



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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April 27, 2016

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RE: Petition to Amend Chapter 173-557 WAC, Water Resources Management Program for the  
Spokane River and Spokane Valley Rathdrum Prairie (SVRP) Aquifer

Dear Ms. Rodgers and Mr. Von Seggern:

Pursuant to RCW 34.05.330(1), this letter formally responds to the petition for amendment of WAC 173-557, which the Department of Ecology(Ecology) received on March 1, 2016, from the Center for Environmental Law & Policy (CELP), American Whitewater, and Sierra Club.

The petition asserts that the instream flows established in WAC 173-557-050 of 850 cubic feet per second (cfs) at the Spokane gage and 500 cfs at Greenacres for the period from June 16 - September 30 “do not protect wildlife, fish, scenic, aesthetic, recreation, water quality and other environmental values, nor does the rule comply with other laws protecting the waters of the state.” Petitioners request that Ecology consider the best available science and amend the rule, WAC 173-557-050, in accordance with RCW 34.05.320. The petition does not suggest any amendatory rule language, however.

Ecology has thoroughly evaluated and considered the issues raised in the petition. After careful consideration and review, and as explained below in specific responses to the concerns presented in your petition, Ecology is denying your request to initiate a rule amendment. Ecology relied on tested, well established, standard methods for establishing the instream flow levels in WAC 173-557. Ecology is confident in the legality of the rule and that the adopted instream flows will protect and preserve instream values consistent with statutory requirements of RCW 90.22 and RCW 90.54. Ecology is not persuaded that the information you have submitted in your petition and exhibits warrants Ecology dedicating its resources towards a rule amendment at this time.



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Ecology agrees that the Spokane River is a vibrant, valuable resource for the area and for the State of Washington. The recently adopted instream flow rule will help preserve and protect its flow while balancing the needs of all water uses such as municipal supply, hydropower, and instream values. Ecology is already implementing the rule to protect flows in the Spokane River and intends to deny applications for new consumptive water rights from the aquifer that cannot be mitigated or interrupted. The process to issue permit decisions, most of which will be denials, has been initiated.

It is important to note that like Ecology's other instream flow rules, this rule does not control flows or put more water into the river. Many of the assertions in the petition appear to assume establishing higher summer instream flow levels in the rule results in those flows appearing in the river each year from June 16 through September 30. That is a mistaken assumption. This complex river system and its flow are influenced by a variety of factors including seasonal weather, groundwater use from existing water rights, and operation of hydropower facilities.

**Areas of concern expressed in the Petition to amend WAC 173-557-050.**

In our review of your petition letter, Ecology identified the following primary areas of concern, summarized as follows:

1. The summer instream flow levels established in the rule do not protect or enhance recreation and aesthetics.

The petition asserts that the summer instream flow levels established in the rule are set too low to protect and enhance recreational and aesthetic instream values in the Spokane River. The petition asserts that Ecology erred in choosing to rely on fish studies to determine instream flow levels, and that Ecology must select instream flows to optimize and enhance all protected uses.

The petition asserts that Ecology should have relied on scientific studies of recreation and aesthetic flows; that Ecology has relied on such studies when setting instream flow requirements for hydropower facilities as part of the 401 certification process; and that it was arbitrary for Ecology to claim in the rulemaking context that an aesthetic/recreation flow study is not appropriate or needed to set minimum instream flows for the Spokane River.

Further, the petition asserts that there is new information available from studies prepared after rule adoption that Ecology can use to amend the instream flow rule in a manner that would better protect recreational interests and aesthetics.

2. The summer instream flow levels established in the rule may not protect the Spokane River fisheries.

The petition asserts that the instream flow incremental methodology (IFIM) study Ecology and Washington Department of Fish and Wildlife (WDFW) relied on for the rule is flawed, and that "Ecology should perform additional studies that include three-

dimensional characterization of fish use of the river, along with evaluation of insect habitat (food sources for the fish) and temperature parameters in order to ascertain what minimum flows would protect and enhance the Spokane River fishery.”

The petition asserts that summer season instream flows higher than 850 cfs will not harm native fish, and that the 850 cfs instream flow level is not optimal for redband trout.

3. The summer instream flow levels established in the rule ignore future impacts of inchoate water rights in Washington and Idaho.

The petition asserts that Ecology should have added approximately 300 cfs, the volume of unused inchoate water rights in both Washington and Idaho, to the instream flow level. The petition claims this additional flow is determined by models to be necessary to protect instream resources from the future use of inchoate water rights.

4. The summer instream flow levels established in the rule fail to account for how climate change will affect instream flows.

The petition asserts that setting higher instream flow levels is needed to account for climate change impacts that will result in declining flows and warmer temperatures, and that instream flows must be based on instream values in the future, not today.

5. Ecology failed to properly consider costs imposed by the rule and the rule’s impacts on business.

The petition asserts the summer instream flow levels established in the rule impose unreasonable costs on the recreational boating industry in the form of lost revenue. The petition asserts that these costs were not properly analyzed in the Cost Benefit Analysis, the Least Burdensome Analysis, and Small Business Economic Impact Statement prepared for the rule.

6. The summer instream flow levels established in the rule violate Ecology’s fiduciary responsibilities as manager of our state’s water resources under the Public Trust Doctrine.

The petition asserts that Ecology’s statutory authority to set instream flows is analogous to the Shoreline Management Act, and that the agency has an affirmative responsibility to set instream flows that protect and enhance all instream values of the Spokane River in order to comply with RCW 90.54.020(3), RCW 90.22, and the Public Trust Doctrine.

7. By adopting such low summer flows, Ecology has violated state-wide instream flow policies.

The petition asserts that it is state policy to adopt 10 percent exceedance flows and that the 850 cfs summer instream flow level adopted in the rule violates this policy.

### **Reasons for Denial**

Under RCW 34.05.330(1), the following discussion provides Ecology’s reasons for denial of the petition, and specifically addresses the concerns raised in the petition:

## RECREATION AND AESTHETICS

- The instream flow levels established in WAC 173-557 are protective of the instream resources of the Spokane River and are set in a manner that meets the requirements of Ecology's statutory authorities. Ecology does not interpret its statutory obligation to protect instream flows as a mandate to optimize and enhance all uses. Ecology's authority to adopt instream flows in rule stems from Chapter 90.22 RCW, Minimum Water Flows and Levels. Further, RCW 90.03.247 grants Ecology exclusive authority to establish minimum flows.

RCW 90.22.010 states that Ecology may establish minimum flows "*for the purposes of protecting fish, game, birds or other wildlife resources, or recreational or aesthetic values*". Under RCW 90.22 Ecology is not required to establish minimum flows for fish and recreational values and aesthetic values. The Legislature has provided Ecology with total discretion to determine the purposes to protect when establishing minimum flows in a rule.

The instream flow levels in WAC 173-557 are based on studies of fish habitat. This is consistent with several provisions in statute that call for protection of instream flows for fish:

- RCW 90.54.005 states that the intent of water resource management strategies are to supply water in sufficient quantities to satisfy three water resource objectives:
  - (1) Residential, commercial, and industrial needs;
  - (2) Productive fish populations; and
  - (3) Productive agriculture.
- RCW 77.57.020 states that it is the policy of this state that a flow of water sufficient to support game fish and food fish populations be maintained at all times in the streams of this state.
- RCW 90.22.060 calls for establishing a statewide list of priorities for evaluation of instream flows. "In establishing these priorities, the department shall consider the achievement of wild salmonid production as its primary goal."
- Chapter 90.82 RCW, the Watershed Planning Act, includes several provisions addressing fish and fish habitat. The required Water Quantity planning element, RCW 90.82.070, calls for an assessment that includes "data necessary to evaluate necessary flows for fish," and strategies "to supply water in sufficient quantities to satisfy the minimum instream flows for fish."

To meet the clear statutory directive to ensure the protection of fish populations, Ecology invests its resources in studies that assess the habitat needs of fish. When establishing instream flows in a rule, Ecology sets instream flows at levels that will sustain healthy

fish populations. In turn, preserving and protecting healthy fish populations serves to preserve and protect other listed values in RCW 90.22 and RCW 90.54.

Additional statutory authority for Ecology's instream flow protection program is found in RCW 90.54, the Water Resources Act of 1971. RCW 90.54.020 is the general declaration of fundamentals for utilization and management of waters of the state. These fundamentals are applied by Ecology through all its water resource management activities including water right permitting, the Trust Water Rights Program, and instream flow rules.

RCW 90.54.020(3)(a) reads as follows:

“(3) The quality of the natural environment shall be protected and, where possible, enhanced as follows:

(a) Perennial rivers and streams of the state shall be retained with base flows necessary to provide for preservation of wildlife, fish, scenic, and aesthetic and other environmental values, and navigational values. Lakes and ponds shall be retained substantially in their natural condition. Withdrawals of water which would conflict therewith shall be authorized only in those situations where it is clear that overriding considerations of the public interest will be served.”

This statute provides that Ecology manage water in such a way that streams have sufficient water to preserve and protect the listed values. The statute does not serve as a legislative mandate for Ecology to manage the state's water resources such that all of the listed values, including aesthetics and recreation, be enhanced or optimized. The statute does, however, give Ecology the discretion, where possible, to enhance the listed values.

In adopting WAC 173-557, Ecology determined and set minimum flows necessary for preservation of fish at flow levels that will sustain healthy fish populations. Ecology is confident that the flows levels established in the rule, while based on fish habitat studies, additionally serve to preserve wildlife, scenic, aesthetic, other environmental values, and navigational values in the Spokane River, in accordance with RCW 90.54.020.

Moreover, if Ecology issues any new, junior consumptive water rights after the adoption of WAC 173-557, such rights will be conditioned to be either interruptible or fully mitigated to comply with RCW 90.54.

Under RCW 90.54.020(3), Ecology has the authority to enhance the natural environment, including recreational and aesthetic values, “where possible.” In adopting WAC 173-557, Ecology exercised its discretion to not set flows at enhancement levels and instead set minimum flows necessary to preserve and protect environmental values consistent with statutory authority. Throughout the state, Ecology typically relies on other water resource management tools, such as water right acquisition, the Trust Water Rights Program (RCW 90.42), and the Irrigation Efficiencies Program to enhance flows.

- Ecology does not agree with the Petitioners' assertion that it was arbitrary for Ecology to claim in the rulemaking context that an aesthetic/recreation flow study is not appropriate or needed to set minimum instream flows for the Spokane River.

Under RCW 90.22, Ecology has discretion to determine the primary purposes for establishing flows in a rule. In adopting WAC 173-557, Ecology chose to rely on science-based fish studies to develop the instream flow levels for the rule when the local Watershed Planning Units failed to reach consensus on instream flow recommendations during the planning process (RCW 90.82.080(5)).

Since the Legislature first adopted RCW 90.22 in 1969, Ecology has adopted numerous instream flow rules throughout the state. Fish based studies have served as the backbone of minimum instream flow rule levels that have been adopted in the respective rules. Methodologies have changed over the time and exceptions undoubtedly exist, but Ecology is confident in its approach.

In addition to conducting fish studies, Ecology fully considered the recreational, aesthetic, and navigational values comments for protecting the Spokane River throughout the rule adoption process for WAC 173-557. The subject was addressed in detail during:

- Avista's Federal Energy Regulatory Commission (FERC) relicensing process for its Spokane hydroelectric facilities;
- The Watershed Planning process in all Spokane water resource inventory areas (WRIAs);
- The comment period on the preliminary draft of the rule; and
- Again before final rule adoption.

Ecology read and considered the Whitewater Paddling Study conducted under the FERC process, and listened to the positions and interests of many river users. Ecology also reviewed the observations, opinions, and photos submitted by whitewater enthusiasts and others.

Flows that serve the recreational community occur every year in the Spokane River. What varies from year-to-year is the timing and duration of those recreational flows. Unlike instream flows set for a hydropower facility, WAC 173-557 does not control the hydrograph of the river. It does not require or control the release of water from storage. The instream flow rule is a tool that, in addition to preserving and protecting listed values, is used to regulate junior water users to protect the senior instream flow, and to provide specific criteria for making water right decisions. Moreover, to change the actual flow in the Spokane River in order to enhance a particular recreational use, one would need to seek changes in Avista's FERC license, which controls water storage, ramping rates, and the shape of the hydrograph (for parts of the year at least). The FERC licenses for Avista's dams were last re-issued in 2009.

- Ecology based its decision to adopt instream flow levels for the Spokane River on all relevant information that was available prior to rule adoption. That information is

included in the rule adoption record for WAC 173-557 that is incorporated by reference into this petition response. Moreover, WAC 173-557-100 allows Ecology to initiate a review of the rule and amend it if significant new information becomes available.

Moreover, rulemaking is a discretionary agency activity. Ecology is not persuaded that the information you have submitted in your petition and exhibits warrants Ecology dedicating its resources towards a rule amendment at this time.

### PROTECTING FISH

- Ecology does not agree that the instream flow levels in WAC 173-557 do not protect redband trout or other fish species in the Spokane River.

Four instream flow studies on the Spokane River have been conducted and made publically available since 2003. These scientific studies, which are part of the rule record, were conducted specifically to evaluate the instream needs of the fisheries resources present in the river at all life states. These studies focused on resident redband trout and whitefish. The instream flow numbers in the rule were derived from these studies and were chosen to optimize the weighted useable area of habitat to protect the instream resources.

The instream flow methodology used by Ecology was affirmed by the Washington Supreme Court in it's 1993 Elkhorn decision (State of Washington, Department of Ecology, Department of Fisheries and Department of Wildlife, Respondents, v. PUD No. 1 of Jefferson County and City of Tacoma, Department of Public Utilities, Appellants. No. 58272-6. April 1, 1993).

As for the three-dimensional characterization of fish use in the river called for in the petition, the petitioners do not point to a specific model or methodology. Ecology is not currently aware of such a model. If one exists or is developed, it would need to be extensively researched and tested before it would supersede the widely accepted methods Ecology and WDFW currently use.

- Ecology and WDFW experts considered broader ecological values and the full range of species in the Spokane River before choosing to focus on redband trout and whitefish for developing instream flow levels. Many native fish species were considered and the most flow-sensitive were modeled. Modelling flow sensitivity of other species requires significant new information on their preferences for depth, velocity, and substrate. Such a major undertaking is unprecedented, beyond the resources available to Ecology, and not necessary to set instream flows.
- Ecology addressed temperature concerns in the Concise Explanatory Statement that contains responses to all comments received on the proposed rule. Our response on that topic has not changed:

Temperature in the river is a complex issue, and data to date do not have the density to permit conclusions about habitat. In the upper, perched reach of the river, data gathered as a requirement of the FERC license indicate maximum summer temperatures approach that of Lake Coeur d'Alene at discharge from Post Falls, and then are further warmed by the sun and ambient air temperature. Once these discharged flows reach the point where the aquifer begins discharging to the river near Sullivan Bridge, temperature effects moderate and cool due to that contribution of cool groundwater.

In the lower river, data is scarce. The observed condition shows increased temperatures in the summer relative to the winter. Over a year's time, it seems to vary between a minimum of 3 and a maximum of 20 degrees C. In this reach that gains roughly 300 cfs from the aquifer, logically, lower flows should actually result in a cooler river, as a larger proportion of the total flow will be cool groundwater. Actual conditions will be highly variable both diurnally and by specific river-reach.

Thus, while there is limited lower river data specific to the question, there is enough knowledge and measurements in the upper river to alleviate major concerns about temperature issues.

- Ecology agrees that natural higher flows, above 850 cfs, would not be detrimental to fish. However, it is important to reiterate that adopting higher flows in an instream flow rule cannot provide flows in the river.

In developing flow recommendations, Ecology and WDFW attempted to maintain the seasonality and flow variability of the natural flow (to the extent that the gauge record reflects the natural flow), as well as to protect the most flow-sensitive species. The 850 cfs summer instream flow level is based on the best quantitative information available.

- Ecology disagrees that 850 cfs is insufficient to protect redband trout. The IFIM studies conducted for the Spokane River indicate that the optimal flows for redband trout rearing are at 400 cfs and that 850 cfs is above the optimal redband trout flow. Flows even higher than 850 cfs are therefore not necessary to protect redband trout.

The adopted 850 cfs is not an ultra-low flow for redband trout. It is double the flow that maximizes useable habitat area for that important species. The 850 cfs flow is lower than optimum for mountain whitefish. The resultant flow is a blended flow that does not select one native species over the other. It provides the maximum habitat protection for both redband trout and mountain whitefish and is based on physical measurements of habitat conditions in the Spokane River at locations where the fish live and reproduce.

#### INCHOATE WATER RIGHTS

- Ecology does not agree that setting instream flow levels higher to compensate for use of senior, inchoate water rights is supported in statute. In accordance with RCW 90.22,



instream flows are a regulatory tool that must be justified on the basis of studies that identify the flow levels necessary to protect listed values.

- Ecology recognizes that there is a substantial quantity of inchoate water in rights held by municipal suppliers and that the future use of those rights may have an impact on flows in the Spokane River. However, under Washington's prior appropriation law, those rights are senior to the instream flow.

### CLIMATE CHANGE

- Climate change is an important issue. The predicted effects of climate change are an important reason to adopt instream flows and put a sustainable water management framework in place for the Spokane River and Spokane Valley Rathdrum Prairie Aquifer. However, Ecology does not agree that climate change models can justify setting higher instream flow levels. Climate change models provide good information on the range of future effects due to climate change, but do not provide a legal methodology for determining specific instream flow levels. In accordance with RCW 90.22, instream flows are a regulatory tool that must be justified on the basis of studies that identify the flow levels necessary to protect the listed values.
- Climate change impacts on the Spokane River will happen independently of the instream flow rule. If climate change reduces water supply, then any interruptible water rights that have been issued will be curtailed more often and for longer periods of time. If climate change increases water supply, then flows will be higher or additional consumptive uses could be authorized. In either situation, the instream flow levels that have been established are set at levels necessary to protect fish habitat.

### ECONOMIC ANALYSES

- Under the Administrative Procedures Act RCW 34.05.328(1)(d) it is Ecology's job to "determine that the probable benefits of the rule are greater than its probable costs." To address this requirement, Ecology prepares a Cost Benefit Analysis (CBA) that compares the cost impact of rule adoption against the baseline of not adopting the rule. The CBA does not analyze options that are not included in the proposed rule.

The CBA acknowledges and analyzes the impact of the rule on recreational businesses. It describes the benefit stemming from protecting instream flows that recreational businesses rely on, contrasted against the possibility of losses to these businesses if instream flows are not protected. The CBA did not specifically quantify this benefit since the analysis had already met the requirement to determine that the probable benefits exceeded the probable costs. The CBA calculated benefits of 6 to 15 million dollars, and costs between \$550,800 and \$670,800, for the twenty year time frame that is the planning horizon for the analysis.

- The Least Burdensome Alternative provision of RCW 34.05.328(1)(e), and the Small Business Economic Impact Statement requirement of the Regulatory Fairness Act, RCW 19.85, both require analysis of the cost to comply with the rule:
  - RCW 34.05(1)(e) “Determine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection;”
  - RCW 19.85.040(1) “A small business economic impact statement must include a brief description of the reporting, recordkeeping, and other compliance requirements of the proposed rule, and the kinds of professional services that a small business is likely to need in order to comply with such requirements. It shall analyze the costs of compliance for businesses required to comply with the proposed rule adopted pursuant to RCW 34.05.320, including costs of equipment, supplies, labor, professional services, and increased administrative costs. It shall consider, based on input received, whether compliance with the rule will cause businesses to lose sales or revenue.”
  - WAC 173-557 applies to all new uses of water from the Spokane River and the Spokane Valley Rathdrum Prairie Aquifer, including: new water right permits; changes and transfers of existing water rights; and new permit-exempt uses of groundwater. Businesses that do not require a new water right to do business are not included in these analyses.

#### PUBLIC TRUST DOCTRINE

- The regulatory instream flow levels established in WAC 173-557 represent ecologically-based minimum flows necessary to protect and preserve fish populations, and other instream resources. The adopted instream flows were set in a manner to fully satisfy the statutory requirements of RCW 90.22 and RCW 90.54.

Ecology’s authority is delimited by the Water Code and other Acts, including RCW 90.54 and RCW 90.22, all of which contain multiple public interest components. Our courts have held that the Public Trust Doctrine does not serve as an independent source of authority for Ecology to use in its decision-making (See, e.g., *Postema v. Pollution Control Hearings Bd.*, 142 Wn.2d 68, 99, 11 P.3d 726 (2000)).

#### STATE-WIDE INSTREAM FLOW POLICIES

- The policies and procedures of the Water Resources Program are posted on Ecology’s webpage at: [http://www.ecy.wa.gov/programs/wr/rules/pol\\_pro.html](http://www.ecy.wa.gov/programs/wr/rules/pol_pro.html). There is no policy to adopt instream flows at the 10 percent exceedance level, as asserted in the petition.

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- Petitioners cited a public education video as the source for their statement about the policy. The video states that "...instream flows are commonly set at the rare higher flows. Even if those higher flows are only met one season in ten, the benefits to the fish population could last for many years." Explaining common practice to the public is not an official policy statement.
- Ecology and WDFW conduct either a toe-width or a PHABSIM study to determine a stream flow that attempts to optimize fish habitat. If that "habitat flow" is above the 10 percent exceedance flow, we believe it does not occur often enough or with enough duration to benefit fish. Ecology therefore often lowers the recommendation to the 10 percent exceedance level. This is the point where Ecology and WDFW have found the flow duration would occur at a frequency that would benefit fish. If the habitat flow is met at a frequency below the 10 percent exceedance level, Ecology proposes adopting the optimal habitat flow. Ecology has never recommended raising it to the 10 percent exceedance level in any instream flow rules.

Keeping the Spokane River healthy and flowing is vital to everyone in the region. Ecology is confident that the instream flows set in WAC 173-557 are based on the correct studies, and on a careful review of all the information available during rule adoption process.

In closing, your petition to amend WAC 173-557, the Spokane River instream flow rule, is denied. While Ecology is not granting your rulemaking petition, we are sincerely committed to applying the existing rule, ensuring sustainable water management, and protection of the Spokane River into the future.

Sincerely,



Maia D. Bellon  
Director

cc: Tom Loranger, Water Resources Program Manager  
Grant Pfeifer, Director, Eastern Regional Office  
Keith Stoffel, Water Resources Section Manager ERO

