

Final Cost-Benefit and Least Burdensome Alternative Analyses

Chapter 173-557 WAC Water Resources Program for the Spokane River and Spokane Valley Rathdrum Prairie Aquifer and amendment to WAC 173-555-010

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Final Cost-Benefit and Least Burdensome Alternative Analyses

Chapter 173-557 WAC Water Resources Program for the Spokane River and Spokane Valley Rathdrum Prairie Aquifer and amendment to WAC 173-555-010

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I. Conclusion

Ecology determines that the benefits of the rule are greater than the costs and it is the least burdensome alternative of the rule.

Quantified values

- The quantified benefit estimate is 6 to 15 million dollars over a 20-year period.
- The quantified cost of the rule is estimated to be between \$550,800 and \$670,800 for the 20 year period.

Unquantified benefits

- Establishing flows protective of habitat for native fish.
- Establishing a water right for the river and other resource-related beneficial uses (hydropower, water quality, recreation, esthetic values, etc.).
- Providing a baseline for making water availability determinations necessary for guiding water right permit decisions.
- Reducing uncertainty regarding water right applications impairment to senior rights.
- Protecting Washington State's interests in any interstate water rights conflict.

Ecology does not believe that any of the unquantified values will offset the net benefits.

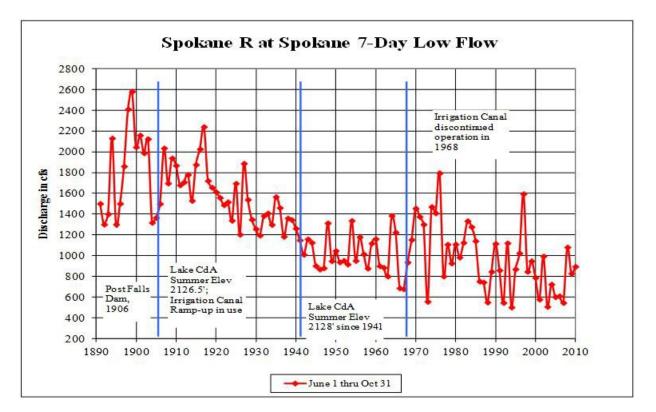
II. Purpose of Analysis

The Washington State Department of Ecology (Ecology) is adopting a new chapter called Water Resources Program for the Spokane River and Spokane Valley Rathdrum Prairie Aquifer – Chapter 173-557 WAC. Ecology is also amending WAC 173-555-010, the applicability provision of Chapter 173-555 WAC, Water Resources Program in the Little Spokane River Basin, WRIA 55. The Administrative Procedures Act (RCW 34.05.328(d)(e)) requires two types of analyses before adopting a significant legislative rule – a cost-benefit analysis and a least burdensome alternative analysis. This report provides the results of these analyses and shows the potential impacts associated with the rule. This report is meant to be read in conjunction with the associated Small Business Economic Impact Statement (publication no. 14-11-005).

III. Background

History of the Spokane River and Spokane Valley Rathdrum Prairie Aquifer

In the early 1990s, Ecology determined that the low flows in late summer low were further declining in the Spokane River. Because of this decline and what was known about the interaction between the aquifer and the river at that time, Ecology stopped issuing new groundwater rights in the Spokane Valley Rathdrum Prairie (SVRP) aquifer. Following budgetary and legislative decisions further reinforced this inaction.



Around 2004, spurred by local events, public interest in water availability resulted in the beginning of the so-called "Bi-state Aquifer study." That study, conducted jointly by Idaho, Washington, and the United States Geologic Survey, supplemented watershed planning processes then underway in the area, and provided:

• Broad regional understanding about the mechanisms governing water supplies in the region; and,

• A peer reviewed technical tool to assess and evaluate effects of water management alternatives on the system.

The results clearly indicate seasonal surface water declines are partially the result of increased ground water withdrawals. Groundwater is only available at the expense of surface water supplies, and new withdrawals will increase seasonal declines in surface water flows and levels.

Processing applications for new water rights from the Spokane River and SVRP Aquifer must consider existing water rights, including the roughly 210 cubic feet per second (cfs) of existing inchoate municipal rights, prior to issuing new rights.

Reason for this rule proposal

Ecology is obligated under Chapters 90.82, 90.22, and 90.54 RCW to set and protect instream flows at levels necessary for the protection of wildlife, fish, scenic, aesthetic, and other environmental values. Instream flow rules may also include strategies or provisions for future uses of water. Ecology is adopting Chapter 173-557 WAC and amending WAC 173-555-010 in order to fulfill these obligations.

The purposes of this rule are to:

- Establish instream flow levels necessary to protect wildlife, fish, scenic, aesthetic, recreation, water quality and other environmental values, navigational values, and stock watering requirements.
- Meet water resource management objectives of the Spokane area watershed plans adopted under chapter 90.82 RCW.
- Protect existing water rights.
- Establish and protect Washington state interests in the water resources of the Spokane River.

IV. Scope of Analysis

This document contains the Cost Benefit Analysis (CBA), and a Least Burdensome Alternative Analysis. The CBA measures the costs and benefits of the rule versus the existing statutes and rules by taking the existing legal structure and its impacts into account. The Least Burdensome Alternative Analysis is required to demonstrate that the rule is the least burdensome alternative for those required to comply with the rule.

Analytic scope

Requirements that are dictated by state and federal rules (to the extent that Ecology has no discretion in determining them) are exempt from analysis. The rule for the Spokane River and SVRP Aquifer includes no such requirements. As Ecology has discretion in determining the specific contents of the rule (even if guided by broader state and federal rule), all requirements are analyzed relative to the baseline.

Analyzed changes

Ecology qualitatively or quantitatively analyzed the impacts of the following rule elements:

- Instream flows.
- New permit-exempt withdrawals of groundwater.
- New water right permits.
- Changes and transfers of water rights.

V. Comparison of the Current Rule

In this chapter, Ecology compares the rule to a baseline representing what will most likely occur if Ecology does not adopt the rule. The baseline is the regulatory context, and how it applies in the absence of Ecology adopting the rule. Ecology also describes the rule, and identifies which elements of the rule require analysis under the Washington Administrative Procedure Act (Chapter 34.05 RCW).

Setting instream flows

Rule

The rule sets instream flows for the Spokane River. Under the rule, instream flows have a priority date in relationship to other water rights. The priority date is the effective date of the rule, February 26, 2015. Washington water law protects instream flows from impairment by new water uses and water right changes and transfers.

Baseline

Under the Water Resources Act (Chapter 90.54 RCW), Ecology has a legal obligation to protect, and where possible enhance flows in the state's perennial rivers and streams. Ecology last issued a consumptive water right permit for the SVRP Aquifer in the 1990s. Review of applications since that time indicated that further diminishment of streamflows will be detrimental to fish and other instream resources, and groundwater withdrawals will adversely impact streamflow and existing water rights. At present the states of Washington and Idaho independently manage the interstate water resource of the SVRP Aquifer.

Primary change

The adopted instream flows do not fundamentally change the situation for existing water users. Setting instream flows does not affect existing water rights or require that water be put back into the river. Under the rule, the consumptive use impacts to surface water from new permit-exempt withdrawals of groundwater or new water right permits must be interrupted when stream flow is below the instream flows levels, unless those impacts are fully mitigated. Setting instream flows will protect existing water rights and other uses of the Spokane River important for the regional economy: hydropower, recreation, and water quality management. Adopting instream flows in an administrative rule will also contribute to protecting Washington State's interest in the Spokane River and SVRP Aquifer in the event of an interstate conflict.

New permit-exempt withdrawals of groundwater

Rule

If water is not available from a public water supplier, the rule requires consumptive use impacts to surface water from new permit-exempt groundwater withdrawals be interrupted when stream flow is below the instream flow levels, unless those impacts are fully mitigated.

Baseline

Permit-exempt users currently withdraw water as allowed by local regulations and state law under RCW 90.44.050. Although exempt from permitting, permit-exempt groundwater uses remain subject to all other state water laws and rules.

Primary change

The rule establishes requirements to either interrupt use when instream flow levels are not met, or to mitigate the consumptive use impacts of permit-exempt groundwater withdrawals. The rule also requires mitigation be achieved through an Ecology-approved mitigation plan. In a separate action, Ecology has acquired a water right to provide mitigation for new permit-exempt withdrawals that cannot acquire water from a public water supplier. Permit-exempt well users gain a reliable water supply (uninterruptible) through the use of the mitigation requirement in the rule. Implementation of the rule will require tracking the number of new permit-exempt groundwater withdrawals within the rule area.

New water right permits

Rule

The rule requires that consumptive use impacts to surface water from new water right permits approved by Ecology be interrupted when stream flow is below the instream flow levels unless those impacts are fully mitigated. New water right permits shall be conditioned to prohibit impairment of instream flows.

Baseline

Under current conditions, water right permit applications are not being reviewed. Although it is currently feasible to get a water right permit with an approved mitigation plan, mitigation has not yet been proposed by a permit applicant for the Spokane River or SVRP Aquifer.

Primary change

The rule establishes a requirement that all future water right permits prohibit impairment of instream flows. To receive approval of a water right permit application for an uninterruptible use of water, a project proponent must demonstrate they can mitigate the consumptive use impact.

Changes and transfers of water rights

Rule

The rule requires that no changes to, or transfers of, existing surface water and groundwater rights in the area covered under the rule be granted if they conflict with the protection of the instream flows. Any change or transfer proposal could be approved only if there is a finding that existing rights, including the instream flows established in the rule, will not be impaired.

Baseline

Existing state law (Chapter 90.03 RCW) allows changes or transfers of existing water rights provided no detriment or injury to existing rights results from the action. Currently a change or transfer of a water right must not impair any existing water right.

Primary change

A proponent of a change or transfer to an existing water right will have to analyze the potential for, and prevent impairment of the instream flows established in the rule.

VI. Baseline for Analysis

The baseline condition includes the regulatory framework of other federal and state laws and rules, and how they are applied. For the rule, this includes a broad set of existing state laws and rules, including (but not limited to) the Water Code (Surface Water Code; Chapter 90.03 RCW; adopted 1917), Regulation of Public Groundwaters (Groundwater Code; Chapter 90.44 RCW), and Water Resources Act of 1971 (Chapter 90.54 RCW).

Issuance of new water rights

Under Chapter 90.54 RCW, the Water Resources Act of 1971, Ecology has a legal obligation to protect, and where possible enhance flows in the state's perennial rivers and streams. Existing water right permits held by public water suppliers total approximately 290,000 acre feet (AF) of water with more than half of that amount (152,223 AF) held as inchoate water rights for new future uses. As regional water demand increases and groundwater use grows, flows in the Spokane River will continue to decline. Currently, Ecology is not reviewing water right applications because of this condition. Therefore, under the baseline, Ecology does not issue water right permits for uninterrupted water use in response to new applications.

Permit-exempt groundwater use

Some new water uses are exempt from permitting under the groundwater permit- exemption (RCW 90.44.050). Permit-exempt uses of groundwater can be established for beneficial uses for:

- Single homes or small residential developments using up to 5,000 gallons per day.
- Irrigation of up to $\frac{1}{2}$ acre of non-commercial lawns and gardens.
- Industrial use up to 5,000 gallons per day.
- Stockwatering.

Although exempt from permitting, these uses remain subject to all other state water laws and regulation. While permit-exempt groundwater withdrawals do not require a water right permit, to the extent the groundwater is regularly and beneficially used, the water user establishes a water right similar to a water right permit obtained from Ecology.

Changes and transfers of existing water rights

Existing state law (Chapter 90.03 RCW) allows changes or transfers of existing water rights, provided no detriment or injury to other existing rights results from the action. Currently a change or transfer of a water right must not impair any existing water right but instream flows are not protected.

Application of the FERC license

Minimum stream flows are established for the Spokane River in the operating license granted by the Federal Energy Regulatory Commission to Avista Corporation (Order for Project Nos. 2545-091 and 12606-000, issued June 18, 2009) under the Federal Power Act. These flows, while developed using much of the same information, do not apply to or constrain new water rights issued in Washington under the Water Code.

VII. Analysis of Costs & Benefits

The analysis concludes that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs, and the specific directives of the statutes being implemented.

The cost-benefit analysis includes quantitative information where available, and qualitative information where reliable values for estimating the costs and benefits are not available.

Time horizon

The costs and benefits associated with rules depend on the time horizon used in the analysis. For this rule, the cost-benefit analysis uses a 20-year horizon in order to analyze the costs and benefits. The reasons are:

- The reliability of the probable benefits and costs estimations are determined by the accuracy of our forecast into the future. Forecasts that use a shorter period are more reliable. Longer periods would significantly increase the uncertainty, and may result in misleading conclusions.
- The mitigation water acquired is expected to meet the mitigation needs of future permitexempt well development well past the 20-year timeline. Changes in water management policy are inevitable. Advances in science, population shifts, and changes in technology influence water management policy and create a dynamic process. The rule is the direct result of such changes. Historical evidence shows that changes in how we manage water can be large. No rule can solve all future problems. Therefore, it is likely that the rule will receive further amendments in the future. The expected lifetime of these rules is 20 years, though it may be much shorter or longer.

Discounting future values

We must discount the value of benefits and costs accruing in the future. Future costs and benefits are not as valuable as current costs and benefits—even when adjusted for inflation. Ecology is using a real discount rate of 3.1 percent for water resource related projects to discount future dollars¹. For the selected 20-year span, this means that 20 annual inflation-adjusted payments of \$1 are currently worth \$14.74. This is equivalent to multiplying the sum of the 20 annual increments by 0.74.

Probable costs

State law is clear that instream flows must be set at levels that protect and preserve fish and instream resources over the long term. Instream flows reflect levels that would be beneficial to fish if those flows were present in the stream. They are not the lowest amount of water that has occurred in the stream according to stream flow records.

Once adopted in rule, instream flows constitute an appropriation within the meaning of the state water code (RCW 90.03.345) and are intended to prevent further degradation of the river by future or "new" water rights (junior). Instream flows also protect existing (senior) water rights. The scope of this rule is very limited and merely establishes an instream flow for protecting water currently in the river. Therefore, it has very little known costs as it does not alter previously established water rights and current permitting requirements that have been in place for at least two decades.

Since the instream flow levels adopted may sometimes be higher than what is actually in the stream, water rights granted after the rule is adopted would be interruptible. That means when actual stream flows drop below the instream flow, that new use would be curtailed to protect the flow and other senior rights.

The Spokane region is served by existing water suppliers with adequate senior water rights to meet demand far into the future. If you are or can be served by municipal or other group water suppliers, the rule would not affect you.

The rule has no fees or requirements that local businesses, individuals, or cities would have to pay or meet. The rule would also not impose any regulatory changes on existing water uses.

The probable costs of the rule requirements are evaluated based on the costs of compliance.

Known costs

Control points

The Greenacres gauge (12420500) will be operated by USGS and funded by Ecology. This is one of two control points in this rule that isn't currently active. To comply with this rule, the Greenacres gauge would have to be functional. The estimated costs would be approximately \$15,000 a year for 20 years. Total cost for the gauge is expected to be \$300,000 or a present value of \$222,000.

Changes and transfers under the instream flow

Additional professional services are possible for assessments of impairment to the flows. These costs would be borne by those who choose to pursue a change or transfer in a water right. It is estimated that 100 additional hours of professional services are likely, assuming 10 new changes over the next twenty years. Ecology estimates this cost at 100 additional hours of consultation or hydrologic services at \$200 an hour² for total costs of \$20,000. The present value of this is \$14,800.

¹ For each year 1998 - 2008, we calculated the real rate by subtracting annual inflation from the nominal rate for water. These real rates were then averaged to calculate the 3.1% real interest rate as an average expectation for the future. Inflation rates as paid out on I bonds came from today's values at

<u>http://www.treasurydirect.gov/indiv/research/indepth/ibonds/res_ibonds_iratesandterms.htm</u>. Nominal rates for water projects were obtained at <u>http://www.economics.nrcs.usda.gov/cost/discountrates.html</u>.

Compliance and enforcement

Ecology expects additional compliance and enforcement of the rule from entities like Spokane County. These minimal procedural enforcement services could expand what they are currently doing and include the tracking of new permit-exempt uses and any provisional rights. Ecology estimates these costs at one person, one day a month for 20 years at $100,000^3$. The present value of this would be \$74,000.

Mitigating exempt uses

The rule requires those new users that are unable to hook up to a service provider, and must rely on a permit-exempt well, to interrupt their withdrawal when stream flow is below the instream flow. Interruption of this consumptive use is not required if the impact to surface water is mitigated. Based on historical trends, Ecology estimates there could be as many as 120 of these new water users during the next 20 years. These users in the rule area would be domestic or low volume commercial depending on zoning.

To avoid being interruptible, these new exempt well users would need to secure a mitigation supply of water to offset their use during interruptible periods. An estimate for a typical homeowner on a well of one acre foot of water, per year for each user, would mean 120 acre feet of water would need to be secured for mitigation of all the anticipated new exempt uses. The market rate for water of this nature is estimated to be \$2,000 - \$3,000 an acre foot in the Spokane area. Purchasing mitigation water for these users should cost somewhere between \$240,000 and \$360,000.

Ecology is working on a one-time water right purchase that will ensure mitigation for more than 120 of these new exempt uses in perpetuity. New domestic permit-exempt well users are not expected to be required to mitigate on their own during the 20-year timeline of this analysis.

Cost summary

Total costs are estimated to be between \$550,800 and \$670,800. Ecology is unable to determine further costs.

TABLE 1. COST SUMMARY						
Rule Impacts	Costs					
Gauge costs	\$222,000					
Changes/Transfers	\$14,800					
Compliance/Enforcement	\$74,000					
Mitigating exempt uses	\$240,000 - \$360,000					
Total Costs	\$550,800 - \$670,800					

The hourly rate estimate is for future fees based on historic budget and contract costs at Ecology.

³ Assumes \$417 daily operational and capital cost, once a month, for 20 years is approximately \$100,000.

Probable benefits

Under Chapter 90.54 RCW, the Water Resources Act of 1971, Ecology has a legal obligation to protect, and where possible enhance the natural environment, including flows in the state's perennial rivers and streams. The rule establishes instream flow levels necessary to protect wildlife, fish, scenic, aesthetic, recreation, water quality and other environmental values, navigational values, and stock watering requirements.

Once established, instream flows constitute appropriations within the meaning of the state water code and are intended to prevent further degradation of the river by new consumptive uses. Much of the benefits of this rule will be generated further into the future than the required twenty year timeline of this cost-benefit evaluation.

Clarify future decisions

Prior to the rule, water right decision making is hampered by uncertainty regarding water availability and impairment of existing rights. It may also be difficult to determine the instream values (water quality, navigation, habitat, etc.) that may require mitigation. One result of the rule will be increased certainty in water rights administration. This will reduce the delay and uncertainty in obtaining decisions on new water right applications and on applications for change or transfer. Water allocation will take less time and will provide greater certainty. Many process steps will be unnecessary if the application can be processed based on known flow limitations.

This improved certainty in water right decision making reduces costs in each of the following areas:

- Reduced scientific requirements for ensuring protection of instream resources when processing new water right permit applications.
- Implementing the notification of low flows will be easier because there will be few interruptible rights and greater clarity.
- Potentially reduced costs for compliance and enforcement during periods when instream flows are not met.

Protect existing water rights and uses

By setting instream flows, tribal reserved rights and other existing water rights are protected. The hydrogeology of the SVRP Aquifer and its relationship with the Spokane River result in apparent impacts to stream flows before apparent impacts to groundwater withdrawals under existing water rights. As a result, the state will assume responsibility as the first impaired person, and actions to prevent impairment of instream flows will protect tribal treaty rights and existing water rights.

Flows necessary for all beneficial uses in the river are at risk. A continuing decline in the summer low flow as measured at the Spokane gage is well documented. Flow in the Spokane River is relied upon to provide waste treatment benefit, hydropower, and a wide variety of benefits based upon aesthetic and recreational values to businesses and the community at large. If instream flows are not protected, significantly increased costs will be necessary to re-permit and reconstruct wastewater treatment discharge facilities. All other instream uses become less valuable, and investments made to exploit those values become less available.

In water quality alone, much has been invested since 1998. Implementation of the 2007 Dissolved Oxygen Total Maximum Daily Load (TMDL) plan includes construction of a new Spokane County wastewater treatment plant and significant upgrades to existing plants in both Washington and Idaho exceeding 100 million dollars. All this effort and expenditure is to protect beneficial use of surface water in Washington. Protection of instream flows established in the rule will help protect this investment in surface water quality.

Protect Washington State's interests in any interstate water rights conflict

At present the states of Washington and Idaho independently manage the interstate water resource of the SVRP Aquifer. Idaho is currently adjudicating water rights in the SVRP Aquifer. The adjudication will finish in the near term. Should conflict between the states arise, without the rule, instream flow values would have uncertain legal standing. Protection of the Spokane River in Washington State will require substantial legal and administrative effort, and that effort could take years and the outcome is uncertain. Litigation to protect these flows and the associated investments will be significantly more efficient with a rule in place.

Typical equitable apportionment processes between states take decades. Ecology estimates a savings of two years of legal and full time equivalent support will be saved on this topic alone by adopting a rule.

Furthermore, with adoption of the rule, should the Legislature request adjudication of Spokanearea water rights, it can proceed without delay. The Yakima adjudication has taken 30 years. Ecology estimates the Spokane adjudication could take 10-15 years⁴. With this rule in place, Ecology estimates 2 years of administrative work will be saved by adopting this rule now, rather than waiting to begin after an adjudication is authorized.

Ecology estimates the Spokane River adjudication at \$3.1 million per year, plus any private party legal costs (See Appendix D). For a 10-year period, litigation costs alone will amount to over \$50 million. This information can be used to give a reasonable approximation of what costs would likely exist should the Spokane-area start down this path. Ecology expects effects of this rule to save 2 to 5 years⁵ of these costs which would be 6.3 to 15.3 million dollars. As Ecology does not know when these costs will occur, we will not calculate the present value of this estimate. The benefit is estimated at \$6,000,000 to \$15,000,000.

⁴ https://fortress.wa.gov/ecy/publications/publications/1011013.pdf

 $^{^{5}}$ The estimate is based on conversations with Ecology staff familiar with the adjudication process.

Recreational and aesthetic benefits

Flows protected by the rule will be available to support recreational uses and aesthetic values in the free flowing stretches of the Spokane River. Late summer uses will be consistent with those of other controlled rivers in the intermontane west. Fisheries resources will be protected.

Total probable benefits

- Comply with RCWs 90.22.010 and 90.54.020 by establishing instream flow levels necessary to protect wildlife, fish, scenic, aesthetic, recreation, water quality and other environmental values, navigational values, and stock watering requirements.
- Provide a baseline for making water availability determinations necessary for guiding water right permit decisions.
- Reduced uncertainty regarding water right applications impairment to senior rights.
- Protect Washington State's interests in any interstate water rights conflict.
- Reduced administrative and legal costs ranging between \$6,000,000 to \$15,000,000.

Summary of the Cost Benefit Analysis

- The quantified benefit estimate is between 6 and 15 million dollars over a 20-year period.
- The quantified costs of the rule are estimated to be between \$550,800 and \$670,800 for the full 20 years.

Ecology believes any unquantifiable values will not offset the net benefits.

VIII. Least Burdensome Analysis

RCW 34.05.328(1)(e) requires Ecology to "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."

The rule establishes instream flows for the Spokane River to implement the statutory objective to protect instream resources from new appropriations of water. It establishes a water management framework that requires all new uses of water begun after the effective date of the rule to be interrupted when instream flows are not met, unless the impact from the new use is fully mitigated. This rule also establishes and protects Washington state interests in the water resources of the Spokane River and the SVRP Aquifer.

Ecology could have chosen not to adopt this water resources rule. However, this would not effectively protect Washington state interests in water resources, and would contribute to the continual degradation of the flows and water quality in the river.

The instream flow work group established during watershed planning to integrate all of the recommended instream flows into one regime did not reach consensus on instream flows for the control point at the Spokane gage. Alternative summer low flows for the control point at the Spokane gage were by various interests:

- Lower flows were proposed to lessen the likelihood of water right permit application denial and impairment considerations for new applicants. Lower flows would perhaps have achieved those objectives, but such flows would have resulted in significant habitat degradation throughout the Spokane River system.
- Higher flows were proposed to enhance whitewater rafting and navigation recreation in the reach below Spokane Falls. The higher flows may have protected those uses in high flow years, but flows in the river seldom reach that level, and a wide range of recreational interests consider a wide range of flows to be desirable.
- Higher or lower flows increase the habitat available for either rainbow trout or mountain whitefish at the expense of the other⁶. The instream flows for the Spokane gage control point represent the peak habitat in terms of weighted usable area for both species in late summer, decreasing the burden on individual species. The instream flows are consistent with the watershed plan recommendation to optimize spring spawning, incubation and emergence for rainbow trout.

In accordance with RCW 90.82.080, Ecology is obligated to undertake rulemaking to establish the 500 cubic foot per second (cfs) summer instream flow level for the Greenacres gage. This instream flow level was recommended in the Little and Middle Spokane River Watershed Plan (WRIAs 55/57).

An alternative Ecology considered was to close the Spokane River during the summer low-flow period. Water availability is often limited during the summer months. When that is so, the need to prohibit impairment of instream flows and existing water rights will preclude granting new water rights. However, Ecology decided against closing the river since such a closure would preclude new water rights subject to instream flows for uses that could benefit from an interruptible source of water in those years when water is available.

Another action Ecology is working on to lessen the burden on those required to apply with the rule is the provision of mitigation for new permit-exempt users that cannot obtain water from a municipal water supplier. While this action is being taken outside the rule, it will significantly reduce the burden for compliance with the rule for new residences in rural areas.

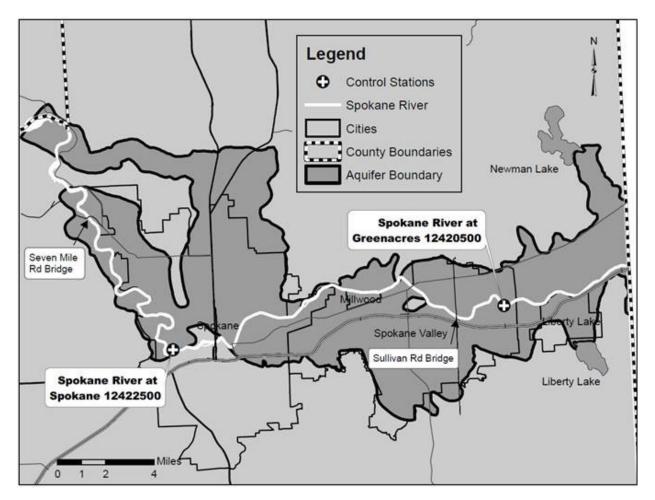
In the preliminary draft of this rule Ecology included a requirement for all new water users to measure their withdrawals, including new permit-exempt withdrawals. Ecology chose not to include the metering requirement in the rule. This will reduce the burden for compliance with the rule for new permit-exempt withdrawals. Ecology currently requires metering for all new water right permits, and this will continue after rule adoption.

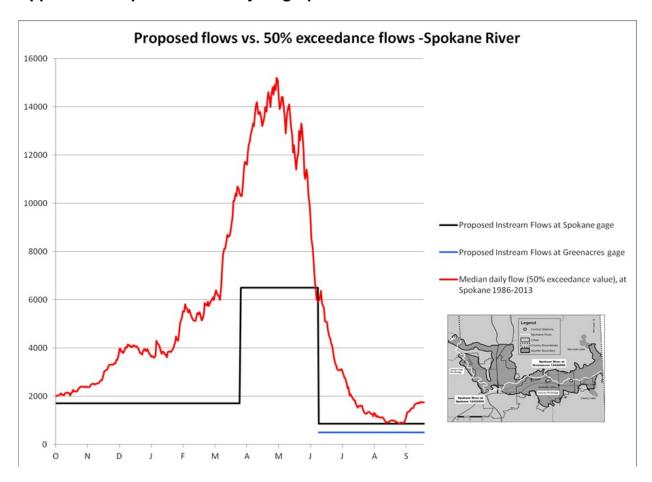
Ecology recognizes the rule is the least burdensome alternative for those required to comply with it.

⁶ <u>2012 Instream Flow Recommendations for the Spokane River</u> - Hal Beecher, WDFW Instream Flow Biologist May 31, 2012

IX. Appendices







Appendix B - Spokane River Hydrograph

Appendix C - Instream Flows for the Spokane River

Spokane River at Spokane						
	1,700 cfs					
October 1 – March 31						
April 1 – June 15	6,500 cfs					
June 16 – September 30	850 cfs					
Green Acres gage						
	500 cfs					
June 16 – September 30						

Appendix D - Estimated costs of Adjudicating Washington Water Rights – Spokane River

SCOPE	ESTIMATE	NOTES ***
Estimated number of surface and groundwater rights, certificates, claims, etc.	2,613 certificates 9,222 claims 11,835 total records	Total includes the number of water right records (surface & groundwater) within the four basins. This doesn't include applications, permits, or change/ROEs and does not tell us how many court claims would be filed if we started adjudication. The number of court claims could be 3+ times the number of records.
Ecology staff needed to support process and Court	10 to 12 FTE estimated per year	This is based on a number of assumptions related to the number of court claims, summons issued, how small users are treated, number of uncontested claims, outcome of consolidation of claims, court process (stipulations, rules, orders, etc.) and other factors.
Ecology costs (including above staff)	\$1.8 million per year plus certain one-time costs for summons, etc.	Assumes fully staffed and implemented adjudication process. This does not include extraordinary one-time costs for issuance of summons and mailings that would include another \$350,000 or more.
Special Court costs	\$1.3 million per year	Assumes fully staffed and implemented adjudication process.
Total: Court + Ecology	\$3.1 million per year	Per above assumptions.
Timeframe	10+ years	Depends on a number of factors (as listed above) but could reasonably take 10 or more years.

Draft working estimates:

*** "a. Ecology must consult with the Administrative Office of the Courts (AOC) to determine whether sufficient judicial resources are available to commence and to prosecute the adjudication in a timely manner; b. Ecology must report to the appropriate committees of the legislature on the estimated budget needs for the court and the department to conduct the adjudication." RCW 90.03.110(2) (as amended by ESHB 1571 Sec. 1 July 2009). See following link for additional detail about the process for conducting an adjudication: <u>https://fortress.wa.gov/ecv/publications/publications/1011013.pdf</u>

Appendix E - Effects of Rule (Chapter 173-557 WAC)

Chapter 173-557 WAC - Water Resource Management Program for the Spokane River and Spokane Valley Rathdrum Prairie (SVRP) Aquifer

CURRENT STATUTE/REG ULATION	RULE LANGUAGE	EFFECT OF CHANGE
See applicable statutes in Appendix B RCW 90.54 RCW 90.03 RCW 90.44 RCW 90.22 RCW 90.82	 173-557-010 - Authority and Purpose (1) The department of ecology (ecology) adopts this rule under the authority of the Watershed Planning Act (chapter 90.82 RCW), Water Resources Act of 1971 (chapter 90.54 RCW), Water code (chapter 90.3 RCW), Regulation of public groundwaters (chapter 90.42 RCW), Minimum Water Flows and Levels Act (chapter 90.22 RCW), Water Well Construction (chapter 18.104 RCW); RCW 43.21A.064(9) and 43.21A.080; and in accordance with the water resources management program regulation (chapter 173-500 WAC). (2) The purposes of this rule are to: (a) Establish instream flow levels necessary to protect wildlife, fish, scenic, aesthetic, recreation, water quality and other environmental values, navigational values, and stock watering requirements; (b) Meet water resource management objectives of the Spokane area watershed plans adopted under RCW 90.82; to protect existing water rights; and (c) Establish and protect Washington State interests in the water resources of the Spokane River. (3) In accordance with RCW 90.82.130(4), in developing this chapter ecology refers to the Middle Spokane Water Resource Inventory Area (WRIA 57) and Lower Spokane Water Resource Inventory Area (WRIA 54) watershed plan recommendations as a consideration in determining the public interest in water resource management for the Spokane River. (a) The plan recommendations were approved by the Spokane area watershed planning units. The joint watershed plan for the Middle Spokane Water Spokane Water Spokane (WRIA 55, which is not included in this rule) was adopted by Spokane County, Stevens County, and Pend Oreille County commissioners on January 31, 2006. The Lower Spokane (WRIA 54) watershed plan was adopted by Spokane County, and Stevens County commissioners on October 22, 2009. 	N/A - Provisions reflect current law.

	(4) This rule establishes ecology's policies to guide the protection, use, and management of Spokane River basin surface water and the SVRP Aquifer within the boundary of the rule area. It protects existing water rights, establishes instream flows, and sets forth a program for the management and administration of future water allocation and use.	
See applicable statutes in Appendix B RCW 90.54 RCW 90.03 RCW 90.44	 173-557-020 – Applicability (1) This rule applies to the mainstem of the Spokane River and all surface water and groundwater within the boundary of the SVRP Aquifer, as identified in U.S. Geological Survey Scientific Investigations Report 2007-5041. The map provided in WAC 173-557-110 is for informational purposes only. Hydrologic evidence of the SVRP Aquifer determines applicability of this rule. (2) This rule does not supersede the instream flow rule of the Little Spokane River (chapter 173-555 WAC), except where a proposed withdrawal is from waters in direct hydraulic continuity with the SVRP Aquifer as determined by ecology. In the area where this rule and chapter 173-555 WAC overlap, the application of each rule shall be determined as follows: (a) New water use from the Little Spokane River, its tributaries, and the shallow aquifer associated with the Little Spokane River and its tributaries shall be regulated under WAC 173-555; and (b) New water use from the SVRP Aquifer shall be regulated under this rule (Chapter 173-557 WAC). (3) This rule applies to the use and appropriation of surface water and groundwater begun after the effective date of this chapter. This chapter shall not affect: (a) Existing surface water and groundwater rights established prior to adoption of the state surface water and groundwater codes, or by water right permit authorized under state law, unless otherwise provided for in the conditions of the water right in question. (b) Groundwater rights established under the groundwater permit-exemption in RCW 90.44.050 where regular beneficial use began before the effective date of this chapter; and (c) Federal and tribal reserved rights. (4) Changes to or transfers of existing rights are addressed in WAC 173-557-070. 	The Spokane River and SVRP Aquifer are established as the geographic area where the rule applies instead of complete Water Resource Inventory Areas. The river and aquifer function as a hydrologic unit distinct from the surrounding WRIA areas. N/A - Provisions reflect current law.
	173-557-030 - Definitions	No effect from this section of the rule.
	173-557-040 - Stream management units	No effect from this section of the rule

shown in Table 2. Instream flows are monitored at the stream management control stations and apply to the stream management units described in Table 1.Table 2 Instream Flows for the Spokane River	This section establishes instream flow levels for determining water availability for future new water use. Consistent with prior regulatory framework requiring protection of instream resources this section does not result in additional impact for new
Spokane River at Spokane	water right permits.
October 1 – March 31 1,700 cfs April 1 – June 15 6,500 cfs	See analysis of sections 060 and 070 for effect on new permit- exempt uses and water right
June 16 – September 30850 cfsSpokane River at Greenacres (Barker Rd.)June 16 – September 30	changes or transfers.
Spokane River and groundwater within the SVRP Aquifer are hydraulically connected. New appropriations from the SVRP Aquifer will be managed to protect the instream flows established in this rule.	Consistent with prior regulatory framework requiring protection of instream resources this section does not result in additional impact for new water right permits. New permit- exempt uses will require mitigation. Ecology has place water in trust to provide mitigation
	 1) The instream flows established in this chapter are based on detailed habitat studies of the Spokane River conducted for watershed planning, hydropower relicensing, and other purposes. (2) The priority date of the instream flows established in this chapter is the effective date of this chapter. (3) Instream flows, expressed in cubic feet per second (cfs), are shown in Table 2. Instream flows are monitored at the stream management control stations and apply to the stream management units described in Table 1. Table 2 Instream Flows for the Spokane River Spokane River at Spokane October 1 – March 31 1,700 cfs April 1 – June 15 6,500 cfs June 16 – September 30 850 cfs Spokane River at Greenacres (Barker Rd.) Linstream flows established in this rule are water rights and shall be protected from impairment by: (a) New water right permits approved by ecology after the effective date of this chapter; or (a) New water right permits approved by ecology after the effective date of this chapter; or (a) Permit-exempt withdrawals established within the area regulated under this chapter; or (a) Permit-exempt withdrawals established within the area regulated under this chapter; or (b) Based on the hydrogeology of the SVRP Aquifer as described in U.S. Geologic Survey Scientific Investigations Report 2007-5041, ecology determines that surface water in the Spokane River and groundwater within the SVRP Aquifer are hydraulically connected. New appropriations from the SVRP Aquifer will be managed to protect the instream flows

	 water suppliers are the primary sources of water for new uses. If water is not available from a municipal water supplier, the consumptive use impacts to surface water from new permitexempt groundwater withdrawals must be interrupted when stream flow is below the instream flows established in this rule, unless those impacts are mitigated. Mitigation must be achieved through an ecology-approved mitigation plan. (4) The consumptive use impacts to surface water from water right permits approved by ecology after the effective date of this rule must be interrupted when stream flow is below the instream flows established in this rule, unless those impacts are mitigated. Water right permits approved by ecology after the effective date of this rule and flows established in this rule, unless those impacts are mitigated. Water right permits approved by ecology after the effective date of this rule shall be conditioned to prohibit impairment of instream flows established in this rule. 	for new permit- exempt uses where water is not available from a municipal supplier.		
RCW 90.03.380	173-557-070 - Changes and transfers of existing water rights No changes to, or transfers of, existing surface water and groundwater rights in the area covered under this rule shall hereafter be granted if they conflict with the protection of the instream flow levels established in this chapter. Any change or transfer proposal can be approved only if there is a finding that existing rights, including the instream flows established in this chapter, will not be impaired.	Future changes or transfers of existing water rights will require an analysis of impairment against the instream flows established in this rule.		
See applicable statutes in Appendix B RCW 90.54 RCW 90.03 RCW 90.44 RCW 90.22	173-557-080 - Compliance and enforcement Ecology shall enforce this rule in accordance with chapters 90.03.and 90.44 RCW, and any other applicable laws and rules.	Tracking of new permit-exempt uses requiring mitigation will be required under this rule.		
RCW 43.21B	173-557-090 - Appeals	No effect from this section of the rule. Opportunity and process for appeal of Ecology decisions.		
	173-557-100 - Regulation review	No effect from this section of the rule. Allows review and if necessary amendment of this rule		

173-557-110 - Map of the rule area with control points	No effect from this section of the rule. Map is provided for informational purposes only.
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Appendix F - Applicable statutes

Water Resources Act of 1971 (chapter 90.54 RCW),

90.54.020 General declaration of fundamentals for utilization and management of waters of the state.

Utilization and management of the waters of the state shall be guided by the following general declaration of fundamentals:

(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, 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.

Water code (chapter 90.03 RCW),

90.03.247 Minimum flows and levels — Departmental authority exclusive — Other recommendations considered.

Whenever an application for a permit to make beneficial use of public waters is approved relating to a stream or other water body for which minimum flows or levels have been adopted and are in effect at the time of approval, the permit shall be conditioned to protect the levels or flows. No agency may establish minimum flows and levels or similar water flow or level restrictions for any stream or lake of the state other than the department of ecology whose authority to establish is exclusive, as provided in chapter 90.03 RCW and RCW 90.22.010 and 90.54.040. The provisions of other statutes, including but not limited to *RCW 77.55.100 and chapter 43.21C RCW, may not be interpreted in a manner that is inconsistent with this section. In establishing such minimum flows, levels, or similar restrictions, the department shall, during all stages of development by the department of ecology of minimum flow proposals, consult with, and carefully consider the recommendations of, the department of fish and wildlife, the **department of community, trade, and economic development, the department of agriculture, and representatives of the affected Indian tribes. Nothing herein shall preclude the department of fish and wildlife, the **department of community, trade, and economic development, or the department of agriculture from presenting its views on minimum flow needs at any public hearing or to any person or agency, and the department of fish and wildlife, the **department of community, trade, and economic development, and the department of agriculture are each empowered to participate in proceedings of the federal energy regulatory commission and other agencies to present its views on minimum flow needs.

90.03.250 Appropriation procedure — Application for permit — Temporary permit. Any person, municipal corporation, firm, irrigation district, association, corporation or water users' association hereafter desiring to appropriate water for a beneficial use shall make an application to the department for a permit to make such appropriation, and shall not use or divert such waters until he or she has received a permit from the department as in this chapter provided.

90.03.380 Right to water attaches to land — Transfer or change in point of diversion — Transfer of rights from one district to another — Priority of water rights applications — Exemption for small irrigation impoundments — Electronic notice of an application for an interbasin water rights transfer. (Effective until June 30, 2019.)

(1) ... Before any transfer of such right to use water or change of the point of diversion of water or change of purpose of use can be made, any person having an interest in the transfer or change, shall file a written application therefor with the department, and the application shall not be granted until notice of the application is published as provided in RCW 90.03.280. If it shall appear that such transfer or such change may be made without injury or detriment to existing rights, the department shall issue to the applicant a certificate in duplicate granting the right for such transfer or for such change of point of diversion or of use. ...

Regulation of public groundwaters (chapter <u>90.44</u> RCW), Regulation of Public Groundwater (chapter <u>90.44</u> RCW),

90.44.020 Purpose of chapter.

This chapter regulating and controlling groundwaters of the state of Washington shall be supplemental to chapter 90.03 RCW, which regulates the surface waters of the state, and is enacted for the purpose of extending the application of such surface water statutes to the appropriation and beneficial use of groundwaters within the state.

90.44.030 Chapter not to affect surface water rights.

The rights to appropriate the surface waters of the state and the rights acquired by the appropriation and use of surface waters shall not be affected or impaired by any of the provisions of this supplementary chapter and, to the extent that any underground water is part of or tributary to the source of any surface stream or lake, or that the withdrawal of groundwater may affect the flow of any spring, water course, lake, or other body of surface water, the right of an appropriator and owner of surface water shall be superior to any subsequent right hereby authorized to be acquired in or to groundwater. 90.44.050 Permit to withdraw.

After June 6, 1945, no withdrawal of public groundwaters of the state shall be begun, nor shall any well or other works for such withdrawal be constructed, unless an application to appropriate such waters has been made to the department and a permit has been granted by it as herein provided: EXCEPT, HOWEVER, That any withdrawal of public groundwaters for stock-watering purposes, or for the watering of a lawn or of a noncommercial garden not exceeding one-half acre in area, or for single or group domestic uses in an amount not exceeding five thousand gallons a day, or as provided in RCW

90.44.052, or for an industrial purpose in an amount not exceeding five thousand gallons a day, is and shall be exempt from the provisions of this section, but, to the extent that it is regularly used beneficially, shall be entitled to a right equal to that established by a permit issued under the provisions of this chapter: PROVIDED, HOWEVER, That the department from time to time may require the person or agency making any such small withdrawal to furnish information as to the means for and the quantity of that withdrawal: PROVIDED, FURTHER, That at the option of the party making withdrawals of groundwaters of the state not exceeding five thousand gallons per day, applications under this section or declarations under RCW 90.44.090 may be filed and permits and certificates obtained in the same manner and under the same requirements as is in this chapter provided in the case of withdrawals in excess of five thousand gallons a day.

Minimum Water Flows and Levels Act (chapter <u>90.22</u> RCW)

90.22.010 Establishment of minimum water flows or levels — Authorized — Purposes. The department of ecology may establish minimum water flows or levels for streams, lakes or other public waters for the purposes of protecting fish, game, birds or other wildlife resources, or recreational or aesthetic values of said public waters whenever it appears to be in the public interest to establish the same. In addition, the department of ecology shall, when requested by the department of fish and wildlife to protect fish, game or other wildlife resources under the jurisdiction of the requesting state agency, or if the department of ecology finds it necessary to preserve water quality, establish such minimum flows or levels as are required to protect the resource or preserve the water quality described in the request or determination. Any request submitted by the department of fish and wildlife shall include a statement setting forth the need for establishing a minimum flow or level. When the department acts to preserve water quality, it shall include a similar statement with the rule filed with the code reviser. This section shall not apply to waters artificially stored in reservoirs, provided that in the granting of storage permits by the department of ecology in the future, full recognition shall be given to downstream minimum flows, if any there may be, which have theretofore been established hereunder.

Watershed Planning Act (chapter <u>90.82</u> RCW)

90.82.080 Instream flow component — Rules — Report.

(1)(a) If the initiating governments choose, by majority vote, to include an instream flow component, it shall be accomplished in the following manner:

(i) If minimum instream flows have already been adopted by rule for a stream within the management area, unless the members of the local governments and tribes on the planning unit by a recorded unanimous vote request the department to modify those flows, the minimum instream flows shall not be modified under this chapter. If the members of local governments and tribes request the planning unit to modify instream flows and unanimous approval of the decision to modify such flow is not achieved, then the instream flows shall not be modified under this section;

(ii) If minimum streamflows have not been adopted by rule for a stream within the management area, setting the minimum instream flows shall be a collaborative effort between the department and members of the planning unit. The department must attempt to achieve consensus and approval among the members of the planning unit regarding the minimum flows to be adopted by the department. Approval is achieved if all government members and tribes that have been invited and accepted on the planning unit present for a recorded vote unanimously vote to support the minimum instream flows, and all nongovernmental members of the planning unit present for the recorded vote, by a majority, vote to support the minimum instream flows.

(b) The department shall undertake rule making to adopt flows under (a) of this subsection. The department may adopt the rules either by the regular rules adoption process provided in chapter 34.05 RCW, the expedited rules adoption process as set forth in RCW 34.05.353, or through a rules adoption process that uses public hearings and notice provided by the county legislative authority to the greatest extent possible. Such rules do not constitute significant legislative rules as defined in RCW 34.05.328, and do not require the preparation of small business economic impact statements.

(c) If approval is not achieved within four years of the date the planning unit first receives funds from the department for conducting watershed assessments under RCW 90.82.040, the department may promptly initiate rule making under chapter 34.05 RCW to establish flows for those streams and shall have two additional years to establish the instream flows for those streams for which approval is not achieved.

(2)(a) Notwithstanding RCW 90.03.345, minimum instream flows set under this section for rivers or streams that do not have existing minimum instream flow levels set by rule of the department shall have a priority date of two years after funding is first received from the department under RCW 90.82.040, unless determined otherwise by a unanimous vote of the members of the planning unit but in no instance may it be later than the effective date of the rule adopting such flow.

(b) Any increase to an existing minimum instream flow set by rule of the department shall have a priority date of two years after funding is first received for planning in the WRIA or multi-WRIA area from the department under RCW 90.82.040 and the priority date of the portion of the minimum instream flow previously established by rule shall retain its priority date as established under RCW 90.03.345.

(c) Any existing minimum instream flow set by rule of the department that is reduced shall retain its original date of priority as established by RCW 90.03.345 for the revised amount of the minimum instream flow level.

(3) Before setting minimum instream flows under this section, the department shall engage in government-to-government consultation with affected tribes in the management area regarding the setting of such flows.

(4) Nothing in this chapter either: (a) Affects the department's authority to establish flow requirements or other conditions under RCW 90.48.260 or the federal clean water act (33 U.S.C. Sec. 1251 et seq.) for the licensing or relicensing of a hydroelectric power project under the federal power act (16 U.S.C. Sec. 791 et seq.); or (b) affects or impairs existing instream flow requirements and other conditions in a current license for a hydroelectric power project licensed under the federal power act.

(5) If the planning unit is unable to obtain unanimity under subsection (1) of this section, the department may adopt rules setting such flows.

90.82.130 Plan approval — Public notice and hearing — Revisions.

(4) After a plan is adopted in accordance with subsection (3) of this section, and if the department participated in the planning process, the plan shall be deemed to satisfy the watershed planning authority of the department with respect to the components included under the provisions of RCW 90.82.070 through 90.82.100 for the watershed or watersheds included in the plan. The department shall use the plan as the framework for making future water resource decisions for the planned watershed or watersheds. Additionally, the department shall rely upon the plan as a primary consideration in determining the public interest related to such decisions.

Appendix G - Pending Applications in Rule Area

Reported By: JCOV461 Report Date: 3/8/2013

						Ir				
Doc	Priority Dt	Purpose	Qi	UOM	Qa	Acres	WRIA	County	Src's	1stSrc
NewApp	5/14/1987	IR,DM	175	GPM		15	57	SPOKANE	4	WELL
NewApp	10/1/1987	DM	5500	GPM	1500		55	SPOKANE	5	
NewApp	12/17/1991	FR,DM	2000	GPM	3200		57	SPOKANE	7	WELL
NewApp	12/19/1991	IR	950	GPM	250	88	57	SPOKANE	1	
NewApp	11/18/1992	MU	1500	GPM			57	SPOKANE	4	WELL
NewApp	4/12/1994	MU	4500	GPM			57	SPOKANE	2	
NewApp	10/11/1994	MU	5000	GPM			55	SPOKANE	1	
NewApp	2/21/1995	MU,IR	10000	GPM		200	57	SPOKANE	7	WELL
NewApp	6/1/1995	MU	2000	GPM			55	SPOKANE	5	
NewApp	4/5/1996	MU	995	GPM			57	SPOKANE	7	WELL
NewApp	8/22/1996	EN	900	GPM			57	SPOKANE	1	
NewApp	1/28/1997	MU	2000	GPM			57	SPOKANE	11	WELL
NewApp	3/25/1997	MU	2700	GPM			57	SPOKANE	4	Well 1
NewApp	5/12/1997	IR	200	GPM		10	57	SPOKANE	1	
NewApp	7/2/1997	IR,DM	6200	GPM		170	54	SPOKANE	4	
NewApp	3/20/1998	IR,DM	28	GPM		30	57	SPOKANE	2	
NewApp	3/25/1999	IR,DM	1800	GPM		150	54	SPOKANE	1	
NewApp	3/25/1999	IR,DM	1800	GPM		150	55	SPOKANE	1	
NewApp	2/18/2000	CI	1000	GPM			57	SPOKANE	1	
NewApp	8/31/2000	IR,DM	50	GPM		90	57	SPOKANE	1	
NewApp	9/6/2000	MU	2000	GPM			57	SPOKANE	3	
NewApp	7/22/2002	ST,IR	460	GPM	195	10	57	SPOKANE	1	
NewApp	2/28/2006	MU	600	GPM	110		55	SPOKANE	4	Well 1
NewApp	1/17/2012	HE	300	GPM			54	SPOKANE	1	