



2009 Report to the Legislature:

- ◆ **Watershed Planning Act Implementation Statutory Changes**
 - ◆ **Statewide Progress on Setting Instream Flows**
 - ◆ **Reclaimed Water Strategies in Adopted Watershed Plans**
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December 2009

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Executive Summary

Watershed Planning Act Statutory Changes

- ◆ There are no statutory changes needed to enable state agency approval or permitting to implement watershed plans approved and adopted under this chapter.
- ◆ There is one recommended statutory change to adjust the Watershed Planning Act's annual reporting requirement to a biennial reporting requirement.
- ◆ There are four statutory and three rule changes recommended by watershed planning units to improve Watershed Planning Act implementation of locally adopted watershed plans.
- ◆ Section 1 of this report discusses all of the changes recommended above in detail.

Instream Flow Setting Progress

- ◆ Ecology adopted one instream flow rule in 2009 for the Quilcene-Snow watershed Water Resource Inventory Area (WRIA) 17.
- ◆ Watershed planning activities over time have resulted in five instream flow rule adoptions, including the Quilcene-Snow, Entiat (WRIA 46), Lewis (WRIA 27), Salmon-Washougal (WRIA 28), Walla Walla (WRIA 32) and Wenatchee (WRIA 45) watersheds.
- ◆ Three draft rules are in various stages of development in the Elwha-Dungeness (WRIA 18), Grays-Elochoman (WRIA 25), and Cowlitz (WRIA 26) watersheds. Ecology plans to adopt these three rules during 2010 and 2011.
- ◆ Section 2 of this report contains specific details of statewide progress on adopting instream flow rules to improve water management.

Reclaimed Water

- ◆ Reclaimed water is identified as a potential strategy to meet future water supply needs in 22 of 29 watershed plans. This is equal to 76 percent of all adopted plans.
- ◆ Section 3 of this report contains specific details about reclaimed water and water reuse in Water Resource Inventory Areas (WRIAs) with adopted watershed plans and in those not working under the Watershed Planning Act.

Watershed Planning Progress and Plan Implementation Status

- ◆ Twenty-seven watershed planning units are in the implementation phase (Phase 4.) The status of watershed planning and plan implementation for those WRAs working under the Watershed Planning Act is summarized in Table 1 on pages iv and v.
- ◆ A map showing the status of watershed planning units' implementation of the Watershed Planning Act is in Figure 1 on page vi.

Table 1. Implementation Status for the State of Washington’s Watershed Planning Act – Chap. 90.82 RCW

| WRIA ¹ Name | WRIA Number | Phase 1: Organization and Formation | Phase 2: Watershed Assessment | Phase 3: Plan Approved by Planning Group | Phase 3: Plan Adopted by County Board(s) | Phase 4: Plan Implementation |
|--------------------------------------|-------------|---|-------------------------------------|--|--|------------------------------------|
| Nooksack | 1 | ✓ | ✓ | ✓ | ✓ | ✓ |
| San Juan | 2 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Lower Skagit-Samish/ Upper Skagit | 3/4 | ✓ | ✓ | Planning stopped in Phase 3 | n/a | n/a |
| Island | 6 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Nisqually | 11 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Chambers-Clover | 12 | ✓ | ✓ | Planning stopped in Phase 3 | n/a | n/a |
| Deschutes | 13 | ✓ | ✓ | Planning stopped in Phase 3 | n/a | n/a |
| Kennedy-Goldsborough | 14 | ✓ | ✓ | Planning stopped in Phase 3 | n/a | n/a |
| Kitsap | 15 | ✓ | ✓ | Planning stopped in Phase 3 | n/a | n/a |
| Skokomish-Dosewallips | 16 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Quilcene-Snow | 17 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Elwha-Dungeness | 18 | ✓ | ✓ | ✓ | ✓ | On-Hold |
| Lyre-Hoko | 19 | ✓ | ✓ | Past Due | | |
| Sol Duc-Hoh | 20 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Lower/Upper Chehalis | 22/23 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Grays-Elochoman/Cowlitz | 25/26 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Lewis/Salmon-Washougal | 27/28 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Wind | 29a | ✓ | ✓ | ✓ | ✓ | On-Hold |
| White Salmon | 29b | ✓ | On-Hold | | | |
| Klickitat | 30 | ✓ | ✓ | ✓ | ✓ | ✓ |

¹ WRIA means Water Resource Inventory Area. A WRIA is a legally recognized, distinct hydrological basin within the State of Washington. See Washington Administrative Code (WAC) 173-500-040 or <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-500-040> For additional information about WRIsAs and their Watershed Plans see: <http://www.ecy.wa.gov/apps/watersheds/wriapages/index.html>

| WRIA Name | WRIA Number | Phase 1: Organization and Formation | Phase 2: Watershed Assessment | Phase 3: Plan Approved by Planning Group | Phase 3: Plan Adopted by County Board(s) | Phase 4: Plan Implementation |
|--|---------------|---|---------------------------------------|--|--|------------------------------------|
| Rock-Glade | 31 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Walla Walla | 32 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Palouse | 34 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Middle Snake | 35 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Lower Yakima/Naches/Upper Yakima ² | 37/38/39 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Stemilt-Squilchuck | 40a | ✓ | ✓ | ✓ | ✓ | ✓ |
| Upper Crab- Wilson | 43 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Moses Coulee/Foster Ck | 44/50 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Wenatchee | 45 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Entiat | 46 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Chelan | 47 | ✓ | ✓ | On Schedule | | |
| Methow | 48 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Okanogan | 49 | ✓ | ✓ | ✓ | Past Due | |
| Lower Lake Roosevelt | 53 | ✓ | ✓ | On Schedule | | |
| Lower Spokane | 54 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Little Spokane/Middle Spokane | 55/57 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Hangman | 56 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Colville | 59 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Kettle | 60 | ✓ | Planning stopped at end of Phase 2 | n/a | n/a | n/a |
| Pend Oreille | 62 | ✓ | ✓ | ✓ | ✓ | ✓ |
| | Totals | 38 | 38 | 30 | 29 | 27³ |

The remainder of the state's 62 WRIA names and numbers not on this list have not participated in the Watershed Planning Act for reasons such as having the capacity to plan for and implement water resources needs at the local level, the overlay of water allocation projects administered by the Bureau of Reclamation (East-Central WA), lack of development pressure or non-existence of local water supply/demand issues.

² One lead agency facilitated watershed planning outcomes for WRIsAs 37, 38 and 39. The local planning group approved the plan that included the Upper Yakima basin. (WRIA 39) in Kittitas and Yakima Counties. The Kittitas County Board of Commissioners decided to opt out of the process and did not adopt the WRIA 39 portion of the plan for that county. The portion of WRIA 39 within Yakima County has an adopted plan which is administered by the Yakima Basin Water Resources Agency in Yakima, WA.

³ There are 27 watershed planning units (covering 34 WRIsAs) that have successfully seen their plans adopted by county government **AND** who are officially in Phase 4: Implementation. The Elwha-Dungeness (WRIA 18) watershed plan was adopted by the Clallam County Board of Commissioners, but due to lack of current funding, they have not officially entered Phase 4 by being awarded and receiving a grant for plan implementation. The Wind River (WRIA 29a) plan was also adopted but lack of funding and the need to finish some instream flow data collection and assessment is keeping this group from officially entering Phase 4.

2009 Report to the Legislature

Watershed Plan Implementation Statutory Changes, Progress Report on Setting Instream Flows, and Reclaimed Water in Adopted Plans

Legislative Requirements

RCW 90.82.043 (5) (a), 90.82.040 (5) (b) and 90.82.080 (6) require the Department of Ecology (Ecology) to provide the Legislature with an annual report related to the Watershed Planning Act (Chapter 90.82 RCW). This report fulfills these requirements.

Report to Legislature

RCW 90.82.043(5) (a) and (5) (b): Implementation plan — Report to the Legislature

(5) (a): By December 1, 2003, and by December 1st of each subsequent year, the director of the department shall report to the appropriate legislative standing committees regarding statutory changes necessary to enable state agency approval or permit decision making needed to implement a plan approved under this chapter.

- ◆ To fulfill this requirement, Ecology reports there are no statutory changes needed to address agency approval or permitting to implement watershed plans.
- ◆ Section 1 of this report discusses other potential statutory changes, as well as rule changes not related to agency approval or permit decision making are discussed in.

Reclaimed Water Strategies

(5) (b): Beginning with the December 1, 2007, report, and then every two years thereafter, the director shall include in each report:

- The extent to which reclaimed water has been identified in the watershed plans as potential sources or strategies to meet future water needs, and
 - Provisions in any watershed implementation plans that discuss barriers to implementation of the water reuse elements of those plans.
 - The department's report shall include an estimate of the potential cost of reclaimed water facilities and identification of potential sources of funding for them.
- ◆ Section 3 of this report contains a detailed response to the requirements of RCW 90.82.043 (5) (b).

Instream Flow

RCW 90.82.080 (6): Instream flow component — Rules — Report.

(6): The department shall report annually to the appropriate legislative standing committees on the progress of instream flows being set under this chapter, as well as progress toward setting instream flows in those watersheds not being planned under this chapter. The report shall be made by December 1, 2003, and by December 1st of each subsequent year.

Section 2 discusses instream flow setting in detail. Highlights:

- ◆ Ecology adopted one instream flow rule in 2009, for the Quilcene-Snow watershed.
- ◆ Watershed planning activities have resulted in five instream flow rule adoptions, including the Quilcene-Snow, Entiat, Lewis, Salmon-Washougal, Walla Walla, and Wenatchee watersheds.
- ◆ Ecology is presently developing three rules, for the Elwha-Dungeness, Grays-Elochoman, and Cowlitz watersheds. Ecology expects to adopt these three rules during 2010 and 2011.
- ◆ Ecology has completed or started rule making in three watersheds that are not working under the Watershed Planning Act:
 - Stillaguamish (WRIA 5) — Adopted a new rule in August 2005
 - Lower Skagit-Samish and Upper Skagit (WRIAs 3 and 4) — Adopted an amendment to the existing rule in May 2006
 - Lower Skagit-Samish (WRIA 3) — Started rule making in 2005. The rule adoption process is on hold pending legal action on the Skagit instream flow rules.

Section 1: Statutory Change or Rule Revision Recommendations

Ecology's Statutory Change Recommendations

Change the Chapter 90.82 RCW Annual Reporting Requirements: The Watershed Planning Act directs Ecology to identify any recommended changes to the statute as part of our reporting to the Legislature. We recommend one efficiency-related change: *Shift all reporting to the Legislature to a biennial basis.*

Biennial reporting (beginning December 2007) is currently required on planning and implementing reclaimed water facilities [RCW 90.82.040 (5) (b)]. Annual reporting is required related to watershed planning and instream flow setting activities. Most watershed plans are now in their implementation phase. Instream flow setting is a multi-year effort. We suggest that the pace of work under this Act is suitable to biennial reporting. This would also achieve efficiencies in preparation of reports, and review by senior management and OFM.

Shifting to biennial reporting coordinated with the requirement of RCW 90.82.040 (5) (b) would result in a report by December 1 of every odd numbered calendar year (e.g. 2009, 2011, 2013, etc.).

Planning Unit Issues and Recommendations

1. The WRIA 20 Sol Duc-Hoh planning unit is concerned that converting forested lands to other land uses may reduce the level of regulatory protection for fish habitat and water quality. They recommend:
 - ◆ Local, state, and federal governments should develop or increase incentives for maintaining forested lands within the watershed. This would include conservation or other easements that compensate landowners for maintaining forested land such as carbon credits, habitat credits, and sustainability certification credits.
2. Both the WRIA 35 Middle Snake and WRIA 34 Palouse watershed planning units noted their concerns about riparian stock watering rights and conditions. They recommended actions to address:
 - ◆ The fact that an adjudication or claim/certificate does not expressly delineate landowner riparian stock water rights.
 - ◆ The potential loss of landowner riparian stock water rights or priority dates when riparian areas are fenced off to livestock or alternative sources (surface diversion or shallow ground water wells) are used to provide the stock water.
 - ◆ The legal ambiguity related to water right relinquishment for riparian stock water rights.

Other watershed planning units, especially the WRIA 59 Colville and WRIA 62 Pend Oreille units, also note that water rights concerns related to stock watering are limiting landowners from implementing better agricultural practices to reach adopted water quality goals.

3. The WRIA 34 Palouse planning unit included an action item in their watershed plan to develop legislative recommendations on water conservation incentives and water banking.
4. The WRIA 35 Middle Snake Plan identifies an action item for the planning unit to develop legislative recommendations for water rights relinquishment in Chapter 90.14 RCW ('Water rights – registration - waiver and relinquishment, etc.').

Ecology's Comments on Statutory Changes Recommended by Planning Units

- ◆ **Recommendation #1 (from the WRIA 20 Sol-Duc Hoh planning unit):** The discussion on preservation versus conversion of forestland continues in earnest at both state and local levels. The Governor's policy on the impacts of forestland conversions is reflected in:

- The Governor's 'Working Lands' initiative, introduced in April 2007.
- The Governor's Executive Order 09-05 "Washington's Leadership on Climate Change" directs Ecology to work with the Department of Natural Resources and other stakeholders on carbon-related financial incentives for forestry and forest products.

Consistent with executive level policy and direction, Ecology will continue to work on this topic with other state agencies, boards, and workgroups dealing with forestland practices and climate change issues.

- ◆ **Recommendation #2:** Ecology watershed planning staff has coordinated with Ecology's Water Resources Program (water rights) staff on stock watering rights. Through a budget proviso, the Legislature directed Ecology to form a stakeholder committee to continue discussion about legal ambiguities related to relinquishment of stock water rights.
- ◆ **Recommendations #3 and #4:** Ecology staff will continue to provide professional and technical support to the watershed planning units as they develop their legislative recommendations on water conservation, water banking, and water right relinquishment.

Planning Unit Rule Revision Recommendations

1. The WRIA 35 Middle Snake Plan identifies an action item for the planning unit to develop rule revision recommendations that would prevent water transfers to outside the basin.
2. The Klickitat County Board approved the WRIA 30 Klickitat Watershed Management Plan in December 2006. The Klickitat Planning Unit has requested that Ecology routinely publish the plan's recommended rule revision in this annual report. They recommended Ecology amend WAC 173-563-020(4) (from "Instream Resources Protection Program for the Main Stem Columbia River"), which reads:

"Any water right application considered for approval or denial after that date will be evaluated for possible impacts on fish and existing water rights. The department will consult with appropriate local, state, and federal agencies and Indian tribes in making this evaluation."

Currently, there is no time limit to complete the required consultation. The planning unit recommends that Ecology amend this rule to limit the time allowed for consultation, to ensure timely processing of water rights.

3. The WRIA 30 Klickitat plan recommended that Ecology adopt its stock-watering policy (*POL-1025: "Policy for Conveying Stock Water Away From Stream to Protect Water Quality," 1994*) into administrative rule. This policy currently allows and encourages the conveyance of stock water from a watercourse to an off-stream storage system to protect the riparian zone. The policy also says the amount of water consumed cannot increase, and overflow water must return to the watercourse near the point of diversion.

Ecology's Comments on Rule Changes Recommended by Planning Units

- ◆ **Recommendation #1:** Developing rule revision recommendations are the responsibility of the planning unit to pursue. However, out-of-basin water transfers have become an important topic in the Columbia River Basin Water Management Program. If we receive recommendations, Ecology will review them and decide on the best course of action.
- ◆ **Recommendations #2 and #3:** Ecology is considering the revision to the Columbia River rule and adoption of our stock water policy, but has no immediate plans for rule making.

Section 2: Instream Flow Progress

The Watershed Planning Act (WPA) gave local planning units the option of addressing instream flows⁴ as part of their watershed management plans. If planning units recommend flow numbers and other water management schemes, when the local jurisdictions adopt the plan, state law directs Ecology to adopt the instream flows in rule.

Of the 34 watershed planning units working under the WPA, 27 planning units chose to examine instream flows as part of their plan development. There is a broad range of progress within these watersheds, varying from preliminary scientific studies to rule adoption and implementation.

The WPA also reaffirmed Ecology's authority to adopt instream flows by rule in basins where watershed planning units could not reach consensus on flow recommendations or where there was no formal watershed planning. Ecology has adopted two water management/instream flow rules in basins not planning under the WPA:

- ◆ Chapter 173-505 WAC for WRIA 5, Stillaguamish (August 2005).
- ◆ Chapter 173-503 for WRIA 3, Lower Skagit-Samish (Amendment May 2006).

Overall Progress on Rule making

Although often referred to as 'instream flow rules', it is more accurate to call them 'water management rules.' In addition to creating stream management control points (physical points along a watercourse) and setting instream flow levels, today's rules often include:

- ◆ Management of groundwater withdrawals from permit-exempt wells
- ◆ Water reservations⁵ for future consumptive use
- ◆ Determinations of seasonal and year-round closures⁶
- ◆ Other innovative and complex water management tools

The unique characteristics of each watershed and the responsiveness of local communities usually determine the time it takes to adopt these rules. Adopting new rules during the last four years has been much slower than anticipated. Developing most flow recommendations has occurred with minimal controversy. Yet, including local groundwater resources in rule adoptions—given their importance on sustaining late summer flows—has been very challenging. The inclusion of groundwater resource management in instream flow rule

⁴ Instream flows are water rights that protect and preserve instream resources such as wildlife, fish, recreation, navigation, aesthetics, water quality and livestock watering.

⁵ A reservation, or reserve, of water is a one-time, finite amount of water set aside for specific future uses.

⁶ During seasons and in locations where water is not reliably available above the target instream flows, streams and aquifers are closed to new appropriations and future uses. The purpose of a closure is to avoid impairment to existing water rights, including any instream flows already set or to be set in rules.

making requires additional regulatory controls, especially due to the need to manage permit-exempt well withdrawal quantities.

Legal questions about the extent of permit-exempt well water rights have taken additional time to evaluate. It also appears that recent legal interpretations limit the use of more flexible water management strategies in these rules. These legal considerations contribute to a slower pace of rule making.

Budget cuts at local governments and Ecology also hamper our progress on instream flow rule making. Ecology is working to manage available resources and to come up with more efficient ways of tackling staff management and resource issues to expedite rule making.

Developing water management rules has become more complex as we understand more about our changing physical and social environment. Shrinking snow packs, increased frequency of drought years, continued population growth, and ongoing land use development combine to increase demand and reduce water availability. At the same time, water levels and flows for needs such as fish habitat, recreation, and Endangered Species Act (ESA) listed fish must also be maintained or improved.

Since most of the state's water management rules were adopted, scientific studies have increased our understanding of the physical connection between ground and surface waters. Water resource professionals refer to this physical connection as 'hydraulic continuity.' With this knowledge and from court decisions recognizing hydraulic continuity, watershed planning units can now address water supply and demand needs from more comprehensive and holistic management perspective than in the past.

Comprehensive water management plans offer the best approach to achieve sustainable long-term planning goals and objectives. Examples of strategies include guidelines for evaluating mitigation of new groundwater uses, processing water rights in open water markets, or assessing innovative groundwater storage projects. Experience has shown these post-rule adoption activities are often as complex as the rules themselves. However, we cannot ignore these management strategies, as they are the cornerstone of rule implementation.

The water management rules being developed today focus on protection of existing water rights and instream resources, while providing water for future urban and rural needs. The complexity and number of factors involved slow the rule development processes. However, the result will provide Washington citizens with more comprehensive rules that effectively manage water into the future.

During 2009, Ecology made significant statewide progress on instream flow rule making. Ecology successfully adopted a rule for the WRIA 17 Quilcene-Snow watershed. This has been a contentious activity since the rule adoption process started in 2005. Significant progress was also made on a water management rule and water bank for the WRIA 18 Dungeness watershed.

Ecology, WDFW, and contractors hired by watershed planning units continued to collect field data and conduct instream flow studies in many statewide watersheds. Several planning units continue to work with Ecology on setting and approving or adopting instream flows.

2009 Rule Adoption

Ecology adopted a new rule for the WRIA 17 Quilcene-Snow watershed in 2009. This watershed includes ESA listings for fish. The WRIA 17 planning unit was involved in the early years of rule development and specifically arrived at instream flow values. However, in response to local opposition to an early draft rule, the planning unit decided not to take part directly in rule development. Ecology assumed responsibility for adopting instream flows and creating a water management framework for WRIA 17.

This rule sets instream flows, closures and establishes small reserves of water to meet future demand. The Quilcene-Snow rule establishes water reserves for specific uses to maximize the net benefit of making this water available for out-of-stream use.

Water is very limited in the Chimacum sub-basin of the Quilcene-Snow watershed because of the:

- ◆ Occurrence of very low summer stream flows.
- ◆ Presence of ESA listings.
- ◆ Community's interest in restoring and preserving fish habitat.
- ◆ Existence of a large unused water right.

In the Chimacum sub-basin, only a very small reserve of water was set aside just for new domestic use. This small reserve will serve as a stopgap measure until another water supply strategy is developed. The WRIA 17 planning unit and local elected officials are actively seeking new water supply solutions for the Chimacum sub-basin.

2009 Rule making Progress

In 2009, to ensure regular public involvement in rule making, Ecology held monthly meetings for the Dungeness River rule with government and stakeholder groups and the public. In February, public workshops took place to introduce water issues in the basin and explore rule the concepts of rule development.

The meetings and workshops were well attended and the rule concepts were generally acceptable. After additional consultation with local and state government agencies, stakeholders and the public we expect to file the Dungeness River rule early in 2010.

A water bank is being developed along with this rule. It is intended to provide sustainability to the rule and support other water management concepts. Ecology contracted with Washington Water Trust to determine water bank feasibility and predevelopment. An Ecology grant will allow Clallam County to continue to develop and seed the water bank with water. A portion of the grant will allow Ecology and Clallam County to develop a Memorandum of Agreement related to implementing the instream flow rule and water bank.

Rule making has also advanced in the southwest corner of the state. Ecology adopted two rules in 2008 for the Salmon-Washougal River watershed (WAC 173-528) and the Lewis River watershed (WAC 173-527). Ecology has also continued rule making for other major tributaries to the Lower Columbia River (below Bonneville Dam). During 2009, Ecology's

work focused on the WRIA 25 Grays-Elochoman basin and the WRIA 26 Cowlitz basin. Both of these watersheds are important fish habitat areas that contribute to the health of the Columbia River estuary.

Ecology and the planning unit for WRIAs 25/26 Grays-Elochoman/Cowlitz are meeting monthly to develop draft rules. The rules for these watersheds will be based on recommendations made in the watershed plan that was adopted in 2006. We expect the WRIA 25 and 26 rules will be very similar to the WRIA 27 and 28 rules, since they include instream flow management points, closures, reservations, and specific conditions to access the reservations. We expect to file the WRIA 25 and 26 rules by the second quarter of 2010 and to adopt the final rules in the third quarter of 2010.

Table 2 summarizes projected rule making progress through 2011.

Table 2. Rule Development Progress under the Watershed Planning Act

| WRIA Name/Number | Start Rule Development (File CR-101) | Target Date for Rule Proposal (File CR-102) | Target Date for Rule Adoption (File CR-103) |
|-------------------------|---|--|--|
| 1- Entiat/46 | Started 2004 | <i>Filed</i> March 2005 | <i>Adopted</i> August 2005 |
| 2- Walla Walla/32 | Started 2004 | <i>Filed</i> February 2007 | <i>Adopted</i> August 2007 |
| 3- Wenatchee/45 | Started March 2007 | <i>Filed</i> July 2007 | <i>Adopted</i> December 2007 |
| 4- Lewis/27 | Started 2005 | <i>Filed</i> July 2008 | <i>Adopted</i> December 2008 |
| 5- Salmon-Washougal/28 | Started 2005 | <i>Filed</i> July 2008 | <i>Adopted</i> December 2008 |
| 6- Quilcene-Snow/17 | Started 2004 | May 2009 | <i>Adopted</i> November 2009 |
| 7- Elwha-Dungeness/18 | Started 2004 | Winter/Spring 2010 (Dungeness only) | Summer 2010 |
| 8- Grays-Elochoman/25 | Started 2005 | 2010 | 2010 |
| 9- Cowlitz/26 | Started 2005 | 2010 | 2010 |
| 10- Sequim Bay/in 17 | Start 2010 | 2010 | 2011 |

In addition to instream flow rule making under the WPA, Ecology has completed or started rule making in three basins that are not planning under the Act.

- ◆ Stillaguamish (WRIA 5) — New rule adopted August 2005.
- ◆ Upper and Lower Skagit (WRIAs 3 & 4) — Rule amendment adopted May 2006.
- ◆ Lower Skagit-Samish (WRIA 3) — Rule making started 2005. The rule adoption process is on hold pending legal action on the Skagit sub-basin instream flow rules.
- ◆ Carbon River (in WRIA 10) – Rule making to start in 2010; target completion by 2011.

Appendix A has a map showing the statewide status of instream flow rule making activities.

The following six watershed planning units have expressed interest in moving forward on new or amended rule making in the next several years. Target rule development start and adoption dates cannot be shown due to the present uncertainty in future Water Resources Program staff funding. Several of these watersheds' planning units are working on preliminary aspects of new

or amended rules such as stream flow data collection and analyses of reserved water and growth trends.

- ◆ Nooksack (WRIA 1, amendment)
- ◆ Skokomish-Dosewallips (WRIA 16, new)
- ◆ Middle Snake (WRIA 35, new)
- ◆ Wenatchee (WRIA 45, amendment)
- ◆ Methow (WRIA 48, amendment)
- ◆ Moses Coulee/Foster (WRIAs 44 and 50, new)

Public Outreach and Involvement

Outreach and communication are integral to developing and implementing instream flow rules. Communicating rule concepts and issues to the public is essential to maintaining steady progress. This kind of work is time consuming and slow, but is necessary to building local awareness, acceptance, and to foster future governance.

Strong communication and coordination with local county and city governments are also essential. Rule implementation depends upon effective shared governance, and requires close coordination between Ecology and the local entities that are responsible for managing growth and water demand.

Ecology's outreach approach is to establish early, open, and ongoing communication with watershed planning units and interested stakeholders in each watershed involved in rule making. Ecology staff works with key decision makers in each WRIA, including elected officials, tribal representatives, realtors, farmers, environmental organizations, business communities, and other interested parties.

Open houses and other public meetings create opportunities for the public to learn about local water issues, voice their concerns, and take part in water management decisions. Ecology has developed question and answer documents, rule overviews, videos, and posters, which we can re-use or tailor to future rule making.

Ecology is increasing its reliance on electronic media communication to disseminate information and to interact directly with community members. E-mail communication is popular with the public and local government representatives. Regular updates to rule-specific Web pages provide technical and procedural information on water management. Ecology's goal is to improve the public's overall understanding of complex water resource issues and to include the public in the rule making process. This approach helps gain local ownership and buy-in when instream flows are set in rule.

Section 3: Reclaimed Water

Ecology's Water Quality Program has prepared a full report on reclaimed water and water reuse. The report, *Implementation of Reclaimed Water Use: 2007 Report to the Governor and State Legislature* is at <http://www.ecy.wa.gov/biblio/0710098.html>.

A second report prepared by Ecology's Water Quality Program, *Implementation of Reclaimed Water Use: 2007 Report to the Governor and State Legislature* is at <http://www.ecy.wa.gov/biblio/0810098.html>.

SSB 5504, enacted in May 2009, requires a third report related to reclaimed water permitting. The following language was added to 90.46.120 RCW:

“By November 30, 2009, the department of ecology shall review comments from the reclaimed water advisory committee under RCW 90.46.050 and the reclaimed water and water rights advisory committee under the direction of the department of ecology and submit a recommendation to the legislature on the impairment requirements and standards for reclaimed water. The department of ecology shall also provide a report to the legislature that describes the opinions of the stakeholders on the impairment requirements and standards for reclaimed water.”

The third report, dealing specifically with impairment of water rights, has been drafted by Ecology's Water Resources Program, and is currently under review.

Identification of Reclaimed Water Strategies in Watershed Plans

Reclaimed water or water reuse was mentioned as potential strategies to meet future water supply needs in 22 of 29 watershed plans, or 76 percent of all adopted plans. Planning units with adopted plans must also prepare a Detailed Implementation Plan (DIP). Reclaimed water strategies were included in six of these DIPs and will be part of plan implementation actions.

Table 2 (at the end of this section) shows the plans that referenced reclaimed water and water reuse as potential strategies for future supply, and specifies which plans included this topic in their DIPs. Table 3 (at the end of this section) shows specific reclaimed water facility projects in WRIs with watershed planning and their design capacity.

It is important to note that watershed plans that identify reclaimed or reuse water management strategies may not be the sole driver for construction of a reclaimed water facility in these watersheds. In several cases, these reclaimed water facilities had been conceived in advance of or during the watershed planning process but from different initiatives or activities.

Plan Provisions that Discuss Barriers to Implementing Water Reuse

When reclaimed water or water reuse is listed as a potential strategy to meet future needs in adopted watershed plans, there generally was no detailed discussion about implementation barriers. Some specific examples when barriers were discussed are in the plans for:

- ◆ WRIA 37/38: The Lower Yakima/Naches plan mentioned the cost of facilities is one barrier, and that the Department of Health, in working with basin water purveyors, needs to look for and create opportunities for water reuse.
- ◆ WRIA 27/28: The Lewis/Salmon-Washougal plan says, *“Water reuse and recycling in the industrial sector is currently much more feasible than in the municipal sector for WRIs 27 and 28, due to lower costs compared with municipal projects, fewer public concerns, and the need to manage wastewater discharges while complying with discharge permit limitations. Many water-intensive industries in the basin have already implemented water recycling processes.”*

A subgroup of Ecology’s Water Quality Program Reclaimed Water Rule Advisory Committee identified the following four broad areas of barriers to implementing reclaimed water project.

- ◆ Economics and markets
- ◆ Ensuring safe (health) sources of water for reclamation and reuse
- ◆ Dealing with ‘One size fits all’ regulations (to scale different sized plants)
- ◆ Technical challenges

Estimated Costs of Reclaimed Water Facilities

Ecology staff reviewed 13 projects that are under construction or in final design phases. These projects have the best current cost data to use for making reliable cost estimates. Based on maximum design capacities of these projects, a facility’s daily capacity costs \$3.36/gallon. However, cost effective reclaimed water facilities are typically designed to process thousands or millions of gallons of water per day. A more realistic cost estimate is to multiply the per gallon cost by one million gallons to arrive at an estimated cost of \$3.36 million dollars for a facility with a million gallon of reclaimed water capacity. This estimate is based on large and small projects ranging from the reclaimed water component of Brightwater in King County to a project to irrigate a Tukwila golf course with a simple ‘purple pipeline’ connection.

Two difficult issues in estimating project costs are:

- ◆ Getting legitimate values - Estimated costs vary greatly from real construction costs.
- ◆ Separating costs - Reclaimed water costs are often included with, and therefore hidden in, overall wastewater treatment plant construction and operation and maintenance costs.

Utilities often build new or expanded wastewater treatment plants with the technology in place to meet reclaimed water standards. However, they often do not invest in the transmission side of distributing the reclaimed water nor do they have present or future, private or public reclaimed water users identified. This leaves water utilities to deal with the

future costs of transmission and total project costs are based on today's current wastewater treatment capacities.

If a utility later decides to change their operating permit to include reclaimed water production, it may only need to build a new pump station and install pipes between the treatment plant and the reclaimed water user or site. Under this scenario, the pre-existing infrastructure costs of the wastewater treatment system may not be well separated from the costs of the reclaimed water system. Only the new distribution costs are accounted for in the total cost of reclaimed water capacity.

At the other extreme, utilities that decide upfront to build a reclaimed water plant as part of their wastewater treatment plant lump treatment and distribution costs together and the resultant apparent cost/gallon is much higher. The Lacey-Olympia-Tumwater-Thurston County plant at Hawks Prairie is an example of this kind of cost accounting.

Identification of Potential Sources of Funding Reclaimed Water Facilities

There are a several potential funding sources but reclaimed water projects might not be as competitive in some cases as other water quality projects. In the 2007-09 biennia a \$5.0 million grants program for Puget Sound was dedicated strictly to reclaimed water. Other potential fund sources are Ecology's Centennial Clean Water Fund; and the State Revolving Fund, the Public Works Trust Fund, and Community Development Block Grants managed by the Department of Commerce, the United States Department of Agriculture, and local bonding programs.

Ecology's 2007 report to the Legislature on reclaimed water recommends an appropriation of \$50 to \$100 million for long-term funding needs. This estimate has not changed substantially since the 2007 report's publication.

Tables 3 and 4 (referenced on page 16) are on the next two pages.

Table 3. Reclaimed Water or Water Reuse in Adopted Watershed Plans

| WRIA Planning Unit | Plan Status | Plan References Reclaimed or Reused Water? | Reclaimed or Reused Water Part of DIP? | Year Plan Adopted |
|------------------------------------|--------------------|---|---|--------------------------|
| WRIA 1 | Final | Yes | No | 2005 |
| WRIA 2 | Final | Yes | No | 2004 |
| WRIA 6 | Final | Yes | No | 2005 |
| WRIA 11 | Final | Yes | No | 2003 |
| WRIA 12 (stopped) | Draft | Yes | N/A | N/A |
| WRIA 13 (stopped) | Draft | Yes | N/A | N/A |
| WRIA 14 (stopped) | Draft | Yes | N/A | N/A |
| WRIA 15 (stopped) | Draft | Yes | N/A | N/A |
| WRIA 16 | Final | Yes | No | 2006 |
| WRIA 17 | Final | Yes | No | 2003 |
| WRIA 18 | Final | Yes | No | 2005 |
| WRIA 19 | Phase 3 | TBD | TBD | TBD |
| WRIA 20 | Final | No | TBD | 2008 |
| WRIA 22/23 | Final | Yes | No | 2004 |
| WRIA 25/26 | Final | Yes | No | 2006 |
| WRIA 27/28 | Final | Yes | No | 2006 |
| WRIA 29a | Final | No | N/A | 2006 |
| WRIA 29b | Phase 1 | TBD | TBD | TBD |
| WRIA 30 | Final | No | N/A | 2006 |
| WRIA 31 | Final | No | N/A | 2007 |
| WRIA 32 | Final | Yes | Yes | 2005 |
| WRIA 34 | Final | Yes | No | 2007 |
| WRIA 35 | Final | Yes | No | 2007 |
| WRIA 37/38/39 (in Yakima Co. only) | Final | Yes | Yes | 2002 |
| WRIA 40a | Final | No | N/A | 2007 |
| WRIA 43 | Final | Yes | Yes | 2006 |
| WRIA 44/50 | Final | Yes | No | 2004 |
| WRIA 45 | Final | Yes | No | 2006 |
| WRIA 46 | Final | Yes | No | 2004 |
| WRIA 47 | Phase 2 | TBD | TBD | TBD |
| WRIA 48 | Final | No | N/A | 2005 |
| WRIA 49 | Phase 3 | TBD | TBD | TBD |
| WRIA 53 | Phase 2 | TBD | TBD | TBD |
| WRIA 54 | Final | Yes | TBD | 2009 |
| WRIA 55/57 | Final | Yes | Yes | 2006 |
| WRIA 56 | Final | Yes | Yes | 2005 |
| WRIA 59 | Final | No | N/A | 2004 |
| WRIA 62 | Final | Yes | Yes | 2005 |

Table 4. Reclaimed Water Design Capacity in Watershed Planning Areas – November 2009

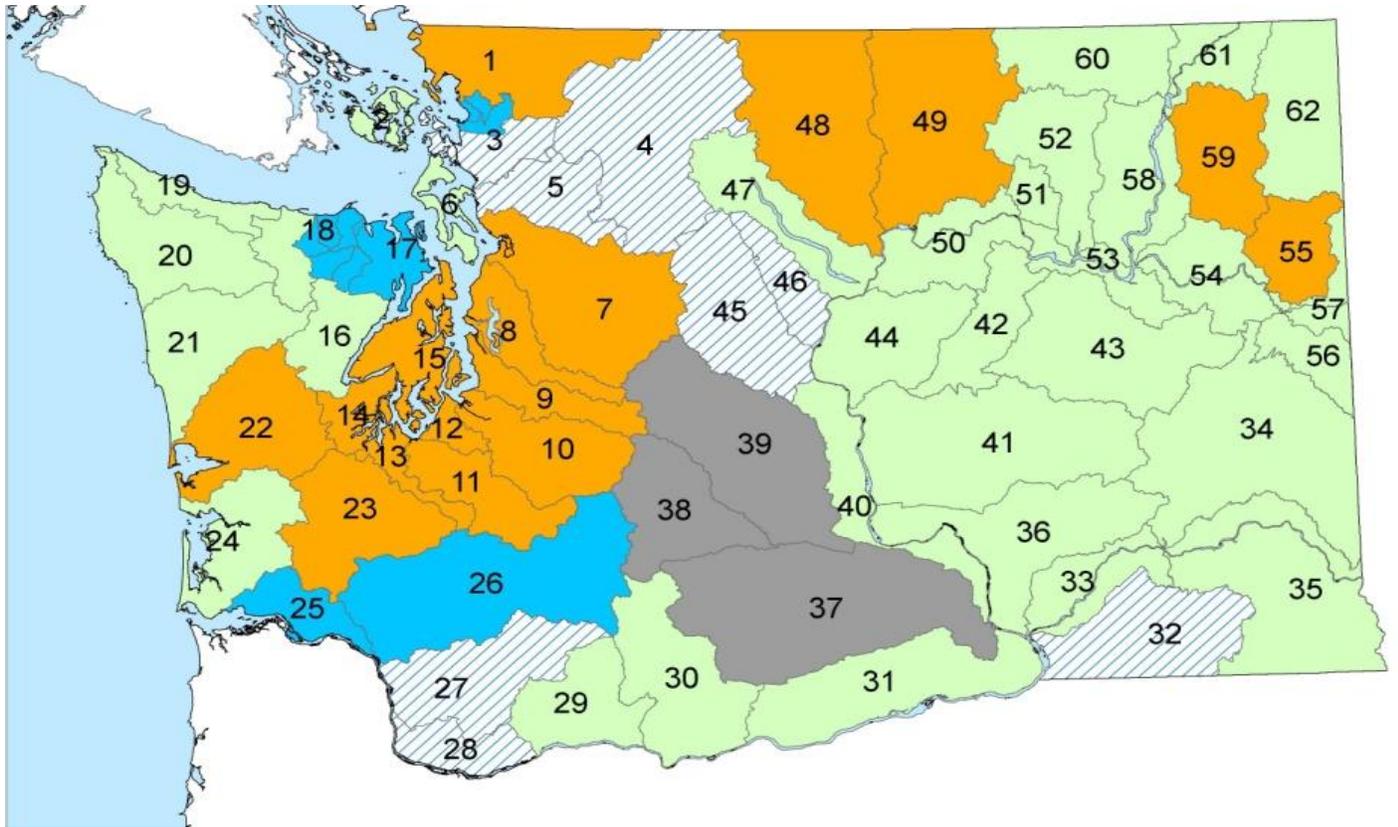
| | Site | Permit Number | Class of Water | Existing Design Capacity (MGD) | WRIA - Name | Chapter 90.82 RCW Watershed Plan? | Detailed 90.82 Implementation Plan? |
|----|--|---------------|----------------|--------------------------------|---|-----------------------------------|-------------------------------------|
| 1 | Holmes Harbor | ST 3737D | A | 0.10 | 6 - Island | Yes | Yes |
| 2 | City of Yelm | WA0040762C | A | 1.00 | 11 - Nisqually | Yes | Yes |
| 3 | LOTT - Martin Way | ST 6206A | A | 2.00 | 13 - Deschutes | No ¹ | No |
| 4 | LOTT - Budd Inlet | WA0037061C | A | 1.50 | 13 - Deschutes | No ¹ | No |
| 5 | North Bay/Case Inlet | ST 6039C | A | 0.37 | 14 - Kennedy-Goldsborough | No ¹ | No |
| 6 | City of Tenino | ST6221 | A & C | 0.228 | 13 - Deschutes | No ¹ | No |
| 7 | City of Shelton | ST6216 | A | 0.4 | 14 - Kennedy-Goldsborough | No ¹ | No |
| 8 | Sequim | WA0022349C | A | 0.80 | 17 - Quilcene-Snow | Yes | Yes |
| 9 | Sunland Sewer District | ST 6003B | D | 0.16 | 17 - Quilcene-Snow | Yes | Yes |
| 10 | City of Chehalis | WA0021105 | A & C | 3.50 | 23 - Upper Chehalis | Yes | Yes |
| 11 | Cardinal Glass | ST 6210 | A | 0.01 | 26 - Cowlitz | Yes | Yes |
| 12 | City of College Place | WA-002065-6 | C | 1.65 | 32 - Walla Walla | Yes | Yes |
| 13 | City of Walla Walla | WA-002462-7 | A | 9.60 | 32 - Walla Walla | Yes | Yes |
| 14 | City of Medical Lake | WA-0021148 | A | 1.85 | 54 - Lower Spokane | Yes | In Draft |
| 15 | City of Cheney | WA-0020842 | D | 2.70 | 56 - Hangman | Yes | Yes |
| | Total | | | 25.868 | Millions of Gallons per Day of Reclaimed Water | | |
| | 1. These basins' plans only exist as final drafts, as they were not adopted locally. | | | | | | |

Appendix

Appendix A: Instream Flow Rule making Activities by WRIA

Appendix A: Instream Flow Rule making Activities by WRIA

November 2009



Instream Flow Rules Set

- Established before 2005 (Pre RCW 90.82)
- Rules Adopted 2005 - 2009

Scheduled Instream Flow Rules

- Current Rulemaking
- Future Rulemaking

Yakima Adjudication

- De facto Federal Flow