

# Chehalis Basin Watershed Management Plan

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## *Section I. Introduction*

The Chehalis Basin Watershed Management Plan (Plan) provides a current vision, as expressed in the Chehalis Basin Partnership's (Partnership) mission statement, goals, and objectives, and framework for water resource management in the Chehalis Basin. The Plan examines water quantity, water quality, instream flow, and habitat. The Partnership developed the Plan with recommendations for each respective area. To accomplish these recommendations, the collaborative efforts of citizens, utilities, federal, state, tribal, and local governments will be necessary.

An overriding reason for developing the Plan is to ensure that the future management of the water resources of the Chehalis Basin remains in the hands of the residents of the Chehalis Basin to the greatest extent possible. Through this planning process, the local citizenry shared issues and concerns related to water resource management and worked with utilities and local governmental entities to develop the Plan.

This Introduction describes an overview of water resources in the Chehalis Basin, the goals, objectives, and scope of the Plan.

## **Chehalis Basin Overview<sup>1</sup>**

The Chehalis Basin, Water Resource Inventory Areas (WRIA) 22 and 23, is one of the larger river basins in the state of Washington. The Chehalis Basin is bound on the west by the Pacific Ocean, on the east by the Deschutes River Basin, on the north by the Olympic Mountains, and on the south by the Willapa Hills and Cowlitz River Basin. Elevations vary from sea level at Grays Harbor, to 5,054 foot Capitol Peak in the Olympic National Forest. The Chehalis Basin encompasses 2,520 square miles and drains 2,660 square miles. The Chehalis River system flows through three distinct ecoregions; Cascade (including the Olympic Mountains), Puget Lowland, and Coast Range before emptying into Grays Harbor near Aberdeen.

The Chehalis Basin encompasses large portions of Grays Harbor (50%), Lewis (28%), and Thurston (12%) counties, and lesser parts of Mason (7%), Pacific (3%), Cowlitz (.3%), Wahkiakum (.003%), and Jefferson (.07%) counties. The mainstem and South Fork Chehalis drain areas west and south of the City of Chehalis. Two major tributaries in mid-basin, the Newaukum and Skookumchuck Rivers, have their headwaters in the foothills of the Cascade Range. Another mid-basin tributary, the Black River, originates in Black Lake.

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1. The following description is largely adapted from the *Chehalis River Basin Action Plan* (Chehalis River Council, 1992) with additional information incorporated from this *Chehalis Basin Level 1 Assessment*.



*Chehalis River*

*Grays Harbor County  
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The largest tributaries, the Satsop and Wynoochee Rivers, arise in southern extensions of the Olympic Mountains and join the mainstem shortly before its terminus at Grays Harbor. The Humptulips River, as well as the Hoquiam and Wishkah Rivers, also have their headwaters in the southern Olympic Mountains and flow into Grays Harbor; the Humptulips into North Bay, the Hoquiam into the inner estuary of Grays Harbor, and the Wishkah into the Chehalis River near the mouth. The Johns and Elk Rivers flow into the South Bay of Grays Harbor. The terminus of all rivers is where they enter Grays Harbor.

## Current Status of Water Resources in the Chehalis Basin

At present, there are significant gaps in the information to manage Chehalis Basin water resources effectively. This lack of information creates a data gap and consequently a number of issues discussed remain unresolved. Unless we improve our systems for gathering, maintaining, and using information, we will not be able to manage this resource responsibly, and we will not meet our goal of adequate water to meet all needs throughout the Chehalis Basin.

With the information available, we conclude that from a water resources perspective, the Chehalis Basin is fortunate in having relatively high rainfall and a relatively small population. In addition, the high proportion of forestlands in the basin (87%) is a critical resource for capturing precipitation and storing it as groundwater for use by both human and non-human populations.

However, because there are no significant areas of snow pack in upper watersheds, of the Chehalis Basin, all streams in the basin depend almost entirely on groundwater storage of winter rainfall to maintain flows during the summer months, which is discussed in more detail in the *2003 Chehalis Basin Water Quantity Evaluation, October 2003*.

Instream flows are not always met. The best estimate, with our current knowledge, is that there is not enough water to meet the needs of all existing water rights or to allow new rights to be issued to meet the requests of all prospective users. This is particularly true in the upper Chehalis Basin (WRIA 23). This Plan recognizes that the Department of Ecology is responsible for issuing state water rights. This Plan identifies that there is a problem of an over allocation<sup>2</sup> of water rights and claims within the Chehalis Basin. The Plan recognizes inconsistencies between the actual amount of surface and ground water being used with the large number of water rights and claims. This issue needs to be resolved.

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2. The *Initial Watershed Assessment for WRIA 23 - Upper Chehalis River*, (February 1995) found that in many instances during the summer months the amount of water allocated under existing rights and claims is greater than the amount of water flowing in streams. For example, during an average August at the Porter Washington stream flow gage, the amount of water allocated under existing upstream rights and claims is greater than the amount of water actually flowing in the Chehalis River by 275 percent (nearly three times).

At present, managing water quantity in the Chehalis Basin is very difficult. Department of Ecology uses two management strategies in the basin: the transfer of water rights and the closure of portions of the basin to the issuance new water rights.

Water quality studies have shown that low summer instream flows contribute to elevated temperatures and low dissolved oxygen.

It is expected that population and economic activity in the Chehalis Basin will increase, and these trends will make additional demands on the water resources. This increased demand may make it more challenging and costly to correct and avoid further water quality problems.

The Partnership's goals and objectives attempt to satisfy all existing and future needs for water withdrawals, while assuring adequate water in streams. To do all of these things throughout the Chehalis Basin, the Partnership recognizes the need to develop a flexible and informed system to manage water.

## Watershed Management Plan Mission Statement, Goals, and Objectives

Early in its watershed planning effort, the Partnership opted to agree on a mission statement, goals, and objectives to guide the selection of technical studies and the development of the Plan.

As with all its major decisions in the watershed planning process, the Partnership worked to reach consensus on a concise mission statement for the water resources planning process. Discussions over three months culminated in agreement in the fall of 2001 on the following mission statement that reflects the priorities of the Partnership: *The mission of the Partnership is to develop a management plan that will result in effective, economical, and equitable management of the water in the Chehalis Basin to sustain viable and healthy communities and habitat conditions necessary for native fish.*

## Goals & Objectives

The Partnership developed goals and objectives for watershed planning, for public involvement, and for water quantity, water quality and habitat. The Partnership later developed goals and objectives for instream flow. These goals and objectives guided the development of the Plan's recommendations and actions.

## General Goals

Work together to find solutions, build relationships, and obtain consensus on the Plan while fostering a sense of the importance of watershed management and stewardship.



*Satsop River*

Focus on cost-effective environmental improvements and efforts based on available funds, while balancing a sustainable environment with economic development, using a cooperative, not a regulatory approach.

- Protect federally reserved and trust water rights in the Basin.
- Identify and protect areas that have healthy water resources.

## Public Involvement Goals

- Use the Citizen Advisory Committee and increase public information and involvement to raise awareness of citizens about watershed issues.
- Gain input from the public in developing and adopting the Plan.
- Encourage basin residents to implement the Plan, with government support.

## Water Quantity Goal & Objectives

### Goal:

- Bridge the gap between existing stream flows and target flows for fish, wildlife and human use.

### Objectives:

- Clarify Washington State water law to citizens.
- Conduct a water balance for the Basin, including complete groundwater data.
- Identify tools available to meet this goal.

## Water Quality Goal & Objectives

### Goal:

- Prevent degradation of and/or improve water quality to have clean water (as defined in Washington State water quality standards) for all fish, wildlife and human uses.

### Objectives:

- Consider improving water quality through increasing water quantity (using tools identified above).
- Implement current and future water quality cleanup plans.
- Develop strategies to identify and prevent water quality degradation.

## Habitat Goal

- Prevent degradation and improve habitat to support self-sustaining fish and wildlife populations and to support water quality and quantity goals.

## Cooperative, Proactive Approaches to Obtain Goals

Partnership members felt that regulations in place at the time this Plan was developed should be enforced to protect water resources in the Chehalis Basin. Members of the Partnership recognize that government-to-government and interlocal agreements exist. Specifically the Confederated Tribes of the Chehalis Reservation reserves the right to develop water agreements through a government-to-government consultation outside of the Partnership process.

Members of the Partnership specified that voluntary, cooperative, proactive approaches to reach these goals would be preferable to additional regulations. These voluntary approaches should include: intergovernmental agreements, memoranda of understanding between local governments and water resource stakeholders, and public education and outreach. Agreements should be proactively developed in the forum of the Partnership.

## Federally Reserved and Trust Water Rights

The Partnership understands that meeting the water rights reserved by the federal government and Indian tribes will promote balanced sustainable decisions and respectful relations with our tribal neighbors. It is with the understanding that Indian reserved water rights, which have not been verified and quantified, supercede state-based water rights that this water plan is written and presented.

Protection of Indian reserved and trust water rights are rights based on the legal principle first recognized in *Winters v. U.S.*, 207 U.S. 564 576-77 (1908), that when the United States acquires or sets aside land through reservation for some specific purpose, it also reserves sufficient water to meet the purposes of the reservation. The reserved water must be sufficient to meet the present and future needs of Indian reservations, including instream flows for fish. See *United States v. Adair*, 723 F.2d 1394, 1410 and 1414-15 (9th Cir. 1984) cert. denied, *Oregon v. United States*, 467 U.S. 1252 (1984). Water reserved for instream flow purposes carries a priority date of time immemorial. Id. at 1415.

## Protection of Areas of Healthy Water Resources

The Partnership recognized that it is invariably easier and less costly to protect healthy resources than it is to restore those resources after they have been allowed to deteriorate.

These high quality water resources are not only of value in themselves for recreation, aesthetics and water supply; they are also essential to efforts to restore degraded areas in more developed sections of the watershed. To accomplish this goal requires understanding why these areas support healthy water resources, protecting them from deterioration, and expanding them.



*Hoquiam River*

## Scope of the Watershed Management Plan

This plan was prepared under the provisions of the Watershed Management Act, of the Revised Code of Washington, Chapter 90.82. The Watershed Management Act identifies one required element (water quantity) and three optional elements (habitat, water quality, and instream flows) of watershed planning. The initiating governments of the planning effort are responsible for determining the scope of planning. The initiating governments in the Chehalis River Basin initially opted to address the required water quantity element, water quality, and habitat, and later instream flows from the optional elements.

In 2001, the Washington State legislature made funding available for local planning units to study instream flow levels and water storage prospects via Engrossed Substitute House Bill 1832. The Partnership elected to apply for grant funds to assess water storage possibilities, instream flow levels and to include reports on both elements in the Plan.

This plan presents an opportunity to address all of these elements in a coordinated, collaborative manner across the entire Chehalis Basin.

The Partnership wanted a broad based effort to identify the issues to be addressed in the Plan. Considering input from four public workshops held throughout the Chehalis Basin in 2002, the Steering/Technical Committee, and the monthly Partnership meetings, issues were identified and prioritized. Representatives of the Partnership also met with tribal councils of the Confederated Tribes of the Chehalis and Quinault Indian Nation, Grays Harbor Water District #2 and Boistfort Valley Water Company Commissioners to identify additional issues pertinent to their interests. The Plan attempts to address as many of the issues as time allowed. Although many issues remain unresolved and are listed the *Supplement to the Chehalis Basin Watershed Management Plan*.

The Steering/Technical Committee (STC) reflects the same interests that are in the Partnership. The Partnership requested volunteers to serve on the STC. The STC is made up of local, state, tribal and federal governments, and citizen representatives, and the meetings are open to any interested party. Government natural resource staff provided technical expertise, as well as input from the STC, to collaboratively develop the response (issue) papers to many of the issues in the Plan. Issue papers are included in their entirety in the *Supplement to the Chehalis Basin Watershed Management Plan*.

## Section II – Why do we need a Plan for Basin Water Resources?

An overriding reason for this plan is to ensure that the future of the resources of the Chehalis Basin remain in the hands of the residents of the basin to the greatest extent possible. To accomplish this, would necessitate collaborative efforts between federal, state, tribal, and local governments and the remaining citizenry not affiliated with a branch of government. The Watershed Management Act reads in part as follows:

“The legislature finds that the local development of these plans serves vital local interests by placing it in the hands of people: Who have the greatest knowledge of both the resources and the aspirations of those who live and work in the watershed; and who have the greatest stake in the proper, long term management of the resources.”<sup>3</sup>

This act further makes clear that water resources are important public resources for which the state has a high level of concern:

“The development of such plans serves the state’s vital interests by ensuring that the state’s water resources are used wisely, by protecting existing water rights, by protecting instream flows for fish, and by providing for the economic well being of the state’s citizenry and communities.”<sup>4</sup>

Clearly, the implication is that if we do not plan responsibly for our own future, then the state reserves the right to do so. This is the opportunity the Watershed Management Act affords us – the opportunity to shape our own future by protecting our water resources and developing our own approaches to redressing those problems that do exist. The following paragraphs touch briefly on both the problems and opportunities.

### Is water resource protection cost effective?

The Partnership recognizes that a cost effective way to ensure adequate water is to recharge into the streams and groundwater to protect its quality. Many things are going right for the Chehalis Basin water resources. This is primarily because the Chehalis Basin has extensive forestlands, relatively high precipitation, and a relatively low population. Forestlands are an important asset from a water resource perspective because forestry as a land use, if well managed, provides favorable conditions for water quality and water resource integrity.

The future for water resources in the Chehalis Basin may not be as bright. Current land use planning forecasts indicate an increase in Chehalis Basin population of about 80,000 people by 2025. This would be an increase of more than 50 percent over the current population of approximately 140,000.

3. RCW 90.82.010

4. Ibid.



*Black River*

The period between now and 2025 is likely to be only the beginning of major population growth. The area between Seattle and Vancouver (WA) now has about 6 million people. At current rates of migration and growth, this could grow to about 24 million by 2100.<sup>5</sup>

Due to its location at approximately the mid-point between Seattle and Vancouver, the Chehalis Basin may be spared much of the development pressure that would result from regional population quadrupling, but it certainly would experience some growth pressure. This can already be seen by examining land use in the most desirable areas of the basin – those that are low lying and close to important water resources. About 87 percent of the basin as a whole is in forestry and only 11 percent in agriculture, urban, or industrial uses. However, these three uses climb to 42 percent in those areas within one mile of the developed segments of major Chehalis Basin rivers.<sup>6</sup> These segments account for almost half the length of the major rivers in the Chehalis Basin.

The existence of areas of high quality waters is both an environmental and an economic benefit to the Chehalis Basin because it is much easier and less costly to protect high quality water resources than to restore those that are degraded. If effective programs to protect water resources in the Chehalis Basin are not put into place soon, population pressure and economic growth will cause these waters to deteriorate over the long term. If that occurs, the choice that future generations will inherit will be either to expend huge sums on recovery or to live with degraded water resources.

This plan can be the vehicle for designing and establishing programs to protect our water resources while they are still in good shape. This is the cost effective way to manage.

## Is there water for out of stream uses?

While the availability of water appears to vary within the Chehalis Basin, the Partnership believes that there is not sufficient information to make conclusive determinations on water supply for many areas and purposes. Many people rely on the Chehalis River, its tributaries, and groundwater to supply their drinking water needs, as well as provide water for agriculture, fish hatcheries, and industry. These are the largest “out-of-stream” water uses. “Instream” water uses, such as fish and wildlife needs within the river also rely on Chehalis Basin water; these needs are discussed in a later section.

Most out-of-stream water uses require a water right, but new permits have been nearly impossible to get for about the last ten years, especially within the upper Chehalis Basin. The reason is that the Department of Ecology (the regulatory agency that oversees water rights) suspects that there may not be

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5. Lackey, Robert T. [2003]. A salmon-centric view of the 21st century in the Western United States. In: Proceedings of the conference: “*World Summit on Salmon*,” Simon Fraser University, June 10-13, Vancouver, British Columbia. [Accepted].

6. These streams are the Chehalis main stem, SF Chehalis, Newaukum, NF Newaukum, SF Newaukum, Skookumchuck, Black, and Satsop main stem

enough water in the Chehalis Basin at certain times of the year to approve new water rights without impairing instream water needs.

There are numerous considerations in evaluating the needs of out-of-stream water users. Inadequate information also makes the determination difficult:

- Because there are no significant areas of snow pack in upper watersheds, all streams in the Chehalis Basin depend almost entirely on groundwater storage of winter rainfall to maintain flows during the summer months.
- Groundwater is in close connection with surface water throughout the Chehalis Basin; this means that groundwater withdrawals impact streamflow.
- The actual quantity of water that has legally been appropriated is impossible to quantify without an adjudication of water rights, because of the large number of unvalidated water right claims (8,418) that have never been evaluated.
- Very few water users monitor, or meter, their water use, which makes it difficult to know how much water is actually used. Also, the timing of water use is rarely monitored or coordinated among users, making it more difficult to evaluate the impact of out-of-stream water uses on the river system.

This watershed plan must provide tools to determine whether water is available for additional out-of-stream uses in parts of the Chehalis Basin. It should provide an approach, method, and/or criteria for evaluating whether additional water is available for out-of-stream use. Where it is determined, that additional water is not available for out-of-stream uses, but additional out-of-stream needs exist or are projected, a plan for meeting those needs should be developed, with specific tools that are available to meet the need. To accomplish this, modifications to existing state rules, regulations, and policies may be necessary.

## Is there sufficient water for instream flows and fish runs?

The Partnership believes sufficient water for instream flows and fish runs could be achieved and makes a number of recommendations to achieve that purpose. Throughout the years land use practices in the Chehalis Basin influenced the aquatic habitats utilized by native salmonid fish species. As documented in the Limiting Factors Analysis Report<sup>7</sup>, most of the subbasins within WRIAs 22 and 23 have had many of the same habitat impacts. We have the ability to directly improve and/or maintain the current condition(s).

There are 31 salmonid stocks in the Chehalis Basin. Of these 8<sup>8</sup> are known to

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7. Salmon and Steelhead Habitat Limiting Factors for the Chehalis Basin and Nearby Drainages WRIA's 22 and 23 reviews and rates the habitat conditions of salmonid-producing watersheds. [http://www.co.grays-harbor.wa.us/info/pub\\_svcs/ChehalisBasin/WorkPlan/Introduction.htm](http://www.co.grays-harbor.wa.us/info/pub_svcs/ChehalisBasin/WorkPlan/Introduction.htm)

8. Salmon and Steelhead Stock Inventory

be depressed and the status of 7 other stocks is unknown. Bull trout in the Chehalis Basin is listed under the Endangered Species Act (ESA); although the distribution, abundance, and suitable habitat of bull trout in the basin have not been determined. As of October 2003, a bull trout recovery plan and critical habitat designation are being developed for the Washington Coast including the Chehalis Basin. Coho salmon in the Chehalis Basin is a candidate species for listing under the ESA.

There is no coordinated Chehalis Basin salmon recovery strategy that addresses the major factors (habitat, harvest, hydropower, and hatcheries) generally thought to effect salmon abundance. However, there are a number of actions under way to assist the recovery of salmon in the Chehalis Basin. One is the *Chehalis Basin Salmon Habitat Restoration and Preservation Work Plan*, developed by federal, state, county, and tribal entities and citizens with Grays Harbor County in the Lead Entity role. Another is co-management of fish harvest by the Confederated Tribes of the Chehalis, the Quinault Indian Nation, and the Washington Department of Fish and Wildlife (WDFW) Fish Program. Another program involves various agencies working to prevent listings of candidate and at-risk fish species.

One aspect of salmon recovery specific to this plan is to try and make sure that the fish habitat in the Chehalis Basin is as healthy as possible. In addition to habitat restoration projects, such as removing barrier culverts, riparian restoration, and many others, improving habitat includes making sure enough water remains in streams for salmon to migrate, spawn, and rear. At present, low summer flows and habitat degradation are the critical factors limiting the size of fish populations in nearly all Chehalis Basin streams.<sup>9</sup> Information from the Department of Ecology suggests a cause-and-effect relationship between consumptive water use and reduced stream flow.<sup>10</sup>

This watershed plan is needed to understand and address the adverse effects of low flows on fish abundance. The instream flow portion of the plan is an attempt to determine what flows are most beneficial for fish and how to attain these flows, while balancing other instream uses. This plan envisions moving salmon recovery one step further forward through enhancing and protecting salmonid habitat, including stream flows.

## What is the quality of water?

The quality of water in the rivers and streams that make up the Chehalis Basin ranges from excellent to poor. Chehalis Basin waters that fail to meet state water quality standards are impaired by a variety of pollutants including high levels of fecal coliform bacteria, warm water temperatures, low levels

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9. Washington Dept. of Fisheries, 1975

10. For example, for Chehalis River near Porter, gauging began in 1953 and using best-fit regression, annual stream flow decreased by 19% (or 800 cfs), annual precipitation decreased by about 6%, and ground-water and surface-rights given out by Ecology increased by about the same amount of decreased stream flow, 800 cfs. Much of the growth occurred between 1966 and 1981 (Initial Watershed Assessment, Wildrick et al, 1995).

of dissolved oxygen, high pH, high levels of phosphorous, and pesticides. In a few cases, failure to meet state water quality standards is due to natural conditions; however, most of these problems can be traced to how humans use the land.

Generally, higher quality waters exist where there tends to be little development or disturbance. In the Chehalis Basin this is the uppermost portions of tributaries to the Chehalis River where there tends to be little development or disturbance. Lower quality waters are generally found in the larger tributaries, the Chehalis River, and Grays Harbor. These generalizations are based on limited information because there are only four fresh water stations in the Chehalis Basin where the state monitors water quality on a regular (monthly) basis. Three of those stations are on the Chehalis River and one is on the Humptulips River.

Targeted water quality studies and monitoring by organizations other than the state help fill in the gaps in our knowledge about water quality in the Chehalis Basin. Some of these indicate that there are significant areas of poor water quality. It is fair to say that we may be aware of water quality problems only where we have looked. More comprehensive monitoring is needed for us to be confident that we know all the areas where we have high quality waters and where there are degraded waters needing restoration.

The federal Clean Water Act {33.USCS/1251et.seq.(1977)} emphasizes cleaning up waters that do not meet state water quality standards, which is costly. Preventing the degradation of water quality is almost always more cost effective and less painful than cleaning up degraded water.

This watershed plan can benefit local communities by providing guidance for cleanup efforts, strategies for tracking water quality, and methods for intervening to correct pollution problems/sources before water quality declines to the point that the state must initiate corrective action. These strategies will require local commitment and resources, but that will be balanced by more local control over the types of corrective actions that are implemented.

## **How is land currently used in the Chehalis Basin?<sup>11</sup>**

The Chehalis Basin contains a variety of land uses, such as timberland, agriculture, commercial, industrial, and residential. The majority of the basin (87%) is forestland. Most forested acres are privately held and predominately mixed species. The government land ownership includes Capitol State Forest, and portions of Mt. Baker-Snoqualmie and Olympic National Forests.

Another 7% of the land base is agriculture. Commercial dairy, livestock and crop farming operations are predominantly located in the low-lying valleys adjacent to the Chehalis River and its major tributaries, including the South Fork Chehalis, Newaukum, Skookumchuck, Black, Satsop, and Wynoochee Rivers, and Scatter Creek. Principle crops include pasture, hay, and silage, with

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11. Chehalis Basin Level 1 Assessment

some vegetables and small grains. Berries are grown in the Chehalis-Centralia area. Several Christmas tree farms are located along the Skookumchuck River and in the Chehalis-Centralia area. Several private aquaculture facilities are located in the Grand Mound/Rochester area.

The remaining land base is spread among rangelands, lakes and reservoirs, urban and rural residential, commercial, industrial, and other minor categories. Industrial development is centered around the Chehalis/Centralia and Aberdeen/Hoquiam areas and to the coal mine/power plant site south of Bucoda, with isolated industrial facilities located throughout the Chehalis Basin.

## **Will land use changes undermine water resources?**

The Partnership recognizes that water resources, if properly managed, can be protected in the face of growth and change. Land use is a major determinant of the quality of water resources. The Chehalis Basin is predominantly in forestlands, and that is an advantage from a water resource perspective. Forestry is the land use that generally provides the best water resources and urban areas the worst. In terms of land use and water resources, a rough continuum from good to poor is probably forest, agricultural, rural residential, suburban, urban.

Economic and population pressures tend to promote land use changes from forestry and agriculture to more intensive uses. There are strategies and policy options to encourage preservation of forest and agricultural land, to manage all types of land use for water resource quality, and to provide protection to water resources even as land uses change. Existing efforts include the Washington Forest Practices Act<sup>12</sup> and others.

This plan is needed to raise awareness of the connection between land use and water resources, to promote preservation of forest and agricultural lands, and to encourage adoption of best management practices that protect water quality for all types of land use. If these things are done, we will have a better chance of meeting our goals for both economic growth and water resource integrity.

## **Is there sufficient information for water resource management?**

Relatively little is known about water resources in the Chehalis Basin, and proper resource management is going to require additional information about the basin. Missing information includes knowledge of which existing rights are actually being used and which are relinquished, what percentage of the water authorized by active rights is actually being withdrawn, how many of the approximately 8500 claims are valid, what the actual flows are in most

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12. Forest Practices Act, Chapter 76.09 of the Revised Code of Washington (RCW) applies to forestry activities on state and private lands (including road construction, timber harvesting, chemical application, and reforestation).

Chehalis streams, whether actual and regulatory flows are adequate for fish and other instream uses, the extent to which exempt wells impair other water rights and climate variability.

If there were plenty of water in the Chehalis Basin for everyone and every use (instream and out-of-stream) the absence of information about basin water resources and their use would matter little. However, this is not the case in every part of the basin. Some subbasins are closed to the issuance of new rights, and some agencies and citizens do not believe that instream flows are adequate for fish.

The issue of adequate future water supply can be further complicated by a topic that has even less information available—climate variability (e.g. global warming). Climate variability's future effects on water resources are unclear. This variability may need to be addressed as understanding of these effects grows. Yet, watershed managers and water suppliers are being forced to balance competing interests for water. A future water management system might be better served through integration, and collection of climate information.

It is not certain that there is enough water in the Chehalis Basin to meet all potential future demands for it. It is certain, however, that we will have the best chance to meet the most needs if we have a flexible and efficient system of water management in the Chehalis Basin. Such a water management system cannot be implemented without significantly addressing the information deficiencies that now exist.

Collecting information on water resources is expensive and time consuming. If we wait until the crunch comes, it will be too late to gather the information needed for optimal management, and some instream and out-of-stream uses that could otherwise be satisfied will be denied. This plan suggests ways to identify information needed for managing our waters and how to begin assembling that information. If these things are done, there is hope that we will put our best foot forward in the future when pressures on Chehalis Basin water resources become more intense than they are today.

## *Section III – Watersheds and Plan Development “101”*

### **What is a watershed?**

A watershed is the entire area that drains to a common waterway, such as a lake, river, or even the ocean. The Chehalis Basin includes all the lands that drain to the Chehalis River and its many tributaries including Grays Harbor where the Chehalis River enters the Pacific Ocean. The Chehalis Basin is one of the largest watersheds in western Washington.

### **What is a Water Resource Inventory Area (WRIA)?**

A Water Resource Inventory Area or WRIA is a Washington State designation for a large watershed that drains to a common water body. There are 62 WRIsAs in the state. Their purpose is to facilitate water resource planning. The upper Chehalis (WRIA 23) and the lower Chehalis (WRIA 22) have been combined into a single planning area – the Chehalis Basin – for watershed planning purposes.

### **To plan or not to plan?**

Planning processes generally address problems or may seek to protect or improve quality of life. Watershed planning under the Watershed Management Act (Chapter 90.82 Revised Code of Washington) is no different, only it focuses on water resource related issues. Some watershed planning groups convene to address chronic problems like degrading fisheries, while others seek to address acute problems like heavy erosion along stream banks. Other planning efforts may bring together citizen groups, local agencies and states to work together on plans for community and environmental improvements. The degree of success achieved in watershed planning often depends on people devoting substantial time to the effort over a long time frame.

### **Why develop a Plan on a watershed scale?**

Watersheds encompass natural hydrology and represent a logical basis for managing water resources. Through this approach, the resource becomes the focal point, and the managers are able to gain a more complete understanding of overall conditions in an area and the stressors affecting those conditions. This approach also encourages collaboration across political boundaries that do not exist traditionally.

### **How do you initiate a planning process?**

Before watershed planning can begin, a local partnership must be assembled. Membership should include concerned individuals, local agencies and organizations with a stake in the condition of their watershed.

Partnerships are key to effective watershed planning and management. Through a partnership, different people and organizations work together to

address common interests and concerns. Partnerships vary with size, complexity, funding, supporting organization(s), strength of government agency participation, and skill mix, among other things. Developing a watershed management plan is not easy, but a partnership increases the likelihood for success because key parties are involved and resources can be shared.

## Who is the Chehalis Basin Partnership and why are they developing a Watershed Management Plan?

The Chehalis Basin Partnership (Partnership) is an organization established in August 1998 to undertake watershed planning.<sup>13</sup> The Partnership is broad-based; it includes representatives from the largest four primary counties in the Chehalis Basin (Grays Harbor, Lewis, Mason and Thurston counties), two tribes, 12 cities, two water supply utilities, four state agencies, the Port of Centralia, major interests (including agriculture, business, environmental, fisheries, and forestry), and a citizen-at-large from each of the four counties. Several state and federal agencies are also active in Chehalis Basin planning to provide resources and technical assistance. Using funding the Washington State Legislature made available, the Partnership voluntarily undertook watershed planning to gather information, address water resource issues, and gain more local control over the water resources of the Chehalis Basin.<sup>14</sup>

## What is the Chehalis Basin Watershed Management Plan?

The Chehalis Basin Watershed Management Plan includes:

- A vision for our future collaboratively developed by local governments, tribes, interested groups and citizens.
- Water resource policies and practices designed to support economic growth and to promote water availability and water quality now and in the future.
- The community's preference for voluntary, cooperative, proactive, and cost-effective approaches rather than new government regulations.
- A roadmap for how to achieve our vision of sustainable, viable and healthy communities and habitat conditions necessary for native fish, for current and future generations.
- A source of valuable information – much of it new - about the water resources our communities depend on, both on the local level and basin-wide.

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13. The Partnership is an extension of a predecessor group, the Chehalis Basin Council that began meeting in January 1997; its purpose was to improve the environmental, social and economic health of the Chehalis watershed. The Partnership was formed to respond to the opportunity to develop local water resource plans presented by state legislation ESHB 2514, known as the Watershed Planning Act. It was formalized through an intergovernmental agreement dated August 31, 1998.

14. To meet the requirements of the legislation, a smaller group of entities within the Partnership, called the Initiating Governments, formally requested funding for watershed planning. The Partnership is officially known as the "planning unit" for the Chehalis Basin.

## How did the Partnership go about developing the Plan?

The process for developing the Plan included the following elements:

- Identifying water resource issues and problems from citizens, stakeholders, the Partnership and Partnership staff related to water quantity and quality, instream flows, habitat, flooding, and water storage,
- Collecting existing information and developing new information about water resource issues where there were gaps,
- Identifying and analyzing options for addressing issues and concerns,
- Reaching agreement on recommendations – with a preference for voluntary, cooperative, proactive, and cost-effective approaches-to address these issues and concerns.

## What is the Plan approval process?

The Watershed Management Act law, RCW 90.82, prescribes how the planning unit for the management area may approve the Watershed Plan. The Partnership determined through the interim bylaws that actions of the Partnership should be conducted according to a consensus decision-making process, allowing all members of the Partnership to participate.

## What is the local Plan approval process?

The Partnership can accept or reject the Watershed Plan. If the Plan is accepted, then according to the Watershed Management law, the Plan is presented to the four counties (Grays Harbor, Lewis, Mason, and Thurston)<sup>15</sup> for their consideration through a public process. Following the individual county public hearings, the legislative authorities for the counties are to meet in joint session to consider the Plan. If a majority of the commissioners of each county are in favor, they can approve all or portions of the Plan in the joint session. If the majority does not approve the Plan, they are expected to return the Plan (or unapproved portions) to the Partnership with suggested changes. Once the Partnership has responded, the amended Plan would go through a similar review process: county hearings followed by a joint session of county legislative authorities.

## How will the Partnership update the Plan?

Future amendments and additions to the Plan will be approved by the Partnership according to the Intergovernmental Agreement, bylaws, and/or operating procedures and will be subject to a public review process including opportunities for comment at Partnership meetings, and special community and/or public meetings. No organization can be obligated to implement an action included in the plan or a plan update - unless they agree to the obligation(s).<sup>16</sup>

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15. The counties of Cowlitz, Jefferson, and Wahkiakum opted out of Chehalis Basin, WRIA 22 and 23, watershed planning and public hearing process, pursuant to the Revised Code of Washington, Chapter 90.82.130(2)<sup>o</sup>.

16. RCW 90.82.130(3) Plan approval – Public notice and hearing – Revisions.

## What is the future of the Partnership?

The Partnership intends to continue to be involved in water resource management of the Chehalis Basin. The Partnership may retain its current structure or it may evolve as it takes on new activities. Since 1998, the Partnership has provided a forum to guide the watershed planning effort and other water resource related activities such as salmonid habitat restoration and water quality projects. The current voluntary, non-incorporated organizational structure may result in limitations that preclude the Partnership from overseeing Plan implementation and long-term water resources management. For example, the Partnership cannot directly hire staff or consultants, sign contracts, receive grants without a fiduciary agent, or act independently as a management agency.<sup>17</sup> The Partnership therefore needs to evaluate the organizational options available for water resources management and Watershed Plan implementation actions and determine the structure that will best serve the group's interests.

## How will this Plan be implemented?

The implementation of this Plan will depend on the actions of many individuals, organizations, and governmental agencies. The key to assuring the success of this Plan is implementation. The Partnership accepted the watershed planning challenge and built the vision outlined in this Plan.

The Partnership must still determine the specifics of implementing the recommended actions in the Plan. Decisions will be made concerning the priority of each recommendation and its implementation. Implementation will include further development of details such as who, what, when, where, and how much. Section IV contains the recommendations accepted by the Partnership through this process. The Partnership, as part of its next steps, will need to determine the specific details associated with each recommendation. Therefore, the language describing the recommendation(s) is somewhat vague, which was intentional to allow refinement when the recommendation(s) evolve from conceptual idea, to feasible project, and then to implementation.

One option for financing future implementation actions could be provided through Phase IV funding, which has been provided by the State to implement the plans approved under the Watershed Management Act. This alternative would provide the financial resource to continue staff support, meeting room rental, and the development of a Detailed Implementation Plan. The Detailed Implementation Plan would describe strategies and interim milestones to provide sufficient water for out-of-stream and instream uses. If this plan is approved, the Partnership will then determine if it will pursue the Phase IV funds or work to implement the plan in some other way.

The Watershed Management Act has a provision for implementation “obligations” to be created by watershed plans approved through this process. This

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17. At this time, Grays Harbor County, the Lead Agency and Fiscal Agent for the Partnership manage all contract related activities.

Plan creates no such obligations under the law. However, with the consent of those affected parties, obligations may be created by the Partnership as part of the development of the detailed implementation plan.

## Section IV – Accepted Issue Statement, Recommendations and Suggested Actions

This Plan provides a vision and framework for water resource management in the Chehalis Basin. At this time in Plan development, details of implementation obligations are undecided. These obligations will depend in large measure on the availability of funding, staff resources, technical capacity, and priorities of the entities involved and of the recommended priorities of the Plan. One option for the Partnership is to consider some of these questions during the development of a Phase IV detailed implementation plan, if the Partnership chooses to undertake this effort.

Still, the following recommendations reflect some of the Partnership’s desire and vision and address important, even vital issues related to water resources. The success of this Plan depends in large measure on the actions taken to implement the recommendations, and the Partnership encouraging action on recommendations when and where resources exist.

### Water Quantity – Hydraulic Continuity

**Issue statement:** It is not known how directly the water in the ground connects to the water in the Chehalis Basin’s rivers and streams, though it is known that there is some level of connection. This connection, called “hydraulic continuity,” means that groundwater wells affect stream flow levels. We need to know how great this effect is in different places to know if we can drill wells to supply water for homes and businesses without impacting our natural resources.

**Recommendation:** The Partnership recommends giving further consideration to conducting a groundwater study that will provide the information necessary to address the hydraulic continuity issue. This study would provide specific information about the character of the groundwater throughout the Chehalis Basin that would allow decision-makers to better evaluate whether an individual water right application would impact stream flows.

Suggested actions related to hydraulic continuity: The following table contains the methods or processes required in total or in some combination to achieve the recommendations of the Partnership.

<i>Action #</i>	<i>Actions accepted by the Chehalis Basin Partnership</i>	<i>Source</i>
1.	The Partnership recommends that the state make it clear to water rights applicants that there are flexible strategies for meeting their water rights needs given that hydraulic continuity is an issue.	Water Quantity Section, Hydraulic Continuity Issue Paper, Action #1.1
2.	Conduct a groundwater study that provides the information necessary to address the hydraulic continuity issue. This study would provide specific information about the character of the groundwater throughout the Chehalis Basin that would allow decision-makers to better answer the questions: <ul style="list-style-type: none"> <li>• Will an individual water right application impact stream flows?</li> <li>• Could a strategic groundwater-pumping schedule be developed for a particular site that would delay the impact on the river until the high flow period?</li> </ul>	Water Quantity Section, Hydraulic Continuity Issue Paper, Action #1.13

# Water Rights

**Issue statement:** Given the number of water rights and claims in the Chehalis Basin, it is apparent that a significant effort is necessary to identify, quantify, prioritize, and manage those water rights to protect senior water rights, better manage water for human and fish needs, and to track water.

**Recommendation:** The Partnership recommends that a “toolbox” of alternative approaches for those seeking water supply, water rights data and tracking, and enforcement be evaluated and considered for the basin.

**Suggested actions related to water rights:** The following table contains the methods or processes required in total or in some combination to achieve the recommendations of the Partnership.

<i>Action #</i>	<i>Actions accepted by the Chehalis Basin Partnership</i>	<i>Source</i>
3.	Address requirements of Phase 4 watershed planning related to municipal water rights by estimating the quantity of water represented by inchoate rights and by clarifying how such rights can be reconciled with protecting instream flow needs and can be affected by water conservation programs.	Water Quantity Section, Municipal Water Supply Issue Paper, Action 1.2
4.	The Partnership encourages the development of a regional water supply, or coordinated water system planning.	Water Quantity Section, Municipal Water Supply Issue Paper, Action 1.3
5.	Allow out-of-kind mitigation (watershed mitigation) for new or changed water rights.	CBP suggestion from 1-23-04 meeting, Action 1.4
6.	The Tribes and Ecology are meeting to develop language (related to adjudication) for a recommendation. Note-This language continues to evolve as discussion occurs. Updates are brought back to the Partnership.	Water Quantity Section, Core Issues Issue Paper, Action 1.5
7.	Recommend adequate funding for water resources management (source to be determined; funding to be distributed to those entities involved in water resources management).	Water Quantity Section, Core Issues Issue Paper, Action 1.7
8.	Continue to collect data pertaining to water resources.	Water Quantity Section, Core Issues Issue Paper, Action 1.8
9.	Improve enforcement of existing laws and regulations to support voluntary efforts.	Water Quantity Section, Core Issues Issue Paper, Action 1.9
10.	Develop and implement water conservation programs.	Water Quantity Section, Core Issues Issue Paper, Action 1.11
11.	Refine and promote a toolbox for municipal water purveyors to assist them in meeting their water supply responsibilities while also contributing to protection of instream base flows.	Water Quantity Section, Municipal Water Supply Issue Paper, Action 1.12
12.	Initiate a detailed assessment of water claims in the Chehalis Basin to attain an initial idea as to their validity. This assessment would expand upon and supplement the information collected under RCW 90.82.070.	STC suggestions from 11-6-03 meeting, Action 1.14

<i>Table 2: Water Quantity – Water Rights Actions</i>		
<i>Action #</i>	<i>Actions accepted by the Chehalis Basin Partnership</i>	<i>Source</i>
13.	Map water rights in the Chehalis Basin.	STC suggestions from 11-6-03 meeting, Action 1.15
14.	Pursue the development of a policy that would provide for mitigation credit of water use by considering the return of reclaimed water to aquifer recharge, wetland, enhancement, and/or instream augmentation.	STC suggestions from 2-5-04 meeting, Action 1.16

## Exempt Wells

**Issue statement:** Exempt wells, which are wells that can be established for some purpose or for limited withdrawals without first obtaining a water right, are critical for rural development in the Chehalis Basin. At the same time, there is some concern that exempt wells may impact stream flows now or in the future in specific sub-basins of the Chehalis Basin. It is also apparent that the impact of exempt wells is an unresolved issue across Washington State.

The Partnership has discussed exempt wells, and its members have widely divergent opinions on whether or not exempt wells are a concern in the Chehalis Basin. Some believe that exempt wells have minimal impact while others believe that exempt wells have, or will have, an impact, especially on stream flows. Data evaluation shows that there may be concerns with exempt wells.

### Statement of Concern Related to Exempt Wells in the Chehalis Basin:

- The Partnership believes that exempt wells may be a problem in specific sub-basins of the Chehalis Basin where rural development and/or hydro-geologic and/or stream flow conditions create cause for concern.
- The Partnership further believes that exempt wells may be a potential future problem in other sub-basins where future rural development, combined with existing hydro-geologic and/or existing or future stream flow conditions, may create cause for concern.
- The Partnership believes that a conflict exists among the 1945 Groundwater Law, the Attorney General’s opinion, and the Chehalis Instream Resource Protection Program (IRPP) as to whether small withdrawals can affect surface water rights and whether they are subject to the same system of priorities as all other appropriators.

**Recommendation:** Because of these findings, the Partnership recommends further evaluation of exempt wells to assess their real cumulative impact statewide as well as in the Chehalis Basin as a whole and in specific sub-basins.

**Suggested actions:** The following table contains the methods or processes required in total or in some combination to achieve the recommendations of the Partnership.

<i>Table 3: Water Quantity – Exempt Wells</i>		
<i>Action #</i>	<i>Actions accepted by the Chehalis Basin Partnership</i>	<i>Source</i>
15.	State should enforce current regulations related to exempt wells.	Water Quantity Section, Exempt Wells Issue Paper Action 9.3
16.	Evaluate current regulations on exempt wells for adequacy in protecting surface waters (quantity and quality).	Water Quantity Section, Exempt Wells Issue Paper Action 9.4

<b>Action #</b>	<b>Actions accepted by the Chehalis Basin Partnership</b>	<b>Source</b>
17.	<p>Clarify science around impacts of exempt wells on surface water through the following methods:</p> <ul style="list-style-type: none"> <li>• Conduct statewide evaluation of exempt well use, using the following guidelines:</li> <li>• Conduct evaluations in an open process involving stakeholders.</li> <li>• Sponsor sub-regional and regional workshops on exempt wells, leading to a statewide workshop/ forum/ task force on exempt wells to better quantify technical aspects and to identify policy and cost factors.</li> <li>• Develop an educational program related to the use of exempt wells and their potential impact on instream flows and water quality.</li> <li>• Develop criteria for when it will require use of deeper aquifers as a source of exempt well water. If deeper aquifers were used for household use, shallow aquifers would be available to supplement stream flows.</li> </ul>	Water Quantity Section, Exempt Wells Issue Paper Action 9.5
18.	State should allocate resources if local governments are to help manage exempt well use.	Water Quantity Section, Exempt Wells Issue Paper Action 9.6
19.	Prepare a study comparing the use of exempt wells per parcel to the use of community systems (Class B). In particular, it should address the benefits that Class B community systems have for water quality.	Water Quantity Section, Exempt Wells Issue Paper Action 9.7
20.	The Partnership believes that a conflict exists among the 1945 Groundwater Law, the Attorney General's opinion, and the Chehalis Instream Resource Protection Program (IRPP) as to whether small withdrawals can affect surface water rights and whether they are subject to the same system of priorities as all other appropriators. The Partnership recommends that Ecology or the Attorney General's office address this conflict in the Chehalis Basin.	Water Quantity Section, Exempt Wells Issue Paper Action 9.8
21.	Prioritize sub-basins based on concerns about exempt wells and conduct specific hydro-geologic studies and evaluations to identify specific problem areas. Areas of higher concern are those that have substantial human development now or projected in the future, poor hydrogeological conditions and/or hydraulic continuity, or low stream flows.	Water Quantity Section, Exempt Wells Issue Paper Action 9.12
22.	<p>Pursue funding sources for investigating possible solutions for identified sub-basin problem areas in order to:</p> <ul style="list-style-type: none"> <li>• Focus on these sub-basins and areas within these sub-basins in developing alternative options for exempt wells, for example providing water purveyor service, using deep aquifers where supplemental water may improve stream flow conditions, and/or considering means to influence the timing of withdrawals to benefit stream flows.</li> <li>• Develop educational materials and program for informing basin/state residents, agriculture and businesses on how to use exempt wells and to lessen their impact on the environment.</li> </ul>	Water Quantity Section, Exempt Wells Issue Paper Action 9.13

## Water Conservation

**Issue statement:** Water conservation is required of certain entities and is a way of saving water for existing and future human, agriculture and fish needs.

**Recommendation:** The Partnership recommends in a general sense that water conservation be promoted, encouraged and supported. The Partnership recommends specifically that the following suggested actions be considered and evaluated in promoting water conservation.

**Suggested actions:** The following table contains the methods or processes required in total or in some combination to achieve the recommendations of the Partnership.

<i>Action #</i>	<i>Actions accepted by the Chehalis Basin Partnership</i>	<i>Source</i>
23.	Meet Phase 4 requirements for conservation, if Phase 4 funding is accepted.	Water Quantity Section, Water Conservation Issue Paper Action 17.1
24.	The Partnership should encourage water purveyors to develop a coordinated water conservation effort that benefits all purveyors of the Chehalis Basin. Such an effort would provide an economy of scale by pooling purveyor resources and ideas into a regional approach.	Water Quantity Section, Water Conservation Issue Paper Action 17.2
25.	Provide opportunities for the Partnership and the agricultural community to consider cooperative efforts to simultaneously support agriculture and stream flows. This could lead to a coordinated effort involving Farm Bureaus, Conservation Districts, the Washington State Department of Agriculture and/or individual members of the agricultural community, including a resource for technological information.	Water Quantity Section, Water Conservation Issue Paper Action 17.3
26.	The current management of water (irrigation) rights is difficult to manage. The Partnership recommends a review and reasonable amendments to the current system. This process must include active participation from the stakeholders.	Water Quantity Section, Water Conservation Issue Paper Action 17.4
27.	Encourage consideration of the Trust Water Rights Program as a method to preserve water rights and allow water to go to the streams.	Water Quantity Section, Water Conservation Issue Paper Action 17.7
28.	Water purveyors should continue to comply with Department of Health requirements and consider methods to measure success of water purveyors' current conservation efforts to see if adjustments are needed. The Partnership encourages state funding to support purveyor conservation efforts.	Water Quantity Section, Water Conservation Issue Paper Action 17.8
29.	Thurston County adopted local policies protecting water supply in agriculture designated lands: <ul style="list-style-type: none"> <li>• Adequate water supply should be retained on and provided to designated agricultural land of long-term commercial significance and other important agricultural areas; and</li> <li>• Ecology should not grant permits for transfers of existing water rights from designated agricultural lands, unless long-term arrangements are made for water supply to maintain agricultural use, including suitable surrogate sources.</li> </ul>	Water Quantity Section, Water Conservation Issue Paper Action 17.9
30.	The availability of water for designated agricultural lands of long-term commercial significance is important for the agricultural use of those lands. If Mason County or Grays Harbor County adopt local policies protecting water supply for such lands which provide that adequate water supply should be retained on and provided to such lands, then Ecology should not grant permits for transfers of existing water rights from such lands identified in the policies, unless long-term arrangements are made for a suitable water supply to maintain agricultural use, including, but not limited to, surrogate water supplies.	Water Quantity Section, Water Conservation Issue Paper Action 17.10

## Water Quality

**Issue statement:** It is important to support and monitor high quality waters that presently exist in the Chehalis

Basin and to evaluate the feasibility of establishing an overall water quality-monitoring program.

**Recommendation:** A basin-wide water quality-monitoring program is needed. The Partnership recommends that further evaluation be made for implementing such a water quality-monitoring program in the Chehalis Basin.

**Suggested actions:** The following table contains the methods or processes required in total or in some combination to achieve the recommendations of the Partnership.

<i>Table 5: Water Quality</i>		
<i>Action #</i>	<i>Actions accepted by the Chehalis Basin Partnership</i>	<i>Source</i>
31.	Protect healthy waters of the Chehalis Basin so they do not become impaired or need Total Maximum Daily Loads (TMDL) reporting.	Water Quality Section, Water Quality Impairment Issue Paper, Action 2.1
32.	Implement the basin-wide water quality-monitoring program developed as part of this planning process.	Water Quality Section, Water Quality Impairment Issue, Action 2.2
33.	Develop a program to clean up water quality impairments before TMDLs need to be implemented.	Water Quality Section, TMDL Issue Paper, Action 2.3
34.	Develop programs to address nonpoint sources of pollution in the Chehalis Basin so there can be a more equitable system for improving water quality.	Water Quality Section, TMDL Issue Paper, Action 2.4
35.	Propose a “package” of improvements to the State to address nonpoint pollution (not a single approach).	Water Quality Section, TMDL Issue Paper, Action 2.5
36.	Develop approaches to keep forestry and agriculture on the land.	Water Quality Section, TMDL Issue Paper, Action 2.6
37.	Develop sources for funding water quality improvements.	Water Quality Section, TMDL Issue Paper, Action 2.10
38.	Prevent the introduction of detrimental plant and animal species (aquatic and terrestrial) and control or eliminate species designated by the state or county as noxious, invasive, quarantined, or nuisance species.	CBP suggestions, Action 2.11 <a href="http://www.nwcb.wa.gov/weed_list/prohibited.html">http://www.nwcb.wa.gov/weed_list/prohibited.html</a>
39.	Develop and distribute public information on inspection and care of septic systems.	CBP suggestion, Action 2.12
40.	Develop a prioritized list of TMDL projects where 303d impairment listings already exist.	Water Quality Section, TMDL Issue Paper, Action 2.13
41.	Encourage proactive voluntary approaches to protect or improve water quality.	Water Quality Section, Protection of Existing Areas of High Quality Waters Issue Paper, Action 2.16
42.	Create an inventory of high quality waters that meet or exceed water quality standards of the state.	Water Quality Section, Protection of Existing Areas of High Quality Waters Issue Paper, Action 2.17
43.	Determine which entities (local, state, tribal, or federal) are best able and willing to provide the required protection for identified high quality waters.	Water Quality Section, Protection of Existing Areas of High Quality Waters Issue Paper, Action 2.18
44.	Expand the scope of the Partnership’s Water Quality Committee to add a “Good Water Initiative.” The Water Quality Committee would be an ideal group to assist in developing and carrying out such an initiative.	Water Quality Section, Protection of Existing Areas of High Quality Waters Issue Paper, Action 2.19
45.	Raise public awareness regarding the importance of protecting high quality waters, and to increase its priority among governments at all levels (local, state, tribal, and federal).	Water Quality Section, Protection of Existing Areas of High Quality Waters Issue Paper, Action 2.20

## Habitat

**Issue statement:** Over the last 150 years, human use of the Chehalis Basin and its resources has had unforeseen, often negative, impacts on the habitat that fish and wildlife need for survival. Today, salmonid habitat restoration efforts are underway. However, these restoration efforts need more basin wide coordination to be efficient and effective at preserving and restoring salmonid habitat. To assist in basin-wide coordination, the Watershed Planning Act (RCW 90.82) requires the integration of strategies developed under the Salmon Recovery Act (RCW 77.85). Habitat restoration activities being developed under the Salmon Recovery Act shall be relied on as the primary nonregulatory habitat component for fish habitat in the Chehalis Basin Management Plan.

**Recommendation:** The Partnership recommends exploring a range of approaches to improve communication, coordination and consolidation of all habitat efforts in the Chehalis Basin.

**Suggested actions:** The following table contains the methods or processes required in total or in some combination to achieve the recommendations of the Partnership.

<i>Table 6: Habitat</i>		
<i>Action #</i>	<i>Actions accepted by the Chehalis Basin Partnership</i>	<i>Source</i>
46.	Develop a better communication and coordination structure among the various groups involved in habitat restoration within the Chehalis Basin.	Habitat Section, Habitat Issue Paper Action 3.1
47.	The Partnership will be instrumental in the creation a local organization capable of planning, coordinating, and implementing local habitat restoration efforts in WRIA's 22 and 23.	Habitat Section, Habitat Issue Paper Action 3.2
48.	Support coordinated planning efforts to develop and implement a coordinated habitat restoration strategy. This would include the incorporation of other relevant species plans as the plans evolve.	Habitat Section, Habitat Issue Paper Action 3.3
49.	Develop a data, inventory and monitoring strategy for determining how effective habitat enhancement efforts have been.	Habitat Section, Habitat Issue Paper Action 3.4
50.	Inform the public about how they can best protect habitat on their own land.	Habitat Section, Habitat Issue Paper Action 3.5

## Instream Flows

**Issue statement:** Technical studies and existing limited data indicate that low flow conditions may be a concern in many streams and rivers in the Chehalis Basin. Data, including data collected during the planning process, indicate that stream flows during the low-flow period (July through October) sometimes do not reach the regulatory flows set on 31 streams in the basin. Additional studies and data collection efforts are underway that should contribute to further evaluation of instream flows in the basin.

**Recommendation:** Minimum flows were established by regulation in 1976 for 31 sites within the Chehalis Basin. The adequacy of these flows needs to be evaluated. Scientific information needs to be obtained to recommend specific flows for specific sites within the Chehalis Basin.

**Suggested actions:** The following are the methods or processes required in total or in some combination to achieve the recommendations of the Partnership.

<i>Table 7: Instream Flow</i>		
<i>Action #</i>	<i>Actions accepted by the Chehalis Basin Partnership</i>	<i>Source</i>
53.	Current regulatory flows should be retained; the Partnership wishes to preserve the 1976 priority date for those flow levels.	Instream Flow Section, Instream Flow Issue Paper Action 4.1
54.	A work group, representing basin-wide interests and agencies, will convene to oversee the current and future scientific studies, and to develop and oversee the public process to recommend instream flow levels for the Chehalis Basin.	Instream Flow Section, Instream Flow Issue Paper Action 4.11
55.	At a minimum, streamflows at each of the 31 sites, where minimum flows were established in regulation in 1976, should be regularly monitored to determine if the flows are being met. This action includes voluntary and state mandated monitoring.	Instream Flow Section, Instream Flow Issue Paper Action 4.12
56.	The Partnership encourages voluntary flow monitoring at other sites in the Chehalis Basin.	Instream Flow Section, Instream Flow Issue Paper Action 4.13

## Section V – Unresolved Suggested Actions

The Partnership reviewed and discussed the suggested actions introduced in the individual issue papers and also through stakeholder outreach. Due to the extensive list of suggested actions (over 100), and the ability to understand the implications of some recommended actions, the Partnership decided to separate the issues into two categories: actions recommended by the Partnership, Section IV, and actions unresolved Section V.

The Partnership also identified a number of issues in the Chehalis Basin that were not required to be addressed by the Watershed Management Act, but were viewed as important to water resources in the Chehalis Basin. These issues include: land use, flooding, water storage, public information, stormwater, management framework, measuring success, data needs, environmental education, and agriculture and water management. Recommendations to address these issues have been drafted, but have not been decided on by the Partnership. They can be found in the Supplement to the Chehalis Basin Watershed Management Plan. They are considered by the Partnership as some of its unfinished work to address in the future.

The Partnership intends to keep the suggested actions listed below “alive” to allow for further discussion.

<b>Action #</b>	<b>Description of Unresolved Action</b>	<b>Source</b>
57.	Establish a water master program or stream steward.	Water Quantity Section, Core Issues Issue Paper, Action 1.6
58.	Develop standards for “reasonable assurance” for nonpoint source reduction so local communities know what the standard is if they want to produce programs that will take the pressure off of point sources.	Water Quality Section, TMDL Issue Paper, Action 2.7
59.	Set up a regional water quality board to manage water to prevent future TMDLs.	Water Quality Section, TMDL Issue Paper, Action 2.8
60.	Look at opportunities for pollution trading in the Chehalis Basin.	Water Quality Section, TMDL Issue Paper, Action 2.9
61.	Evaluate the implications of the use base standards and the potential for conducting a Use Attainability Analysis. <sup>18</sup>	WQC suggestion, Action 2.14
62.	Explore the need to develop a Salmonid Plan. This plan would be similar to the recovery plans being developed elsewhere in the state, in areas with ESA listings. The intent of the plan would be to keep the stocks within the Chehalis Basin from becoming listed.	WDFW suggestions, Action 3.8
63.	After analysis of new and existing information, the Partnership will consider recommending flow levels for streams with no regulatory minimums or adding incremental flows to existing regulatory minimums. Any new recommendations adopted by the State that are higher would carry a 1998 priority date for the additional flow increment.	Instream Flow Section, Instream Flow Issue Paper, Action 4.2
64.	Request that WDFW/Ecology, in consultation with tribes and Partnership members, recommend instream flow levels for all control stations [added language from WDFW]: if funding permits. In addition to current stream hydrology and IFIM results, both the historic, “natural” stream flow level and flow levels less than 100% Weighted Usable Area (WUA) for fish should be considered. Those agencies should consider the strategy of dry-year and wet-year flow numbers, as well as the possibility of “target” flows.	Instream Flow Section, Instream Flow Issue Paper, Action 4.3

18. “Ecology is proposing to restructure the way uses are assigned for fresh waters, away from the “class-based” system, to a “use-based” system. A “use-based” system assigns designated uses to waterbodies independent of each other, not as pre-defined sets as in the existing “class-based” system. The “class-based” format has a narrative description that links classes with waterbodies, while the proposed “use-based” format is a table listing uses across the top (first row of the table) and individual waterbodies down the first column (see draft rule WAC 173-201A-602).” pg. 19, *FEIS Washington State’s Proposed Changes to the Surface Water Quality Standards 0WAC 173-201A*, June 23, 2003, [www.ecy.wa.gov/programs/wq/swqs/supporting\\_docs\\_feis\\_0603.pdf](http://www.ecy.wa.gov/programs/wq/swqs/supporting_docs_feis_0603.pdf).

65.	Abbr: The Partnership adopts the following philosophy (possibly as an expansion of its existing mission, goals and objectives) for how to approach setting stream flow levels. . .	Instream Flow Section, Instream Flow Issue Paper, Action 4.4
66.	Abbr: In the implementation stages of the watershed planning process, the Partnership will consider recommending flow levels for streams with no regulatory minimums, or adding incremental flows to existing regulatory minimums, using information from the following. . .	Instream Flow Section, Instream Flow Issue Paper, Action 4.5
67.	The Partnership prefers voluntary approaches to regulatory in attempts to make water available for stream flows.	Instream Flow Section, Instream Flow Issue Paper, Action 4.7
68.	An important focus of watershed plan recommendations and implementation should be to make more water available for instream uses, especially in the time period from roughly April through October (most important are the months from July through October).	Instream Flow Section, Instream Flow Issue Paper, Action 4.8
69.	The new flows that should be established by rule will be specified when information becomes available.	Instream Flow Section, Instream Flow Issue Paper, Action 4.9
70.	The Partnership may consider recommending closure of certain subbasins from further surface water appropriations at certain times during the year. The Partnership does desire, however, that water rights be issued for groundwater applications if the applicant can show that their withdrawals would not impact stream flows from August through October, through timing or consumptive use.	Instream Flow Section, Instream Flow Issue Paper, Action 4.10