

Development of the 2005 Elwha Dungeness Watershed Plan



Watershed Planning

- Planning under Chapter 90.82 RCW is locally focused, relying on local governments, Tribes, water suppliers, other interested groups and the community.
- Plan recommendations are adopted into rule, ordinance, or policy at state and local levels.
- Ecology considers an adopted plan to be an expression of the public interest and defers to it in rule development.

Plan Elements

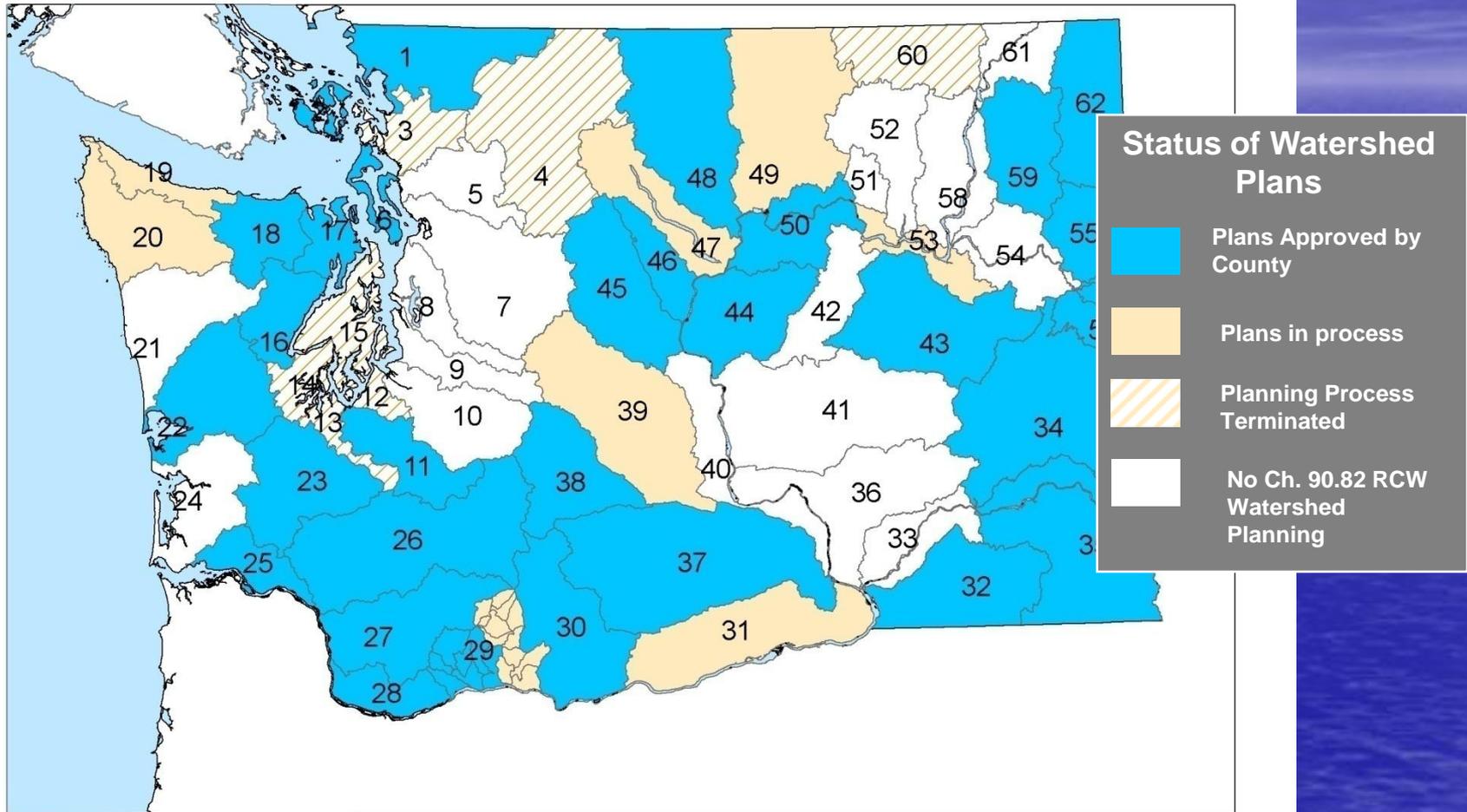
- Plans evaluate water quantity and availability in physical and legal terms.
- Planning units develop strategies for water to meet current and future needs.
- Plans may recommend flow levels for an Ecology instream flow and water management rule.
- Funds in addition to those for plan development have been available for studies on storage, water quality and instream flows.

A Statewide Effort

Both watershed planning and instream flow and water management rules are based on the state's 62 Water Resource Inventory Areas (WRIAs).

- Most WRIAs have been involved in planning.
- The state has supported local watershed planning and implementation with millions of dollars.

Status of Watershed Planning

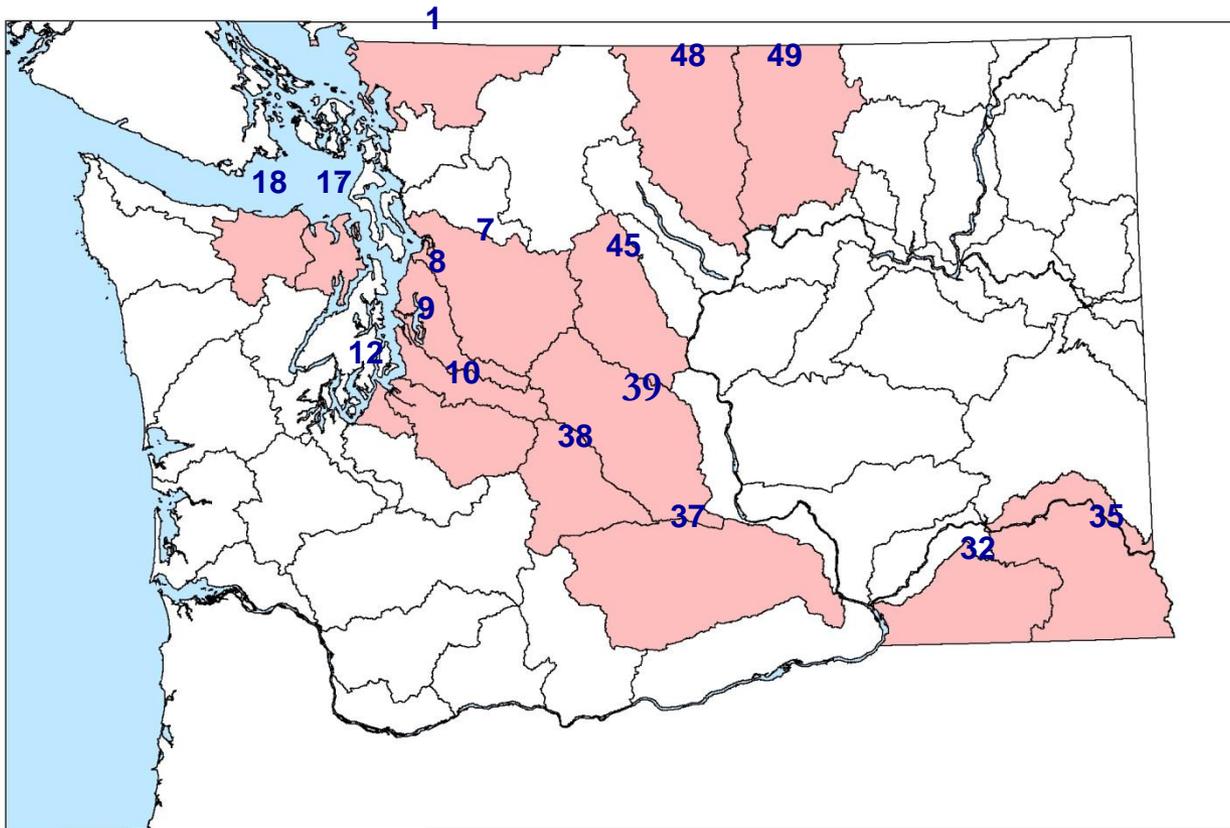


Watershed Planning

- Certain watersheds across the state, including the Dungeness and Elwha, were designated for special consideration due to:
 - Extensive water right development.
 - Growth pressure.
 - Importance of fisheries.
 - Issues with stream flows and ability to meet needs of people and fish.

16 Critical WRIAs

Basins with Shortage of Water for ESA Listed Fish

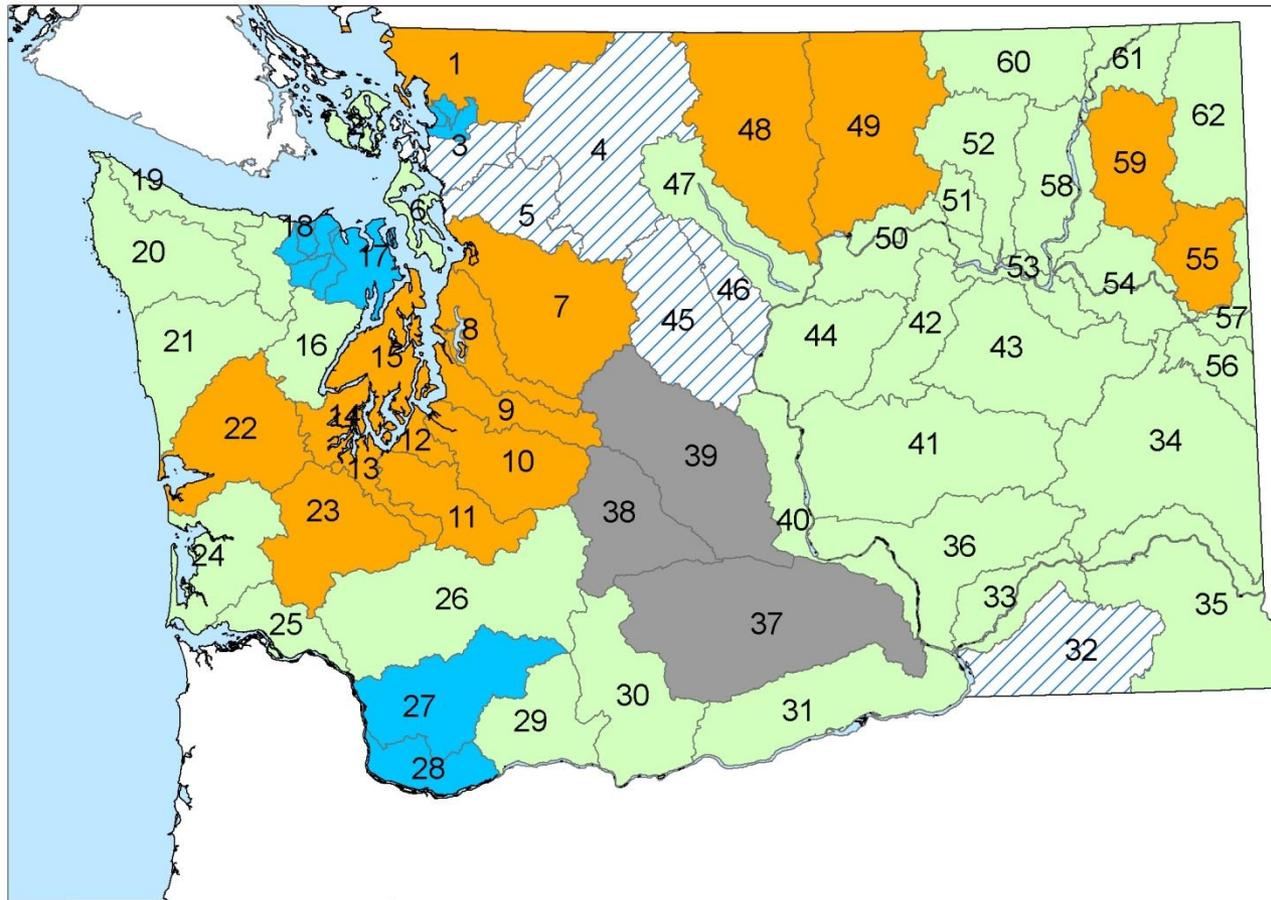


WRIA Name

- 1 – Nooksack
- 7 – Snohomish
- 8 – Cedar
- 9 – Green
- 10 – Puyallup
- 12 – Chambers/Clover
- 17 – Quilcene/Snow
- 18 – Elwha /Dungeness
- 32 – Walla Walla
- 35 – Middle Snake
- 37 – Lower Yakima
- 38 – Naches
- 39 – Upper Yakima
- 45 – Wenatchee
- 48 – Methow
- 49 - Okanogan

- About 20 WRIAs had instream flow rules in place prior to planning.
- A few chose to amend existing instream flow rules.
- A number of instream flow and water management rules have been adopted based on approved watershed management plans.

Established Instream Flows and Schedule for New Rules



Instream Flows Set

-  Rules Established Prior to Watershed Planning Act
-  Rules Adopted 2005 -07

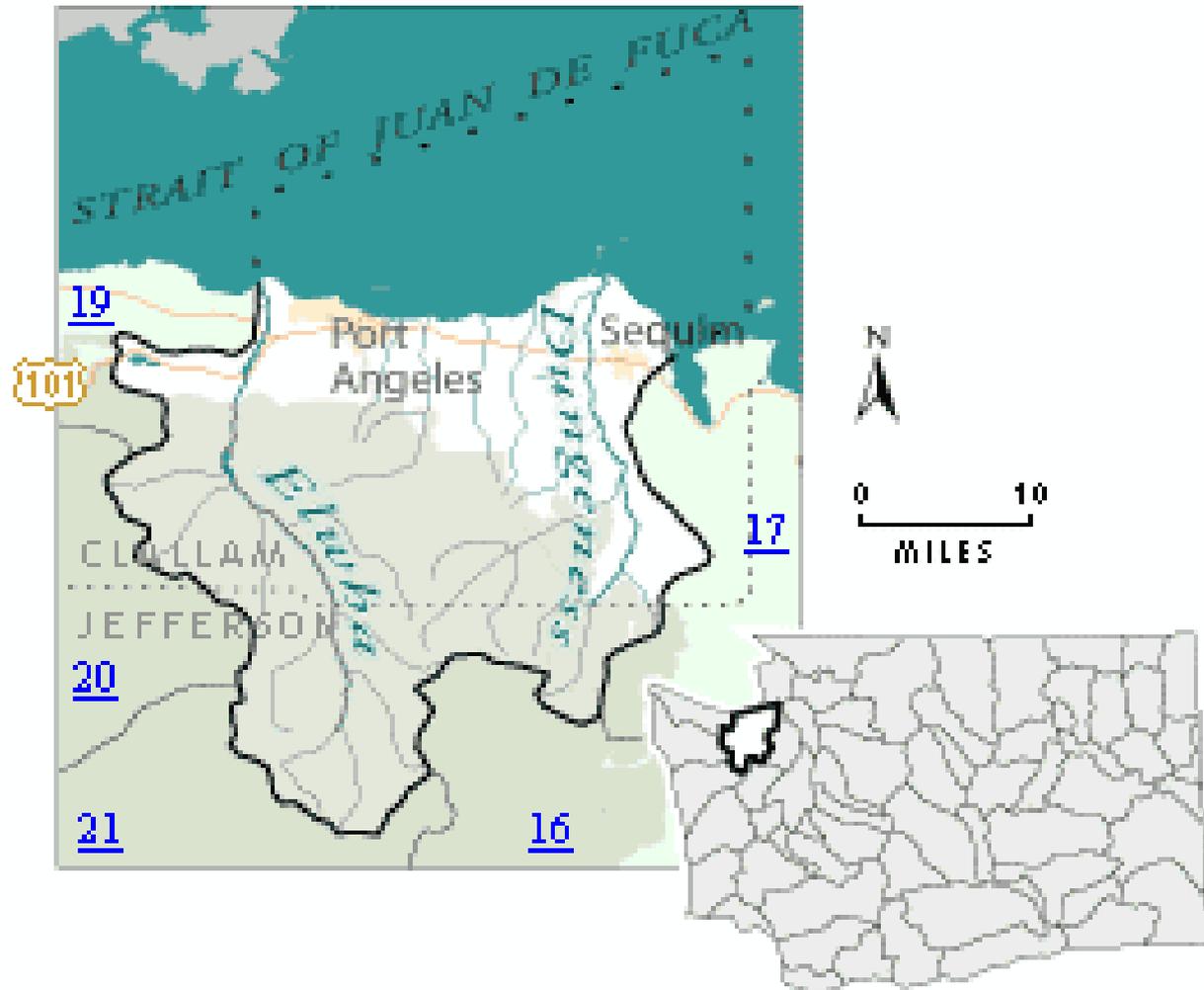
Yakima Adjudication

-  De facto Federal Flow

Instream Flow Rules Scheduled

-  Current Rulemaking
-  Future Rulemaking

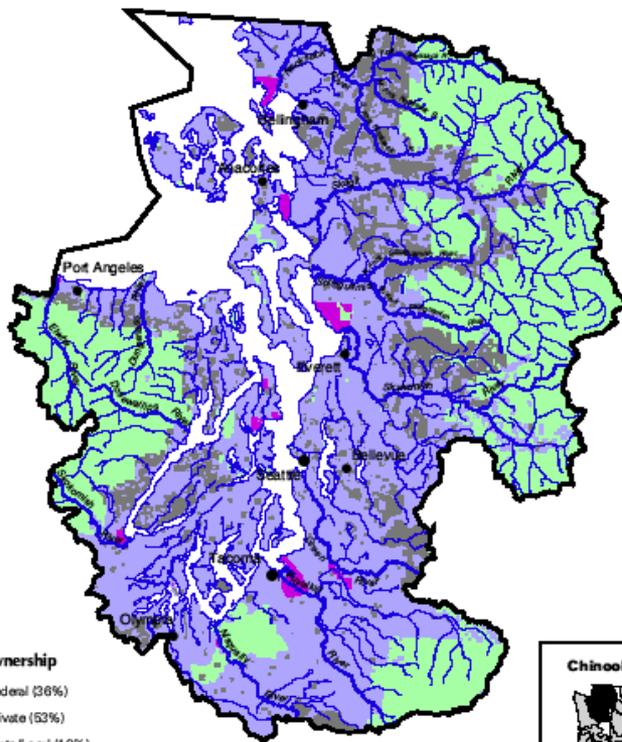
Elwha Dungeness WRIA



- The Elwha Dungeness planning unit opted to include fish habitat and water quality, as well as recommendations for instream flow levels to be adopted into rule.
- Strategies for water supply focused on providing water for offstream uses while protecting and continuing to restore stream flows.
- The Dungeness part of the plan built on recommendations from the 1994 Dungeness Quilcene Water Resources Management Plan, as well as a number of recent studies.



PUGET SOUND CHINOOK SALMON ESU



Land Ownership

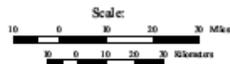
- Federal (26%)
- Private (53%)
- State/Local (10%)
- Tribal (1%)

Chinook Salmon ESUs



Note: Map is for general reference only.

United States Department of Commerce
National Oceanic & Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
HABITAT CONSERVATION DIVISION
525 N.E. Oregon St., Suite 410
Portland, OR 97232
Tel (503) 231-2223

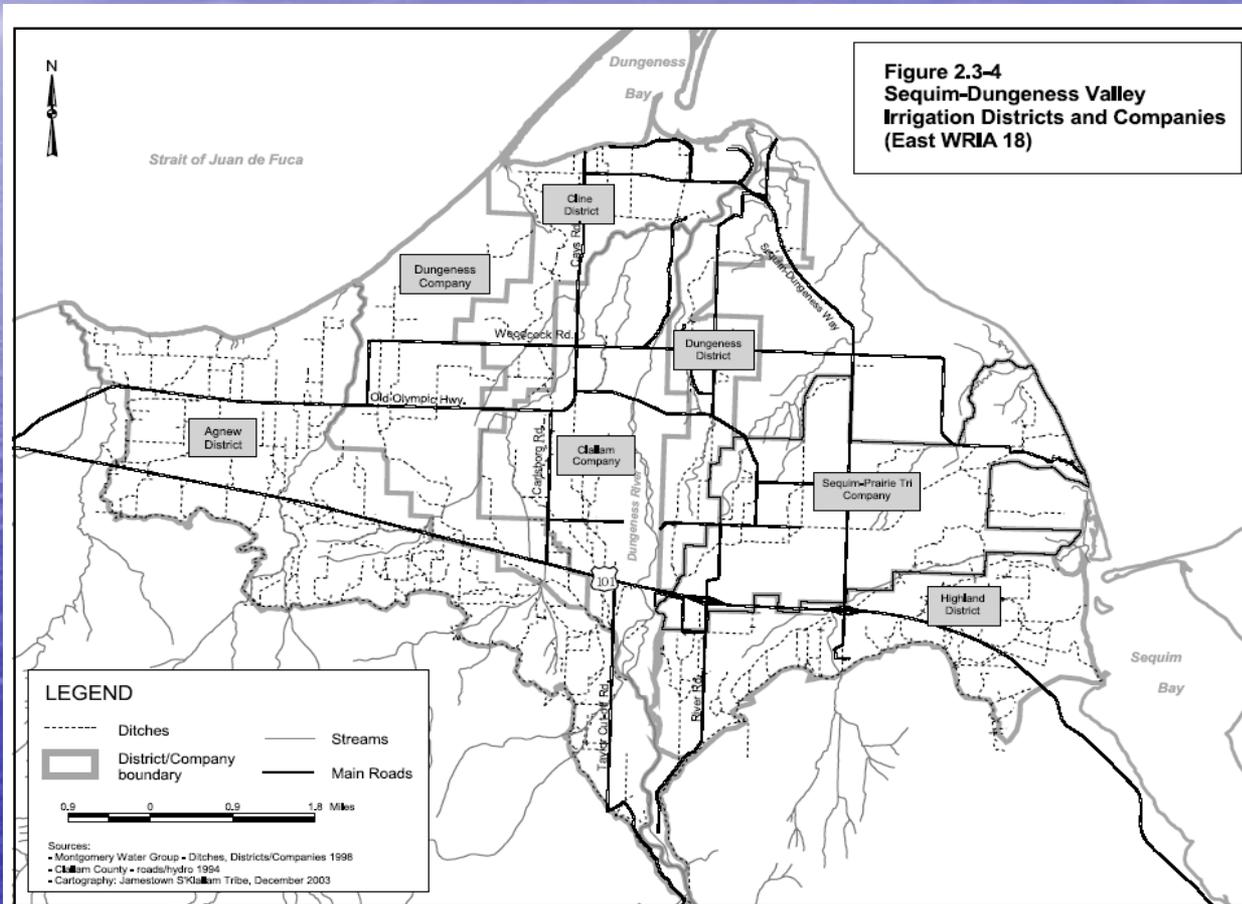


MAP DATE: 2/11/09
CREATED BY: CH
HCC/ST/DM/SP/SL/AM

Dungeness River ESA-listed Species

- Chinook salmon
- Chum salmon
- Bull trout
- Steelhead

Irrigation Water Rights



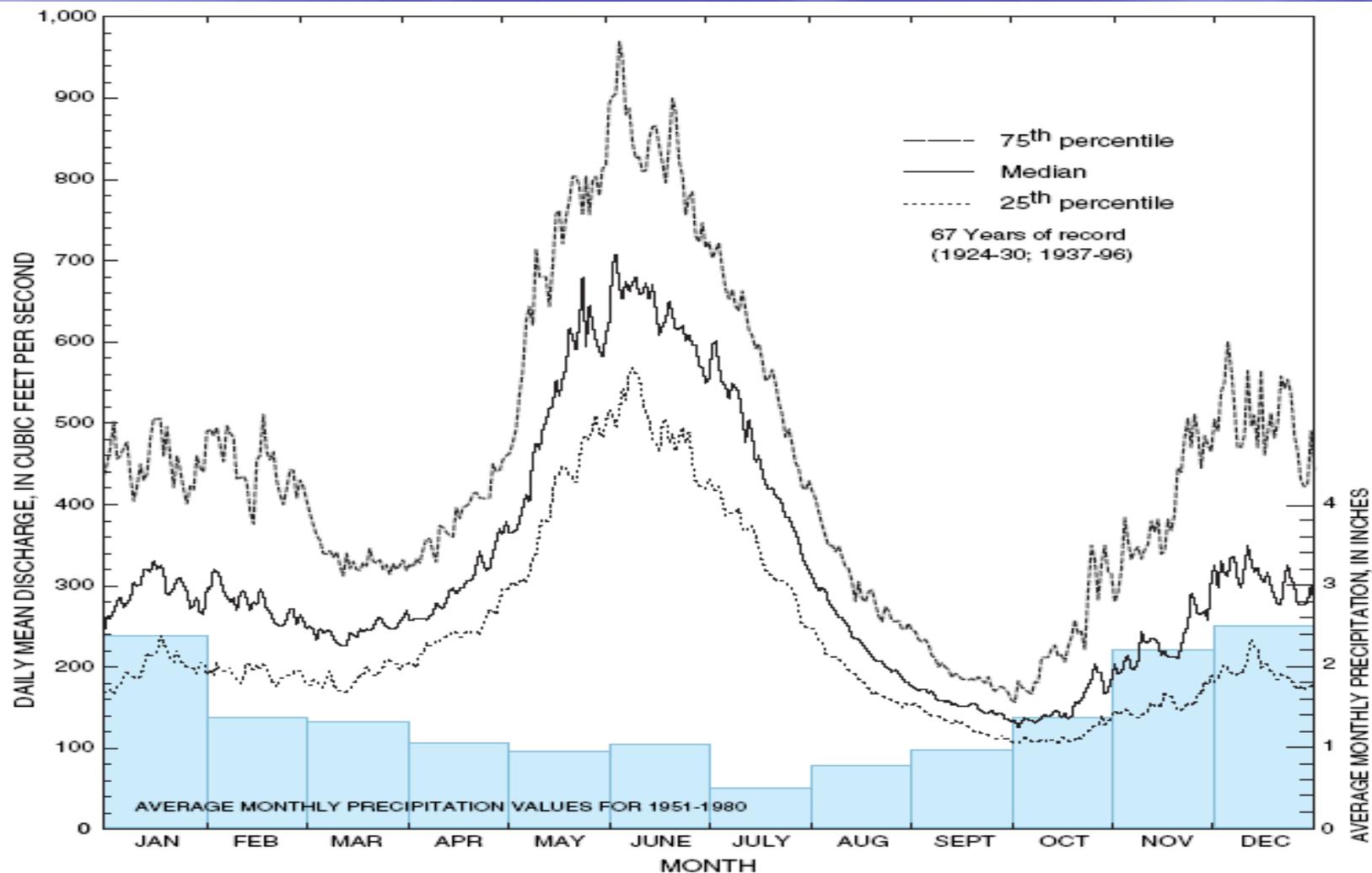


Figure 5. Mean daily discharge for the Dungeness River and average monthly precipitation near Sequim, Washington.

Discharge data are from U. S. Geological Survey streamgaging station 12048000 and precipitation data are from the National Oceanic and Atmospheric (1982).

Irrigation Withdrawals 1979-2000

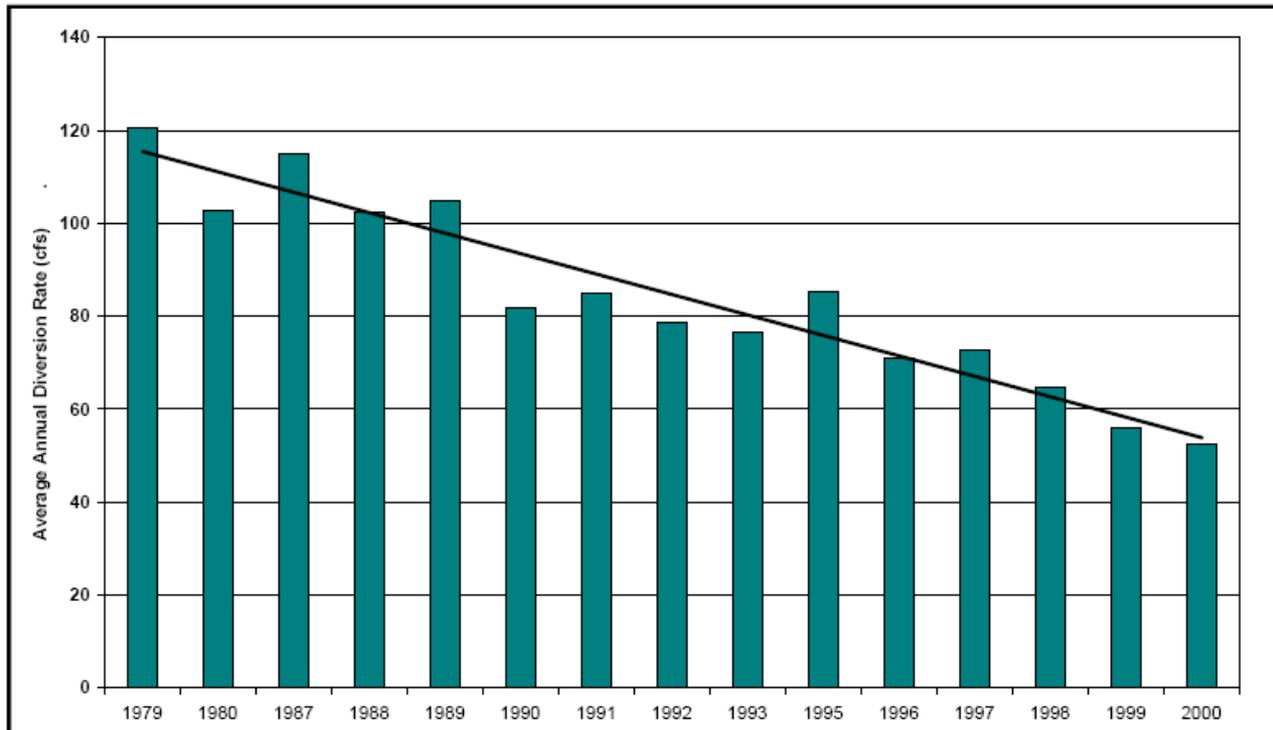


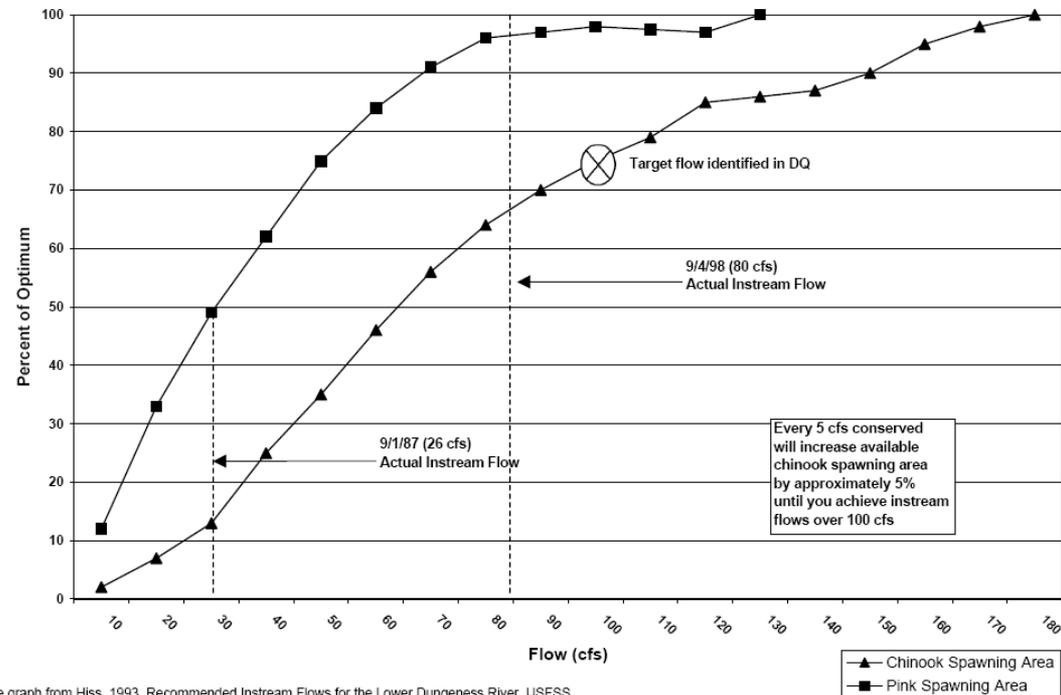
FIGURE 12
AVERAGE ANNUAL STREAMFLOW DIVERSIONS BY DUNGENESS IRRIGATORS
(Source: Mike Jeldness, Pers. Comm., 2002)

CITY OF SEQUIM
2001 HYDROLOGIC MONITORING REPORT



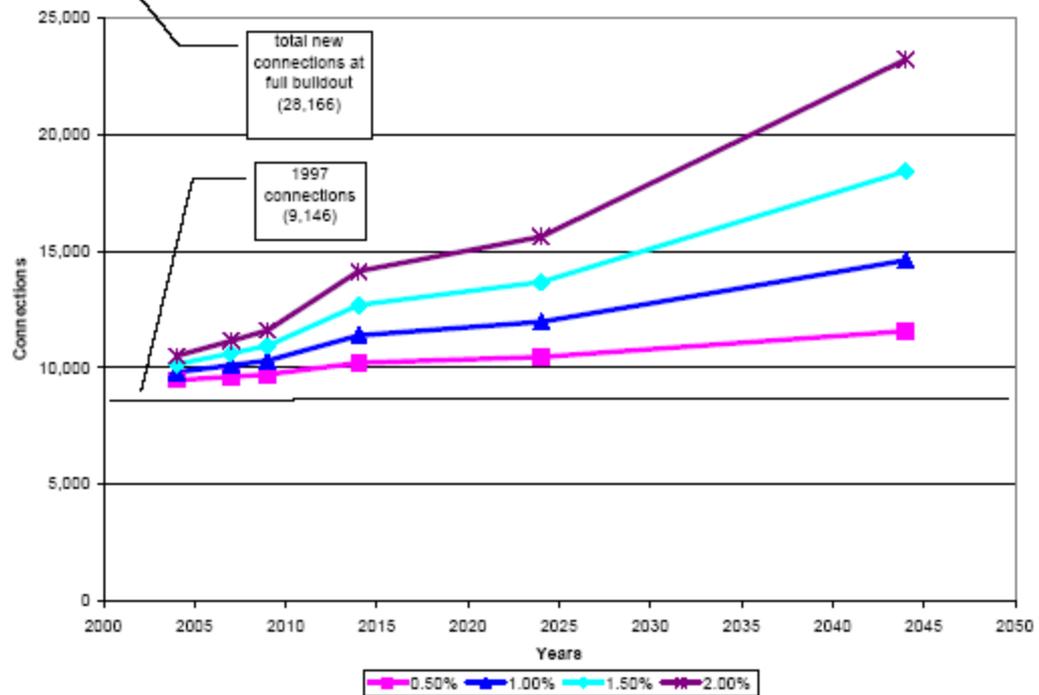
Stream Flow vs. Habitat

Figure 2.8-6. Increases in Spawning Area with Increases in Instream Flows.

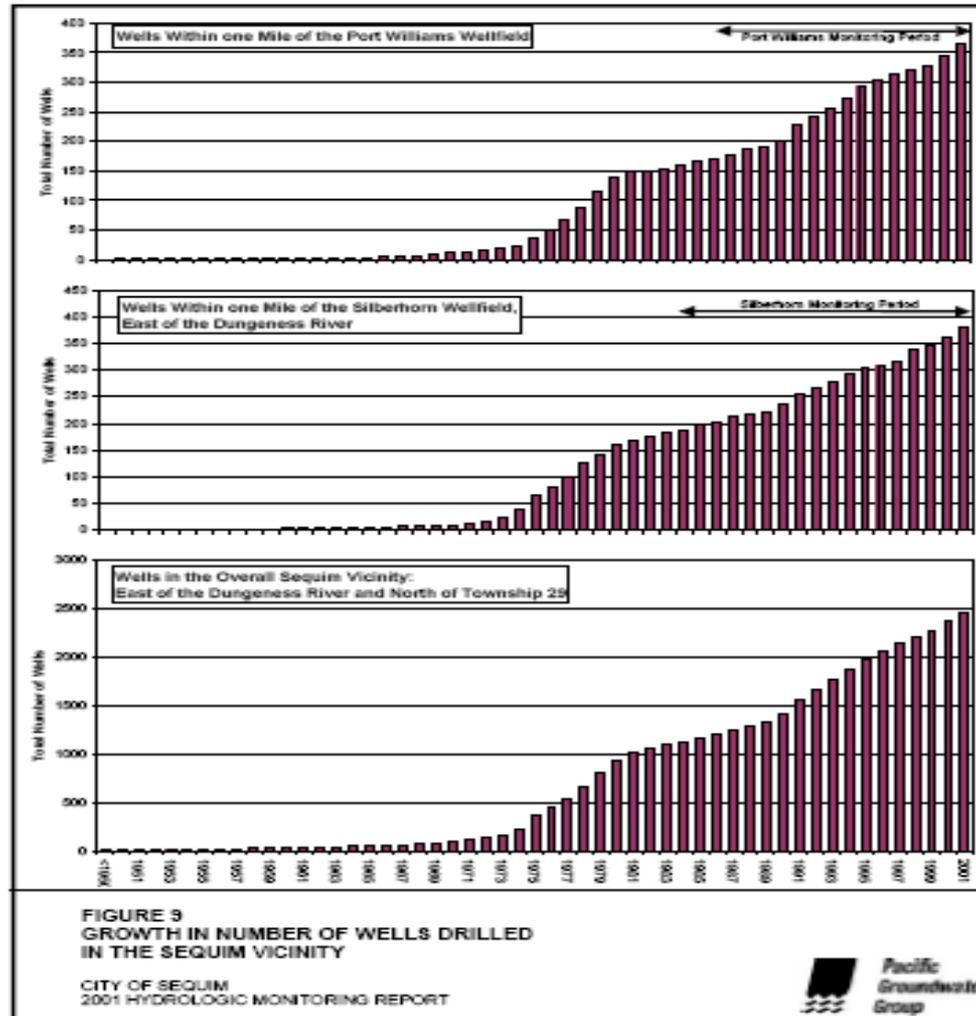


Base graph from Hiss, 1993. Recommended Instream Flows for the Lower Dungeness River. USFSS.

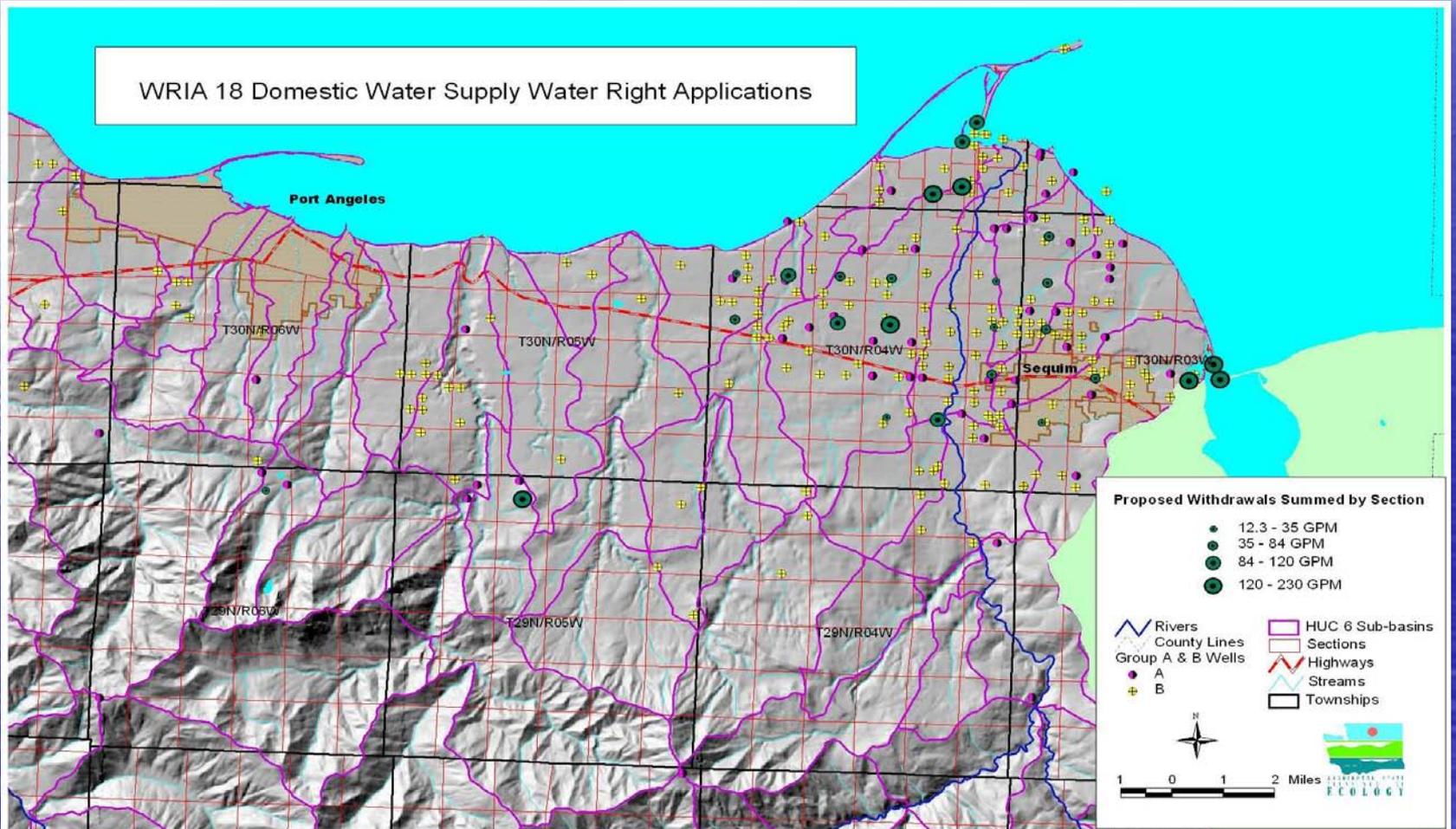
Dungeness River Area
Number of New Connections at Various Growth Rates



Wells in the Vicinity of Sequim



WRIA 18 Domestic Water Supply Water Right Applications



Plan Priorities

- Have new water users hook up to existing water systems whenever possible.
- Use conservation and efficiency to make existing water rights go as far as possible.
- Direct new wells to lower aquifers where available.
- Develop new sources of supply.
- Provide water for growth while protecting stream flows.
- Adopt instream flow levels by rule.
- Continue flow restoration on Dungeness River.

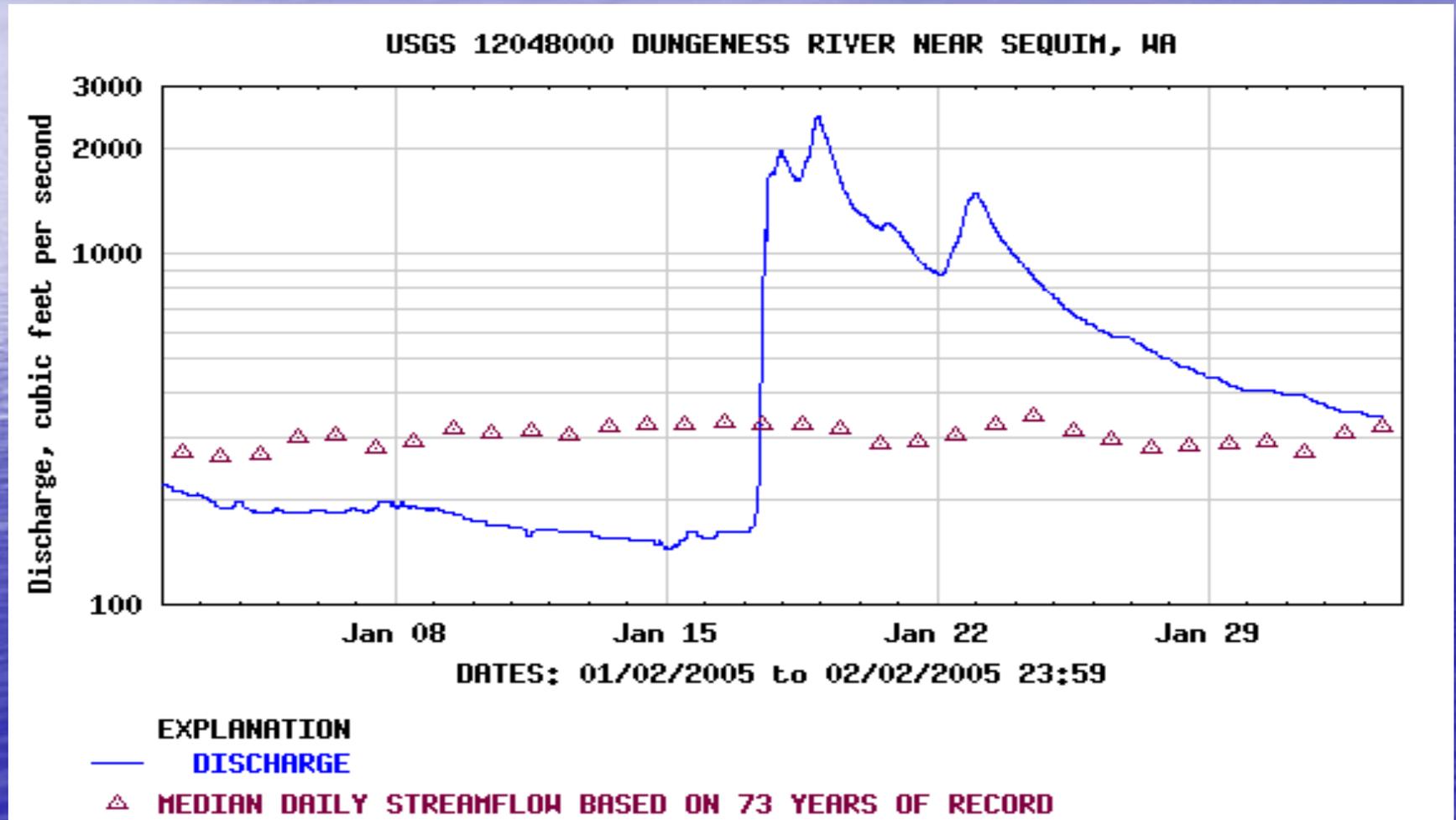
Planning Assumptions

- Dungeness Valley population will continue to grow.
- Water will be managed carefully to benefit new residents, existing water rights, and salmon habitat restoration.
- Surface and ground water are hydraulically connected.
- Septic return for in-house use is assumed to be 90%; outdoor use is assumed to be have a 10% return to the aquifer.
- Changes in precipitation patterns may influence both peak and low flow patterns.

'New' Sources of Water

- Diversion of high flows to ground or surface water storage:
 - Aquifer recharge - to augment groundwater and stream flows
 - Aquifer recharge and recovery – injects water into well, recovered from site.
 - Atterberry reservoir on Agnew ditch.

High Flow Flashiness



Reclaimed Class A Water

- Sequim has existing system that is expanding.
- Clallam County PUD is planning for reclaimed water at Carlsborg.
- Potential use as new irrigation or mitigation for new water rights.

Current Implementation

- Clallam County, the Water Users Association, Conservation District, Jamestown S'Klallam Tribe and state agencies are continuing work on improving stream flows, water quality, and finding alternative sources of water supply.
- The Dungeness River Management Team and others are helping Ecology develop an instream flow and water management rule.