

Nos. 11-338, 11-347

IN THE
Supreme Court of the United States

DOUG DECKER, IN HIS OFFICIAL CAPACITY AS
OREGON STATE FORESTER, *et al.*, *PETITIONERS*,
v.

NORTHWEST ENVIRONMENTAL DEFENSE CENTER,
et al., *RESPONDENTS*.

GEORGIA-PACIFIC WEST, INC., *et al.*, *PETITIONERS*,
v.

NORTHWEST ENVIRONMENTAL DEFENSE CENTER,
et al., *RESPONDENTS*.

**On Writs of Certiorari to the United States Court of
Appeals for the Ninth Circuit**

**BRIEF OF THE NORTHWEST ENVIRONMENTAL
ADVOCATES ET AL. AS *AMICI CURIAE* IN SUPPORT
OF RESPONDENTS**

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TABLE OF CONTENTS

	Page
TABLE OF AUTHORITIES.	iv
INTERESTS OF AMICI CURIAE.	1
SUMMARY OF ARGUMENT.	6
ARGUMENT:	
NONPOINT SOURCE FORESTRY CONTROLS ARE NOT WORKING.	7
I. Congress’s Approach to Nonpoint Sources.	8
II. “Nonpoint source pollution remains the leading cause of impairment of the nation’s waters”.. . . .	11
III. Forests as Polluted Water Sources. . .	14
IV. Nonpoint source pollution control of forestry operations is not improving: An Oregon Chronology.. .	17
A. 1998 – Oregon Forest Practices Fail to Meet Water Quality Standards and CZARA Requirements.	18
B. 1999 – Oregon Science Team Concurs with EPA and NOAA that Oregon Forest Practices are Inadequate to Meet Water Quality Standards.. . . .	20

C.	2001 – Nonpoint source regulation under the Oregon Forest Practices Act “is not sufficient to accomplish the recovery of wild salmonids”.....	23
D.	2003 – Forestry management “does not yet meet conditions.”... .	27
E.	2008 – EPA and NOAA Reconfirm that Oregon’s Forest Practices Fail to Meet Water Quality Standards.....	28
F.	2010 – Nonpoint source forest pollution causes Oregon Coast municipal water systems to suffer “long term concerns about system viability or increased treatment costs.”.	29
G.	2011 – Biological Review Team Confirms Forestry Threatens Fish Survival in Oregon Coastal Watersheds.....	32
H.	More Oregon waters fail to meet water quality standards for sedimentation and temperature now than 10 years ago..	34
V.	Oregon’s water quality standards are not the benchmarks for forest water quality in Oregon.....	39

VI. Conclusion. 45

TABLE OF AUTHORITIES

	Page
<u>CASES</u>	
<i>Hawes v. State</i> , 203 Or. App 255 (2005).....	2
<i>Northwest Env'tl. Advocates ("NWEA") v. Browner</i> , No. 00-679-HO (D. Or. 2000).	1
<i>NWEA v. City of Portland</i> , 74 F.3d 945 (1996).	1
<i>NWEA v. Locke</i> , No. 09-0017 (D. Or. 2007).	29
<i>NWEA v. United States EPA</i> , No. 06-479-HA (2008).....	1
<i>NWEA v. United States EPA</i> , 2009 U.S. Dist. LEXIS 10456(2009).....	1
<i>NWEA v. United States EPA</i> , 855 F.Supp2d 1199(2012).....	1,44
<i>Trout Unlimited v. Lohn</i> , 2007 WL 2973568 (D. Or., Oct. 5, 2007).....	4
<u>STATUTES</u>	
16 U.S.C. § 1455b.	10,11
16 U.S.C. 1451.....	10
33 U.S.C. 1251.....	8,9
33 U.S.C. § 1311.	8

	Page
C.W.A. § 303, 33 U.S.C.	
§ 1313.....	2,19,20,24,34-39,42,45
CWA § 319, 33 U.S.C. § 1329(a)(b).....	9
CWA § 402, 33 U.S.C. § 1342.	8
CWA § 502, 33 U.S.C. § 1362.	8
Oregon Revised Statutes (“ORS”)	
527.770.....	17,40,42
ORS 527.765.	40
ORS 541.914.	20
<u>OREGON ADMINISTRATIVE RULES (“OAR”)</u>	
OAR 340-041-0002(43).	8
OAR 340-041-0007(12).	24
OAR 340-041-0028(4) & (12)(e).	24,43
OAR 340-041-0032.	40
OAR 340-041-0036.	40,41
OAR 340-041-0046.	36
<u>FEDERAL REGISTER</u>	
73 Fed. Reg. 7816 (February 11, 2008).	33
77 Fed. Reg. 30473 (May 23, 2012).	5,15,16

OTHER

William L. Andreen, <i>Water Quality Today – Has Clean Water Act Been a Success?</i> 55 ala. L. Rev. 537,544n.36 (2004).....	12
Douglas Endicott, <i>National Level Assessment of Water Quality Impairments Related to Forest Roads and Their Prevention by Best Management Practices</i> (Study commissioned by EPA, “Endicott Study”) 2008.....	12,16,17
Environmental Protection Agency (“EPA”), NOAA, <i>A Pollution Prevention and Control Program for Oregon’s Coastal Waters: Supplemental Information in Response to the Federal Findings of January 1998</i> , (April 1999)...	18
EPA, NOAA, <i>Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Costal Waters</i> , EPA 840 B 92002 January 1993.....	9,16
EPA, NOAA 6217, <i>Boundary Decision; and Responses to Oregon’s Supplemental Information in response to the Federal Findings of January 1998</i> , January 10, 2003.	27,31
EPA, <i>National Causes of Impairment, Watershed Assessment Tracking & Environmental Results</i>	38

	Page
EPA, NOAA, NOAA and EPA Preliminary Decisions on Information Submitted by Oregon to Meet Coastal Nonpoint Program Conditions of Approval, June 12, 2008.	7, 28
EPA, NOAA, NMFS, Review of the December 2001 [sic, 2000] Draft Sufficiency Analysis Stream Temperature (Oregon Departments of Forestry and Environmental Protection Agency, National Marine Fisheries Service, and U.S. Fish & Wildlife Service, February 2001.	25
EPA, National Probable Sources Contributing to Impairments (October 13, 2012).	12
Robert L. Glicksman, <i>Pollution on Federal Lands II: Water Pollution Law</i> , 12 J. Env'tl. L. & Policy 61 (1993).	11
Independent Multidisciplinary Science Team ("IMST"), <i>Recovery of Wild Salmonids in Western Oregon Forests: Oregon Forest Practices Act Rules and the Measures in the Oregon Plan for Salmon and Watersheds</i> , Technical Report 1999-1 (September 8, 1999).	7,21
IMST, <i>Oregon's Water Temperature Standard and its Application: Causes, Consequences, and Controversies Associated with Stream Temperature, A Report of the Independent Multidisciplinary Science Team, Oregon Plan for Salmon and Watersheds, Technical Report 2004-1</i> , May 7, 2004.	24

	Page
National Oceanic and Atmospheric Administration, <i>Ocean and Coastal Resource Management, Coastal Nonpoint Program Approval Findings</i>	11,18
Northwest Fisheries Science Center, <i>Draft Revised Report of the Biological Review Team, Scientific Conclusions of the Status Review for Oregon Coast Coho Salmon</i> , May 16, 2011.	33
Oregon Department of Environmental Quality ("DEQ"), <i>Oregon's 1992 Water Quality Status Assessment Report, 305(b) Report</i> , April 1992.	14
Oregon DEQ, <i>Methodology for Oregon's 2010 Water Quality Report and List of Water Quality Limited Waters (Pursuant to Clean Water Act Sections 303(d) and 305(b) and OAR 340-01-0046)</i> , May 12, 2011.....	36
Oregon DEQ, <i>Oregon TMDLs Approved by EPA, May 2000 through October 112 (sic, 2010)</i>	24
Oregon DEQ, <i>"Turbidity Analysis for Oregon, Public Water Systems: Water Quality in Coast Range Drinking Water Source Areas"</i> , June 2010.	30,31

	Page
Oregon DEQ, <i>Water Quality: Water Quality Assessment, Search DEQ's 2002 303(d) List Database</i> ("2002 Database").	35
Oregon DEQ, <i>Water Quality Assessment - Oregon's 2004/2006 Integrated Report Database, Review the 2004/2006 Integrated Report Database</i> ("2004/6 Database").. . . .	35
Oregon DEQ, <i>Water Quality Assessment - Oregon's 2010 Integrated Report Assessment Database and 303(d) List, Review the 2010 Integrated Report Database</i> ("2010 Database"). . . .	35
Directors of Oregon Department of Forestry and Oregon DEQ memorandum, " <i>Sufficiency Analysis: A Statewide Evaluation of Forest Practices Act Effectiveness in Protecting Water Quality</i> , October 17, 2002.. . . .	41
Pacific Northwest Research Station, U.S. Forest Service, <i>Saving Streams and Their Source: Managing for Amphibian Diversity in Headwater Forests</i> , 99 Science Findings (January 2008).. . . .	21
U.S. Government Accountability Office ("GAO") <i>2012 Report</i>	13,14
Washington Department of Ecology ("WDOE"), <i>Water Quality Assessment for Washington, Simple Query Tool, 2008 Water Quality Assessment</i> , 2008.. . . .	38,39

	Page
<i>WDOE, Assessment of Water Quality for the Clean Water Act Section 303(d) and 305(b) Integrated Report, July 2012.</i>	38

INTEREST OF *AMICI CURIAE*¹

Northwest Environmental Advocates (NWEA) has spent the last 26 years working with and litigating against the U.S. Environmental Protection Agency (EPA) and the states of Oregon and Washington to enforce and implement the Clean Water Act in the Pacific Northwest. While regulation of point source water pollution has seen relative success, nonpoint source pollution has gone largely unregulated and uncontrolled and, with respect to forestry operations in Northwest forests, has been glaringly under-regulated. The continually degraded and often deteriorating condition of rivers and streams affected by forest operations and logging roads has been the object of NWEA's efforts in a number of cases.²

¹ No party or counsel for a party to this case has authored any part of this brief or made any monetary contribution intended to fund the preparation or submission of the brief. All such monetary contributions have been made exclusively by these amici and their counsel.

² *Northwest Env'tl. Advocates v. City of Portland*, 74 F.3d 945 (1996)(suit to enforce water quality standards); *Northwest Env'tl. Advocates v. United States EPA*, 855 F.Supp2d 1199(2012)(challenge to EPA approval of Oregon water quality standards); *Northwest Env'tl. Advocates v. United States EPA*, 2009 U.S. Dist. LEXIS 10456(2009)(same); *NWEA v. U.S. EPA*, No. 06-479-HA (2008)(consent decree on human health and aquatic life criteria for toxic water pollutants); *NWEA v. Browner*, No. 00-679-HO

Established in 1969, NWEA is a regional non-profit environmental organization incorporated under the laws of Oregon in 1981, with its principal place of business in Portland, Oregon. NWEA's mission is to work through advocacy and education to protect and restore water and air quality, wetlands, and wildlife habitat in the Pacific Northwest. NWEA has focused on ensuring that the water quality-based regulatory programs of Oregon and Washington meet the requirements of the Clean Water Act by its involvement in the states' development and revision of water quality standards, lists of impaired waters that fail to meet water quality standards, Total Maximum Daily Loads (TMDL),³ which are

(Cont.'d) (D. Or. 2000) (order approving consent decree to enforce TMDL provisions of Clean Water Act in Oregon); *Hawes v. State*, 203 Or. App 255 (2005)(Intervenors to compel Clean Water Act enforcement against nonpoint source challenge) .

³ "Total Maximum Daily Loads" (TMDLs) are assessments of the amount of a particular pollutant that can be discharged into a particular stream segment without violating water quality standards. 33 U.S.C. § 1313(d)(1)(C). A TMDL must be done for each waterway on a state's list of waters that do not meet and are not expected to meet water quality standards after the application of technology-based controls. 33 U.S.C. §1313(d)(1)(A), (B).

scientifically-based clean-up plans for waters impaired by pollution, and NPDES discharge permits. NWEA has also been involved in bringing enforcement cases against point source dischargers of pollution, such as untreated sewage from the City of Portland. The organization has actively participated in numerous state, local and national advisory committees. It has sought to ensure that nonpoint sources of polluted runoff are controlled through state and local regulatory programs. NWEA has also advocated for inclusion of the Lower Columbia River into the EPA's National Estuary Program, run an educational boat program, and published educational materials.

The Native Fish Society (NFS) is an Oregon non-profit public interest organization with more than 500 members and an office in Oregon City, Oregon. NFS is dedicated to the conservation of native, wild fish in the Pacific Northwest and responsible stewardship of their habitat. NFS uses the best available science to advocate for historically abundant wild, native fish and promote the stewardship of the habitats that sustain them. NFS, its members, and its volunteers participate in agency administrative actions, public policy development, information gathering and dissemination, education and public outreach, and other activities relating protecting and

recovering wild fish, especially focusing on salmon and steelhead threatened with extinction and listed under the Endangered Species Act (ESA).

The NSF was one of the petitioners to seek the ESA listing of Oregon Coast coho salmon in 1998 and again in 2001, and defend that species against delisting. *Trout Unlimited v. Lohn*, 2007 WL 2973568 (D. Or., Oct. 5, 2007). Oregon Coast coho continue to be threatened with extinction in large part because of degraded habitat and water quality caused by land use activities under the Oregon Forest Practices Act. NFS members and volunteers represent the organization in the development of water quality clean-up plans and other forums to improve water quality and protect and recover Oregon Coast coho from continued and future harm caused by forest practices and other nonpoint sources of water pollution.

The Center for Biological Diversity (CBD) is a non-profit organization whose mission is to ensure the preservation, protection, and restoration of biodiversity, native species, ecosystems, public lands and waters, and public health. The CBD has more than 474,000 members and online activists nationwide, and has offices in a number of states, including Portland, Oregon. The CBD works through science, law and creative media to secure a future for

all species, great or small, hovering on the brink of extinction.

The CBD's primary goal is to protect and recover threatened and endangered species. In the Pacific Northwest and elsewhere, pollution from logging roads, including sediment, often results in adverse impacts to threatened and endangered fish, including salmon and steelhead. *See e.g.*, 77 Fed. Reg. 30473, 30476 (May 23, 2012). CBD has worked for years to help protect and recover imperiled salmon and steelhead in the Pacific Northwest, including from the adverse impacts of logging roads in the coastal range of Oregon.

The Clean Water Network (CWN), founded in 1992, is the largest grassroots coalition in the country devoted solely to protecting the nation's water resources. The CWN consists of more than 1,200 public interest organizations across the U.S., representing more than 5 million people, working to strengthen clean water and wetlands policies and implement the Clean Water Act. The CWN was established to be a central clearinghouse for news and information and an advocacy arm for the clean water community. The organization helps facilitate communications among member groups and coordinate joint policy and position statements.

The CWN focuses its combination of federal policy work and coordination to achieving a stronger national effort to bring polluted waterways back to health and to preserve our nation's rivers, lakes, streams, wetlands, estuaries and coastal waters. Its members include organizations comprising environmentalists, hunters and anglers, surfers and boaters, farmers and garden clubs, faith and labor organizations, smart growth planners, consumer advocates, and civic organizations interested in protecting waterways and drinking water supplies.

SUMMARY OF ARGUMENT

1. While the regulation of point source pollution has seen considerable success in cleaning up the rivers, streams and lakes of the United States, nonpoint source pollution controls lag far behind. According to the General Accountability Office, as of 2012, “[n]onpoint source pollution remains the leading cause of impairment of the nation's waters.”

2. Eighty percent of our freshwater sources originate in our forests. The so-called “best management practices” on which state and federal regulators rely to control sedimentary runoff from forest roads are not sufficient to protect drinking water, recreation and fish habitat.

3. Oregon, in which the present case arose, exemplifies a chronological catalogue of failed attempts to control pollution from forestry operations. Its “best management practices” are defined by state law as meeting water quality standards, although in fact they do not and never have.

ARGUMENT:

Nonpoint Source Forestry Controls are not Working.

The assertions of Petitioners and their *Amici* that nonpoint source forestry regulation is “an environmental success story”⁴ cannot bear comparison with the historical record. The facts are that the state regulatory and non-regulatory⁵ “best management practices” approach on which EPA and the states

⁴ Brief of *Amici Curiae* Society of American Foresters *et al.* at 12.

⁵ The Brief of *Amici* States of Arkansas, *et al.* (“State’s Brief”) claims that forestry is conducted in the United States under the “most comprehensive program of BMPs of any land use activity in the nation.” States’ Brief at 16. Of course such a claim is impossible to define, let alone prove. In fact, according to that same brief, only six of the 50 states have mandatory BMPs, while ten others have “non-regulatory BMP programs.” *Id.* and nn. 2, 3.

have relied to address water pollution from forest operations has largely failed to keep sediment from logging roads out of forest streams, resulting in the clogging of municipal drinking water systems, the suffocation of salmon spawning beds, and rising stream temperatures.

I. Congress's Approach to Nonpoint Sources

Congress established in the 1972 amendments to the Clean Water Act (CWA) a national interim goal to meet water quality standards by 1983, focused on controlling pollution discharges from permitted point sources. 33 U.S.C. §§ 1251(a)(2), 1311, 1342. The CWA required each state to develop water quality standards for its waters to be met by controlling pollution from point sources, which the CWA defines as “discernible, confined and discrete conveyance[s]”⁶ and pollution from nonpoint sources which are all other sources.⁷

⁶ 33 U.S.C. §1362(14).

⁷ OAR 340-041-0002(43). Congress also explicitly recognized that expeditiously cleaning up nonpoint source pollution is essential to enable the statutory goals for point sources to be met. 33 U.S.C. § 1251(a)(7).

The CWA as constructed in 1972 did not, however, invest EPA with authority to regulate nonpoint source pollution. In 1987, Congress amended the Act to address “the growing national awareness of the increasingly dominant influence of nonpoint source pollution on water quality[.]”⁸

The 1987 CWA amendments added the following goal:

It is the national policy that programs for the control of nonpoint sources of pollution be developed and implemented in an expeditious manner so as to enable the goals of this Act to be met through the control of both point and nonpoint sources of pollution.

33 U.S.C. 1251(a)(7). To meet this goal, the 1987 amendments added section 319 to the CWA to require states to assess nonpoint source pollution problems and causes, and to adopt and implement nonpoint source management programs 33 U.S.C. § 1329(a) and (b).

Just three years later, Congress made another attempt to address states’ lack of nonpoint source

⁸ EPA, *NOAA Guidance Specifying Management Measures For Sources Of Nonpoint Pollution In Coastal Waters*, EPA 840 B 92 002 January, 1993, at 1-2 available at http://www.gpo.gov/fdsys/pkg/CZIC_kf3790_u56_1993/html/CZIC_kf3790_u56_1993.htm.

controls. The Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) recognized that "[n]onpoint source pollution is increasingly recognized as a significant factor in coastal water degradation." CZARA Sec. 6202(a)(5).⁹ CZARA required EPA and the National Oceanic and Atmospheric Administration (NOAA) to co-administer the coastal nonpoint pollution program. 16 U.S.C. § 1455b.

CZARA did not give EPA and NOAA direct authority to establish nonpoint source controls but, rather, it required them to approve or disapprove state coastal nonpoint source control programs 16 U.S.C. § 1455b(c). States with approved programs may continue to obtain federal grant funding but where states have not gained approval by specific dates set out in the statute EPA and NOAA are required to cut federal grants by specific percentages, 16 U.S.C. § 1455b(c)(3) and (4).

Despite the unambiguous requirement for mandatory cuts in federal grants to coastal states not controlling nonpoint source pollution, EPA and NOAA

⁹ Land uses in the coastal zone, and the uses of adjacent lands which drain into the coastal zone, may significantly affect the quality of coastal waters and habitats, and efforts to control coastal water pollution from land use activities must be improved. 16 U.S.C. § 1451(k).

have ignored the statutory deadlines for such cuts.¹⁰ Despite repeated findings that states' nonpoint source programs are inadequate and thus not approvable, EPA and NOAA have never disapproved any state's coastal nonpoint source pollution control plan. *Id.*

II. “Nonpoint source pollution remains the leading cause of impairment of the nation’s waters.”

Point source regulation under the NPDES permit system has made significant strides in reducing pollutant discharges to ensure that point sources are not causing or contributing to violations of water quality standards. In contrast, as a direct result of EPA’s reliance on states’ control of nonpoint source pollution, the country’s efforts to clean up widespread water pollution from nonpoint sources have largely failed. As of 1993, some sixty percent of state water quality standards violations in the country were caused by nonpoint source pollution.¹¹

¹⁰ See National Oceanic and Atmospheric Administration, *Ocean and Coastal Resource Management, Coastal Nonpoint Program Approval Findings*: http://costalmanagement.noaa.gov/nonpoint/pro_approve.html.

¹¹ Robert L. Glicksman, *Pollution on the Federal Lands II: Water Pollution Law*, 12 J.Envntl. L. & Policy 61, 71-73

Fifteen years later, according to EPA, nonpoint sources remained the dominant source of surface water pollution nationally.¹² According to the Government Accountability Office,

Forty years after the 1972 Clean Water Act recognized the problem of water pollution from diffuse, or nonpoint, sources—such as runoff from farms or construction *sites*—*nonpoint source pollution remains the leading cause of impairment of the nation’s waters*. The Environmental Protection Agency (EPA) reports that more than 33,000 water bodies nationwide are impaired

(Cont.’d)

(1993)(nonpoint sources responsible for “about sixty percent of state water quality standard violations”); *See also* William L. Andreen, *Water Quality Today—Has the Clean Water Act Been a Success?* 55 Ala. L. Rev. 537, 544 n.36 (2004), 42.

¹² EPA, *National Probable Sources Contributing to Impairments*, http://ofmpub.epa.gov/waters10/attains_nation_cy.control#prob_source, last accessed October 13, 2012 (59 percent of assessed river and stream miles violate water quality standards due to nonpoint sources); Douglas Endicott, Great Lakes Environmental Center, *National Level Assessment of Water Quality Impairments Related to Forest Roads and Their Prevention by Best Management Practices* at 3 (2008) (Study commissioned by EPA)(“Endicott Study”).

primarily by such pollution; that is, they do not meet water quality standards to provide for, among other things, propagation and protection of aquatic wildlife and human use and recreation.

United States Government Accountability Office (GAO) *Report to Congressional Requesters, "Nonpoint Source Water Pollution: Greater Oversight and Additional Data Needed for Key EPA Water Program"* ("GAO 2012 Report"), May, 2012 at 1 (emphasis added). Reviewing EPA's nonpoint source program for the past 22 years, the GAO concluded

In 1990, when we last reported on EPA's section 319 [nonpoint source grant] program, we found that inherent conflicts existed between some federal agencies' policies and states' water quality goals. Pollution trends since that time suggest that such inherent conflicts and their downstream consequences remain today.

Id. at 2. After nearly a quarter century, the condition of the nation's waters suggests to the GAO that states have been unable to control nonpoint source pollution and, as a consequence, pollution from nonpoint sources "remains the leading cause of impairment to the nation's waters." *Id.* Nonpoint source controls are not working.

In Oregon, forestry has been one of the top three non-NPDES permitted sources of water quality impairment, affecting some 7,580 miles of waterways in 1992.¹³ Sedimentation and turbidity accounted for 1,260 miles of those impairments. *Id.*, Figure 3.2-1a.

III. Forests as Polluted Water Sources

The water most Americans drink comes from the woods. Four out of five of our rivers begin in forested lands:

Forests cover about one-third of the continental United States. Most major rivers and streams originate in forested catchments, and 80 percent of the nation's freshwater sources originate in these forests. In 2000, the US Forest Service (USFS) calculated the marginal value of water from all National Forest System (NFS) lands to be at least \$ 3.7 billion per year. Between 50 and 75 percent of the population of the United States relies on forest lands for good quality water, and approximately 60 million people rely on NFS lands as the primary

¹³ Oregon Department of Environmental Quality, *Oregon's 1992 Water Quality Status Assessment Report, 305(b) Report*, April 1992, Fig 3.2-1(b), page 3-9.

source of their drinking water.

EPA, *Notice of Intent to Revise Stormwater Regulations, etc.*, 77 Fed. Reg. 30473, 30476 (May 23, 2012). Sediment pollution from logging on the nation's public and private forests has a significant negative impact on fresh water for drinking, recreation, and fish habitat:

Stormwater discharges from logging roads, especially improperly constructed or maintained roads, may introduce significant amounts of sediment and other pollutants into surface waters and, consequently, cause a variety of water quality impacts.

Id. The logging industry is among the top twelve probable sources of impaired water quality in the nation, known to be muddying fresh water in 19,444 miles of rivers and streams. *Id.* Still, almost three quarters of rivers and streams, over half of lakes, reservoirs and ponds, and most coastal waters have not yet been assessed. *Id.*

Sediment discharges in stormwater from logging roads harm “dozens of sensitive aquatic biota” such as salmon, trout, amphibians, and the entire food chain on which their survival and the biological complexity of the waters depend.” *Id.* Such sediment discharges also threaten municipal drinking water systems. *See infra* at 29-32.

EPA has commissioned research to study the nationwide effects of forestry operations on sediment in streams. Endicott Study, *supra*. That research found that “forestry-related sediment is a leading source of water quality impairment to rivers and streams nationwide.” *Id.* at 2. EPA guidance for coastal nonpoint source pollution control programs emphasizes that “up to 90% of the total sediment production from forestry operations” comes from logging roads and stream crossings.¹⁴

Evaluating for EPA the effectiveness of state “best management practices” (“BMPs”) in addressing forest road impacts on water quality, the Endicott Study concluded that such BMPs are “largely procedural, describing the steps to be taken in determining how a site will be managed,” but they lack “practical in-stream criteria for regulation of sedimentation from forestry activities.” Endicott Study at 70. This EPA-commissioned study also found that BMPs are often defined and implemented based on what is practicable in view of “technological, economic, and institutional consideration” *Id.* at 72. In other words, state BMPs are often established on

¹⁴ EPA, *Guidance Specifying Management Measures For Sources of Nonpoint Pollution in Coastal Waters*, EPA Guidance Paper 840-B-93-001c, at 27 (1993).

grounds other than what is required to meet state water quality standards.¹⁵

That is certainly true with respect to forest operations in Oregon, where the instant case arose. Nonpoint source regulation is, in Oregon forests, an exercise in nominal compliance by legislative presumption: BMPs are presumed by statute to meet water quality standards.¹⁶ That presumption is contrary to fact.

IV. Nonpoint source pollution control of forestry operations is not improving: An Oregon Chronology

The historical record of Oregon's efforts to control water pollutants from logging shows deterioration, not progress.

¹⁵ While the *substantive* inadequacies of forestry BMPs to achieve water quality standards are many and varied, some such flaws apply generally. For example, Washington is the *only state* that requires modern BMPs to be applied to old forest roads. Endicott Study at 118-19. In other states, such roads are “grandfathered” and continue discharging sediment to forest rivers and streams without use of modern management practices. *Id.*

¹⁶ ORS 527.770 and text *infra* at 39-44.

A. 1998 – Oregon Forest Practices Fail to Meet Water Quality Standards and CZARA Requirements

Notwithstanding CZARA's statutory requirement to approve or disapprove coastal states' nonpoint source pollution control programs,¹⁷ EPA and NOAA have failed to act on Oregon's deficient program – and the programs of every one of the other 34 states and territories covered by CZARA – by the deadlines set out in the statute.¹⁸ In 1998, however, the federal agencies did discuss why they were not approving Oregon's coastal nonpoint program, identifying conditions the state needed to meet to gain “full” approval.¹⁹ In their findings, EPA and NOAA stated:

Although Oregon has the basic legal and programmatic tools to implement a forestry program in conformity

¹⁷ Discussed *supra* at 8-11.

¹⁸ National Oceanic and Atmospheric Administration, *Ocean and Coastal Resource Management, Coastal Nonpoint Program Approval Findings* http://coastalmangement.noaa.gov/nonpoint/pro_approve.html.

¹⁹ EPA, NOAA, *A Pollution Prevention and Control Program for Oregon's Coastal Waters: Supplemental Information in Response to the Federal Findings of January 1998*, (April 1999).

with[CZARA], these tools are inadequate to ensure that water quality standards are attained and maintained and beneficial uses protected. This conclusion is based on best available information, including the most recent [CWA] 303(d) listings for Oregon waters, which indicate water quality impairments from forestry. Related to these water quality impairments, Oregon has a number of aquatic species, in particular anadromous salmonids, that are endangered, threatened, or otherwise seriously at risk, due in part to forestry activities that impair coastal water quality and beneficial uses, including salmon spawning, rearing, and migration habitat. * * *

Thus, Oregon will need to adopt additional management measures for forestry in areas adjacent to coastal waters not attaining or maintaining applicable water quality standards or protecting beneficial uses, or that are threatened by reasonably foreseeable increases in pollutant loadings from new or expanding forestry operations[.]

Id.

As a consequence of their findings, EPA and NOAA required Oregon to identify and begin applying additional management measures for forestry, as needed to meet water quality standards, within two years to specifically address “protection of medium, small, and non-fish bearing streams, including intermittent streams; protection of areas at high risk for landslides; the ability of forest practices to address cumulative impacts of forestry activities; road density and maintenance, particularly on so-called “legacy” roads; and the adequacy of stream buffers for application of certain chemicals.” *Id.*

**B. 1999 – Oregon Science Team
Concurs with EPA and NOAA that
Oregon Forest Practices are
Inadequate to Meet Water Quality
Standards.**

The Independent Multidisciplinary Science Team (IMST) is a scientific review panel charged with advising the State of Oregon on matters of science related to the Oregon Plan for Salmon and Watersheds established in 1997.²⁰ In 1999, the IMST issued a report that echoed the 1998 CZARA findings

²⁰ ORS 541.914.

of EPA and NOAA. The IMST found that Oregon's forestry operations BMPs were inadequate to, *inter alia*, protect small non-fish-bearing streams which are essential to recovery of wild salmonids, protect floodplains to prevent erosion, and recruit sufficient woody debris to streams.²¹

The IMST's findings on small non-fish-bearing streams in particular demonstrate the fallacy that state forestry regulations in Oregon are adequate to meet water quality standards. A common rule of thumb is that a full 75 percent of a watershed is composed of non-fish-bearing streams.²² The IMST recommended that Oregon rules that provide for no or limited riparian buffers on such non-fish bearing streams, riparian buffers should be required because

²¹ Independent Multidisciplinary Science Team, *Recovery of Wild Salmonids in Western Oregon Forests: Oregon Forest Practices Act Rules and the Measures in the Oregon Plan for Salmon and Watersheds*, Technical Report 1999-1, ("IMST Forestry Report") September 8, 1999 at 31-32 available at <http://www.fsl.orst.edu/imst/reports/1999-1.pdf>(last accessed October 16, 2012).

²² Pacific Northwest Research Station, U.S. Forest Service, *Saving Streams at Their Source: Managing for Amphibian Diversity in Headwater Forests*, 99 Science Findings 1 (January 2008) available at <http://www.fs.fed.us/pnw/science/scifi99.pdf> (last accessed October 3, 2012).

of the importance of small streams to watershed functions. IMST Forestry Report at 43-44. Since the IMST report Oregon has made no changes to riparian buffers on non-fish-bearing streams.

In particular, the IMST Report evaluated research on the contribution of fine sediment from logging roads, concluding that “there is significant scientific evidence to show that management actions can influence chronic sediment production from roads. This evidence is well documented and is known to [the Oregon Department of Forestry].”²³ The science panel went on to state that fully one third of road systems on state and private land in western Oregon “can deliver sediment to streams *by ditch delivery*” and that “reducing the amount of road drainage water that flows into channels can reduce sediment delivery to streams.” *Id.* (emphasis added).

The IMST specifically focused on the impact of forestry operations on sedimentation of rivers and streams because “[f]orestry operations increase the amount of chronic and episodic production of fine sediments. Disproportionally high amounts of fine sediment, compared with the coarser elements of stream structure (large wood, boulders, gravel, and cobble) diminish the quality of habitat for wild

²³ *Id.* at 80.

salmonids.” *Id.* at 39. The science panel pointed to ways in which excess fine sediment can be reduced by “designing, locating, constructing, and maintaining [logging] roads to minimize failure and to prevent road drainage from entering streams[.]” *Id.* The IMST concluded that Oregon’s BMPs were inadequate to control sedimentation from logging roads including, specifically, “road drainage directly into channels.” *Id.* at 32. Consequently, the IMST made a number of recommendations to change logging road regulations. *Id.* at 46-47. The minimal rule changes made subsequently did not respond to the IMST’s recommendations.

C. 2001 – Nonpoint source regulation under the Oregon Forest Practices Act “is not sufficient to accomplish the recovery of wild salmonids.”

Conditions in Oregon waters affected by forestry have continued to degrade. In 2000, the Oregon Department of Environmental Quality and Department of Forestry submitted for federal review a “Sufficiency Analysis: Stream Temperature” (known as the SAST). The Sufficiency Analysis focused on temperature because Oregon has numeric

temperature criteria in its water quality standards,²⁴ in contrast to its difficult-to-interpret sediment narrative criterion,²⁵ and the parameter is also relatively easy and inexpensive to monitor. As a result, Oregon's CWA section 303(d) program for identifying impaired waters and developing TMDL clean-up plans to address the pollutant impairments has likewise been focused on temperature.²⁶

Stream temperature is directly related to excess sedimentation and therefore acts as a measure of many nonpoint source impacts. As Oregon's IMST explained, changes in channel morphology, the flow of groundwater and subsurface water, and the removal of riparian vegetation – all of which are results of forestry operations – can be measured as increases in stream temperatures.²⁷ In particular, sedimentation

²⁴ OAR 340-041-0028(4).

²⁵ OAR 340-041-0007(12).

²⁶ See, e.g., DEQ, *Oregon TMDLs Approved by EPA - May 2000 through October 112* (sic, 2010), <http://www.deq.state.or.us/WQ/TMDLs/approved.htm> (last accessed October 14, 2012).

²⁷ IMST, *Oregon's Water Temperature Standard and its Application: Causes, Consequences, and Controversies Associated with Stream Temperature, A Report of the Independent Multidisciplinary Science Team, Oregon Plan for Salmon and Watersheds, Technical Report 2004-1*, May 7, 2004,

of streams increases temperature. *Id.* at 67-68.

Three federal agencies reviewed Oregon’s draft Sufficiency Analysis – the Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). Their cover letter to the state agencies summarized their conclusions, based on “overwhelming” evidence, that Oregon forest practices were not satisfying the Clean Water Act (CWA) or the Endangered Species Act (ESA)²⁸ :

We realize that it is not possible to determine the exact magnitude of forest practice effects to stream temperature for specific stream reaches in a statewide sufficiency analysis. The evidence is, however, overwhelming that forest practices on private lands in Oregon contribute to widespread stream

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Figure 4 at 67 available at <http://www.fsl.orst.edu/imst/reports/2004-01.pdf> (last accessed October 16, 2012).

²⁸ EPA, NOAA, NMFS, *Review of the December 2001 [sic, 2000] Draft Sufficiency Analysis: Stream Temperature (Oregon Departments of Forestry and Environmental Quality) by the Environmental Protection Agency, National Marine Fisheries Service, and U.S. Fish and Wildlife Service* (February 2001), cover letter February 28, 2001 at 2.

temperature problems and degraded salmonid habitat conditions. These effects of forest practices do not meet the goals of the CWA or ESA.

The federal agencies also concluded that Oregon's own 2000 "Sufficiency Analysis" validates the findings of the 1999 Oregon IMST that the practices established by the Oregon Forest Practices Act are "not sufficient to accomplish the recovery of wild salmonids."²⁹ *Id.*

The federal agencies also criticized Oregon's almost exclusive focus on temperature impacts of shade cast by trees and the state's concurrent failure to consider the role of sedimentation in evaluating the sufficiency of the state's forestry practices.³⁰ Specifically, the agencies cited studies showing forestry operations cause accumulations of fine sediment that clog salmon spawning gravels.³¹ Citing the numerous ways in which logging roads increase sedimentation of streams, especially fine sediments, the federal agencies concluded "[t]he FPA rules do not

²⁹ "Attachment 1" at 9.

³⁰ *Id.* at 6.

³¹ *Id.* at 7-8

provide adequate measures to address the above sediment-related factors [of road effects]”³².

D. 2003 – Forestry management “does not yet meet conditions.”

Two years later, on January 10, 2003, EPA and NOAA compiled comments on Oregon’s Coastal Nonpoint Pollution Control Program pursuant to CZARA for Oregon’s Department of Environmental Quality staff. Again the federal agencies found “[t]he significant management measure in this group of program components that does not yet meet conditions is the additional management measure for forestry.”³³ The federal agencies also recognized the particular significance of this deficiency to Oregon coastal water quality because

forestry is the predominant land use in the coastal watersheds and since the [Forest Practices Act] and [forestry

³² *Id.* at 8-9.

³³ EPA/NOAA, *6217 Boundary Decision; and Response to Oregon’s Supplemental Information in response to the Federal Findings of January 1998*, submitted April 1999, January 2002, and October 2002 (A “2003 Boundary Decision”), cover letter January 10, 2003 at 1.

regulations] are most often put forward as the implementation plan for Total Maximum Daily Loads (TMDLs) [to meet water quality standards] on private and state forest lands.

Id. Plainly, as of 2003, nonpoint source controls were still not working to control pollution from forest operations treated as nonpoint sources.

E. 2008 – EPA and NOAA Reconfirm that Oregon’s Forest Practices Fail to Meet Water Quality Standards

In 2008, noting the continuing failure by Oregon to meet CZARA requirements for forestry, EPA and NOAA stated yet again that “[a] broad body of science continues to demonstrate that the [Forest Practices Act] rules do not adequately protect water quality.”³⁴ The federal agencies went on to conclude that:

Based on Oregon’s recent submittal and our understanding of Oregon’s Forestry Program, EPA and NOAA still believe that Oregon lacks adequate management

³⁴ EPA, NOAA, *NOAA and EPA Preliminary Decisions on Information Submitted by Oregon to Meet Coastal Nonpoint Program Conditions of Approval*, June 12, 2008 at 10.

measures under the Oregon Forest Practices Act (FPA) rules for protecting water quality and the degradation of beneficial uses from forestry activities. EPA and NOAA's primary concerns, stated in the 1998 conditional findings and reiterated in the 2004 interim decision document, remain. Oregon still lacks adequate measures for protecting riparian areas of medium, small and non-fish bearing streams, high risk landslide areas, and for addressing the impacts of legacy roads.

*Id.*³⁵

F. 2010 – Nonpoint source forest pollution causes Oregon Coast municipal water systems to suffer “long term concerns about system viability or increased treatment costs.”

In June, 2010, the Oregon Department of Environmental Quality (DEQ) issued an assessment of the effects on drinking water of turbidity in Oregon

³⁵ In 2009, NWEA challenged the federal agencies' continuing failure to take a final approval or disapproval action on Oregon's coastal nonpoint pollution control program. *NWEA v. Locke*. Civil No. 09-0017 (D. OR.)

coastal watersheds.³⁶ Turbidity – suspended solids, causing cloudiness, in water – “may interfere with public water system operations, can increase operational costs and can also cause shutdowns.”³⁷

Evaluating eight public water systems, DEQ concluded:

there are long-term concerns about system viability or increased treatment costs at five systems (Arch Cape Water District and the cities of Astoria, Carlton, Siletz, and Yamhill), based on large numbers of high-turbidity days and/or increasing numbers of high-turbidity days recorded in daily water samples for these systems. Also, DEQ found that turbidity is increasing in the long term in Drinking Water Source Areas for five systems, remains stable at one system, and is decreasing at two others.

³⁶ DEQ, “*Turbidity Analysis for Oregon Public Water Systems: Water Quality in Coast Range Drinking Water Source Areas*” (“Turbidity Analysis”), June 2010 available at: <http://www.deq.state.or.us/wq/dwp/docs/TurbidityAnalysisOregonPWS201006.pdf> (last accessed October 17, 2012).

³⁷ *Id.* at 1.

Id. As has been previously noted, Oregon’s coastal watersheds are mostly forest land. Not only is forestry the predominant use in these watersheds but forested lands are the primary source of drinking water for area communities.³⁸

For more than half of the coastal municipal water systems evaluated in the 2010 DEQ study, the agency still has long-term concerns about whether the systems can remain viable or whether the costs of treating turbid water are likely to increase. That trend is not improvement, consistent with the goals of the CWA but, rather, declining water quality. Oregon nonpoint source controls for forestry operations are not working to keep this drinking water clear.

Moreover, the 2010 Turbidity Analysis appears to demonstrate a state unwillingness to act upon the existing data that demonstrate forest practices’ effects on water quality. Referring to the state’s 2002 “Sufficiency Analysis,” the 2010 DEQ study claims that there are not enough data upon which to improve forest practice:

³⁸ 2003 Boundary Decision, *supra*, cover letter at 1 (“forestry is the predominant land use in the coastal watersheds”); Turbidity Analysis at 1 (“Drinking Water Source Areas for these Coast Range systems are predominantly forested.”).

The [Sufficiency Analysis] identifies that the effects of practices along small non-fish-bearing streams on downstream sediment regimes is an issue that needs research and that data are lacking on turbidity and fine sediment effects of forest practices. The data and scientific literature in this report may be able to meet some of these identified data gaps and research needs.

Id. at 37. In contrast, however, DEQ’s claim of data deficits being on “turbidity and fine sediment effects of forest practices,” the state’s own independent science panel – the IMST– and three federal agencies had already concluded that the generation of fine sediment by logging operations, including roads, was causing demonstrable water quality problems.

Nonpoint source regulation is not protecting drinking water from the effects of forest practices in Oregon coastal watersheds.

**G. 2011 – Biological Review Team
Confirms Forestry Threatens Fish
Survival in Oregon Coastal
Watersheds**

On February 11, 2008 the National Marine Fisheries Service (NMFS) issued its final

determination listing the Oregon Coast coho salmon as a threatened species under the Endangered Species Act.³⁹ In its 2011 status update for the species, NMFS noted that “[t]imber harvest and associated roads have extensively altered aquatic ecosystems . . . which in turn has consequences for fish populations and their habitat[.]”⁴⁰ Stating that water quality has long been identified as a factor for decline of Oregon Coast coho salmon, NMFS noted that 40 percent of species’ distribution miles are known to be impaired for temperature, *id.* at 68, and that the effects of forestry operations were most pronounced on private and state lands. *Id.* at 55.

The Biological Review Team was particularly concerned with the effects of logging roads on water quality in the watersheds inhabited by the species, finding that the “condition of aquatic habitat and fish populations is also directly correlated with the density of roads in a watershed,”*id.* at 53, and noting that there were high levels of sediment in streams of

³⁹ 73 Fed. Reg. 7816 (Feb. 11, 2008).

⁴⁰ Northwest Fisheries Science Center, NMFS, *Draft Revised Report of the Biological Review Team, Scientific Conclusions of the Status Review for Oregon Coast Coho Salmon (Oncorhynchus kisutch)* May 16, 2011 at 53, available at <http://www.nwr.noaa.gov/Publications/Biological-Status-Reviews/upload/OCC-review-2011.pdf> (last accessed October 16, 2012).

the Oregon Coast range. *Id. at 59.* It also cited the impacts of logging roads on water quality, finding no improvement over the ten-year period of consideration, 1998 to 2008. *Id. at 60.* The science team finally concluded that “effects of logging activities and associated road building on stream conditions, the wide-spread occurrence of these activities, and lack of any sign that logging activities are abating, [must be taken] as indications that these threats to habitat are pervasive and ongoing in the [Oregon Coast] coho Salmon[.]” *Id.*

H. More Oregon waters fail to meet water quality standards for sedimentation and temperature now than 10 years ago.

Under section 303(d) of the CWA, states must list all of the waters under their jurisdiction that do not meet water quality standards or are not expected to meet those standards with the application of pollutant limitations prescribed in the Act. 33 U.S.C. § 1313(d). Waters are listed on this “303(d)” list with respect to particular impairments, thus a stream segment must be “listed for sedimentation” if that segment does not meet the state’s water quality standard for sediment. Comparing a state’s 303(d) lists over time provides a fair indication whether a state is making progress with respect to controlling a

particular pollutant. If regulatory and non-regulatory nonpoint source controls were succeeding in Oregon, one would expect to see fewer waters listed as impaired by logging over time.

That is not what Oregon's 303(d) lists of impaired waters show; indeed the trend is very much in the opposite direction. The Oregon 303(d) list for 2002 included 65 segments listed for sedimentation.⁴¹ The 2004/2006 list had 106,⁴² and the most recent list, for 2010, showed 143 segments,⁴³ more than double

⁴¹ DEQ, *Water Quality: Water Quality Assessment, Search DEQ's 2002 303(d) List Database ("2002 database")*, <http://www.deq.state.or.us/wq/assessment/rpt02/searchlist.asp> (query set at "all waterbodies" and "sedimentation").

⁴² DEQ, *Water Quality Assessment - Oregon's 2004/2006 Integrated Report Database, Review the 2004/2006 Integrated Report Database ("2004/6 database")*, <http://www.deq.state.or.us/wq/assessment/rpt0406/search.asp> (query set at "all watersheds," "sedimentation," and Water Quality Limited TMDL needed - 303(d)" and "Water Quality Limited TMDL not needed - TMDL approved").

⁴³ DEQ, *2010 Database, Water Quality Assessment - Oregon's 2010 Integrated Report Assessment Database and 303(d) List*, Review the 2010 Integrated Report Database ("2010 Database"), <http://www.deq.state.or.us/wq/assessment/rpt2010/search.asp> (query set at "All subbasins," "All waterbodies," "sedimentation" and "Water Quality Limited - All (Categories 4 and 5)."; Letter from Michael A. Bussell, EPA to Greg Aldrich, Oregon DEQ,

the number listed as impaired in 2002.

Oregon's listings for biocriteria violations, which are an indicator of excess sedimentation,⁴⁴ demonstrate a similar increasing trend with 24 segments listed in 2002,⁴⁵ 37 segments in 2004/6,⁴⁶

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Partial Approval/Partial Disapproval of Oregon's Final 2010 303(d) List, Enclosure 3: Proposed Additions to Oregon's 2010 303(d) List (March 15, 2012) available at, http://www.epa.gov/region10/pdf/water/303d/oregon/Final_Enclosure_3_EPA_Proposed_Additions_OR2010.pdf.

⁴⁴ DEQ, *Methodology for Oregon's 2010 Water Quality Report And List of Water Quality Limited Waters (Pursuant to Clean Water Act Sections 303(d) and 305(b) and OAR 340-041-0046)*, May 12, 2011, available at <http://www.deq.state.or.us/wq/assessment/docs/2010AssessmentMethodology.pdf> (biomonitoring reflects excess sedimentation).

⁴⁵ DEQ, *2002 Database* (query set at "all waterbodies" and "biocriteria"). (See *supra* footnote 44)

⁴⁶ DEQ, *2004/6 Database* (query set at "all watersheds," "biocriteria," and Water Quality Limited TMDL needed - 303(d)" and "Water Quality Limited TMDL not needed - TMDL approved"). (See *supra* footnote 45)

and 361 segments proposed for the 2010 list,⁴⁷ a 15-fold increase in less than a decade. Temperature listings mirror this trend with 1,087 listings in 2002,⁴⁸ 1,314 listings in 2004/6,⁴⁹ and 1,444 listings in 2010.⁵⁰

Oregon's failure to control nonpoint source pollution, including forestry operations and sediment from logging roads, is an example of a nationwide problem. Nationally, sedimentation is the second most frequent cause of impairment in the nation's

⁴⁷ DEQ, *2010 Database*, (query set at "All subbasins," "All waterbodies," "biocriteria" and "Water Quality Limited - All (Categories 4 and 5)."; Letter from Michael A. Bussell, EPA to Greg Aldrich (See *supra* Footnote 46)

⁴⁸ DEQ, *2002 Database*, (query set at "all waterbodies" and "temperature"). (See *supra* footnotes 44 & 48)

⁴⁹ DEQ, *2004/6 Database*, (query set at "all watersheds," "temperature," and Water Quality Limited TMDL needed - 303(d)" and "Water Quality Limited TMDL not needed - TMDL approved"). (See *supra* footnotes 45 & 49)

⁵⁰ DEQ, *2010 Database*, (query set at "All subbasins," "All waterbodies," "temperature" and "Water Quality Limited - All (Categories 4 and 5).") (See *supra* footnotes 46 & 50)

assessed streams and rivers.⁵¹ Washington, which shares a similar landscape to Oregon's has experienced the same increase in impaired waters over time. While Washington does not monitor for or identify sediment as a pollutant,⁵² temperature is a measure of excess sedimentation as discussed *supra* at 24-25. In Washington, 303(d) listings of waters for temperature impairment jumped from 428 in 1996,⁵³

⁵¹ EPA, *National Causes of Impairment, Watershed Assessment, Tracking & Environmental Results*, http://ofmpub.epa.gov/waters10/attains_nation_cy.control#causes.

⁵² Washington Department of Ecology, *Assessment of Water Quality for the Clean Water Act Section 303(d) and 305(b) Integrated Report*, WQP Policy1-11, July 2012, available at <http://www.ecy.wa.gov/programs/wq/303d/WQpolicy1-11ch1.pdf>

⁵³ Washington Department of Ecology, *Water Quality Assessment for Washington, Simple Query Tool, 2008 Water Quality Assessment*, <http://apps.ecy.wa.gov/wats08/>, (query set at "temperature," "current 2008 category: ALL," and 1996 303(d) List: Y[es]).

to 431 in 1998,⁵⁴ 930 in 2004,⁵⁵ and 1,343 in 2008,⁵⁶ a three-fold increase over 16 years.

V. Oregon’s water quality standards are not the benchmarks for forest water quality in Oregon.

Oregon’s Forest Practices Act (OFPA) only nominally requires logging practices to attain Oregon’s EPA-approved water quality standards. First, while the OFPA provides that logging practices must “not impair the achievement and maintenance of water quality standards” it also explicitly requires

⁵⁴ Washington Department of Ecology, *Water Quality Assessment for Washington, Simple Query Tool, 2008 Water Quality Assessment*, <http://apps.ecy.wa.gov/wats08/>, (query set at “temperature,” “current 2008 category: ALL,” and 1998 303(d) List: Y[es]).

⁵⁵ Washington Department of Ecology, *Water Quality Assessment for Washington, Simple Query Tool, 2008 Water Quality Assessment*, <http://apps.ecy.wa.gov/wats08/>, (query set at “temperature,” “current 2008 category: ALL,” and 2004 Category 4a, 4b, and 5).

⁵⁶ Washington Department of Ecology, *Water Quality Assessment for Washington, Simple Query Tool, 2008 Water Quality Assessment* <http://apps.ecy.wa.gov/wats08/>, (query set at “temperature,” “current 2008 category: 4a, 4b, and 5.”)

those practices to be limited by “technical, economic and institutional feasibility.”⁵⁷ Second, the Oregon law provides that *existing forestry practices are deemed to meet water quality standards as a matter of law.*⁵⁸ Although salmon need clear water and gravels in which to spawn, rear and migrate, and municipal drinking water systems are limited in how much solid matter they can filter – the OFPA does not require that the water in forest streams affected by forestry operations *actually meet* the state’s water quality standards. Instead, the OFPA *defines* any logging operation that uses the agency’s “best management practices” as meeting water quality standards: “Forest operators conducting operations in accordance with the FPA *are considered to be in compliance* with Oregon’s water quality standards.”⁵⁹

⁵⁷ ORS 527.765(1)(d).

⁵⁸ ORS 527.770.

⁵⁹ “Turbidity” refers to particulate matter suspended in the water column. “Sediment” refers to particles that settle in the streambed. In fact, though Oregon has a numerical criterion for “turbidity”, OAR 340-041-0036, and basin-specific criteria for “total dissolved solids”, OAR 340-041-0032, it has no numerical criterion for the amount of sediment that may be added to a stream by a given activity. Whether soil runoff creates turbidity or sedimentation depends, among other conditions on the

The Oregon turbidity⁶⁰ standard provides that there shall be no more than a ten percent cumulative increase in stream turbidity as a result of any activity.⁶¹ However, it makes no difference under the Oregon logging statute whether a forestry operation is causing the turbidity in a stream to *actually* increase by more than ten percent in the stream because the logging practices are not *actually* required to meet water quality standards. Water quality standards required under the CWA to protect drinking water and salmon spawning streams are conclusively presumed to be met if the practices defined as “best management practices” (BMPs) are in place. This is not a matter of interpretation; it is explicit in the statute:

A forest operator conducting, or in good faith proposing to conduct, operations in

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solubility of those soils.

⁶⁰ Memorandum from Directors of Oregon Department of Forestry and Oregon Department of Environmental Quality, October 17, 2002, *covering* “Sufficiency Analysis: A statewide Evaluation of Forest Practices Act Effectiveness in Protecting Water Quality”(emphasis added).

⁶¹ OAR 340-041-0036.

accordance with the best management practices currently in effect shall not be considered in violation of any water quality standard.

ORS 527.770.

Likewise, the repeated conclusions of numerous scientists at numerous agencies that Oregon's forest practices lead to violations of temperature and sediment criteria and pose a threat to designated uses, including threatened and endangered species, are rendered irrelevant by the Oregon forest practices statute.

It is no wonder that water quality impairments caused by forestry operations continue, on the 40th anniversary of the 1972 CWA amendments, to cause water quality standards to be violated. Those water quality standards, approved by EPA⁶² and required by the Act to be the means by which water uses are protected, are not the actual measures with which forest operators in Oregon must comply. Instead, it is the BMPs – which have been demonstrated year after year to be deficient, – that provide the actual requirements for forestry operations, far divorced

⁶² The CWA requires states to enact, and EPA to approve, water quality standards sufficient to protect uses of the state's waters. 33 U.S.C. §1313(c).

from the state's actual water quality standards. As the Oregon District Court put it, discussing the state's water quality standards for temperature earlier this year in *NWEA v. EPA, supra*,

For instance, OAR 340-041-0028(12)(e) provides that forest operations on State and private lands are to comply with water quality standards for temperature by implementing best management practices ("BMPs") already required under the Forest Practices Act (ORS 527.610-992) and that forest operations that comply with the BMPs are "deemed in compliance with" temperature standards. *This, and other provisions, essentially exempt various nonpoint sources of heat pollution from complying with water quality standards so long as they maintain the status quo. * * **

Given that many temperature impaired waters in Oregon are impaired in whole or in part by nonpoint sources of pollution, the challenged provisions could present a *considerable obstacle* to the attainment of water quality standards *when, by law, the sources of*

pollution are deemed to be in compliance with water quality standards.

855 F. Supp2d at 1209-10 (emphasis added). In fact, the laws that apply to Oregon forestry operations as a “nonpoint source” present just such an obstacle to achieving clean and clear water quality:

While the challenged provisions may not meet the EPA's definition of "water quality standards" those provisions clearly have the potential to interfere with the attainment of water quality standards by effectively supplanting those standards as they apply to nonpoint sources, possibly for years at a time.

Id. at 23.

As shown above, this is not only a theoretical legal problem. On the ground, and in the water, the basic and historical uses of Oregon waters – from municipal drinking water to salmon spawning and rearing – are not protected from nonpoint source pollution from forest operations. Nonpoint source “pollution control” does not work for Oregon forestry.

VI. Conclusion

According to the GAO, EPA, NOAA and NMFS, nonpoint source forest water pollution control has not worked nationally, including in Oregon. According to Oregon's section 303(d) reports of polluted stream segments, and the state's own independent science team, nonpoint source controls have not worked for Oregon forestry. The NPDES program that has been successfully applied to point source regulation can and should be applied to forest road discharges from pipes, ditches or other discrete conveyances, which are point sources. The Court should affirm the decision of the Ninth Circuit Court of Appeals.

Respectfully Submitted,

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October 23, 2012

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