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Water Rights Impairment Standards for Reclaimed Water:

Stakeholder Views and Ecology Recommendations

2009 Report to the Legislature

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For more information contact:

Email: WRPublications@ecy.wa.gov

Water Resources Program
P.O. Box 47600
Olympia, WA 98504-7600

Phone: 360-407-6872

Washington State Department of Ecology - www.ecy.wa.gov

o Headquarters, Olympia	360-407-6000
o Northwest Regional Office, Bellevue	425-649-7000
o Southwest Regional Office, Olympia	360-407-6300
o Central Regional Office, Yakima	509-575-2490
o Eastern Regional Office, Spokane	509-329-3400

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Washington State Department of Ecology
Olympia, Washington

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The complete lists of committee members and participants are in Appendix A. Ecology thanks all participants and appreciates the time and efforts contributed by each one.

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Executive Summary

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.

From Section 5 of Substitute Senate Bill 5504 (agency request legislation regarding the state's reclaimed water program), 2009 Legislative session.

The Department of Ecology (Ecology) presents this report on reclaimed water, water rights, and impairment issues to the Legislature, in response to the 2009 directive above. In 2006, the Legislature directed Ecology to work with the Department of Health to adopt a rule addressing all aspects of reclaimed water (*see* Engrossed Substitute House Bill 2884). This report is part of that effort. Ecology is on track for both finalizing the rule and updating existing guidance in 2010.

The overall goal is to develop, through rule, guidance, and statute, a Reclaimed Water Program that runs smoothly and consistently. Ecology's Water Quality Program is addressing the many concerns and procedural questions related to water quality. This report, from Ecology's Water Resources Program, focuses on the water resources (quantity) aspects of the reclaimed water permitting process being developed.

"Impairment" is a key concept in Washington water law, an aspect of the prior appropriation doctrine that protects existing water rights. As part of the "4-part test" in evaluating water right applications, new water uses and water right transfers cannot negatively impact existing water users. Under state law, although reclaimed water projects are exempt from needing to obtain a water right, they still may not impair existing rights. Full text of the statutory standards is in the text boxes on page vi. Since reclaimed water projects are not managed through the regular water right process, Ecology seeks to clarify what "impairment" means in the context of reclaimed water and to develop an implementation process.

This report describes the work accomplished on the impairment issue, including:

- A process to address potential water rights impairment as part of reclaimed water planning.
- A summary of key aspects of the issue and the various Tribe and stakeholder opinions on those aspects.
- Ecology recommendations to the Legislature on the requirements and standards for water rights impairment and reclaimed water.

Creating a reclaimed water permitting process

When Ecology began working on the impairment process with stakeholders and tribes in August 2007, there was little direction in place to guide the impairment assessment and decision making. Proponents and agency staff handled potential impairment assessments and decisions on a case-by-case basis based only on the statutory language (RCW 90.46) and a 2006 draft Ecology guidance document. Over the past two years, considerable progress has been made.

Ecology has been working closely with the Reclaimed Water and Water Rights Advisory Committee (RW-WRAC), a group of local governments, utilities, and stakeholders (see participant list in Appendix A). Three Tribes were involved in the initial work completed by the RW-WRAC in 2007 and 2008, but have since declined to take part for various reasons. Two tribes had staff workload concerns with attending monthly committee meetings. One tribe declined to participate after Ecology proceeded with and the Governor did not veto 2009 reclaimed water legislation that did not address impairment. None of the Tribes participated in writing this report. Many other committee participants have rotated in or out of committee for extended periods making continuity difficult.

One of Ecology and the RW-WRAC's main accomplishments is the development of a step-by-step process to assess and address potential impairment. Tribal treaty rights, instream flows, and diversionary water rights are all addressed. The flow charts describing the process are in Appendix B.

Part of devising this impairment assessment process was to develop a working definition of "water right impairment" for this context. The proposed definition melds existing water right policy, rule, and case law to define impairment for reclaimed water. (See text box.)

Proposed definition*: Water right impairment* means interruption or interference in the availability of water, or degradation of the quality of the water, caused by reclaiming and reusing water, which would:

1. prevent an existing water right holder from partially or fully beneficially using the water right or
2. require an existing water right holder to make significant modifications in order to beneficially use the water right or
3. for an instream flow right, cause the flow of the stream to fall below the instream flow more frequently or for a longer duration than was previously the case.

Committee members and state agency staff stated a strong preference for putting the process and the definition of impairment in guidance and rule rather than statute. Flexibility remains necessary as the state's process is still in its formative stages and utilities continue to find new uses for reclaimed water. Therefore, any statutory changes should only address those issues where statutory changes are absolutely necessary at this time. We need more time to see how new projects unfold and how to best achieve new uses of reclaimed water and protect existing water rights.

Ecology recommendations to the legislature

In order to implement the processes developed by RW-WRAC and Ecology, Ecology recommends two statutory amendments to the reclaimed water standards. As directed by the Legislature, Ecology is making these recommendations after reviewing comments from the RW-WRAC and the Rule Advisory Committee (RAC). The RAC is responsible for providing advice to the agencies on overall reclaimed water permitting issues. Ecology is interested in working with legislative leadership as they consider these recommendations, and the policy implications for reclaimed water permitting.

There are currently two impairment standards in statute: one for municipal reclaimed water treatment facilities (RCW 90.46.130(1)) and one for food processor and industrial reuse treatment facilities (RCW 90.46.130(2)). See text boxes.

> "Except as provided in subsection (2) of this section, facilities that reclaim water under this chapter shall not impair any existing water right downstream from any freshwater discharge points of such facilities unless compensation or mitigation for such impairment is agreed to by the holder of the affected water right." (RCW 90.46.130(1))

The two issues for potential statutory amendment in both standards are:

- Specifying the point in time for determining "existing" water rights. See the underlined word "existing" in the two standards.
- Considering the potential for impairment of water rights both upstream and downstream of a wastewater discharge point. See underlined word "downstream" in the two standards.

> "Agricultural water use of agricultural industrial process water and use of industrial reuse water under this chapter shall not impair existing water rights within the water source that is the source of supply for the agricultural processing plant or the industrial processing and, if the water source is surface water, the existing water rights are downstream from the agricultural processing plant's discharge points existing on July 22, 2001, or from the industrial processing's discharge points existing on June 13, 2002." (RCW 90.46.130(2))

Specifying a point in time for "existing" water rights

Recommendation:
Ecology recommends a statutory amendment to specify that "existing" water rights are those water rights existing at the time that Ecology completes an impairment review. This would set the time for "existing" water rights during the planning process. This is important for two reasons. It provides as much certainty as possible to a utility considering a reclaimed water project and prior to spending significant funds for construction. It also establishes the "place in line" that a reclaimed water facility holds relative to water right applications and other reclaimed water facilities.

Background:
The current language does not specify the point in time that establishes what "existing" water rights are. The RW-WRAC considered several different options to define "existing." They were:

1) Existing on the date that the lead agency receives complete information for an impairment assessment.
2) Existing at the time of Ecology's review of the potential for impairment.
3) Existing as of the date the reclaimed water permit is issued.
4) Existing at the time the Legislature added the impairment standard to the reclaimed water law; July 27, 1997.

Rationale:
Ecology recommends this change (Option 2) in both RCW 90.46.130(1) (municipal) and (2) (food processing/industrial) to establish clear legislative direction, improve the reclaimed water permitting process, and minimize the possibility for disagreement and litigation.

Other Perspectives:
There is good agreement among stakeholders on the concept of early impairment assessment. Most stakeholders agree on use of the date of Ecology's review as the best balance between reclaimed water use and water rights. Others recommend an earlier or later date, depending on their perspective about including fewer or more water rights in the assessment.

Ecology recommends that agency staff work with legislative staff to draft appropriate statutory language for this change and the change recommended below.

Statute versus administrative approach:
There is disagreement on the best way to specify this date as the decision point and whether statutory change is the appropriate method. One perspective is that a statutory change provides clear direction from the legislature and the most certainty. Another perspective is that it could just as well be addressed administratively and doesn't need statutory change.

Considering impairment of water rights both upstream and downstream from a wastewater discharge

Recommendation:
Ecology recommends a statutory amendment to include upstream water rights as part of the impairment assessment. Many participants, but not all, in the RW-WRAC and the RAC also recommend this change.

Background:
A water right upstream of a discharge point could be impaired in two scenarios:
1. If a diversionary right downstream of the discharge is first affected, in turn impairing a junior water right holder upstream, or
2. If a control point (stream gage) for an instream flow downstream of the discharge point is first affected, in turn impairing an upstream water right.

Hypothetical and specific examples are in Appendix C and D, respectively.

Rationale:
Ecology is recommending this change because it believes this makes the reclaimed water impairment review consistent with the prior appropriation doctrine on this aspect. This may also

lessen future litigation by impaired water right holders over discrepancies between the reclaimed water law and the water code. Impaired water right holders could use legal avenues other than the reclaimed water law to raise grievances.

Implications:
The proposed change will make the impairment assessment more complex in some situations because more water rights would need to be evaluated. In some cases, it may also make permitting of inland reclaimed water facilities more difficult or impossible because more water rights might be impaired.

Not making this change may support additional reclaimed water facilities by minimizing the number of potentially impaired water rights.

Other Perspectives:
Some participants recommend that the law not be categorically amended but rather exceptions be carved out to address certain situations like the Yakima Basin. Staff from the Yakama Nation gave a presentation early in 2008 describing conflict between the reclaimed water law and the water management plan in the Yakima Basin and other basins where the Tribe has an interest. Providing exceptions to the impairment standard would address these situations where a clear problem has been indentified, but not categorically amend the law. Still other parties recommend the statute stay the same. Additional time should be provided to see if this really becomes a problem.

In conclusion
Ecology recommends that two changes be made to the existing impairment standards, and all other requirements for impairment, including a definition of water right impairment, be set in rule and guidance. Additional detail is in the body of this report.

Ecology believes these recommendations provide the best balance between supporting reclaimed water and protecting existing water rights given the statutory direction provided to date by the Legislature.

There is general agreement among participants in the RW-WRAC and WRAC on the concept of recognizing rights existing at the time of an impairment review (during the planning process), but not agreement on how to implement this. There is not agreement on whether or not to amend the statute to address water rights upstream of a reclaimed water facility.

Introduction

Reclaimed water is a valuable tool in wise long-term water management. As increasingly stringent water quality standards require more advanced wastewater treatment and growth stretches existing water supplies, it makes sense to evaluate where and how reclaimed water can improve water quality and provide new water supply.

The state has 21 reclaimed water projects up and running.[1] There are another 20 or so projects in various stages of planning, design, or construction.

Developing a reclaimed water rule: legislative history

The State of Washington has had a reclaimed water program since enactment of the Reclaimed Water Act (RCW 90.46) in 1992. The state regulatory program for reclaimed water currently consists of the Act and several guidance documents developed by the Departments of Health and Ecology.

In 2006, the Legislature directed the Department of Ecology (Ecology) to work with the Department of Health (Health) to adopt rules addressing all aspects of reclaimed water (ESHB 2884). This will greatly aid the reclaimed water program by establishing:

- A clear permitting process.
- Requirements for reclaimed water treatment facilities.
- Roles for Health and Ecology.

As part of developing the rule, the Legislature directed the agencies to convene the Rule Advisory Committee (RAC) to advise the agencies on all aspects of the rule. The RAC began work in the fall of 2006. A list of members of in the RAC is in Appendix A.

In 2007, the Legislature directed the agencies to look at several specific aspects of the reclaimed water program (E2SSB 6117). This included considering a long-term dedicated funding program to construct reclaimed water facilities, and identifying barriers to reclaimed water such as agency staffing levels. As part of that legislation, the Legislature adopted changes to state law on consideration of potential impairment of downstream water rights by reclaimed water facilities. The Governor vetoed that section and directed Ecology to work with legislative leadership to address water rights impairment from water reuse projects.

In August 2007, Ecology convened the Reclaimed Water and Water Rights Advisory Committee (RW-WRAC) specifically to consider water right issues and advise the agency. While not mandated by law; Ecology asked Tribes, state agencies, and various stakeholders to take part and provide input on the water right issues associated with reclaimed water. RW-WRAC has

[1] The 2005 Ecology document, "Case Studies in Reclaimed Water Use" describes most of the existing projects: see Ecology publication #05-10-013; http://www.ecy.wa.gov/biblio/0510013.html

provided valuable insight to Ecology on the variety of opinions and preferred approaches. Composition of the committee has varied over time. (See participant list in Appendix A.)

In 2009, Ecology and Health sponsored legislation to gain explicit state authority on certain aspects of reclaimed water necessary to complete the rule. The Legislature passed an authorizing bill (SSB 5504). That bill also directed Ecology to review comments from the RAC and RW-WRAC and submit a recommendation to the legislature on the impairment requirements and standards by November 30, 2009.

The Yakama Nation requested that the Governor veto the 2009 legislation because the bill did not clarify agency authority and responsibility to protect existing water rights, including instream flows, from impairment. The Governor did not veto the bill, but directed Ecology to develop a proposal for amendments to the impairment standard to ensure the state is protecting its water resources and complying with state agreements.

Appendix E outlines a more detailed history of water right issues related to reclaimed water. Development of the rule continues and is on track for completion by the end of 2010.

Reclaimed water and impairment: the broad context

One of the major issues for the reclaimed water program and new rule is addressing the potential impairment of existing water rights by reclaimed water facilities that modify or eliminate freshwater wastewater discharges. For example, uses of reclaimed water (e.g. irrigation of schools, parks or golf courses, or use in industrial facilities as cooling water) may reduce the amount of water in the stream, thereby potentially impairing other water users.

The issues are complex and interwoven, and stakeholders have widely differing viewpoints. Positions fall along a continuum, with those at one end supporting an "absolute right to reuse" water to support reclaimed water uses, and those at the other end wanting a "strict adherence to prior appropriation" in support of existing water right uses. The current Reclaimed Water Act lies in between.[2]

The principle example of how Washington reclaimed water policy falls between the two theoretical approaches is in statute. Use, distribution and the recovery from aquifer storage of reclaimed water is exempt from the permit requirements of RCW 90.03.250 (water code) and RCW 90.44.060

> *"Use, distribution, and the recovery from aquifer storage of reclaimed water by the owner of the wastewater treatment facility is exempt from the permit requirements of RCW 90.03.250 and 90.44.060, provided that a permit for recovery of reclaimed water from aquifer storage and recovery shall be reviewed under the standards established under RCW 90.03.370(2)."* RCW 90.46.120
>
> *"…facilities that reclaim water under this chapter shall not impair any existing water right downstream from any freshwater discharge points of such facilities unless compensation or mitigation for such impairment is agreed to by the holder of the affected water right."* RCW 90.46.130(1)

[2] The Environmental Law Institute (ELI, a non-profit organization in Washington, D.C.) reviewed approaches from other states on this "reclaimed water v. water rights" issue. Policies vary in states across the West. A copy of the ELI report is in Appendix F.

(groundwater statute). However, use of the reclaimed water may not impair water right holders downstream of the wastewater discharge unless the affected water right holder agrees to compensation or mitigation. This language encourages reclaimed water by allowing additional use of water without requiring a water right. Yet, it also provides protection for existing water rights if the use of the reclaimed water would decrease discharge flows and potentially impair a water right.

Additional policy decisions are needed to develop a reclaimed water rule. The RW-WRAC has developed agreement between stakeholders on several of these and they can be implemented through rule and guidance. However, there is not agreement on all issues. Furthermore, a decision to implement some policies would require statutory change. During committee meetings, a variety of perspectives were given. Some committee participants prioritize reclaimed water in most situations, others favor existing water rights. It is also important to recognize that there are a number of situations without this conflict, such as when the prior discharge is to marine water.

Potential impairment: Drivers for reclaimed water use and who may be impacted

In order to make policy decisions on potential impairment issues, it is helpful to understand why a utility may wish to reclaim water. Drivers and benefits for a utility and the public to reclaim water include:

- Improved water quality, often driven by Total Maximum Daily Load (TMDLs) issues.
- Additional out-of-stream water supply.
- Decrease in shellfish and sediment contamination.
- Environmental flow enhancements; e.g. wetlands or instream flows.

There may be costs to gain these benefits. In some cases, there could be an adverse impact on other water users. Depending on the changes in discharge location or quantity, if any, existing water rights might be impaired, including:

- Tribal reserved rights.
- Diversionary water rights.
- Instream flows set by rule.

Given the different possible combinations of drivers for reclaimed water and results of moving water to different uses, a process that can address many different situations is necessary. For example, a utility choosing to reclaim water and change their discharge in order to have additional water supply may impair another water right holder. Another example is a utility choosing to reclaim water to improve instream water quality by decreasing their discharge may impair an instream flow from a quantity standpoint. There are many possible combinations and no clear-cut solutions.

Impairment is not always an issue

As described, reclaimed water used outside the original source, or moved to a different water source, may affect other water users who rely on the wastewater discharge. There are also situations where use of reclaimed water can have either neutral or positive impacts. For example, use of water previously discharged to marine water can provide additional water supply. In this situation, there are no downstream water right holders that could be affected.

People for Puget Sound compiled information from Ecology's wastewater discharge database in a report titled: *Toxic Chemicals in Puget Sound: The Impact of Mixing Zones on Permitted Discharges*, June 2, 2008. The report lists over 70 wastewater treatment facilities with a maximum total flow of 650 million gallons per day, currently discharging to Puget Sound. Water right impairment is not an issue for any of these facilities to reclaim their waste discharge. Current reclaimed water facilities that previously discharged to Puget Sound include:

- City of Sequim.
- King County South Plant.
- Lacey-Olympia-Tumwater-Thurston County (LOTT Alliance).

Reclaimed water can also be skimmed from a wastewater collection system in the upper reaches of a watershed and then used to augment instream flows. Here, water flows through the basin using natural streams rather than using wastewater collection pipes to carry the water to the treatment plant.

Similarly, use of reclaimed water for aquifer storage may result in retiming the availability of water. This approach takes water when it is available, stores it, and makes it available at another time to benefit people or the environment. There are a number of situations where impairment will not be an issue because of these reasons.

Committee work to advise agencies on issues

In 2006, the Legislature directed Ecology and Health to convene the Rule Advisory Committee (RAC) to advise the agencies on the overall reclaimed water rule. To address the water rights aspects in a reclaimed water rule, Ecology convened the Reclaimed Water and Water Rights Advisory Committee (RW-WRAC) in August of 2007. While not formally mandated, Ecology believed input from Tribes and stakeholders would be valuable in crafting policy and writing rule language on that complex issue.

Although the RW-WRAC has no formal relation to the RAC, the work of the two committees is closely intertwined and Ecology staff has regularly provided updates to the RAC on RW-WRAC's work.

Three tribes were involved in initial work completed by the RW-WRAC in 2007 and 2008. They have since declined to take part due to staff constraints or other issues. On October 19, 2009, Ecology sent a letter to more than 30 Tribes requesting their input on reclaimed water and water right issues. Copies of responses received to date are included in Appendices G and H.

During the last two years, the RW-WRAC met regularly to discuss reclaimed water issues, and specifically developed:

- A definition of water right impairment.
- A process for assessing and addressing potential impairment.

In the process, Ecology or the proponent reviews the potential for impairment by a reclaimed water proposal. The review includes an early public notice and opportunity to comment for Tribes, affected water right holders, and interested parties. The process also contains methods to address potential impairment for each category of water right (Tribal reserved rights, instream flows set by rule, and diversionary water rights). See flowcharts in Appendix B for detail.

How to implement the impairment potential review process: guidance, rule, or statute?

To implement the process, RW-WRAC is developing potential rule language and recommends amending the existing Ecology draft guidance on water right impairment. Many of the RW-WRAC members endorse addressing much of the impairment issue in guidance, and putting only those things necessary in rule. Utilities are finding new ways to use reclaimed water and flexibility will be important for both the agencies and the utilities as reclaimed water applications continue to evolve.

The RW-WRAC also discussed potential statutory changes. Many, but not all, members believe that statutory change is necessary to effectively and fairly implement the program. Others have maintained throughout the process that no statutory changes should be made.

In the summer of 2009, the RW-WRAC developed and refined a list of issues that might require rule language or statutory change based on specific policy decisions. Those issues include, but are not limited to:

1. Define "water rights impairment."
2. Specify the point in time for "existing" water rights in RCW 90.46.130.
3. Expand the consideration of impairment to upstream water rights, as well as downstream water rights.
4. Consider an explicit requirement for an impairment review for each reclaimed water treatment facility.
5. Specify public notice requirements for an impairment review.
6. Consider a requirement for Ecology to review and make a determination on the potential for impairment.

In the following pages, we discuss each of these issues, including describing input from stakeholders. As stated in the Executive Summary, Ecology recommends statutory changes related to items 2 and 3. Ecology recommends addressing the remaining issues through rule and guidance.

Definition of water right impairment

Problem statement or question

There is no explicit definition of water right impairment in the water code (RCW 90.03) or groundwater statute (RCW 90.44). The existing definitions for impairment come from rule, policy, and case law on water rights. There is a definition of impairment in a 1985 Ecology rule (WAC 173-150), but it is specific to groundwater wells. A more complete definition for water right impairment appears in the 1997 Ecology Water Resources Program Policy 1200, but it varies slightly from the 1985 rule. A third definition for water rights impairment has been proposed in the 2006 draft guidance on reclaimed water.

RW-WRAC and RAC recommendation

After considering language from these different sources, RW-WRAC recommended that Ecology meld WAC 173-150 and Policy 1200 to develop a definition of impairment for reclaimed water. Participants from WR-WRAC, RAC, and Ecology support the concept that impairment for reclaimed water should be consistent with the definition used for water rights processing and water right case law. The committees did not reach consensus on specific wording of the definition, but most members favored the option below.

Because of the importance of the term "impairment" for all water right contexts, most RW-WRAC members recommended the definition be specific to reclaimed water and placed into rule or guidance, rather than in the reclaimed water statute. As there is no definition of impairment in water right statutes, it seemed inappropriate to define it first in the reclaimed water statute. Some RW-WRAC and RAC members advocated putting the definition in rule, others recommended putting it in guidance, and others were comfortable with either location.

The proposed definition is as follows:
Water right impairment means interruption or interference in the availability of water, or degradation of the quality of the water, caused by reclaiming and reusing water that would:

1. *prevent an existing water right holder from partially or fully beneficially using the water right or*
2. *require an existing water right holder to make significant modifications in order to beneficially use the water right or*
3. *for an instream flow right, cause the flow of the stream to fall below the instream flow more frequently or for a longer duration than was previously the case.*

Note: Some of this language is still under discussion to address the concept that impairment is limited to water rights affected by a decrease in the discharge flow. Also, WDFW originally advocated that all informally or formally established flows to protect fish should be protected, not just minimum flows set in WAC to be protected.

Ecology recommendation

Ecology supports the definition recommended and believes that it is appropriate to put in the reclaimed water rule.

Existing water rights

Current reclaimed water act language reads:

".....facilities that reclaim water under this chapter shall not impair any existing water right downstream from any freshwater discharge points of such facilities unless compensation or mitigation for such impairment is agreed to by the holder of the affected water right." RCW 90.46.130(1)

" Agricultural water use of agricultural industrial process water and use of industrial reuse water under this chapter shall not impair existing water rights within the water source that is the source of supply for the agricultural processing plant or the industrial processing and, if the water source is surface water, the existing water rights are downstream from the agricultural processing plant's discharge points existing on July 22, 2001, or from the industrial processing's discharge points existing on June 13, 2002." RCW 90.46.130(2)

Problem statement or question

The question is "What water rights should be included in the impairment analyses, i.e. what does 'existing' water rights mean in the current statutory impairment standard?" The answer should represent the best policy and process for long-term water management and for meeting the multiple objectives outlined in state laws.

Background

Under state law, reclaimed water projects are exempt from the state's process to obtain a water right. However, those facilities cannot impair "existing" rights.

The state's permitting process for reclaimed water facilities generally follows the process for state approval of wastewater facilities. The permit decision is issued at the **end** of a process that typically includes separate state approvals for facility planning and engineering design. The facility is constructed and then the permit is issued. Public notice and ability to appeal the decision are provided at this stage. As it is rare that a wastewater permit is not issued based on this appeal, therefore utilities have relative certainty even though the permit is issued after construction.

> *"Use, distribution, storage, and the recovery from storage of reclaimed water permitted under this chapter is exempt from the permit requirements of RCW 90.03.250 and 90.44.060, provided that a permit for recovery of reclaimed water from aquifer storage shall be reviewed under the standards established under RCW 90.03.370(2) for aquifer storage and recovery projects." RCW 90.46.120(1)*

For a water right, the process is typically the opposite. Ecology reviews an application for a water right, issues a permit decision including an impairment assessment and public appeal

period, and then the facility can be constructed. Therefore, the facility has relative certainty that water use will be permitted before significant expenditure of funds. Water rights that may be considered impaired by a new water use are those that exist at the time that Ecology makes that permitting decision, during the project planning process and prior to construction. Water rights are often denied based on the criteria specified in law. The fact the decision on water rights comes early in the process is of benefit to the project proponent and potentially affected water right holders.

The difference in timing of the permit decisions in wastewater permitting and water rights creates uncertainty in approval of reclaimed water facilities. It is desirable to get clarification on appropriate timing of the decision. This decision is also important because it establishes the "place in line" of a reclaimed water treatment facility relative to water right holders and other reclaimed water facilities.

Options

The Committee discussed four options for interpreting the statutory phrase "existing rights."

5) Existing on the date that the lead agency receives complete information for an impairment review.
6) Existing at the time of Ecology's review of the potential for impairment.
7) Existing as of the date the reclaimed water permit is issued.
8) Existing at the time the Legislature added the impairment standard to the reclaimed water law; i.e. July 27, 1997.

Analysis

Most RW-WRAC and RAC members agree that the impairment review should be completed early in the reclaimed water facility planning process to avoid delays and create projects that will meet state policy and project objectives.

Reclaimed water proponents desire:

- As much certainty as possible in knowing what water rights may potentially be impaired.
- That there are no surprises between the impairment analysis and final permitting decision, because there are significant financial expenditures made during this period.
- That the facility is not unfairly disadvantaged by water rights that are issued between the time they apply for the permit and the time the reclaimed water permit is issued.

Water right holders desire:

- That water rights are protected and treated fairly in terms of state water right law and existing legal agreements on allocation of water.

Option 1

This approach would consider water rights existing on the date that the lead agency receives complete information for an impairment review.

Implications of selecting this option:

- Analysis and decision would be completed before significant expenditure in funds.
- This may require a second public notice and process in addition to that for issuing the reclaimed water permit.
- Of the four options, this provides the second earliest "place in line" for reclaimed water facilities versus water right applications waiting to be processed.
- Determining when the submittal is complete is often not a single date. Projects change as proponents move through the process and further explore reclaimed water options.
- This option may require a statutory change.

Committee participants' rationale in favor of this option:

- This option supports wise use of tax and ratepayer funds since the impairment decision is made before significant capital expenditures are made.
- This approach encourages reclaimed water by moving it to the second earliest possible point in the line for decision-making, simplifies the assessment, and may result in a smaller group of water rights to consider for impairment.
- This is the earliest point that Ecology would have enough information to make a decision about the potential for impairment.

Committee participants supporting this option:

- City of Spokane – Bill Peacock
- Department of Corrections - Doug Raines

Option 2

The approach would consider water rights existing at the time that Ecology completes a review on the potential for impairment.

Implications of selecting this option:

- Analysis and decision would be completed before significant expenditure in funds.
- This may require a second public notice and process in addition to that for actually issuing the reclaimed water permit.
- Of the four options, this provides the third earliest "place in line" for reclaimed water facilities versus water right applications waiting to be processed.
- Completion of an agency decision is a clear, easily identified date.
- This option may require a statutory change.
- Timing of the decision relative to the expenditure of funds for construction is similar to that of typical water right processing.

Committee participants' rationale in favor of this option:

- This option supports wise use of tax and ratepayer funds since the impairment decision is made before significant capital expenditures are made.
- This is the best balance between supporting existing water right holders and supporting reclaimed water use.

- It is procedurally easier to identify this point in time than to identify the point at which sufficient information has been submitted to complete an impairment review.

Committee participants supporting this option:

- Association of Water and Sewer Districts – Walt Canter
- Department of Fish and Wildlife – Steve Boessow
- Evergreen Valley Water Utility – Clint Perry
- Lakehaven Utility District – Don Perry
- Snohomish River Regional Water Authority – Tom Mortimer
- Washington Water Resources Association – Mike Schwisow
- Water Policy Alliance – Kathleen Collins*

*The Water Policy Alliance and others recommend implementing this through administrative means rather than statutory change. While not disagreeing with the concept, the perspective is that the amount of work needed to gain a statutory change is not warranted if this change can be achieved by rule or other administrative ways, particularly in a short legislative session.

Option 3

Another approach to provide certainty for utilities would be to complete the review early with all existing permits, claims, certificates, and instream rights plus pending applications and pending instream flow rules (with some assumptions). Then the assumptions could be reviewed for validity immediately prior to issuing the reclamation permit.

Implications of selecting this option:

- Would increase risk for some projects, particularly large ones that would take longer to plan, design, construct, and permit.
- For most facilities; risk would be small since Ecology does not process many new water rights, Tribal treaty rights (although mostly unquantified) are already known, and establishing instream flows is known well in advance.
- This option might allow more time for instream flows to be set and provide protection for fish.
- This option does not require a statutory change.

Committee participants supporting this option:

- No committee participants supported this option. This option was originally proposed by Ecology as a way to provide more certainty for utilities given the existing statutory language and no change.

Option 4

This option would consider those water rights that existed when the Legislature added the impairment standard in 1997.

Implications of selecting this option:

- Analysis and agency review completed before significant expenditure in funds.
- This may require a second public notice and process in addition to that for actually issuing the reclaimed water permit.

- Of the four options, this provides the earliest "place in line" for reclaimed water facilities versus water right applications waiting to be processed.
- This option would not protect water rights established since 1997, including instream flows.
- This would require a statutory change.

Committee participants' rationale in favor of this option:

- This would simplify the impairment assessment.
- This would support reclaimed water by limiting the pool of water rights that could be considered to be impaired.

Committee participants supporting this option

- King County – Dave Monthie

Ecology recommendation

Ecology recommends a statutory change that clearly identifies "existing" water rights as those rights at the time that Ecology completes a review on the potential for impairment (Option 2). This approach completes an analysis and decision prior to significant expenditure of funds. It is an easily identifiable date. While it is not the earliest possible date considered, Ecology believes it is the appropriate balance between reclaimed water use and existing water right use.

Ecology recommends this as a statutory change to clearly identify legislative intent and remove ambiguity of different possible interpretations of the language.

Ecology recommends that agency staff work with legislative staff to draft appropriate statutory language. Ecology would also request input on specific language from the committees.

Downstream and upstream water rights impairment

Problem statement or question

"…facilities that reclaim water under this chapter shall not impair any existing water right downstream from any freshwater discharge points of such facilities unless compensation or mitigation for such impairment is agreed to by the holder of the affected water right." RCW 90.46.130(1) [Emphasis added]

"Agricultural water use of agricultural industrial process water and use of industrial reuse water under this chapter shall not impair existing water rights within the water source that is the source of supply for the agricultural processing plant or the industrial processing and, if the water source is surface water, the existing water rights are downstream from the agricultural processing plant's discharge points existing on July 22, 2001, or from the industrial processing's discharge points existing on June 13, 2002." RCW 90.46.130(2) [Emphasis added]

The current reclaimed water impairment standard includes water rights downstream from the discharge point of the wastewater facility. This is a different standard than the state's prior appropriation system for water rights, which includes all water rights in a specific water body and prioritizes by priority date rather than limiting impairment to the area below the discharge. Is this the appropriate policy for reclaimed water?

Background

The question arises, how could a water right upstream from a discharge point ever be impaired? Some reclaimed water uses reduce flows downstream of the existing wastewater discharge. Although the initial impact is felt at a downstream "control point," the impairment may not be felt at that point. If rivers are regulated based on priority, the impairment would be experienced by the most junior user or users regardless of whether they were upstream or downstream of the reclaimed water facility. A simple hypothetical example of this is presented in Appendix C.

Specific examples for the Yakima and Wenatchee Basins are included in Appendix D.

To date, none of the 21 reclaimed water facilities operating in Washington State have had an upstream impairment claim asserted against them.

Options

The RW-WRAC considered three options.

1. Leave the law as is. Consider impairment only for those rights downstream of the wastewater discharge point.
2. Add exemptions to the downstream-only limitation, such as the Yakima Basin or adjudicated basins where both upstream and downstream water rights will be considered.

3. Consider potential impairment for water rights both upstream and downstream of the discharge point statewide.

Analysis

Option 1 - Leave the law as is.

Implications of selecting this option:

- To date, there have been no reclaimed water projects where this language caused a problem. "If it isn't broken, don't fix it."
- By not expanding impairment, the impairment analyses are less complex.
- In the future, leaving the language as is may encourage some reclaimed water facilities by limiting the location of water rights that could be considered impaired.
- Leaving the language may also hinder some facilities if potentially affected water right holders challenge the effects of reclaimed water use through other legal avenues.

Committee participants supporting this option:

- Northwest Food Processors Association (NWFPA) position as communicated by Kathleen Collins to Lynn Coleman. NWFPA has not participated directly in either reclaimed water committee.
- King County – Dave Monthie (this is King County's first choice)

Option 2 - Add specific exemptions to the downstream limitation on impairment.

Implications of selecting this option:

- Conflict exists between the current statutory language and the federal decree on water management in the Yakima Basin. Adding an exemption for the Yakima Basin would address this conflict.
- Conflict exists between the current statutory language and the water right priority system in adjudicated basins. Adding an exemption for adjudicated basins would address this.
- Conflict exists between the current statutory language and agreements Ecology has made in watershed planning for the Wenatchee, Entiat, Lewis and Salmon-Washougal watersheds. Adding an exemption for some flows set through the Watershed Planning process (RCW 90.82) would address these basins.
- This option only addresses situations where committee members have shown a clear conflict with existing laws or agreements. It does not try to solve a problem where no one has demonstrated there is a specific issue.
- Expanding the impairment standard in this way will make the impairment analysis more complicated and increase the cost in some situations.
- This may make permitting some reclaimed water facilities more difficult or impossible by including additional water rights that could be considered to be impaired.
- This option would require a statutory change.
- Language for statutory change would need to be very carefully crafted to only include exemptions the Legislature deems appropriate.

Committee participants' rationale in favor of this option:

- Yakima Basin irrigation districts depend on the Total Water Supply Available allocation system and that exemption should be added to the reclaimed water law. This system was endorsed in a 1945 consent decree and in a conditional final order of the court in the Aquavella (Yakima basin) adjudication. Under these circumstances, Yakima Basin water right holders would not need to take legal action to protect their water rights.
- This approach addresses specific basin water allocation systems that clearly conflict with the reclaimed water impairment standard, but does not extend the impairment review beyond where a clear need is shown.
- Ecology has not completed any evaluation of what would be required above and beyond an impairment analysis for water rights downstream of a discharge.
- This would support reclaimed water by simplifying the analysis and still limiting the pool of water rights that could be considered to be impaired in some basins.
- Absent an adjudication or other legal establishment of priority dates and water right quantities; upstream water rights should be addressed by providing notification, having water right holders be responsible for protesting any concerns about impairment, and having the agency issue a reclaimed water permit with a condition that the permit is "subject to" existing water rights.
- One participant has stated that Ecology does not consider upstream water rights in water right impairment assessments for unadjudicated basins now and to start doing so with reclaimed water imposes an unfair burden.

Committee participants supporting this option:

- King County – Dave Monthie (King County's view is that if there has to be statutory change, it should be limited to where there has been an assertion of a problem.)
- Snohomish River Water Authority – Tom Mortimer
- Washington State Water Resources Association - Mike Schwisow
- Water Policy Alliance - Kathleen Collins

Option 3 - Remove the downstream only limitation on impairment. In this option, the statute would be changed and water rights, regardless of their location upstream or downstream of the wastewater discharge, would be evaluated for potential for impairment.

Implications of selecting this option:

- Conflict exists between the current statutory language and federal and state court decisions on water management in the Yakima Basin, water management in adjudicated basins, and the priority system statewide. Making this change protects water rights in each water body according to priority date rather than location and priority date.
- This will make the impairment analysis more complicated for some reclaimed water facilities.
- This may make permitting some reclaimed water facilities more difficult or impossible by including additional water rights that could be considered to be impaired.
- Contrary to the belief that ignoring upstream impairment will simplify the process and make it less expensive for some facilities to be permitted, this approach may decrease the risk for those facilities and the state. Upstream water right holders may elect to use legal

avenues other than the reclaimed water law to raise grievances if this option is not selected.
- This option would require a statutory change.

Committee participants' rationale in favor of this option:
- As stated above, conflict exists between the current statutory language and federal and state court decisions on water management in the Yakima Basin, water management in adjudicated basins, and the priority system statewide. This conflict needs to be addressed.
- Contrary to the belief that ignoring upstream impairment will simplify the process and make it less expensive for some facilities to be permitted, this approach may decrease the risk for those facilities and the state. Upstream water right holders may elect to use legal avenues other than the reclaimed water law to raise grievances if this option is not selected.

Committee participants in favor of this option:
- City of Sequim - Frank Needham
- City of Spokane - Bill Peacock
- Department of Corrections - Doug Raines
- Evergreen Valley Water Utility - Clint Perry
- Lakehaven Utility District - Don Perry
- Washington Association of Sewer and Water Districts - Walt Canter
- Washington Department of Fish and Wildlife - Steve Boessow

Note: With the exception of the Department of Fish & Wildlife, participants are making this recommendation ONLY for the impairment standard for municipal reclaimed water facilities. They are leaving the decision on a recommendation on the food processor and industrial reuse impairment standard to other parties.

Ecology recommendation

Ecology recommends a statutory change to eliminate the downstream-only limitation on impairment for all water bodies in the state (Option 3). The agency recommends this for both the municipal reclaimed water impairment standard and the food processor/industrial reuse impairment standard, (RCW 90.46.130(1) and (2)), respectively.

This makes the impairment standards for reclaimed water the same as for the prior appropriation system. The water rights that could be considered to be impaired are those within a particular water body. The decision is based solely on priority date within a particular water body. This change will make some impairment assessments more complex and may make permitting some reclaimed water facilities more difficult or impossible, but is more protective of existing water rights.

Additional issues

As discussed in the previous section, Ecology recommends statutory amendments to the impairment standards to provide clear policy direction on "existing" water rights and the "downstream" language in the statute. Ecology recommends all other impairment requirements be addressed in rule or guidance, including the definition of impairment.

The other impairment requirements that Ecology and WR-WRAC have discussed include, but are not limited to:

1. Consider an explicit requirement for an impairment review for each reclaimed water treatment facility.
2. Specify appropriate public notice requirements for an impairment review.
3. What should Ecology's role be? Consider an explicit requirement for Ecology to conduct a review and make a determination on the potential for impairment before a permit is issued.

Each of these is briefly examined below. These are provided to inform legislators on the different perspectives on issues and provide background for discussion.

Impairment review required for each reclaimed water facility

"The owner of a wastewater treatment facility that is reclaiming water with a permit issued under this chapter has the exclusive right to any reclaimed water generated by the wastewater treatment facility. Use, distribution, storage, and the recovery from storage of reclaimed water permitted under this chapter is exempt from the permit requirements of RCW 90.03.250 and 90.44.060, provided that a permit for recovery of reclaimed water from aquifer storage shall be reviewed under the standards established under RCW 90.03.370(2) for aquifer storage and recovery projects." RCW 90.46.120(1)

"…facilities that reclaim water under this chapter shall not impair any existing water right downstream from any freshwater discharge points of such facilities unless compensation or mitigation for such impairment is agreed to by the holder of the affected water right." RCW 90.46.130(1)

Ecology believes that a review of the potential for impairment for each reclaimed water facility is implicitly required in the two sections of current statutory language above, and is good public policy. The review would identify potential risks and address them to the extent possible in the reclaimed water planning process. The review would help protect both the state and utility financial investments in a reclaimed water facility by considering this issue early in the process.

Ecology recommends that the details of the assessment be addressed in rule and guidance. We are currently requesting input from the committees on what specific language should go into rule and what should go into guidance.

Not all WR-WRAC participants agree that the language requires an impairment review. Some participants interpret the language to prohibit impairment unless agreed to by the affected water right holders. But they believe the law is silent on how that is achieved, whether an analysis is required, or what Ecology's role is.

Notification

The RW-WRAC recommends that public notice be part of the water right impairment process to provide due process and to protect both reclaimed water facilities and potentially affected water right holders.

Notification of Tribes and Department of Fish & Wildlife (WDFW)

Ecology is required to coordinate with the Department of Fish and Wildlife and affected Tribes under various state statutes and/or Memorandums of Agreement. Tribes and WDFW will be notified early in the process in order to provide meaningful input and assist proponents in creating successful projects. The project proponent may elect to notify and involve Tribes and WDFW:

- while developing a conceptual design for the project.
- at the time of any pre-plan meetings for planning documents or engineering reports.

Ecology strongly encourages early communication between various parties.

Ecology will notify Tribes and WDFW no later than when Ecology makes a preliminary determination on the potential for impairment. Ecology is considering a specific requirement for this in rule and has requested input from Tribes on this.

Ecology will also consult with Tribes and WDFW after the proponent selects the final project approach and prior to making a final determination on the potential for impairment. WDFW recommends the specific terms of notification and responsibilities for review and recommendation should be reflected in a formal agreement such as a Memorandum of Understanding negotiated and signed by Ecology and WDFW.

Notification of project proponent

Ecology will notify the proponent when it makes a preliminary or final determination on the potential for impairment. Obviously good communication throughout the process is desired and this "formal" notice will not be the only communication between Ecology and the proponent.

Notification of potentially affected water right holders

Ecology proposes the project proponent would be responsible for notifying any potentially affected water right holders. Discussion on the details of this responsibility have not yet been finalized with the RW-WRAC. We will complete those discussions before finalizing the proposed reclaimed water rule language.

Ecology decision required on the potential for impairment

Ecology recommends that the agency complete a review on the potential for impairment and that details of this process should be addressed by rule and guidance. Below are the provisions for agency review described in the flow charts (see Appendix B) developed by the RW-WRAC and Ecology. The review process provides for notice and consultation with parties prior to Ecology's final determination. The intent was to create projects that will be successful and acceptable to all parties.

There are three types of water rights that could be impaired by a reclaimed water facility decreasing or ceasing flow to a water body.

1. Indian treaty rights

Reclaimed water facilities may consider ceasing a discharge to water bodies where an Indian tribe has a quantified or unquantified water right. The process developed includes early notification of a Tribe if a reclaimed water facility may affect their water rights. Any negotiations or decision-making about a Tribe's water rights would then be between the Tribe and the proponent. Ecology will consult with Tribes (and WDFW) before making a final impairment determination approving a reclaimed water facility that might affect a Tribal right. An appeal process will be provided and the Tribe may appeal if they disagree with Ecology's decision.

2. Instream flows set by rule

Instream flows set by rule are water rights held by the public (RCW 90.03.345). The process shown in the reclaimed water impairment review flow chart has Ecology making determinations about whether or not there is impairment of instream flows. Ecology would use water right case law on instream flows and the newly crafted definition of impairment to make this determination. That is, impairment would be a loss of flow that would "*….cause the flow of the stream to fall below the instream flow more frequently or for a longer duration than was previously the case."*

After consideration of amount of loss, duration of loss, and the overall benefits of the project, Ecology could approve or disapprove impairment of instream flows, if it exists. Ecology could use the "overriding consideration of the public interest" clause in RCW 90.54 and the RCW 90.46.120 clause "…compensation or mitigation acceptable to the affected water right holder" as authority to allow a loss of flow. An appeal process would be provided and parties may appeal if they were aggrieved by with Ecology's approval or denial.

3. Other water rights held by private or public entities

As part of an impairment review, Ecology would identify other private or public water rights that might be impaired. Scope of the review would vary depending on the situation. Notification of potentially affected parties would occur as soon as there was enough information for Ecology to make a preliminary determination that there was a potential for impairment. At any time during the process, the proponent could elect to modify the project to eliminate the potential for impairment.

Ecology would then complete a determination based on a detailed analysis about whether water rights would or would not be impaired. Any negotiations about the water right(s) would be between the potentially affected water right holder and the proponent. Ecology could take part if requested by either party. Ecology would require documentation from the potentially affected water right holders before issuing a draft reclaimed water permit. An appeal process would be provided and parties could appeal if they disagreed with Ecology's approval or denial.

Ecology workload

Ecology Water Resources Program does have concerns about staff available to work on reclaimed water, as well as other issues. Ecology has indicated to the RW-WRAC that agency staff will work on the various aspects of the impairment assessment and decision making as workload and capacity allows.

As one option to avoid delays due to agency resource constraints, Ecology could consider use of a consultant to collect information and/or draft an impairment assessment. The project proponent would have to agree to pay consultant charges if this option were to be pursued.

Ecology has a preapproved consultant pool that it uses for water rights cost reimbursement projects under RCW 90.03.265. These consultants have developed specialized expertise in evaluating water right impairment.

Some RW-WRAC members appreciate the option of using agency consultants as a way to avoid delays. One member has expressed a concern about the cost and efficiency of this option.

Conclusion

Based on input from the RAC and RW-WRAC, Ecology recommends two amendments to the impairment standard in the reclaimed water statute. At this time, Ecology recommends all other aspects of water right impairment be addressed in the future rule and guidance.

The reclaimed water program is still evolving in Washington State. The state's process for encouraging and approving reclaimed water projects is still in its formative stages. Utilities are continuing to find new uses for reclaimed water. Flexibility will be needed in addressing reclaimed water and water rights. Additional time to see how new projects unfold and how best to achieve both new uses of reclaimed water and protection of existing water rights is needed. Therefore, any statutory changes should only address those issues where statutory changes are absolutely necessary at this time. Ecology and Health may look to the Legislature in the future to make additional policy decisions to more effectively implement the reclaimed water law.

Appendix A: Committee Lists

Reclaimed Water and Water Rights Advisory Committee (RW-WRAC) Attendees *(These participants have attended one or more meetings since August 2007. Two tribal representatives did not participate in writing of this report and have requested that their names be removed.)*

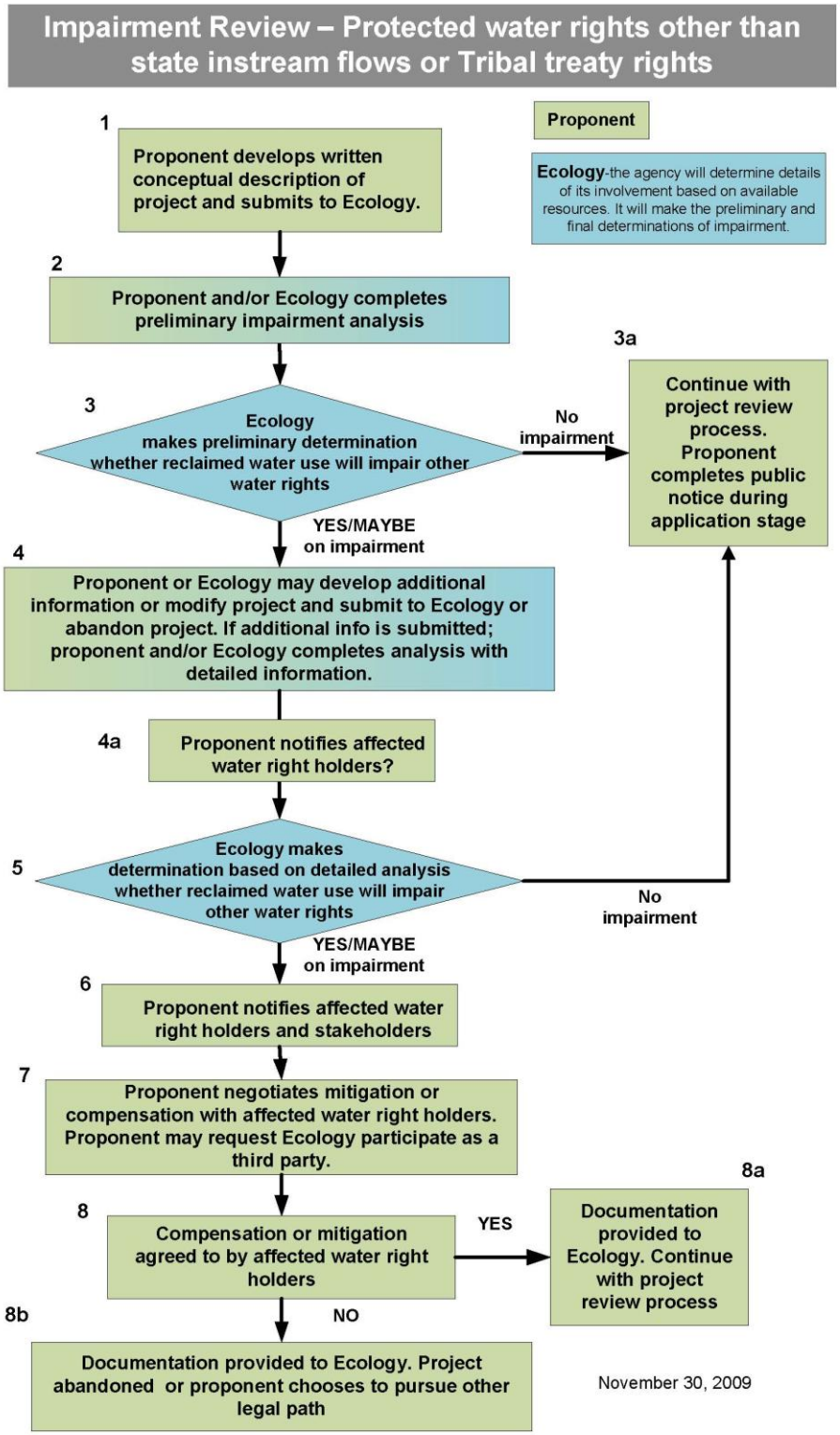
Participants	Organization
Anderson, Barb	Department of Ecology Water Resources Program, note-taker
Barber, Michael	WSU Water Research Center
Barwin, Robert F.	Department of Ecology Water Resources Program
Boessow, Steve	Washington Department of Fish & Wildlife
Canter, Walt	Washington Association of Sewer & Water Districts
Carlson, Carla	Muckleshoot Tribe
Coleman, Lynn	Department of Ecology Water Resources Program
Collins, Kathleen	Washington Water Policy Alliance
Cupps, Katharine	Department of Ecology Water Quality Program
Deneen, Pat	Land developer
Dexel, Mike	Department of Health
Epps, Karen	Senate Committee Services
Ford, Jaclyn	House Agriculture & Natural Resources Committee
Gravely, Adam	Buck and Gordon LLP
Gupta, Rashi	Washington State Association of Counties
Hirschey, Steve	King County
Markham, Barbara	Office of the Attorney General
McCabe, Chris	AWB
McCauley, Jim	Department of Ecology Water Quality Program
Meyer, Michael	Washington Environmental Council
Monthie, Dave	King County
Mortimer, Tom	Snohomish River Regional Water Authority
Naylor, Char	Puyallup Tribe
Needham, Frank	City of Sequim
Peacock, Bill	City of Spokane
Perry, Clint	Evergreen Valley Utilities
Perry, Don	Lakehaven Utility District
Raines, Doug	Department of Corrections
Richmond, Terese	Buck & Gordon LLP
Riley, Craig	Department of Health
Samuelson, Carl	Washington Department of Fish and Wildlife
Schlomann, Hal	Washington Association of Sewer & Water Districts
Schwisow, Mike	Irrigation Districts
Stern, Ginny	Department of Health
Stuhlmiller, John	Farm Bureau
Van Hulle, Jill	Pacific Groundwater Group
Weiss, Josh	Washington State Association of Counties
Williams, Patrick	Center for Environmental Law and Policy
Wood, Barb	Thurston County

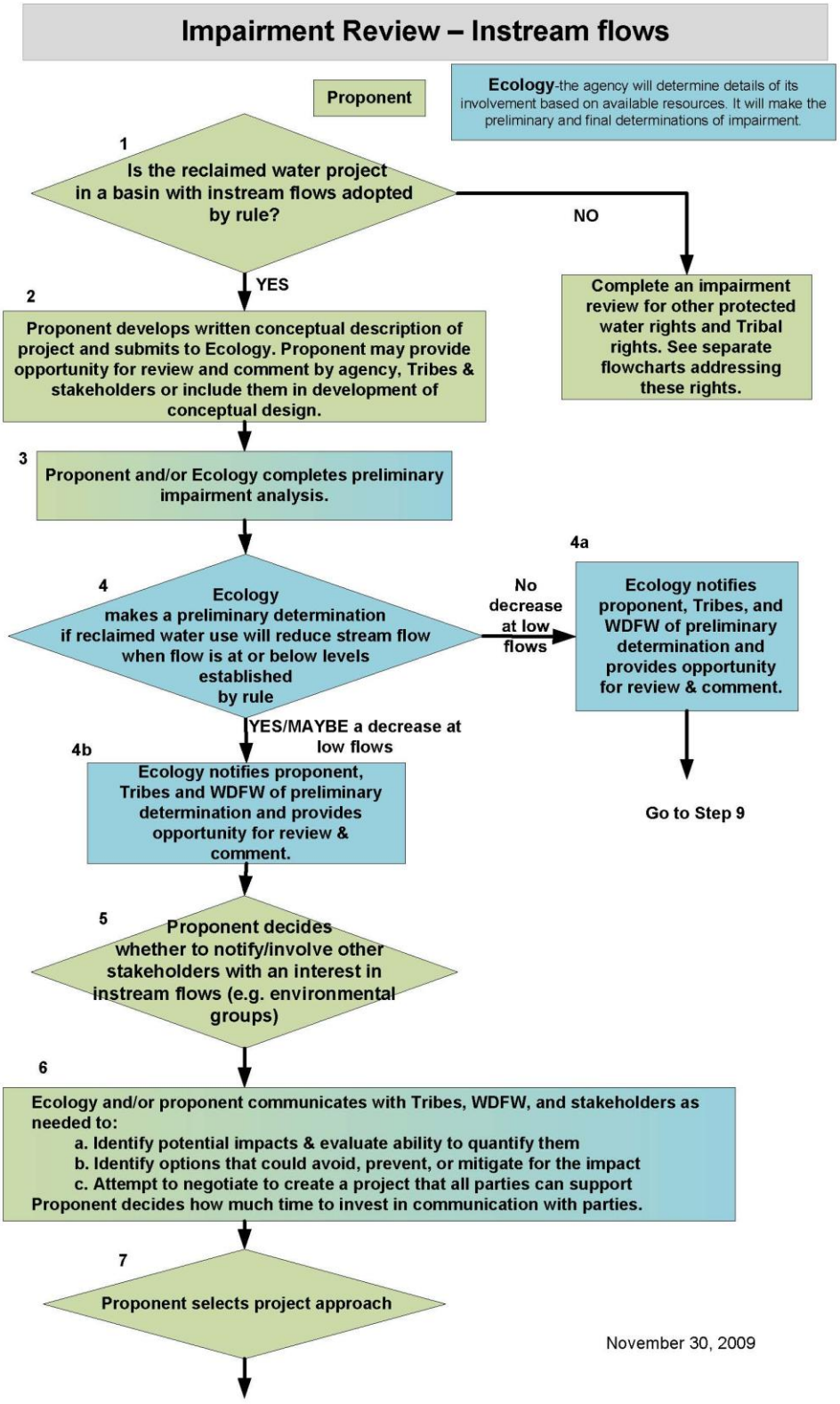
Reclaimed Water Rule Advisory Committee (RAC) Attendees

Broyles, Dale	WA State Parks
Busselle, Jennifer	Department of Ecology Water Quality Program
Butti, Ken	LOTT Alliance
Canter, Walter	Washington Association of Sewer & Water Districts
Coleman, Lynn	Department of Ecology Water Resources Program
Cupps, Katharine	Department of Ecology Water Quality Program
de Steiguer, Allen	PNCWA
Desy, Ginger	Sno-King Coalition
Eichstaedt, Rick	Center for Justice
Emmett, Kathleen	Department of Ecology Water Quality Program
Fabiniak, Paul	Department of Ecology Water Resources Program
Folkerts, Keith	Kitsap County
Fowler, Karla	LOTT Alliance
Fox, Tom	Seattle Public Utilities
Freier, Dawn	City of Olympia
Gaffney, Tim	Department of Ecology Water Quality Program
Glasoe, Stuart	Department of Health
Guichard, Maryanne	Director, Office of Shellfish and Water Protection
Hagstrom, James	Carrollo Engineers
Hashim, Bill	Department of Ecology Water Quality Program, Facilitator
Hauth, Jerry	Skilling Connolly
Hendron, Lars	City of Spokane
Herrin, Sharman	King County
Horton, Marc	
Kaufman-Una, Susan	King County
Kounts, John	WPUDA
Lahmann, Denise	Department of Health
Lenning, Dave	Environmental Health and Safety
Martin, Tom	PUD Clallam County
Maxfield, Gwenn	Covington Water District
McCauley, Jim	Department of Ecology Water Quality Program
Monthie, Dave	King County
Moss, David	Spokane County
Needham, Frank	City of Sequim
Neff, Emily	Note Taker
Peacock, Bill	City of Spokane
Perry, Clint	Evergreen Valley Utilities
Perry, Don	Lakehaven Utility District
Pingel, Dan	City of Lacey
Radcliff, Eugene	Department of Ecology Water Quality Program
Raines, Doug	Department of Corrections
Rawls, Bruce	Spokane County
Riley, Craig	Department of Health
Schlomann, Hal	WASWD
Schuler, Paul	PNW Clean Water Association
Selby, Melodie	Department of Ecology Water Quality Program

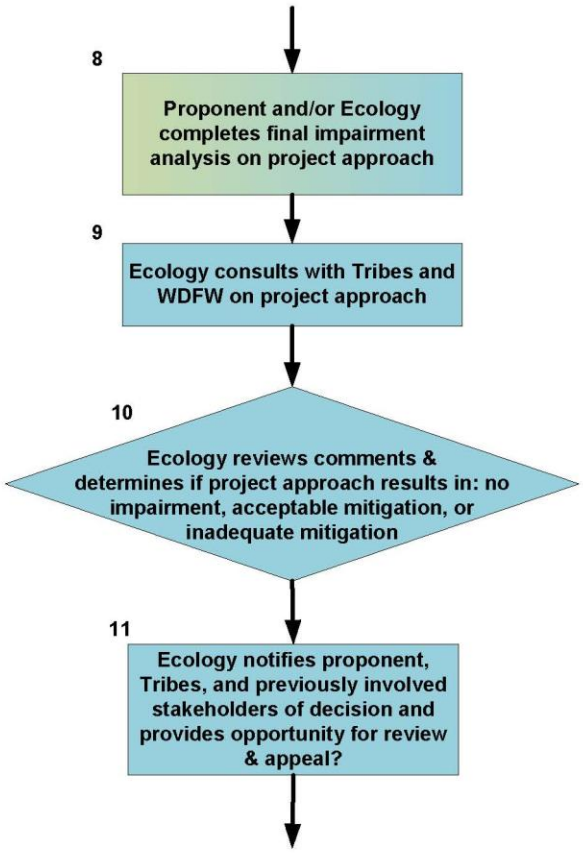
Strom, Diann	Note Taker
Sullivan, Jade	Covington Water District
Thomson, Angie	Facilitator
Tjemsland, Pete	City of Sequim
Topolski, Brian	LOTT Alliance
Trim, Heather	People for Puget Sound
Weiss, Josh	Washington State Association of Counties
Westbrook, Kristina	King County
Wick, Ann	Department of Agriculture
Wilson, Tim	City of Tumwater
Winters, Nancy	Department of Ecology Water Quality Program
Winz, Jocelyn	Department of Ecology Water Quality Program
Wolfman, Sonia	Attorney General's Office

Appendix B: Flowcharts




Impairment Review – Instream flows
Proponent
Ecology-the agency will determine details of its involvement based on available resources. It will make the preliminary and final determinations of impairment.
1
Is the reclaimed water project in a basin with instream flows adopted by rule?
NO
YES
Complete an impairment review for other protected water rights and Tribal rights. See separate flowcharts addressing these rights.
2
Proponent develops written conceptual description of project and submits to Ecology. Proponent may provide opportunity for review and comment by agency, Tribes & stakeholders or include them in development of conceptual design.
3
Proponent and/or Ecology completes preliminary impairment analysis.
4a
4
Ecology makes a preliminary determination if reclaimed water use will reduce stream flow when flow is at or below levels established by rule
No decrease at low flows
Ecology notifies proponent, Tribes, and WDFW of preliminary determination and provides opportunity for review & comment.
YES/MAYBE a decrease at low flows
4b
Ecology notifies proponent, Tribes and WDFW of preliminary determination and provides opportunity for review & comment.
Go to Step 9
5
Proponent decides whether to notify/involve other stakeholders with an interest in instream flows (e.g. environmental groups)
6
Ecology and/or proponent communicates with Tribes, WDFW, and stakeholders as needed to:
a. Identify potential impacts & evaluate ability to quantify them
b. Identify options that could avoid, prevent, or mitigate for the impact
c. Attempt to negotiate to create a project that all parties can support
Proponent decides how much time to invest in communication with parties.
7
Proponent selects project approach
November 30, 2009

Impairment Review – Instream flows (con't.)



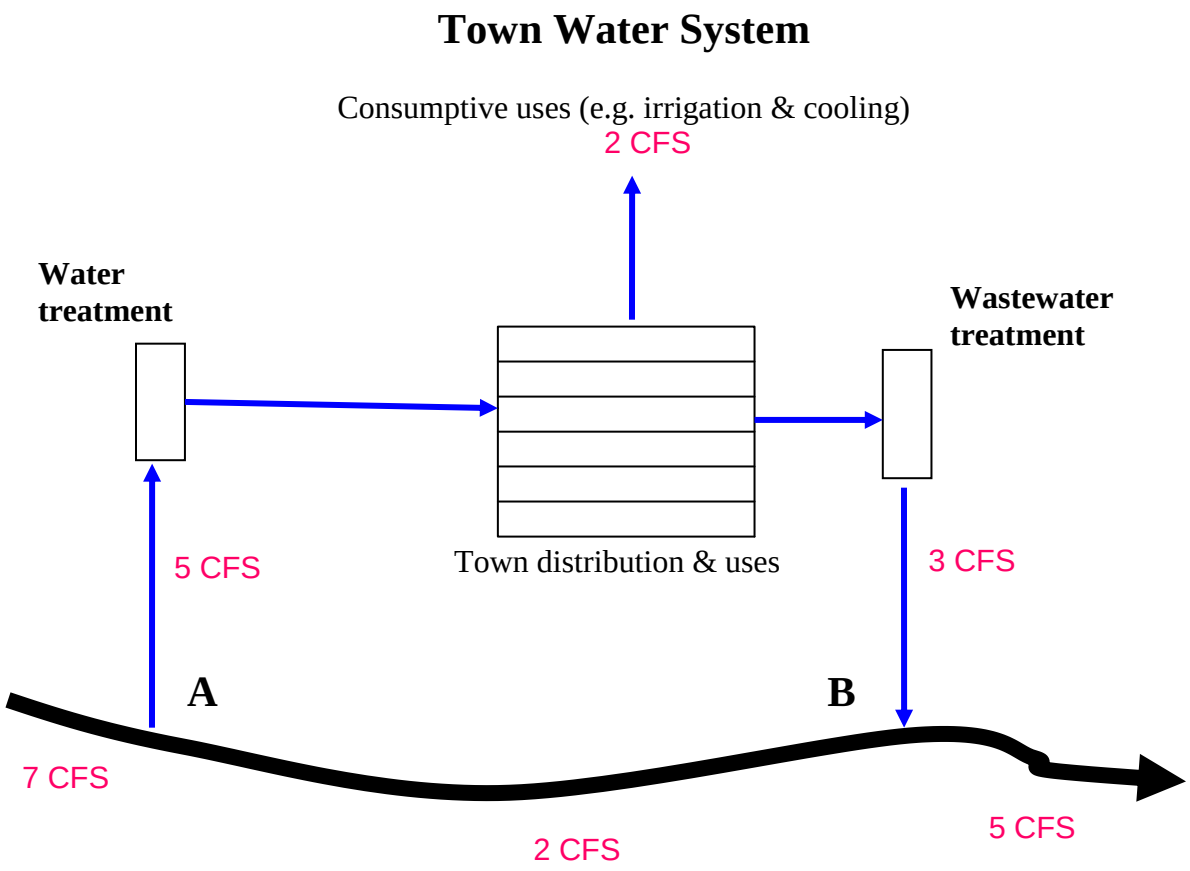
- ***For projects where the decision is "no impairment", the proponent can move ahead with the project.***

- ***For projects where the decision is "acceptable mitigation", Ecology will condition the reclaimed water permit, and the proponent can move ahead with the project.***

  If other stakeholders (e.g. Tribes, WDFW, or environmental groups) agree with the decision, the proponent's risk should be lower than if any stakeholders disagree with Ecology's decision.

- ***For projects where the decision is unacceptable mitigation, Ecology will not issue a reclaimed water permit. Proponents may elect to modify the project and renegotiate or abandon the project.***

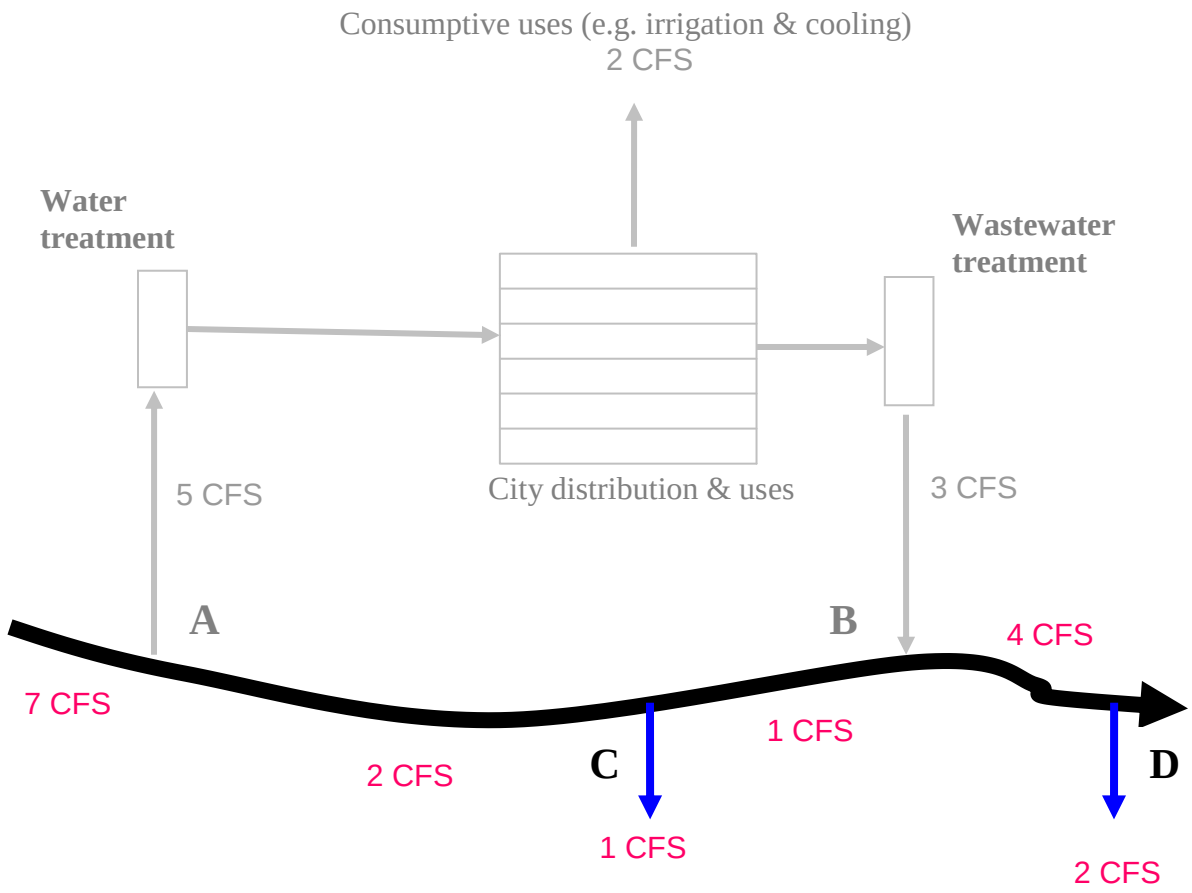
Appendix C: Hypothetical example of upstream impairment



In the example above, the river flows from left to right. Starting out on the left, the flow is 7 cubic feet per second (cfs). The town's water utility diverts 5 cfs at point **A** according to its water right, treats the water, and distributes it to the town. As water is used, 2 cfs is lost to irrigation, cooling, or other consumptive (evaporative) losses. That is, 3 cfs is treated by the wastewater plant and returned to the river at **B**.

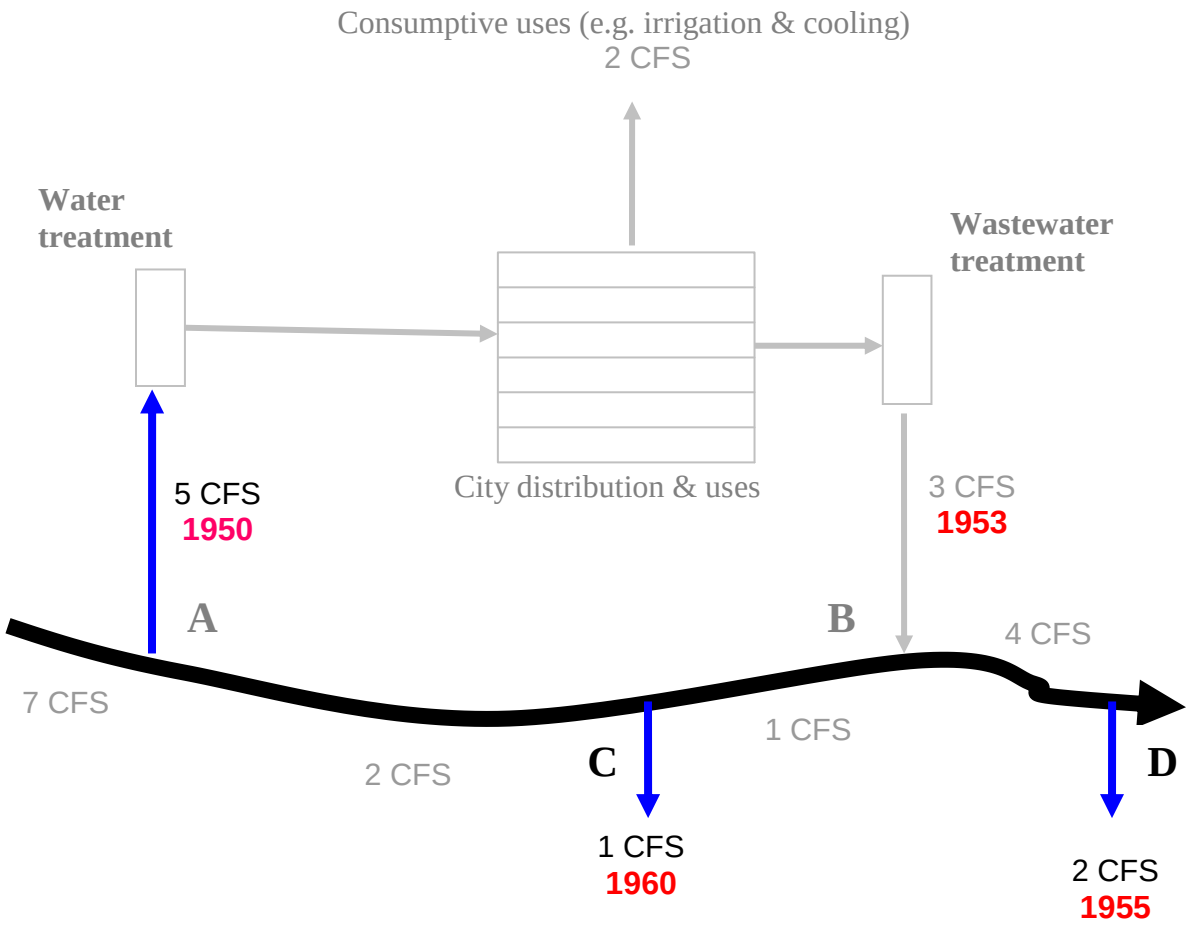
Between **A** and **B**, 2 cfs remains in the river and is available for other uses. When the wastewater effluent is returned to the river at **B**, 5 cfs flows downstream for additional uses.

Other Water Rights in the System



In addition to the town uses, there are other water right holders along the river. There is a water right at **C** for 1 cfs and a water right at **D** for 2 cfs. The right at C can be exercised because 2 cfs remain in the river after the town has diverted 5 cfs. The water right holder at D can also exercise that right because effluent contributes to available water at that point.

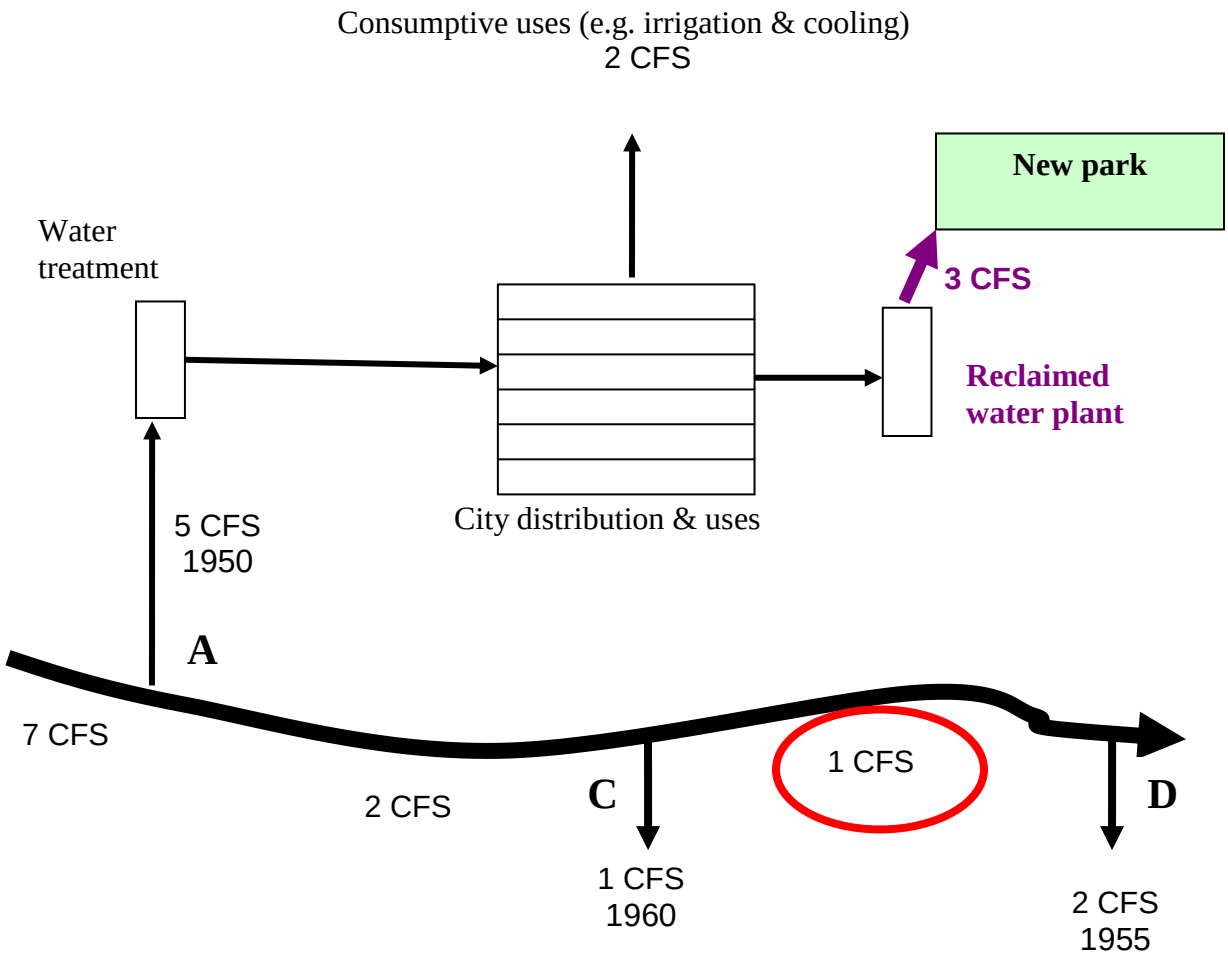
Other Water Rights in the System



The priority dates for the water right withdrawals are shown above. The original town diversion is the senior water right. The water right holder at **C** is the junior most user in this system.

The town has been discharging 3 cfs of wastewater since 1953.

New Water Use in the System



In 2000, the town decides that they would like to reclaim 3cfs of water to irrigate a new park and remove the wastewater discharge from the river. If 3 cfs is used for the new park, there will not be sufficient water for the right holder at D to fully exercise their right. The 1955 water right holder at D can "make a call" or require that the user at C divert less water because the 1960 right is junior to the right at D. Therefore, even though C is above the discharge point of the wastewater plant, they are the water right holder that would be impaired by the new use of reclaimed water.

Appendix D: Upstream Impairment Scenarios

Excerpt from January RW-WRAC 2008 meeting notes. Prepared by staff for the Yakama Nation.

The existing reclaimed water statute bars impairment of downstream water rights (90.46.130). In fact, reduction of flow resulting from a reclaimed water facility could just as likely impair upstream water rights. This is because regulation of water rights is based on seniority, not position within the stream. Below are short examples of different circumstances in which impairment of upstream rights that could occur if water currently discharged to a point in a stream were captured and put to new consumptive use.

Obligatory Disclaimers

This is a staff level and does not constitute legal or policy positions. It is not at the discretion of any branch of State Government to impair Treaty and Federally Reserved water rights, for either instream or out of stream uses.

General Concept

The initial physical effect of putting effluent to new consumptive use would be to reduce flows downstream of the existing discharge point or area. The initial impact is felt at a downstream "trigger point", but the impairment may not be felt at that point. Because rivers are regulated based on priority, the impairment would be experienced by the most junior user or users upstream of the trigger point regardless of whether they were upstream or downstream of the reclaimed water facility. Below are a few different physical and regulatory frameworks and the different scenarios for impairment.

Yakima Basin

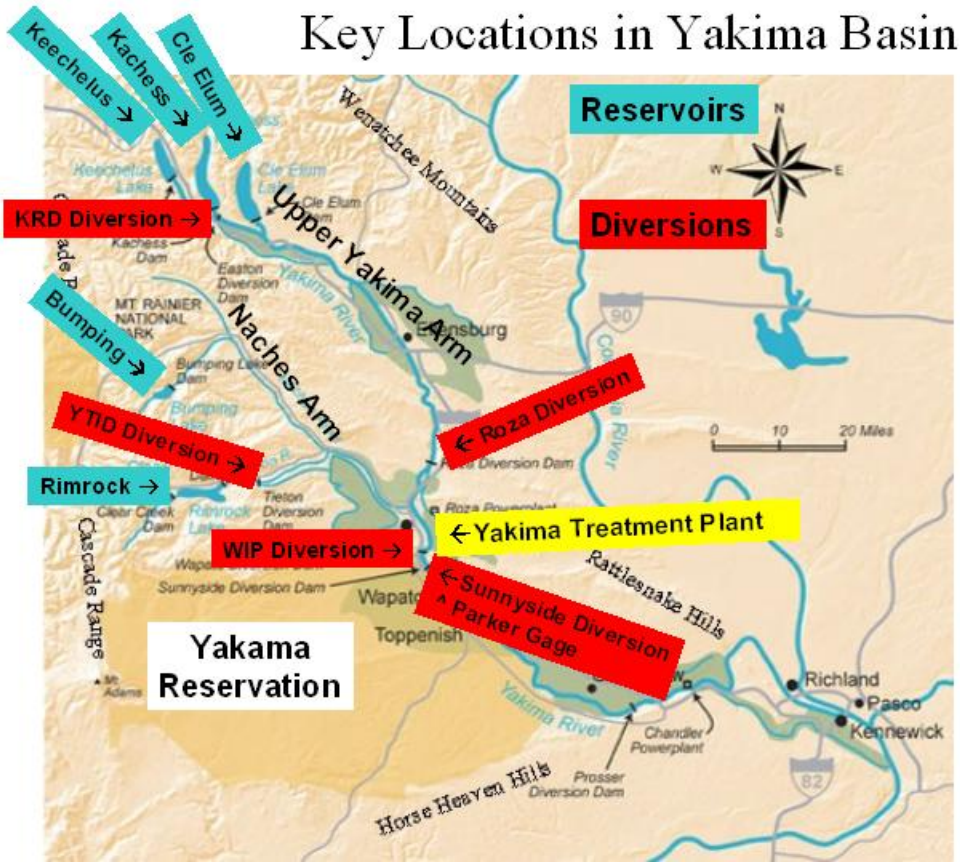
In the Yakima Basin, water rights are administered in accordance with a regularly calculated estimate of water supply called Total Water Supply Available (TWSA). TWSA essentially equals the amount of water expected to enter the Yakima river system from snowmelt and other sources above the Parker stream gage (the current control point for the river, and a point at which target instream flows are defined). TWSA is shared proportionally among a large class of water rights with a May 10th, 1905 priority date (proratable rights). When TWSA is insufficient to meet all proratable rights, the remaining supply is divided proportionally (prorated) among proratables. A reclaimed water project that resulted in less water reaching the Parker gage would reduce TWSA. As a result, each proratable user would receive proportionally less water regardless of whether their diversion was located upstream or downstream of the reclaimed water facility.

Using the example of the Yakima Regional Treatment Plant (just for discussion purposes), if the approximately 20 cfs from the plant were put to new consumptive uses, TWSA would be reduced accordingly (because the plant is upstream of the Parker gage). In order to maintain the target instream flow at the Parker gage, Reclamation would release more water from the reservoirs. In a proratable year, all May 10th, 1905 users would suffer a reduced supply. Users such as the Kittitas Reclamation District and Roza Irrigation District, whose diversions are upstream of the plant, along with Sunnyside Division, which diverts below the plant, and even the Yakima Tieton, which is on a separate tributary, would have their proratable supply cut proportionally, regardless of upstream or downstream location.

In a non-proratable year, an increase in consumptive use above Parker would cause a reduction in carry over storage, increasing the likelihood of prorationing the next year, which, again would reduce supply to proratables regardless of their upstream-downstream location.

In addition, a recent court ruling requires that all post-May10, 1905 water rights be curtailed an any time when the proratables are being prorated. This curtailment applies to all post-1905 water rights above Parker.

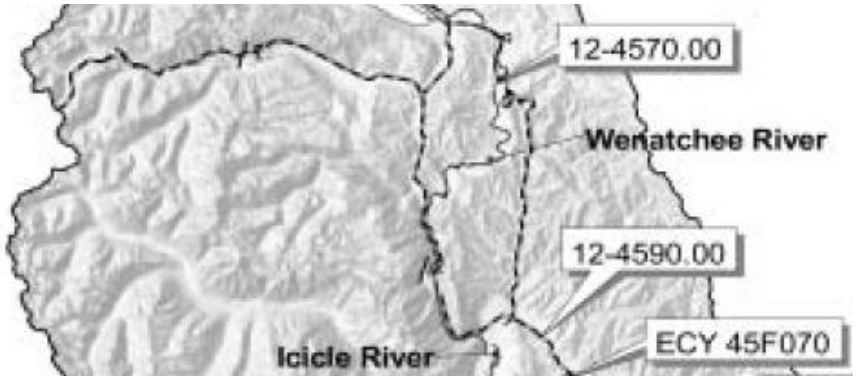
A map showing relative locations of diversions, the treatment plant, the Parker gage, and the reservoirs is below.



<u>Basin with Instream Flows Set by WAC (or other means)</u>
Water rights conditioned on instream flows are curtailed when flow at a particular stream gage (Control Station) falls below a prescribed level. Any reduction of flow reaching that Control Station caused by a reclaimed water project would cause earlier and longer lasting curtailment of all water rights conditioned on flows at that Control Station whether their diversion was upstream or downstream of the reclaimed water facility.

In the example below from the Draft Wenatchee Instream Flow WAC, interruptible water rights in the reach from River Mile 21.5 (Control Station 12-4590.00) to River Mile 46.2 (Control Station 12-4570.00) are conditioned based on the gage at R.M. 21.5. Any increased consumptive use within that 25 mile reach that caused the gage at R.M. 21.5 to fall below minimum flow, would trigger curtailment of all interruptibles in the reach, whether upstream or downstream of the reclaimed water facility.

Control Station No. Stream Management Unit Name	Control Station by River Mile and Section, Township, and Range	Affected Stream Reach(es) including Tributaries
12-4570.00 Wenatchee River at Plain	46.2 Sec. 12, T. 26N., R. 17E. W.M.	From Beaver Valley Hwy, R.M. 46.2, to headwaters
12-4585.00 Icicle Cr. near Leavenworth	2.6 Sec. 23, T. 24N., R. 17E. W.M.	Headwaters of Icicle Creek to its mouth
12-4590.00 Wenatchee River at Peshastin	21.5 Sec. 8, T. 24N., R. 18E. W.M.	From confluence of Derby Creek to Beaver Valley Hwy, R.M. 46.2 excluding Derby Creek and Icicle Creek



Fully Appropriated Basin or Subbasin (not pictured)

Some adjudicated basins or subbasins have water rights divided into classes. When flow drops off such that there is insufficient water to meet senior classes and junior classes, the juniors are curtailed without regard to upstream or downstream location. A reclaimed water facility that decreased water supply in the subbasin would lead to earlier curtailment of lower class rights without regard to location relative to the reclaimed water facility.

In fact in any basin where flow is not sufficient to meet all rights, out of stream or instream, and where a senior water user makes a call for water, the first right to be curtailed would be the most junior water user who is in a location such that his curtailment would result in more water being available for the senior. This curtailed junior could be either upstream or downstream of the reclaimed water facility that is reducing supply. In a basin without storage to call upon, this curtailed junior would have to be located upstream of the senior, but could be either upstream or downstream of the reclaimed water facility.

Appendix E: History of water right issues related to reclaimed water

This timeline documents work on the issue of reclaimed water and water rights impairment. It does not include all the additional work completed by Department of Health and Ecology on other reclaimed water issues and rule development.

1992 – Reclaimed Water Use act passed, Chapter 90.46 RCW.
The original law, a joint program between the departments of Ecology and Health, encouraged reclaimed water use consistent with environmental and public health protection. The law was silent on the issue of water rights.

1995 - Stakeholder experience showed that the lack of certainty over the right to use reclaimed water impeded use. The two most controversial points were the rights of:

1. Contributors of the sanitary sewage versus wastewater treatment facilities to the reclaimed water.
2. Wastewater treatment facilities versus the rights of downstream users to the discharged effluent.

In response, the agencies developed a proposal to address reclaimed water right issues but did not receive funding.

1996 – Based on stakeholder input, Ecology convened a volunteer workgroup of attorneys to address the issues. The workgroup developed a list of key issues and questions. Individual attorneys were assigned to survey and report on statutes, case laws, state regulations, policies, and practices for reclaimed water rights in individual states. Staff from Ecology, DOH, and the Attorney General's Office provided oversight through a steering committee.

The report focused on the issue of rights of treatment facilities versus the rights of downstream users. The survey found that the range of states' approaches to addressing rights of downstream users fell between two theoretical extremes: strict adherence to prior appropriation requirements and the absolute right to reuse water.

In the fall of 1996 and winter of 1997, Ecology subsequently convened a Reclaimed Water Rights Policy Work Group to build on the foundation laid by the attorney's work group.

1997 - At the same time, the Legislature adopted ESSB 5725, which provides:

1. Reclaimed water from municipal wastewater facilities[3], permitted under the Reclaimed Water Use act, belongs to the owner of the treatment facility.[4]

2. The generation and distribution of reclaimed water is exempt from the water right permitting process.[5]

3. Facilities that reclaim water must "not impair any existing water right downstream from any freshwater discharge points of such facilities unless compensation or mitigation for such impairment is agreed to by the holder of the affected water right."[6]

2001 – SSB 5925 grants the authority for agricultural processing plants to reuse process water. It contains a water right impairment clause similar, but not identical to, the existing municipal impairment clause. This law recognizes impairment only for water rights within the same water source as the source of water supply for the agricultural processing plant. That is, the law does not consider water rights dependent on wastewater effluent derived from other sources of supply – foreign flows – as impaired. This is consistent with basic concepts in western water law and case law in Washington. In addition, the law considers impairment only for water rights downstream from the facility's wastewater discharge point existing on July 22, 2001 (the date of legislation).[7]

2002 – EHB 2993 grants authority for industrial plants to reuse process water and adds the same impairment language as used for the agricultural processing plants in 2001. Water rights that could be impaired are limited to those downstream of the industrial processing facility wastewater discharge points existing on June 13, 2002 (date of legislation).[8]

2003 – Katharine Cupps, Ecology's reclaimed water lead, convened a joint agency, staff-level work group to address the various water quality, public health, and water right impairment issues. Because of the number and complexity of questions and limited staff time, the workgroup focused on priorities requiring a timely response to implement actual reclaimed water projects.

For water rights impairment, the workgroup addressed the following:

1. Defining impairment.
2. Clarifying Ecology's role in determining impairment.
3. Considering both in-stream flows and out-of-stream diversions.
4. Including groundwater in hydraulic continuity with surface water (i.e. flow passes from one to the other).
5. Use of state water to convey reclaimed water from the point of generation to the place of use.

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[3] This did not include private industrial or commercial facilities. These are addressed in 2001 and 2002 legislation.
[4] Codified as RCW 90.46.120(1)
[5] RCW 90.46.120(1)
[6] RCW 90.46.130(1)
7 RCW 90.46.130(2) and RCW 90.46.150.
8 RCW 90.46.130(2) and RCW 90.46.160.

2006 – The Legislature enacted ESHB 2884 requiring Ecology to adopt rules addressing all aspects of reclaimed water. The bill required Ecology to form an advisory committee to provide technical assistance in the development of standards, procedures, and guidelines required under the bill. Ecology convened the Reclaimed Water Use Rule Advisory Committee in October 2006 for this purpose.

Ecology reassigned Katharine Cupps to work on the Rule Advisory Committee and to develop the rule, and put the staff workgroup efforts, including impairment guidance, on hold. The document was not vetted through any external review. The guidance was first used for the Carnation reclaimed water facility.

2007 – The Legislature enacted E2SSB 6117 to reaffirm the state's commitment to reclaimed water use. The legislation expanded the role of the rule advisory committee to address further issues and required extensive agency reporting. The water right aspects included:

1. Changes to the impairment standard.
2. Changes to the process in the water right impairment guidance document.
3. Requirements that Ecology convene a task force to review issues related to reclaimed water and water right impairment.
4. Authority to permit aquifer storage and recovery of reclaimed water under Chapter 90.46 RCW.

The Governor vetoed the section of the legislation on items 1) through 3) above. Her veto retained existing standards and processes, and recognized the need for further work. She directed Ecology to work with legislative leadership to address water right impairment from water reuse projects, reclaimed water planning, and other issues raised in Sections 3 and 4 of E2SSB 6117. She directed Ecology to provide a report and recommendations to the Governor and appropriate standing committees of the legislature by December 31, 2007.

While the veto removed the legislative mandate to convene a task force, Ecology determined it important to assure a broad representation of stakeholder viewpoints and convened the Reclaimed Water and Water Rights Advisory Committee (RW-WRAC) in August 2007.

The Puget Sound Partnership, the Environmental Law Institute (ELI), and Ecology provided funding for legal research to help support the agency's efforts on reclaimed water. ELI is an independent, non-partisan, environmental education and policy research center. ELI provides background information but does not make recommendations for changes in Washington's laws. ELI conducted research updating the 1996 survey of other states' approaches to address reclaimed water and water right impairment. A report was provided to Ecology documenting the research and findings.

A report on reclaimed water was submitted to the Governor and legislature at the end of the year. It provided a update on a number of aspects of reclaimed water. The water rights impairment chapter reported that stakeholder group had been convened and was working on providing input to Ecology on the water right issues.

In 2007, Ecology also received funding for a staff position to chair the staff workgroup. The group reconvened in September 2007.

2008 – The RW-WRAC began work in earnest and developed a process to address the assessment of potential water right impairment and how to address impairment, if any.

At the end of the year, there was no agreement on changes to the statute relative to water rights impairment and the committee work was still in progress on various impairment details.

Ecology submitted a report to the legislature with the following recommendation on water rights. "The Committee recommends no statutory changes in 2009 to the impairment standard. Most of the issues and questions raised by stakeholders can be addressed by updating the existing guidance and through developing a new rule. Statutory changes can be considered again at a later date, if necessary for effective implementation."

2009- Ecology and Health determined that other changes to the law were needed in order to complete the new reclaimed water rule. Agency request legislation (SSB 5504) was passed granting permitting authority, establishing the concept of lead agency, and making other clarifying changes to the statute.

Relative to water rights impairment, the bill also stated, "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 Yakama Nation requested that the Governor veto the bill. Their position included a statement that "the legislature should not pass any bill clarifying agency authority to permit reclaimed water and water reuse projects without simultaneously clarifying agency authority and responsibility to protect existing water rights, including instream flows, from impairment."

The Governor did not veto the bill, but directed Ecology to "work with the Tribe and others to develop a proposal for amendments to the impairment standard to ensure that we are protecting our water resources and complying with our agreements."

Ecology and the RW-WRAC continued meeting during the remainder of 2009. Work included refining a definition of impairment, taking input from the RW-WRAC and the Rule Advisory Committee on impairment standards and requirements, and developing details of the impairment review process.

Ecology submitted a report to the legislature at the end of the year documenting positions of the stakeholders and agency recommendations on impairment.

Appendix F: Environmental Law Institute Report

ENVIRONMENTAL
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Water Right Impairment in Reclamation and Reuse

How Other Western States Can Inform Washington Law

OCTOBER 2007

Adam Schempp
Staff Attorney

Jay Austin
Senior Attorney

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Introduction

Conserving and recovering Washington's aquatic ecosystems will require numerous efforts, not least of which is addressing the quality and quantity of water in the state. Water reclamation and reuse offers an opportunity to limit polluting discharges from municipal wastewater treatment plants and other sources to Washington's surface waters and directly to the Puget Sound. However, the nature of western water law and the statutory variations specific to Washington present barriers to this endeavor. Water rights under the prior appropriation system are based upon the flows available at the time of initial appropriation, which can include return flows, seepage, and wastewater. Therefore, a downstream water user's right, and the very stability of the water distribution scheme, may depend on continued releases by upstream users. Washington's statutory protection against "impairment" of the rights of downstream users reinforces this common-law concept. Such protection of downstream water rights can make upstream water reuse difficult, since additional upstream consumption can result in impairment of existing rights in highly allocated basins.

Western states have balanced reclamation policies and water rights in different ways, guided by the laws and politics of the state.[9] For example, as between the rights of treatment facilities and the rights of contributors to their sewage flow -- such as multiple municipal water services contributing to a single treatment facility -- both Washington and California have vested the rights to reclaimed water, once treated, to the treatment facility owner. In other states, such as Utah, the original appropriators retain their rights until the water reaches a public watercourse. As between reclaimers and downstream users, states have established policies and procedures that lie somewhere on a theoretical spectrum between, at one end, a strict adherence to appropriation requirements, and on the other, an absolute right to reuse.

As a general matter, states such as Washington that have had recent input from their legislature on water reclamation and reuse have tended to leave the prior appropriation system intact. Conversely, due to the authority of courts to determine what is and is not a violation of the prior appropriation scheme, states that have left the issue to common-law have tended to evolve certain exceptions that favor reclamation and reuse. Under either legal system, however, there remains some flexibility in the amount of protection provided for right holders. States starting with a baseline of strict appropriation requirements have streamlined their procedures for reclaimed water permits, or even shifted the burden of identifying and proving water right impairment to the downstream user. States closer to the "right to reuse" side of the spectrum do not always allow reuse of sewage effluent outside of the municipal borders stated in the original water right, or for beneficial uses different from the one listed in the original right.

Distinct from this policy decision are several other concepts that shape the legal landscape and potentially influence the ability to reuse wastewater effluent. The common-law

[9] The western states analyzed in this paper were selected through discussions between Washington Department of Ecology staff and the Environmental Law Institute. The information gathered was drawn from statutes, regulations, and personal interviews with key staff from the various states. ELI is solely responsible for the interpretation of these materials expressed here.

doctrine of "capture and reuse" traditionally is limited to irrigation waters, but the expansion of the "wastewater rule" in several western states suggests that a broader interpretation could be possible. Further, the original source of the water can determine a user's rights in some states. In Washington and elsewhere, the original appropriator of foreign flows cannot be compelled to continue discharges of water from that source by downstream users. In California, the same is true for water originating from an aquifer.

The Washington State Legislature and Department of Ecology face the challenge of reconciling these legal limits and previous legislative pronouncements with the policy goal of encouraging and increasing water reclamation and reuse where it is appropriate. But even within the existing water rights framework, there are realistic options to restate and further streamline Washington's water reuse application procedures.

Water Rights Impairment

A. Brief Background on Water Rights

Following the European notion that water is a natural resource held in common for the public good, the State of Washington has declared, in both its Constitution and statutes, that water is held in trust for the people of the state.[10] However, individuals have the right to put this public resource to private use. Theories on how to allocate this individual use right took two dominant forms in the United States, and created a mixed system in Washington in its early history.

The riparian doctrine ties rights to a particular body of water to the land adjacent to it.[11] In this doctrine's classic form, multiple landowners adjacent to the same waterbody have equal rights to the water, and in times of shortage, each user's share is reduced proportionately.[12] Because the riparian doctrine is most appropriate in areas with plentiful water and where most people are adjacent to a waterbody, development in the western United States, specifically mining, brought about the prior appropriation doctrine.[13] Often explained as "first in time, first in right," the classic form of this doctrine prioritizes individual's rights, the earliest appropriator being "senior" to all subsequent, or "junior," appropriators. Hence, "junior" users would be prohibited from diverting water if such usage would prevent "senior" users from exercising the full amount of their water rights.[14]

Originally, Washington courts followed California's lead in determining the nature of these individual use rights: prior appropriation law was used for rights on unpatented federal

[10] JAMES K. PHARRIS & P. THOMAS MCDONALD, WASHINGTON STATE OFFICE OF THE ATTORNEY GENERAL, AN INTRODUCTION TO WASHINGTON WATER LAW 1-2 (2000).
[11] *Id.* at 2.
[12] *Id.*
[13] *Id.* at 3.
[14] *Id.*

lands, and the riparian doctrine was used in all other cases.[15] However, the Washington Legislature favored the prior appropriation doctrine, eventually passing the first comprehensive water code in 1917, which adopted the prior appropriation standard for water rights issuances and adjudications.[16] The courts gradually withdrew from the riparian doctrine, ultimately melding riparian rights into the prior appropriation doctrine by requiring beneficial use of riparian rights and prioritizing those rights in the same manner as appropriated rights.[17] While Washington remains a "mixed" water rights system to this day, in practice it is governed by the doctrine of prior appropriation.[18]

Definition of "Impairment"

Under the prior appropriation doctrine, a water right holder has a right to a predetermined amount of water as against all others except those to whom the user is junior. Impairment of this right violates Washington state law.[19] For purposes of reclaimed water applications, the Washington Department of Ecology presently defines "impairment" as:

> [A] condition caused by someone or something other than a natural condition where a water right holder cannot carry out the beneficial use(s) for which the right was perfected using reasonable care and diligence. Ecology considers a reclaimed water impairment analysis in the same context as the issuance of a new water right pursuant to RCW 90.03.290 and RCW 90.44.060.[20]

When considering the legal implications of reclaiming water, the potential for water right impairment is a critical issue. While reclaiming water can increase the quantity of usable water in one location, it may impair water rights of others if the water is consumptively used.

Reclaimers' Rights Against Contributors

While water right impairment in the reclaimed water context most commonly concerns upstream reuse threatening to impair the rights of senior downstream users -- an issue discussed below -- the rights of treatment facilities as against their wastewater contributors also can be contentious. Before the recent advancement of treatment technology, wastewater, particularly municipal effluent and industrial process water, was viewed as a pollution problem rather than a natural resource. At that time, treatment plants performed a service, and parties rarely had an interest in the resulting water prior to its release into the nearest waterbody. However, with water supplies increasingly unable to satisfy the demand for water throughout the West, treated

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[15] *Id.*
[16] *Id.* at 4.
[17] *Id.*
[18] *Id.*
[19] *See* WASH. REV. CODE §§ 90.03.290(3), 90.42.040(4), 90.44.100(2).
[20] WASH. STATE DEP'T OF ECOLOGY, WATER RIGHTS IMPAIRMENT ANALYSIS GUIDANCE FOR RECLAIMED WATER FACILITIES 2 (2006).

wastewater has become widely viewed as a viable commodity. This has created conflict over who owns the rights to the treated effluent.

On one hand, leaving the water rights with the original holders until the water is released back into a waterbody is an analytically simple solution and the most consistent with the prior appropriation system. However, from a policy perspective, this legal structure allows contributors to a wastewater stream to reclaim the water themselves or demand rights to or compensation for the subsequently treated water, which would deter investment in the technology needed to treat to high-level reuse standards. These issues can be settled through contract, but established treatment plants seeking new markets for their discharge could suffer from parties holding out for a share of the proceeds.

On the other hand, vesting treatment plants with rights to treated water removes the possibility of claims by wastewater contributors. However, this policy is less defensible within the prior appropriation doctrine and does not necessarily alleviate concern over contributors reclaiming the water themselves or diverting wastewater prior to its arrival at the treatment plant.

A.In Washington

The Washington Legislature has decided on the latter option, vesting certain categories of wastewater treatment facilities with an "exclusive right" to the water they treat. Most important, regarding "water and wastes discharged from homes, businesses, and industry to the sewer system,"[21] the state code provides that "[t]he owner of a wastewater treatment facility that is reclaiming water with a permit issued under this chapter has the exclusive right to any reclaimed water generated by the wastewater treatment facility."[22] (Separate code provisions targeted at industrial and agricultural industrial water reclamation contain parallel "exclusive right" language.)[23] Given that municipal wastewater effluent is the primary arena for producing reclaimed water, and for potential arguments over the rights of contributors versus treatment plant owners, this provision goes a long way toward encouraging and protecting investment by utilities or other treatment plant owners.

What this provision appears to leave open, however, is who has a right to the water prior to its treatment. A strict reading of the text might suggest that the treatment plant owner gains a right to the water only *after* the reclaimed water is "generated." On this reading, wastewater

[21] WASH. REV. CODE § 90.46.010(20).
[22] *Id.* § 90.46.120(1).
[23] WASH. REV. CODE §§ 90.46.150, 160. Section 90.46.150 states, "The owner of the agricultural processing plant who obtains a permit under this section has the exclusive right to the use of any agricultural industrial process water generated from the plant and to the distribution of such water through facilities including irrigation systems." Section 90.46.160 states, "The owner of the industrial plant who obtains a permit under this section has the exclusive right to the use of any industrial reuse water generated from the plant and to the distribution of such water." These appear to be valuable as enabling provisions for their respective sectors, but unlike the municipal provision, they do not seem to change the rights landscape, since there are no analogous upstream contributors to the industrial process water, and since (as discussed below) WASH. REV. CODE § 90.46.130(1) continues to protect downstream users from impairment.

contributors may have full rights to withhold their wastewater and treat it themselves, potentially undermining distribution of reclaimed water by the downstream treatment plant. Thus, regardless of the present state of water rights law, contracts between the parties may be the most secure means of protecting investment in wastewater treatment technology.

B.In Other States

Other western states have addressed this issue in a definitive manner, but not all of them have come to the same conclusion. California has a statute very similar to Washington's: "The owner of a waste water treatment plant operated for the purpose of treating wastes from a sanitary sewer system shall hold the exclusive right to the treated waste water as against anyone who has supplied the water discharged into the waste water collection and treatment system."[24]

Conversely, Utah requires that rights to reused water be based in an original water right, the beneficial use of which is generating wastewater as a by-product.[25] Water rights do not automatically attach upon treatment. Thus, a wastewater treatment plant either must privately contract for the right to use the reclaimed water[26] or, if there is unappropriated water in the source, it may get a reuse authorization contract in addition to filing an application for a water right.[27] The latter is rarely used, since most basins in Utah are fully appropriated; and if the one at issue is not, a user often will choose to appropriate the new water rather than treat used water.[28] Hence, this system is highly dependent on contracts. But, that dependence has made it work effectively, because it gives treatment plant owners confidence that they have rights to the treated wastewater.[29]

Reclaimers' Rights Against Downstream Users

Most of the controversy over water rights in the reclamation context relates to potential impairment of downstream water rights. Since its inception, the prior appropriation system has relied upon seepage, return flows, and surface runoff to fulfill the claims of downstream users. Due in large part to the specific uses, primarily agriculture and mining, and primitive technology in the early years of western settlement, the quantity of a water right holder's allocation greatly exceeded his actual consumptive use. In fully allocated rivers, this meant that downstream users relied upon the difference between allocation and consumptive use by upstream users for fulfillment of their water rights. Downstream users that are senior to an upstream user have full rights to their allocated sums, even at the expense of the upstream junior user; however, the upstream user still may divert his full allocation so long as enough water is subsequently released to fulfill the rights of the downstream senior user. Seepage, return flows, and surface runoff can all play a role in ensuring that the senior downstream users' rights are not impaired. Similarly,

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[24] CAL. WATER CODE § 1210.
[25] Telephone Interview with Jerry D. Olds, P.E., State Engineer, Utah Div. of Water Rights (July 31, 2007).
[26] UTAH CODE ANN. § 73-3c-202.
[27] *Id.*; Telephone Interview with Jerry D. Olds, *supra* note 17.
[28] Telephone Interview with Jerry D. Olds, *supra* note 17.
[29] *Id.*

junior downstream users theoretically founded their appropriative right on the water discharged by the senior upstream users. In both instances, maintaining the status quo of consumptive use by each right holder in the basin creates stability in the system.

But increased demand, more fully allocated waterbodies, and improved technology have put significant strain on the delicate structure of the prior appropriation system. Along with more efficient irrigation techniques, vastly improved wastewater treatment facilities have raised the prospect of greater consumptive use by upstream users and potential impairment of downstream water rights. Water reclamation and reuse improves efficiency and water quality, but prevents discharges to a waterbody that otherwise would have occurred.

If there is no consumptive use of the reclaimed water, for example, for use in toilets, and the water is later discharged to the original waterbody, then there is no net loss to the basin from the reclamation. Similarly, if water reclamation and reuse is coupled with a reduction in the amount of water diverted from the river equal to the amount being reclaimed, there is no net loss to the basin. However, both of these scenarios are rare, as indicated by the fact that reclaimed water is often used for park and golf course irrigation or otherwise viewed as an additional water source, leading to lower streamflows. The challenge faced by policymakers is to encourage water reclamation, but in a way that will prevent impairment of downstream water rights.

A.In Washington

In Washington as in other western states, the balance between encouraging water reclamation and reuse and protecting downstream water rights has been struck by simplifying permitting requirements for reclamation projects, while creating express statutory protection for downstream water rights.

First, Washington law completely exempts specific sources from the usual procedural requirements for obtaining a water right permit: "Use, distribution, and the recovery from aquifer storage of the reclaimed water by the owner of the wastewater treatment facility is exempt from the permit requirements of RCW 90.03.250 [the water appropriation permit] and 90.44.060 [the groundwater appropriation permit]."[30] Similarly, for agricultural production plants and industrial plants, "Use and distribution of the water by the owner is exempt from the permit requirements of RCW 90.03.250, 90.03.380, 90.44.060, and 90.44.100."[31] These provisions greatly ease the process of reclaiming water and distributing it, since no distinct water appropriation permits are required for that purpose. Instead, conditions on a water right for the use of the reclaimed water are included in a single permit along with water quality and Department of Health provisions.[32]

Second, Washington law uses direct statutory language that protects the rights of downstream water users from potential impairment by water reclamation: "facilities that reclaim water under this chapter shall not impair any existing water right downstream from any

[30] WASH. REV. CODE § 90.46.120(1).
[31] *Id.* §§ 90.46.150, 160.
[32] *Id.* § 90.46.030.

freshwater discharge points of such facilities unless compensation or mitigation for such impairment is agreed to by the holder of the affected water right."[33] The statute is silent as to what constitutes "impairment" in this context, nor does it mention who determines whether there is impairment, or how or when this determination is made.

The Washington Department of Ecology has issued guidance concluding that a written analysis by the reclamation project proponent is necessary to evaluate the potential impairment of water right holders when a facility begins to reclaim water.[34] With technical assistance from the Department of Ecology, the project proponent must determine which downstream right holders may be affected by the proposed project given the hydrology of the basin and record low flow levels. This impairment self-assessment requirement places some burden on the project proponent and is a potential disincentive to water reclamation; but it as also creates an opportunity to be directly involved in the impairment determination, and still results in a more streamlined approval system than conventional water right permitting procedures.

B.In Other States: A Spectrum of Approaches

The Theoretical Extremes

Nearly all western states have established some balance between encouraging water reclamation and reuse and protecting downstream water rights, whether through legislation or court decisions. Analytically, the spectrum of options for striking this balance falls between two theoretical extremes: at one end, strict adherence to prior appropriation requirements, and at the other, an absolute right to reuse water.

Requiring reclamation projects to adhere to the procedural requirements for new water appropriations provides the maximum protection for rights holders, but little legal incentive for reclaiming water. Economically, the cost of water reuse, both in terms of treatment and infrastructure, may already make it a less-appealing option than obtaining additional water allocations, where available. If the law treats reclaimed water the same as a new water allocation, then applicants would simply get new allocations instead of reclaiming water, and reclamation projects would be limited to over-allocated basins.

On the other end of the spectrum, an absolute right to reuse water would offer the fewest procedural hurdles to reclaiming water and unparalleled certainty in the right to the reclaimed water, but also no protection of downstream users. Such an absolute right to reuse would vest the reclaimer with full rights to use or sell the reclaimed water; in essence, if the source of the wastewater had the legal right to divert the water, subsequent reclamation and reuse of that water is deemed not to impair other water rights. Several jurisdictions have adopted common-law variants of this rule, as explained below, but a prominent theoretical argument supporting it was advanced by Stuart L. Somach in a 1984 issue of the *Pacific Law Journal*. Somach argues that rights to reclaimed water should be held exclusively by the treatment plant owner as against any

[33] *Id.* § 90.46.130(1).
[34] WASH. STATE DEP'T OF ECOLOGY, *supra* note 12.

up- or downstream rights holder, and that traditional water right concepts do not apply to treated wastewater return flows since they have been so substantially changed that they are now "foreign" waters.[35]

The Practiced Approaches

Most western states fall somewhere between these two extremes. Generally speaking, states that have had recent input from their legislature on water reclamation and reuse have tended to leave the prior appropriation system intact, while making certain legislative or regulatory accommodations to reclamation projects; whereas states that have left the issue to common-law have tended to evolve exceptions that favor reclamation and reuse. Within each type of legal framework, there are a variety of models. These are discussed below in an order ranging (roughly) from those most protective of water rights to those that more freely encourage reclamation and reuse.

Modified Permit Procedures

States, like Washington and California, that explicitly prohibit the impairment of downstream water users fall much closer to the "strict appropriation requirements" model than the "absolute right to reuse" model. In these states, legislative or agency accommodation of reclamation projects tends to take the form of streamlined permitting procedures or other procedural tools. Setting the requirements of a permit application, as well as who bears the burden of identifying impairment, can make a significant difference both in the difficulty of getting a reclamation permit, and in the level of protection for downstream users. In general, the more liberally a state deviates from strict appropriation requirements in water reclamation permitting, the greater the incentives it provides for reclamation.

Form of Application

The application requirements for water reclamation and reuse projects provide an initial opportunity to ease the process of obtaining a right to reclaim and reuse wastewater. While many states have adopted simplified application procedures, others actually have made their procedures somewhat more complex for water reuse than for appropriation of instream flows. But the rationale for the added protections tends to have as much to do with ensuring that the beneficial uses to which the reclaimed water is being put fit within the permitted uses as it does with protecting downstream users.

Utah. Utah simplifies its water reuse applications with regard to the amount of information required, but also mandates an application to the Water Quality Board, which is not a part of an application for streamflow appropriation.

First, a water reuse proponent must submit an application to the State Engineer that includes:

[35] Stuart L. Somach, *Who Owns Reclaimed Wastewater?*, 25 PAC. L. J. 1087 (1984).

> (a) the name of the applicant; (b) a description of the underlying water right; (c) an evaluation of the underlying water right's diversion, depletion, and return flow requirements; (d) the estimated quantity of water to be reused; (e) the location of the POTW; (f) the place, purpose, and extent of the proposed water reuse; (g) an evaluation of depletion from the hydrologic system caused by the water reuse; and (h) any other information consistent with this chapter that is requested by the state engineer.[36]

Because many of the details required for streamflow appropriation applications are encapsulated in the description of the underlying water right in the reuse application, the data needed for a reuse application is somewhat less. On the other hand, unlike reuse applications, streamflow appropriation applications do not require an evaluation of hydrologic system depletion from the use.[37] This potentially could be an expensive and time-consuming endeavor for the applicant, but application submissions to date suggest that agency expectations are low for the level of technical sophistication and detail in these evaluations.[38]

Additionally, water reuse proponents must submit an application to the Utah Water Quality Board, which will review the proposal to ensure "that water reuse meet[s] standards and requirements for water quality set by the Water Quality Board."[39] This procedure was added by legislation in 2006 and coincides with a conscious effort in the state to ensure communication between the Water Quality Board and the State Engineer. Again, streamflow appropriation applications do not require this procedure,[40] making the application requirements for water reuse in Utah arguably greater than the requirements for appropriation applications.

Nevada. Nevada encourages water reclamation proponents to submit both a primary and secondary application, as opposed to a new appropriation application.[41] As outlined in Section 533.440 of the Nevada Revised Statutes, the primary application quantifies the total discharges of the sewage treatment facility, and the secondary application details how much of the discharge will be beneficially reused, and how.[42] The applicant must also get approval from the Nevada Division of Environmental Protection (NDEP) regarding water quality issues. If the applicant receives NDEP approval for the primary application, the Division of Water Resources (DWR) almost always will approve the treatment plant discharges, since they are adding water to the system.[43] However, while NDEP approval substantially helps an applicant's chances of overall approval, DWR still performs a detailed inquiry into the finances and other capacities of the applicant to carry out the beneficial use.[44] Additionally, if the applicant is proposing to reuse

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[36] UTAH CODE ANN. § 73-3c-302(2).
[37] *See Id.* § 73-3-2.
[38] *See* Sewage Effluent Numbers NS001-NS012, http://www.waterrights.utah.gov/cgi-bin/wrprint.exe?Startup.
[39] *Id.* § 73-3c-301.
[40] *See Id.* § 73-3.
[41] Telephone Interview with Richard Lisle, Div. of Water Res., State of Nev. Dep't of Conservation and Natural Res. (August 16, 2007).
[42] *Id.*
[43] *Id.*
[44] *Id.*

effluent that historically has been discharged into a waterbody, DWR will determine if such a project would impair the rights of downstream users.

Despite this extensive application process, water reclamation proponents universally have chosen this procedure for the past ten to fifteen years, due in part to DWR encouragement but also for its flexibility and lack of notice requirements.[45] When applying for a new appropriation permit, whether surface water or effluent is the source, the applicant must specify the precise beneficial use and where it will take place.[46] Under the primary/secondary application procedure, an applicant may submit numerous secondary applications for one primary application, allowing multiple supplemental options for beneficial use of the reclaimed water. For example, a water reclamation proponent may submit a secondary application for reuse of the entire amount on a public park, and another secondary application for reuse of the entire amount for instream flow. Thus, when the water is needed for the park, up to the full amount may be diverted to that use; any remainder would be used for instream flows.[47] This flexibility in use is a significant incentive for water reclamation over new appropriation.

Additionally, new appropriation applications require formal notice in a newspaper, and these often attract significant opposition.[48] Primary applications also require notice in a newspaper, but these rarely attract opposition from a water quantity standpoint because they are adding water to the system.[49] Secondary applications, which pertain to the beneficial use of the reclaimed water, do not require notice of the application;[50] thus, opposition is rare. The DWR still thoroughly investigates the potential for water right impairment, but the lack of public opposition makes the application process easier for the reclamation proponent than a new appropriation application.

California. California protects downstream water rights from impairment through the procedures designed for changes in point of diversion, place of use, or purpose of use[51] rather than procedures for water appropriation. Section 1211 of the California Water Code states that, "Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater, the owner of any wastewater treatment plant shall obtain approval of the board for that change."[52] This provision applies "to changes in the discharge or use of treated wastewater that … result in decreasing the flow in any portion of a watercourse."[53]

Theoretically, consumptive reuse, which decreases the amount of water discharged to the watercourse, is a change in discharge and can be a change in place and purpose of use. Also, change of use applications are designed to protect downstream users, ensuring that the new use,

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[45] *Id.*
[46] *Id.*
[47] *Id.*
[48] *Id.*
[49] *Id.*
[50] NEV. REV. STAT. 533.440(1).
[51] Andrew H. Sawyer, *Improving Efficiency Incrementally: The Governor's Commission Attacks Waste and Unreasonable Use*, 36 MCGEORGE L. REV. 209, 228 (2005).
[52] CAL. WATER CODE § 1211(a).
[53] *Id.* § 1211(b).

location, or point of diversion or discharge does not so affect other users as to cause impairment. Thus, complying with this process is a reasonable alternative to the more laborious streamflow appropriation applications. However, pursuing an appropriation application, or treating water reclamation applications the same as appropriation applications, has the benefit of positioning the reclaimed water within the chronological appropriation of rights. This is especially true in states like Washington and California, which legislatively vest the treatment plant owner with rights in reclaimed water, since it is not fully clear whether this reclaimed water retains the appropriation date of the original beneficial use. In Washington this is significant only in the case of a lawsuit because the owner of the treatment plant may sell or lease the reclaimed water without going through the permit system to which other water is subject.[54]

As one California lawyer explains, "in simply directing the SWRCB to review reclamation change petitions under a procedure originally designed for changes under existing appropriation permits, the Legislature did not provide a means for establishing a priority date or quantity for the new reclamation use."[55] Combined with the fact that "the Legislature did not state that water approved for reclamation under this procedure would no longer be available for appropriation by others," "These uncertainties may leave the wastewater treatment facility open to future challenges, even though it obtained Board approval to reclaim water under a petition for change."[56] As a result, "the wastewater treatment facility owner may find that the change petition procedure offers no significant short-cut to approval," and pursuing the appropriation right may be a legally prudent course of action.[57]

Oregon. Oregon completely exempts municipal wastewater reclamation and reuse from the application requirements for a water appropriation permit,[58] as long as three protective criteria are satisfied:

> (a) The use of reclaimed water is authorized by the national pollutant discharge elimination system or water pollution control facilities permit issued pursuant to ORS 468B.050 or 468B.053;
> (b) The Department of Environmental Quality, in reviewing an application for a permit pursuant to ORS 468B.050 or 468B.053, has consulted with the State Department of Fish and Wildlife on the impact to fish and wildlife to determine that the application of reclaimed water under ORS 537.130, 537.131, 537.132, 540.510 and 540.610 shall not have a significant negative impact on fish and wildlife; and
> (c) The Department of Environmental Quality has determined the use of reclaimed water is intended to improve the water quality of the receiving stream.[59]

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[54] WASH. REV. CODE §§ 90.03.252, 90.44.062, 90.46.120(1).
[55] Carolyn S. Richardson, *Legal Aspects of Irrigation with Reclaimed Water in California*, *in* IRRIGATION WITH RECLAIMED MUNICIPAL WATER: A GUIDANCE MANUAL 11-7 (G. Stuart Pettygrove & Takashi Asano eds., 1984).
[56] *Id.*
[57] *Id.*
[58] *See* OR. REV. STAT. § 537.131, 132(1).
[59] OR. REV. STAT. § 537.132(1).

This statute is unique in that, aside from the potential impact to fish and wildlife from reduced streamflows, all of these criteria concern water quality rather than quantity. Since the exemption is from appropriation permit requirements, which are primarily designed to protect senior users from subsequent appropriations, the measures required here for exemption do not seem to parallel the quantity-based procedures being bypassed.

Any person using or intending to use reclaimed water must file with the Water Resources Department (WRD) a reclaimed water registration form that includes:

> (a) Name and mailing address of the registrant; (b) The date the use of reclaimed water is initiated; (c) Source of reclaimed water supply, including a description of the location of the reclaimed water treatment facility and the name and mailing address of the owner and operator of the facility; (d) Nature of the use of the reclaimed water; (e) Amount of reclaimed water used or proposed to be used; (f) Location and description of the ditch, canal, pipeline or any other conduction facility used or to be used to transport the reclaimed water from the treatment facility to the place of use; (g) A statement declaring the existence of a written contract or agreement to provide reclaimed water including the name and address of the reclaimed water provider and the date and terms of such contract or agreement; (h) A description of the season of use and the place of use of the reclaimed water, and any restrictions applicable to the use of the reclaimed water; and (i) If the reclaimed water is used in lieu of using water under an existing water right, the application, permit and certificate number of such right, or if the right is granted pursuant to a decree of circuit court, the volume and page number setting forth the right.[60]

While this notifies the WRD of the reuse and provides the information necessary to consider impacts on existing water rights, the WRD does not directly approve or disapprove a project based on this information; it is a registration form, not an application for an appropriation.

Burden of Identifying Impairment

Determining which party is obligated to identify potential impairment is another means of raising or lowering the procedural hurdles faced by water reclamation proponents. The responsibility of discovering whether, and to what extent, a reclamation project impairs a water right can rest with the project proponent, the state agency, or the downstream user. Placing the burden on the proponent can increase the cost of the application process, and consequently lower the incentive to reclaim water. Placing the burden on the agency means that less time and hydrologic expertise is required of the applicant, but the applicant must wait for the agency to calculate the expected consequences to the hydrologic system, as well as compete for agency resources with other submitted applications. Placing the burden of identifying impairment on the downstream user may mean less upfront assessment of hydrologic consequences, but may also increase the chance of subsequent litigation, and result in less long-term security for water rights in general.

[60] *Id.* § 537.132(2).

Washington. As explained above, Washington statutes prohibit water right impairment, but do not expressly dictate who must do the assessment.[61] The Washington Department of Ecology (DOE) has decided that a written analysis by the project proponent, with review by the DOE, is the preferred means of creating the assessment. The DOE has drafted a detailed guidance document on how to research and write an impairment assessment for a reclaimed water facility,[62] and agency support is also available if needed during this process.

Placing the burden of determining impairment in the hands of the project proponent conserves some agency resources, but also presents a potential conflict of interest. As seen in Washington, the state agency must carefully review the determinations of the proponent prior to making the final decision. Additionally, due to the legal and hydrologic expertise required for a complete impairment analysis of this sort, the state continues to provide guidance on how to perform assessments and technical assistance in completing them.

Utah. Utah takes an approach that places the majority of the burden of impairment assessments on the Office of the State Engineer (OSE), but that also asks for input from both project proponents and downstream rights holders. To begin the process, a water reuse proponent must submit to OSE an application that includes, among other information, "an evaluation of depletion from the hydrologic system caused by the water reuse."[63] Upon receipt of the reclamation and reuse application, the OSE provides notice to interested parties through publication in a newspaper local to the proposed project, and allows for a 20-day protest period.[64] The OSE conducts its own impairment assessment using the information from the proponent, any objectors, and other resources at its disposal.[65]

Utah's approach allows input from the proponent, but only with regard to how much the reuse would deplete the available water sources downstream. This does not require detailed consideration of the effects on downstream users or a sophisticated understanding of local hydrology, and thus is less burdensome than a self-assessment requirement. This approach also seeks input from objectors, but only prior to the impairment decision by the OSE; after the protest period has elapsed, proving impairment is much harder. This stops short of placing the entire burden on downstream users, as it provides them with notice of new reclamation and reuse projects and offers a forum for objections outside a courtroom. Yet, the OSE is burdened not only with making the impairment determination, but also with managing all of the aforementioned procedural requirements. Despite all of these process requirements, the structure for impairment assessments in Utah has been successful, primarily because of the certainty of the process and the security in the right to reuse water.[66]

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[61] WASH. REV. CODE § 90.46.130(1).
[62] *See* WASH. STATE DEP'T OF ECOLOGY, *supra* note 12.
[63] UTAH CODE ANN. § 73-3c-302(2).
[64] Telephone Interview with Jerry D. Olds, *supra* note 17.
[65] *Id.*
[66] *Id.*

Oregon. Oregon's process essentially relies on downstream users to raise impairment concerns, but it does not formally notify them of potential impairment in most cases. The Oregon reclamation statute only requires that:

> If a municipality has discharged waste water into a natural watercourse for five or more years, and the discharge represents more than 50 percent of the total average flow of the natural watercourse and if such discharge would cease as a result of the use of reclaimed water in accordance with the provisions of ORS 540.510 (3) and this section, the director of the department shall notify any persons who, according to the department records, have a water right that may be affected by the cessation of the discharge by the municipality.[67]

By implication, if a municipality's effluent discharges comprise anything less than 50% of the total average streamflow – a threshold that would seem to encompass most cases – or those discharges have been conducted for fewer than five years, the state Water Resources Department (WRD) need not formally notify water right holders who may be affected by the water reuse.

With or without formal notice, the burden of presenting the case for impairment appears to rest with the water right holders. If one can "demonstrate[] to the department that the cessation of discharge by the municipality substantially impairs the ability to satisfy a water right, the person shall be entitled to a preference to the use of the reclaimed water."[68] However, under the statute this "preference" must be satisfied by conveyance of reclaimed water through means other than a natural watercourse;[69] it apparently does not amount to a right to demand that the original discharge remain in place or that the reclamation project be stopped.

While Oregon's procedure greatly simplifies the initial burden on the project proponent and the state agency, it ultimately may reduce certainty in the right to reclaimed water. The process appears to grant use of the reclaimed water with little impairment analysis, leaving open a greater chance of actual impairment of existing rights, subsequent lawsuit, and a reduction or loss of the ability to use the reclaimed water. It also places significant pressure on water right holders to identify and defend against potential threats to their rights.

Oregon's approach to reclaimed water may be representative of a state that has had comparatively few water scarcity issues to date, or few reclamation projects proposed in fully allocated basins. Drier states that do not have sufficient flows in many streams may not be able to accommodate such a flexible approach. Even the more water-rich states will need to account for climate change and population growth that foreshadow decreasing supplies and increasing demand respectively. Current streamflows may permit reclamation and reuse without much impairment of downstream users, but the hydrology of the region may not always be so accommodating.

Mechanisms for Compensation

[67] OR. REV. STAT. § 537.132(3).
[68] *Id.* § 537.132(4).
[69] *Id.*

If, despite all preventative and procedural measures, operation of a reclamation project would make impairment of water rights inevitable, the issue of compensation arises. Many western states do not have specific compensation statutes for water right impairment, instead relying on general eminent domain statutes to guide this process. However, Washington law provides some mention of compensation and eminent domain for water rights, while Oregon has established an alternate means of fulfilling the rights of senior users.

Washington. Washington has specific statutory language pertaining to compensation for water right impairment caused by water reclamation and reuse. The relevant provision states that "…facilities that reclaim water under this chapter shall not impair any existing water right downstream from any freshwater discharge points of such facilities *unless compensation or mitigation for such impairment is agreed to by the holder of the affected water right*."[70] While this provision allows for compensation, it sets a subjective standard that requires the consent of the right holder, without which impairment by a water reclamation facility appears to be barred. If this is the only controlling provision, it could give the impaired right holder substantial power to block a water reclamation project.

In 2007, the Washington Legislature attempted to amend this provision to read, "…facilities that reclaim water under this chapter shall not impair any existing water right downstream from any freshwater discharge points of such facilities *unless the impairment is mitigated or the holder of the water right is provided just compensation for the impairment*."[71] If adopted, this provision apparently would have set an objective standard for compensation, in effect removing the right holder's ability to block a proposed reclamation project. However, Governor Christine Gregoire vetoed the section of the bill that included this provision, citing its "unintended consequences to existing water rights."[72]

In addition, Washington has specific reference within its water code to eminent domain and compensation procedures for water rights:

> The beneficial use of water is hereby declared to be a public use, and any person may exercise the right of eminent domain to acquire any property or rights now or hereafter existing when found necessary for the storage of water for, or the application of water to, any beneficial use, including the right to enlarge existing structures employed for the public purposes mentioned in this chapter and use the same in common with the former owner, and including the right and power to condemn an inferior use of water for a superior use. In condemnation proceedings the court shall determine what use will be for the greatest public benefit, and that use shall be deemed a superior one … Such property or rights shall be acquired in

[70] WASH. REV. CODE § 90.46.130(1) (emphasis added).
[71] S.B. 6117, 60th Leg., Reg. Sess. (Wash. 2007) (emphasis added).
[72] Letter from Christine O. Gregoire, Governor, State of Washington, to the Washington State Senate (May 11, 2007), *available at* http://www.governor.wa.gov/billaction/2007/veto/6117.pdf.

> the manner provided by law for the taking of private property for public use by private corporations.[73]

The procedure for a taking of private property for public use by private corporations is further outlined in Section 8.20 of the Washington Revised Code. Under that statute, a jury, or a judge in the absence of a jury, makes the determination of just compensation to be paid to the owner of the condemned property, in this case a water right.[74]

California. California has long viewed water rights as a significant form of real property and treated them as such under state law.[75] The protection of the state's courts applies equally to water rights as it does to other real property.[76] When water rights are "taken" for a public purpose within the meaning of the Fifth or Fourteenth Amendment of the U.S. Constitution or Article 1, Section 19 of the California Constitution, just compensation is required.[77] Unless waived, just compensation is determined by a jury.[78] Only following completion of the eminent domain proceedings and payment of the determined monetary sums to the injured party may the legislature provide for possession of the property by the condemnor.[79] Thus, impairment of water rights in the State of California results in monetary compensation in the amount deemed proper by a jury. This is a common means of compensating for water rights impairment throughout the West, although it is uncertain in Washington whether condemnation is available in the reclaimed water context to avoid impairment of another person's water right.[80]

Oregon. Oregon attempts to protect the water rights of senior appropriators by requiring the treatment facility to grant a "preference" and deliver flows to those users whose rights are impaired by the water reclamation.[81] This approach most closely aligns with the objectives of the prior appropriation system since it preserves the rights to water in the order in which they were perfected. But it also establishes a rather inflexible system of allocation and decreases stability of the treatment plant's right to use or market the reclaimed water. However, Oregon's statute further requires that delivery of this water "shall be accomplished through a conveyance facility or channel other than a natural watercourse."[82] The potential for fulfilling the rights of a senior user through the reclaimed water infrastructure or other means grants some flexibility to the treatment facility. But structuring this provision as a mandate rather than an option, as the statute apparently does, also could add substantial cost to fulfilling downstream rights.

Shifting Responsibility to Judiciary

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[73] WASH. REV. CODE § 90.03.040.
[74] *Id.* § 8.20.080; *see also* Kurt Unger, Washington Department of Ecology, "Just Compensation and Eminent Domain," *at* http://www.ecy.wa.gov/programs/wr/rules/images/pdf/reclaim/justcompensationeminentdomain.pdf.
[75] ANNE J. SCHNEIDER, GOVERNOR'S COMMISSION TO REVIEW CALIFORNIA WATER RIGHTS LAW, LEGAL ASPECTS OF INSTREAM WATER USES IN CALIFORNIA 6 (1978).
[76] *Id.*
[77] *Id.*
[78] CAL. CONST. art. I, § 19.
[79] *Id.*
[80] *See* WASH. REV. CODE § 90.46.130(1)
[81] *See* OR. REV. STAT. § 537.132(4).
[82] *Id.*

Colorado. Colorado has established a unique procedure for managing water resources: the legislature has vested this authority in the judiciary.[83] Colorado is a traditional prior appropriation state, as compared to the hybrid systems in Washington, California, and elsewhere.[84] Appropriative rights are administered by the Division of Water Resources.[85] However, unlike any other prior appropriation state, Colorado does not have a permitting system.[86] Instead, the Colorado Legislature created special state district courts called water courts, one for each major basin in the state, which adjudicate all water right matters.[87] Any appeals of water court decisions proceed directly to the Colorado Supreme Court.[88] While this may complicate the administration of the state's waters, in practice it provides greater flexibility in the system, as the courts do not have the same political concerns or fear of a takings claim as in other states.

This structure allows the Colorado Legislature to largely refrain from addressing water rights issues since the water courts handle the legal questions on a case-by-case basis as they arise. Thus, the state has not adopted specific legislation concerning the rights to municipal wastewater effluent, but the courts have established strong precedent on the matter. In 1906, the Colorado Supreme Court held that one cannot gain a vested right to the captured wastewater of another.[89] The facts of that case concerned excess irrigation water that remained on the right holder's property. In 1972, the Court held that this "wastewater rule" also applies to municipal wastewater effluent, so long as no bad faith or arbitrary or unreasonable conduct is at issue.[90] In 1976, the Court clarified its definition of the wastewater rule, holding that wastewater is to be distinguished from return flows and seepage, the former not being subject to appropriation by a junior user.[91] Thus, the state of the law in Colorado appears to prohibit appropriation of municipal wastewater effluent, or at least the ability of downstream users to compel continued wastewater flows even if they have relied on them in the past. This suggests that water reclamation and reuse by municipal wastewater treatment facilities would never impair downstream water rights.

This is an exceptional outcome for such an over-appropriated state. The Colorado Constitution declares all unappropriated waters of every natural stream to be property of the public and subject to appropriation.[92] These "waters" are presumed to include seepage, flood water, return flow, springs, mine water, and groundwater. To justify distinguishing wastewater from these other second-hand sources of water can be a difficult task, as demonstrated by the text of the aforementioned decisions. However, in *Tongue Creek v. Orchard City*, 280 P.2d 426

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[83] Colorado Foundation for Water Education, Citizen's Guide to Colorado Water Law 12 (2004), http://cfwe.org/CitGuides/CG-Law2004.pdf.
[84] *Id*. at 6.
[85] *Id*. at 17.
[86] *Id*. at 12.
[87] *Id*.
[88] *Id*.
[89] Burkart v. Meiberg, 86 P. 98 (1906).
[90] Metro Denver Sewage v. Farmers Reservoir, 499 P.2d 1190 (1972).
[91] City of Boulder v. Boulder & Left Hand Ditch Co., 557 P.2d 1182 (1976).
[92] COLO. CONST. art. XVI, § 5.

(1955), Justice Lindsley shed light on the reason the court has excepted wastewater from the traditional rules: "the original appropriators have the right, and in fact it is their duty to prevent, as far as possible, all waste of the water which they have appropriated, in order that the others who are entitled thereto may receive the benefit thereof."[93] Thus, the policy rationale for this distinction appears to be a preference for encouraging wastewater reduction, even at the expense of past reliance on those flows by subsequent users.

Common-Law Right to Reuse

In other western states, the question of who owns rights to reclaimed water was first addressed by the courts; often, those decisions subsequently elicited little or no reaction from the respective legislatures. Most of these states have evolved policies that are close to an absolute right to reuse, viewing reclaimed water as largely outside the prior appropriation system. There exist a variety of explanations for these results, and each court may have its own rationale. Perhaps these judges would account for the policy implications of their decisions as Justice Lindsley did in the Colorado *Tongue Creek* case: prevent water users from compelling the continued discharge of wastewater. Regardless of the rationale, a broad reading of the common-law right to reuse, which has expanded to include reclaimed water, is well-established in several western states.

Arizona. Arizona arguably has the most favorable policy toward water reclamation and reuse with regard to water rights, and it is entirely based on a single decision by the Supreme Court of Arizona. In 1989, the court decided in *Arizona Public Service Co. v. Long* that, absent a regulatory scheme for wastewater effluent, those who treat the wastewater are entitled to put it to any reasonable use.[94] The case involved users downstream from a municipal wastewater treatment plant who alleged impairment of their water rights by the treatment plant's sale of its treated effluent to other parties, which halted effluent discharges to the stream.[95] Based on the definition of "effluent" in the Arizona groundwater code, as well as its exclusion from the surface water code and state health regulations,[96] the court held that wastewater effluent does not qualify as surface water or groundwater until it is returned to one of those states.[97] Without further guidance from the legislature on this third category of water, the court turned to common law, namely the wastewater rule. Thus, the court held that "Cities may discontinue the discharge of sewage effluent without violating the rights of those persons or entities which have previously appropriated it … Because the 'producer' of the effluent is a senior appropriator, those who have appropriated the effluent gain no right to compel continued discharge."[98]

Perhaps even more interesting than the legal analyses in the decision are the policy concerns expressly raised by the Arizona court. In making its decision, the court stated that its holding "will allow municipalities to maximize their use of appropriated water and dispose of

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[93] *Boulder*, 557 P.2d at 1185 (quoting KINNEY ON IRRIGATION AND WATER RIGHTS, 2nd ed., volume 2, page 1151, section 661).
[94] Ariz. Pub. Serv. Co. v. Long, 773 P.2d 988, 995 (Ariz. 1989).
[95] *Id.* at 991.
[96] *Id.* at 995.
[97] *Id.* at 994.
[98] *Id.* at 997.

sewage effluent in an economically feasible manner. It also provides a degree of flexibility that is essential to a city's ability to meet federal and state environmental and health standards."[99] The court added, "we think the city should not be hampered by a rule that would always require the sewage to be treated as waste or surplus waters,"[100] as this "would be contrary to the spirit and purpose of Arizona water law, which is to promote the beneficial use of water and to eliminate waste of this precious resource."[101] However, one equally could argue that in a highly appropriated state, the water is not wasted if it is returned to the watercourse and subsequently appropriated downstream -- as was the situation in this case. The only apparent explanation is a preference for improving water quality by eliminating effluent discharges to streams, and rewarding the municipality with the rights to the water it treats. For a very arid state such as Arizona, this amount of deviation from the strict tenets of prior appropriation doctrine is perplexing, but the benefits in promoting water reclamation and reuse are unquestionable.

New Mexico. Like Arizona's, New Mexico's policy regarding rights to reclaimed water is primarily governed by a single seminal decision by the state's highest court. In 1982, in *Reynolds v. City of Roswell*, the Supreme Court of New Mexico held that neither the State Engineer nor downstream users of discharged municipal sewage effluent can compel the continued supply of such water absent a contract, grant, dedication, or condemnation.[102] The case concerned the City of Roswell's applications to the State Engineer to, among other things, change the place of use of a newly acquired water right from one sector of the city to the whole city.[103] The State Engineer determined that this change of place of use would not impair existing water rights, but placed conditions on the permit requiring specific effluent discharges to parts of the Hondo River.[104] The Supreme Court confirmed the holding of the district court that conditions to such permits are allowed only when an impairment is found, and that sewage effluent is private water that the city has a right to reuse.[105]

The Court found that treated sewage effluent constitutes "artificial surface water," which is defined in the New Mexico water code as:

> waters whose appearance or accumulation is due to escape, seepage, loss, waste, drainage or percolation from constructed works, either directly or indirectly, and which depend for their continuance upon the acts of man. Such artificial waters are primarily private and subject to beneficial use by the owner or developer thereof; provided, that when such waters pass unused beyond the domain of the owner or developer and are deposited in a natural stream or watercourse and have not been applied to beneficial use by said owner or developer for a period of four years from the first appearance thereof, they shall be subject to appropriation and use; provided, that no appropriator can acquire a right, excepting by contract,

[99] *Id.* at 995.
[100] *Id.*
[101] *Id.* at 997.
[102] 654 P.2d 537 (1982).
[103] *Id.* at 538.
[104] *Id.* at 539.
[105] *Id.*

> grant, dedication or condemnation, as against the owner or developer compelling him to continue such water supply.[106]

Thus, the producer of the treated sewage effluent has an absolute right to transfer the place of use of the effluent, or to completely discontinue discharges of the effluent, without impairing any vested rights of others so long as there is no contract, grant, dedication, or condemnation of the water. Even though this decision was grounded in part on a legislative provision, that provision codified the common-law right to reuse that is clearly the basis for the outcome.

Montana. Montana also derives its policies on the rights to sewage effluent from the common-law right to reuse, and again primarily due to the decision in a single case. In 1996, the state Department of Natural Resources and Conservation (DNRC) held that a municipality need not file a change of place of use permit application for sewage effluent discharges to land when the intent of the municipality is to dispose of the effluent without causing a nuisance, rather than to irrigate or farm a crop.[107] The City of Deer Lodge had filed a petition for declaratory judgment with the DNRC to resolve what, if any, administrative approval is required before the city halted its historical effluent discharges to the river in favor of land-applying the effluent.[108]

This petition presented an issue of first impression in Montana, namely whether downstream users have the right to continued sewage effluent discharges.[109] The DNRC noted Montana's statutory definition of "water," which includes "sewage effluent."[110] This, according to the agency, makes "clear that other appropriators who want to beneficially use the sewage effluent at issue here can apply to the DNRC to do so."[111] Yet, the agency sought to reconcile this with prior Montana court decisions that refused downstream users the right to compel continued waste or seepage water[112] and other states' significant cases on the subject of water rights to sewage effluent, including the *Long* and *City of Roswell* decisions.[113] Thus, the DNRC held that downstream users may appropriate effluent, but that appropriation is always subject to the preference of the discharger as to whether to discharge.[114] The agency concludes the decision by stating that if the municipality wishes to beneficially use the effluent outside the city limits, it must apply for a change of place of use permit, but its intent simply to land-apply the effluent for water quality purposes does not require such a permit application.[115] And even if required, it does not appear from the text of the decision that this change of place of use application would analyze the effect on downstream users, since those users have no right to compel sewage effluent releases.

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[106] N.M. STAT. ANN. § 72-5-27.
[107] In the Matter of the Petition for Declaratory Judgment by the City of Deer Lodge, B-No. 97514-76G (1996).
[108] *Id.* at 1.
[109] *Id.* at 2-3.
[110] *Id.* at 10.
[111] *Id*.
[112] *Id.* at 3.
[113] *Id.* at 4-8.
[114] *Id.* at 10.
[115] *Id.* at 11.

Idaho. Idaho offers an example of a state that follows this expanded common-law right to reuse, but without any case law or legislation clearly denoting adherence to the rule. Court decisions in Idaho have established that "surface waste and seepage water may be appropriated … subject to the right of the owner to cease wasting it, or in good faith to change the place or manner of wasting it, or to recapture it, so long as he applies it to a beneficial use."[116] This right to reuse is limited to the beneficial use and property boundaries denoted in the initial appropriation.[117] Additionally, the wastewater must be captured before it re-enters a public waterway.[118] This right, and associated restrictions, has been employed by Idaho municipalities for reusing their sewage effluent.[119] This has been effective in large part because municipal water rights in Idaho are viewed as entirely consumptive, making possible the reuse of effluent that historically has been discharged to a watercourse without enlarging the water right or impairing the rights of downstream water appropriators.[120] While this allows municipalities to make more intensive use of their water rights over time, it prohibits use on or sale to other property or for other beneficial uses without a new water right.[121]

Role of Capture and Reuse Doctrine

Like the "wastewater rule," upon which many of the common-law decisions are founded, the common-law "capture and reuse" doctrine allows the right holder to retain his right to appropriated water while it is still on his land and to reapply it to the same area and for the same use as it initially was used. Traditionally, this common-law doctrine pertains to irrigated lands and operates as a means of maximizing the beneficial use of diverted water. The spirit of the doctrine is to promote efficient water use by encouraging farmers to reuse captured irrigation runoff as a replacement for greater surface water diversions or to improve usage of a poor or inadequate water supply. Yet, the letter of the doctrine, which remains consistent with the prior appropriation system, states that the captured water is to be used only on the same land and for the same beneficial use as it was originally applied, effectively limiting consumptive use only to what is permitted under the water right.

As seen above, some state courts have invoked the spirit over the letter of this common-law right to reuse, expanding it to include not just irrigation water or individual users, but also municipal wastewater effluent. However, states like Washington, with express statutory provisions protecting the rights of downstream users, have stuck to the letter of the doctrine. All references to capture and reuse in Washington lead back to the seminal 1909 decision in *Miller v. Wheeler*. While the case primarily concerned rights to foreign water, the court addressed the right of a farmer to his irrigation runoff, holding that "the rights to it while still upon the lands of the owners can be sustained by the same reasoning which under the common law gave a landowner a right to impound for his own use the water percolating through his own soil."[122]

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[116] Sebern v. Moore, 258 P. 176, 178 (1927).
[117] Telephone Interview with Shelley Keen, Idaho Dep't of Water Res. (August 24, 2007).
[118] *Id.*
[119] *Id.*
[120] *Id.*
[121] *Id.*
[122] Miller v. Wheeler, 103 P. 641, 643 (1909).

As recently as 1996, Washington courts have affirmed this right of farmers to reuse their own water allocations, but only on the fields to which the water was originally applied.[123] Additionally, in January 2007, the Department of Ecology issued its interpretation of the law surrounding capture and reuse. This document outlines the water conservation objectives of the doctrine, but also the need for the farmer to have some specific documentation of a water right, the possibility that an additional water right or change of use permit may be needed for capture and reuse, the restriction on use to the purposes authorized by the water right and on the acreage where the water was originally applied, and the prohibition against increasing consumptive use.[124] Thus, while the common-law right to reuse has been interpreted in other jurisdictions to apply to more than just irrigation return flows, such an expansive reading has not been adopted to date in Washington.

Reclaimers' Rights to Foreign Water

Another common-law rule, which has withstood statutory changes in state water law in many instances, is the appropriator's absolute right to reuse "foreign" flows, i.e., those originally appropriated from another water basin. While the common-law rule allows downstream users to appropriate foreign water once it is discharged by the initial appropriator, the downstream user of those discharges has no right to compel future discharges from that water source. This provides the initial appropriator with an absolute right to reuse all of the water that he appropriated from another basin, regardless of the amount and duration of past discharges and subsequent reliance by downstream users.

A.In Washington

Washington has left unaltered this common-law rule regarding rights to foreign water, despite its numerous statutory revisions to other areas of water law. The old but often cited decision of *Miller v. Wheeler* provided a precedent in the state for this rule. The *Miller* court held that the

> waters being the result of the landowners' energy and effort, it would seem but just to say that, so long as he used them or could impound the overflow or waste upon his own land, although for use on other land, one asserting a right of appropriation in no way dependent upon the artificial flow, but made without reference to it, should have no cause to complain.[125]

Thus, a downstream appropriator of water that includes wastewater from lands irrigated by foreign flows cannot compel continued release of water originating from another basin.

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[123] *See* In the Matter of the Determination of the Rights to the Use of the Surface Waters of the Yakima River Drainage Basin, in Accordance with the Provisions of Chapter 90.03, Revised Code of Washington, The State of Washington, Department of Ecology, Plaintiff, v. James J. Acquavella, No. 77-2-01484-5, 3 (Memorandum Opinion Re: Return Flow Exceptions of Harry Masterson and Mary Lou Masterson) (Wash. July 16, 1996).
[124] WASH. STATE DEP'T OF ECOLOGY, FOCUS ON CAPTURE AND REUSE OF IRRIGATION WATER (2007).
[125] 103 P. 641, 642 (1909).

In 1986, the Washington Court of Appeals again confirmed the place of this common-law rule in Washington law. In *Dodge v. Ellensburg Water Co.*, the court held that using return flow of foreign water in one year does not give the user the right to use that water the next year.[126] In that case, the watercourse at issue was naturally fed only by snowmelt runoff, so the only water present there after June was foreign water from one of the three canals feeding it.[127] The Ellensburg Water Company would appropriate all of the summer flows, including water from its canal and the water left from the other two canals, leaving nothing for Dodge.[128] The court held that the first taker of foreign water, in this case the Ellensburg Water Company, had the right to that water.[129] Referencing *Elgin v. Weatherstone*, the court stated that "foreign water, once abandoned by its developer, does not become part of the natural flow of the drainage area where it is discharged and may be used by the first person who takes it."[130] Thus, in Washington, foreign flows remain distinct from natural flows in many aspects of state water law.

B.In California

California also follows the common-law rule for rights to foreign flows. The California Supreme Court's decision in *Stevens v. Oakdale Irrigation District*, , which was cited in the *Dodge* decision in Washington, set the precedent for this rule in California. The Court held that releasing foreign flows into an adjacent watercourse does not constitute "abandonment of a water right, but merely an abandonment of specific portions of water."[131] Therefore, "past abandonment … of certain water, as distinguished from a water right, [does] not confer[] … any right to compel a like abandonment in the future."[132] More recently, the decision in *Los Angeles v. City of San Fernando*[133] reaffirmed this point of law, holding that foreign water is not subject to downstream claims. California court decisions have also been clear that riparian rights do not include foreign flows.

However, California does not draw as clear a distinction between foreign and natural flows as does Washington. One example of this is in the appropriation of foreign flow discharges. In several administrative adjudications, the California State Water Resources Control Board (SWRCB) has held that "a holder of a prior appropriative right has first claim to foreign water introduced into" a watercourse.[134]

In other administrative adjudications, the SWRCB has taken the extra step of expressly limiting a permit so as not to include foreign flows, using language such as "To the extent that water available for use under this permit is foreign water, this permit shall not be construed as

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[126] 729 P.2d 631, 635 (1986).
[127] *Id.*
[128] *Id.*
[129] *Id.*
[130] *Id.* at 635-636.
[131] Stevens v. Oakdale Irrig. Dist., 90 P.2d 58, 61-62 (1939).
[132] *Id.*
[133] 14 Cal.3d 199 (1975).
[134] In the Matter of Application 25153, SWRCB (1979).

giving any assurance that such supply will continue."[135] While such a provision may indicate some uncertainty in the law in California, it could serve as a valuable means of providing notice and preventing reliance on foreign flows by downstream users. This could be useful language for appropriation permits in any state that limits the rights of downstream users to foreign flows.

Reclaimers' Rights to Groundwater

Just as the source of water can determine an appropriator's right to reuse it in the context of foreign flows, the same can be true for groundwater. In practice, this depends on whether ground and surface waters are integrated in a state's legal system. For example, the fact that California separately regulates surface and groundwater usage guided the decision in *Los Angeles v. Glendale*, where the court held that downstream appropriators of surface water cannot claim a right to wastewater originally extracted from a groundwater source.[136]

While this outcome can be beneficial for promoting water reclamation, the distinct legal systems for the two water sources can harm the overall objective of water resource preservation. Since groundwater and surface waters are often hydrologically interrelated, differences in the law can create perverse incentives and unintended consequences in one or the other water source. For example, more lenient regulations of groundwater use than surface water use can result in a substantial drawdown of the aquifer and a reduction in seepage into the surface waters. When designing incentives for water reclamation and reuse, the value of legally integrating hydrologically interdependent water sources should not be overlooked.

Conclusion

Realistically, the Washington State Legislature and Department of Ecology are somewhat limited in their options for promoting water reclamation and reuse by the prior legislative enactments in this subject area. Like California, the state has strongly protected existing water rights, and if the veto of Section 4 of Senate Bill 6117 is any indication, efforts to back away from this position, even at the margins, could prove difficult. Furthermore, unlike the circumstances in Arizona and the other states that are guided more by case law, Washington's reclamation statutes are so comprehensive and so recent that the state courts are unlikely to establish an absolute right to reuse municipal wastewater effluent. Therefore, Washington's position on the policy spectrum is closer to other states that strongly protect water rights holders, and the readily available regulatory options may be more procedural than substantive.

Yet, as demonstrated in Oregon and elsewhere, this situation does not rule out procedures that strongly favor the proponent of the water reclamation and reuse project. The requirements for a water reuse permit application can determine the speed of the process for the applicant, the extent of the substantive review by the agency, and who bears the burden of identifying and

[135] In the Matter of Applications 23838 and 23690, and Permit 1514-O (Application 22102) of South Sutter Water District to Appropriate from Yankee Slough, East Side Canal, King Slough, Pleasant Grove Creek, and Curry Creek in Placer and Sutter Counties, SWRCB (1976).
[136] 142 P.2d 289 (1943).

proving water right impairment. Simplifying these requirements can streamline the process and make it more feasible and economical than an application for a new appropriation permit, thus encouraging reclamation and reuse over new appropriation. But doing so also may decrease the upfront protections of water right holders and potentially increase the chance of subsequent lawsuits, thus reducing the security in the applicant's right to reclaim and reuse the water.

Washington has taken some steps to streamline its reuse permitting process, but more could be done on this front. Other western states provide potential guidance as to how these applications can be handled. The tools with which to craft these procedures are available; the challenge for the legislature and the agency is the precise construction.

Appendix G: Response from Muckleshoot Indian Tribe

MUCKLESHOOT INDIAN TRIBE
Fisheries Division
39015 - 172nd Avenue SE • Auburn, Washington 98092-9763
Phone: (253) 939-3311 • Fax: (253) 931-0752

November 13, 2009

Kenneth Slattery, Manager
Water Resources Program
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Re: Response to Tribal Input Request on Reclaimed Water and Water Right Impairment

Dear Mr. Slattery,

We appreciate the opportunity to provide input on reclaimed water, and potential water rights impairment resulting from reclaimed water projects, in response to your letter of October 19.

The Muckleshoot Indian Tribe supports the use of reclaimed water as a supply source to offset water demands for non-potable purposes, such as turf or landscape irrigation and industrial processes, as one of several tools contributing to the protection and restoration of instream flows for fisheries resources. Reclaimed water projects for this type of use within the Tribe's treaty watersheds should be encouraged and promoted whenever possible.

We agree with the three overarching tribal positions referred to in your October 19th letter, specifically that (1) tribal treaty rights and tribal water quality standards must be protected; (2) tribes must be notified early when a reclaimed water facility is being considered and be provided information about design, water quality and quantity issues; and (3) statutory language limiting water rights impairment to those rights downstream of the wastewater discharge should be changed for consistency with established water allocation decisions. Further, as expressed to the advisory committee on water rights issues last year, we strongly advocate for a case-by-case review by Ecology with the opportunity for meaningful involvement by the affected Tribe. We offer the following additional feedback at this time, and plan to review future legislation that Ecology may propose on this issue.

In reviewing the Reclaimed Water and Water Rights Recommendation for Statute, Rule, and Guidance, October 19, 2009, we find the two proposed statute amendments to be acceptable. The first would amend applicable statues for water rights impairment to include both upstream and downstream of a wastewater discharge point. In light of the Yakima basin situation, this

change should be made. The second amendment would provide more clarification on what is an existing right and when it should be considered as such for an impairment review.

However, we strongly oppose the establishment of a definition of impairment either by rule or statute. Given the difficulty of developing a generally applicable definition of impairment, and achieving some measure of consensus on such a situation-sensitive issue, we believe that this matter is best addressed through a guidance document rather than by rule or statute. The proposed impairment test for instream water rights in the October 19 document provides an illustration of our concern. That test defines impairment based on flows falling below established instream flows more frequently or for a longer duration, but does not include instream flow excursions of greater magnitude than would occur in the absence of a reclaimed water project among the tests for a finding of impairment.

Regarding early notification to tribes, our view is that agency notification should occur as soon as the Ecology Regional Office Water Resources Program has received a conceptual design for a project. For the Muckleshoot Tribe, an email or phone call to the Fisheries Division water resources staff would suffice. Notification received after a preliminary determination of potential impairment has been made is often too late in the process for meaningful input.

Once again, thank you for request our input on this issue. We request that you please attach this letter to Ecology's November 30th Legislative Report. Please contact Carla Carlson, Water Resources Analyst, at 253-876-3127 if you have any questions.

Sincerely,

Holly Coccoli
Fisheries Biologist
Muckleshoot Fisheries Division

Appendix H: Response from Puyallup Tribe

November 17, 2009

Kenneth Slattery, Manager
Water Resources Program
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Mr. Slattery:

Thank you for the request for tribal input regarding how the state should address potential impairment of water rights from reclaimed wastewater projects. In your October 19, 2009 letter to us, you requested input on key statutory, rule and guidance recommendations Ecology's staff intend to provide to the legislature by November 30th. We offer the following general comments on this matter as well as specific responses to your recommendations.

In November 2008, the Tribe wrote a letter to Governor Gregoire, requesting veto of legislation regarding the use of reclaimed wastewater due to the unintended consequences that reclaimed wastewater projects may have on the Puyallup Tribe's ability to regulate water quality, protect treaty fisheries, and protect the health and welfare of tribal families. Appended to that letter, we attached our position statement regarding the use of reclaimed wastewater as we believed then, and we continue to believe today, that articulating our position in writing would be the best way to protect the Puyallup Tribe's natural resources and help to ensure consistency in our co-management of the fishery and co-regulation of water quality in the Puyallup River basin. Attached to this letter, are both our November 2008 letter to Governor Gregoire and our position statement on the use of reclaimed wastewater. Additionally, we request that our November 2008 position statement be appended to Ecology's report to the legislature Water Rights Impairment Standards for reclaimed Wastewater: Stakeholder Views and ecology recommendations (November 2009).

As we articulated in our November 2008 position statement, the Puyallup Tribe supports wastewater reclamation as an alternative to taking water from flow-limited streams, **only if reclamation does not cause reduced instream flows in the receiving waters.** The waters for which Ecology may grant processors exclusive rights are already applied to senior instream uses. Allowing users to apply wastewater to additional, consumptive uses will reduce instream flows necessary to support the Puyallup Tribe's anadromous

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fisheries, reduces the assimilative capacity for waters to accommodate pollutants, increases the risk of harm to listed fish species under the Endangered Species Act, and reduces the quantity of water available on the Puyallup Reservation for habitat restoration, fisheries enhancement, domestic use, and economic development.

Allowing users to apply wastewater to additional, consumptive uses will inevitably interfere with the Puyallup Tribes reserved water right. As we stated in our November 2008 position statement, minimum flows established by rule in WRIA 10 do not define the full nature and extent of the Puyallup Tribe's water and fishing rights. The Puyallup Tribe has senior water rights for both the quantity and quality of water needed to support the Puyallup Tribe's fisheries in the Puyallup River, and to meet the purposes of the tribal homeland. It is unacceptable to us for Ecology to use overriding considerations of public interest to override the Tribe's senior reserved rights through compromise to instream flows and elect not to assert the State's *minimum* instream flow right in favor of a reclaimed wastewater project. Instream flows in WRIA 10 were adopted to protect fisheries and water quality, thus that water is currently being applied to beneficial uses. That water is not available for application to new uses, notwithstanding any public interest finding.

Regarding Ecology's specific statutory, rule, and guidance recommendations to the legislature, we offer the following comments in addition to those noted above.

Statutory amendments

1. Amend the water rights impairment statutory language to address impairment of water rights both upstream and downstream of a wastewater discharge point.

   We agree.

2. Amend the statute to establish that water rights that could be considered to be impaired are those existing at the time Ecology completes an assessment of the potential for water right impairment…This is intended to provide utilities with some level of water right review and certainty before the utility spends significant funds on construction of a reclaimed wastewater facility.

   It is our view that reclaimed wastewater projects should not be exempt from the state's statutory process to obtain a water right. Reclaimed wastewater is a new, consumptive use of water that a facility has exclusive rights to, therefore an applicant should be required to submit an application for a water right. Under the water rights process, the utilities would therefore be provided certainty early on prior to expending public funds on a reclaimed wastewater facility. "Existing" water rights that would be considered impaired would then be those that exist at the time that Ecology makes the permitting decision.

Rule Amendments

1. Put a definition of water rights impairment in the reclaimed water rule.

   A definition of water rights impairment must be in either the rule or statute, as opposed to mere guidance, because it directly relates to Ecology's decision on a right or privilege granted to the applicant and a decision that will directly impact the rights and privileges of existing water rights holders. The Tribe firmly believes the appropriate place for the definition is in statute to provide added certainty to both applicants and existing rights holders since any issuance of a reclaimed water permit will result in loss of water returned to the applicable water system, impact minimum flows, and impact existing water rights holders both upstream and downstream. While at minimum the definition should be in rule, greater certainty of rights for applicants and existing rights holders will be provided by statutory language appropriately formed and deliberated on by elected Legislators.

2. Require an impairment review to be completed for each reclaimed water facility.

   As we discussed under 2 above, if reclaimed wastewater projects were subject to the state's statutory water rights process, an impairment review would be done as part of the application process. Regarding the scope of the review, each review should include those procedural and substantive steps we outlined in our November 2008 position statement, including early consultation with fisheries agencies and Tribes evaluating the risk of adverse effects of reclaimed wastewater projects on fisheries and their habitat, including ESA listed species, impacts on water quality, and impacts on the Tribe's reserved water right and treaty rights. In addition, compliance with the Puyallup Tribe's water quality standards will need to be addressed early in the process.

3. Require Ecology to review and make a determination on the potential for impairment.

   See #2 under Statutory Amendments and Rule Amendments above.

4. Require Ecology to notify Puyallup Tribes when a potential reclaimed water facility may affect a Puyallup Tribe.

   It is our preference that early notification by Ecology, if not the applicant, occurs prior to the conceptual design stage of the project. As the conceptual designing process can be time-consuming and lengthy, technical information from tribes early on regarding water quality and fisheries is critical. We agree the requirement for Ecology to notify tribes should be incorporated into rule.

Guidance

1. Address the specifics of decision-making on situations where a reclaimed facility would impair an instream flow in guidance rather than rule. Ecology has allowed decreases in instream flow water rights through the use of overriding consideration of the public interest clause in RCW 90.54.020....Rather than address this issue just for reclaimed wastewater, Ecology staff have recommended that it be addressed more holistically and are currently preparing an issue paper on the subject.

   The importance of how Ecology makes decisions with regard to the diminishment of instream flows using the OCPI provision can not be underestimated. Furthermore, where a decision by an agency impacts a right or privilege, the details of that decisionmaking process and the criteria utilized, must be in rule, rather than guidance. In this instance, the impairment decision impacts both the applicants rights and privileges and also directly impacts those rights of senior water right holders. Accordingly, Ecology's decision-making criteria must be subject to rule and not guidance.

2. A number of other issues as part of the potential for water rights impairment will also be addressed in guidance. The document will be a living document with updates as the reclaimed water program develops and matures.

   It is not clear what issues referred to above regarding impairment will be addressed in guidance. It seems this is a premature statement to make given the infancy of the reclaimed wastewater program. And, as stated above, if any of the other issues directly relate to water rights, those items must be contained in rule rather than guidance.

Thank you for your review and consideration of our comments with regard to this matter.

Sincerely,

Bill Sullivan

Bill Sullivan, Director
Natural Resources

cc: Tribal Council

Puyallup Tribe of Indians

November 4, 2008

Governor Christine Gregoire
Office of the Governor
P.O. Box 40002
Olympia, Washington 98504-0002

Re: Puyallup Tribe of Indian's Position Statement on the Use of Reclaimed Wastewater

Dear Governor Gregoire:

In May 2007, the Puyallup Tribe of Indians' respectfully requested your veto of Engrossed Second Substitute Senate Bill 6117 regarding the use of reclaimed wastewater, due to the unintended consequences that reclaimed wastewater projects may have on the Tribe's ability to regulate water quality, protect treaty fisheries, and protect the health and welfare of tribal families. This letter is a follow-up to our May 2007 letter to you regarding the Tribe's position on the use of reclaimed wastewater. In the spirit of cooperation and governmental coordination, we have participated in the Department of Ecology's Reclaimed Water and Water Rights Advisory Committee for some time. To that end, we have come to the conclusion that providing a statement on our views of reclaimed wastewater would better serve to protect the Tribe's natural resources and help to ensure consistency in our co-management of the fishery and co-regulation of water quality in the Puyallup River basin.

The Tribe supports wastewater reclamation as an alternative to taking water from flow-limited streams, *but* only if reclamation does not cause reduced instream flows in the receiving water. Because we are situated at the mouth of one of the most urbanized watersheds in Washington State with most of the basin's municipal and industrial users upstream, the prospect of transferring the consequences of the use of reclaimed wastewater to us is unacceptable. Allowing wastewater users to apply wastewater to additional uses and consume *more* water, rather than treating and discharging back into the Puyallup River consistent with the National Pollutant Discharge Elimination System will reduce instream flows necessary to support all freshwater life stages of the Tribe's anadromous fisheries, impact water quality and pose additional risk to the health of the tribal membership by reducing assimilative capacities of pollutants, including toxics in the Reservation reach of the Puyallup River, increase risk of harm to ESA-listed fish stocks, and reduce the quantity of water available on the Puyallup Reservation for habitat restoration and economic development.

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Attached for your review is the Tribe's detailed position on the use of reclaimed wastewater in the Puyallup River watershed. We welcome the opportunity to meet with you and/or your staff to discuss this matter further. Thank you for your time and consideration of this matter. I can be reached at (253) 573-7850.

Sincerely,

Bill Sullivan

Bill Sullivan, Director

Natural Resources

Cc: Lynn Coleman, Washington Department of Ecology

3009 E. Portland Ave. • Tacoma, Washington 98404 • (253) 573-7800

PUYALLUP TRIBE OF INDIANS
POSITION STATEMENT ON THE USE OF RECLAIMED WASTEWATER
NOVEMBER 2008

Introduction

The Puyallup Tribe supports wastewater reclamation as an alternative to taking water from flow-limited stream systems, but only if reclamation does not cause reduced instream flows in the receiving waters. The State should provide incentives that restore base flows, rather than reward polluters by giving them the option to consume more water. Dischargers should reclaim wastewater in existing treatment plants, applying Best Available Technology, and discharge that reclaimed water back to the stream under the National Pollutant Discharge Elimination System.

Full Protection for the Tribe's Interests

Although protection of instream flows is listed as one of the State's purposes in encouraging wastewater reclamation, the State appears ready to implement its Water Reclamation and Reuse program in ways which may impair the "chemical, physical, and biological integrity" of Puyallup River System waters. As presently drafted, the State's program allows the Department of Ecology to grant municipal, industrial, and agricultural processors "exclusive rights" to water which is currently being applied to senior instream uses.

The Clean Water Act requires states to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Washington's "Water Reclamation and Reuse" program will interfere with that goal to the extent that the State permits municipal, industrial and agricultural water users to consume water that would otherwise be returned to receiving waters. Allowing these users to consume *more* water, rather than discharging wastewater that meets water quality standards, will impair the receiving waters' chemical, physical, and biological integrity by reducing instream flows. Because State and Federal law already requires dischargers to meet water quality standards at the edge of mixing zones, removing more water from flow-limited stream systems will further compromise a system's physical and biological integrity, not restore it. Dischargers are already required to "reclaim" wastewater before they return it to public waters. They should not be rewarded for doing so by being allowed to further reduce streamflows.

Allowing upstream users to apply wastewater to additional uses, rather than treating and discharging water back into the Puyallup River consistent with the National Pollutant Discharge Elimination System will:

- Reduce the instream flows needed to support the migration, spawning and rearing of the Tribe's anadromous fisheries, thus reducing treaty harvests secured by the Treaty of Medicine Creek and violating Clean Water Act Section 303.

- Reduce the assimilative capacity of waters on and upstream from the Puyallup Reservation and thus reduce the water quality needed to support fisheries and comply with Section 303.
- Increase risk of harm to fish stocks listed as "threatened" under the Endangered Species Act.
- Reduce the quantity of water available on the Puyallup Reservation for habitat restoration, fisheries enhancement, domestic use, and economic development.

The Washington Water Code's Reclaimed Water Use chapter only requires that reclaimed water facilities "not impair any existing water right downstream from any freshwater discharge point," but nothing in Chapter 90.46 *prohibits* the Department of Ecology from reviewing the water quality and other "public interest" effects of a reclaimed water use permit. Because wastewater applied to new consumptive uses would otherwise be returned to stream systems, permits for such uses should be denied unless the State has determined that consumption of additional water will not lower water quality or impair fish habitat throughout the stream system.

Ecology's current approach to impairment, "Based on preliminary analysis, Ecology determines if reclaimed water use will reduce streamflow when flow is at or below levels established by rule," does not provide the necessary protection. The Tribe has senior water rights to both the water quantity *and quality* needed to support the Tribe's treaty fisheries in the Puyallup River, and to meet the purposes of the Tribal Homeland. The "[minimum] flows established by rule" in WRIA 10 do provide some protection for fish habitat and water quality, but they only set *minimum* flows and do not define the full nature and extent of the Tribe's water and fishing rights. Minimum flows, especially those based on historic hydrologic averages (50% exceedance flows), may not prevent water quality degradation and will not realize the system's fisheries production potential.

The State has also suggested that reclaimed wastewater may be used to augment instream flows. This could cause additional harm in a system like the Puyallup, where chemical and thermal loading already threaten endangered fish stocks and public health. For this reason, wastewater reclamation and reuse should only be considered when flows are at least equivalent –in quantity, quality, and point of discharge– to the discharges achievable under the existing NPDES permit using Best Available Technology. If the discharger has the ability to "polish" water using advanced treatment technologies, those technologies should be used to clean up the discharge at the end of the pipe, not provide a public-resources windfall to the polluter.

The Tribe has a second concern with equating the Tribe's rights to the minimum flows the State has set by rule in the Puyallup System. Ecology's *Water Right Impairment Analysis Guidance for Reclaimed Water Facilities* contains this statement:

> It is also within the Ecology Director's authority to determine that a project constitutes an overriding consideration of the public interest (OCPI) and elect to not assert the State's instream flow right in favor of the proposed project.

It will not be acceptable for Ecology to use OCPI to compromise instream flows. Doing so would be a direct interference with the Tribe's treaty fishing and water rights. Because the State's Water Resource Inventory Area (WRIA) 10 instream flows were adopted to protect fisheries and water quality, the water is currently being applied to beneficial uses. It is not *available* for application to new uses, notwithstanding any "public interest" finding. The Tribe is *already using* the water that the WRIA 10 rule protects and is entitled to rely on the rule as a definition of our *minimum* rights. Before issuing a Reclaimed Water Use Permit, Ecology must find, with the Tribe's concurrence, that water is available, that a change of use will not increase the amount of water consumed, and either that there is no impairment or that the Tribe has agreed to mitigation.

Compliance with the Clean Water Act

The lower Puyallup River is impaired for instream flow and water-quality-limited for mercury and pathogens. Temperature, dissolved oxygen, copper, and lead are "pollutants of concern" (Ecology's 2004 303(d) list). The effects of thermal and chemical loading are exacerbated by low instream flows. The Tribe's existing Antidegradation Policy, adopted pursuant to the Clean Water Act, provides in pertinent part:

> (1) Existing beneficial uses shall be maintained and protected and no further degradation which would interfere with or become injurious to existing beneficial uses shall be allowed.
>
> ****
>
> (3) Whenever waters are of a higher quality than the criteria assigned for said waters, the existing water quality shall be protected and waste and pollution of said waters which will reduce the existing quality shall not be allowed to enter such waters, except in those instances where:
>
> (a) It is clear, after satisfactory public participation and intergovernmental coordination, that overriding considerations of the public interest will be served;
>
> ****
>
> (c) When the lowering of water quality in high quality waters is authorized, the lower quality shall still be of high enough quality to fully support all existing beneficial uses.

New consumptive water uses upstream from the Puyallup Reservation may, during critical periods, "reduce the existing quality" and "become injurious to existing beneficial uses." Treatment technologies exist to remove pollutants, including toxic chemicals from upstream municipal, industrial, and agricultural discharges –*without reducing instream flows.* The expense involved in implementing those technologies –in paying to clean up wastewater, is a "cost of doing business" that should be borne by the discharger.

EPA's antidegradation rule, 40 CFR 131.12 (a) (2), limits those circumstances in which a state may lower water quality in the "public interest"*(emphasis supplied)*:

- "[A]llowing lower water quality is necessary to accommodate important economic or social development *in the area in which the waters are located.*" "Overriding interests" upstream from the Puyallup Reservation, a downstream "state," will not justify a lowering of water quality on the Reservation.
- Both the State and the Tribe are required to "assure water quality adequate to protect existing uses fully." The State's OCPI process assumes that existing uses will be overridden in order to accommodate other "interests."

Procedure

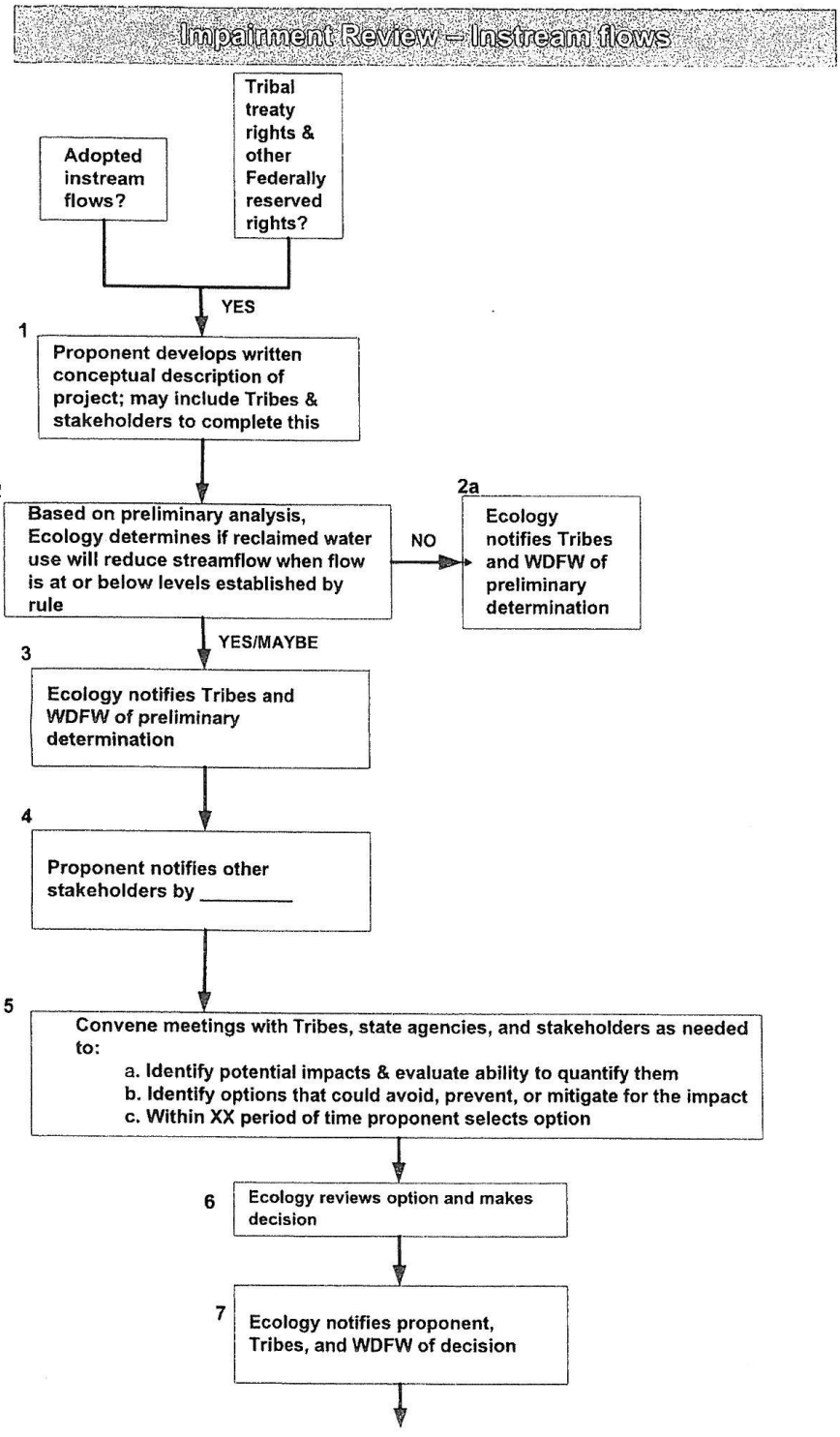
Ecology's "Impairment Review – Instream flows" flow chart raises a number of concerns:

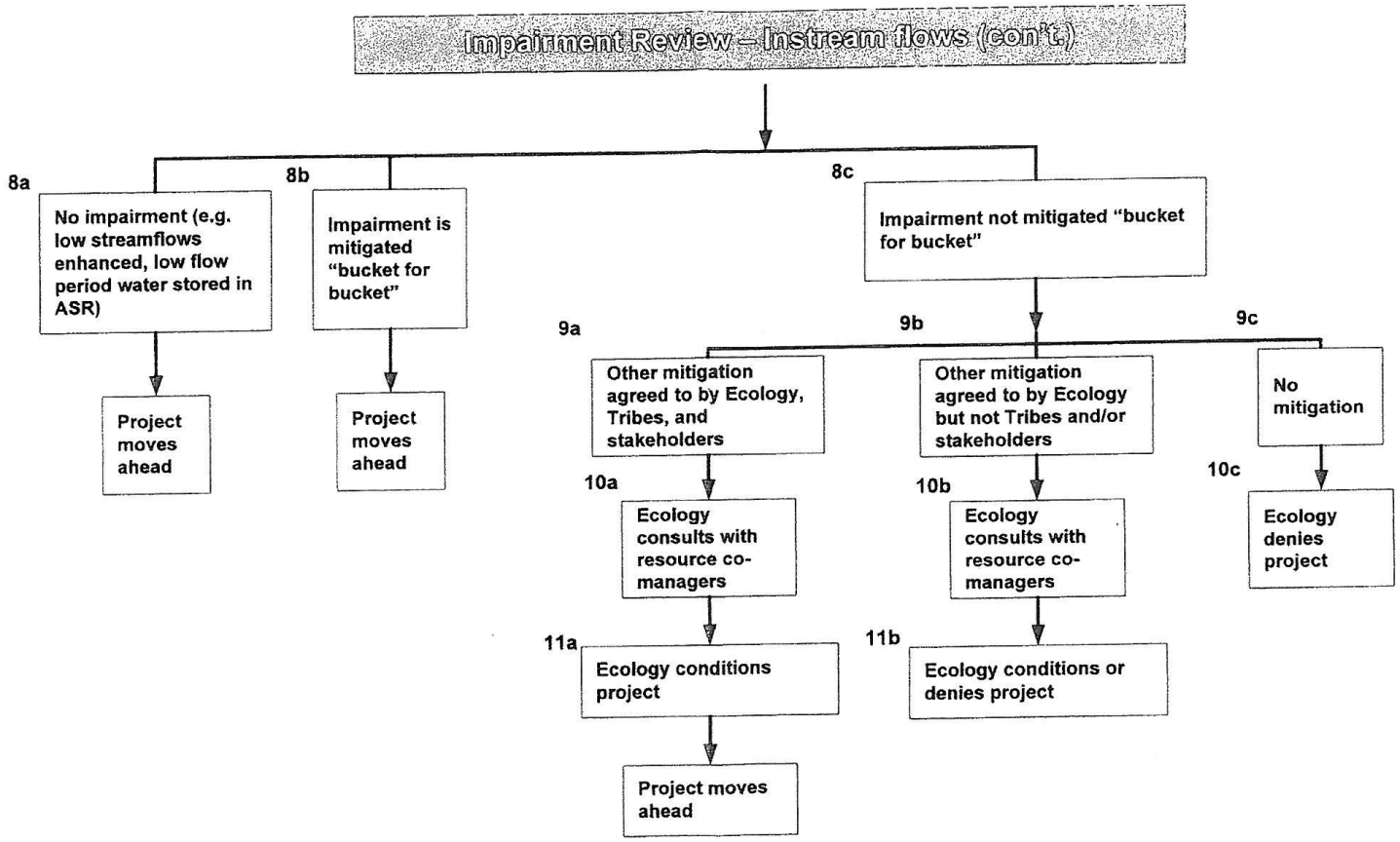
- The initial screening, before Step 1, should include "Risk of Water Quality Impairment" and "Risk to Fisheries and Habitat," should be initiated by Ecology, and should be carried out through government-to-government collaboration between the Tribe, the state and federal fisheries agencies, EPA, and Ecology.
- Step 2, "Based on preliminary analysis, Ecology determines if reclaimed water use will reduce streamflow when flow is at or below levels established by rule," does not provide adequate protection for fisheries habitat. "Levels set by rule" are based on hydrology and do not represent the flow regimes needed to fully protect and restore anadromous fisheries.
- A new step should be inserted in the chart: Tribal, State and Federal fisheries agencies carry out a full inquiry into risk of adverse effects on fisheries and their habitat, including listed species.
- Step 5 assumes, wrongly, that scientific investigations can best be accomplished in "stakeholder" meetings. The process of identifying risks, impacts, and mitigation alternatives should be a collaborative and transparent agency process in which issues are scoped, investigatory methods and data quality standards are agreed upon, benchmarks are negotiated, studies are executed, and the results are fully disclosed and evaluated. Ecology should engage the other agencies-with-expertise, not attempt to mediate between its own constituencies and tribal governments.
- Step 6 should provide for concurrence by the Tribe. If the decision directly affects the Tribe's treaty fisheries or water quality, the State should require consensus by the government that manages the fisheries and water quality. Ecology, which represents the State, should not set itself up as the final arbiter.
- Step 8 should state that "bucket for bucket" mitigation will only be considered

in an alternatives analysis that includes, as the preferred alternative, using all available wastewater-polishing technologies to better-comply with the Clean Water Act at the existing discharge point.

- In addition, the flow chart must address water quality impairment and spell out the NPDES and government-to-government processes required by the Clean Water Act:
  - Diversion of wastewater to reclamation and reuse facilities will require modification, revocation and reissuance, or termination of an NPDES discharge permit under Clean Water Act Section 402 and 40 CFR Part 122, Subpart D.
  - NPDES compliance will in turn require compliance with Clean Water Act Subsection 401 (a) (2) and 40 CFR 122.4, including hearings, assessments, and decisions which are not addressed in the existing flow chart.

  Under the statute and regulations, the NPDES action cannot occur if it will result in a violation of the Tribe's Water Quality Standards. The Tribe is a "downstream state" and changes in upstream NPDES permits will trigger Section 401 and its implementing regulations.


Impairment Review – Instream flows
Adopted instream flows?
Tribal treaty rights & other Federally reserved rights?
YES
1
Proponent develops written conceptual description of project; may include Tribes & stakeholders to complete this
2
Based on preliminary analysis, Ecology determines if reclaimed water use will reduce streamflow when flow is at or below levels established by rule
NO
2a
Ecology notifies Tribes and WDFW of preliminary determination
YES/MAYBE
3
Ecology notifies Tribes and WDFW of preliminary determination
4
Proponent notifies other stakeholders by _____
5
Convene meetings with Tribes, state agencies, and stakeholders as needed to:
a. Identify potential impacts & evaluate ability to quantify them
b. Identify options that could avoid, prevent, or mitigate for the impact
c. Within XX period of time proponent selects option
6
Ecology reviews option and makes decision
7
Ecology notifies proponent, Tribes, and WDFW of decision


Impairment Review – Instream flows (con't.)
8a
No impairment (e.g. low streamflows enhanced, low flow period water stored in ASR)
Project moves ahead
8b
Impairment is mitigated "bucket for bucket"
Project moves ahead
8c
Impairment not mitigated "bucket for bucket"
9a
Other mitigation agreed to by Ecology, Tribes, and stakeholders
10a
Ecology consults with resource co-managers
11a
Ecology conditions project
Project moves ahead
9b
Other mitigation agreed to by Ecology but not Tribes and/or stakeholders
10b
Ecology consults with resource co-managers
11b
Ecology conditions or denies project
9c
No mitigation
10c
Ecology denies project