

**A Decade of Delay**  
**How the Washington Department of Ecology and Polluters Have Delayed the  
Improvement of Washington's Water Quality Standards**

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## **Executive Summary**

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Washington has some of the most beautiful and diverse water resources in America. From the rugged Pacific coast, to the Orca-filled waters of Puget Sound, to the mighty Columbia River, to the countless numbers of lakes and streams that run throughout the mountains, valleys, and forests of our state, Washington has been blessed with an incomparable volume and variety of waterways. These water resources provide Washingtonians with food, drinking water, fishing, and recreational opportunities and are home to some of the most diverse and important plant and wildlife populations in the country.

This year marks the 30<sup>th</sup> Anniversary of the Clean Water Act. While we have made significant improvements in protecting these beautiful water resources since the Clean Water Act's passage, the state of Washington's waters demonstrates that we still face many challenges. According to the Washington State Department of Ecology, 59 percent of Washington's rivers, 35 percent of our lakes, and 65 percent of our estuaries remain degraded.

One of the main tools states have to protect and restore waterways under the Clean Water Act is water quality standards. These standards are one of the basic building blocks for water quality programs because they help to determine the maximum amount of pollution polluters may discharge into a stream, provide policymakers with tools to ensure polluted waters are cleaned up, and protect endangered species. Unfortunately, despite the importance of these standards, Washington has failed to protect its waterways with strong standards.

**While the Clean Water Act requires states to review and update these standards every three-year, the Washington State Department of Ecology (Ecology) has not completed a comprehensive review of our water quality standards in 10 years.** This decade of delay – supported and encouraged by polluters – has forced Washington's water quality programs to operate on outdated and inadequate standards and, as a result, has put the health of Washington's waters at risk.

This paper examines Ecology's decade of delay in reviewing and updating Washington's water quality standards. It reviews the influence some of the state's largest water polluters have had on the standards and shows how industries have been allowed a far greater opportunity to influence the process than the public, including paying for a "stakeholder" process to provide input on various standards proposal that did not include the public. The report specifically examines the evolution of Ecology's proposals for temperature and dissolved oxygen standards, antidegradation policy, and mixing zones.

Specifically, Ecology's decade of delay has resulted in standards that:

- Fail to protect endangered species such as salmon.
- Fail to protect public health by continuing to allow the discharge of highly toxic chemicals in amounts that violate water quality standards.

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- Allow the degradation of clean water bodies to the point where the water bodies fail to meet water quality standards.

As Ecology prepares to issue yet another set of draft standards for public review this winter, it should stand up to industry pressure and issue water quality standards that are fully protective of our waterways. Ecology should take the opportunity of the 30<sup>th</sup> Anniversary of the Clean Water Act to renew its commitment to clean water and strong and timely water quality standards that include:

- 1) Temperature standards that fully protect salmon and other endangered species. Ecology should adopt the U.S. Environmental Protection Agency's 2001 proposed temperature standards.
- 2) Dissolved oxygen standards that use a 7-Daily Average of the Daily Mean.
- 3) Prohibition on mixing zones for highly toxic PBTs.
- 4) An antidegradation policy that applies the antidegradation analysis to all types of actions that degrade waterways, and allows the public to fully participate in the process.

## **I. Introduction: The State of Washington's Waters**

Washington has some of the most beautiful and diverse water resources in America. From the rugged Pacific coast, to the Orca-filled waters of Puget Sound, to the mighty Columbia River, to the countless numbers of lakes and streams that run throughout the mountains, valleys, and forests of our state, Washington has been blessed with an incomparable volume and variety of waterways. Not only are these water resources one of the reasons many choose to live in Washington, they also provide habitat for some of the most diverse and important plant and wildlife populations in the country. Salmon, trout, orca whales, eagles, and herons are just few of the animals that depend on Washington's waterways. Washingtonians also depend on these waters for food, drinking water, fishing, and recreation.

While we have made significant improvements in protecting these beautiful water resources since the passage of the Clean Water Act 30 years ago, the state of Washington's waters demonstrates that we still face many challenges. For example:

- Waterways that once were home to salmon and other aquatic wildlife are now choked with toxic chemicals and devoid of enough water to support healthy populations of fish.
- Fourteen different Washington salmon runs are currently listed as endangered or threatened.<sup>1</sup>
- According to federal water quality standards, 59 percent of Washington's rivers, 35 percent of our lakes, and 65 percent of our estuaries remain degraded.<sup>2</sup>
- Washington polluters dumped nearly 2.8 million pounds of toxic chemicals (much of it legally) into Washington waterways in the year 2000 alone making Washington 4<sup>th</sup> in the nation for the amount of carcinogens dumped into waterways and 5<sup>th</sup> in the nation for the amount of persistent toxics dumped into waterways.<sup>3</sup>

Fortunately, we do have a powerful tool to stem the tide of water pollution—the Clean Water Act. Congress passed the Clean Water Act to “restore and maintain the chemical, physical, and biological integrity of the Nation's waters.”<sup>4</sup> To help states achieve this goal, the Clean Water Act provides states with a myriad of powers and programs, including the power to prohibit the discharge of pollution into waterways and a program for the development of enforceable clean-up plans for impaired waterways.

One of the major components of the Clean Water Act is a state's water quality standards. States are required to develop water quality standards to define the goals and limits for all waterways.<sup>5</sup>

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<sup>1</sup> National Marine Fisheries Service. *Endangered Species Act Status of West Coast Salmon & Steelhead*. December 26, 2001. Available at <http://www.nwr.noaa.gov/1salmon/salmesa/pubs/1pgr.pdf>.

<sup>2</sup> Washington State Department of Ecology. *2000 Washington State Water Quality Assessment*. Publication No. 00-10-058. August 2000.

<sup>3</sup> US Environmental Protection Agency. 2000 Toxics Release Inventory. <http://www.epa.gov/tri>.

<sup>4</sup> 33 USC § 1251 (a) [CWA § 101 (A)].

<sup>5</sup> 33 USC § 1313 [CWA § 303].

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Water quality standards provide one of the basic building blocks for the Clean Water Act's programs. The standards determine the maximum amount of pollution pollutants may discharge into a stream and provide policymakers with tools to ensure polluted waters are cleaned up. The stronger the water quality standards, the stronger a state's water quality program.

The Clean Water Act requires states to review and update their standards every three years.<sup>6</sup> This three-year review (often called a "triennial review") is an opportunity for states and the public to ensure that their water quality standards are strong enough to protect their waterways, their health, and the fish and other wildlife that inhabit aquatic ecosystems.

Unfortunately, Washington has failed to ensure that the water quality standards mandated by the Clean Water Act remain strong. The Washington Department of Ecology (Ecology) is charged with carrying out the requirements of the Clean Water Act. **Yet, despite the Clean Water Act's requirement that Washington review and update water quality standards every three years, Ecology has not completed a comprehensive review in 10 years.**

Due to pressure from polluters, Ecology has delayed the completion of its triennial review and weakened its water quality standards proposals despite opposition from environmental groups. Polluters have succeeded in convincing Ecology to delay implementation of the standards and Washington's waterways have suffered.

Now, as Ecology prepares a final draft of the standards for public review this fall, the proposed standards are inadequate to protect the state's water resources and unique ecosystems as mandated under the Clean Water Act. Ecology's proposals for temperature and dissolved oxygen standards continue to weaken with each successive draft, its antidegradation policy is full of loopholes, and the proposal to prohibit the discharge of highly toxic chemicals into our waterways has been completely abandoned. **Ecology's decade of delay continues to weaken Washington's water quality programs and jeopardize the health of the State's waterways.**

## **II. The Clean Water Act and Water Quality Standards**

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Thirty years ago, the United States Congress recognized the need to provide states with a comprehensive framework of laws, regulations, and programs aimed at protecting and restoring the health of our waterways so it passed the Clean Water Act to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."<sup>7</sup>

The Clean Water Act gives states the power to limit and prohibit pollution discharges into waterways; fine dischargers when they illegally discharge pollution; develop enforcement plans to clean-up polluted waters; and prohibit activities<sup>8</sup> that degrade waterways below water quality standards.

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<sup>6</sup> 33 USC § 1313 (c) (1) [CWA § 303 (C) (1)].

<sup>7</sup> 33 USC § 1251 (a) [CWA § 101 (A)].

<sup>8</sup> 42 USC §§ 1251 – 1387 [CWA §§ 101 – 607].

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Water quality standards provide the foundation for water quality protection under the Clean Water Act. The standards provide the framework for measuring the health of waterways, enforcing pollution limits, providing goals for cleaning up pollution, and protecting and restoring endangered and threatened species. Water quality standards regulate everything from the temperature of a stream to the amount of dioxin and other toxic chemicals that may be discharged into a river. Without strong water quality standards, a state's ability to maintain and restore healthy rivers, streams, and lakes is severely limited.

For example, under the Clean Water Act, polluters must apply for and receive a water pollution permit (called a National Pollution Discharge Elimination System (NPDES) permit) before they can discharge pollution into a river or stream.<sup>9</sup> In deciding whether to grant a polluter's NPDES permit, Ecology must determine whether the polluter's discharges will cause the water body to fall short of meeting water quality standards. If Ecology determines that the polluter's permit would cause the violation of water quality standards, then Ecology must deny the permit.<sup>10</sup> The stronger Ecology's water quality standards, the less pollution polluters will be allowed to dump into our waterways, and the safer our waterways will be for fishing, swimming, and drinking. Weaker standards, on the other hand, mean more pollution and dirtier waterways.

Congress recognized the importance of effective and comprehensive water quality standards. It included a provision in the Clean Water Act that requires states to review their standards at least every three years to determine their effectiveness and to modify them as necessary.<sup>11</sup> Because science and technology is continually improving, it is critical that states continue to update standards to provide a strong foundation for their water quality programs. Yet, despite the three-year review requirement, Ecology has failed to complete a comprehensive review of Washington's water quality standards for nearly 10 years.

### **III. Ecology's Decade of Delay**

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Pressured by polluters, Ecology's triennial review has dragged on for 10 years. Ecology's current standards became effective in December 1992. Since then, Ecology proposed five different sets of standards in 1996, 1998, 2000, 2001, and 2002 – each weaker and more polluter-friendly than the set before. **This decade of delay – supported and encouraged by polluters – has forced Washington's water quality programs to operate on outdated and inadequate standards and, as a result, put the health of Washington's waters at risk.**

#### **A. Largest Water Polluters Have the Most Influence**

One of the most active industries in opposing and delaying tougher water quality standards is the pulp and paper industry. Pulp mills and other facilities associated with the industry are the state's largest water polluters, dumping over 1.3 million pounds of toxic chemicals into

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<sup>9</sup> 42 USC § 1342 [CWA § 402].

<sup>10</sup> RCW § 90.48.520

<sup>11</sup> 33 USC § 1313 (c) (1) [CWA § 303 (C) (1)].

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Washington’s waterways in 2000 alone.<sup>12</sup> As Table 1 indicates, nine of the top ten water polluters in Washington are paper mills or other facilities belonging to the pulp and paper industry.

**Table 1. Top 10 Water Polluting Facilities, 2000<sup>13</sup>**

<b>Polluting Facility (pulp and paper facilities in bold)</b>	<b>Toxics Discharge to Water (in lbs.)</b>
<b>1. Kimberly-Clark Tissue Co., Everett, WA</b>	<b>534,266</b>
2. Sandivik Special Metals Corp, Kennewick, WA	452,000
<b>3. Fort James Camas L.L.C., Camas, WA</b>	<b>408,547</b>
<b>4. Georgia-Pacific West Inc., Bellingham, WA</b>	<b>317,832</b>
<b>5. Ponderay Newsprint Co., Pend Oreille, WA</b>	<b>226,000</b>
<b>6. Simpson Tacoma Kraft Co., Tacoma, WA</b>	<b>142,242</b>
<b>7. Boise Cascade Paper Div., Walla Walla, WA</b>	<b>140,886</b>
<b>8. Weyerhaeuser Pulp Mill, Cosmopolis, WA</b>	<b>115,606</b>
<b>9. Weyerhaeuser Co., Longview, WA</b>	<b>101,186</b>
<b>10. Daishowa America Co. Ltd., Port Angeles, WA</b>	<b>96,505</b>

Toxic chemicals aren’t the only type of pollution these polluters put in our waterways. These big polluters are also major sources of additional types of water pollution, including soil and other debris from destructive land practices and hot wastewater that is harmful to fish and other living organisms.

Representatives from trade groups representing the pulp and paper industry, including the Washington Forest Protection Association and the Northwest Pulp and Paper Association, and the pulp and paper companies themselves have spent countless hours and resources to weaken the standards, even paying to convene six months of “water quality standards workshops” to further weaken the proposals and delay public review. These workshops were convened by Ecology in December 2001, and facilitated by a private consultant at a cost of \$25,000. Ecology contributed \$5,000 of the total cost, while the pulp and paper industry and other regulated entities paid the balance of \$20,000 (see Table 2).<sup>14</sup>

<sup>12</sup> US Environmental Protection Agency, 2000 Toxics Release Inventory.

<sup>13</sup> Ibid.

<sup>14</sup> Personal Communication with Dan Silver of Ross & Associates. July 1, 2002.

**Table 2. Contributors to Ecology’s Water Quality Standards Workshop December 2001-June 2002.<sup>15</sup>**

Bonneville Power Administration
Chelan County Public Utility District
City of Everett
Douglas County Public Utility District
East Columbia Basin Irrigation District
Grant County Public Utility District
Northwest Pulp and Paper Association
Quincy Columbia Basin Irrigation District
United States Bureau of Reclamation
Washington Forest Protection Association
Western States Petroleum Association
Weyerhaeuser Company

Their tactics have paid off. In June 2002, Ecology announced it would further delay the public comment period and issue yet another set of proposed standards. According to Ecology’s latest schedule, the standards would be finalized and effective sometime in 2003—11 years after the last set of standards became effective.<sup>16</sup> Not surprisingly, the new set of proposed standards reflects most of industry’s demands and ignores the needs of the public health and the environment.

#### **IV. Ecology’s Water Quality Standards Proposals**

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During the last decade, polluters have been successful in convincing Ecology that stronger standards are unnecessary or impossible. Each subsequent draft Ecology has developed is weaker than the previous draft:

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<sup>15</sup> Handout from Department of Ecology Water Quality Standards Workshop, December 17, 2002.

<sup>16</sup> Washington State Department of Ecology. Surface Water Quality Standards Schedule for Rule-Making. Available at <http://www.ecy.wa.gov/programs/wq/swqs/schedule.html>.

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- The proposals for temperature and dissolved oxygen standards continue to be less protective of salmon and other endangered species.
- The antidegradation policy is full of loopholes and takes critical decisionmaking processes out of the hands of experts and puts it in the hands of politicians.
- Ecology has completely abandoned the proposal to prohibit the discharge of highly toxic chemicals, like mercury and dioxin, into our waterways.

### **A. Temperature Standards**

Salmon, bull trout, and other cold-water fish species need cold, clean water to survive. They are cold-blooded, which means that they depend on the temperature of their surrounding waters to regulate their temperatures.<sup>17</sup> Without enough cold water habitat, salmon fail to thrive.<sup>18</sup> The needs of salmon change during their lifetime. Salmon need the coldest water for spawning and rearing, and can only tolerate slightly warmer water as they mature.<sup>19</sup> A variety of human impacts contribute to harmful warm waters, including the discharge of warm wastewater from industrial facilities, alterations in stream channel, lack of water in the river bed, and physical alterations of river and stream banks such as the removal of trees and other cooling vegetation.

Fourteen different Washington salmon runs are currently listed as endangered or threatened under the Endangered Species Act.<sup>20</sup> Because of the importance of water temperature to the survival of salmon and other cold water fish species, the decline of northwest salmon populations prompted policymakers to investigate and redraft current temperature water quality standards.<sup>21</sup>

The U.S. Environmental Protection Agency initiated the Regional Temperature Project, and in October 2001 proposed several temperature water quality standards.<sup>22</sup> Ecology also endeavored to improve its temperature water quality standards and issued drafts as early as 1998. Over the last four years, Ecology has issued several proposed drafts of the temperature standards. Unfortunately, each subsequent draft standard allows salmon waters to become warmer and warmer.

Because Ecology has abandoned several different approaches to the temperature standards, it is difficult to compare all of the versions that Ecology has put forward. However, a comparison of the proposals since 2000 aptly illustrates Ecology's backtracking.

In 2000, Ecology recommended a set of temperature water quality standards in which it proposed to apply a specific temperature standard that was dependent upon the species of fish present in

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<sup>17</sup> US Environmental Protection Agency. *EPA Region 10 Guidance for State and Tribal Temperature Water Quality Standards, Public Review Draft*. October 2001.

<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

<sup>20</sup> National Marine Fisheries Service, December 2001.

<sup>21</sup> US Environmental Protection Agency, *EPA Region 10 Guidance for State and Tribal Temperature Water Quality Standards*. October 2001.

<sup>22</sup> Ibid.

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the water body and the stage of growth of each species.<sup>23</sup> For example, if a water body was used or is used by salmon to spawn, the temperature standard would be 10C. If, however, the water body was used or is used by salmon for rearing only, the temperature standard would be 15C. Because fish require a variety of water temperatures during their lifetime, in general, the more specific the temperature standards are to a fish species' specific life stage, the better protection the standards provide.

Not only are the specific temperatures important, the method for measuring the water temperatures is also critical. To calculate the temperature of a water body, Ecology averages a series of water temperatures measured over a fixed period of time. The longer the time period over which the temperatures are averaged, the more leeway that exists for wider temperature fluctuations. For example, if the standard is averaged monthly, it is possible for the temperature to exceed the water quality standard on several days during the month, but still meet the standard at the end of the month. In contrast, if the temperatures are averaged over a week, less fluctuation is allowed for the temperatures to exceed the calculated standard. Thus, the longer the time period in which the temperatures are measured, the less fish are protected from wide temperature fluctuations.

During the ten-year delay, each of Ecology's subsequent proposed temperature water quality standards have gotten warmer. As Table 3 illustrates, since December 2000, each proposal has increased many of the maximum water temperatures and lengthened the timeframe for measuring the temperatures.

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<sup>23</sup> Washington State Department of Ecology. *Evaluating Standards for Protecting Aquatic Life in Washington's Surface Water Quality Standards - Temperature Criteria –Draft Discussion Paper and Literature Discussion*. Publication Number 00-10-070. December 2000.

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**Table 3. Evolution of Ecology's Temperature Water Quality Standards 2000-2002 (Measured in degrees C)**

Species Life Stage	Existing Criteria <sup>24</sup>	Ecology's Proposal (Dec. 2000) <sup>25</sup>		Ecology's Proposal (Dec. 2001) <sup>26</sup>			Ecology's Current Proposal (June 2002) <sup>27</sup>
	Applied year-round	Applied seasonally		Applied seasonally			Applied year-round
	1-Day Max	7-DADM*	1-Day Max	21-Day Average	7-DADM*	1-Day Max	7-DADM*
Spawning and Juvenile Rearing of Trout and Dolly Varden (Char)	--	10	13	--	11.5	--	13
Migration of Bull Trout and Dolly Varden (Char)	--	12	14.5	--	--	--	--
Spawning and Rearing of Salmon, Steelhead, and Trout	16(AA) & 18(B)	12	14.5	9	13	--	16
Rearing Only of Salmon, Steelhead, and Trout	21(B)	15	17.5	14	17	--	17.5
Migration of Salmon, Steelhead, and Trout	--	--	--	--	--	--	--
Rearing of Redband Trout	--	18	20.5	16	18	--	18
Warm Water Fish	--	20	22.5	--	20	25	20

\* 7-DADM = Seven-Day Average of the Daily Mean

<sup>24</sup> WAC 173-201A-030 (1) (2002).

<sup>25</sup> Washington State Department of Ecology. *Evaluating Standards for Protecting Aquatic Life in Washington's Surface Water Quality Standards - Temperature Criteria –Draft Discussion Paper and Literature Discussion*. December 2000.

<sup>26</sup> Washington State Department of Ecology. *Evaluating Standards for Protecting Aquatic Life in Washington's Surface Water Quality Standards - Temperature Criteria –Draft Discussion Paper and Literature Discussion*. Publication Number 00-10-070. December 2001.

<sup>27</sup> Washington State Department of Ecology. *Temperature Water Quality Chart*. Presented at Water Quality Standards Workshop, June 26, 2002.

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Not surprisingly, Ecology’s most recent standards are much warmer than those first proposed by EPA and nearly the same as those proposed by one of the main representatives of the pulp and paper company industry, the Washington Forest Protection Association (See Table 4).

Table 4. Comparison of Proposed Temperature Water Quality Standards (Measured in degrees C)

Species Life Stage	Existing Criteria <sup>28</sup>	WFPA Proposal February 2002 <sup>29</sup>		Ecology’s Current Proposal (June 2002)	EPA Standards <sup>30</sup>		
	Applied year-round	Applied year-round		Applied year-round	Applied seasonally		
	1-Day Max	21-Day Average	7-DADM*	7-DADM*	7-DADM*	1-Day Max	Weekly Mean
Spawning and Juvenile Rearing of Trout and Dolly Varden (Char)	--	20	13	13	--	12	--
Migration of Bull Trout and Dolly Varden (Char)	--	--	--	--	--	12	--
Spawning and Rearing of Salmon, Steelhead, and Trout	16(AA) & 18(B)	26	16	16	13	--	10
Rearing Only of Salmon, Steelhead, and Trout	21(B)	--	--	17.5	16	--	15
Migration of Salmon, Steelhead, and Trout	--	--	--	--	--	--	16
Rearing of Redband Trout	--	26	20	18	20	--	--
Warm Water Fish	--	--	--	20	18	--	--

\* 7-DADM = Seven-Day Average of the Daily Mean

<sup>28</sup> WAC 173-201A-030 (1) (2002).

<sup>29</sup> Washington State Department of Ecology. *Water Quality Standards—Freshwater Temperature Criteria-Alternatives*, Handout, Water Quality Standards Workshop, February 26, 2002.

<sup>30</sup> USEPA, EPA Region 10 Guidance for State and Tribal Temperature Water Quality Standards, 2001.

## B. Dissolved Oxygen

The amount of oxygen in a river or stream is extremely important to support viable populations of fish. Oxygen enters a river primarily by a process called diffusion.<sup>31</sup> Diffusion is also the way fish “breathe.” Oxygen in the water diffuses through their gills and into their bloodstream. Without enough oxygen in a water body, fish fail to thrive, and eventually die.

The dissolved oxygen water quality standard ensures that a sufficient amount of oxygen is available for fish. Not only is a strong dissolved oxygen standard critical for the survival of fish, it is also a good indicator of whether the water temperature is cool enough. Often, the lower the amount of dissolved oxygen generally available in a river, the warmer the water temperatures.<sup>32</sup>

At the beginning of the triennial review process, Ecology recommended several dissolved oxygen standards that were dependent upon the fish species present in the water body.<sup>33</sup> Ecology originally recommended measuring the standards by taking the average of the daily mean temperature of the water body over a seven-day time period (7-DADM). Not only has Ecology backed off the more stringent dissolved oxygen standards it originally proposed, it also has recommended a more lenient measurement of the amount of dissolved oxygen. (See Table 5)

**Table 5. Ecology’s Proposed Dissolved Oxygen Water Quality Standards**

Species Life Stage	Current Criteria <sup>34</sup>	Proposed Criteria 2000 <sup>35</sup>		Proposed Criteria 2001 <sup>36</sup>		Proposed Criteria 2002 <sup>37</sup>
	1-Day Minimum	1-Day Minimum	SADM*	1-Day Minimum	7-DADM*	4-Month Rolling Average
Salmonid Spawning	9.5 mg/L	9.0 mg/L	10.5 mg/L	8.0 mg/L	10.5 mg/L	9.5 mg/L
Salmonid Incubation	8.0 mg/L	9.0 mg/L	10.5 mg/L	8.0 mg/L	10.5 mg/L	9.5 mg/L
Salmonid Rearing	6.5 mg/L	8.0 mg/L	None	7.0 mg/L	8.5 mg/L	8.5 mg/L
Warm Water Fish	N/A	7.0 mg/L	None	6.0 mg/L	7.0 mg/L	7.0 mg/L

<sup>31</sup> Washington State Department of Ecology. *Evaluating Criteria for the Protection of Aquatic Life in Washington’s Surface Water Quality Standards – Dissolved Oxygen – Draft Discussion Paper and Literature Summary*. Publication Number 00-10-071. December 2001.

<sup>32</sup> Ibid.

<sup>33</sup> Ibid; Washington State Department of Ecology. *Evaluating Criteria for the Protection of Aquatic Life in Washington’s Surface Water Quality Standards – Dissolved Oxygen – Draft Discussion Paper and Literature Summary*. Publication Number 00-10-071. December 2000.

<sup>34</sup> WAC 173-201A-030.

<sup>35</sup> Washington State Department of Ecology. *Evaluating Criteria for the Protection of Aquatic Life in Washington’s Surface Water Quality Standards – Dissolved Oxygen – Draft Discussion Paper and Literature Summary*. December 2000.

<sup>36</sup> Washington State Department of Ecology. *Evaluating Criteria for the Protection of Aquatic Life in Washington’s Surface Water Quality Standards – Dissolved Oxygen – Draft Discussion Paper and Literature Summary*. December 2001.

<sup>37</sup> Megan White. Future Direction. Presented at Water Quality Standards Workshop #5, June 26, 2002.

As Table 5 indicates, Ecology is now proposing to measure the standards by averaging temperatures measured over a 4-month period. Despite the fact that for some of the life stages Ecology's proposed criteria appear more protective, the effect of implementing a 4-month rolling average is to allow wider variations in the amount of dissolved oxygen present over time instead of monitoring the amounts more regularly as required by a 7-DADM.

### **C. Mixing Zones**

Mixing zones are areas in rivers, streams, lakes, and estuaries where industries are permitted to legally discharge toxic chemicals and other pollutants into waterways and violate water quality standards. The mixing zone itself is a zone of toxicity that is harmful to all living organisms that swim through it. One mixing zone located on a river may seem trivial; but when every permitted facility discharging into the river is allowed to discharge toxic chemicals into a mixing zone, the health of the river is severely diminished. Fish and other organisms that live in the river are forced to swim through these harmful zones because there is simply no hospitable area in the river for them to go.

Proponents of mixing zones argue that, despite the problems multiple mixing zones create on a river, the danger of the pollutants is minimized as the pollutants dilute in the surrounding waters. This reasoning is flawed—especially in the case of highly toxic chemicals like dioxin and mercury.

Mixing zones are especially dangerous when the pollutants discharged are highly toxic chemicals called persistent bioaccumulative toxics (PBTs). PBTs include mercury, lead, and dioxin. PBTs do not break down in the environment and build up in our bodies over time. They are also extremely harmful to wildlife. PBTs do not dilute, can be extremely harmful even at low concentrations, and remain in the environment for decades. When PBTs are discharged into a river or stream, not only is a zone of toxicity created that is immediately harmful to whatever and whoever comes into contact with it, but a toxic legacy is created in the stream as well. This toxic legacy will have serious environmental and health consequences for decades to come.

In early 1997, Ecology proposed to eliminate mixing zones for PBTs as part of its triennial review.<sup>38</sup> Although environmentalists and the public applauded the proposal, once again, Ecology came under fire from industry and it eventually reversed its decision to eliminate mixing zones. In 1998, Ecology announced that it would abandon the mixing zone proposal even though in that year Washington polluters dumped more than 3.1 million pounds of toxics into our waterways.<sup>39</sup>

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<sup>38</sup> Washington State Department of Ecology. *Focus: Water Quality Antidegradation Implementation Strategy*. Publication Number 97-2038-WQ. May 1997.

<sup>39</sup> USEPA, 2000 Toxics Release Inventory.

#### **D. Antidegradation Policy**

Not only have polluters been successful in weakening current protections, they have also been successful in limiting protection for waterways already meeting water quality standards and limiting future opportunities for the public to protect the state's waterways under the state's antidegradation policy.

An antidegradation policy is the best way for the public to ensure that clean waters remain clean and free from pollution. A strong antidegradation policy provides states with a tool to ensure that water bodies that already meet water quality standards are not degraded. Under an antidegradation policy, states must review whether a new or expanded water polluting action will harm the waterbody and prohibit the action if it is determined the action will result in water pollution that will harm the waterbody. A strong policy applies the analysis to a broad number of actions. A weak policy only applies the policy to a small number of actions.

Ecology's original proposal called for applying the antidegradation analysis to new and expanded actions that degrade water quality. Wanting to avoid the antidegradation scrutiny, polluters argued for limiting the number of actions that would require the antidegradation analysis.<sup>40</sup> Once again, Ecology agreed. In June 2002, Ecology announced it would limit the application of the antidegradation analysis to only those actions that have a "measurable effect on water quality" and exempt large sources of water pollution such as general permits issued to agriculture, road builders, and forestry industries.<sup>41</sup> This means that some of the largest sources of water pollution in Washington will be able to continue operating without the added safeguards provided by an antidegradation analysis that make sure clean water bodies aren't degraded to the point that they fail to meet water quality standards.

An antidegradation policy, also allows states to provide extra protection to certain waters by prohibiting the discharge of pollution into them. These waters are called "Outstanding Natural Resource Waters" (ONRW), and include waters that provide exceptional habitat for unique fish and wildlife, or outstanding opportunities for swimming and fishing.

The ONRW water designation is one of the best ways for the public to make sure the highest quality waters remain clean and are not degraded. Ecology originally included a process in which the public, along with state and local governments and private entities, could nominate water bodies for ONRW designations for consideration by Ecology.<sup>42</sup> Under the proposal, Ecology staff would use their data and expertise to determine whether a waterbody was deserving of extra protection and issue a decision.

Not surprisingly, polluters disagreed with the proposal. Fearing that too many ONRWs could be designated under Ecology's proposal, polluters lobbied for ONRW designations to be made by the Legislature and the Governor instead of Ecology.<sup>43</sup> Their alternative proposal will severely

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<sup>40</sup> Ken Johnson. *WDOE Proposal for Antidegradation Implementation Plan*. Presented at Water Quality Standards Workshop #4. March 26, 2002.

<sup>41</sup> White, June 2002.

<sup>42</sup> Washington State Department of Ecology. *Water Quality Antidegradation Implementation Plan*. January 1998; Washington State Department of Ecology. *Water Quality Antidegradation Implementation Plan*. December 2000; Washington State Department of Ecology. *Water Quality Antidegradation Implementation Plan*. December 2001.

<sup>43</sup> Johnson, March 2002.

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hamper Ecology's and the public's ability to protect Washington's exceptional waterways for several reasons:

- Moving the decision to the legislative arena takes the designation out of the hands of water quality experts at Ecology and gives it to legislators who lack the expertise to evaluate a potential ONRW designation.
- Legislators also are susceptible to pressures from campaign contributors—the largest of which are some of the biggest water polluters.<sup>44</sup> These polluters often do not want ONRW designations for waters they are polluting because it would prohibit them from increasing the amount of pollution they discharge.
- The legislative arena will also severely limit the ability of the public to nominate and secure an ONRW designation because the public will have to rely on legislators to nominate a water body rather than be able to nominate waters themselves.

Despite the fact that delegating ONRW decisions to the Legislature will cut the experts out of the process and will concentrate power with polluters, Ecology's latest antidegradation policy defers to the recommendations of polluting industries. In June 2002, Ecology recommended delegating the decision to designate ONRW to the Legislature after polluters presented the proposal to Ecology in March 2002 during the industry-sponsored water quality standards meetings.<sup>45</sup>

### **V. Conclusion and Recommendations**

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During the decade of delay, Washington's water quality continues to be degraded by pollution. Over 640 rivers, lakes, and streams fail to meet water quality standards. Polluters continued to dump such high amounts of toxic chemicals into Washington waters that Washington now ranks 4th in the nation for the amount of carcinogens dumped into its waters and 5th for the amount of PBTs dumped into its waters. Puget Sound orca whales have become one of the most polluted marine animals in the world and the number of salmon and other aquatic wildlife species on the endangered species list continues to rise. More and more Washingtonians are forced to draw their drinking water from contaminated sources.

Yet, despite these facts, Ecology has allowed polluters to continue polluting and has neglected its duty mandated under the Clean Water Act to review and update the state's water quality standards. For ten years the public has waited, Ecology has stalled, and polluters have succeeded in making sure Ecology's water quality programs operate on outdated and ineffective standards.

The pressure from polluters doesn't appear to be letting up. They will no doubt continue their assault on Ecology and attempt to enlist the Legislature as well. Even though polluters have an enormous amount of influence on Ecology, polluters have even more influence with legislators. For example, the biggest water polluters – the pulp and paper industry -- contribute some of the

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<sup>44</sup> Public Disclosure Commission. *Top 60 Contributors to Legislative Candidates (As of candidate reports received on 11/10/2000)*. Available at <<http://www.pdc.wa.gov/datarequests/pdf/top60.pdf>>.

<sup>45</sup> White, June 2002; Johnson, March 2002.

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largest amounts of money to political candidates in Washington. Weyerhaeuser, Simpson, Boise Cascade, and Washington Forest Products Association are all included in the state's list of the top 60 contributors to Washington legislative candidates.<sup>46</sup> The four contributed over \$230,000 to legislative candidates in 2000.<sup>47</sup>

It is time that Ecology stands up to industry pressure and issue protective water quality standards for public review. This fall marks the 30<sup>th</sup> Anniversary of the Clean Water Act. Ecology should take the opportunity to renew its commitment to clean water and strong water quality standards. Fully protective standards must include:

- 1) Temperature standards that fully protect salmon and other endangered species. Ecology should adopt EPA's 2001 proposed standards.
- 2) Dissolved oxygen standards that use a 7-DADM.
- 3) Prohibition on mixing zones for highly toxic PBTs.
- 4) An antidegradation policy that applies the antidegradation analysis to all types of actions that degrade waterways, and allows the public to fully participate in the process.

Without standards that fully protect the public health and the environment, Washington's waterways, wildlife, and public health remain at risk.

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<sup>46</sup> Public Disclosure Commission, December 2000.

<sup>47</sup> Ibid.