

WATER MASTER FUNCTION

Measuring, Monitoring, Reporting and Enforcement

**Yakima River Basin
Conservation Advisory Group**

May 2005

**Yakima River Basin Water Enhancement Project (YRBWEP)
Conservation Advisory Group (CAG)
Discussion Paper**

**Measuring, Monitoring, Reporting and Enforcement of Water Diversions
in the Yakima River Basin – the Water Master Function**

The conclusion of the basin adjudication will end direct court administration of the surface water rights of the Yakima River Basin and will return jurisdiction to the Department of Ecology (Ecology) (water rights administration), the Bureau of Reclamation (Reclamation) (water contract, certain federal reserved water rights, and Yakima Project administration) and the Yakama Nation (on-reservation water rights administration). The 1994, 1995, and 1998 Court Orders on metering, measuring, and reporting requirements will expire upon completion of the adjudication. In anticipation of the change there is a need for discussion of the roles and responsibilities of federal, state, tribal and other agencies in the measuring, monitoring, reporting and enforcement of water diversions in the Yakima River Basin. This paper is prepared for the use of the YRBWEP CAG to facilitate that discussion, specifically on the roles and responsibilities of the newly appointed Ecology water master.

A. BACKGROUND¹

In November 1998, the CAG submitted its report to the Secretary of the Interior and the State of Washington on the “Establishment of a Permanent Plan for Measurement and Reporting” in the Yakima River Basin. The report (without appendices) is included as Attachment A.

At that time CAG concluded that “An effective program of measuring and reporting of diversion quantities and enforcement is necessary to eliminate illegal water use, to ensure that water users do not exceed their diversion limits, and to curtail junior-priority water rights to satisfy senior water rights, according to the basin’s schedule of rights.” And that “...measuring and reporting water use and effective enforcement against illegal and unauthorized use of water are critical components of the YRBWEP’s efforts to improve instream flow conditions in the Yakima River basin.”

The CAG report included the following recommendations:

All surface water diversions in the Yakima Basin and its tributaries should be metered, monitored, and regulated by stream patrolmen, water masters, or other regulatory personnel sufficient to ensure that compliance is maintained throughout the irrigation season basin-wide. Compliance staff must:

- Identify all water users not complying with Court ordered measuring and reporting requirements;
- Monitor water use reports to identify users who are exceeding their water rights;

¹ This section is adapted from the 1998 CAG report on “Establishment of a Permanent Plan for Measuring and Reporting, Yakima River Basin, Washington.”

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- Take enforcement actions against targeted non-compliers that are designed to promote and maintain voluntary compliance in the rest of the regulated community, consistent with the enforcement principles outlined above in Section ID.

All non-exempt groundwater withdrawals (those requiring water right permits under RCW 90.44.050) in the Yakima Basin should be metered, monitored and reported.

Ecology and Reclamation should:

- Cooperate in quickly assessing where additional streamflow gages are necessary to insure that streamflow can be measured to meet the needs of these various Federal and State obligations.
- Jointly petition the adjudication Court to extend its 1998 Order on Metering, Measuring, and Reporting Requirements as necessary, to other subbasins or water users and to issue an Order on Metering, Measuring, and Reporting Requirements applicable basin-wide, as part of the final Yakima Adjudication Decree.
- Cooperate, both during and after the completion of the Adjudication, in establishing an effective water use metering, monitoring and enforcement program with effective deterrents to non-compliance consistent with the enforcement principles (outlined in Section ID of the CAG report). The agencies should give this program the highest priority, as it protects those water users who comply with their water rights from harm by those who may not, and puts them on an equal economic footing.

B. MEASURING, MONITORING, REPORTING AND ENFORCEMENT²

The McCarran Amendment was enacted in 1952 to integrate federal water rights with state rights through the adjudication process and in subsequent administration as provided in that statute. The Statement of Purpose clearly provides for a waiver of sovereign immunity for the dual purposes of adjudication and administration to the extent provided in that statute.

Since it is clear that the States have the control of the water within their boundaries within the limits of the McCarran Amendment, it is essential that each and every owner along a given water course, including the United States, must be amenable to the law of the State for purposes of administration to the extent mandated by the McCarran Amendment, if there is to be a proper administration of the water law as it has developed over the years.

² Portions of this section are adapted from the 1998 CAG report on “Establishment of a Permanent Plan for Measuring and Reporting, Yakima River Basin, Washington.”

The 1993 Washington state law on water metering (RCW 90.03.360) requires the following:

- Subsection (1) makes metering mandatory for all new permits. Metering for existing rights is discretionary unless the diversion falls within the categories described in subsection (2).
- Subsection (2) mandates metering for all existing rights where diversions are from streams containing depressed or critical salmonid stocks or exceed one cfs. The statute further provides that Ecology's enforcement of the metering requirement for such rights must be prioritized ahead of Ecology's existing compliance workload "where a delay may cause a decline of wild salmonids."
- In addition, the statute authorizes Ecology to require the owner of a permit or right to file reports documenting the amounts being diverted.

The surface water rights in the Yakima River basin are being adjudicated in the State Superior Court of Yakima County. The Court retains jurisdiction, including administrative jurisdiction, over all claimants to surface water rights in the Yakima River basin, during the adjudication.

Mainstem

The Court ordered, on October 14, 1994 and March 9, 1995, that all persons/entities with diversions of 1 cubic foot per second (cfs) or more from the Yakima, Naches, and Tieton Rivers, install an approved measuring or metering device at each diversion of 1 cfs or greater before March 1, 1995. The Court orders require these mainstem water diverters to measure and report diversion quantities and changes in diversion quantities to Reclamation, with Reclamation then providing those records to Ecology. The orders were not intended to apply to diversions within the Yakama Reservation. The March 9, 1995, order specifically provides for enforcement by Ecology of the measuring requirements. Reclamation or any other party with legal standing in the adjudication could also petition the Court requesting enforcement of these orders (by issuance of a temporary restraining order or other appropriate relief).

Tributary Subbasins

On August 27, 1998, the Court issued another order requiring metering, measuring, and reporting of all diversions from Big Creek, within Subbasin No. 2, and from the Teanaway River and its tributaries, within Subbasin No. 3. This order was patterned directly after the 1994 and 1995 mainstem orders but includes some modifications. The Court order requires all of these water diverters to measure and report diversion quantities and changes in diversion quantities to Reclamation, commencing in 1999, with Reclamation then providing those records to Ecology. Reporting requirements under that Order do not apply to single families diverting less than 1 cfs of water for purely domestic purposes. The Court appointed an Ecology stream patrolman to enforce the provisions of the order. The Teanaway River is a 'Usual and Accustomed Fishing Site' under the Yakama Nation's time immemorial fishing rights. BPA and Reclamation federal funds have been spent on projects to restore instream flows and fish in the Teanaway River.

Effect of the Adjudication on Water Metering, Reporting and Enforcement

The adjudication Court retains jurisdiction over all adjudication claimants during the adjudication. After completion of the adjudication, jurisdiction will return to Ecology (water rights administration), Reclamation (water contract, federal reserved water rights for both fishery and irrigation rights, and Yakima Project administration) and the Yakama Nation. The 1994,

1995, and 1998 Court Orders on Metering, Measuring, and Reporting Requirements will expire upon completion of the adjudication.

C. ROLES AND RESPONSIBILITIES

State trust water rights and measuring and reporting of diversions seem to be uniquely state law issues. YRBWEP target flows are a federal responsibility. Federal reserved water rights for irrigation, storage, and fishery rights, including Usual and Accustomed Fishing Sites, are a Reclamation and federal/tribal management responsibility. YRBWEP diversion reduction and/or settlement agreements are a federal responsibility. Without a complete Court decree, however, the lines are unclear. How the various jurisdictional issues fit together is a legal question and attempts to create a road map up front should be avoided. Instead, the agencies should support each other's efforts and coordinate as closely as possible on all water resource management issues in the basin.

Some basic information on jurisdiction, however, may be helpful. The rights to Yakima River Basin water fall into a number of categories - Tribal Federal Reserved Water Rights, including irrigation, storage, and Usual and Accustomed Fishing Site fishery rights on both mainstem and tributaries which support fish availability at the usual and accustomed fishing places, Mainstem Rights, and Tributary Rights.

Tribal Federal Reserved Water Rights, irrigation, storage and Usual and Accustomed Fishing Site Fishery Rights

These include Yakama Nation rights for irrigation and fish and other aquatic life. The United States, including Reclamation, has been assigned the trust obligation for these rights. A portion of the water for irrigation is part of Project Total Water Supply Available³ (TWSA) and is administered and enforced by Reclamation. The Yakama Nation and the Bureau of Indian Affairs (BIA) have that responsibility and jurisdiction on the Yakama Reservation. The off-reservation flows shall be set according to the orders of the Acquavella and Federal courts, and the state water master would assist in their enforcement.

Mainstem Rights

These include the divisions of the federal Yakima Basin Reclamation Project, the Supplemental Water Supply (as determined by the 1945 Consent decree and confirmed by the state Yakima Basin Adjudication Court), and the unclassified, state-based Post-1905 (junior) water rights. Mainstem rights also include YRBWEP water rights, including YRBWEP fishery and instream rights and target flows directed by Congress; and certain federal reserved rights supporting fish availability at Yakama Nation Usual and Accustomed Fishing Sites on the mainstem.

1. The federal Yakima Basin Reclamation Project includes federal full-service irrigation divisions (Sunnyside, Roza, Kittitas, Kennewick, Yakima-Tieton, Wapato Irrigation Project) with proratable and non-proratable rights. These are state-based and/or federally reserved rights, recognized under the 1945 federal Consent Decree under *KRD v. SVID*, remaining under federal oversight under TWSA allocation, with dual administration

³ As used in this document "TWSA" is the total water supply available as defined in the *KRD. v. Sunnyside 1945 Consent Decree.*

using TWSA as directed by the 1945 federal Consent Decree and confirmed by the state Yakima Basin Adjudication Court, and administered under Reclamation federal water contracts, federal law and Treaty. Following the 1945 federal Consent Decree, Reclamation federal water contracts were rewritten to incorporate the federal court ruling. The major provisions of these rewritten contracts have been confirmed by the state Yakima Basin Adjudication Court, to the extent of historic beneficial use for the off-reservation non-Indian entities.. The rewritten contracts also included language limiting the contract entitlements to the amount of beneficial use by the entity for the off-reservation non-Indian entities.

2. The Federal Supplemental Water Supplies⁴ provide storage under non-division water rights for supplemental supplies for the entire water rights allocated under TWSA and confirmed by the state Yakima Basin Adjudication Court. The off-reservation Supplemental Agreements are covered under the 1945 Consent Decree. Non-supplemental rights are non-proratable. Supplemental rights are proratable during drought years (i.e., less than full water supply years). Supplemental rights for off-reservation parties receive supplemental water from Reclamation under TWSA and state-based allocation and are administered under Reclamation federal water contracts. This paragraph does not apply to the Yakama Nation and the Yakama Reservation.
3. Post-1905 water rights are junior to the 1905-priority Yakima Project rights.

With the exception of the Wapato Irrigation Project, operational responsibility for delivery of the water to the users listed above in paragraphs 1 and 2 lies with Reclamation. This covers about 2.9 million acre-feet in a basin that produces, on average, 3.1 million acre-feet of water. The measuring, monitoring and reporting functions at the mainstem diversions are performed by Reclamation to accomplish TWSA administration and to administer water for the Treaty water right for fish. Specific information is needed to administer the Treaty time immemorial fishery rights, YRBWEP fishery and instream flow rights, and instream target flows directed by Congress. Reclamation manages, administers, and delivers approximately 92% of the basin's surface water supply under federal water contracts and federal reserved rights.

Reclamation measures and monitors diversions to irrigation districts (clients) using the Hydromet System. The monitoring objective is more oriented to annual water allocation under TWSA (with monthly appropriation limits) than to real time instantaneous diversion amounts. The irrigation districts are responsible for measuring and monitoring the water provided to the members of the district within the boundaries of the irrigation district. This is also based on district-member agreements.

Measuring, monitoring, reporting and Adjudication Court jurisdiction of Post-1905 state-based water rights has been historically undetermined and the basin water management and water user

⁴ Most of the Federal Supplemental Water Supplies were authorized through the federal Warren Act, 36 Stat. 925, February 21, 1911 (43 U.S.C., §§ 523 - 525). Warren Act contracts are usually considered to include specific small individual contracts for storage water, partial water supplies for private canals and ditches (except Cascade Irrigation District), and supplemental water for Reclamation-constructed districts.

entities are currently working to present the court with a management and enforcement strategy for these rights. They postdate the Yakima Basin Reclamation project and are junior rights.

Tributary Rights

Tributary water rights, other than federal reserved tributary rights, are state-based rights and almost all are senior to the 1905-priority Yakima Basin Reclamation Project rights. There are some post-1905 priority tributary water rights. The tributaries also include federal reserved rights for fish. Yakima River tributary streams have federal reserved rights at, and above, Yakama Nation Usual and Accustomed Fishing Sites as defined in applicable Treaties and court orders. Measuring, monitoring, reporting and enforcement of tributary water rights are under interim jurisdiction of the Adjudication Court, except where delegated to Ecology or a stream patrolman.

Enforcement

Much of the discussion with CAG members and other primary stakeholders focused on the need and responsibility for enforcement – not only of metering requirements but of compliance with the terms of water rights. In 1998 CAG reported that “The way to achieve voluntary compliance in a regulated community is by implementing a strategic enforcement program designed to make the cost of non-compliance greater than that of compliance. Without such an enforcement strategy, voluntary compliance by the vast majority of those subject to the law should neither be expected nor will it be achieved. Government’s failure to enforce against illegal water use not only promotes non-compliance in the regulated community at large, but it is simply unfair to those who do comply with the law because it puts them at an economic disadvantage.”⁵

The state-based water rights in the Yakima Basin match, except for partial relinquishment based on historic reduced beneficial use of the right or voluntary cessation through settlement agreements, etc., the 1945 federal Consent Decree and the Reclamation federal water contracts. In many cases, settlement agreements, contracts, etc., may limit the use of the full right. A federal contract administration action is nearly equivalent to a state-based water right enforcement action. Moreover, Yakima River administration is still under federal court oversight under *KRD v. SVID*. In addition, large portions of the basin’s water rights are federal reserved rights under Reclamation’s, the U.S. and/or the Yakama Nation’s sole administration. Finally, federal fishery target flows are established by Congress under YRBWEP and administered by Reclamation.

The state has granted Reclamation a withdrawal of all of the remaining unappropriated waters in the Yakima Basin for the purpose of implementing the federal YRBWEP Act. The state legislature created the Yakima Basin Trust Water Rights Program, Chapter 90.38 RCW, as a demonstration of the state’s partnership with Reclamation on the YRBWEP, to provide a statutory framework for the protection of instream flow water rights created by implementation of the federal YRBWEP Act.

The federal government generally defers to the state in regulating state-based water rights in the Yakima Basin. However, since the state defers to Reclamation on enforcement of contract

⁵ 1998 CAG report on “Establishment of a Permanent Plan for Measuring and Reporting, Yakima River Basin, Washington.”

issues, contract administration, and certain other state, federal, and court-ordered responsibilities, the resulting enforcement issues remain entwined. Reclamation works through federal water contracts with its contractors. Contract terms are based on the adjudicated water rights terms and limits and are sometimes more restrictive than the rights.

In the Yakima Basin, the state resources available to enforce metering and water rights have not been sufficient. Since over 90% of the basin's water is administered by Reclamation, enforcement of mainstem water rights has often been sought through the federal water contracts. In addition, agencies and individuals can petition the Superior Court to issue enforcement orders. Compliance issues relating to unauthorized use, particularly during proration of basin water, should be an area for enforcement emphasis.

Enforcement needs to have a higher profile. While a number of enforcement priorities are identified below, there is need for a state, federal, tribal joint strategic enforcement plan. This will be particularly important as the interim regulation of the Acquavella Court comes to an end.

C.1 Yakima Basin State Water Master

The objective of this section is to focus on specific roles and responsibilities of the water master and the roles of the federal, state and tribal governments in support of the state water master.

Washington state water code (90.03 RCW) provides for the position of water master within Ecology as a means to measure, monitor, report and enforce surface water diversions. Excerpts from Washington State Statutes – Water Master and Stream Patrol (90.03 RCW and 90.08 RCW) are included in Attachment B.

The Department of Ecology requested three water master positions (3 FTE's) for the Yakima Basin. The Washington state legislature funded only one permanent Water Master position in the Yakima Basin. The position was filled in July 2004. Although the water master function is much larger than just one person, this resource will form the base for an increase in emphasis on measuring, monitoring, reporting and enforcement.

Stream patrolmen also figure prominently in this effort. Ecology and Reclamation estimate that it will require at least five people (5 FTE's plus stream patrolmen) to do a credible job - at least three in the field, with two more in the office. There might be a court-appointed stream patrolman for each tributary during the water season with the water master(s) in a supervisory position. The Wenas Creek model of stream patrolman, where the users pay for the regulatory service, is a key element of a successful effort. Close coordination with Reclamation's Yakima Field Office (YFO), even co-location of the water master and YFO, will also be essential to success. Close coordination with the Yakama Nation is also imperative for success.

With the Acquavella Court adjudication nearing completion, the best strategy for the short term would appear to be to keep the water mastering process close to the Acquavella Court. The Court could be used to empower the water master and manage conflicts. After the adjudication, the strategy would have to change, but important experience would have been gained.

Assumptions and Priorities

The state can take the lead on most enforcement, but the task is overwhelming for the single state water master for the Yakima Basin appointed in July 2004. The following is a list of assumptions and priorities over the next few years. It was developed in consultation with Ecology and Reclamation, primarily Stan Isley and Dar Crammond.

Assumptions:

- Additional state water masters and/or stream patrolmen are needed to adequately enforce and manage water in the Yakima Basin.
- Funding for state water master positions will come from Ecology; stream patrol costs will be funded through local water users (e.g., Wenas Creek) and federal costs will be recovered from project charges to irrigators (i.e., reimbursable costs).
- Reclamation will need to continue to "run the river," operating the Yakima Project, administering Congressionally established target flows, administering and enforcing YRBWEP diversion reduction agreements, administering certain federal reserved water rights, and administering the TWSA and federal water contracts.
- The state water master will have no jurisdiction on the Yakama Reservation.
- State trust water rights, YRBWEP target flows, measuring and reporting of diversions, etc., are all entwined management and enforcement tasks that require a joint state/federal/tribal effort.
- The one Yakima Basin state water master must focus on achievable tasks and workload for the near term:

Ecology Priorities:

- Enforce the court's measurement and reporting orders of 1994 and 1995 for mainstem diverters, working with Reclamation staff.
- Obtain court authority to enforce water rights throughout the basin, utilizing the court's authority as the enforcement tool and hammer.
- Identify and have the court appoint local stream patrolmen in tributary subbasins, supervised by the water master.
- Establish a Wenas Subbasin-style system in other subbasins, where the water users pay for the cost of regulation, including the salary or stipend for the stream patrolman.
- Identify denied water right claims and illegal water users.
- Enforce against identified unauthorized users.
- Enforce water rights in the tributaries with initial emphasis on tributaries where the public investment in acquired instream flow or trust water rights for fish and wildlife enhancement must be protected.

- Extend the measuring and reporting requirement to the tributary subbasins where measurement and reporting are not yet required.
- Obtain funding and authorization for hiring additional state water masters and expanding the stream patrolman network
- Enforce future court orders, like the 2004 post-1905 priority water right curtailment order.)
- Enforce in the mainstem with close coordination, cooperation, and assistance from Reclamation and Yakama Nation.

C.2 UNITED STATES FEDERAL ROLE

A joint water master office is the ideal. There are definitely locations and issues that are not within the water master's jurisdiction. How the United States will deal with contract issues; federal reserved water rights, particularly time immemorial Yakama Nation treaty fishery rights; federal YRBWEP target flows established by Congress; and other "non-state" (e.g., ESA) items; is unclear.

- Reclamation should/could assign at least one staff person to be an active and strong federal liaison to the state water master office.
- Reclamation should make physical space and support resources available for the state water master at the YFO.
- This federal staff person should be empowered to enforce federal water contracts and agreements, YRBWEP diversion reduction agreements, federal reserved water rights, the Yakama Nation's treaty fishery rights, and other federal issues. This position would also be knowledgeable about Yakima Project operations and would actively assist the state water master with information and advice. Enforcement on the Yakama Reservation or concerning Yakama Nation's Treaty rights off-reservation should be done with concurrence of the Yakama Nation.
- The Yakama Nation should also assign a liaison to the state water master office to ensure close coordination and appropriate water management and enforcement from the YN perspective.

C.3 Related Issues

While this paper focuses on near term support and priorities for the work of the state water master, there are other related issues that may impact water master type activities in the longer term. These issues will continue to be explored by CAG and others in the Yakima Basin.

Water Exchange and Banking

The Washington State Legislature amended the State Trust Water Rights law in 2003, authorizing the Department of Ecology to use the State Trust Water Rights Program in the Yakima River basin for water banking purposes (90.42.100 RCW, et seq.). The amendment directs Ecology to submit a report to the legislature by December 31st of each even-numbered

year that evaluates the effectiveness of, describes impediments to, and identifies other regions that would benefit from, water banking.

The 1994 YRBWEP Act directs CAG to "provide recommendations ...on... administration of a process to facilitate the voluntary sale or lease of water." [Title XII of P.L. 103-434, Section 1203(c)(3)(E)]. The CAG's work on this task has instigated the formation of the Water Transfer Working Group (WTWG), which meets regularly now to review and evaluate proposed water transfers in the Yakima Basin. WTWG comprises the major water stakeholders in the Yakima Basin, meeting on a voluntary basis as needed.

CAG, WTWG participants, other water stakeholders, and Reclamation continue to work with Ecology on its efforts to create a Yakima Water Exchange (i.e., Yakima water bank) as authorized by the State Trust Water Rights statute. Reclamation's interests are dual:

- 1) Facilitate the voluntary sale or lease of water in the Yakima Basin; and,
- 2) Ensure that water transfers in the basin do not cause detriment or injury to the water rights it manages under TWSA, federal water contracts, and certain federal reserved water rights - totaling approximately 92% of the Yakima Basin's water supply.

Reclamation must continue to work closely and actively with Ecology and the basin's water stakeholders on water banking and water transfer issues in the future.

Ground water management

Yakima Basin ground water resources will also be managed in a partnership among Ecology, Reclamation, and the Yakama Nation, under a state/federal/tribal settlement agreement. Currently, the state is not issuing any new ground water right permits in the Yakima Basin, pending the completion of a comprehensive study, by the United States Geological Survey (USGS), of the ground water resources in the Yakima Basin.

Under the terms of the settlement agreement, upon completion of the USGS study, applications for new ground water permits must be reviewed by both Reclamation and the Yakama Nation prior to approval by Ecology.

System Performance

In gathering information for the preparation of this discussion paper, CAG members and other stakeholders emphasized the need to keep a focus on system performance. We need to better understand water use, water supply, and water flows in the basin, thus improving our ability to determine how the entire system is working. Examples of needs:

- Determine the number of measuring points that are necessary – how many, inputs and outputs
- Measure the flows between measuring points and the quantity in and the quantity out to project customers

Attachments:

- A. November 1998, CAG report to the Secretary of the Interior and the State of Washington on the “Establishment of a Permanent Plan for Measurement and Reporting” in the Yakima River Basin. (without attachments)
- B. Excerpts from Washington State Statutes – Water Master and Stream Patrol (90.03 RCW and 90.08 RCW)
- C. Excerpt from Water Transfer Working Group May 4, 2004 Meeting Notes

Attachment A

November 16, 1998

**ESTABLISHMENT OF A PERMANENT PLAN FOR
MEASUREMENT AND REPORTING
Yakima River Basin, Washington**

The Yakima River Basin Water Enhancement Project (YRBWEP) Conservation Advisory Group (CAG) was directed by Title XII of Pub. Law 103-434 to provide recommendations to the Secretary and the State of Washington regarding the establishment of a permanent program for the measurement and reporting of all natural flow and contract diversions within the basin.”

CAG recognizes the jurisdictional complexities relating to water resource management within the Yakima River basin, including the sovereignty of the Yakama Indian Nation. Implementation of these recommendations will have to be tailored to each different jurisdictional situation. Nothing herein implies State jurisdiction over the water rights of the Yakama Indian Nation.

I. Background

A. Water Supply Problems and Needs

Out of Stream Water Use

Water supplies are not adequate in all years to meet the needs of all Yakima Basin water users. During poor water years, junior-priority water right holders receive a prorated portion of their normal-year water delivery. The amount of proration is determined by the US Bureau of Reclamation (Reclamation) using the total water supply available (TWSA) formula. In 1994, a year of severe shortfall, proratable water users received just 38% of their Federal contract water amount. In the tributaries of the Yakima River, junior-priority water right holders are subject to regulation and curtailment every year to satisfy senior water rights in those subbasins.

An effective program of measuring and reporting of diversion quantities and enforcement is necessary to eliminate illegal water use, to ensure that water users do not exceed their diversion limits, and to curtail junior-priority water rights to satisfy senior water rights, according to the basin’s schedule of rights.

Instream Issues

Many of Washington’s streams and rivers have insufficient instream flow to support adequate aquatic habitat for fish. In 1996, pursuant to the Federal Clean Water Act, the State Department of Ecology (Ecology) identified 48 stream segments in Washington that have insufficient instream flows to satisfy state water quality standards for, among other things, the provision of adequate fish habitat. Among those listed were

the Yakima mainstem and several of its tributaries, as reported in CAG's Basin Conservation Plan.

In 1992, the Washington State Department of Fish and Wildlife found that 42% of the fish stocks in Washington, whose status could be determined, were either depressed or critical. A depressed fish stock is one whose production is below natural rates. A critical fish stock is one whose production level is so low that permanent damage to the stock is likely or has already occurred. Each of the stream segments in the Yakima Basin listed as having flows too low to support designated salmonid uses under the Clean Water Act was also listed by the Washington Department of Fish and Wildlife as depressed or critical. In addition, the U.S. Fish and Wildlife Service has listed bull trout in the Yakima Basin under the Federal Endangered Species Act. The National Marine Fisheries Service will act on a proposal to list steelhead in the Yakima Basin under the Endangered Species Act in the spring of 1999.

Thus, measuring and reporting water use and effective enforcement against illegal and unauthorized use of water are critical components of the YRBWEP's efforts to improve instream flow conditions in the Yakima River basin.

B. Washington Law on Water Metering

To manage and regulate public waters, the Washington legislature amended RCW 90.03.360 in 1993, requiring that "[t]he owner or owners of any water diversion shall maintain, to the satisfaction of the department of ecology, substantial controlling works and a measuring device constructed and maintained to permit accurate measurement and practical regulation of the flow of water diverted." RCW 90.03.360(1). To implement this mandate, the statute directs Ecology to require metering under certain conditions. Subsection (1) of RCW 90.03.360 provides: "Metering of diversions or measurements by other approved methods shall be required as a condition for all new surface water right permits, and except as provided in subsection (2) of this section, may be required as a condition for all previously existing water rights." Subsection (2) of RCW 90.03.360 provides that "[w]here water diversions are from waters in which the salmonid stock status is depressed or critical, as determined by the department of fish and wildlife, or where the volume of water being diverted exceeds one cubic foot per second, the department shall require metering or measurement by other approved methods as a condition for all new and previously existing water rights or claims."

Subsection (1) makes metering mandatory for all new permits. Metering for existing rights is discretionary unless the diversion falls within the categories described in subsection (2). Subsection (2) mandates metering for all existing rights where diversions are from streams containing depressed or critical salmonid stocks or exceed one cfs. The statute further provides that Ecology's enforcement of the metering requirement for such rights must be prioritized ahead of Ecology's existing compliance workload "where a delay may cause a decline of wild salmonids." RCW 90.03.360(2).

In addition, the statute authorizes Ecology to require the owner of a permit or right to file reports documenting the amounts being diverted. RCW 90.03.360.

The metering requirements of RCW 90.03.360 would appear to apply equally to surface and groundwater appropriations. The statutory provisions regulating groundwater, found in RCW 90.44, incorporate and apply the surface code provisions to the groundwater code. RCW 90.44.020 states that “[t]his chapter regulating and controlling groundwaters of the state of Washington shall be supplemental to chapter 90.03 RCW, which regulates the surface waters of the state, and is enacted for the purpose of extending the application of such surface water statutes to the appropriation and beneficial use of ground waters within the state.”

Indeed, when Ecology adopted rules to implement the metering statute (WAC 508-64), it explicitly recognized that the metering requirements of RCW 90.03.360 apply equally to both surface and groundwater appropriations. WAC 508-64-010 (Ecology vested with the power to require metering of “those diverting and/or withdrawing waters of the state, both surface and ground”) (citing RCW 90.03.360 and RCW 90.44.020).

The rules state that conflicts arising from increased competition for limited water resources make it “necessary to . . . insure that those entitled to make beneficial use of water neither waste water in exercising their rights nor use waters by withdrawal or diversion thereof in amounts in excess to which they are entitled. . . . It has been increasingly apparent that a satisfactory water management program can be carried out only if surface and ground water withdrawals are closely monitored and accurately measured.” WAC 508-64-010 (emphasis added).

C. Court Actions in the Yakima Basin Adjudication Concerning Water Metering

The surface water rights in the Yakima River basin are being adjudicated in the State Superior Court of Yakima County. The Court retains jurisdiction, including regulatory jurisdiction, over all claimants to surface water rights in the Yakima River basin, during the adjudication.

Mainstem

The Court ordered, on October 14, 1994 and March 9, 1995, that all persons/entities with diversions of 1 cubic foot per second (cfs) or more from the Yakima, Naches, and Tieton Rivers, install an approved measuring or metering device at each diversion of 1 cfs or greater before March 1, 1995. The Court orders require these mainstem water diverters to measure and report diversion quantities and changes in diversion quantities to Reclamation. The March 9, 1995, order specifically provides for enforcement by Ecology of the measuring requirements. Reclamation or any other party with legal standing in the adjudication could also petition the Court requesting enforcement of these orders (by issuance of a temporary restraining order or other appropriate relief).

Tributary Subbasins

On August 27, 1998, the Court issued another order requiring metering, measuring, and reporting of all diversions from Big Creek, within Subbasin No. 2, and from the Teanaway River and its tributaries, within Subbasin No. 3. This order was patterned directly after the 1994 and 1995 mainstem orders but includes some modifications. The Court order requires all of these water diverters to measure and report diversion quantities and changes in diversion quantities to Reclamation, commencing in 1999. Reporting requirements do not apply to single families diverting less than 1 cfs of water for purely domestic purposes. The Court appointed a stream patrolman to enforce the provisions of the order.

Effect of the Adjudication on Water Metering, Reporting and Enforcement

The adjudication Court retains jurisdiction over all adjudication claimants during the adjudication. After completion of the adjudication, jurisdiction will return to Ecology (water rights administration) and Reclamation (water contract and Yakima Project administration). The 1994, 1995, and 1998 Court Orders on Metering, Measuring, and Reporting Requirements will expire upon completion of the adjudication.

D. Principles of Effective Enforcement Programs

The way to achieve voluntary compliance in a regulated community is by implementing a strategic enforcement program designed to make the cost of non-compliance greater than that of compliance. Without such an enforcement strategy, voluntary compliance by the vast majority of those subject to the law should neither be expected nor will it be achieved. Government's failure to enforce against illegal water use not only promotes non-compliance in the regulated community at large, but it is simply unfair to those who do comply with the law because it puts them at an economic disadvantage. Moreover, it is important to remember that a fine that is less than the cost of compliance will also promote more widespread non-compliance rather than stem it.

The classic example of an effective enforcement program is that of the Internal Revenue Service. Against their economic interests, millions of Americans voluntarily meet their tax obligations each year. They do so primarily because they hold the belief that if they do not, there is a reasonable chance that their delinquency will be uncovered and the consequences will be vastly more burdensome in economic terms than simply paying their taxes.

An effective enforcement program should be designed to achieve the maximum net benefit for every action taken. An effective strategy is one that induces those subject to legal obligations to fulfill them completely, timely, and at the lowest possible cost to the government. In order to induce that behavior, the government must create a reasonable expectation in those legally obligated that fulfillment of their legal obligations

will be less costly than failure to fulfill them. The components of an effective enforcement strategy include:

Educate the public and obligated community to the importance of its mission and the requirements of the law;

Effectively detect those who violate those requirements;

Penalize those individuals so that the cost of non-compliance is greater than the cost of compliance; and

Effectively publicize the consequences of non-compliance.

By following these principles, the agencies can minimize their enforcement costs and promote fairness among water users, resulting in widespread voluntary compliance.

II. Discussion and Recommendations

CAG believes that a combination of the approaches outlined above is essential to the success of the Yakima River Basin Water Enhancement Project.

A. Recommendation One

CAG believes that all surface water diversions in the Yakima Basin and its tributaries should be metered, monitored, and regulated by stream patrolmen, watermasters, or other regulatory personnel sufficient to ensure that compliance is maintained throughout the irrigation season basin-wide. Compliance staff must:

- 1) identify all water users not complying with Court ordered measuring and reporting requirements;
- 1) monitor water use reports to identify users who are exceeding their water rights;
- 3) take enforcement actions against targeted non-compliers that are designed to promote and maintain voluntary compliance in the rest of the regulated community, consistent with the enforcement principles outlined above in Section ID.

B. Recommendation Two

CAG agrees with the Department of Ecology that “a satisfactory water management program can be carried out only if surface and ground water withdrawals are closely monitored and accurately measured.” WAC 508-64-010. Thus, CAG believes that all non-exempt groundwater withdrawals (those requiring water right

permits under RCW 90.44.050) in the Yakima Basin should be metered, monitored and reported.

C. Recommendation Three

CAG also believes that good water management requires the ability to meter and monitor water use to allow for the adoption of incremental water pricing structures. Thus, CAG recommends that metering be extended to each farm delivery point and/or to each individual ownership, where practicable.

D. Recommendation Four

CAG believes that streamflow gages must be adequate to measure progress in complying with YRBWEP needs as well as a number of other Federal and State laws and obligations that Reclamation and Ecology are subject to (e.g. the Clean Water Act and the Endangered Species Act). CAG recommends that Ecology and Reclamation cooperate in quickly assessing where additional streamflow gages are necessary to insure that streamflow can be measured to meet the needs of these various Federal and State obligations.

E. Recommendation Five

Reclamation and Ecology should jointly petition the adjudication Court to extend its 1998 Order on Metering, Measuring, and Reporting Requirements as necessary, to other subbasins or water users, consistent with the recommendations above.

F. Recommendation Six

Because after the completion of the adjudication, jurisdiction over water use metering, reporting and enforcement returns to Ecology and Reclamation, they should petition the Court to issue an Order on Metering, Measuring, and Reporting Requirements as indicated above, applicable basin-wide, as part of the final Yakima Adjudication Decree.

G. Recommendation Seven

Both during and after the completion of the Adjudication, Ecology and Reclamation should cooperate in establishing an effective water use metering, monitoring and enforcement program with effective deterrents to non-compliance consistent with the enforcement principles outlined in Section ID above. The agencies should give this program the highest priority, as it protects those water users who comply with their water rights from harm by those who may not, and puts them on an equal economic footing. Allowing non-compliance to go undetected and unpunished puts those who comply at an economic disadvantage, and thus promotes more widespread non-compliance.

These agencies have several tools available for designing such an enforcement strategy. For instance, Section 90.03.600 RCW provides Ecology authority to issue civil penalties for violations of the surface water code or of regulatory orders issued by Ecology; Section 90.44.500 RCW applies the civil penalty authority granted to Ecology by 90.03.600 RCW to the ground water code; Section 43.27A.190 RCW authorizes Ecology to issue regulatory orders where it finds violations of the state surface and ground water codes; and Chapter 90.08 RCW authorizes Ecology to appoint a stream patrolman for adjudicated streams and establishes procedures for compensation of the stream patrolman by the water users. Reclamation has the authority to enforce the provisions of its Federal water delivery contracts with Yakima Project water users.

Attachment B

Excerpts from Washington State RCW – Water Master and Stream Patrol

RCW 90.03.060

Water masters -- Appointment, compensation.

(1) Water masters shall be appointed by the department whenever it shall find the interests of the state or of the water users to require them. The districts for or in which the water masters serve shall be designated water master districts, which shall be fixed from time to time by the department, as required, and they shall be subject to revision as to boundaries or to complete abandonment as local conditions may indicate to be expedient, the spirit of this provision being that no district shall be created or continued where the need for the same does not exist. Water masters shall be supervised by the department, shall be compensated for services from funds of the department, and shall be technically qualified to the extent of understanding the elementary principals of hydraulics and irrigation, and of being able to make water measurements in streams and in open and closed conduits of all characters, by the usual methods employed for that purpose. Counties and municipal and public corporations of the state are authorized to contribute moneys to the department to be used as compensation to water masters in carrying out their duties. All such moneys received by the department shall be used exclusively for said purpose.

(2) A water master may be appointed by the department for a watershed management area for which a plan adopted by a planning unit and by the counties with territory in the watershed management area under RCW 90.82.130 contains a requirement or request that a water master be appointed, subject to availability of state or nonstate funding.

RCW 90.03.070

Water masters -- Duties -- Office space and equipment -- Clerical assistance.

It shall be the duty of the water master, acting under the direction of the department, to divide in whole or in part, the water supply of his district among the several water conduits and reservoirs using said supply, according to the right and priority of each, respectively. He shall divide, regulate and control the use of water within his district by such regulation of headgates, conduits and reservoirs as shall be necessary to prevent the use of water in excess of the amount to which the owner of the right is lawfully entitled. Whenever, in the pursuance of his duties, the water master regulates a headgate of a water conduit or the controlling works of a reservoir, he shall attach to such headgate or controlling works a written notice, properly dated and signed, stating that such headgate or controlling works has been properly regulated and is wholly under his control and such notice shall be a legal notice to all parties. In addition to dividing the available waters and supervising the stream patrolmen in his district, he shall enforce such rules and regulations as the department shall from time to time prescribe.

The county or counties in which water master districts are created shall deputize the water masters appointed hereunder, and may without charge provide to each water

master suitable office space, supplies, equipment and clerical assistance as are necessary to the water master in the performance of his duties.

RCW 90.08.040

Stream patrolmen -- Appointment -- Powers.

Where water rights of a stream have been adjudicated a stream patrolman shall be appointed by the director of the department of ecology upon application of water users having adjudicated water rights in each particular water resource making a reasonable showing of the necessity therefore, which application shall have been approved by the district water master if one has been appointed, at such time, for such stream, and for such periods of service as local conditions may indicate to be necessary to provide the most practical supervision and to secure to water users and owners the best protection in their rights.

The stream patrolman shall have the same powers as a water master appointed under RCW 90.03.060, but his district shall be confined to the regulation of waters of a designated stream or streams. Such patrolman shall be under the supervision of the director or his designated representative. He shall also enforce such special rules and regulations as the director may prescribe from time to time.

RCW 90.08.060

Stream patrolmen -- Users to share in payment of compensation.

The salary of the stream patrolman shall be borne by the water users receiving the benefits and shall be paid to the county or counties in the following manner:

The county or counties may assess each water user for his proportionate share of the total stream patrolman expense in the same ratio that the amount of water diverted by him bears to the total amount diverted from the stream during each season, on an annual basis, to recover all such county expenses. The stream patrolman shall keep an accurate record of the amount of water diverted by each water user coming under his supervision. On the first of each month the stream patrolman shall present his record of water diversion to the county or counties for the preceding month. Where the water users are organized into an irrigation district or water users' association, such organization may enter into an agreement with the county or counties for direct payment to the stream patrolman in order to minimize administrative costs.

WAC 508-12-390 Enforcement.

In enforcement of this chapter, the department of ecology may impose such sanctions as are appropriate under authorities vested in it, including but not limited to the issuance of regulatory orders under RCW 43.27A.190 and civil penalties under RCW 90.03.600.

Attachment C

Water Master Concept (Notes)⁶

The Department of Ecology advised that the state legislature had funded a permanent Water Master position in the Yakima Basin. The water master position is much bigger than just one person. The Wenas Creek model of stream patrolman, where the users pay for the regulatory service, is going to be a key element of a successful effort. There might be a stream patrolman for each tributary and that the water master would be a seasonal supervisory position. The first focus for the water master should be trust water rights and other locations where public investment is at risk from lack of regulation. The best strategy for the short term is to keep the water mastering process close to the Acquavella Court and avoid the PCHB, statutes or any other APA-style forum. After the adjudication, the strategy would have to change, but important experience would have been gained by then. There was general agreement that the Acquavella Court should be used as much as possible to empower the water master and manage conflicts.

This year, with the water supply in shortage, we are likely to see a post 1905 curtailment order from Acquavella. The water master would probably not be up to that task, but Ecology would staff that problem as they had done in 2001, again, with the authority of the Acquavella Court as the driver.

Close coordination with the Yakima Field Office (YFO), probably co-location of the water master and YFO, was essential to success. The second focus of the water master should be metering diversions and reporting of quantities. Ecology is still under a 1995 Court order to achieve universal measurement and reporting in the Yakima basin and that seems like an appropriate focus for a water master. Trust rights and public investment areas, and implementation of the measurement and reporting order would be enough work for the first couple of years.

Questions/Answers

Would Water Master eventually police the post-1905 water rights, something Ecology can't do now?

Ecology would follow the Court's lead. There is concern that conflict would overwhelm the good intentions of the water master to focus on fish and diversion metering. The Acquavella Court, under interim regulation, could take a lot of the load off of the water master. RID agreed that water master should be closely aligned with the Acquavella Court, and that it was inevitable that some hard examples would have to be made to encourage general compliance.

Ecology's idea was to enforce the existing conditional final orders, but that there were some gaps in the record that would require research. The early CFOs did not enumerate the losers, only those who had a valid water right. A comprehensive list of

⁶ Excerpt from Water Transfer Working Group May 4, 2004 Meeting Notes – adapted for easier reference to a Q/A format. It served as a discussion paper for June 2004 CAG meeting.

claimants and valid rights was the first order of business. Ecology has fairly comprehensive GIS-based maps of water rights from the effort in 2001.

The Yakama Nation welcomes regulation of post-1905 water rights. The water master would not have jurisdiction on the reservation and the Acquavella CFO for the YN specifically disclaimed state jurisdiction over water rights in Indian Country.

How would the Water Master Position be staffed?

Stream patrolmen figure prominently in this effort. The Court can appoint them and have the water users pay for them. USBR believes it would take at least five people to do a credible job - at least three would be in the field, with two more in the office.

How would roles and responsibilities be defined?

USBR Regional Director has a larger view of the water master issue. He would like to have Ecology regulating water rights and Reclamation operating the project within their water rights. The vision is for a well-defined water right for all water users, including the U.S., in the final Acquavella decree. Within its water right limits, the U.S. would operate the Yakima project, and not be involved in regulation.

RID noted that this was not realistic. Federal contract rights are well understood and the basis for most operations in the basin. Reclamation has an awful lot of regulatory responsibility. The state can handle state-based rights, but can't really get a grip on the federal contracts.

The complete suite of rights that Reclamation serves is 2.9 Million Acre-Feet in a river basin that averages about 3.1 MAF of water. From an operational standpoint, Reclamation's responsibility is for all the rights in the basin. The same issues came up in 1994 and 1995 and that instead of trying to figure out the jurisdictional breakdown, we should focus on protecting everyone's rights under whatever theory applies. Reclamation has a responsibility to deliver water to all the water right holders and it can't give up its operational role.

USBR said that there were enough federal issues to warrant an analogous federal position and that speaking on behalf of the YFO manager, Reclamation would need to have another position to really make this work with the state. USBR is not advocating a federal water master, just a strong and knowledgeable liaison to the state water master.

RID said that the enforcement was the easy part. It is river operations that are the real can of worms and Reclamation can't hand that function off.

WDFW said that Reclamation's operations provide more flexibility and more opportunity to do good things in the basin and he was concerned that a state water master would limit some of those functions.

USBR suggested that the most effective way to address all of these concerns was to work with DOE and together to make the transition to a state water master as seamless

and effective as possible. A good place to start would be the position description for the water master job.

Is there a role for a Federal Water Master?

There were concerns that a federal water master would not be compatible with a state water master, but others believed that would not be a problem. Some felt that it would be wise to have a federal master appointed, if only to fill in the gaps in enforcement and support the state water master. USBR is not in favor of a federal water master at this time and is willing to let the state do the regulating.

It was noted that the history of regulation in the basin has been a litany of begging letters. There is no hammer to get enforcement of any federal law. Some authority for enforcement of federal law and contracts should come out of this effort.

The Yakama Nation has a whole slew of treaty issues that can't be handled by DOE, but they were not sure how they would like a federal water master.

RID was comfortable with the state water master being co-located at the YFO and learning from Reclamation. A cooperative effort, regardless of whether there was a federal water master, was the key. A cooperative effort might influence how the final decree in Acquavella would look.

A water master's job is very much day to day, but Reclamation's operations are very much planning and future oriented. The two functions are complementary, but not the same.

What forum would be best to continue the discussion of the Water Master?

The group suggested that the YRBWEP Conservation Advisory Group (CAG) take up the water master issue at their next meeting. That group would be able to generate a good discussion paper. CAG could create something of a road map into the future, too.

DOE's strategy for the near term is to write the job description, get the person hired, and then craft an order for the Acquavella Court that laid out the state water master's priorities, functions, and interface with the Court. The next step would be to have an order that created stream patrolmen for the staff.

What are your main concerns with the water master position?

There is not enough financial support to do the job correctly and he was also disturbed by the notion that Reclamation would not be regulating, only managing the water system. RID favors real regulation, but doubts that it can be done quickly. Like to see some fairly strict enforcement out of the gate so that people know this is for real. (RID)

Reclamation's role should be enhanced, not diminished. The contracts, the federal reserved rights, the prorationing scheme will always require Reclamation oversight. (YTID)

Reclamation owns most of the distribution infrastructure in the basin and is in a position to make regulation stick. Yakama Nation rights are beyond the reach of the state. Also, several other water related activities are a bad fit for the state: flood control, fish and wildlife, instream flow, ESA, CWA. The YN has one foot in the proratable bucket and therefore favors better regulation of the state rights, but on the reservation, there is no state regulation. (YN)

In favor of a state water master but prioritizing the work would be an issue. Might be able to have their field people deputized as stream patrolmen if that would help. (WDFW)

What DOE asked for from the Court would be important: the order would lay out the water master duties, authority, areas of jurisdiction, and specifics of the position. The initial effort has to work and that success will lead to stability. (DOE)

Not particularly worried by a state water master, but that Reclamation would have to figure out how the interface was going to work. Small irrigators, the ones most likely impacted, would not have a chance to participate at this opening level. Would like to find a forum where the public could at least have input, even if it was not binding, as a way to sell the idea to the basin. Is there was a funding opportunity for BPA here? The consensus was that BPA could help out with metering hardware. (USBR)