

Pursuing development of long-term strategies at the WRIA/watershed level allows King County to follow an ecosystem approach to recover and maintain chinook salmon. Further, this approach provides an effective and established base of inter-jurisdictional cooperation and knowledge on water issues, watershed planning, habitat restoration and salmon recovery issues that is unparalleled in the history of the Puget Sound area.

Water Resource Inventory Areas are defined under state regulations, and generally adhere to the watershed boundaries of major river or lake systems, such as the Snohomish and Green Rivers, and the Cedar-Sammamish basin which includes Lake Washington. Coastal and Puget Sound WRIAs include neighboring minor drainages as well.

These WRIAs have been designated the appropriate ecological and administrative units for developing data and prioritizing decisions that significantly affect salmon habitat. For this reason, local governments in the Puget Sound region – in cooperation with state and tribal governments and other major stakeholders – have determined that development of long-term conservation strategies should be at the WRIA level. WRIA-based salmon recovery plans will focus on habitat issues, but also will integrate with harvest and hatchery policies that state and tribal governments will determine for the entire Puget Sound region.

King County has lead responsibility for the development of WRIA-based salmon recovery plans in WRIA 8 (the Cedar/Sammamish Watershed) and WRIA 9 (the Green/Duwamish Watershed). In addition, King County is supporting the planning efforts in WRIA 7 (the Snohomish/Snoqualmie Watershed), about half of which is within King County, and WRIA 10 (the White/Puyallup Watershed), a small percentage of which is within King County.

Relationships of WRIAs, the Tri-County ESA Response and the Puget Sound Evolutionarily Significant Unit

King County is but one of 12 counties that comprise the Evolutionarily Significant Unit (ESU) for the Puget Sound chinook salmon. Within the ESU is the Tri-County ESA Response effort, which is a voluntary assembly of local governments and major stakeholders seeking to forge a common, coordinated response to ESA listings in the three most heavily urbanized counties in the region – King County, Snohomish County and Pierce County. The Tri-County ESA Response Strategy identifies WRIA-based planning efforts as primary building blocks for salmon recovery. The Tri-County Work Plan includes activities to facilitate the coordination of all WRIAs in the three-county area – WRIAs 5, 7, 8, 9, 10 and 11. (See Chapter 7 Appendix 7.1 for a copy of the work plan.)

See following map of Puget Sound Region, Puget Sound Chinook ESU and Tri-County Focus Area.

King County's WRIA-planning efforts also support the Washington State Salmon Strategy. That strategy calls for a flexible approach that includes statewide initiatives, regional and sub-regional initiatives, and local watershed management initiatives.

History of Watershed-Basin Plans in King County

WRIA plans are not the beginning of watershed-based planning and stewardship in King County. For more than 10 years, King County has led and participated in a number of coordinated efforts for ecosystem-based watershed management.

These efforts began with the development and implementation of several inter-jurisdictional basin and water quality management plans in the late 1980s, and continued through the mid-1990s. During that time, basin plans were completed and adopted in six sub-watersheds: Soos Creek, Bear Creek, Hylebos Creek, East Lake Sammamish, Issaquah Creek and Cedar River. Each plan was based on detailed research and technical work and included recommendations for programs, regulations, and capital improvement projects to preserve, protect and restore habitat in these basin areas.

Existing basin plans cover areas that are now included in the larger WRIAs and constitute a solid foundation on which to build WRIA salmon-recovery plans. (See following map of King County Watershed Forums, WRIAs and Basin Planning Areas.) See Chapter 5 for more general information on King County's basin planning efforts, and the Chapter 6 Appendix for detailed assessments of plan implementation to date.

Regional Needs Assessment and Watershed Forums

In 1994, King County's planning efforts transitioned from a basin planning approach to a new watershed process. King County, the City of Seattle and the suburban cities, voluntarily joined together to evaluate inter-jurisdictional management needs for surface water management in the major watersheds of King County. This process was called the Regional Needs Assessment (RNA) for surface water management.

The participants in the RNA process recommended that inter-jurisdictional Watershed Forums be developed to coordinate the regional management of water quality, flooding and fish habitat. The Forums were convened in 1996-97 and have worked for three years to evaluate the five major watersheds in King County (Central Puget Sound, Green/Duwamish, Lake Washington/Cedar, Sammamish, and Snoqualmie/Skykomish).

The Watershed Forums established an inter-jurisdictional structure for coordinating the management of shared surface water needs, including water quality associated with non-point sources, the protection and restoration of fish habitat, and the reduction of flood hazards in King County.

The Forums also developed a set of policies to guide the expenditure of regional funds for surface water management. Using these policies, the Forums identified approximately \$250 million high-priority capital projects and programs and \$12 million of annual operating and maintenance needs within the five watersheds. The Forums initiated, coordinated, and managed multiple, shared watershed projects, leveraging federal, state, local and private funds to complete research, assessment, restoration, and protection projects and programs in each of the watersheds.

Through these projects and programs, King County developed an information base and a record of management actions that protect and restore key habitat areas and key attributes of the chemical and physical structure of the watersheds. RNA projects and programs serve as an inventory from which many high-priority early actions for King County's ESA response have been selected.

The coalition of local governments established by the Watershed Forums provided strong institutional capabilities for local government participation in the WRIA Steering Committees and in the technical work groups that have been formed to support the development of the salmon conservation plans in WRIs 7, 8 and 9.

Relationship of WRIA Conservation Plans and Growth Management Act Implementation

There is a close relationship between the conservation activities required by ESA listings, and growth management initiatives already underway at the state and local level in the Puget Sound region. Loss of habitat is the one factor of decline that is primarily the responsibility of local government. Land use and development policies and regulations are the major tools for improving and protecting habitat and promoting recovery of the species. The Washington State Growth Management Act (GMA) provides much of the land-use and regulatory framework necessary to accomplish salmon recovery under ESA.

The goals of the GMA emphasize conservation of resource lands, protection of critical areas, and coordination among neighboring jurisdictions concurrent with accommodation of projected population growth. The GMA achieves these goals by channeling growth into designated urban areas while preserving rural and resource lands outside urban growth boundaries.

The GMA requires that all urban counties and cities develop and adopt comprehensive plans consistent with these goals. The plans also must be coordinated with those of adjacent jurisdictions. Development regulations must also be adopted to implement these plans. The WRIs, as geographic planning units, will provide the cross-jurisdictional, ecosystem focus necessary for habitat preservation and restoration.

This year, King County will be undertaking several GMA initiatives to update its land use policy and regulatory documents. These initiatives will incorporate changes to the structure, process, policy and regulatory frameworks to better support habitat restoration efforts. It is anticipated that the WRIA planning efforts will provide valuable information for these initiatives, which are briefly described below:

- **Countywide Planning Policies Update:** The Countywide Planning Policies define the countywide vision and establish the parameters for development of the comprehensive plans of King County and the 39 cities within the county. King County will encourage an evaluation and update of policies to promote salmon recovery countywide, including an analysis of how WRIA conservation plans could be implemented by the jurisdictions.

- **King County Benchmark Report:** This is an annual report monitoring the progress of the Countywide Planning Policies. King County will encourage the incorporation of indicators to better monitor salmon recovery efforts.
- **King County Comprehensive Plan 2000 Update:** King County will be improving the policy framework for protection and restoration of salmon habitat. It is anticipated that the WRIA planning process will both generate and respond to proposals to change land use and zoning as well as development regulations.

Goals of the WRIA Plans

The overarching goal of Tri-County ESA Response Strategy is to “restore and maintain healthy salmon populations and protect the estuaries, rivers and streams on which they rely, based on best available science.”

The goals of King County’s WRIA planning efforts are the same as those described by the National Marine Fisheries Service (NMFS) in its September 15, 1996 document titled: *Coastal Salmon Conservation: Working Guidance for Comprehensive Salmon Restoration Initiatives on the Pacific Coast (NMFS Guidance Document)*. Specifically, those goals are:

- To maintain and restore natural watershed processes that create habitat characteristics favorable to salmonids;
- To maintain habitats required by salmonids during all life stages from embryos and alevins through adults;
- To maintain a well-dispersed network of high-quality refugia to serve as centers of population expansion;
- To maintain connectivity between high-quality habitats to allow for reinvasion and population expansion; and
- To maintain genetic diversity.

Ultimately, our goal is to advance salmon recovery at the ESU level. This is described in the NMFS guidance document as:

- Increased abundance of naturally spawning fish;
- Broad distribution of naturally spawned fish within the ESU; and
- Genetic diversity in a pattern and at levels consistent with natural evolutionary processes within the ESU.

King County also will facilitate the development of plans in WRIAs 8 and 9, and support the development of plans in WRIAs 7 and 10, that provide the following:

- Substantive protection and conservation of Puget Sound chinook salmon and other salmonids;
- A high level of certainty that plans will be implemented;

- A comprehensive monitoring program that allows for effective adaptive management of the plan.

Overall Approach and Structure of the WRIA Plans

Overall Approach

The overall approach of King County's WRIA planning efforts is twofold:

- To establish a solid technical foundation based on best available science and incorporate research developed by the Washington Department of Fish and Wildlife and the Treaty tribes in each WRIA.
- To lead a multi-jurisdictional, multi-stakeholder process for identifying, assessing, prioritizing, selecting, and implementing specific actions to conserve chinook salmon.

Each WRIA plan will be based on analyses of factors limiting salmon survival in the WRIA, based on available science. The analyses will be conducted by a combination of King County staff, consulting support, and the technical committees and working groups established in each WRIA.

Each plan will:

- Specify actions necessary to aid the recovery of the species. These actions will generally be prioritized based on the relative importance of the limiting factors they address, their likelihood of success, and their cost-effectiveness.
- Identify key remaining uncertainties and information gaps, and research programs to address them.
- Contain an extensive monitoring program to allow for effective adaptive management.

Snohomish WRIA 7

The land area in WRIA 7 is nearly equally split between Snohomish County and King County. Snohomish County has been designated as the lead agency in WRIA 7 for the purposes of identification and prioritization of recovery actions, in accordance with state House Bill 2496.

Development of a Conservation Plan for WRIA 7 is being overseen by the Snohomish Basin Salmon Recovery Forum (called a steering committee in WRIs 8 and 9), which is comprised of representatives of counties, cities, the Tulalip Tribe, special districts and appointed stakeholders. The Snohomish Basin Salmon Recovery Forum is co-chaired by Snohomish County Councilmember Dave Somers and King County Councilmember Louise Miller. The role of the Snohomish Basin Salmon Recovery Forum is

to recommend a conservation plan for the Snohomish WRIA to National Marine Fisheries Service (NMFS) and individual jurisdictions.

Local governments within King County are coordinating their response to the Endangered Species Listing through the Snoqualmie Watershed Forum (an RNA forum). The Snoqualmie Watershed Forum includes elected officials and citizen representatives from all the local governments in the Snoqualmie Watershed. The Snoqualmie Watershed Forum provides a place to consider policy, regulatory and funding options to address factors leading to species decline within the King County portions of the Snohomish Basin. Chapter 9 includes letters from the incorporated cities within the Snoqualmie Watershed pledging their commitment to participate in the development of a conservation plan for the Snohomish Basin.

The work of the Snohomish Basin Salmon Recovery Forum is supported by the Snohomish Basin Salmonid Recovery Technical Committee, a panel of scientists from the Tulalip Tribe, local governments, state and federal agencies, and non-profit groups. The committee has been working since July 1998 to develop the technical work plan for chinook recovery.

The Technical Committee has accomplished the following:

- Compiled existing information on the status of chinook stocks in the Snohomish Basin,
- Prepared a preliminary assessment of habitat conditions and data gaps for five sub-basins of the Snohomish Basin,
- Identified candidate factors for decline,
- Identified functioning chinook habitats,
- Developed criteria to follow in charting a course toward recovery, and
- Developed criteria for facilitating identification of recovery actions.

The Technical Committee now is evaluating the severity of suspected habitat problems and factors of decline at a basin-wide scale and is moving toward completing an initial work plan this summer.

The Technical Committee is updating its goals and guiding principles to reflect that it will broaden the scope of its focus from chinook salmon to multiple species of salmonids.

In addition to the work of this Technical Committee, the Snohomish Basin Salmon Recovery Forum is being supported by a "Synthesis Committee," which will evaluate policy and implementation issues in response to the Technical Committee report and recommendations. The Synthesis Committee also will draft the implementation section of the WRIA Conservation Plan, including funding needs and schedule.

Please see the Snohomish County portion of the Tri-County 4(d) submittal for an organizational chart, membership lists for the Snohomish Basin

Salmon Recovery Forum and the Technical Committee, and a draft of the Technical Committee's goals, guiding principles and solution principles.

Cedar/Sammamish WRIA 8

WRIA 8 encompasses four adopted King County basin plans that cover some of the healthiest stream systems, including Bear Creak, the Cedar River, Issaquah Creek and East Lake Sammamish. These plans have established the most important regulatory measures to protect fish habitat. In addition, the plans prioritized habitat restoration projects, of which more than \$10 million of projects have been completed or are underway. In addition, two RNA Watershed Forums – the Lake Washington Forum and the Sammamish Forum – are located within WRIA 8, and they have used the basin plan recommendations to identify regional priorities for fish habitat as well as water quality and flood protection.

A Steering Committee, co-chaired by King County Councilmember Larry Phillips and Seattle City Councilmember Margaret Pageler, has been formed to oversee the development of the salmon conservation plan for WRIA 8. (See Chapter 7 Appendix 7.2 for a list of Steering Committee members.) A WRIA Staff Committee includes personnel from all local governments within the watershed, the Muckleshoot Indian Tribe, the state, and federal governments. In addition, a group of scientists with expertise in areas of importance for the Cedar/Sammamish WRIA Salmon Conservation Plan, is being formed to provide guidance and review of the plan.

Technical efforts and studies underway or planned in WRIA 8 will support a Habitat Conservation Plan (HCP) being developed for the King County Wastewater Treatment Division, and an ecosystem restoration study being led by the Corps of Engineers. Additional studies on chinook will result from the HCP that Seattle Public Utilities is proposing for its Cedar River Watershed. Collectively, these studies should help fill the gaps in knowledge in the watershed and lead to a better understanding of restoration needs and opportunities in the Sammamish River, the Lake Washington Ship Canal and Shilshole Bay.

Green/Duwamish WRIA 9

King County has convened a Steering Committee to guide ESA response efforts in WRIA 9. The Steering Committee, chaired by King County Councilmember Dwight Pelz, represents a broad array of local governments, tribes, state and federal agencies, as well as representatives of business, environmental groups, agriculture and timber interests. (See Chapter 7 Appendix 7.3 for a list of WRIA 9 Steering Committee members.)

The WRIA 9 Steering Committee will oversee the development of a salmon conservation plan for WRIA 9. It is served by a Technical Work Group (TWG) made up of staff, biologists and engineers from member organizations. The TWG will be responsible for reviewing and generating products

and action items for the Steering Committee. The organizational structure WRIA 9 is depicted in Chapter 7 Appendix 7.4.

Puyallup-White WRIA 10

Pierce County is the lead government for the WRIA 10 conservation plan development. King County participates on the WRIA 10 Technical Advisory Group, and provides limited technical support. For a description of the WRIA 10 salmon conservation plan development, please see the Pierce County chapter of the Tri-County 4(d) submittal.

Technical Support to WRIAs

Consulting support will augment the technical work in both King County-led WRIAs, and in the King County portions of WRIAs 7 and 10. Consulting support will strengthen and compliment the technical work in these WRIA planning efforts in seven areas:

1. Help develop an inventory of historic and current conditions of habitat and salmonid populations in the watersheds;
2. Review ESA-related documents, plans and products (e.g., the City of Seattle's Cedar River Habitat Conservation Plans) that are related to the WRIA planning efforts;
3. Develop the scientific, ecosystem-based conceptual framework that the WRIA planning efforts will follow;
4. Develop an analytical model that can be used to comparatively assess factors of decline in the watersheds, and assist with the development and prioritization of actions to address those factors;
5. Provide additional Geographic Information System (GIS) analysis and mapping support;
6. Support necessary water quality assessment work in the watersheds, and assist King County's efforts to integrate Clean Water Act/ESA requirements;
7. Identify and fill important gaps in knowledge of water quantity/in-stream flow issues in the watersheds

In addition, the Tri-County ESA Response has commissioned the Urban Issues Study that will conduct a thorough review of the existing scientific literature on salmon habitat and recovery efforts in urban areas. The study also will evaluate the efficiency of existing stormwater and natural resource practices and programs to identify potential alternative practices that would increase the level of protection of salmon habitat. (See Chapter 5, Early Actions for more information.)

Public Outreach and Involvement

Each of the King County WRIA planning efforts includes extensive public outreach and involvement. The goal of public outreach activities is to increase

public awareness and understanding through individual, community, and institutional involvement and action in support of salmon recovery.

King County's efforts fall into four categories:

- **Workshops.** Presentation of a series of public workshops conducted throughout the WRIAs, in close cooperation with the Tri-County ESA response effort.
- **Public involvement.** Include citizens and representatives of key stakeholder groups on WRIA steering committees and technical committees, and issue open invitations for public involvement in WRIA Steering Committee meetings.
- **Integration of activities.** Integration of ESA activities into existing efforts through King County's on-going basin plan implementation and basin stewardship program.
- **Public comment.** Opportunities for public review and comment on key WRIA planning documents, such as technical reports and draft plans.

See Chapter 5, Matrix of Early Actions, for a more detailed description of King County's public outreach and involvement activities.

WRIA Outlines, Timelines and Milestones

The outlines for the King County-led WRIA plans in WRIA 8 and 9 closely track the "critical and desirable elements" described in the NMFS Guidance Document:

- Identify at appropriate scales the factors that have contributed to decline of the species in the WRIA;
- Establish priorities for action;
- Establish explicit objectives and timelines for eliminating or reducing all major factors for decline and for achieving desired population characteristics;
- Establish quantifiable criteria and standards by which progress toward each objective will be measured;
- Adopt measures needed to achieve the explicit objectives;
- Provide high levels of certainty that the identified measures and actions will be reliably implemented;
- Establish a comprehensive monitoring program, including methods to measure whether objectives are being met and to detect population declines and increases in the WRIA;
- Integrate Federal, state, tribal, local, corporate, and non-governmental activities and projects designed to recover salmon populations and the habitats on which they depend; and
- Utilize an adaptive management approach that actively shapes management actions to generate needed information.

Each of the King County WRIA Steering Committees have adopted an outline that includes timelines and milestones that used these critical elements as a starting point. Please see Chapter 7 Appendices 7.5 through 7.8 for the outlines, timelines and milestones for WRIAs 8 and 9.

Early Actions in WRIAs

King County and other jurisdictions and organizations within the Tri-County area are taking “early actions” toward salmon recovery and conservation. Following is a description of “early actions” within WRIAs 8 and 9.

Cedar-Sammamish WRIA 8 Early Actions

The following early actions, divided by category, are proposed for WRIA 8.

“Do No Harm” Actions

Education/Public Involvement

The WRIA 8 Steering Committee will include public outreach as a key element while developing its conservation plan. Public input will be solicited before the steering committee makes major decisions and there will be opportunity for public review and comment on the conservation plan before it is final. In addition, WRIA 8 has the Cedar River Council, which brings together basin residents and representatives of government agencies with key responsibilities in the Cedar basin to oversee ongoing implementation of the Cedar River Basin Plan. Continued support for the Cedar River Council is a key component of the county’s public outreach and involvement strategy in WRIA 8. The Cedar River Council already has been widely recognized as a successful model of a watershed council in the Pacific Northwest, and has been crucial to achieving community and political support for watershed management and salmon recovery efforts in the area.

Basin Plan Implementation

Basin plans have been developed and adopted to protect and enhance water resources in four of the most ecologically important basins in WRIA 8 – the Cedar River, Bear Creek, East Lake Sammamish, and Issaquah Creek. These plans established land use and drainage requirements to protect aquatic resources from the effects of future development. The basin plans are described in detail in Chapter 5 and in Chapter 6 Appendix.

Conservation Actions

Acquisition Funding

Waterways 2000 and Cedar River Legacy, the most important programs to protect the best remaining habitat in WRIA 8, are described in Chapter 5. Other habitat protection projects in the WRIA include more than \$750,000 in the county’s 1998 ESA

supplemental budget for habitat acquisition, \$2.1 million in FY1999 federal appropriations, and Taylor Mountain, a 1,200-acre area of woodland in the upper Issaquah Creek purchased by King County in 1997.

Floodplain Buyouts

The county, through its River Improvements Fund, has matched more than \$1 million from FEMA in the past two years to buy out and remove frequently flooded homes and other structures in the floodplain of the Cedar River. The county has also restored riparian areas to improve fish habitat.

Remediation

Passage improvements for juvenile salmonids at Ballard Locks

Local governments in the WRIA and the Muckleshoot Indian Tribe are co-sponsoring improvements at the Ballard Locks that the Corps of Engineers will begin constructing in November 1999. The improvements are projected to improve the survival rate of smolts leaving the Lake Washington system by 20%.

Major restoration on lower Bear Creek

In 1999, two major habitat restoration projects are planned on lower Bear Creek with the participation of the U.S. Army Corps of Engineers, Washington Department of Transportation, the City of Redmond and King County. The projects would add meander bends, woody debris and other habitat features to the final mile of the creek, which was moved and straightened more than 20 years ago to reduce flooding of a nearby highway. Though upper Bear Creek provides some of the best lowland salmon habitat in all of Puget Sound, the existing gradient and water velocities of the lower creek are harmful to salmon.

Restoration on the Sammamish River

Another major restoration project to improve habitat for salmon is planned for construction this year between the mouth of Bear Creek and the outlet of Lake Sammamish, where chinook salmon have been found to hold despite potentially lethal temperatures. The project would deepen the major pool in this part of the river, and will draw cooler groundwater to provide a much more favorable holding environment.

Other habitat restoration

There are also numerous other smaller habitat restoration projects to be constructed this summer throughout the WRIA.

Research

Wastewater HCP

The most important research in the WRIA related to chinook salmon has begun through studies supporting a Habitat Conservation Plan (HCP) being developed by the King County Wastewater Treatment Division. The King County Wastewater Treatment Division tracked the movement of adult chinook after they returned through the Ballard Locks in 1998, discovering major concerns related to warm temperatures in the Lake Washington Ship Canal and the Sammamish River, and will repeat these studies in 1999.

The King County Wastewater Treatment Division also is supporting a range of other studies, which are expected to continue through 2001. These include:

- Trapping of chinook juveniles on the Cedar River and Bear Creek to better understand egg-to-fry and in-river survival.
- Sampling of chinook juveniles in Lake Washington to learn how they use the lake environment.
- A pilot study to improve understanding of potential juvenile chinook mortality in the Lake Washington Ship Canal.
- Studies to improve adult passage at the Ballard Locks.
- Studies of Shilshole Bay and the nearshore of WRIA 8 to understand how juvenile chinook use those areas and are affected by habitat changes there.

Ecosystem Restoration Studies

The U.S. Army Corps of Engineers is partnering with King County, Seattle, Bellevue, Issaquah and other governments in WRIA 8 to study a number of important issues relating to salmon habitat. In addition, the Corps will study potential habitat improvements in the Ship Canal and Cedar and Sammamish Rivers, beach spawning opportunities in Lakes Washington and Sammamish, and the potential effects on spawning behavior caused by the annual lowering of Lake Washington for flood control in the fall.

Lake Washington Ecological Studies

In 1994, local governments, the state, the Muckleshoot Tribe and the Corps of Engineers began studying the potential causes of a significant drop in survival of juvenile sockeye salmon in Lake Washington. These studies are concluding this year, and have led to a much greater understanding of fish mortality at the Ballard Locks, the planktonic food supply of Lake Washington, and potential predators of sockeye. Though these studies have focused on sockeye, they have resulted in increased understanding of chinook and other salmon species in the WRIA, including a much

greater appreciation of the lakeshore environment for juvenile chinook. An integration and synthesis of findings and recommendations should be completed by the end of this year, for publication in scientific journals in early 2000.

WRIA 9 Early Actions

The following early actions, divided by category, are proposed for WRIA 9.

Programmatic Review

Individual jurisdictions within WRIA 9 plan to review and evaluate their programs, similar to the process conducted by King County to inform this 4(d) submittal (see Chapter 6). These program reviews will be used in conjunction with the analysis of factors of decline in WRIA 9 to identify appropriate local salmon recovery actions.

“Do No Harm” Actions

Education/Public Involvement

The WRIA 9 Steering Committee will include public outreach as a key element of its conservation plan. As indicated by the plan milestones in Chapter 7 Appendix 7.8, public input will be solicited before the Steering Committee makes major policy decisions, and there will be ample opportunity for public review and comment on the conservation plan before it is made final. The Steering Committee has held two public workshops to obtain early public input on salmon recovery issues.

Watershed Forum and Ecosystem Restoration Study Processes

The WRIA 9 Steering Committee is submitting the following documents in their entirety, to demonstrate the seminal body of work that has occurred over the past three years to address regional fish habitat problems and solutions in both the Central Puget Sound and Green/Duwamish watersheds:

- Regional Needs Assessment for Surface Water Management Executive Preliminary Funding Recommendation (See Chapter 7 Appendix 7.9 for details.)
- Green/Duwamish Ecosystem Restoration Study (See Chapter 7 Appendix 7.10 for details)
- Habitat protection, improvement, and restoration projects in the Central Puget Sound nearshore area, designated as “do no harm” actions in Chapter 7 Appendix 7.12.

Conservation Actions

- The WRIA 9 Steering Committee and the Central Puget Sound and Green/Duwamish Watershed Forums are committed to seeking all available funds to protect critical fish habitat through: fee-simple

acquisition; purchase of conservation easements; and application of property-owner incentives (e.g., the Public Benefit Rating System).

- The Green River Flood Control Zone District has received approval to utilize specific FEMA funds for acquisition of flood-prone lands. Funding will expire at the end of April 1999. The District currently has purchase offers out to three property owners and is in negotiations on a fourth property. If all offers are accepted, the District could purchase close to 50 acres in the Lower Green. The District will continue to pursue floodplain acquisition as the program budget allows. These properties are in Kent and unincorporated King County and lie along the mainstem of the Green River, Mill Creek, and Mullen Slough.
- Habitat projects in the Central Puget Sound near-shore area designated in the “conservation” category found in Chapter 7 Appendix 7.12.

Remediation Actions

- Projects in the Central Puget Sound nearshore area categorized as “remediation” projects found in Chapter 7 Appendix 7.12
- Green/Duwamish Early Action Habitat Projects, Recommended Priorities, Recommended Priorities for 1998-99 (See Chapter 7 Appendix 7.11)

Research

- King County is conducting the Green/Duwamish Watershed Water Quality Assessment to develop a water quality model of the Green/Duwamish River, its tributaries, and Elliott Bay. This model will be used to assess the risk to aquatic life, wildlife and people under existing conditions, various growth assumptions, and pollution abatement strategies. This information will help identify future actions to address requirements of the Clean Water Act, the WRIA #9 Salmonid Conservation Plan, the Wastewater HCP, and other regional programs. This project could offer the following outcomes to the early action projects for WRIA 9:
 - Define water quality issues that should be considered factors of decline for the Green/Duwamish River, its tributaries and Elliott Bay.
 - Identify the geographic areas that are most significant for water quality issues. Understand existing water quality conditions as part of the critical habitat for chinook salmon. Use the water quality model to predict the benefits of the WRIA conservation plan in terms of reduced risk to salmon from water quality factors.

- The total project cost is estimated to be \$4.8 million. The first year of work has been supported by a grant from the Department of Ecology at \$56,000 and by \$99,000 from the King County Wastewater Treatment Division. The second year of work is estimated to be \$1.3 million and is included in the Wastewater Treatment Division proposed budget for the year 2000.
- GIS/Aerial Photography: There are a number of immediate GIS updates that are about to take place, incorporating aerial photography, that will provide information needed to develop and complete the WRIA 9 conservation plan.
- Projects in the Central Puget Sound nearshore area designated on Chapter 7 Appendix 7.12 as “research.”