

Supreme Court of Washington,
En Banc.

STATE of Washington, DEPARTMENT OF
ECOLOGY, Department of Fisheries and
Department of Wildlife, Respondents,

v.

PUD NO. 1 OF JEFFERSON COUNTY and City of
Tacoma, Department of Public
Utilities, Appellants.

No. 58272-6.

April 1, 1993.

As part of city's certification requirements under the federal Clean Water Act for building hydroelectric power plant on river, the Washington State Department of Ecology required maintenance of minimum stream flow rates. The city appealed the state department's requirement to the Pollution Control Hearings Board. The Board reversed the flow rates set by the state department, and the parties cross-appealed. The Superior Court, Thurston County, Carol A. Fuller, J., ruled that the state department was not preempted from setting minimum stream flows, and that the Board erred in finding minimum stream flows would enhance a river fishery. City moved for direct review. The Supreme Court, Guy, J., held that: (1) state department's streamflow requirements were authorized under the Clean Water Act; (2) state's actions were not preempted by Federal Power Act; and (3) Board's finding regarding enhancement of the fishery was clearly erroneous.

Superior Court affirmed.

West Headnotes

[1] Health and Environment  **25.7(21.1)**
[199k25.7\(21.1\) Most Cited Cases](#)

The federal Clean Water Act required city, which was proposing to build hydroelectric power plant on river, to obtain state water quality certificate since operations would result in discharge into waterway. Federal Water Pollution Control Act Amendments of 1972, § 401, as amended, [33 U.S.C.A. § 1341](#).

[2] Health and Environment  **25.7(2)**
[199k25.7\(2\) Most Cited Cases](#)

Purposes of Washington's water quality standards include goal of establishing such standards as are consistent with public health and public enjoyment thereof, and the propagation and protection of fish, shellfish, and wildlife.

[3] Health and Environment  **25.7(21.1)**
[199k25.7\(21.1\) Most Cited Cases](#)

The federal Clean Water Act required the Washington State Department of Ecology to certify that city's hydroelectric power plant project would not degrade fish habitat and spawning in the river on which the plant was to be built; thus, state department's certification had to be contingent upon maintaining certain instream flow conditions given that biologists had determined that the instream flows proposed by city risked degradation of fish habitat and spawning. Federal Water Pollution Control Act Amendments of 1972, § 401, as amended, [33 U.S.C.A. § 1341](#).

[4] Health and Environment  **25.7(6.1)**
[199k25.7\(6.1\) Most Cited Cases](#)

Under the federal Clean Water Act's definition of "pollution," man-induced alteration of streamflow level is "pollution." Federal Water Pollution Control Act Amendments of 1972, § 502(19), as amended, [33 U.S.C.A. § 1362\(19\)](#).

[5] Statutes  **188**
[361k188 Most Cited Cases](#)

The Supreme Court is required to interpret words of a statute in accordance with their usual and ordinary meaning.

[6] Health and Environment  **25.7(3)**
[199k25.7\(3\) Most Cited Cases](#)

Generally, Congress' broad purpose in enacting the federal Clean Water Act was to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Federal Water Pollution Control Act Amendments of 1972, § 101(a), as amended, [33 U.S.C.A. § 1251\(a\)](#).

[7] Health and Environment  **25.7(13.1)**
[199k25.7\(13.1\) Most Cited Cases](#)

Under the federal Clean Water Act, which requires as part of its licensing process that applicants obtain water quality certificate from the state, the phrase "any other appropriate requirement of state law" does not

refer only to state water quality standards; the phrase is a congressional authorization to the states to consider all state action related to water quality and imposing conditions on certification; water quality certificate may include conditions to enforce all state water quality-related statutes and rules, including, but not limited to, state water quality standards. Federal Water Pollution Control Act Amendments of 1972, § 401(d), as amended, [33 U.S.C.A. § 1341\(d\)](#).

[8] Health and Environment  **25.7(21.1)**
[199k25.7\(21.1\) Most Cited Cases](#)

Under the Clean Water Act, the Washington State Department of Ecology was authorized to require city proposing to build hydroelectric power plant on river to maintain certain minimum streamflow rates; state department's requirement was an appropriate measure to assure compliance with state regulations as well as water quality standards. Federal Water Pollution Control Act Amendments of 1972, § 401(d), as amended, [33 U.S.C.A. § 1341\(d\)](#).

[9] States  **18.3**
[360k18.3 Most Cited Cases](#)

Application of doctrine of federal preemption presupposes as a threshold requirement some state action to be preempted by federal law.

[10] Health and Environment  **25.7(13.1)**
[199k25.7\(13.1\) Most Cited Cases](#)
(Formerly 199k25.7(13))

[10] States  **18.31**
[360k18.31 Most Cited Cases](#)

Federal preemption doctrine did not apply to preclude state's action where the Washington State Department of Ecology was imposing state water quality standards on federal license applicants as part of its federally mandated role in a comprehensive federal scheme embodied in the Clean Water Act; state's certification of a federal applicant must assure compliance with water quality standards under the Act. Federal Water Pollution Control Act Amendments of 1972, § 401, as amended, [33 U.S.C.A. § 1341](#).

[11] States  **18.3**
[360k18.3 Most Cited Cases](#)

Federal law may preempt state law in two ways; field preemption may arise from either an explicit or an implicit expression of Congress' intent, and conflict

preemption may arise either when compliance with both state and federal law is physically impossible, or when state law stands as an obstacle to the accomplishment and execution of Congress' full purposes and objectives.

[12] States  **18.3**
[360k18.3 Most Cited Cases](#)

In case of either field or conflict preemption, the essential inquiry is congressional intent; in addition, there is a strong presumption against finding preemption in an ambiguous case and the burden of proof is on the party claiming preemption.

[13] Health and Environment  **25.7(21.1)**
[199k25.7\(21.1\) Most Cited Cases](#)

[13] States  **18.73**
[360k18.73 Most Cited Cases](#)

The Federal Power Act, which is a comprehensive scheme of licensing hydro-power projects, presupposed rather than precluded the exercise of state authority as enforcement of state laws was part of the federal scheme; thus, there could be no basis for finding field preemption as to state authority to regulate minimum streamflow rates as part of city's hydroelectric power plant project. Federal Power Act, § 1 et seq., 321, as amended, [16 U.S.C.A. §§ 792 et seq., 791a](#).

[14] Health and Environment  **25.7(21.1)**
[199k25.7\(21.1\) Most Cited Cases](#)

[14] States  **18.73**
[360k18.73 Most Cited Cases](#)

City proposing to build hydroelectric power plant on river failed to prove that state's action in requiring city to maintain minimum streamflow rates as part of project was preempted by the Federal Power Act where the Washington State Department of Ecology's authority was derived directly from federal law; state law and state action were involved only to the extent that they were integrated into the Clean Water Act. Federal Power Act, § 27, as amended, [16 U.S.C.A. § 821](#); Federal Water Pollution Control Act Amendments of 1972, § 401, as amended, [33 U.S.C.A. § 1341](#).

[15] Administrative Law and Procedure  **785**
[15Ak785 Most Cited Cases](#)

Court would reverse an agency's determination if it was clearly erroneous in view of the entire record; finding is clearly erroneous when, although there may be evidence to support it, the reviewing court on the entire record is left with firm and definite conviction that mistake has been committed. [West's RCWA 34.04.130\(6\)\(e\)](#) (Repealed).

[16] Administrative Law and Procedure  **683**
[15Ak683 Most Cited Cases](#)

Upon appeal from superior court's application of clearly erroneous standard, the appellate court must apply the same standard directly to the administrative decision.

[17] Health and Environment  **25.7(21.1)**
[199k25.7\(21.1\) Most Cited Cases](#)

The Pollution Control Hearings Board's finding that state's requirement of certain minimum instream flow rates for city's hydroelectric power plant project were to enhance a fishery was clearly erroneous where state department's intent was clearly to preserve, not to enhance, the river fishery; Board did not adequately consider uncertainty inherent in computer modeling of complex biological system of river, and Board erroneously assumed that because computer model maximized for optimum flow regime for fish that meant that overall fish production would be increased. ****648 *183** Gordon, Thomas, Honeywell, Malanca, Peterson & Daheim, [Albert R. Malanca](#), Kenneth G. Keiffer, William J. Barker, Tacoma City Atty., [Mark L. Bubenik](#), [G.S. Karavitis](#), Assistants, Tacoma, for appellants.

[Christine Gregoire](#), Atty. Gen., [Jay J. Manning](#), [William C. Frymire](#), Assistants, Olympia, for respondents.

Priscilla Derick, [R. Gerard Lutz](#), Bellevue, [Elizabeth K. Reeve](#), Seattle, [R. Blair Strong](#), Spokane, Alan S. Larsen, [Jay T. Waldron](#), Portland, OR, Jody Williams, Salt Lake City, UT, [J. Jeffrey Dudley](#), Legal Dept., Portland, OR, amicus curiae, for appellants on behalf of Pacific Northwest Utilities.

Katherine P. Ransel, [John B. Arum](#), Seattle, amicus curiae, for respondents.

[GUY](#), Justice.

This case arises as a result of plans of the City of Tacoma and the Jefferson County Public Utility District 1 (hereinafter Tacoma) to build a hydroelectric facility on the Dosewallips River. Federal law requires Tacoma to obtain a certificate from the Washington State Department of Ecology (Ecology) before beginning construction. Ecology granted the certificate but conditioned it upon Tacoma maintaining a certain minimum streamflow in the affected portion of the river. Tacoma argues that federal law preempts Ecology from setting this streamflow requirement, and that Ecology acted outside its authority because the requirement was designed to enhance the Dosewallips fishery rather than preserve it. We hold that there is no federal preemption and that setting the streamflow requirement was within Ecology's authority.

I
Facts

The Dosewallips River is a glacial stream that originates in the eastern Olympic Mountains. It flows east through the Olympic National Park, a national wilderness area, national forest land, and then private land before it empties into Hood Canal. The river is in pristine condition and supports populations of salmon, steelhead, and trout.

***184** In 1982, Tacoma began planning to construct a hydroelectric power plant on the Dosewallips River just outside the Olympic National Park, near the Elkhorn Campground. The "Elkhorn project", as it is called, will divert water from the river, use that water to run turbines to generate electricity, then return the water to the river 1.2 miles downstream. This will result in a reduction in the streamflow in the "bypass reach", which is the length of river between the initial diversion and where the water is returned downstream.

Federal law requires that Tacoma obtain a license from the Federal Energy Regulatory Commission (FERC) before beginning construction. In addition, section 401 of the federal Clean Water Act (Act), [33 U.S.C. § 1341](#), requires as a part of the licensing process that Tacoma obtain a water ****649** quality certificate from the State of Washington.

Tacoma applied to Ecology for the section 401 certificate in 1983. As part of the section 401 application process, Tacoma conducted a 2-year study of the effect of the Elkhorn project on fish habitat in the Dosewallips bypass reach. This study was performed in consultation with Ecology and other agencies, including the Washington State

Departments of Fisheries and Wildlife, the United States Fish and Wildlife Service, the National Marine Fisheries Service, and the Point No Point Treaty Council. At the conclusion of the study, Tacoma proposed to maintain minimum instream flows of between 65 cubic feet per second (cfs) and 155 cfs, depending on the month. Ecology eventually issued the section 401 certificate, but conditioned it upon Tacoma maintaining instream flows of between 100 cfs and 200 cfs.

Tacoma appealed Ecology's instream flows requirement to the Pollution Control Hearings Board (Board). The Board ruled that Ecology acted within its authority in placing base flow conditions within the section 401 certificate in order to preserve the Dosewallips fishery resource. The Board then held another hearing to consider Tacoma's argument that Ecology exceeded its authority because its flow regime for the Dosewallips was designed to enhance rather than merely *185 preserve the fishery. Two of the three Board members agreed with Tacoma's argument and so reversed the flow rates set by Ecology. The third Board member dissented on the basis that Ecology's flow rates would not enhance the fishery.

The parties cross-appealed to the Thurston County Superior Court, which ruled that Ecology is not preempted from setting minimum streamflows, that the Board erred in finding Ecology's flows would enhance the Dosewallips fishery, and that in any case Ecology has the authority to require such an enhancement. The trial court therefore reinstated Ecology's streamflow rates. We granted Tacoma's motion for direct review.

II

Ecology's Authorization under the Clean Water Act

Tacoma argues that the Federal Power Act (FPA), [16 U.S.C. § 791a](#) *et seq.*, preempts Ecology from conditioning a section 401 certificate upon the maintenance of a minimum streamflow. Ecology contends the preemption doctrine does not apply because it was acting under the authority granted to it by the Clean Water Act, [33 U.S.C. § 1251](#) *et seq.*

We begin by addressing whether the Clean Water Act authorized Ecology to include base flow requirements in the section 401 certificate it issued to Tacoma. We conclude that it did.

A

State Water Quality Standards

[1] Section 401 of the Clean Water Act generally requires any applicant for a federal license to obtain a state water quality certificate if the applicant's operations may result in a discharge into a waterway. [33 U.S.C. § 1341](#). The parties agree that Tacoma was required to obtain a 401 certificate from Ecology. The controlling provision here of section 401 is subsection (d), which 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 will comply with any applicable effluent limitations and other limitations, under section 1311 *186 or 1312 of this title [section 301 or 302 of the Act], standard of performance under section 1316 of this title [section 306 of the Act], or prohibition, effluent standard, or pretreatment standard under section 1317 of this title [section 307 of the Act], 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.

[33 U.S.C. § 1341\(d\)](#). Thus, under section 401(d), the state is required to include **650 whatever conditions are "necessary to assure" compliance with specific provisions of the Act, as well as with "any other appropriate requirement of State law". The parties agree that state water quality standards qualify as appropriate requirements of state law for purposes of section 401(d), and so may serve as the source for conditions imposed in the section 401 certificate. Ecology contends that the streamflow conditions in the 401 certificate issued to Tacoma were necessary to assure compliance with Washington's water quality standards. We agree.

[2] The stated purposes of Washington's water quality standards include the goal of establishing such standards as are "consistent with public health and public enjoyment thereof, and the *propagation and protection of fish, shellfish, and wildlife*". (Italics ours.) WAC 173-201-010. This purpose is consistent with the Environmental Protection Agency's (EPA) declaration that state water quality standards "should, wherever attainable, provide water quality for the protection and propagation of fish". [40 C.F.R. § 130.3 \(1991\)](#). The standards define an antidegradation policy for the state's waters, as required under federal regulations. WAC 173-201-035(8) (implementing [40 C.F.R. § 131.12\(a\) \(1991\)](#)). That policy includes the principle that "[e]xisting 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). The Dosewallips River is specifically identified as a "Class AA" river. WAC 173-201-080(32). The characteristic uses of a Class AA river include "fish migration, rearing, spawning, and harvesting." WAC 173-201-045(1)(b)(iii).

*187 [3] In short, section 401 requires states to certify compliance with state water quality standards. Washington's standards prohibit the degradation of the state's waters, and prohibit the degradation of fish habitat and spawning in the Dosewallips in particular. Therefore, section 401 required Ecology to certify that the Elkhorn project would not degrade fish habitat and spawning in the Dosewallips. Given that Ecology's fisheries biologists determined that the instream flows urged by Tacoma risked such degradation, Ecology therefore could not issue the 401 certificate without imposing more protective instream flow conditions. Absent such a condition, Ecology could not assure compliance with state water quality standards.

[4] We also note that the concept of pollution in the Clean Water Act is extremely broad. Section 502(19) of the Act, 33 U.S.C. § 1362(19), reads: "The term 'pollution' means the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water." Under this broad definition, man-induced alteration of streamflow level is "pollution". We further note a letter written by an EPA assistant administrator to the Secretary of FERC. The letter takes issue with an assertion in a FERC report that conditions related to fish, wildlife, vegetation, and recreation are inappropriate in section 401 certificates needed to obtain licenses from FERC. The letter states:

[P]rotection of water quality involves far more than just addressing water chemistry. Rather, protection of water quality includes protection of multiple elements which together make up aquatic systems including the aquatic life, wildlife, wetlands and other aquatic habitat, vegetation, and hydrology required to maintain the aquatic system. Relevant water quality issues include ... the diversity and composition of the aquatic species ... [and] habitat loss ...

Brief of Respondent, at 94 (letter from LaJuana Wilcher, Assistant Administrator of the EPA, to the Honorable Lois D. Cashell, Secretary of FERC).

Finally, other states also have water quality standards that make reference to fish and wildlife concerns, and

such concerns have been held properly to require instream flow *188 conditions in section 401 certificates. For example, in *Bangor Hydro-Elec. Co. v. Board of Env'tl. Protec.*, 595 A.2d 438 (Me.1991), a section 401 certificate applicant argued that the Maine Board of Environmental Protection had exceeded **651 its authority in asking for information about the project's effect upon fish habitat. The Maine Supreme Court rejected this argument and explained that under Maine's water quality standards, the "designated uses" of the affected river included fish habitat. The court stated that because these designated uses are an integral part of the state water quality standards, the Board's information request was proper. 595 A.2d at 443. Similarly, in *Hi-Line Sportsmen Club v. Milk River Irrig. Dists.*, 241 Mont. 182, 786 P.2d 13 (1990), the Montana Board of Health and Environmental Sciences issued a section 401 certificate for the construction and operation of a "siphon scheme" at a hydroelectric dam that would have raised the water temperature in the affected river. The court upheld the district court ruling that the record failed to show the project would not violate state water quality standards, which included provisions regarding the use of the river for fish habitat. 241 Mont. at 187-88, 786 P.2d 13. See also, *Georgia-Pacific Corp. v. Vermont Dep't of Env'tl. Conservation*, 35 Env't Rep. (BNA) 2046 (Vt.Super.Ct. Oct. 4, 1991), *aff'd* 35 Env't Rep. (BNA) 2052 (Vt.Sup.Ct. Sept. 14, 1992) (water quality standards recognized as appropriately concerning aesthetics, recreation, and wildlife).

Tacoma argues that water quality standards are limited to pollution and discharges, as opposed to stream flow levels. It is true that the standards include provisions regarding pollution discharges. See, e.g., WAC 173-201-045(1)(c)(vii) (criteria for concentrations of toxic, radioactive, and deleterious materials in Class AA waters). However, as explained above, the standards' explicitly-stated anti-degradation policy and classification of specific bodies of water in terms of characteristic uses, as well as the standards' broad purpose, all demonstrate a broad concern for water quality, not just with pollution discharges. See *189 *Bangor Hydro-Elec. Co. v. Board of Env'tl. Protec.*, *supra* (water quality standards would be a nullity if state could not consider designated uses).

B

Section 401's Integration of "Any other Appropriate Requirement of State Law"

Ecology also maintains that the streamflow condition it imposed in Tacoma's section 401 certificate was an

appropriate measure to carry out [RCW 90.54.020\(3\)\(a\)](#), which provides that "[p]erennial rivers and streams of the state shall be retained with base flows necessary to provide for preservation of wildlife, fish, scenic, aesthetic and other environmental values, and navigational values." Tacoma, joined by a group of utilities acting as amicus curiae, argues that the phrase "any other appropriate requirement of State law" refers only to state water quality standards. The Board ruled that the phrase refers to all state water quality-related statutes and rules, including, but not limited to, the water quality standards the state has adopted as required by section 303 of the Clean Water Act, [33 U.S.C. § 1313](#), and that Ecology's streamflow conditions were necessary to assure compliance with [RCW 90.54.020\(3\)\(a\)](#). We agree with the Board's interpretation.

[5] We are required to interpret the words of a statute in accordance with their usual and ordinary meaning. [People's Org. for Wash. Energy Resources v. Utilities & Transp. Comm'n](#), 104 Wash.2d 798, 825, 711 P.2d 319 (1985). The phrase "any other appropriate requirement of State law" contains no language to suggest its reference should be limited only to state water quality standards. Its meaning is not restricted to specific statutory or regulatory provisions, but only to those requirements of state law that are "appropriate".

[6] The phrase's context within the Clean Water Act offers guidance as to its meaning. Most generally, Congress's broad purpose in enacting the Clean Water Act was "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." [33 U.S.C. § 1251\(a\)](#). This broad purpose suggests that what state laws qualify as "appropriate" *190 for purposes of section 401(d) should also be understood **652 broadly. In addition, section 401(d) expressly lists sections 301, 302, 306, and 307 of the Act as sources for the limitations in section 401 certificates. Thus, where Congress intended to refer to a specific provision, it did so. In contrast, section 303 ([33 U.S.C. § 1313](#))--the section requiring states to adopt water quality standards--is *not* listed in section 401. If Congress intended to refer only to state water quality standards, it could have specifically referred to them. That Congress did not do so is evidence that it intended the phrase "any other appropriate requirement of State law" to refer broadly to all state water quality-related laws, not just to state water quality standards adopted pursuant to section 303.

The scope of "any other appropriate requirement of State law" was directly addressed in [Arnold Irrig. Dist. v. Department of Env'tl. Quality](#), 79 Or.App. 136, 717

[P.2d 1274](#), review denied, [301 Or. 765, 726 P.2d 377 \(1986\)](#). There, the Oregon Department of Environmental Quality had denied a request for a section 401 certificate on the ground that the applicants failed to provide a statement that the hydroelectric project was compatible with the county's comprehensive plan and land use ordinances. The applicants objected, saying that only water quality standards could be considered. The court rejected this on the basis explained above: if Congress had intended to make the section 303 standards the exclusive water quality criteria states may use in placing limitations in section 401 certificates, then Congress could have specifically mentioned those standards in section 401(d). [79 Or.App. at 142, 717 P.2d 1274](#). The court therefore held that any water quality related state law qualifies as an "appropriate requirement of State law" for purposes of section 401(d). [79 Or.App. at 142, 717 P.2d 1274](#). See also [Mobil Oil Corp. v. Kelley](#), 426 F.Supp. 230, 234 (S.D.Ala.1976) (holding section 401(d) allows state to condition certification upon compliance with any requirement the state deems appropriate under state law). But see [Niagara Mohawk Power Corp. v. New York Dep't of Env'tl Conservation](#), 187 A.D.2d 7, 592 N.Y.S.2d 141 (1993) (interpreting phrase *191 within Clean Water Act in light of Congress's presumed intent in enacting FPA amendments).

The legislative history of section 401(d) further supports this interpretation. In particular, the differing treatment Congress gave sections 401(a) and 401(d) in a 1977 amendment is revealing. Generally, section 401(a) identifies specific provisions of the Clean Water Act and provides that noncompliance with any of those provisions enables a state to deny certification; section 401(d) confers authority on states to condition certification. As originally enacted in 1972 as part of the Federal Water Pollution Control Act Amendments (FWPCA), section 401(a) did not list section 303. Pub.L. No. 92-500, § 2, 86 Stat. 816, 877-79 (1972). Five years later, when Congress substantially supplemented the FWPCA by enacting the Clean Water Act, Congress amended section 401(a) to include reference to section 303. [Pub.L. No. 95-217, § 64, 91 Stat. 1566, 1599 \(1977\)](#). A Senate report submitted at the time explained that the purpose of the amendment was to follow the original congressional intent and to clarify that consideration of state water quality standards was part of the certification process under section 401(a). S.Rep. No. 370, 95th Cong., 1st Sess. 72-73, reprinted in 1977 U.S.Code Cong. & Admin.News 4326, 4397-398. In so amending section 401(a), however, Congress failed to amend section 401(d) in the same way. As two

commentators writing on this subject have explained, [b]ecause of this omission, it seems clear that Congress did not mean to restrict conditions on certifications only to those necessary to assure compliance with section 303 water quality standards. Rather, Congress recognized a difference between the authority it provided in section 401(a)(1) to deny certification and that which it conferred in section 401(d) to condition certification. *It intended that the broader power contained in section 401(d) would allow the states to condition certification on compliance with state law provisions other than water quality standards adopted pursuant to section 303.*

(Some italics ours.) Ransel & Meyers, *State Water Quality Certification and Wetland Protection: A Call to Awaken the Sleeping Giant*, 7 Va.J. of Nat. Resources L. 339, 355 (1988).

*192 [7] We conclude that the phrase "any other appropriate requirement of State law" in section 401(d) does not refer only to state water quality standards. We agree with the *Arnold* court that the phrase is a congressional authorization to the states to consider all state action related to water quality in imposing conditions on section 401 certificates. [79 Or.App. at 142, 717 P.2d 1274.](#)

[8] We hold that the streamflow conditions Ecology included in the 401 certificate it issued to Tacoma were an appropriate measure to assure compliance with Washington's water quality standards. We also hold that a section 401 water quality certificate may include conditions to enforce all state water quality-related statutes and rules, including, but not limited to, state water quality standards. Inasmuch as issues regarding water quality are not separable from issues regarding water quantity and base flows, we further hold that [RCW 90.54.020\(3\)\(a\)](#) qualifies as an "appropriate requirement of State law" for purposes of section 401(d), and therefore that Ecology's base flow limitation in the 401 certificate was an appropriate measure to assure compliance with [RCW 90.54.020\(3\)\(a\)](#) as well as the water quality standards.

III Federal Preemption

Having concluded that [RCW 90.54.020\(3\)\(a\)](#) and Washington's water quality standards authorize Ecology to impose streamflow conditions in section 401 certificates, we next consider Tacoma's contention that the FPA preempts Ecology's action. We reject Tacoma's preemption argument.

A

The Threshold Requirement of State Action

[9] The doctrine of federal preemption is based on the supremacy clause of the United States Constitution, [U.S. Const., art. 6, cl. 2](#). Application of the doctrine presupposes as a threshold requirement some state action to be preempted by federal law. *See generally* L. Tribe, *American Constitutional Law* § 6-25 (2d ed.1988). Here, several factors persuade us that Ecology's action in imposing a base *193 flow condition in the 401 certificate lacks the character of state action required for federal preemption to apply.

[10] First, a section 401 certificate is a federal permit required under the Clean Water Act, [33 U.S.C. § 1341](#), and in issuing this federal certificate, the state is required to set forth certain limitations. To the extent that the state's role is mandatory in these ways, the state cannot be said to be acting independently of the federal government.

Second, the sources of the streamflow limitation at issue here are state laws integrated into the Clean Water Act. In particular, Ecology's action was appropriate to assure compliance with [RCW 90.54.020\(3\)\(a\)](#) and Washington's water quality standards, which are integrated into the Act as "appropriate requirement[s] of State law" under section 401(d).

Third, federal involvement in the development of state water quality standards is extensive. Those standards are required under the Clean Water Act, [33 U.S.C. § 1313](#). The Act requires states to devise the standards in accordance with federal regulations and to submit them to the EPA for approval. [33 U.S.C. § 1313](#). After the EPA approves the state's submitted standards, they become the water quality standards for the state. [33 U.S.C. § 1313\(c\)\(3\)](#). Washington's water quality standards, in particular, have been duly adopted by the state and approved by the EPA. [50 Fed.Reg. 29,761 \(1985\)](#) (noting EPA's approval of Washington's water quality standards). If a state fails to submit standards to the *654 EPA, or if the standards it does submit are inconsistent with the Act, the EPA promulgates its own standards for the state. [33 U.S.C. § 1313\(c\)\(4\)](#); *see also* 56 Fed.Reg. 58,477 (Nov. 19, 1991) (to be codified at 40 C.F.R. pt. 131) (proposed rulemaking by EPA to bring Washington's water quality standards into compliance with section 303(c)(2)(B) of the Act). This statutory framework gives water quality standards a hybrid character: they have the character of state laws insofar as the states initially promulgate them, but they have a federal

character insofar as the EPA regulates their content and must formally approve them *194 before they actually become the state's water quality standards. Indeed, in [Arkansas v. Oklahoma, 503 U.S. 91, ---, 112 S.Ct. 1046, 1058-59, 117 L.Ed.2d 239, 257 \(1992\)](#), the Court declared that state water quality standards "are part of the federal law of water pollution control" at least insofar as they affect issuance of permits in other states. Similarly, the significant federal involvement in state water quality standards must be recognized when considering whether federal preemption applies to prevent a state from acting to assure compliance with them.

Finally, any conditions imposed in a 401 certificate become part of the federal license for which the certificate is required. Section 401(d) of the Act provides that any valid certification issued under section 401 "shall become a condition on any Federal license" for the activity in question. "FERC may not alter or reject conditions imposed by the states through section 401 certificates." [United States Dep't of the Interior v. Federal Energy Regulatory Comm'n, 952 F.2d 538, 548 \(D.C.Cir.1992\)](#). FERC itself has recognized that the terms and conditions included in a section 401 certificate "become terms and conditions of the license as a matter of law." [Apr.-June 1990 Transfer Binder] 51 Fed. Energy Reg. Comm'n (CCH) ¶ 61,268 at 61,843. Thus, the condition at the heart of the present controversy--the condition within the 401 certificate Ecology issued to Tacoma--will be, as a matter of law, a term of whatever hydroelectric operating license FERC eventually issues to Tacoma; as such, the condition will be a part of federal law.

By including base flow limitations in the section 401 certificate it issued to Tacoma, Ecology was acting to fulfill its obligations under federal law. The section 401 certificate must assure compliance with state laws integrated into the Clean Water Act. In particular, the certificate must assure compliance with water quality standards, which are regulations the content of which was substantially determined by the EPA and which assumed the status of state water quality standards only after the EPA gave its approval. Finally, the streamflow condition, as part of the 401 certificate, also *195 becomes a term of the FERC license by operation of law and as such a part of federal law. These factors collectively demonstrate such a significant and pervasive federal involvement that Ecology's action cannot be fairly regarded as state action for purposes of the application of federal preemption. Simply put, federal preemption doctrine does not apply in a context where a state is acting to fulfill its federally mandated role in the

comprehensive federal scheme embodied in the Clean Water Act.

B Preemption Doctrine

Even if the threshold requirement of state action were met, the well-established principles regarding federal preemption would not support finding preemption in the present case.

[11] As we recently observed in [Inlandboatmen's Union of the Pac. v. Department of Transp., 119 Wash.2d 697, 701, 836 P.2d 823 \(1992\)](#), there are two well-established ways in which federal law may preempt state law: field preemption and conflict preemption. Field preemption may arise from either an explicit or an implicit expression of Congress's intent. Absent explicit preemptive language, Congress's intent to supersede state law may be implied if

- (1) a scheme of federal regulation is so pervasive as to make reasonable the inference **655 that Congress left no room for the states to supplement it,
- (2) if the federal act touches a field in which the federal interest is so dominant that the federal system will be assumed to preclude enforcement of state laws on the same subject, or
- (3) if the goals sought to be obtained or the obligations imposed reveal a purpose to preclude state authority.

[Inlandboatmen's Union, at 701, 836 P.2d 823](#). Conflict preemption may arise either when compliance with both federal and state laws is physically impossible, or when state law stands as an obstacle to the accomplishment and execution of Congress's full purposes and objectives. [Inlandboatmen's Union, at 702, 836 P.2d 823](#).

[12] In the case of either field or conflict preemption, the essential inquiry is congressional intent. *196*195*196 [Wisconsin Pub. Intervenor v. Mortier, 501 U.S. 597, ---, 111 S.Ct. 2476, 2481, 115 L.Ed.2d 532, 542 \(1991\)](#). In addition, "[t]here is a strong presumption against finding preemption in an ambiguous case, and the burden of proof is on the party claiming preemption." (Footnote omitted.) [Inlandboatmen's Union, 119 Wash.2d at 702, 836 P.2d 823](#).

The basis for Tacoma's preemption argument is the FPA, which empowers FERC to license projects designed to develop power from any stream or other body of water over which Congress has jurisdiction. [16 U.S.C. § 797\(e\)](#). The FPA, as amended in 1986 by

the Electric Consumers Protection Act, also directs that in issuing such licenses FERC must "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 opportunities, and the preservation of other aspects of environmental quality." [16 U.S.C. § 797\(e\)](#). Congress further declared that FERC may not issue a license unless it judges the project to be "best adapted to a comprehensive plan" advancing these competing values. [16 U.S.C. § 803\(a\)](#). In order to ensure this, the FPA requires FERC to consider recommendations from state and federal agencies and Indian tribes. [16 U.S.C. § 803\(a\)\(2\)](#). In addition, in order to protect, mitigate damages to, and enhance fish and wildlife, the FPA requires FERC to adopt the recommendations of state and federal fish and wildlife agencies unless FERC believes such recommendations are inconsistent with the purposes of the FPA or other applicable law. [16 U.S.C. § 803\(j\)\(1\)](#). FERC may reject the recommendations of state or federal fish and wildlife agencies, but it must publish its findings for doing so and state in those findings that its own conditions will comply with the FPA's standards regarding fish and wildlife protection. [16 U.S.C. § 803\(j\)\(2\)](#).

[13] Tacoma argues that the FPA's comprehensive scheme of licensing hydropower projects preempts Ecology from setting streamflows in the section 401 certificate. The existence of the Clean Water Act and the authority and obligations given to the states under it make this argument unpersuasive.

Considering first field preemption, there is neither an express nor an implied indication of any congressional intent *197 to occupy the field so as to preclude states from exercising their authority and fulfilling their obligations under the Clean Water Act. When the FPA and the Clean Water Act are considered together, the comprehensive scheme that emerges is one in which Congress left room for the states to supplement the FPA through the section 401 certification process. Enforcement of state laws is part of the federal scheme inasmuch as section 401 of the Act requires states to assure compliance with appropriate state laws. The comprehensive scheme consisting of both the Clean Water Act and the FPA presupposes rather than precludes the exercise of state authority. Consequently there is no basis for finding field preemption here.

[14] As regards conflict preemption, there is no actual conflict between Ecology's action and the FPA.

Compliance with Ecology's streamflow condition and the FPA is physically possible, and fulfillment **656 of that condition does not stand as an obstacle to the accomplishment and execution of Congress's purposes. Indeed, exactly the same streamflow condition could have been required directly under the FPA, either by FERC directly or by FERC adopting recommendations regarding streamflow from Ecology during the licensing process. Moreover, finding conflict preemption under circumstances such as those presented here would have the effect of requiring Ecology to guess which elements of the 401 certificate might conflict with actions FERC might take at a later time, and then decline to condition the certificate based on this guess--in violation of Ecology's mandate under the Act. We cannot believe Congress could have intended to create such an administrative nightmare.

To support its preemption argument, Tacoma relies on [California v. Federal Energy Regulatory Comm'n](#), [495 U.S. 490, 110 S.Ct. 2024, 109 L.Ed.2d 474 \(1990\)](#). There, FERC issued a license for a hydroelectric project and, in doing so, set a streamflow requirement in order to protect the fish in the affected portion of the river. The California Water Resources Control Board (WRCB) later issued an order requiring the licensee to conform to a higher *198 streamflow requirement. [495 U.S. at 496, 110 S.Ct. at 2028](#). The WRCB relied on section 27 of the FPA, which provides:

Nothing contained in this chapter 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.

FPA, § 27, [16 U.S.C. § 821](#). The Court rejected the WRCB's argument, and held that FERC's powers as granted under the FPA preempted the WRCB's attempt to set its own streamflow requirement. The Court explained that under the FPA, FERC's power is exclusive unless some power is explicitly reserved for the states, and that section 27's reservation of power does not include the power to set instream flows. According to the Court, the words of section 27 "are confined to rights of the same nature as those relating to the use of water in irrigation or for municipal purposes." [495 U.S. at 498, 110 S.Ct. at 2029](#) (quoting [First Iowa Hydro-Elec. Coop. v. Federal Power Comm'n](#), [328 U.S. 152, 176, 66 S.Ct. 906, 917, 90 L.Ed. 1143 \(1946\)](#)).

Tacoma argues that Ecology is trying to do precisely

what the WRCB was attempting to do in California v. Federal Energy Regulatory Comm'n, namely, set a minimum instream flow rate for a federally licensed power project, and therefore Ecology is no less preempted by the FPA than was the WRCB.

The present case is distinguishable from California v. Federal Energy Regulatory Comm'n on two grounds. First, in California v. Federal Energy Regulatory Comm'n, there was an actual conflict between the federal and state governments. FERC and the California WRCB had both issued orders regarding streamflow, and those orders were in conflict. No such conflict exists in the present case. Second, in California v. Federal Energy Regulatory Comm'n, the Clean Water Act was not at issue or even mentioned. The issue was the scope of what powers had been saved to the states under section 27 of the FPA. The authority for California's action was not derived from federal law. Here, the issue is whether the FPA somehow precludes Ecology from exercising the authority granted it, and the responsibilities delegated to it, under the Clean Water Act. The way in which the Clean Water Act is *199 implicated in the present case completely alters the legal context and renders untenable Tacoma's preemption argument. The presumption against finding preemption in ambiguous cases further strengthens this conclusion. See Inlandboatmen's Union, 119 Wash.2d at 702, 836 P.2d 823.

In short, whereas California v. Federal Energy Regulatory Comm'n presented a straightforward case of a state acting on its own authority, the present case is one in which Ecology derives authority for its action directly from federal law. State law and state action are involved only to the extent they are integrated into the Clean Water Act. Our interpretation of Ecology's**657 duties under the Act, therefore, does not conflict with the United States Supreme Court's interpretation of the scope of the power reserved to the states under section 27 of the FPA.

We conclude that Tacoma has not carried its burden of establishing federal preemption.

IV The Enhancement Issue

We next consider the Board's finding that Ecology's streamflow condition for the Elkhorn project enhances the fishery in the Dosewallips River. The trial court ruled that this was error. We agree.

A

Factual Background

To understand the Board's factual ruling regarding enhancement, it is necessary to review the nature of the study conducted to determine the instream flows. After Tacoma filed its initial application with Ecology for the section 401 certificate, Ecology asked Tacoma to conduct a study to determine what level of water should be maintained in the bypass reach in order to preserve adequate habitat for fish. Ecology also requested that Tacoma perform this study using a method known as "instream flow incremental methodology", or "IFIM". Generally, the IFIM process first involves collecting data about water velocity and depth, the substrate of the river, what species of fish inhabit the river, and what developmental stages the fish go through at what times of year. The *200 data are then assembled to enable predictions about how the water depth and velocity will change at different flow levels, and to show what depths, velocities, and substrates are most suitable for each life stage of each fish species in the river. A computer program known as "PHABSIM" (for physical habitat simulator) is then run using this assembly of data. The output of the PHABSIM program includes a set of charts or tables. Each chart or table indicates for a given fish species and a given life stage of that species the "weighted usable area" available at different flow levels. "Weighted usable area", roughly, is how much area of the river the fish can use as habitat. [FN1] These are then used by fisheries biologists to determine the appropriate instream flows for the river.

[FN1. More specifically, "[w]eighted usable area is an index computed by multiplying the surface area of a portion of a stream by a weighting factor that describes the suitability of the stream for the organism of interest. It displays the surface area of stream in square feet of optimal habitat per 1,000 linear feet of stream." Cavendish & Duncan, *Use of the Instream Flow Incremental Methodology: A Tool for Negotiation*, 6 Env'tl. Impact Assessment Rev. 347, 349 (1986).

In the present case, Tacoma and Ecology worked together in producing the results of the IFIM study, but then disagreed as to the appropriate instream flows. Tacoma claims that fish production will be preserved using the flow regime it has proposed, but that the flow regime Ecology imposed in the section 401 certificate would actually enhance fish production.

The Board agreed with Tacoma. In its findings of fact, the trial court found the Board's conclusion to be clearly erroneous.

B

Standard of Review

[15] The Board is one of four administrative boards comprising the environmental hearings office, which is created by [RCW 43.21B.005](#). The members of the Board are appointed by the Governor with the advice and consent of the Senate. [RCW 43.21B.020](#). When a Board decision is rendered pursuant to a formal hearing, as was the case here, judicial review is conducted pursuant to the Administrative Procedure Act, RCW 34.04 or RCW 34.05. (Because the present case was *201 initiated prior to July 1, 1989, RCW 34.04 applies. [RCW 34.05.902](#).) Under [RCW 34.04.130\(6\)\(e\)](#), the court may reverse an agency's determination if it was "clearly erroneous in view of the entire record". A finding is clearly erroneous when, although there may be evidence to support it, the **658 reviewing court on the entire record is left with the firm and definite conviction that a mistake has been committed. [Cougar Mt. Assocs. v. King Cy., 111 Wash.2d 742, 747, 765 P.2d 264 \(1988\)](#). Thus, the proper standard of review for the trial court to have used in evaluating the Board's factual determination was the clearly erroneous standard.

[16] Furthermore, this court has stated that "[u]pon appeal from a superior court's application of the 'clearly erroneous' standard, the appellate court applies the same standard directly to the administrative decision." [Department of Ecology v. Ballard Elks Lodge 827, 84 Wash.2d 551, 555, 527 P.2d 1121 \(1974\)](#). Therefore, in the present case we apply the clearly erroneous standard directly to the Board's decision. Cf. [Schuh v. Department of Ecology, 100 Wash.2d 180, 183-84, 667 P.2d 64 \(1983\)](#) (applying clearly erroneous standard directly to agency's determination rather than board's).

Finally, it is well settled that due deference must be given to the specialized knowledge and expertise of an administrative agency. E.g., [Schuh, 100 Wash.2d at 187, 667 P.2d 64](#). Here, Ecology was exercising its expertise in judging the appropriate instream flow rate for the Elkhorn project. Therefore, in analyzing the Board's decision under the clearly erroneous standard, we also give due deference to Ecology's expertise in this area.

C

The Board's Assessment of Ecology's Preservation Flow

At the hearing before the Board, there was testimony from six fisheries biologists representing five different state and federal agencies. These biologists were all involved in the IFIM study and in Ecology's setting of instream flow rates for the Dosewallips. Each expert testified that his or her intent in setting the flow rates, or the intent of the *202 agency represented, was to preserve and protect the fishery in the Dosewallips, not to enhance it. [FN2] In light of this testimony, it is manifestly unreasonable to believe that the agencies *intentionally* sought to enhance the Dosewallips fishery. Moreover, these experts also testified that in their opinions Ecology's flows would not in fact enhance the Dosewallips fishery. The one expert who testified for Tacoma, Phillip Hilgert, said that he could not tell whether Ecology's flow would enhance the fishery.

[FN2. E.g., testimony of Hal Beecher, Department of Wildlife fisheries biologist, Transcript of Proceedings (Dec. 16, 1987), at 167; testimony of Kenneth Bruya, Department of Fisheries biologist, Transcript of Proceedings (Dec. 17, 1987), at 138-39; testimony of Brad Caldwell, Department of Ecology fisheries biologist, Transcript of Proceedings (Dec. 16, 1987), at 104; testimony of Jean Caldwell, Department of Fisheries biologist, Transcript of Proceedings (Dec. 17, 1987), at 48; testimony of Stephen Ralph, Point No Point Treaty Council fisheries biologist, Transcript of Proceedings (Dec. 17, 1987), at 110; testimony of Elaine Rybak, United States Fish & Wildlife Service fisheries biologist, Transcript of Proceedings (Dec. 17, 1987), at 98.

In light of this unrefuted testimony, the Board's conclusion that Ecology's flows would enhance the Dosewallips fishery is questionable. Apparently the Board assumed that spawning habitat is the limiting factor in fish production and then reasoned that Ecology's flow will increase fish production because it will provide more spawning habitat than is available under natural conditions. We find persuasive Ecology's position, shared by the trial court as well as the dissenting member of the 3-person Board, that this reasoning is erroneous.

[17] First, the Board appears not to have adequately considered the uncertainty inherent in the computer modeling of the complex biological system of the

river. For example, the PHABSIM model uses only three of the many variables that determine fish habitat. The three variables PHABSIM uses are water depth, water velocity, and substrate. There was testimony before the Board, however, that there are other important flow-related habitat variables, including (1) predation, (2) competition and territoriality, (3) sedimentation and its effect on eggs and food supplies, (4) the adequacy of *203 flows to prevent eggs from dehydrating, and (5) the creation of barriers to migration. Because PHABSIM's predictions regarding fish habitat **659 are based on this artificial concept of habitat, Ecology's biologists were conservative in their estimation of the flows that would best protect the fishery, and there was no evidence that the flows would in fact enhance the fishery.

The Board also ignored the fact that one of the three habitat variables the PHABSIM model uses was incomplete. In particular, the PHABSIM model is designed for three measurements regarding water velocity. Because of the difficulties in getting measurements for the Dosewallips, however, only one measurement was used in the IFIM study conducted here. This further underscores the appropriateness of Ecology's conservative approach to setting minimum instream flows.

Furthermore, the Board assumed that the amount of fish habitat available under natural conditions can be reliably measured by reference to the river's "50 percent exceedence flow". The 50 percent exceedence flow for a river is that level of flow at which half the daily flows during a 1-month period are lower and half the daily flows are higher. The testimony was that for a river like the Dosewallips, the flow of which changes constantly and dramatically, the 50 percent exceedence flow may be meaningless as a measure of normal conditions. In her dissent, Board member Bendor points out that in 1 month, 210 cfs was the 50 percent exceedence flow whereas 800 cfs was the average flow.

The Board also erroneously assumed that because the computer model maximizes for an "optimum" flow regime for fish, this means that overall fish production will be increased. The record before us indicates that PHABSIM optimizes a flow regime only in the sense that for a given species and a given life stage of that species, the model predicts at what flow the largest amount of weighted usable area of habitat will be present. Even on the sanguine assumption that maximizing weighted usable area is "optimum" for that life stage *204 of that species, the same flow

regime may not be optimum for other life stages of the same species or for other species.

Finally, the Board overlooked the uncertainty in the assumption that the limiting factor in fish production in the Dosewallips is spawning habitat. There was expert testimony, including testimony from Tacoma's expert witness Phillip Hilgert, that it is uncertain whether fish productivity in the bypass reach is spawning limited. The testimony regarding this assumption was at best equivocal. Mr. Hilgert at one point testified that "streams in Western Washington are *rearing* limited, and indeed much of the agencies' harvest management practice is based on the assumption of rearing limitations." (Italics ours.) Transcript of Proceedings (Dec. 16, 1987), at 33. Another expert testified he has never believed that the Dosewallips is spawning limited.

Our examination of the record leaves us with the firm and definite conviction that a mistake has been made. Ecology's intent was clearly to preserve, not to enhance, the fishery in the Dosewallips, and the Board's reasoning for its view that Ecology's flows would enhance the fishery is insupportable. Therefore we hold the Board's finding that Ecology's instream flow rates are an enhancement flow is clearly erroneous. Because we so hold, we need not reach the question whether Ecology has the authority to enhance the Dosewallips fishery by a base flow requirement in the section 401 certificate.

V Conclusion

We hold that federal law does not preempt Ecology from including minimum streamflow conditions in Tacoma's section 401 certificate, and that the Board erred in finding that Ecology's flows would enhance the Dosewallips fishery. We therefore conclude that the section 401 permit is valid as originally issued by Ecology. The Superior Court is affirmed.

ANDERSEN, C.J., and UTTER, BRACHTENBACH, DURHAM, SMITH and JOHNSON, JJ., concur.

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