

# **Section I**

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## **Introduction and Existing Conditions**

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Section I of this Watershed Plan provides introductory information related to the watershed planning process and water resource conditions in the Yakima River Basin. This section contains two chapters. Chapter 1, Introduction and Purpose, describes the planning framework under the State of Washington's Watershed Planning Program. Chapter 2, Existing Conditions, describes the landscape, political geography, demographic conditions, water resources, and related information on the Yakima Basin. Readers who are familiar with this information may wish to proceed directly to subsequent sections of this Plan.

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# **Chapter 1**

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## **Introduction and Purpose**

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## Introduction and Purpose

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Water resources serve as the foundation of human activity, economic prosperity, and ecological health in the Yakima River Basin. The majority of the lands in the basin receive little direct precipitation, particularly in the summer months. These lands are therefore dependent on water from spring snowmelt in the Cascade Range, ground water resources, and the base flows fed by ground water throughout the dry months of the year. Reservoirs in the Basin capture flows for use during the drier months.

A range of needs must be met by the Yakima Basin's limited supply of water. The Basin serves as one of the most productive agricultural areas of Washington State, and irrigated lands provide most of the income in the Basin's agricultural sector. The Basin provides habitat for fish species that have recently been listed under the federal Endangered Species Act, and sustains non-listed fish and wildlife as well. Residents, commercial businesses and industrial users require water to meet their everyday needs, and these needs are growing as the Basin's population grows. Finally, the Yakima Basin's rivers, streams and lakes offer recreational opportunities and natural beauty for citizens and visitors to the Basin.

Given a limited resource and a range of needs for water, it has historically been difficult for citizens, businesses and public agencies to make water-resource management decisions. The Yakima Basin has had a long history of legal actions with regard to water resources, fish and wildlife, and related matters. Water resource management has grown more challenging as new rules and regulations have come into effect, such as the federal Clean Water Act and Endangered Species Act, and as the Basin seeks to ensure its agriculture-based economy can compete in worldwide commodity markets.

Under these circumstances, the State of Washington's Watershed Planning program offers a locally-led approach that can contribute to improved decision-making with regard to the Basin's water resources. This Watershed Plan was prepared under the provisions of the Watershed Planning program. The Plan reviews alternatives for improving water resource management in the Yakima Basin, and recommends a preferred alternative for implementation.

### 1.1 Legal Basis for Planning

In 1998 the Washington State Legislature passed the Watershed Management Act (Chapter 90.82 RCW) to provide a framework for citizens, interest groups, and government organizations to resolve water-resource issues in each of the State's major watersheds. The Act offers funding for areas that wish to undertake

planning and specifies ground rules for use of the funding. WMA identifies a group of “initiating governments” that are empowered to select a lead agency; apply for grant funding; determine the overall scope of planning; and convene a “Planning Unit.” The initiating governments include specified county and city governments, certain public entities that distribute water supplies, and, if they choose to join the process, tribes with reservation lands within the watershed.

The Watershed Management Act identifies the Planning Unit as the group that develops and initially approves the watershed plan. Following approval by the Planning Unit, WMA calls for a joint session of the County Commissioners of all Counties in the watershed to consider the plan. The joint session of County Commissioners can recommend changes in the plan, but only the Planning Unit can make such changes. Once the plan has been approved by both the Planning Unit and joint session of County Commissioners, it requires Counties and State agencies to implement plan elements which they agreed to implement.

The Watershed Management Act identifies four topics that can be addressed as part of a watershed plan. Water quantity must be addressed if grant funding is received. Water quality, habitat, and setting of instream flows by State rule can also be addressed, but are optional under the law. The law specifies certain types of information that must be gathered in preparing a watershed plan. It also identifies a range of water-resource management strategies that must be considered. The law states that watershed plans must be consistent with efforts already under way in each watershed, and should not duplicate these efforts.

## **1.2 Application of Watershed Planning in the Yakima Basin**

In the Yakima Basin, the Tri-County Water Resource Agency (TCWRA) represents the initiating governments that are required for initiating the watershed planning process<sup>1</sup>. Representation on the TCWRA includes Benton, Kittitas, and Yakima Counties; the Cities of Yakima and Ellensburg; and three irrigation districts, Sunnyside Valley Irrigation District, Roza Irrigation District, and Yakima-Tieton Irrigation District. TCWRA serves as the lead agency for watershed planning, and received grant funding to develop a watershed plan from the Washington State Department of Ecology (Ecology). Representing the initiating governments, TCWRA initially defined the scope of planning to include three of the four elements identified in the law: Water Quantity, Water Quality, and Habitat.

TCWRA convened a Planning Unit, which held its first meeting in October 1998. The membership of the Planning Unit is listed at the front of this Plan Document. The Planning Unit formed a Steering Committee, and has formed various technical committees and work groups during the various phases of the planning process.

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<sup>1</sup> The Yakama Nation (YN) joined other governments as a member of TCWRA from January through August 1999, then withdrew. WMA requires tribes with reservation lands in the management area to be invited to join as an initiating government, but does not require concurrence by the YN in order for planning to proceed.

The Steering Committee has the role of facilitating, coordinating and integrating the internal and external activities of the Planning Unit and has a range of specific duties assigned by the Planning Unit. The technical committees and work groups have had the role of guiding development of draft materials for consideration by the full Planning Unit. TCRWA has provided staff for the process, and has contracted with professional service providers to assist the Planning Unit assess watershed conditions and develop the Watershed Plan.

This process builds directly on a variety of previous and ongoing planning activities. These include activities undertaken by the Yakima River Watershed Council, Yakima Valley Conference of Governments, counties, cities and irrigation districts within the Basin, U.S. Bureau of Reclamation, Yakima River Basin Conservation Advisory Group, U.S. Geological Survey, Ecology, Washington Department of Fish and Wildlife, Yakama Nation and many other organizations. These previous and ongoing planning activities provide a foundation for much of the watershed plan. The Planning Unit includes many representatives who have participated in these related planning activities and continue to do so.

### **1.3 Process for Developing the Watershed Plan**

In accordance with the Watershed Management Act, this Watershed Plan has been developed in three phases. Phase I was an organizing phase, held during 1998. During the organizing phase the TCWRA was formed, through a Memorandum of Agreement among the initiating governments. A Planning Unit was organized, and the scope of planning activities was determined. Phase II was an assessment phase, to gather technical information regarding the water resources of the Yakima Basin. The assessment was carried out during 1999 and 2000, with a final Watershed Assessment report issued in January 2001. It involved four technical committees working closely with the professional team led by Economic and Engineering Services, Inc. (EES). The Assessment document provides much of the information that was used in developing this Plan, and should be consulted by interested readers. Further information on the process for conducting the Assessment is contained in Section 1.3 of the Assessment report.

Phase III of the process was the Planning Phase, carried out in 2001 and 2002. This process was carried out in three stages. First, the Planning Unit convened a Scoping Committee in the summer of 2001. The Scoping Committee reviewed the goals and objectives defined by the Planning Unit, and the results of the Assessment Phase. They then defined a set of needs and tasks for developing the Watershed Plan<sup>2</sup>. At this time, the technical committees of the Planning Unit were reorganized into four workgroups:

- Environmental/Instream Work Group (with two subgroups: Habitat and Water Quality)

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<sup>2</sup> Scoping Committee, "Phase 3 Scoping Matrix," October 18, 2000.

- ❑ Water Supply and Management Work Group
- ❑ Public Involvement Work Group (with two subgroups: State Environmental Policy Act [SEPA] and Outreach)
- ❑ Intergovernmental Work Group

Members of these work groups are listed at the front of this Watershed Plan document.

As part of Phase III, the work groups and EES team developed a series of Technical Memoranda exploring a range of topics related to the Plan. These technical memoranda, listed in Table 1-1, provide the background and basis for the water resource management alternatives presented in this Plan.

Following completion of the draft technical memoranda in fall 2001, a series of workshops was held with the Steering Committee, work group chairs, and other interested members of the Planning Unit to shape the development of this Plan document. A scope of work was developed early in 2002, which included additional research and modeling related to surface water management. This Plan document was then prepared, incorporating results as appropriate from the Watershed Assessment, the Technical Memoranda, and the new research and modeling activity.

Every chapter of the watershed plan had extensive input from Planning Unit members, both in meetings that led to drafting of the respective chapters, and in comment processes used for each technical memorandum. In addition, following preparation of the first complete draft of the plan in November 2002, Planning Unit members, state agency staff, and other interested parties provided over 200 comments covering every section of the Plan. The consulting team prepared responses to every comment, and the Planning Unit's Steering Committee then reviewed and discussed the responses. Following Steering Committee review, the responses were distributed to the full Planning Unit. All responses were approved at the Planning Unit meeting in December 2002. A document listing all comments and responses is available from TCWRA.

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**Table 1-1**  
**List of Supporting Documents Prepared during Planning Process**

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- Watershed Assessment January 2001
  - Voluntary Water Transfers as a Strategy for Meeting Planning Objectives (January 2002)
  - Water Use Efficiency in the Agricultural Sector (February 2002)
  - Reliability of Surface Water Supply for Irrigation, Yakima Project Water Users (January 2002)
  - Storage Strategies (January 2002)
  - Water Supply Needs for Instream Flows (January 2002)
  - Municipal, Domestic and Industrial Water Needs and Supply Strategies (January 2002)
  - Potential Effects of Climate Variability and Change (February 2002)
  - Water Reuse Opportunities in the Yakima Basin (draft November 2002)
  - Wymer Dam and Reservoir Project Review (draft November 2002)
  - Wymer Dam Kittitas Valley Supply Alternative (draft November 2002)
  - Hydrologic Modeling of Surface Water Alternatives (draft November 2002)
  - Issues Related to Management of Ground Water Supplies (January 2002)
  - Surface Water Quality Strategy (January 2002)
  - Water Quality Monitoring Plan (December 2001)
  - Water Quality Research Projects (December 2001)
  - Strategy to Protect Ground Water Quality (January 2002)
  - Maintain and Enhance Habitat (April 2002)
  - Barriers to Plan Implementation (April 2002)
  - Comments and Responses on Yakima Basin Watershed Plan (December 2002)
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For purposes of the State Environmental Policy Act (SEPA), TCWRA is identified as the lead agency for this plan. TCWRA undertook scoping under SEPA and provided opportunities for public comment at Planning Unit meetings. Following scoping, TCWRA issued a “Determination of Significance” (DS). However, upon preparation of the draft Plan document in fall 2002, TCWRA withdrew the DS and issued a Determination of Non-Significance (DNS).

The reasons for this DNS are that: 1) the Watershed Plan does not propose specific capital projects that would be harmful to the environment; 2) the Plan contains optional strategies, rule-making, and actions that would require separate review under SEPA by implementing agencies prior to implementation if they would have a probable adverse impact on the environment; and, 3) the goals of the Watershed Plan would have beneficial impacts if achieved.

## 1.4 Planning Unit Goals

At the end of 1999 a workshop was held to identify goals and objectives for the Planning Phase. A Scoping Committee convened in year 2000 then consolidated these goals and objectives into the following seven substantive goals<sup>3</sup>:

- Improve the reliability of surface water supply for irrigation use;
- Provide for growth in municipal, rural domestic and industrial demand;
- Improve instream flows for all uses with emphasis on improving fish habitat;
- Maintain properly functioning habitat and enhance degraded habitat;
- Protect, improve and sustain ground water quantity and pumping levels of aquifers for the benefit of current and future use;
- Protect surface and ground water from contamination;
- Maintain economic prosperity by providing an adequate water supply for all uses;

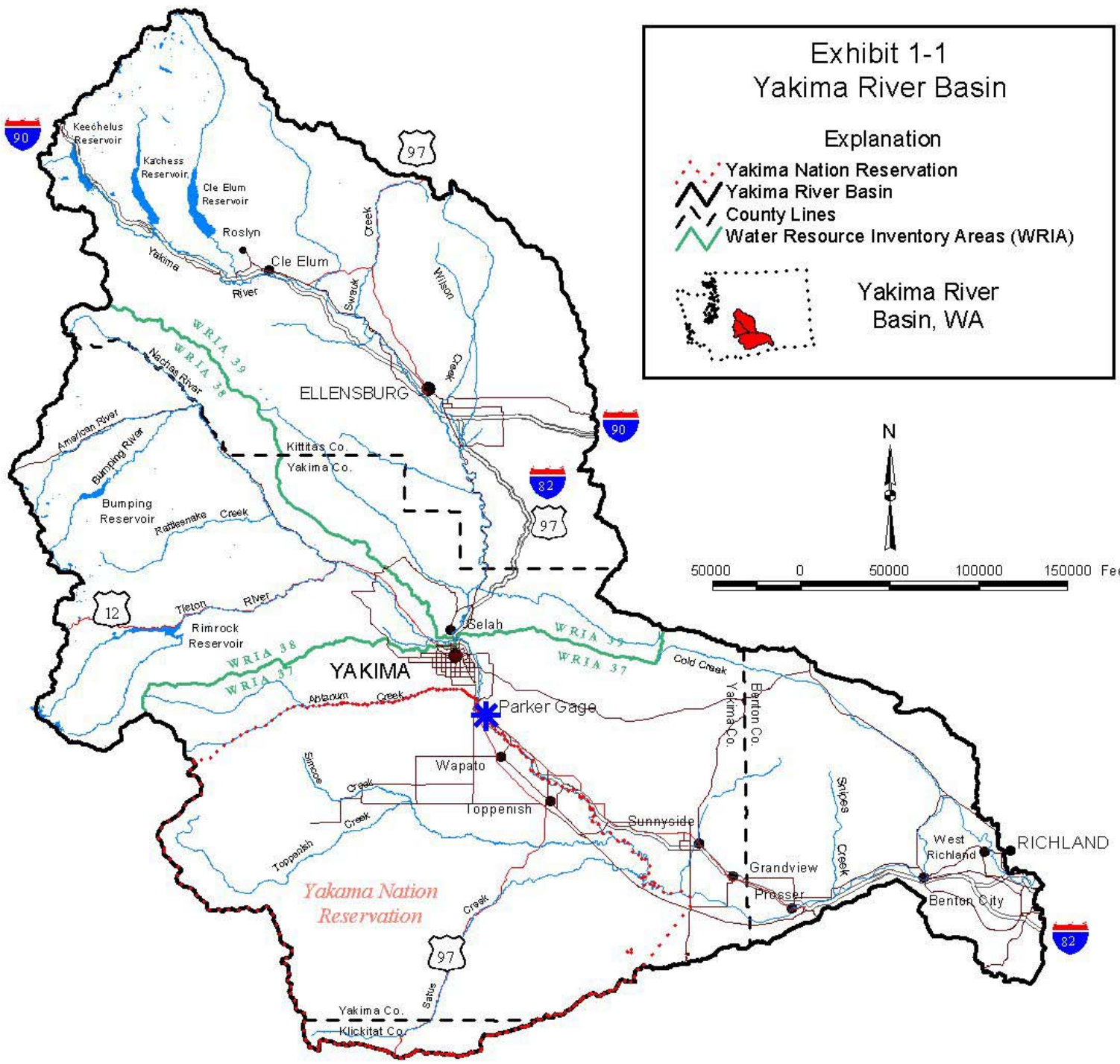
These goals were approved by the Planning Unit to guide the development of the watershed plan. Each of the water resource management alternatives discussed in this Plan is evaluated in terms of its ability to meet all seven goals.

## 1.5 Planning Area

The Planning Area for the watershed planning process is the entire Yakima Basin, with the exception of the Yakama Nation Reservation (see Exhibit 1-1). The Reservation occupies approximately 892,000 acres, or 23 percent of the Basin (based on GIS analysis of mapping data provided by Ecology. Note: additional Reservation land lies outside the Yakima River Basin). As requested by the Yakama Nation, the Yakima River Basin Watershed Planning Unit has refrained from planning with respect to water resource use or management on the Reservation. However, the Steering Committee of the Planning Unit has determined that some types of information regarding the Reservation may be necessary to fully understand water resource conditions within the overall Yakima Basin. Therefore public information involving water resources on the Reservation has been compiled during the planning process.

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<sup>3</sup> In addition, four procedural goals were identified, related to identifying barriers to plan implementation; identifying funding sources, education and public involvement, and early implementation projects.



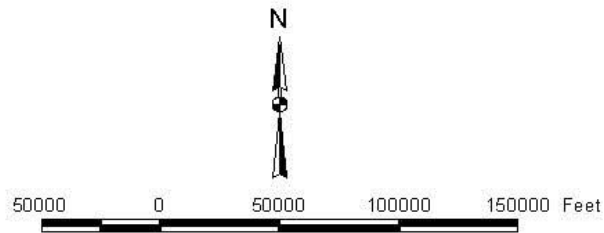
### Exhibit 1-1 Yakima River Basin

Explanation

- Yakima Nation Reservation
- Yakima River Basin
- County Lines
- Water Resource Inventory Areas (WRIA)



Yakima River Basin, WA



The surface waters of the Yakima Basin include the mainstem Yakima and Naches Rivers. The U.S. Bureau of Reclamation (USBR) manages the mainstem system through its system of storage reservoirs. In addition, there are many tributary streams, most of which do not have federal storage facilities, and therefore are not managed by USBR. In addressing surface water management, this Watershed Plan focuses primarily on the mainstem river system. While the tributaries are important, each tributary has its own needs, issues and involved parties. The Planning Unit recognizes that significant issues with regard to water supply, instream flow, habitat and water quality still remain to be resolved in the tributaries, and that funding will be needed to carry out this work. In order to be effective and responsive to local needs, planning carried out in the tributaries should involve the local residents and landowners. The Watershed Assessment report contains further information on water resources of the tributaries.

## 1.6 Plan Limitations

Consistent with the requirements of Chapter 90.82.120 RCW, nothing within this Watershed Plan shall:

- 1) Conflict with existing state statutes, federal laws, or tribal treaty rights;
- 2) Impair or diminish in any manner any existing water rights;
- 3) Require a modification in the basic operations or a federal reclamation project with a water right priority date before June 11, 1998, or alter in any manner whatsoever the quantity of water available under the water right for the reclamation project;
- 4) Affect or interfere with an ongoing general adjudication of water rights, including *State v. Acquavella*, Cause No. 77-2-01484-5, Yakima County Superior Court;
- 5) Modify or require the modification of any waste discharge permit issued under chapter 90.48. RCW;
- 6) Modify or require the modification of activities or actions taken or intended to be taken under a habitat restoration work schedule developed under chapter 246, Laws of 1998; or
- 7) Modify or require the modification of activities or actions taken to protect or enhance fish habitat if the activities or actions are consistent with the parameters and requirement of Chapter 90.82.120(1)(g).

Furthermore, the identification and estimation of surface and ground water rights for various entities and persons developed during the planning process are for the sole purpose of estimating water needs and availability, and to provide a general understanding of water-resource and management issues in the Yakima Basin to assist in watershed planning. The estimates of water rights are neither an admission nor an opinion on the validity or extent of

any respective water right by any participant in the planning process, the Tri-County Water Resource Agency, or any other entity or person identified with the Watershed Assessment. This Watershed Plan and the identification and estimation of water rights within this Watershed Plan may not be used by any entity or person for any other purpose except to assist the Tri-County Water Resource Agency, the Yakima River Basin Watershed Planning Unit, and its Committees, in watershed planning as set forth in Chapter 90.82 RCW.

Any strategies, actions, obligations, or potential obligations assigned to local, state, or federal agencies, and tribes if they participate in plan implementation in the future, are directly associated with securing necessary funding and resources, legislative authorizations where required, and are subject to all applicable state and federal requirements including SEPA and NEPA.

## **1.7 Plan Implementation**

The Watershed Management Act does not provide a specific framework for implementation of watershed plans. Implementation issues have been explored recently by a statewide “Phase 4 Watershed Plan Implementation Committee,” which had developed a draft Report to the Legislature at the time this Plan document was written. Chapter 8 of this Watershed Plan addresses implementation issues, and identifies potential roles for the various entities with responsibilities for water resources and land use management in the Yakima Basin. Chapter 8 also discusses a potential role for a “Coordinating Agency” such as TCWRA in the implementation process.

## **1.8 Organization of Plan Document**

This Watershed Plan document is organized as follows:

### **Section I: Introduction and Existing Conditions**

Chapter 1: Introduction and Purpose  
Chapter 2: Existing Conditions

### **Section II: Water Supply and Flow Management**

Chapter 3: Management of Surface Water Resources  
Chapter 4: Management of Ground Water Resources

### **Section III: Environmental Enhancement (Non-Flow Elements)**

Chapter 5: Management of Surface Water Quality  
Chapter 6: Management of Ground Water Quality

Chapter 7: Management of Fish Habitat Conditions

**Section IV: Implementation**

Chapter 8: Implementation Program