wetland area and use the "credit" to compensate for wetland impacts that occur elsewhere. If conducted appropriately this approach can be beneficial to applicants and the environment. Applicants benefit by not having to take on a risky, open-ended mitigation project and the environment benefits by having a functioning replacement wetland in place before the impact occurs. At present, federal and state agencies are working to develop consistent guidelines on mitigation banking to facilitate the development and use of private banks. The Department of Transportation has a signed agreement with federal and state regulatory agencies on how to establish and operate a bank for its own use, but has yet to initiate development of a banking site.

Documenting Decisions Under the Water Quality Standards

How Are Water Quality Standards Antidegradation Decisions Handled?

After the project review has been completed, a determination will be made that compliance with the surface water quality standards has or has not been achieved. Depending on the program requirements, such determination may be included as permit approval, findings of fact and conclusion of law, administrative orders or directives, or permit conditions of compliance. The decision should state that the project has been reviewed in accordance with Chapter 173-201A WAC, Water Quality Standards for Surface Waters of the State of Washington.

Given that the project affects wetlands, any formal finding of fact, as well as supporting field investigation information should address:

- water dependency
- reasonable alternatives
- analysis of whether the activity will or will not result in the degradation or loss of wetland beneficial uses, water quality, or other significant environmental consequences.

- adequacy of proposed mitigation

The antidegradation policy includes consideration of public participation and intergovernmental coordination in determining that “overriding consideration of the public interest will be served” in cases where a reduction in water quality will be allowed. If this portion of the standards is used for compliance, the reviewer needs to document how this requirement was satisfied. The primary means of accomplishing this is through SEPA review.

What Appeal Rights Are Available to Applicants?

The appeals process for water quality standards decisions made concerning wetlands are the same as for all regulatory determinations made under the water quality standards. Appeal rights and procedures are defined in RCW 43.21.B.

Conclusion

This section has outlined the questions and considerations necessary to evaluate the impact of a proposed project to wetlands. Although avoiding, minimizing, and mitigating impacts to wetlands is challenging, the resulting environmental protection will benefit the citizens of Washington state.

For More Information

For more information on **how to interpret these guidelines**, consult Perry Lund, Department of Ecology, P.O. Box 47775, Olympia, Washington, 98504-7775, (360) 407-7260.

For questions regarding **revisions to the water quality standards affecting wetlands**, contact Jaime Kooser, Department of Ecology, Northwest Regional Office, 3190 - 160th Avenue S.E., Bellevue, Washington, 98008-5452, (206) 649-4310.

For **specific wetland information**, contact the regional offices of the Washington Department of Ecology:

Central Regional Office
15 West Yakima Avenue, Suite 200
Yakima, Washington 98902-3401
(509) 575-2490

Eastern Regional Office
N. 4601 Monroe, Suite 100
Spokane, Washington 99203-1295
(509) 456-2926

Northwest Regional Office
3190 - 160th Avenue S.E.
Bellevue, Washington 98008-5452
(206) 649-7000

AR 007978

Southwest Regional Office
P.O. Box 47775
Olympia, Washington 98504-7775
(360) 407-6300

For questions regarding **wetland policy**, consult Andy McMillan, Department of Ecology, P.O. Box 47600, Olympia, Washington, 98504-7600, (360) 407-7272.

For more information on the **Wetland Function Assessment Project**, consult Teri Granger, Department of Ecology, P.O. Box 47600, Olympia, Washington 98504-7600, (360) 407-6547.

For **stormwater** information, contact Ed O'Brien, Department of Ecology, P.O. Box 47600, Olympia, Washington, 98504-7600, (360) 407-6438.

For information regarding **water reuse and wetlands**, contact Marty Walther, Department of Ecology, P.O. Box 47600, Olympia, Washington, 98504-7600, (360) 407-6515.

For **technical and scientific questions regarding wetlands**, contact Tom Hruby, Department of Ecology, P.O. Box 47600, Olympia, Washington, 98504-7600, (360) 407-7274.

References

- Adamus, P.R., E.J. Clairain, Jr., R.D. Smith, and R.E. Young. 1987. *Wetland Evaluation Technique (WET), Volume II: Methodology*. Operational Draft Technical Report. US Army Engineer Waterways Experiment Station, Vicksburg, MS.
- Ammann, A.P. and A.L. Stone. 1991. *Method for the Comparative Evaluation of Nontidal Wetlands in New Hampshire*. New Hampshire Department of Environmental Services, Concord, NH.
- Cooke, Sarah Spear. 1996. *Wetland and Buffer Functions Semi-Quantitative Assessment Methodology*. Cooke Scientific Services, Seattle, WA.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetland and Deepwater Habitats of the United States*. Report FWS/OBS-79-31, U.S. Fish and Wildlife Service, Washington, DC.
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, MS.
- Hruby, T., W.E. Cesanek, and K.E. Miller. 1995. *Estimating Relative Wetland Values for Regional Planning*. *Wetlands*, v.15, n.2, pp. 93-107.
- Roth, E.M., R.D. Olsen, P.L. Snow, and R.R. Sumner. 1993. *Oregon Freshwater Wetland Assessment Methodology*. ed. S.G. McCannell. Oregon Division of State Lands, Salem, OR.
- U.S. Fish and Wildlife Service. 1980. *Habitat Evaluation Procedures (HEP)*. Report ESM 102, Washington, DC.
- Washington State Department of Ecology. 1993. *Washington State Wetlands Rating System; Eastern Washington edition and Western Washington edition*. Publications #91-58 and #93-74. Olympia, WA.

AR 007980

Appendix A: Legal Considerations

This appendix describes the source of Ecology's authority to regulate water quality in wetlands. It is important to remember when discussing water quality issues that our authority comes from the state Water Pollution Control Act, as well as the federal Clean Water Act (CWA).

Water Pollution Control Act Policy Statement

The Department of Ecology's authority to regulate wetlands as waters of the state is presented in the state Water Pollution Control Act (Act), Chapter 90.48 RCW. The policy statement describes how broad the scope of the Act is:

90.48.010 Policy enunciated. It is declared to be the public policy of the state of Washington to maintain the highest possible standards to insure the purity of all waters of the state consistent with public health and public enjoyment thereof, the propagation and protection of wildlife, birds, game, fish and other aquatic life, and the industrial development of the state, and to that end require the use of all known available and reasonable methods by industries and others to prevent and control the pollution of the waters of the state of Washington. Consistent with this policy, the state of Washington will exercise its powers, as fully and effectively as possible, to retain and secure high quality for all waters of the state. The state of Washington in recognition of the federal government's interest in the quality of the navigable waters of the United States, of which certain portions thereof are within the jurisdictional limits of this state, proclaims a public policy of working cooperatively with the federal government in a joint effort to extinguish the sources of water quality degradation, while at the same time preserving and vigorously exercising state powers to insure that present and future standards of water quality within the state shall be determined by the citizenry, through and by the efforts of state government, of the state of Washington. (emphasis added)

The basic purpose of the Act, and Ecology's responsibility in promulgating it, is to prevent and control pollution of the waters of the state of Washington.

Definition of Pollution

90.48.020 Definitions. Whenever the word "pollution" is used in this chapter, it shall be construed to mean such contamination, or other alteration of the physical, chemical or biological properties, of any waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life. (emphasis added)

The state Legislature recognized that the effects of pollution extend well beyond chemical contamination of the water column. Pollution prevention is more than the regulation of effluent discharge if one also considers the effect of the alteration of physical and biological properties of a waterbody on the public and on plant and animal life.

Definition of “Waters of the State”

90.48.020 Definitions. Wherever the words “waters of the state” shall be used in this chapter, they shall be construed to include lakes, rivers, ponds, streams, inland waters, under ground waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington. (emphasis added)

While the word “wetlands” is not included specifically, this definition is intended to encompass any water, above ground or under ground, that is within the jurisdictional borders of this state. The terms “lakes, rivers, ponds, streams” cover most of the commonly recognized waterbody types. The definition includes the extremely broad category of “inland waters” as well as “underground waters”, extending the jurisdiction of the state to regulate water quality below the land surface. Including “salt waters” clarifies that Ecology's jurisdiction is not limited to inland waters or fresh waters. The phrase “and all other surface waters and watercourses within the jurisdiction of the state of Washington” encompasses wetlands.

It is important to note that a Superior Court decision in Thurston County, Washington ruled in favor of the Department of Ecology on the issue of wetlands as waters of the state. The Court ruled:

“Therefore, to the extent the wetlands regulated by DOE are either underground, or bodies of water bigger than puddles, this court concludes that these bodies of water are included within the definition of ‘waters of the state’ under Ch. 90.48.RCW. Since the definition of ‘waters of the state’ is stated in terms of ‘include,’ the terms used to define waters, should be given the broadest possible reading consistent with the language of the section. Under this reading, this Court concludes and holds that any body of water that is either underground, or salt water, or above ground and either flowing like a stream, or bigger than a puddle, is properly within the jurisdiction of the Department of Ecology to regulate pursuant to Ch. 90.48 RCW.” Building Industry Association of Washington, et al. v. State of Washington, et al., Thurston Co. 91-2-02895-5, p. 13-14 (1993).

Furthermore, wetlands are defined as waters of the United States (40 CFR §122.2). The requirement for states to adopt water quality standards which meet the goals of the federal CWA for all waters of the nation thus extends to wetlands.

The term “wetlands” is defined in the Clean Water Act regulations as:

“Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

AR 007982

This definition is used by Ecology when implementing programs related to the Clean Water Act, such as the water quality standards.

Ecology's Jurisdiction

90.48.030 Jurisdiction of the department. The department shall have the jurisdiction to control and prevent the pollution of streams, lakes, rivers, ponds, inland waters, salt waters, water courses, and other surface and underground waters of the state of Washington.

“Jurisdiction” is defined in *Webster's Dictionary* as, “the right or power to interpret and apply the law.” (emphasis added)

It is a function of Ecology to “control and prevent” pollution in all waters of the state. It is important to remember that pollution means any alteration of the physical, chemical, and biological properties of a water of the state where such action is likely to cause harm to the public or to the environment (90.48.020). This is very relevant to activities affecting wetlands, where changes to the physical structure (e.g., substrate alterations) and to biological communities (e.g., changes in plant species composition) can be more significant than changes to the chemical properties per se. It is also necessary to recognize that the inclusion in the definition of “pollution” the caveat that the alteration to a water of the state must cause (or potentially cause) harm allows for some alteration below this threshold. If this were not true, there would be no authority to allow such things as mixing zones or short-term modifications.

For wetlands, allowing some alteration of water quality allows for the use of mitigation as a method of “controlling pollution.” Activities are often allowed to occur because the impacts are not considered significant enough to harm the environment, at least in the long-term. The water quality standards protect wetlands as well as permitting some level of degradation where unavoidable or necessary.

Ecology's Rule-Making Authority

The Legislature clarified Ecology's authority to carry out Chapter 90.48 RCW, and to determine how this should be done:

90.48.035 Rule-making authority. The department shall have the authority to, and shall promulgate, amend, or rescind such rules and regulations as it shall deem necessary to carry out the provisions of this chapter, including but not limited to rules and regulations relating to standards of quality for waters of the state and for substances discharged therein in order to maintain the highest possible standards of all waters of the state in accordance with the public policy as declared in RCW 90.48.010.

The water quality standards are the rules, required by federal law (Section 303 of the federal Clean Water Act and 40 CFR Part 131 of the Federal Regulations) and authorized by the Legislature (90.48.035), used to implement the Clean Water Act. The Department has a responsibility to improve the standards regularly (triennial review requirement; 40 CFR 131.20) as we learn more about what water quality is and what we must do to protect it. Revisions to the

standards are made in accordance with the public process requirements of the Administrative Procedures Act (Chapter 34.05 RCW).

In addition to defining pollution, RCW 90.48.080 also describes exactly what is included in the act of polluting:

90.48.080 Discharge of polluting matter in waters prohibited. It shall be unlawful for any person to throw, drain, run, or otherwise discharge into any of the waters of this state, or to cause, permit or suffer to be thrown, run, drained, allowed to seep or otherwise discharged into such waters any organic or inorganic matter that shall cause or tend to cause pollution of such waters according to the determination of the department, as provided for in this chapter.

The Department of Ecology has the authority to regulate actions that cause or could cause alterations to a waterbody that could harm public health, safety or welfare or the environment (90.48.020).

Ecology Designated Agency for Federal Clean Water Act

How we carry out the requirements mandated by the federal Clean Water Act is important. The state water quality standards program is one of those requirements:

90.48.260 Federal clean water act -- Department designated as state agency, authority -- Powers, duties and functions. The department of ecology is hereby designated as the State Water Pollution Control Agency for all purposes of the federal clean water act as it exists on February 4, 1987, and is hereby authorized to participate fully in the programs of the act as well as to take all action necessary to secure the state the benefits and to meet the requirements of the act. With regard to the national estuary program established by section 320 of that act, the department shall exercise its responsibility jointly with the Puget Sound Water Quality Authority. The powers granted herein include, among others, and notwithstanding any other provisions of chapter 90.48 RCW or otherwise..." (emphasis added)

The objective of the federal Clean Water Act is to "restore and maintain" the chemical, physical, and biological integrity of the Nation's waters. This section declares that the Department of Ecology is to carry out the state's responsibilities under the federal Clean Water Act. States are required under Section 303 of the Act to adopt standards that "protect public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. "Serve the purposes of" (as defined in Sections 101(a)(2) and 303(c) means that water quality standards should, wherever attainable, provide water quality for the protection and propagation of fish, shellfish and wildlife and for recreation in and on the water and take into consideration their use and value of public water supplies, propagation of fish, shellfish, and wildlife, recreation in and on the water and agricultural, industrial, and other purposes including navigation." (40 CFR §131.2 Purpose)

AR 007984

Appendix B: Glossary

Best management practice (BMP) means physical, structural, and/or managerial practices that, when used singly or in combination, prevent or reduce pollution of water, and have been approved by Ecology.

Biofiltration means the process of reducing pollutant concentrations in water by filtering the polluted water through biological materials.

Bog means those wetlands that are acidic, peat forming, and whose primary water source is rainwater.

Breeding/Rearing means serving as mating or reproduction areas and/or nursery grounds.

Constructed wetlands means those wetlands intentionally constructed on sites that are not wetlands for the primary purpose of wastewater or stormwater treatment and managed as such. Constructed wetlands are normally considered as part of the collection and treatment system.

Created wetlands means those wetlands intentionally created from nonwetland sites to produce or replace natural wetland habitat.

Degraded (disturbed) wetland (community) means a wetland (community) in which the vegetation, soils, and/or hydrology have been adversely altered, resulting in lost or reduced functions and values; generally, implies topographic isolation; hydrologic alterations such as hydroperiod alteration (increased or decreased quantity of water), diking, channelization, and/or outlet modification; soils alterations such as presence of fill, soil removal, and/or compaction; accumulation of toxicants in the biotic or abiotic components of the wetland; and/or low plant species richness with dominance by invasive weedy species.

Diversity means the number of species in a community, and their relative abundances, per unit area or volume.

Drainage ditch means that portion of a designed and constructed conveyance system that serves the purpose of transporting surplus water; this may include natural watercourses or channels utilized by design, but does not include the area adjacent to the watercourse or channel.

Emergent plants means aquatic plants that are rooted in the sediment but whose leaves are at or above the water surface. These wetland plants often have high habitat value for wildlife and waterfowl, and can aid in pollutant uptake.

Emergent vegetation means dominated by erect, rooted, herbaceous angiosperms which may be temporarily to permanently flooded at the base but do not tolerate prolonged inundation of the entire plant.

Estuary means tidal wetland and deep-water habitats that are usually semi-enclosed by land but have open, partial, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from land.

Feeding/Foraging means providing habitat for collection or consumption of food, gravel, or other necessities for nutrition.

Fen means those wetlands that are generally acidic, peat forming, and whose primary water source is groundwater or surface water, except marl fens.

Forested vegetation means dominated by woody vegetation ≥ 6 m in height.

Groundwater exchange means the discharge and recharge of groundwater at a wetland. Discharge is inflow to a wetland from an aquifer, seeps or springs that increases the available supply of surface water. Recharge is outflow from a wetland downgradient to an aquifer or downstream to surface water for base flow maintenance. Exchange may include groundwater discharge in one season followed by recharge later in the year.

Hydric soil means soil that is wet long enough to periodically produce anaerobic conditions, thereby influencing the biota.

Hydrophyte means any plant growing in water or on a substrate that is at least periodically deficient in oxygen, during some part of the growing season, as a result of excessive water content.

Hydrodynamics means the dynamic energy, force, or motion of fluids as affected by the physical forces acting upon those fluids.

Hydroperiod means the seasonal occurrence of flooding and/or soil saturation; it encompasses depth, frequency, duration, and seasonal pattern of inundation.

Irrigation ditch means that portion of a designed and constructed conveyance system that serves the purpose of transporting irrigation water from its supply source to its place of use; this may include natural watercourses or channels utilized by design, but does not include the area adjacent to the watercourse or channel.

Marl fens means those wetlands that are alkaline or neutral pH as a result of buffering by calcium compounds in the soil.

Mitigation means, in the following order of preference:

- Avoiding the impact altogether by not taking a certain action or part of an action;
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
- Compensation for the impact by replacing, enhancing, or providing substitute resources or environments; and

AR 007986

- Monitoring the impact and taking appropriate corrective measures.

Mitigation for individual actions may include a combination of the above measures.

Nutrients means essential chemicals needed by plants or animals for growth. Excessive amounts of nutrients can lead to degradation of water quality and algal blooms. Some nutrients can be toxic at high concentrations.

Practicable alternative means an alternative that is available and capable of being carried out after taking into consideration cost, existing technology, and logistics in light of overall project purposes. It may include an area not owned by the applicant which could reasonably have been or be obtained, utilized, expanded, or managed in order to fulfil the basic purpose of the proposed activity.

Scour means to cut or carve out by grinding and carrying away sediment.

Shoreline stabilization means the anchoring of soil at the water's edge, or in shallow water, by fibrous plant root complexes; this may include long-term accretion of sediment or peat, along with shoreline progradation in such areas.

Shrub vegetation means dominated by woody vegetation less than 6 m in height.

Stormwater means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels or pipes into a defined surface water channel, or a constructed infiltration facility.

Stormwater attenuation means the process by which peak flows from precipitation and runoff velocities are slowed as a result of passing through a wetland.

Surface waters of the state includes lakes, rivers, ponds, streams, inland waters, saltwaters, wetlands and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Water dependent means a use or a portion of a use which requires direct contact with the water and cannot exist at an upland (nonwater) location due to the intrinsic nature of its operations.

Wetlands [Clean Water Act definition] means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Wetlands [Shoreline Management Act and Growth Management Act definition] means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including but not limited to irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities,

or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate the conversion of wetlands.

AR 007988

**E
X
H
I
B
I
T**

AR 007989

**DEPARTMENT OF ECOLOGY
Memorandum**

8/13/01

To: Tom Fitzsimmons, Director

From: Ray Hellwig, Director

Subject: Briefing Decision – for the Port of Seattle Sea-Tac International Airport Third Runway Proposals - *(Expanded Version for Tuesday Meeting)*

Following an extensive and thorough regulatory review and decision-making process, we have reached a recommendation to approve a 401 Water Quality Certification for the Port of Seattle's (Port) Third Runway and related project proposals. The Port has submitted plans that, together with what we believe are necessary 401 conditions, satisfy requirements pursuant to all pertinent environmental laws and regulations. The Port's Stormwater Management and Low-Flow Management Plans (SMP and LFMP), and Natural Resource Mitigation Plan (NRMP), together with our proposed conditions regarding construction Best Management Practices (BMPs), additional natural resource mitigation, and requirements for clean fill, give us reasonable assurance water quality and other aquatic resources will be protected.

Below is a summary of the Port's proposals; known and expected project impacts; permit requirements; agency environmental objectives; mitigation requirements; and major areas of concern surrounding the decision-making process/adequacy of the Port's proposals.

THE PORT'S PROPOSAL:

Implement selected projects from the Port of Seattle (POS) Sea-Tac International Airport (STIA) list of Master Plan improvements.

Specifically: Construct an 8,500 - foot (1.6 mile) parallel third runway west of existing runways at STIA. Construct two new Runway Safety Areas (RSAs) on the north end of existing runways; construct the South Aviation Support Area (SASA) for increased airport support and maintenance facilities.

LOCATION:

King County, City of SeaTac. The Green-Duwamish Watershed/Basin, Des Moines Creek, Miller Creek and Walker Creek sub-basins. City of Auburn, is the location for the Port's off-site wetland mitigation.

IMPACTS:

Implementation of the work involves development and/or redevelopment of approximately 700 acres in uplands (outside of U.S. Army Corps of Engineers [ACOE]

jurisdiction). Fill in wetlands includes 8.17 acres of forested, 1.08 acres of scrub-shrub and 7.22 acres of emergent wetlands.

The proposed work also requires filling and reconstruction of approximately 980 linear feet of Miller Creek, 1,290 linear feet of drainage channels in Miller Creek sub-basin, and 100 linear feet of drainage channel in the Des Moines Creek sub-basin.

In addition to the permanent wetland impacts totaling 18.7 acres, up to 2.05 acres of wetlands would be subjected to temporary impacts. Temporary impacts would result from construction of stormwater facilities (sediment fencing, conveyance channels, and sedimentation ponds) to protect down-slope water quality.

Note: The embankment will require more than 20 million cubic yards of material – To get a sense of what this would look like, one might first imagine two football fields side-by-side, with material piled up 300 feet high – this would equal about 1 million cubic yards. Next step, imagine 20 of these side-by-side football fields stacked with 300 feet of material, all lined up in a row. The amount of fill makes this project unprecedented.

PERMIT REQUIREMENTS / ENVIRONMENTAL OBJECTIVES:

Permits: Federal Clean Water Act Section 401 Water Quality Certification, then ACOE Section 404 permit; Coastal Zone Management Program consistency determination.

Environmental Objectives: Since 1998, Ecology's objectives have been clearly and consistently articulating to the Port, and to the organized runway opposition groups.

- Ensure the Port's project will meet requirements of all applicable aquatic resource laws and regulations
- Fulfill agency responsibility to protect, maintain, and mitigate for impacts to water quality, water quantity, hydrology, food-chain support functions, and aesthetics of the Miller, Walker, and Des Moines Creek sub-basins in and around STIA – from impacts associated with the third runway and associated projects
- Recognize that agency responsibilities are linked to ensure the protection of all beneficial uses in receiving waters including water quality, water quantity and fish
- Achieve agency objectives by requiring appropriate wetland, floodplain, stream and riparian mitigation, as well as all necessary water quality, stormwater treatment and detention management practices
- Ensure wetlands are replaced on a one-to-one basis "on-site" to ensure compensation for lost infiltration, water quality and wetland functions (off-site in-basin mitigation shall be required on at least a 2-1 basis)
- The success of required mitigation will be dependent upon appropriate stormwater detention measures in some instances

An overriding objective has been to ensure that project impacts are minimized or avoided. Where they are unavoidable, the objective is to make sure they are fully mitigated, and if possible, have necessary mitigation result in a net benefit to the environment.

The agency's ultimate goal has been a decision that is scientifically sound, technically feasible and legally defensible.

PRIMARY MITIGATION REQUIREMENTS – WHAT THE PORT IS PROPOSING:

Stormwater: The Port is proposing to construct 15 major stormwater pond and vault facilities and several temporary ones. The largest vault, built at the southern end of the runway embankment, would detain up to 88 acre-feet of stormwater. Several ponds will hold as much as 20 to 40 acre-feet of stormwater.

Stormwater will be detained to manage peak-flows and to ensure water adequate to mitigate impacts to low-flows (create capacity to mimic the natural hydrologic cycle). Total stormwater management related detention requirements = 390.1 AF

Total detention for peak-flow management = 344.1 AF

Total detention for low-flow management = 46.0 AF

Note: The amount of stormwater to be detained is substantial. The 88 AF vault may be the biggest underground facility of its kind in the country – it is equal to as many as 30 King County/Weyerhaeuser Aquatic Center Pools (the World Class Olympic sized pool located in Federal Way).

Wetlands/Aquatic Resource/Habitat Mitigation and Restoration: The Port is proposing a total of 201.14 acres of mitigation (wetland restoration/enhancement and buffer enhancement) – 84.87 for which they expect mitigation credit.

On-site mitigation = 67.01, POS expects credit for 20.97

Off-site mitigation in-basin = 134.39, POS expects credit for 63.9

The Port has put a lot of mitigation on the table – the on-site and off-site wetland mitigation ties back to stated agency the environmental objectives. The Port had argued that the FAA rules would not allow mitigation within 10,000 feet of the runway due to the Bird Air-strike Hazard (BASH). On-site mitigation previously imposed at Paine Field led us to believe there was flexibility in the FAA rules.

About a year and a half ago, we organized a meeting with the Port and FAA, where agreement in principle was reached for a MOA to allow on-site mitigation under some circumstances. This resulted in the development of a Wildlife Hazard Management Plan that accompanies the Port's NRMP – the plan allows for quality wetland mitigation on-site and accounts for the need to manage the BASH concern.

Regarding off-site in-basin mitigation. Relatively new state law encourages off-site/in-basin mitigation for major infrastructure projects. The 134 acres of out of basin mitigation in Auburn is within the same basin – WRIA 9.

Other Mitigation/Restrictions:

- Removal of existing development (including removal residential stream bank bulkheads, septic tanks, underground storage tanks, ornamental vegetation, invasive species, and water uses)

- Creation of buffers along Miller Creek – 6,500 linear feet will be vegetated with native woody vegetation
- Restoration of in-stream habitat at four locations in the Miller Creek channel
- Installation of large woody debris along approximately 6,500 linear feet of Miller Creek channel
- Imposition of restrictive covenants

The Port has had concerns with the covenants in so much as they restrict potential future commercial development. But the covenants will help us manage the cumulative impacts issues associated with future Master Plan improvements, DOT projects etc. i.e., provide certainty that mitigation for future projects, if they happen, will be imposed consistent with project impact and level of risk.

MAJOR AREAS OF CONCERN:

1. Stormwater Management Plan (SMP) / Low-Flow Mitigation (LFM)

Stormwater management, including low-flow mitigation has been challenging from a technical as well as political/economic standpoint. But numerous iterations of plan submittals from the Port finally resulted in a very good comprehensive set of stormwater management plans – plans that are scientifically, technically and legally defensible.

As Part of its SW management plan, the Port needs to manage water as best as possible to mimic the natural hydrologic cycle – to ensure stream flows in late summer and fall are adequate to support water quality and beneficial uses.

The need for water for low-flow mitigation is substantial. For example, the project will take away nearly one-third of the base flow in Des Moines Creek at the most critical time of the year. The Port needs to manage stormwater such that it can offset this impact during a 90-day period starting in late July each year.

(Note: Because the Port is managing stormwater in way to mimic the natural hydrologic cycle, and not “augment” flows, or to address a specific beneficial use e.g., using stormwater for an industrial cooling water facility, we will not require the Port to obtain a water right.)

Thorough technical review has been essential. The amount of water needed for Des Moines Creek is significant. Updated analysis shows the need increasing from approximately 1.8 acre feet to 12.2 acre feet (over one million gallons)

** Our King County Consultant advises that the Port’s SMP and LFMP exceed the technical requirements of the King County Stormwater Management Manual. The King County Stormwater Management Manual is more stringent than the current State Department of Ecology Stormwater Management Manual.*

2. Natural Resource Mitigation (NRMP) - and Wildlife Hazard Management Plan

The Port’s proposals are very substantial. Together with the WHMP, our additional mitigation required for temporary impacts, and monitoring and oversight requirements, these proposals provide the level of assurance we need.

3. Acceptable Fill Criteria and related issues

The 401 includes extensive conditions addressing the need for clean fill. Federal law states that toxic fill in toxic amounts is not allowed for fill projects, but there is no guidance provided. With no established criteria on which to rely, we decided it is appropriate to use Model Toxic Control Act (MTCA) clean up level A criteria. Runway opponents have argue this is a misuse of MTCA – the agency acknowledges that MTCA was not created for fill project purpose, but we explain we are not invoking MTCA authority but, for lack of any other available tools, it is appropriate to use the stringent tools developed for MTCA.

This approach is sound for this project. Admittedly, these are unprecedented requirements in a 401, and the Port has argued the requirements are too stringent and unfair. Our position is that this is no ordinary project in terms of scope and uncertainty with respect to how the fill embankment might affect natural resources. We believe the conditions are necessary for our reasonable assurance and defensibility of our decision.

4. Governor's Certification (for FAA funding) and MTCA Agreed Order Groundwater Study (AOGW) – Need for Pathways Analysis

Runway opponents have argued that ECY must wait for the AOGW study outlined in the Governor's Certification letter to be completed before making a 401 decision. We have explained that the AO GW and 401 are not legally or procedurally linked. But we have agreed to look into the substantive concerns of opponent groups i.e., that the infrastructure for the runway construction would create pathways for contaminants from the Airport Operations and Maintenance Area (AOMA [area for MTCA AOGW study]) to be transported to runway sites

TCP staff completed a pathway analysis to inform the 401 decision – and have recommended BMP language for the 401. We are satisfied water quality will be protected from runway infrastructure near the AOMA.

5. Air Quality

No new issues since the EIS – conformity is not an issue

6. CZM

Done – the project will be consistent with the state's Coastal Zone Management Program

RELATED ISSUES:

1. Relationship between the 401 and existing individual 402 NPDES Industrial Stormwater Permit – retrofitting existing stromwater facilities and constructing new facilities.

The Port has an existing individual NPDES industrial stormwater permit – it will be up for renewal in about a year. After considerable policy related discussions, we ultimately agreed that the 402 would continue to be the tool to manage existing facilities – and that

new facilities covered by the 401 would be incorporated into Ports 402 when it came up for renewal. However, the 401 does have a schedule for retrofitting existing facilities.

Concern has been that the 401 is a one time shot under the law to arrive at reasonable assurance water quality will be protected. Under the 402, the Port can ratchet up BMPs to satisfy requirements, instead of shooting for a higher level of treatment/management that ultimately might not be required. Although runway opponents disagree, we believe the flexibility allowed by 402 is appropriate for this project.

2. NPDES 402 Major Modification

A Major Modification to the Port's NPDES permit had been issued. The modification allows for the construction of the 509 interchange recently issued. It allows the Port to move materials and equipment onto Port property runway sites. The modification ratchets up monitoring and discharge limits/requirements beyond the base NPDES permit requirements. It's a heads-up to the Port, that when the 402 is renewed in a about a year, it will be more stringent than it's existing permit, this could be controversial. (The 401 is needed for placing the stockpiled fill into the wetlands, thus enabling construction of the third runway embankment – the port has proceeded at its own risk with respect to the interchange.)

3. Agreed Order Groundwater Study Audit

This is almost a "side issue" with respect to the 401 decision (see above – AOGW not linked to 401). But the audit has shown that the Port needs to tighten up financial controls related to grant supported projects – opponents have made issue of this, and there has been Public Disclosure Request related work that staff and lawyers have needed to deal with.

4. Schedule

This has been a constant concern of the Port and runway opponents alike. Our position has remained constant – we are neither a proponent or opponent of the Port's proposals, we have said we will make a decision when we have adequate information to determine if the project will comply with pertinent laws and regulations and that agency objectives will be achieved.

One related and significant concern is the degree to which the 401 can be provisional in nature. This has to do with how much the agency might rely on future submittals of information when arriving at reasonable assurance water quality will be protected.

The degree to which there is organized opposition to a project may be a factor in this. We are looking at permit review procedures to fully understand this issue. The "Battle Mountain Gold" decision clearly points to a need to not develop permit conditions that rely too heavily on future submittal of key technical information. Our decision on the Port's runway and related proposals does not do this. A key example is the requirement the Port complete key technical work related to low-flow impacts prior to a 401 decision.

5. Oversight and Monitoring

- The POS agreed to fund a minimum of 3 FTEs, as many as 5 FTEs

A capacity issue. To ensure compliance with the terms and conditions of this permit, ECY needs additional resources. The agency/NW Region will need a senior WQ engineer, a WQ compliance inspector and a wetlands/habitat specialist at least. We have letter from Port where it agrees to fund at least 3 FTEs, and as many as 5 FTEs if workload justifies it (for the additional 2 FTEs). This is an unprecedented accommodation by the Port, but is necessary and helps show Ecology will have the capacity to ensure permit terms and conditions will be complied with.

6. Cumulative impacts – e.g., DOT 509 South Access Road

Runway opponents contend that the DOT SR 509 South Access Road and other, yet to be fully conceptualized, projects by the Port be incorporated into the review for the runway and related projects. We don't believe it is reasonable to wait the number of years that may be necessary for all future DOT and the Port STIA related projects to be fully developed prior to making a decision on the third runway and related projects. We have developed restrictive covenants to deal with possible environmental impacts associated with future yet to be fully planned projects.

MISCELLANEOUS POINTS:

1. Need for facilitator and structured process (technical and management meetings)

After determining the Port's project was not approvable last September, we told the Port we would need to deny the project if the 401 application was not withdrawn. The Port subsequently withdrew. At the same time, we also agreed to a process we thought would help us arrive at a defensible decision in about a 5 month period (we knew this would be very difficult).

The Port agreed to pay for a facilitator to assist with a very structured technical review process where we have documented very clearly for the Port what it needed to submit to us to satisfy our requirements for a defensible decision. While the agreed to approach increased our ability to work through critical issues with the Port, the 5 month timeframe was too optimistic as we had suggested earlier. We are just now at an end point in our review/decision-making process. We would not have reached this point without the help our consultants and the very structured facilitated process.

2. Use of consultants

- King County has provided excellent support for SMP and LFMP review

Part of our success in reaching a decision for the Port's project was dependent upon the Port's agreement to pay for the services of consultants to support Ecology's review. A year and a half ago, with Port financing, we contracted with King County for support in reviewing the SMP and LFMP. Support from County included management and technical assistance backup for the senior engineer. King County provided excellent support, utilizing highly competent and credible expertise to complete the work we asked for in our contract. The County's primary job was to determine if the Port's proposals would meet the technical requirements of the King County Stormwater Management Manual. As mentioned above, the County has determined that the Port's project not only

satisfies these requirements, but exceeds them. This is significant in so much as the KC Manual is more stringent than Ecology's own Stormwater Management Manual.

- Shannon and Wilson Inc. for the NRMP

The Port also paid for the very good consulting services of this firm to assist in the review of the Ports NRMP.

The above consultants, although funded by the Port, contracted with/reported to Ecology for purposes of completing our regulatory/decision making review work. The work was done in coordination with Ecology experts/received oversight from Ecology experts.

3. Public Disclosure workload

- 60-70 requests for information since last Sept. (primarily from opposition group)

This workload has been unprecedented. We have made every attempt to make the regulatory/decision making process open to the public. At the same time we have tried to stay committed to an efficient and effective decision-making process. The PDA work has taken substantial resources.

ORGANIZED OPPOSITION:

1. Airport Communities Coalition (ACC), Cities of Federal Way, Tukwila, Burien, Des Moines, Normandy Park, and the Highline School District

This is a well-funded organization supported by skilled technical and legal experts. It is supported by local legislators and Congressman. Ultimately, public involvement by this and other groups (below) and individuals has resulted in a more defensible decision by Ecology. Several points brought to our attention by opponent groups have enhanced our review.

2. Citizens Against SeaTac Expansion (CASE)

CASE and RCAA – have some overlapping membership with ACC

3. Regional Council on Airport Affairs (RCAA)

LAST:

Approval of the Port's 401 does not eliminate the possible need for future 401 amendments based on further evaluation of the Port's proposals, or the availability of new information.

EXHIBIT G

AR 007998

Kenny, Ann

From: Yee, Chung K.
Sent: Wednesday, June 13, 2001 8:42 AM
To: Fitzpatrick, Kevin
Cc: Thompson, Craig E.; Dahlgren, Curtis A.; Nord, Tim
Subject: Acceptable Fill Criteria Language for Draft 401 Certification

DELIBERATIVE DOCUMENT CURRENTLY EXEMPT FROM PUBLIC DISCLOSURE

On Monday June 11, Mr. Craig Thompson had a limited discussion with Mr. Pete Kmet of the HQ/TCP on this project. Mr. Kmet recommended MTCA should not be used for the establishment of clean-fill criteria for the Seattle-Tacoma International Airport Third Runway project. However, if MTCA is to be used for this purpose, Mr. Kmet further recommended all other requirements of the MTCA should be applied for the establishment of the clean fill criteria.

I have interpreted his MTCA requirements at minimum as requiring: 1) a larger listing of potential contaminants for testing, 2) ground water monitoring for compliance with the ground water and/or surface water criteria, and 2) terrestrial ecological evaluation. There may be other requirements that will need to be identified prior to finalizing the "Acceptable Fill Criteria Language."

Since his recommendations are considered as the department policy with respect to this project, therefore it would be inappropriate for me to comment on his recommendations.

Please advise as to my scope-of-work. In the interim, I will proceed to review the biological opinion by US Fish and Wildlife Service on the Master Plan Update Improvements. From your previous emails, I understand you/NWRO will be meeting with the US Fish and Wildlife Service to finalize an acceptable set of fill criteria. Per agreement, I will start my review of the Clean Fill Criteria based on the most recent draft language, i.e., post US Fish and Wildlife Service meeting.

One final note, I do not know how to implement many of the MTCA requirements, e.g., terrestrial ecological evaluation, in the context of the Third Runway fill project. For these additional MTCA requirements, please consult with the NWRO/TCP staff for implementation assistance.

E
X
H
I
B
I
T

AR 008000

Kenny, Ann

From: Kmet, Peter
Sent: Wednesday, June 27, 2001 4:01 PM
To: Fitzpatrick, Kevin
Cc: Yee, Chung K.
Subject: RE: Acceptable Fill Criteria Language for Draft 401 Certification

DELIBERATIVE DOCUMENT CURRENTLY EXEMPT FROM PUBLIC DISCLOSURE

If we are not going to restrict fill material to naturally occurring uncontaminated soils, I recommend you use the following language to address potential impacts on plants and animals. The intent of this language is to ensure the fill material used would be "clean enough" that it would not be expected to cause adverse impacts on plants and animals that come in contact with it.

Note that this does not address potential human health exposure pathways or protection of aquatic organisms, which will need to be addressed with other language.

There are several elements to this recommendation:

First, is the list of chemicals of concern. I am recommending we use the list in Table 749-3. While lengthy, this list represents the more commonly occurring contaminants that have information on potential terrestrial ecological impacts. Only those suspected of being present at the site would have to be tested beyond those you are already specifying they test for.

Second, I am recommending we require the fill material to meet the most stringent value in Table 749-3 unless bioassay testing is conducted that demonstrates the fill is not toxic to plants and animals. The table 749-3 values are considered screening values for ecologically sensitive sites.

Third, as a further safeguard, I am recommending that the uppermost 6 feet of fill placed be required to be clean natural soil. This is the zone where most soil biological activity occurs and will provide a buffer zone that prevents most plant and animal contact with any deeper contaminated fill material. It should also minimize the potential for worker contact during routine construction and maintenance activities at the airport.

Fourth, because there can be considerable variability in soil concentrations and it is not possible to test every cubic inch of soil, I am recommending that the statistical test methods specified for soils in WAC 173-340-740 be used to analyze any test data and demonstrate compliance with these requirements.

Here is my suggested language:

The uppermost 6 feet of fill material shall consist of clean naturally occurring soil with no detectable manmade organic compounds and no metals above natural background concentrations as defined in Ecology publication #94-115 entitled "Natural Background Soil Metals Concentrations in Washington State". All other fill material not consisting of such clean naturally occurring soil shall be subject to the following requirements.

All fill material not from clean natural soil borrow sources shall be tested for at a minimum [insert your list] plus [any contaminants in Table 749-3] (I recommend you make one list and attach it as an appendix to the permit so there is not confusion as to what is to be tested for). This fill material shall contain concentrations below the most stringent concentration in this table (again, I recommend you

make a list of concentrations and attach it to the permit, to avoid possible confusion. Again, NOTE that this does not address human health concerns or potential aquatic impacts. You will need to integrate those issues into this language). As an alternative to meeting the concentration in Table 749-3, the Port may demonstrate that the soil from the borrow source does not pose a threat to plants and animals by using both bioassays specified in 173-340-7493(3)(b)(i).

The methods specified in WAC 173-340-740(7) shall be used to determine compliance with these concentrations when evaluating soil testing data.

I know this wording needs some work, but it gives you a starting place.

PS, I am on leave until July 11th.

-----Original Message-----

From: Fitzpatrick, Kevin
Sent: Wednesday, June 13, 2001 8:57 AM
To: Yee, Chung K.
Cc: Thompson, Craig E.; Dahlgren, Curtis A.; Nord, Tim; Kmet, Peter; Kenny, Ann; Hellwig, Raymond; Wang, Ching-Pi
Subject: RE: Acceptable Fill Criteria Language for Draft 401 Certification

Chung Yee: Will Pete provide recommended language for a "terrestrial ecological evaluation" that could be used as a condition in the 401 Certification, as well as a list of additional contaminants that would need to be tested in the fill material brought in for Master Plan improvements at Sea-Tac Airport? Kevin

-----Original Message-----

From: Yee, Chung K.
Sent: Wednesday, June 13, 2001 8:42 AM
To: Fitzpatrick, Kevin
Cc: Thompson, Craig E.; Dahlgren, Curtis A.; Nord, Tim
Subject: Acceptable Fill Criteria Language for Draft 401 Certification

DELIBERATIVE DOCUMENT CURRENTLY EXEMPT FROM PUBLIC DISCLOSURE

On Monday June 11, Mr. Craig Thompson had a limited discussion with Mr. Pete Kmet of the HQ/TCP on this project. Mr. Kmet recommended MTCA should not be used for the establishment of clean-fill criteria for the Seattle-Tacoma International Airport Third Runway project. However, if MTCA is to be used for this purpose, Mr. Kmet further recommended all other requirements of the MTCA should be applied for the establishment of the clean fill criteria.

I have interpreted his MTCA requirements at minimum as requiring: 1) a larger listing of potential contaminants for testing, 2) ground water monitoring for compliance with the ground water and/or surface water criteria, and 2) terrestrial ecological evaluation. There may be other requirements that will need to be identified prior to finalizing the "Acceptable Fill Criteria Language."

Since his recommendations are considered as the department policy with respect to this project, therefore it would be inappropriate for me to comment on his recommendations.

Please advise as to my scope-of-work. In the interim, I will proceed to review the biological opinion by US Fish and Wildlife Service on the Master Plan Update Improvements. From your previous emails, I understand you/NWRO will be meeting with the US Fish and Wildlife Service to finalize an acceptable set of fill criteria. Per agreement, I will start my review of the Clean Fill Criteria based on the most recent draft language, i.e., post US Fish and Wildlife Service meeting.

One final note, I do not know how to implement many of the MTCA requirements, e.g., terrestrial ecological evaluation, in the context of the Third Runway fill project. For these additional MTCA requirements, please consult with the NWRO/TCP staff for implementation assistance.

AR 008004

E
X
H
I
B
I
T

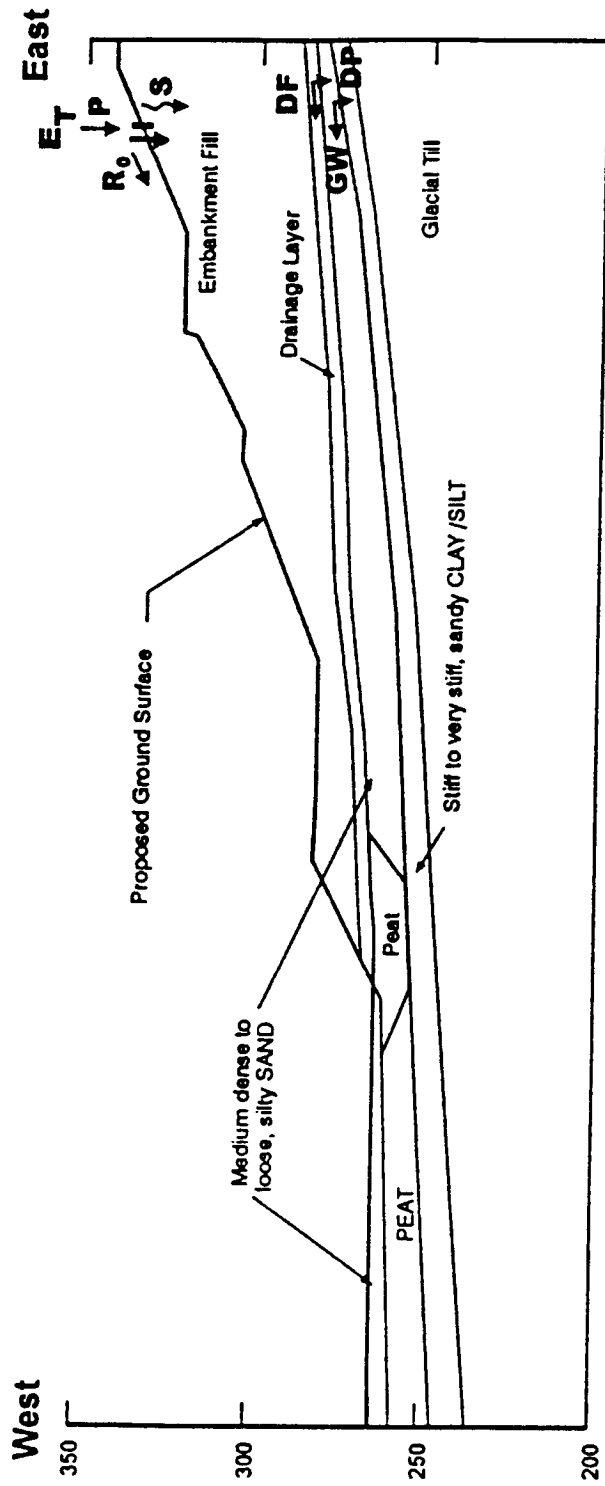


Embankment Infiltration and Seepage

- ⊕ Seepage modeling (HELP)
- ⊕ Precipitation: runoff, infiltration, seepage
 - ⊗ Seepage through embankment flow in drain layer
 - ⊗ Deep percolation below drain
 - ⊗ Groundwater flow laterally in subgrade
 - ⊗ Deep percolation through underlying till/clay

AR 008005

Embankment Slope Section Showing Seepage Model Parameters



AR 008006

HARTCROWSER

Post-It® Fax Note	7671	Date	8/3	Page	2
To	Ann Ken.	From	KCR		
Co./Dept.	Ecology	Co.			
Phone #	425 649 4310	Phone #	296 6519		
Fax #	485 649 7098	Fax #			

- infiltration rate sampling and monitoring to evaluate performance of the fill
- establishment of contingency measures in case fill does not meet performance standards

L. Operational Stormwater Requirements:

Approved Stormwater Plan: The Comprehensive Stormwater Management Plan, Volumes 1 through 4, December 2000 as revised by the July 2001 Replacement pages is the approved stormwater management plan for this project. It shall be implemented in its entirety. No changes to the plan shall be made without prior review and approval.

The Port shall provide Ecology with draft proposed changes to the Plan no later than 60 days prior to the date it wishes to implement a change to the plan.

The Port shall implement the project in accordance with the schedule provided in Table A-3 (July 2001). Any changes to the schedule must be reviewed and approved in advance by Ecology. The Port shall provide Ecology with a draft revised schedule no later than 60 days prior to the date it wishes to implement the change to the schedule. The following facilities/projects listed in Table A-3 (July 2001) do not have yet have stormwater treatment facilities proposed: XXX. If the Port decides to build any of these facilities/project the Port must submit conceptual drawings that meet the performance standards of the CSMP to Ecology for review and approval.

Retrofitting of stormwater management facilities at the STIA shall occur at a rate commensurate with the construction of new impervious surface at the STIA. For every ten percent of new impervious surface added at the project site, the Port must demonstrate that an equal 10 percent of retrofitting has occurred. The Port shall document the implementation of retrofitting in quarterly progress reports.

Nothing in this Order shall be deemed to prohibit continued participation by the Port in planning efforts to establish regional detention facilities for Des Moines or Miller Creek. The Port may request to amend this Order and the Comprehensive Stormwater Management Plan ~~if it decides to route stormwater to~~ future regional detention facilities ~~and it is demonstrated that under future built-out conditions the combination of on-site and regional flow controls will achieve the performance goals of the CSMP and the associated Basin Plan.~~ If the Port decides to participate in future regional detention facilities the Comprehensive Stormwater Plan shall be amended to ensure that the following performance standard is met: ~~The Port shall ensure that reduced on-site performance standards achieve the performance standards established for the regional detention facility stormwater is routed to.~~ [Kolly]

*Construction
2 treatment
10 am permit
Plan*

Vaer

Discharge of operational stormwater to state receiving waters:

No stormwater generated by operation of the facilities approved by this Order shall be discharged to state receiving waters until a Water Effects Ratio Study has been completed and approved by Ecology and effluent limitations and monitoring requirements have been established in the Port's NPDES permit. A WERS shall be submitted to Ecology for review and approval no later than XXX.

All stormwater discharges from the project shall be in compliance with state of Washington surface water quality standards (Chapter 173-201A WAC), sediment management standards (Chapter 173-204 WAC) and ground water quality standards (Chapter 173-200 WAC).

- a) The Applicant shall design, construct, operate, and maintain stormwater treatment facilities to ensure that discharges will not result in exceedances of state water quality

criteria in receiving waters. All runoff from impervious surfaces (except from the existing bridge) shall be treated using all known available and reasonable treatment (AKART), at the time of initial final design.

CSMP could easily be challenged as not being AKART. SWDM is not AKART. Rather see a tie to the monitoring results that might require AKART to meet applicable water quality standards and this Order.

1. The Applicant shall design the stormwater treatment facilities in accordance with Ecology's stormwater management manual that is in effect at the time of final design, or other equivalent manuals approved by Ecology; or [Discuss with Kevin, John and Kelly]

At a minimum, I would suggest this be conditional on: IF they amend the SMP, THEN they need to demonstrate that the revised CSMP meets the performance goals of CSMP and the Ecology manual in effect at time of amendment.

Discussion:

We have essentially approved them to use the 1998 King County Surface Water Design Manual, although they do also mention the current Ecology Manual.

Does 40] Order vest projects for specified time (e.g., must be implemented in X years or reapply)?
What if SMP or LFAR amended?

Water Quality Treatment: The proposed Ecology manual would likely require "enhanced" water quality treatment for much of the site. This is our understanding, but we have not seen the current proposal, so cannot confirm. The CSMP takes the approach that if additional WO treatment is needed to meet WO standards (based on monitoring), then they will do more. I don't think new Ecology manual will take this approach.

- Flow Control: They exceed the flow control requirements for both KCSWDM and current Ecology manuals. The flow control approaches are different under proposed Ecology manual. The manual would only require retrofits of replaced impervious surfaces, but would require it to a fully forested release rate. The CSMP retrofits all impervious areas, but to the 75% forested/10% impervious release rates. Although not evaluated, in most existing subbasins it is understood that existing (not to be replaced) impervious surfaces exceed 10%, and therefore the CSMP retrofit standard would be more protective. In the buyout area the existing % impervious used for release rates is less than 10% (existing effective impervious for buyout area), but the CSMP is going to be somewhat less protective than proposed manual. Without knowing how much of the existing impervious is being redeveloped (replaced), it is not possible to determine which approach would be more protective.

2. The Applicant may propose other BMPs for stormwater treatment if it can be demonstrated that they will result in stormwater discharges that meet the state water quality standards. Any proposed changes are subject to review and approval by Ecology.
3. The Applicant shall submit the final stormwater treatment system design to Ecology for review and approval 60 days prior to the start of construction of the treatment system.

EXHIBIT K

AR 008010

Service: LEXSEE®
Citation: 480 us 531

480 U.S. 531, *; 107 S. Ct. 1396, **;
94 L. Ed. 2d 542, ***; 1987 U.S. LEXIS 2881

AMOCO PRODUCTION CO. ET AL. v. VILLAGE OF GAMBELL ET AL.

No. 85-1239

SUPREME COURT OF THE UNITED STATES

480 U.S. 531; 107 S. Ct. 1396; 94 L. Ed. 2d 542; 1987 U.S. LEXIS 2881; 55 U.S.L.W. 4355;
17 ELR 20574

January 12, 1987, Argued
March 24, 1987, Decided *

* Together with No. 85-1406, *Hodel, Secretary of the Interior, et al. v. Village of Gambell et al.*, also on certiorari to the same court.

DISPOSITION: 774 F.2d 1414, reversed in part, vacated in part, and remanded.

CORE TERMS: subsistence, exploration, oil, public lands, water, aboriginal, et seq, preliminary injunction, lease sale, injunction...

OPINIONBY: WHITE

OPINION: [*534] [***548] [**1398] JUSTICE WHITE delivered the opinion of the Court.

[***HR1A] [1A]
[***HR2A] [2A]

Petitioner Secretary of the Interior granted oil and gas leases to petitioner oil companies in the Norton Sound (Lease Sale 57) and Navarin Basin (Lease Sale 83) areas of the Bering Sea under the Outer Continental Shelf Lands Act (OCSLA), 67 Stat. 462, as amended, 43 U. S. C. § 1331 et seq. (1982 ed. and Supp. III). The Court of Appeals for the Ninth Circuit directed the entry of a preliminary injunction against all activity in connection [***549] with the leases because it concluded that it was likely that the Secretary had failed to comply with § 810 of the Alaska National Interest Lands Conservation Act (ANILCA), 94 Stat. 2371, 16 U. S. C. § 3120, prior to issuing the leases. We granted certiorari, 476 U.S. 1157, and we now reverse.

n1

-----Footnotes-----

AR 008011

n1 The oil company lessees and the Secretary of the Interior separately petitioned for certiorari, Nos. 85-1239 and 85-1406 respectively, presenting the same four questions: (1) whether the Ninth Circuit's rule that a district court must enter a preliminary injunction whenever it finds a likely violation of an environmental statute, absent extraordinary circumstances, conflicts with Weinberger v. Romero-Barcelo, 456 U.S. 305 (1982); (2) whether ANILCA § 810 applies to the Outer Continental Shelf; (3) whether the Ninth Circuit's ruling that the Secretary of the Interior must fully comply with § 810's requirements prior to leasing and exploration, when a significant restriction of subsistence uses is not expected until the development and production stage, conflicts with Secretary of Interior v. California, 464 U.S. 312 (1984); and (4) whether the Ninth Circuit's decision applying ANILCA to the OCS should be given retroactive effect. Our answer to the second question disposes of the third and fourth questions. Respondent Alaska Natives cross-petitioned, No. 85-1608, from the Court of

Appeals' ruling that the Alaska Native Claims Settlement Act, 43 U. S. C. § 1601 et seq. (1982 ed. and Supp. III), extinguished their aboriginal rights on the OCS. The cross-petition has been held pending our disposition in Nos. 85-1239 and 85-1406.

-----End Footnotes-----

[*535] [1399] I**

When the Secretary of the Interior proposed Outer Continental Shelf (OCS) Lease Sale 57, the Alaska Native villages of Gambell and Stebbins sought to enjoin him from proceeding with the sale, claiming that it would adversely affect their aboriginal rights to hunt and fish on the OCS and that the Secretary had failed to comply with ANILCA § 810(a), 16 U. S. C. § 3120(a), which provides protection for natural resources used for subsistence in Alaska. n2 The District Court denied their motion for a preliminary injunction and thereafter granted summary judgment in favor of the Secretary and oil company intervenors, holding that the villagers had **[*536]** no aboriginal rights on the OCS and that ANILCA did not apply to the OCS. n3

-----Footnotes-----

n2 Section 810(a), 16 U. S. C. § 3120(a), provides:

"In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands under any provision of law authorizing such actions, the head of the Federal agency having primary jurisdiction over such lands or his designee shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such Federal agency --

"(1) gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to section 3115 of this title;

"(2) gives notice of, and holds, a hearing in the vicinity of the area involved; and

"(3) determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy or other disposition, and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions."

n3 The villages appealed and moved to enjoin the issuance of the leases pending appeal. The Ninth Circuit denied the motion and on May 10, 1983, 59 tracts were leased for bonus payments totaling over \$ 300 million. While the appeal was pending, the Secretary approved exploration plans submitted by the lessees under 43 U. S. C. § 1340 (1982 ed. and Supp. III) and they proceeded with exploration during the summer of 1984. The Secretary also proceeded with Lease Sale 83 on April 17, 1984, which resulted in the leasing of 163 tracts for total bonus payments of over \$ 500 million.

AR 008012

-----End Footnotes-----

The **[***550]** Court of Appeals for the Ninth Circuit affirmed the District Court's ruling on aboriginal rights, although on different grounds, and reversed the ruling on the scope of ANILCA § 810. *People of Gambell v. Clark*, 746 F.2d 572 (1984) (*Gambell I*). With respect to the claim of aboriginal rights, the court assumed without deciding that the villagers once had aboriginal rights to hunt and fish in the Norton Sound, n4 but concluded that these rights had

been extinguished by § 4(b) of the Alaska Native Claims Settlement Act (ANCSA), 85 Stat. 690, 43 U. S. C. § 1603(b). That section provides:

"All aboriginal titles, if any, and claims of aboriginal title *in Alaska* based on use and occupancy, including submerged land underneath all water areas, both inland and offshore, and including any aboriginal hunting or fishing rights that may exist, are hereby extinguished." (Emphasis added.)

The Court of Appeals construed the phrase "in Alaska" to mean "the geographic region, including the contiguous continental shelf and the waters above it, and not merely the area within the strict legal boundaries of the State of Alaska." [*537] 746 F.2d, at 575. Finding the phrase ambiguous, [**1400] the court examined the legislative history and concluded that Congress wrote the extinguishment provision broadly "to accomplish a complete and final settlement of aboriginal claims and avoid further litigation of such claims." *Ibid.* The court then concluded that ANILCA § 810 had the same geographical scope as ANCSA § 4(b):

"[The villages] make a compelling argument that the provisions of Title VIII of [ANILCA] protecting subsistence uses were intended to have the same territorial scope as provisions of the earlier Claims Settlement Act extinguishing Native hunting and fishing rights. The two statutory provisions are clearly related. When Congress adopted the Claims Settlement Act it was aware that extinguishing Native rights might threaten subsistence hunting and fishing by Alaska Natives. . . . It is a reasonable assumption that Congress intended the preference and procedural protections for subsistence uses mandated by Title VIII of [ANILCA] to be coextensive with the extinguishment of aboriginal rights that made those measures necessary." 746 F.2d, at 579-580.

The court found support for this view in ANILCA's legislative history. But, according to the Court of Appeals, "[the] most compelling reason for resolving the ambiguous language of Title VIII in favor of coverage of outer continental shelf lands and waters is that Title VIII was [***551] adopted to benefit the Natives." *Id.*, at 581. The court acknowledged the familiar rule of statutory construction that doubtful expressions must be resolved in favor of Indians. See *Alaska Pacific Fisheries v. United States*, 248 U.S. 78, 89 (1918). It then remanded to the District Court the questions whether the Secretary had substantially complied with ANILCA § 810 in the [*538] course of complying with other environmental statutes, n5 and if not, whether the leases should be voided.

-----Footnotes-----

n4 As explained by the Ninth Circuit, "[aboriginal] title or right is a right of exclusive use and occupancy held by Natives in lands and waters used by them and their ancestors prior to the assertion of sovereignty over such areas by the United States." 746 F.2d, at 574. See *Oneida Indian Nation v. County of Oneida*, 414 U.S. 661, 667-669 (1974); see also F. Cohen, *Handbook of Federal Indian Law* 486-493 (1982).

n5 The Coastal Zone Management Act, 16 U. S. C. § 1451 *et seq.* (1982 ed. and Supp. III), Marine Protection, Research, and Sanctuaries Act, 16 U. S. C. § 1431 *et seq.* (1982 ed. and Supp. III), Marine Mammal Protection Act, 16 U. S. C. § 1361 *et seq.* (1982 ed. and Supp. III), Fishery Conservation and Management Act, 16 U. S. C. § 1801 *et seq.* (1982 ed. and Supp. III), Endangered Species Act, 16 U. S. C. § 1531 *et seq.* (1982 ed. and Supp. III), and National Environmental Policy Act, 42 U. S. C. § 4331 *et seq.* (1982 ed. and Supp. III), all apply to activities on the OCS. Pursuant to the National Environmental Policy Act (NEPA), the Department of the Interior drafted in 1982 a 332-page Final Environmental Impact Statement (EIS) on proposed Lease Sale 57. Interior analyzed in the EIS the effects that the lease sale,

AR 008013

and subsequent exploration, development, and production, could conceivably have on "subsistence uses," as defined by ANILCA § 803, 16 U. S. C. § 3113. The EIS documented the fish and shellfish, sea mammal, bird, and land animal resources utilized by the villages in the region, including Gambell and Stebbins, and analyzed the sensitivity of these resources to oilspills, other exploration and development impacts, and harvest pressure. EIS 47-53, 136-148. The EIS also considered the sociocultural impact of changes in the availability of subsistence resources. Interior concluded as follows:

"While some changes in local subsistence use and take may occur with this proposal, the probability of significant disturbance, in the form of long-term reduction of subsistence take, large-scale disruption of subsistence harvesting activities, or significant reductions in primary resources utilized for subsistence is unlikely for the region as a whole. For Savoonga, and to a lesser extent other 'big sea mammal hunting' villages (Diomedea, Gambell, King Island, Wales) due to a relatively greater vulnerability to oilspill events, the short-term disturbance is more likely, particularly during the peak development period." EIS 142.

A comparable EIS was drafted in 1983 for Lease Sale 83. The Secretary had also previously prepared an EIS in conjunction with his Five Year Leasing Plan.

----- -End Footnotes- -----

In compliance with the Court of Appeals' decision, the Secretary prepared a postsale evaluation of possible impacts on subsistence uses from Lease Sale 57. n6 The Secretary **[**1401]** found **[*539]** that the execution of the leases, which permitted lessees to conduct only limited preliminary activities on the OCS, had not and would not significantly restrict subsistence uses. He further found that the exploration stage activities, including seismic activities and exploratory drilling, that had occurred in Norton Sound had not **[***552]** significantly restricted subsistence uses and were not likely to do so in the future. Finally, he found that, if development and production activities were ever conducted, which was not likely, they might, in the event of a major oilspill, significantly restrict subsistence uses for limited periods in limited areas. n7

----- -Footnotes- -----

n6 As we explained in *Secretary of Interior v. California*; 464 U.S., at 337, there are four distinct statutory stages to developing an oil well on the OCS: "(1) formulation of a 5-year leasing plan by the Department of the Interior; (2) lease sales; (3) exploration by the lessees; (4) development and production. Each stage involves separate regulatory review that may, but need not, conclude in the transfer to lease purchasers of rights to conduct additional activities on the OCS." The Secretary examined the effects on subsistence uses of Lease Sale 57 itself, present and future exploratory activities, and development and production activities, which the Secretary estimated had a 13% probability of being undertaken. App. to Pet. for Cert. in No. 85-1406, pp. 81a-106a. The Secretary stressed that a definite evaluation with respect to the latter stage could only be made if and when plans for development and production were submitted and that a separate § 810 evaluation would be prepared at that time. The Secretary relied to a considerable degree on the 1982 Final EIS.

n7 The Secretary approved exploration plans for the Navarin Basin after the decision in *Gambell I* and accordingly made explicit ANILCA evaluations. See App. to Pet. for Cert. in No. 85-1406, pp. 107a-115a. The lessees planned exploration activities for the summer of 1985.

----- -End Footnotes- -----

AR 008014

In April 1985, the villages sought a preliminary injunction in the District Court against exploratory activities in Norton Sound. At the same time, the village of Gambell, joined by Nunam Kitlutsisti, an organization of Yukon Delta Natives, filed a complaint seeking to void Lease Sale 83 and to enjoin imminent exploratory drilling in the Navarin Basin. The District

Court consolidated the motions for preliminary injunctions and denied them. It found that respondents had established a strong likelihood of success on the merits. Although the Secretary, in the EIS's for the Five Year Leasing Plan and for the Norton Sound and Navarin Basin Lease Sales, had evaluated in some detail the effect of OCS oil and [*540] gas development on subsistence resources and had considered alternatives which would reduce or eliminate the impact on these resources, the Secretary failed to comply with ANILCA because "he did not have the policy precepts of ANILCA in mind at the time of evaluation." App. to Pet. for Cert. in No. 85-1239, pp. 57a-58a. And with respect to the postsale evaluation for Lease Sale 57, the District Court concluded that because development and production activities, if they ever occurred, could significantly restrict subsistence uses in certain areas, the Secretary was required to conduct the hearing and make the findings required by §§ 810(a)(1)-(3) prior to conducting the lease sale. Nevertheless, the court concluded that injunctive relief was not appropriate based on the following findings:

"(1) That delay in the exploration of the OCS may cause irreparable harm to this nation's quest for new oil resources and energy independence. Expedited exploration as a policy is stated in OCSLA. See 43 U. S. C. § 1332(3);

"(2) That exploration will not significantly restrict subsistence resources; and

"(3) That the Secretary continues to possess power to control and shape the off-shore leasing process. Therefore, if the ANILCA subsistence studies require alteration of the leasing conditions or configuration the Secretary will be able to remedy any harm caused by the violation." *Id.*, at 62a-63a.

Accordingly, applying the traditional test for a preliminary injunction, the court concluded that the balance of irreparable harm did not favor the movants; in addition, the public interest favored continued oil exploration and such exploration in this case would not cause the type of harm that ANILCA was designed to prevent.

Respondents appealed from the District Court's denial of a preliminary injunction. The Ninth Circuit reversed. *People of Gambell* [***553] v. *Hodel*, 774 F.2d 1414 (1985) [*541] (*Gambell II*). The court, agreeing that the villages had established a strong likelihood [**1402] of success on the merits, concluded that the District Court had not properly balanced irreparable harm and had not properly evaluated the public interest. Relying on its earlier decision in *Save Our Ecosystems v. Clark*, 747 F.2d 1240, 1250 (1984), the court stated: "Irreparable damage is presumed when an agency fails to evaluate thoroughly the environmental impact of a proposed action." 774 F.2d, at 1423. It ruled that "injunctive relief is the appropriate remedy for a violation of an environmental statute absent rare or unusual circumstances." *Ibid.* "Unusual circumstances" are those in which an injunction would interfere with a long-term contractual relationship, *Forelaws on Board v. Johnson*, 743 F.2d 677 (CA9 1984), or would result in irreparable harm to the environment, *American Motorcyclist Assn. v. Watt*, 714 F.2d 962, 966 (CA9 1983). 774 F.2d, at 1423-1425. The court found no such circumstances in the instant case. The Ninth Circuit also concluded that the policy declared in OCSLA to expedite exploration of the OCS had been superseded by ANILCA's policy to preserve the subsistence culture of Alaska Natives. Finally, the court rejected arguments that it was improper to apply *Gambell I* retroactively to Lease Sale 83.

II

AR 008015

[***HR1B] [1B]

[***HR3] [3]

[***HR4] [4]

Petitioners assert that the Ninth Circuit erred in directing the grant of a preliminary injunction. We addressed a similar contention in *Weinberger v. Romero-Barcelo*, 456 U.S. 305 (1982).

The District Court in that case found that the Navy had violated the Federal Water Pollution Control Act (FWPCA), 33 U. S. C. § 1251 et seq. (1982 ed. and Supp. III), by discharging ordnance into the sea without a permit. 456 U. S., at 307-308. The court ordered the Navy to apply for a permit but refused to enjoin weapons-training operations during the application process because the Navy's "technical violations" were not causing any "appreciable harm" to the **[*542]** quality of the water and an injunction would cause grievous harm to the Navy's military preparedness and therefore to the Nation. Id., at 309-310. The First Circuit reversed and directed the District Court to enjoin all Navy activities until it obtained a permit, concluding that the traditional equitable balancing of competing interests was inappropriate where there was an absolute statutory duty to obtain a permit. Id., at 310-311. We reversed, acknowledging at the outset the fundamental principle that an injunction is an equitable remedy that does not issue as of course. Id., at 311. We reviewed the well-established principles governing the award of equitable relief in federal courts. Id., at 311-313. In brief, the bases for injunctive relief are irreparable injury and inadequacy of legal remedies. In each case, a court must balance the competing claims of injury and must consider the effect on each party of the granting or withholding of the requested relief. Although particular regard should be given to the public interest, "[the] grant of jurisdiction **[***554]** to ensure compliance with a statute hardly suggests an absolute duty to do so under any and all circumstances, and a federal judge sitting as chancellor is not mechanically obligated to grant an injunction for every violation of law." Id., at 313. Finally, we stated:

"Of course, Congress may intervene and guide or control the exercise of the courts' discretion, but we do not lightly assume that Congress has intended to depart from established principles. . . . 'Unless a statute in so many words, or by a necessary and inescapable inference, restricts the court's jurisdiction in equity, the full scope of that jurisdiction is to be recognized and applied.'" Ibid. (quoting Porter v. Warner Holding Co., 328 U.S. 395, 398 (1946)).

Applying these principles, we concluded that the purpose of the FWPCA -- to restore and maintain the integrity of the Nation's **[**1403]** waters -- would not be undermined by allowing the statutory violation to continue during the permit application **[*543]** process because the ordnance was not polluting the water. 456 U. S., at 314-315. The First Circuit had erroneously focused on the integrity of the *permit process* rather than on the integrity of the Nation's waters. Moreover, the permit process was not completely circumvented since the District Court ordered the Navy to apply for a permit. An injunction against all discharges was not the only means of ensuring compliance with the Act n8 and we found nothing in the Act's language and structure or legislative history which suggested that Congress intended to deny courts their traditional equitable discretion. n9

[*HR1C] [1C]**

-----Footnotes----- n8 We noted that, in addition to a court order to apply for a permit, the FWPCA could be enforced through fines and criminal penalties, 33 U. S. C. §§ 1319(c) and (d). 456 U. S., at 314. The Ninth Circuit believed that the absence of such enforcement provisions in ANILCA distinguished the FWPCA and *Romero-Barcelo*. 774 F.2d, at 1426, n. 2. It stated that the injunctive relief it granted was the only means of insuring compliance under § 810. The Court of Appeals was incorrect. Here, as in *Romero-Barcelo*, compliance could be obtained through the simple means of an order to the responsible federal official to comply. The Secretary had not complied with § 810 only because he interpreted ANILCA not to apply to the OCS.

n9 We distinguished *TVA v. Hill*, 437 U.S. 153 (1978), in which we had held that Congress, in the Endangered Species Act of 1973, 87 Stat. 884, as amended, 16 U. S. C. § 1531 et seq. (1982 ed. and Supp. III), had foreclosed the traditional discretion possessed by an equity court and had required the District Court to enjoin completion of the Tellico Dam in order to

AR 008016

preserve the snail darter, an endangered species. That statute contains a flat ban on destruction of critical habitats of endangered species and it was conceded that completion of the dam would destroy the critical habitat of the snail darter. We stated:

'Refusal to enjoin the action would have ignored the 'explicit provisions of the Endangered Species Act.' 437 U.S., at 173. Congress, it appeared to us, had chosen the snail darter over the dam. The purpose and language of the statute [not the bare fact of a statutory violation] limited the remedies available to the District Court; only an injunction could vindicate the objectives of the Act." 456 U.S., at 314.

The Ninth Circuit erroneously relied on *TVA v. Hill*. 774 F.2d, at 1426, n. 2. It is clear that this case is similarly distinguishable from *Hill*.

-----End Footnotes-----

[*544]

*****HR1D** [1D]

*****HR5** [5]

*****HR6** [6]

We see nothing which distinguishes *Romero-Barcelo* from the instant case. The purpose of ANILCA *****555** § 810 is to protect Alaskan subsistence resources from unnecessary destruction. Section 810 does not prohibit all federal land use actions which would adversely affect subsistence resources but sets forth a procedure through which such effects must be considered and provides that actions which would significantly restrict subsistence uses can only be undertaken if they are necessary and if the adverse effects are minimized. There is no clear indication in § 810 that Congress intended to deny federal district courts their traditional equitable discretion in enforcing the provision, nor are we compelled to infer such a limitation. Like the First Circuit in *Romero-Barcelo*, the Ninth Circuit erroneously focused on the statutory procedure rather than on the underlying substantive policy the process was designed to effect -- preservation of subsistence resources. The District Court's refusal to issue a preliminary injunction against all exploration activities did not undermine this policy. The District Court, after reviewing the EIS's for the Secretary's Five Year Leasing Plan and for Lease Sales 57 and 83, as well as the § 810 study prepared after *Gambell I*, expressly found that exploration activities would not significantly restrict subsistence uses. n10 The Court of Appeals did not conclude that this factual finding was clearly erroneous. The District Court also found that "the Secretary continues to possess power to control and shape the off-shore leasing process," App. to Pet. for Cert. in No. 85-1239, p. 63a, referring to the four distinct stages under OCSLA, particularly the requirement for secretarial approval of a development ****1404** and production plan, 43 U. S. C. § 1351. See n. 6, *supra*. The Court of Appeals did not dispute that the Secretary could meaningfully comply with ANILCA § 810 in conjunction with his review of production and development plans. Instead, the court stated that "[irreparable] damage ***545** is *presumed* when an agency fails to evaluate thoroughly the environmental impact of a proposed action." 774 F.2d, at 1423 (emphasis added). This presumption is contrary to traditional equitable principles and has no basis in ANILCA. Moreover, the environment can be fully protected without this presumption. Environmental injury, by its nature, can seldom be adequately remedied by money damages and is often permanent or at least of long duration, *i. e.*, irreparable. If such injury is sufficiently likely, therefore, the balance of harms will usually favor the issuance of an injunction to protect the environment. Here, however, injury to subsistence resources from exploration was not at all probable. And on the other side of the balance of harms was the fact that the oil company petitioners had committed approximately \$ 70 million to exploration to be conducted during the summer of 1985 which they would have lost without chance of recovery had exploration been enjoined. *Id.*, at 1430.

AR 008017

-----Footnotes-----

n10 Implicit in this finding was the finding that the lease-sale stage had not significantly

restricted subsistence uses.

-----End Footnotes-----

[**HR1E] [1E]

[**HR7A] [7A]

We acknowledged in *Romero-Barcelo* the important role of the "public interest" in the exercise of equitable discretion. The District Court concluded that the public interest in this case favored continued oil exploration, given OCSLA's [**556] stated policy n11 and the fact that "such exploration will not cause the type of harm, a restriction in subsistence uses or resources, that ANILCA was designed to prevent." App. to Pet. for Cert. in No. 85-1239, p. 63a. The Court of Appeals concluded, however, that the public interest favored injunctive relief because the interests served by federal environmental statutes, such as ANILCA, supersede all other interests that might be at stake. We do not read ANILCA to have repealed OCSLA. Congress clearly did not state in ANILCA [*546] that subsistence uses are always more important than development of energy resources, or other uses of federal lands; rather, it expressly declared that preservation of subsistence resources is a public interest and established a framework for reconciliation, where possible, of competing public interests. n12

-----Footnotes-----

n11 OCSLA declares it to be the policy of the United States that "the outer Continental Shelf is a vital national resource reserve held by the Federal Government for the public, which should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs." 43 U. S. C. § 1332(3).

[**HR7B] [7B]

n12 Finally, the Ninth Circuit distinguished *Romero-Barcelo* on the ground that the District Court in that case refused to issue a permanent injunction after a trial on the merits whereas in this case the District Court denied preliminary injunctive relief. We fail to grasp the significance of this distinction. The standard for a preliminary injunction is essentially the same as for a permanent injunction with the exception that the plaintiff must show a likelihood of success on the merits rather than actual success. See, e. g., *University of Texas v. Camenisch*, 451 U.S. 390, 392 (1981). Despite the preliminary nature of the proceeding, the record before the District Court was complete enough to allow it to decide that exploration activities would not significantly restrict subsistence resources. The fact that, on another record, such a conclusion could not be made with any degree of confidence is a factor to be considered under the traditional equitable balancing of interests but hardly suggests that the balancing test itself must be abandoned.

-----End Footnotes-----

Accordingly, the Ninth Circuit erred in directing the issuance of a preliminary injunction.

III

[**HR2B] [2B]

[**HR8A] [8A]

Petitioners also contend that the Court of Appeals erred in holding that ANILCA § 810 applies to the OCS. We agree. By its plain language, that provision imposes obligations on federal agencies with respect to decisions affecting use of federal lands *within the boundaries of the State of Alaska*. Section 810 applies to "public lands." Section 102 of ANILCA, 16 U. S. C. § 3102, defines "public lands," and included [**1405] terms, for purposes of the Act n13 as follows:

AR 008018

"(1) The term 'land' means lands, waters, and interests therein.

[*547] "(2) The term 'Federal land' means lands the title to which is in the United States after December 2, 1980.

"(3) The term 'public lands' means land situated *in Alaska* which, after December 2, 1980, are Federal lands, except [land selected by the State of Alaska or granted to the State under the *****557** Alaska Statehood Act, 72 Stat. 339, or any other provision of federal law, land selected by a Native Corporation under ANCSA, and lands referred to in ANCSA § 19(b), 43 U. S. C. § 1618(b)]." (Emphasis added.)

The phrase "in Alaska" has a precise geographic/political meaning. The boundaries of the State of Alaska can be delineated with exactitude. The State of Alaska was "admitted into the Union on an equal footing with the other States," and its boundaries were defined as "all the territory, together with the territorial waters appurtenant thereto, now included in the Territory of Alaska." Alaska Statehood Act (Statehood Act) §§ 1, 2, 72 Stat. 339. The Submerged Lands Act of 1953, 67 Stat. 29, as amended, 43 U. S. C. § 1301 et seq. (1982 ed. and Supp. III), was made applicable to the State. Statehood Act § 6(m), 72 Stat. 343. Under § 4 of the Submerged Lands Act, 43 U. S. C. § 1312, the seaward boundary of a coastal State extends to a line three miles from its coastline. At that line, the OCS commences. OCSLA § 2(a), 43 U. S. C. § 1331(a). By definition, the OCS is not situated in the State of Alaska. Nevertheless, the Ninth Circuit concluded that "in Alaska" should be construed in a general, "nontechnical" sense to mean the geographic region of Alaska, including the Outer Continental Shelf. n14 746 F.2d, [*548] at 579. We reject the notion that Congress was merely waving its hand in the general direction of northwest North America when it defined the scope of ANILCA as "Federal lands" "situated in Alaska." Although language seldom attains the precision of a mathematical symbol, where an expression is capable of precise definition, we will give effect to that meaning absent strong evidence that Congress actually intended another meaning. "[Deference] to the supremacy of the Legislature, as well as recognition that Congressmen typically vote on the language of a bill, generally requires us to assume that 'the legislative purpose is expressed by the ordinary meaning of the words used.'" United States v. Locke, 471 U.S. 84, 95 (1985) (quoting Richards [***558] v. [**1406] United States, 369 U.S. 1, 9 (1962)). This is not that "exceptional case" where acceptance of the plain meaning of a word would "thwart the obvious purpose of the statute." Griffin v. Oceanic Contractors, Inc., 458 U.S. 564, 571 (1982) (internal quotations omitted). n15

-----Footnotes-----

n13 Section 102 provides that the definitions apply to the entire Act, except that in Title IX, which provides for implementation of ANCSA and the Alaska Statehood Act, 72 Stat. 339, and in Title XIV, which amends ANCSA and related provisions, the terms shall have the same meaning as they have in ANCSA and the Alaska Statehood Act.

n14 The Ninth Circuit stated: "In strikingly similar circumstances, the Supreme Court has twice given an expansive and non-technical interpretation to geographical terms to achieve Congress's apparent purpose to protect native fisheries. Hynes v. Grimes Packing Co., 337 U.S. 86, 110-116 . . . (1949); Alaska Pacific Fisheries v. United States, 248 U.S. 78, 89 . . . (1918)." 746 F.2d, at 580. The question in Alaska Pacific Fisheries was the geographic scope of "the body of lands known as Annette Islands," the reservation of the Metlakahtla Indians, in particular: whether the reservation embraced only the uplands or included the intervening and surrounding waters. Similarly, the issue in Hynes was whether the phrase "any other public lands which are actually occupied by Indians or Eskimos within said Territory" authorized the Secretary of the Interior to include in the Karluk Reservation the waters to a distance of 3,000 feet from the shore. 337 U.S., at 91, 92. In both cases, we concluded that, in light of the purposes of the reservations, the phrases were properly interpreted to include a band of adjacent waters. These cases clearly are inapposite. Unlike "Alaska," the phrases in issue did

AR 008019

not have precise geographic/political meanings which would have been commonly understood, without further inquiry, to exclude the waters. There is no plain meaning to "the body of lands" of an island group, 248 U.S., at 89, and clearly none to "public lands which are actually occupied by Indians or Eskimos." The meaning of the phrases had to be derived from their context in the statutes.

n15 Petitioners also assert that the OCS plainly is not "Federal land" because the United States does not claim "title" to the OCS. See ANILCA § 102(2), 16 U. S. C. § 3102(2). The United States may not hold "title" to the submerged lands of the OCS, but we hesitate to conclude that the United States does not have "title" to any "interests therein." Certainly, it is not clear that Congress intended to exclude the OCS by defining public lands as "lands, waters, and interests therein" "the title to which is in the United States." We also reject the assertion that the phrase "public lands," in and of itself, has a precise meaning, without reference to a definitional section or its context in a statute. See Hynes v. Grimes Packing Co., 337 U.S., at 114-116.

-----End Footnotes-----

[*549]

*****HR9** [9]

Nothing in the language or structure of ANILCA compels the conclusion that "in Alaska" means something other than "in the State of Alaska." The subsistence-protection provisions of the statute must be viewed in the context of the Act as a whole. n16 ANILCA's primary purpose was to complete the allocation of federal lands in the State of Alaska, n17 a process begun with the Statehood Act in 1958 and continued in 1971 in ANCSA. n18 To this end, it provided for additions to **[*550]** the National Park System, National Wildlife Refuge System, National Forest System, National Wild and Scenic Rivers System, and National Wilderness *****559** Preservation System, and also provided for the establishment of a National Conservation Area and National Recreation Area, within the State of Alaska. Titles II-VII, 94 Stat. 2377-2422. The Act also provided means to facilitate and expedite the conveyance of federal lands within the State to the State of Alaska under the Statehood Act and to Alaska Natives under ANCSA. Titles IX and XIV, 94 Stat. 2430-2448, 2491-2549. The remaining federal lands within the State were left available for resource development and disposition under the public land laws. The other provisions of ANILCA have no express applicability to the OCS and need not be extended beyond the State *****1407** of Alaska in order to effectuate their apparent purposes. n19 It is difficult to believe that Congress intended the subsistence protection provisions of Title VIII, alone among all the provisions in the Act, to apply to the OCS. It is particularly implausible because the same definition of "public lands" which defines the scope of Title VIII applies as well to **[*551]** the rest of the statute (with the exceptions noted at n. 13, *supra*).

-----Footnotes-----

n16 ANILCA is comprised of 15 titles and spans 181 pages of the Statutes at Large, 94 Stat. 2371-2551. The subsistence protection provisions are contained in Title VIII. 94 Stat. 2422-2430, 16 U. S. C. §§ 3111-3126.

n17 Congress clearly articulated this purpose:

"(a) In order to preserve for the benefit, use, education, and inspiration of present and future generations certain lands and waters in the *State of Alaska* that contain nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values, the units described in the following titles are hereby established.

....

AR 008020

"(d) This Act provides sufficient protection for the national interest in the scenic, natural, cultural and environmental values on the public lands in Alaska, and at the same time provides adequate opportunity for satisfaction of the economic and social needs of the *State of Alaska* and its people; accordingly, the designation and disposition of the public lands in Alaska pursuant to this Act are found to represent a proper balance between the reservation of national conservation system units and those public lands necessary and appropriate for more intensive use and disposition, *and thus Congress believes that the need for future legislation designating new conservation system units, new national conservation areas, or new national recreation areas, has been obviated thereby.*" ANILCA § 101, 16 U. S. C. § 3101 (emphasis added).

n18 The House Report declared the following to be the purpose of the bill:

"The principal purpose of H. R. 39 is [sic] amended and reported by the Committee on Interior and Insular Affairs is to designate approximately 120 million acres of Federal land in Alaska for protection of their resource values under permanent Federal ownership and management. . . . It virtually completes the public land allocation process in Alaska which began with the Statehood Act of 1958 which granted the State the right to select approximately 104 million acres of public land; this land grant is less than 30 percent complete. The Federal land disposal process was continued by the Alaska Native Claims Settlement Act of 1971 which granted Alaska Natives the right to select approximately 44 million acres of federal land; this process is only one-eighth complete." H. R. Rep. No. 96-97, pt. 1, p. 135 (1979).

See also H. R. Rep. No. 96-97, pt. 2, p. 89 (1979); S. Rep. No. 96-413, p. 126 (1979).

n19 Title I sets forth the Act's purposes and definitions. Titles X and XV pertain to mineral resources. Title XI governs transportation and utility systems in and across, and access into, conservation system units, Title XII provides for federal-state cooperation, and Title XIII contains miscellaneous administrative provisions.

-----End Footnotes-----

There is a lone reference to the OCS in the statute, in § 1001(a), 16 U. S. C. § 3141(a), and it is for the purpose of ensuring that the provision does *not* apply to the OCS. n20 Section 1001 provides for a study of oil and gas resources, wilderness characteristics, and wildlife resources of the "North Slope":

"(a) The Secretary shall initiate and carry out a study of all Federal lands (other than submerged lands on the Outer Continental Shelf) in Alaska north of 68 degrees north latitude and east of the western boundary of the National Petroleum Reserve -- Alaska, other than lands included in the National Petroleum Reserve -- Alaska and in conservation system units established by this Act."

The Secretary suggests that Congress included the parenthetical excluding the OCS out of an abundance of caution because "North Slope" is defined in a related statute -- the Alaska Natural Gas Transportation Act of 1976, 15 U. S. C. § 719 et seq. (1982 ed. and Supp. III) -- to include the OCS. See 15 U. S. C. § 719b. Whatever the reason for caution, it is apparent from ANILCA § 1008(a), 16 U. S. C. § 3148(a), that Congress did not intend "Federal lands in Alaska" to include the OCS despite the parenthetical in § 1001(a). Section 1008(a) requires the Secretary to "establish, pursuant to the Mineral [Lands] Leasing Act of 1920, as amended [30 U. S. C. § 181 et seq. (1982 ed. and Supp. III)], an oil and gas leasing program *on the Federal lands of Alaska* not subject to the study required by section 1001 of this Act, other than lands included in the National Petroleum Reserve -- Alaska." [***552**] (Emphasis added.) Congress clearly did not intend this program to extend to the OCS; OCSLA, [*****560**] rather than the Mineral Lands Leasing Act, governs mineral leasing on the OCS. See 43 U. S. C. §

AR 008021

1333(a)(1).

-----Footnotes-----

n20 The Ninth Circuit relied on this provision in support of its conclusion that the phrase "in Alaska" is ambiguous and can be read to include the OCS. See 746 F.2d, at 575.

-----End Footnotes-----

*****HR10** [10]

Title VIII itself suggests that it does not apply to the OCS. Section 810 places the duty to perform a subsistence evaluation on "the head of the Federal agency having primary jurisdiction over such lands." Unlike onshore lands, no federal agency has "primary jurisdiction" over the OCS; agency jurisdiction turns on the particular activity at issue. See G. Coggins & C. Wilkinson, *Federal Public Land and Resources Law* 434 (1981).

The similarity between the language of ANILCA and its predecessor statutes, the Statehood Act and ANCSA, also refutes the contention that Congress intended "Alaska" to include the OCS. In the Statehood Act, Congress provided that the State of Alaska could select over 100 million acres from the vacant and unreserved "public lands of the United States in Alaska" within 25 years of its admission. Statehood Act § 6(b), 72 Stat. 340. Similarly, in ANCSA, Congress allowed Native Alaskans to select approximately 40 million acres of "Federal lands and interests therein located in Alaska," with the exception of federal installations and land selections of the State of Alaska under the Statehood Act. 43 U. S. C. §§ 1602(e), 1610(a), 1611. We agree with the Secretary that "[i]t is inconceivable that Congress intended to allow *****1408** either the State of Alaska or Native Alaskans to select portions of the OCS -- 'a vital national resource reserve held by the [government] for the public' (43 U. S. C. 1332(3))."
Brief for Petitioners in No. 85-1406, p. 33. Clearly, the purpose of these provisions was to apportion the land within the boundaries of the State of Alaska. The nearly identical language in ANILCA strongly suggests a similar scope for that statute.

*****HR8B** [8B]

*****HR11** [11]

When statutory language is plain, and nothing in the Act's structure or relationship to other statutes calls into question *****553** this plain meaning, that is ordinarily "the end of the matter." *Chevron U. S. A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842 (1984). "Going behind the plain language of a statute in search of a possibly contrary congressional intent is a step to be taken cautiously even under the best of circumstances." *United States v. Locke*, 471 U.S., at 95-96 (internal quotations omitted). ANILCA's legislative history does not evidence a congressional intent contrary to our reading of the statutory language. Significantly, the legislative history nowhere expressly indicates that the subsistence provisions apply to the OCS. The Ninth Circuit relied on a number of remarks made during the floor debates which were not specifically addressed to the scope of ANILCA in general or the subsistence provisions in particular. 746 F.2d, at 579. The central issue of the floor debates was the appropriate balance between exploitation of natural resources, particularly energy resources, and dedication of land to conservation units. A number of Congressmen addressed the amount of oil expected to be recovered from the OCS offshore of Alaska in the context of this balancing and, in doing so, referred to "Alaska" in a manner which included the OCS. *****561** Representative Udall, Chairman of the House Committee on Interior and Insular Affairs, and floor manager of the bill, for example, sought to assure Members that the bill he favored did not inordinately restrict energy development:

AR 008022

"The experts tell us that most of the oil and gas is not going to be from onshore. . . . Offshore *in Alaska* there are 203 million acres of sedimentary basin. Let me tell the Members how much of that is put out of production by this bill so that they cannot get it. The answer is zero. Every

single acre of offshore oil sedimentary basin potential in Alaska is going to be open for oil drilling and prospecting. The State owns some of it beneath the high water mark, and the Federal Government owns the rest.

[*554] "Under other legislation those submerged lands are open, are going to be explored and developed, and that should be 203 million acres." 125 Cong. Rec. 9900 (1979) (emphasis added); see also *id.*, at 11128.

This casual use of the phrase "in Alaska" in a floor debate does not carry the same weight that it does in the definitional section of the statute. n21 Spoken language is ordinarily less precise than written language; Representative Udall could easily have intended to say "offshore of Alaska." Indeed, the obvious thrust of his statement was that ANILCA does *not* apply to the OCS; rather, OCSLA governs offshore oil development. Numerous statements by other legislators reveal a common understanding -- consistent with the plain meaning **[**1409]** of the statutory language -- that ANILCA simply "has nothing to do with the Outer Continental Shelf," *id.*, at 11170 (remarks of Rep. Emery). n22

-----Footnotes-----

n21 See also 125 Cong. Rec. 9893 (1979) (remarks of Rep. Vento) ("[The Udall-Anderson bill] provides for the potential exploration and development of approximately 95 percent of the onshore areas which have either high or favorable potential for oil and gas and 100 percent of the offshore potential sites, which . . . comprises two-thirds of Alaska's oil potential"); *id.*, at 9907 (remarks of Rep. Young) ("I will tell the Members this: The person who supports offshore drilling in Alaska first over onshore drilling is doing a great disservice to the environment"); *id.*, at 11174 (remarks of Rep. Huckaby) ("Alaska's offshore oil potential is estimated to be some 16 to 25 billion barrels").

n22 See also 126 Cong. Rec. 21889 (1980) (remarks of Sen. Bayh) ("100 percent of the offshore sites would remain available to exploration"); *id.*, at 21657 (remarks of Sen. Cranston) (same); *id.*, at 18747 (remarks of Sen. Hart) ("[Most] of Alaska's undiscovered oil and gas lies offshore, and so would not be affected by these land designations"); 125 Cong. Rec. 11450 (1979) (remarks of Rep. Kostmayer) ("Two hundred and five million acres offshore are untouched by the Udall-Anderson bill").

The Ninth Circuit also relied on the fact that ANILCA's subsistence provisions, as finally enacted, cover all federal lands in Alaska and that its saving clause, 16 U. S. C. § 3125, specifies that the subsistence provisions do not affect the Magnuson Fishery Conservation and Management Act (FCMA), 90 Stat. 331, 16 U. S. C. § 1801 et seq. (1982 ed. and Supp. III). 746 F.2d, at 581. Under the FCMA, the United States asserts exclusive fishery management authority in the fishery conservation zone which commences at the boundary of the coastal States and extends 200 miles from the coast. 16 U. S. C. §§ 1811, 1812(1). According to the Court of Appeals, the inclusion of the FCMA in the saving clause indicates that ANILCA applies to the OCS. However, the FCMA also applies to "anadromous species throughout the migratory range of each such species beyond the fishery conservation zone," which would include waters within the State of Alaska. 16 U. S. C. § 1812(2). Thus, there is no need to interpret "Alaska" to include the OCS in order to give meaning to the FCMA's inclusion in the saving clause.

-----End Footnotes-----

[*555]

AR 008023

[*HR12]** [12]

Finally, **[***562]** we reject the Ninth Circuit's reliance on the familiar rule of statutory construction that doubtful expressions must be resolved in favor of Indians. 746 F.2d, at 581. There is no ambiguity here which requires interpretation. "The canon of construction regarding the resolution of ambiguities . . . does not permit reliance on ambiguities that do not exist; nor

does it permit disregard of the clearly expressed intent of Congress." South Carolina v. Catawba Indian Tribe, 476 U.S. 498, 506 (1986).

[HR13]** [13]

The judgment of the Ninth Circuit with respect to the entry of a preliminary injunction and the applicability of ANILCA § 810 to the OCS is reversed. We do not decide here the scope of ANCSA § 4(b). Respondents' cross-petition on this issue, No. 85-1608, is granted, the Court of Appeals' judgment that § 4(b) extinguished aboriginal rights on the OCS is vacated, and this question is remanded to the Court of Appeals for decision in light of this opinion.

It is so ordered.

CONCUR: JUSTICE STEVENS, with whom JUSTICE SCALIA joins, concurring in part and concurring in the judgment.

Given the Court's holding that § 810 of the Alaska National Interest Lands Conservation Act (ANILCA), 94 Stat. 2371, 16 U. S. C. § 3120, does not apply to the Outer Continental Shelf, it is unnecessary to decide whether the Court of Appeals applied the proper standard in determining the **[*556]** availability of injunctive relief. * Accordingly, I join only Parts I and III of the Court's opinion.

-----Footnotes-----

* Indeed, the Court itself recognizes this when it declines to reach two additional questions that were presented in the petition. See *ante*, at 534-535, n. 1. This is not a case in which discussion of a nonessential issue is arguably appropriate because the lower court is likely to employ the identical legal analysis on remand. Even if, in light of the decisions in this case and the cross-petition, the Court of Appeals finds that respondents retain aboriginal rights in the Outer Continental Shelf, it would apparently not apply the same injunctive relief standard that it applied with relation to ANILCA. The special injunctive standard applied to the ANILCA claim was based on Circuit precedent providing that, absent unusual circumstances, "[an] injunction is the appropriate remedy for a *substantive procedural violation of an environmental statute.*" People of Gambell v. Hodel, 774 F.2d 1414, 1422 (1985) (emphasis added). See generally Save Our Ecosystems v. Clark, 747 F.2d 1240, 1250 (CA9 1984). There is no reason to believe that this rule would be extended to injunctions designed to prevent interference with aboriginal rights.

-----End Footnotes-----

Service: **LEXSEE®**
Citation: **480 us 531**
View: **Custom - Modify**
Segments: Concur, Dissent, Dissentby, Opinion, Opinionby, Opinions
Date/Time: Wednesday, September 12, 2001 - 4:46 PM EDT

[About LexisNexis | Terms and Conditions](#)

Copyright © 2001 LexisNexis, a division of Reed Elsevier Inc. All rights reserved.

AR 008024

**E
X
H
I
B
I
T**

AR 008025

Service: LEXSEE®
Citation: 687 f supp 495

687 F. Supp. 495, *; 1988 U.S. Dist. LEXIS 4910, **;
19 ELR 20165

People of the State of California, ex rel. John K. Van De Kamp, Attorney General of California, and the California Regional Water Quality Control Board (San Francisco Bay Region), Plaintiffs, v. John O. Marsh, Secretary of the Army; Robert K. Dawson, Assistant Secretary of the Army for Civil Works; Patrick Kelley, Division Engineer, South Pacific Division, U.S. Army Corps of Engineers; Andrew M. Perkins, Jr., District Engineer, San Francisco District, U.S. Army Corps of Engineers; City of Oakland; Port of Oakland; Board of Port Commissioners of the Port of Oakland, Defendants. Save San Francisco Bay Association, a nonprofit corporation; Golden Gate Audubon Society, Inc., a nonprofit corporation; and Citizens for Alameda's Last Marshlands, an unincorporated association, Plaintiffs, v. John O. Marsh, Secretary of the Army; Robert K. Dawson, Assistant Secretary of the Army for Civil Works; Patrick Kelley, Division Engineer, South Pacific Division, U.S. Army Corps of Engineers; Andrew M. Perkins, Jr., District Engineer, San Francisco District, U.S. Army Corps of Engineers; City of Oakland; Port of Oakland; Board of Port Commissioners of the Port of Oakland, Defendants

Nos. C-86-5817-RHS, C-86-6023 RHS (Consolidated)

UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF CALIFORNIA

687 F. Supp. 495; 1988 U.S. Dist. LEXIS 4910; 19 ELR 20165

May 11, 1988, Decided

May 11, 1988, Filed

CORE TERMS: wetland, mitigation, environmental, airport, pollutant, acre, proposed project, wildlife, fill, prepare, significant impact, human environment, noise, site, hard look, cumulative, filtering, independently, water quality, air cargo, recommended, adequacy, proposed site, flight, filled, birds, significant adverse, pecuniary injury, federal agency, fully informed

COUNSEL: **[**1]** John K. Van de Kamp, Attorney General of the State of California, Theodora Berger, Ass't Attorney General, Susan L. Durbin, Deputy Attorney General, David W. Hamilton, Deputy Attorney General, San Francisco, California, for Plaintiffs.

Winifred Berman, Esq., Shute, Mihaly & Weinberger, San Francisco, California, for Save San Francisco Bay Association, Golden Gate Audubon Society, Inc., Sierra Club, Inc., Citizens of Alameda's Last Marshlands.

Frank Boone, Esq., United States Attorney Office, San Francisco, California, Gerald Fish, Esq., Scott A. Schachter, Esq., Land & Natural Resources Division, U.S. Department of Justice, Washington, District of Columbia, for Federal Defendants.

Richard Winnie, Esq., City Attorney, City of Oakland, Oakland, California, for City of Oakland.

Stanley P. Herbert, Esq., Port Attorney, Thomas D. Clark, Esq., Assistant Port Attorney, Port of Oakland, Oakland, California, Gary Baise, Esq., Benjamin Wilson, Esq., Amy Comstock Burton, Esq., Beveridge & Diamond, P.C., Washington, District of Columbia, for Port of Oakland.

John H. Eft, District Counsel, Department of the Army, San Francisco District, Corps of Engineers, San Francisco, California, for U.S. Army Corps of Engineers.

AR 008026

JUDGES: Robert N. Schnacke, United States District Judge.

OPINIONBY: SCHNACKE

OPINION: [*497] [**2] ROBERT N. SCHNACKE, UNITED STATES DISTRICT JUDGE.

A. JURISDICTION

The Court has subject matter jurisdiction over these claims because these civil actions arise under the laws of the United States [See, 28 U.S.C. § 1331].

B. FACTS

The Oakland Airport (the "Airport") project site is located immediately adjacent to existing airport facilities on diked, nontidal baylands. The project site is made up of seasonal wetlands which provide feeding and resting habitat for migratory shorebirds and waterfowl during the winter. Additional birds and wildlife use the wetlands year-round.

Defendant Port of Oakland (the "Port") applied to the Army Corps of Engineers (the "Corps") in 1981 for a permit to fill part of the wetlands at the Airport. Modified applications were submitted for 373- and 435-acre fill permits between 1981 and 1985. The Corps approved the 435- acre fill permit on February 14, 1985. The Airport wanted to use the filled land for expanded air cargo handling facilities for United Parcel and Federal Express and approximately 120 acres were required for this project. The Corps planned on using the additional land for rental car parking, corporate aircraft [**3] parking and maintenance, a telecommunications facility, a third commercial air terminal, and other ancillary facilities.

The Corps proposed mitigation for the loss of wetlands by acquiring and dedicating to the California Department of Fish and Game ("Cal.F&G"), a 461-acre parcel of land adjacent to the American Canyon landfill (the "Zunino property") in Napa County. The Port proposed the development of an enhancement plan for the Zunino property for the purpose of converting uplands on the property into marsh habitat.

On July 16, 1985 the Corps issued a public notice requesting comments from governmental agencies and the public. The Corps prepared an Environmental Assessment ("EA") of the project, and determined that an Environmental Impact Statement ("EIS") was not necessary. The Corps did not hold any public hearings on the project.

The Corps received comments from public agencies, environmental organizations, and individual citizens. The Environmental Protection Agency ("EPA") recommended an EIS be prepared for the project, and initially EPA recommended the Corps deny the permit. However, on July 21, 1986, EPA stated that the project was environmentally satisfactory. During the [**4] comment period, Cal.F&G recommended the Corps not issue a permit, but Cal.F&G later agreed to the mitigation plan.

At the close of the comment period, mitigation concerns were left unanswered, and the Fish and Wildlife Service and the EPA requested the permit application be elevated for review by the Ports' higher officials. Brigadier General Palladino of the Corps' San Francisco Division Office reviewed the permit decision. Palladino reduced the project by 255 acres and on June 27, 1986 issued his EA, Statement of Findings and Permit Decision on the 180-acre project. Palladino stated that the 180-acre fill did not have a significant impact on the human environment and that an EIS was not required. He directed the Port to purchase the Zunino property, transfer it to Cal.F&G, and enhance the property as Cal.F&G recommended. The Port was required to acquire rights to an additional mitigation property, the Moseley property, which already was a wetland. Title to the Moseley property was not transferred to a public agency. On July 23, 1986, defendant Perkins issued the Corps' permit allowing the Port to fill 180 acres at the Airport.

AR 008027

During the review period, the Corps considered the project's **[**5]** environmental impacts and documented those impacts in the Administrative Record. The Corps relies on agencies to notify the Corps if it had been incorrect or inaccurate in its assessment of the environmental impacts of a project and it interprets a lack of response as "no objection" to the project. The Corps met with governmental agencies to discuss the feasibility of the project. The Corps did not analyze the biological resources on-site, **[*498]** nor did it analyze the site's hydrological characteristics. The Corps did not extensively evaluate and compare the physical and biological resources at the Zunino or Moseley properties.

The Corps reviewed alternatives to the proposed wetlands fill which included decreasing the size of the project at the Airport. The Corps did not study extensively the possibility of relocating the project to another airport in the vicinity.

The Corps did a cursory study of the increased noise due to additional aircraft. Commercial air traffic at the Airport may raise total daily flight operations at the South Field by as much as one third. The Corps did not consider the nighttime noise levels which would be increased due to the proposed operations. It relied in **[**6]** part on an earlier study which studied an area with less residential construction, fewer flights, and fewer night flights.

The wetlands act as a filtering system for pollutants before draining into the San Francisco Bay. They will not be able to function as a filter, if they are filled. The water flow direction will be changed such that even the wetlands remaining will lose most of their filtering function, and the pollutants will then drain directly into the Bay.

The Corps' mitigation plan does not state the specific conditions of the proposals, how the mitigation plan would operate, or for how long the land would be used for the proposed purposes.

The Corps relied on other agencies' evaluations of the project's cumulative effect of the wetlands and wildlife impacts. The Corps did not discuss the cumulative impacts on air quality, water quality, or the noise pollution in its Decision Document.

C. STANDARD OF REVIEW AND APPLICABLE LAW

National Environmental Policy Act

NEPA is an "essentially procedural" statute, [*Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 558, 55 L. Ed. 2d 460, 98 S. Ct. 1197 (1978)]. Courts enforce NEPA under their authority to hold **[**7]** unlawful and set aside agency action, findings, and conclusions which were made without following legally prescribed procedures [*City of Angoon v. Hodel*, 803 F.2d 1016, 1020 (9th Cir. 1986), *cert. denied* 484 U.S. 869, 108 S. Ct. 197, 98 L. Ed. 2d 148 (1987), *quoting Lathan v. Brinegar*, 506 F.2d 677, 692-93 (9th Cir. 1974) (*en banc*); *see also* Administrative Procedure Act, 5 U.S.C. § 706(2) (D)]. The Corps is held to a strict standard of compliance with NEPA [*Friends of the River v. F.E.R.C.*, 231 U.S. App. D.C. 329, 720 F.2d 93, 110 (D.C.Cir. 1983), *quoting Calvert Cliffs' Coord. Comm. v. United States Atomic Energy Comm'n*, 146 U.S. App. D.C. 33, 449 F.2d 1109, 1112 (D.C.Cir. 1971)].

Courts review the agency's decision not to prepare an EIS by deciding whether the agency has "reasonably concluded" that the project will have no significant adverse environmental consequences [*City and County of San Francisco v. United States*, 615 F.2d 498, 500 (9th Cir. 1980), *quoting City of Davis v. Coleman*, 521 F.2d 661, 673 (9th Cir. 1975) *quoting, Save Our Ten Acres v. Kreger*, 472 F.2d 463, 467 (5th Cir. 1973)]. The Court need only defer to the agency's judgment, and not substitute its own, when the agency's judgment is "fully informed **[**8]** and well-considered" [*LaFlamme v. F.E.R.C.*, 852 F.2d 389, slip op. at 3435 (9th Cir. 1988), *quoting Jones v. Gordon*, 792 F.2d 821, 828 (9th Cir. 1986)]. The Corps' decision not

AR 008028

to prepare an EIS is unreasonable if it failed to supply a convincing statement of reasons why potential effects are insignificant [*The Steamboaters v. F.E.R.C.*, 759 F.2d 1382, 1393 (9th Cir. 1985); *Save the Yaak Comm. v. Block*, 840 F.2d 714, slip op. at 2518 (9th Cir. 1988)].

Plaintiffs must prove that "substantial questions" were raised about whether the project will have a significant environmental effect in order to prove that the Corps' decision was unreasonable [*The Steamboaters v. F.E.R.C.*, 759 F.2d at 1392].

Thus, if the Corps reasonably concluded that the 180- acre landfill will not have significant adverse effect on the human environment, no EIS is needed. If the Corps' [*499] decision was unreasonable, the court may remand the decision for further investigation.

D. VIOLATIONS OF NEPA

1. *Alternatives considered*

As a federal agency, the Corps must provide a discussion of the environmental impacts, not only of the proposed project, but of the alternatives to the [**9] proposed project, in its EA [40 C.F.R. § 1508.9(b) (1987); 33 C.F.R. § 230.9(a) (1987)].

The Corps did not evaluate the alternative of relocating some or all of the air cargo project at nearby airports, including San Francisco International, and San Jose airport. It did not complete a detailed analysis of the environmental impacts of these alternative sites. The Corps did not consider changing the project to house only one of the air cargo companies who had requested space at the airport, and thereby shrinking the impact on the wetlands.

These appear to be reasonable alternatives which had to be evaluated by the Corps. By failing to consider and evaluate them, the Corps did not strictly comply with NEPA's requirement to pursue all alternatives to the Oakland Airport site.

2. *Environmental Impacts*

The Corps must provide a discussion of the environmental impacts of the project [40 C.F.R. § 1508.9(b)].

It was undisputed at trial that the 180-acre wetlands are very significant. The wildlife at the site is abundant and the site is an important part of the migration trip for the migratory birds.

The Corps did not have adequate information regarding the numbers of birds, specifically the [**10] California Least Tern, which are present at the Oakland Airport, to be able to make a fully informed and well-considered decision about the birdlife at the proposed site. The trapping studies of the Salt Marsh Harvest Mouse were not accurate and the decision that the mouse does not exist at the site was not based on the most up-to-date information available to the Corps. Substantial questions were raised regarding the impacts on the Salt Marsh Harvest Mouse and the California Least Tern, both of which are endangered species.

The Corps did not evaluate whether the air cargo buildings, the human traffic, and the airplane and vehicular traffic would add pollutants to the remaining wetlands. If the wetlands are affected by the pollutants, the wildlife in the wetlands will be endangered.

These issues raise substantial questions about the effect on the environment which were not evaluated by the Corps. By ignoring these issues, the Corps violated NEPA's requirements to take a hard look at the impact on wildlife. The Corps could not reasonably conclude that there would not be a significant adverse environmental consequences with the incomplete information the Corps had before it.

3. [**11] *Noise Impacts*

AR 008029

The Corps is required by NEPA to take a hard look at all environmental impacts on the proposed site [40 C.F.R. § 1508.9(b)]. The Corps must independently verify the information it relies upon [*Friends of the Earth v. Hintz*, 800 F.2d 822, 834-35 (9th Cir. 1986)].

Expert testimony was given stating that the noise impact would be significant and supporting documentation was presented. Substantial questions were raised about whether the proposed project would have significant noise impacts.

The data the Corps relied upon in making their statement that the project would not measurably increase noise levels beyond the acceptable level in the vicinity of the airport is not in the Administrative Record. The Corps did not see the study it relied upon and instead accepted it at face value. The Corps neither independently verified the data it relied upon, nor did they take a hard look at the noise impacts of the proposed project. Thus the Corps violated NEPA's standards.

4. Water Quality

NEPA requires the Corps to take a hard look at all environmental impacts on the [*500] proposed project [40 C.F.R. § 1508(b)]. The Corps is required to determine whether the proposed project [**12] may have a significant impact on the human environment. The Corps is required to consider the water quality impact.

The Corps did not consider adequately the amount of additional pollutants which might be dispensed into the environment by additional airplanes, automobiles, and pedestrians using the Airport. These pollutants may include oil, grease, toxic metals and suspended solids which may adversely affect the environment.

The Corps did not evaluate the pollutant run-off which will be diverted into the San Francisco Bay, instead of into the wetlands. The wetlands currently act as a filtering system for the pollutants so that they are not drained into the Bay. The proposed wetlands fill will decrease the amount of wetlands available for this filtering process and more of the pollutants will flow into the Bay. This impact was not adequately studied by the Corps.

The Corps did not take a hard look at either the new pollutants which may be found at the proposed site, or the amount of pollutants which will be diverted into the Bay, instead of into the wetlands as a natural filtering system. This lack of investigation violates NEPA's requirements.

5. Cumulative Impacts

A federal agency [**13] must analyze and discuss the cumulative impacts of the proposed action considered together with past, present, and reasonably foreseeable future action [See 40 C.F.R. §§ 1508.7, 1508.27 (1987); *Kleppe v. Sierra Club*, 427 U.S. 390, 410, 49 L. Ed. 2d 576, 96 S. Ct. 2718 (1975)]. The agency must consider other proposals and contemplated actions that are not yet formalized proposals. The agency must also consider actions that are not themselves subject to NEPA's requirements [See 40 C.F.R. § 1508.7 (1987); *Fritiofson v. Alexander*, 772 F.2d 1225, 1242-43 (5th Cir. 1985)].

The Corps did not complete a cumulative impacts assessment. It did not consider whether other proposals were pending or whether the historical impact on the Bay area wetlands was significant.

The Corps did not independently evaluate the San Francisco Bay Conservation and Development Commission's report on the amount of tidal and nontidal wetlands, but instead used the information without concern for their lack of understanding of the figures in the report. The Corps was required to independently verify the information it relied upon [*Friends*

AR 008030

of the Earth v. Hintz, 800 F.2d at 834-835].

The Corps must review the project in conjunction [**14] with all past, present and proposed projects to determine if the project may have a significant impact on the human environment. The Corps' lack of investigation into the cumulative impacts of the proposed project violated NEPA's requirements.

6. Mitigation Plan

The Corps is required to determine the adequacy of the proposed mitigation plan. The mitigation plan must be spelled out, and the effectiveness of the mitigation measures must be demonstrated in advance of the project's approval [Oregon Natural Resources Council v. Marsh, 832 F.2d 1489, 1493-94 (9th Cir. 1987)]. The Corps must clearly explain how the mitigation plan would mitigate the proposed project's impacts [LaFlamme v. F.E.R.C., 852 F.2d 389, slip op. at 3439].

The proposed mitigation plan does not document the types of wetlands to be created, the vegetation currently present on the wetlands, the wildlife types which would be benefitted, the source and salinity of the water supplies, or the operation of the water control structures. The mitigation plan does not adequately discuss the cost of the improvements to be made, or how the project will be maintained.

Notwithstanding the elementary concerns of the mitigation proposal, [**15] none of the proposed changes are supported by contractual obligations on the Port's part. The Corps did not indisputably show contractual obligation to purchase the proposed land or to fully fund the proposals [**501] made. The Port does not have a binding agreement to maintain the mitigation property for the benefit of the species which are impacted.

The Port is not under contractual obligations to fully perform its promises to procure and enhance the mitigation properties. The Port's mitigation proposal poses great questions as to the adequacy of the mitigation, the feasibility of the creation of the wetlands, and their obligation to maintain them. By leaving these questions unanswered, the Corps violated NEPA's requirements.

E. CLEAN AIR ACT, CLEAN WATER ACT, RIVERS AND HARBORS ACT

This Court having found that the Corps violated the requirements of NEPA, need not reach conclusions under the Clean Air Act, Clean Water Act, or the Rivers and Harbors Act. As will be discussed, the Corps will be required to prepare an adequate EA or EIS. Any alleged violations of these laws are mooted by the fact that the further filling is enjoined until the necessary investigation and documentation of [**16] the environmental impacts of the project are completed.

During the preparation of the EA's and, if necessary, an EIS, the Corps is directed to follow the requirements of the Clean Air Act, the Clean Water Act, and the Rivers and Harbors Act.

F. REMEDY

AR 008031

This Court may determine that the decision to prepare an EIS is reasonable and uphold the EA. On the other hand, the Court may find that the Corps' decision was unreasonable because it did not address fully the environmental issues [See Fritiofson v. Alexander, 772 F.2d at 1238]. If the Court finds the decision is unreasonable, the Court may order an EIS or it may remand the case for preparation of a more complete EA [Id., at 1238]. The Court must find a significant impact to trigger the duty to prepare an EIS and the finding that an EA is inadequate does not necessarily require the Court to order an EIS [Id. at 1248].

The Ninth Circuit recently overruled a district court's requirement that an agency prepare an

EIS. The Court stated that the agency must consider the NEPA requirements and provide a reasoned explanation of whatever course it elects to pursue [*Jones v. Gordon*, 792 F.2d at 829].

This Court finds that **[**17]** the Corps did not adequately address the wetlands, wildlife, and endangered species impacts, water quality impacts, noise impacts, cumulative impacts, or the adequacy of the mitigation proposal. The EAs on these issues are inadequate and the issues must be addressed in more detail to determine whether they will lead to a significant impact on the human environment. If a significant impact on the human environment is found, an EIS will be required under NEPA.

The Court finds that there will be substantial harm to the environment if the wetlands are filled before the Corps is able to fully assess the project's impacts. Environmental injury is often irreparable and thus the issuance of an injunction to protect the environment is needed [*Amoco Prod. Co. v. Village of Gambell*, 480 U.S. 531, 107 S. Ct. 1396, 94 L. Ed. 2d 542, 555 (1987)]. The Port believes that it will suffer pecuniary injury, yet pecuniary injury is not an adequate basis for denying injunctive relief [*People ex rel. Van de Kamp v. Tahoe Regional Planning Agency*, 766 F.2d 1316, 1319 (9th Cir. 1985)].

The permit issued by the Corps is vacated and set aside. The matter is remanded to the Corps for further investigation **[**18]** in accordance with this opinion. The injunction presently in effect will continue in effect until further order of this Court.

Service: **LEXSEE®**

Citation: **687 f supp 495**

View: Full

Date/Time: Wednesday, September 12, 2001 - 4:46 PM EDT

[About LexisNexis](#) | [Terms and Conditions](#)

Copyright © 2001 LexisNexis, a division of Reed Elsevier Inc. All rights reserved.

AR 008032

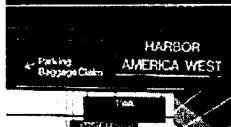
EXHIBIT

AR 008033

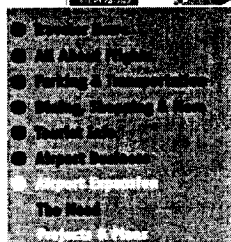


					search
Press Releases	Maps	Employment	Contact Us	Web Index	
Seaport	Sea-Tac Airport	The Port & You	In Business Together	Facts & Stats	Home

Seattle-Tacoma International Airport



**Airport Expansion
Projects & Plans**



Third Runway Construction Is a Work in Progress

The fill material needed to raise the third runway up to the current airfield elevation continues to be delivered to the airport via established routes. In order to expedite this delivery and keep trucks off local roads, work has started on temporary on/off ramps connecting South 176th Street and Highway 509 for the delivery vehicles. The project includes building retaining walls to support the ramps, placing fill material, building a storm water detention pond to control runoff, paving, and widening a portion of the shoulders along Highway 509 to accommodate the ramps. A timber "noise wall" is being built as a buffer between trucks using the ramps and a few houses in the vicinity. There will be some limited night work and occasional daytime lane closures on 509 during construction. The project is scheduled for completion by October.

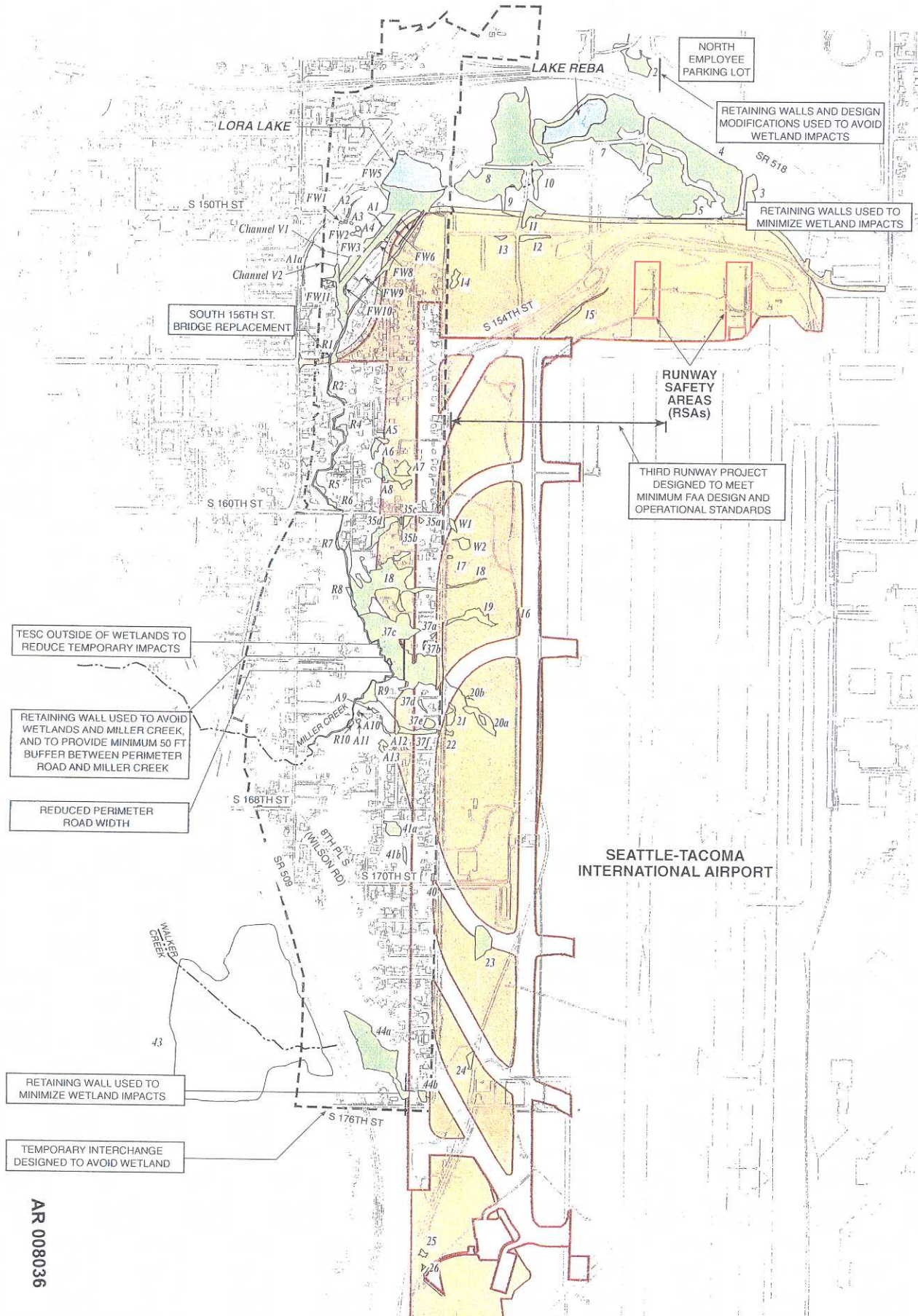
The contract for supplying 1.9 million cubic yards of fill this year was awarded to City Transfer of Kent. The delivery of this amount is not dependant upon issuance of environmental permits for the projects. Regulatory agencies are still reviewing the Port's permit application. The current contract also calls for delivery of an additional 485,000 cubic yards once the permits are approved.

[top of page](#)

AR 008034

**E
X
H
I
B
I
T**

AR 008035



AR 008036

Port of Seattle/Biological Assessment/556-2912-001(48)3/00 (K)



- Delineated Wetlands Verified by ACOE
- Wetlands Not Verified by ACOE
- Creek
- Boundary of Acquisition Area

- Third Runway and Interconnecting Taxiways
- Water Features
- Third Runway Embankment, RSA's and Relocated S 154th Street
- Wetland Number

Wetland and Stream Impacts in the Miller Creek Basin

**E
X
H
I
B
I
T**

AR 008037

July 25, 2001

Ann E. Kenny
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

Dear Ms. Kenny:

SUBJECT: Low Streamflow Analysis, Summer Low Flow Impact Offset Facility Proposal, Seattle-Tacoma International Airport

The purpose of this letter is to provide some clarifications on my letter to you dated July 23. These clarifications are a result of the discussions that occurred yesterday on a conference call between the Port, Ecology, King County, Parametrix, Aquaterra, and Floyd Snider McCarthy. Specific items for clarification are listed below.

1. On page 4, the second sentence in paragraph 2 should read, "In areas where the embankment is proposed, recharge entering the embankment was calculated using 'flat outwash grass.'"
2. The paragraph that discusses the non-contiguous groundwater contributions to Walker Creek (paragraph starting on the bottom of page 4 and continuing on page 5) contains two errors. The new impervious area is 69 acres, not 38. The effective impervious area is 59.3 acres, not 37.2. The modeling and back up are correct and consistent with these areas.
3. The sixth to the last page in the Walker Creek package entitled "Reserve Storage Vaults for Walker Creek" includes a section called "Contributing Drainage Area." This page has been revised as follows:

<u>Subbasin</u>	<u>Vaults</u>	<u>Area</u>	<u>% Contribution</u>
SDW2	F	6.0	52
SDW2	F	3.5	30
Lined Area			
SDW2	F	2.0	18
Pond Cover			
		Total	11.5

The modeling is consistent with this table.

Seattle-Tacoma
International Airport
P.O. Box 68727
Seattle, WA 98168 USA
FAX (206) 835-5701

AR 008038



4. Additional information on the Hydrus/slice modeling of the embankment is included. This information consists of a draft figure and text explaining how the slice modeling results were integrated over the fill length in each basin. This information was provided as an interim deliverable on July 9.
5. Non-hydrologic effects are described in a section that begins with a table entitled "Summary of Non-Hydrologic Impacts". Additional information regarding how the summary table was developed is provided in this section. Data for each column were determined as follows:

Number of Septic Tanks

The number of septic tanks was determined using information provided by Southwest Suburban Sewer District. Breakdown of septic tanks in each basin is determined by the surface watershed in which the parcel was located. Estimated septic tank usage was determined as described on the page entitled "Estimated Recharge Quantity". The column headings, which were inadvertently left off this page, are "Miller Creek", "Walker Creek", and "Des Moines Creek", respectively. Total recharge from septic systems (the last row on the "Estimated Recharge Quantity" page) is shown as 52,963 gallons per day (gpd) for Miller Creek and 9,201 gpd for Walker Creek, which convert to 0.082 cfs and 0.014 cfs for Miller Creek and Walker Creek, respectively.

Septic Tank Adjusted

This column refers to an adjustment of septic tank seepage that can be made in the Miller Creek basin to reflect water that is lost to deep groundwater. This seepage adjustment was incorrectly made to Walker Creek, and has been corrected in the summary table below. This correction does not change the total non-hydrologic impact in Walker Creek.

Withdrawals

The estimated water withdrawals in Miller creek are summarized in Table G-2 (attached), which was not included with the July 23rd letter. This table has been reviewed and approved as part of the SMP review.

With the modifications described above, the "Summary of Non-Hydrologic Impacts" table is corrected as follows:

Creek	Number of Septic Tanks	Septic Tank Estimated	Septic Tank Adjusted	Withdrawals ^b	Total Impact
Miller	236	-0.082	-0.057 ^a	+0.042	-0.02
Walker	41	-0.014	-0.014	N/A	-0.01

6. In the non-hydrologic impact section, references were made to spreadsheets that were submitted on the CD. The files are "MillerWaterPumpage.xls" and "SepticRecharge.xls"
7. In the final low flow report, details will be provided demonstrating the feasibility of vault construction and discharge mechanisms.

8. The model output used for 2006 in the Walker Creek basin was not included in the attachments in the July 23rd letter. This information was forwarded to Kelly Whiting on July 24th, and is included in the attached CD (filename "wwcnofill.inp" and "mnofill.inp").

I apologize for the confusion. Please contact me at 206/988-5528 if you have any questions.

Sincerely,



Keith R. Smith
Water Resources Manager

Attachments

C: Kelly Whiting, KCDNR

AR 008040

Table G-2. Update of Estimated Water Pumpage from Miller Creek.

Parcel	Notes	Last Name	Available Pumping Rate (gpm)	Acres	Estimated Months of Water Use Per Year	Estimated Actual Pumping Rate ⁵ (gpm)	Updated Usage Estimate (cfs)	Comments	
068R	1	Genzale	2.5	4	5	0.52	0.001	4 acres, 2.5 gpm June to mid-October	
185R	1	Berry	5	1	6	1.25	0.003	Less than 1 acre, summer only	
244R	1	Randall	5	0.5	6	1.25	0.003	Only in summer/garden	
097R	1,6	Smith	20	0.6	4	3.33	0.007	Pump 4 months for orchard, lawn, and garden	
311R	1	Rhoton	5	1.7	6	1.25	0.003	Water in summer - unknown quantity	
316R	1	Roullard	0	0.25			0.000	1940-60 maximum, 1990's no water usage	
050R	1	Eisinger	0				0.000	None to very little	
246R	1	Galando	0	0.75			0.000	Unknown - doesn't remember dad pumping water	
093R	2	Raffo	0	3.5			0.000	Table indicates no water	
055R	1	Mason	0				0.000	Municipal water	
060R	1	Vacca	0				0.000	Municipal water	
061R	1	Vacca	0				0.000	Municipal water	
143R	1	Brate	0	1			0.000	Water right not used	
182R	1	Illes	0	1			0.000	Water right not used	
253R	1	Kobela	0	0.5			0.000	Water right not used	
298R	1	Warner	0				0.000	Water right not used	
302R	1	Lopez	0				0.000	Water right not used	
062R	1	Scarsella	0	1.2			0.000	Water right not used	
142R	1	Wind of the Willows Condos	0	0.75			0.000	Water right not used	
214R	3	Kamp	20	1	6	5.00	0.011	Information from table G-1 only	
321R	3	Beaudin	20	0.75	6	5.00	0.011	Information from table G-1 only	
088R		Goodmansen					0.000	Information from table G-1 only	
322R	4	Longridge	4.5		6	1.12	0.003	Information from table G-1 only	
Estimated Historical Water Use							18.72	0.042	

AR 008041

NOTES gpm = gallons per minute cfs = cubic feet per second
¹ Information from owner
² Table G-1 indicates that Miller Creek water was not used
³ Table G-1 indicates 20 gpm; assume 6 months of water use for irrigation
⁴ Table G-1 indicates no information; assume minimum water right of 0.01 cfs
⁵ Available pumping rate x estimated months of water use per year x 0.5 (12 hours per day)
⁶ Available pumping rate estimated from Q (annual); Q (instantaneous) appeared to be abnormally high