

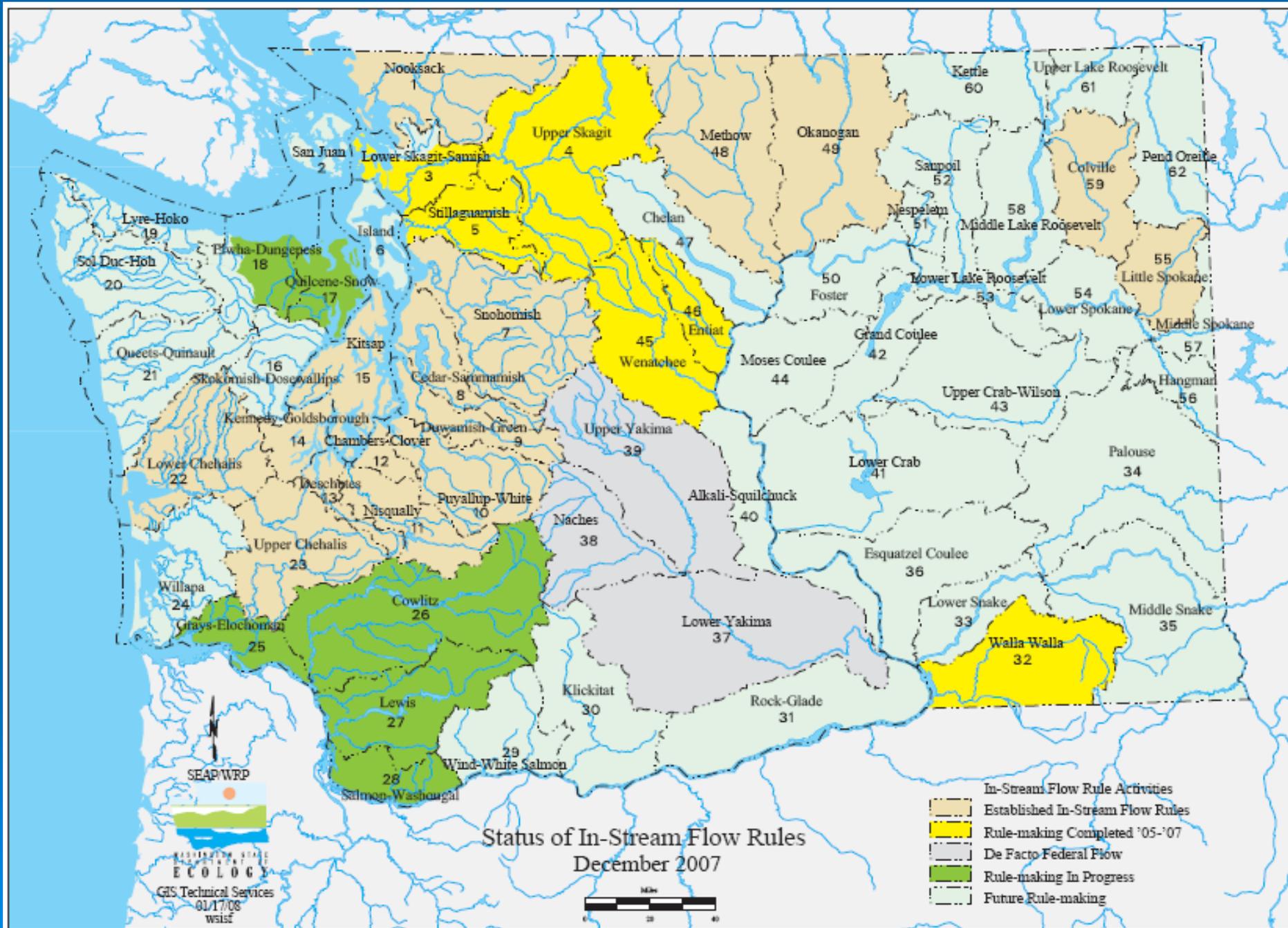
Water Management Options

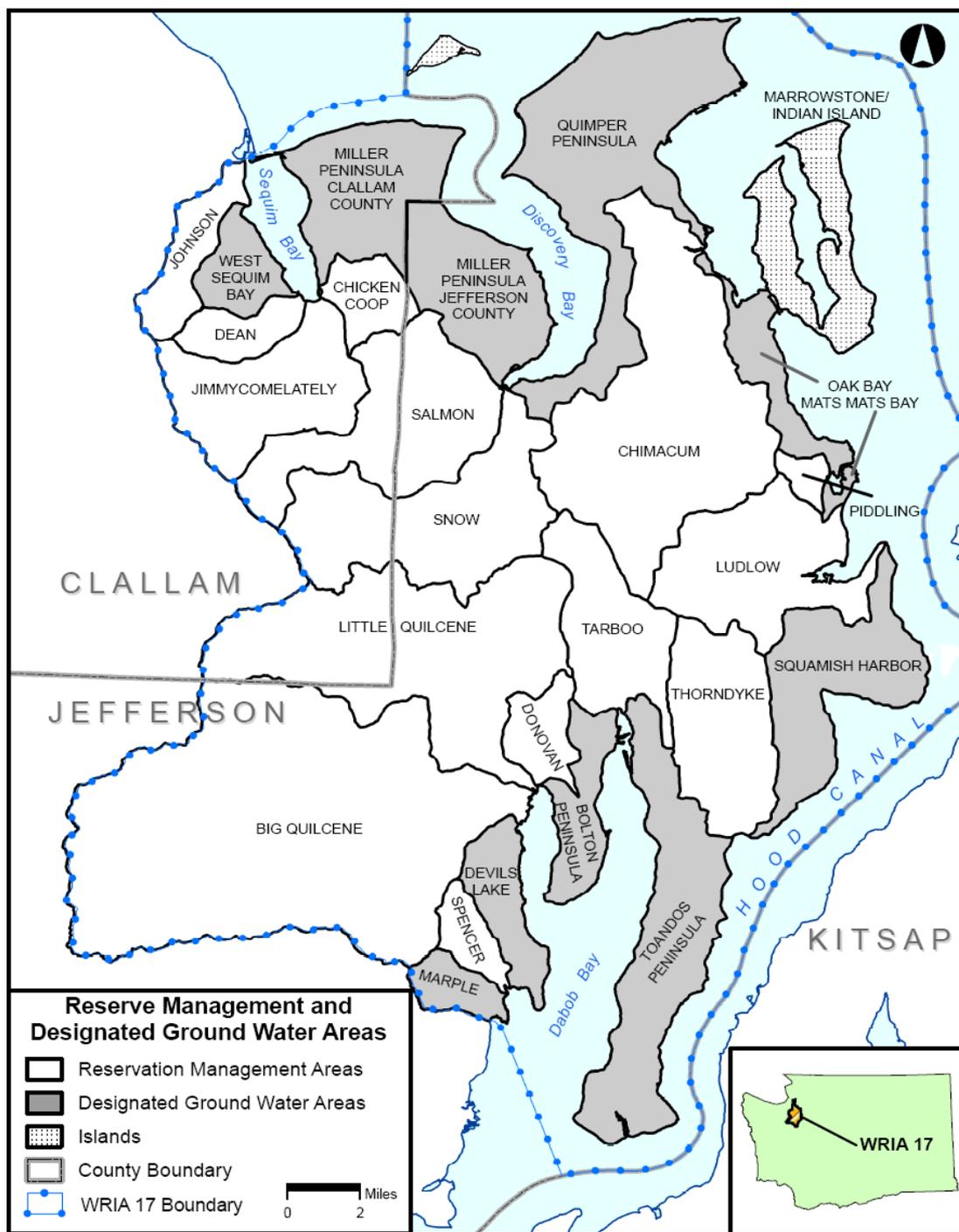
WRIA 17 Instream Flow Rule



Key Management Decisions

- Status of Sub-Basins
 - Management Options for Reserved Water
 - Domestic Use – In House
 - Water for Agriculture
 - Designated Ground Water Areas
 - Other Water Management Options
- 





Status of WRIA 17 Sub-Basins

- Considering Closures and Reserved Water Because of Low Flows
 - Big Quilcene (seasonal opening)
 - Chicken Coop
 - Donovan
 - Jimmycomelately
 - Little Quilcene – Leland – Howe
 - Piddling
 - Salmon
 - Spencer
 - Tarboo

Status of WRIA 17 sub-basins

- Considering Closures with No Reserves Because of Low Flows and Large Unused Municipal Supply (inchoate water)
 - Chimacum (seasonal opening)
 - Ludlow
 - Snow
 - Thorndyke
 - Johnson - Dean
- Must look at other ways to provide water

Status of WRIA 17 sub-basins

➤ Designated Ground Water Areas

- Miller Peninsula
- Quimper Peninsula
- Oak Bay
- Squamish Harbor
- Toandos Peninsula
- Bolton Peninsula
- Devil's Lake
- Marple

Management Options for Reserved Water

- Homes with small yards
 - Debit 175 gpd from reservation
 - Maximum daily limit 350 gpd
 - Limit to 60 X 60 area or measure water use
- Homes with ½ acre gardens (food producing?)
 - Debit 1525 gpd
 - Maximum daily limit 1750 gpd
 - Limit to ½ acre or measure water use
- Farms using up to 5,000 gpd

Possible Reservation Uses

Reservation Management Area Water source (including tributaries)	# homes Small yards	# homes ½ acre garden	# Farms 5,000 gpd	Reservation Quantity
Big Quilcene	1145	127	40	200,400 gpd
Chicken Coop	73	8	2	12,900 gpd
Donovan	5	<1	<1	970 gpd
Jimmycomelately	100	11	3	17,500 gpd
Little Quilcene (includes Leland and Howe Creeks)	210	23	7	36,800 gpd
Piddling	10	1	<1	1900 gpd
Salmon	58	6	2	10,300 gpd
Spencer	27	3	1	4,800 gpd
Tarboo	70	8	2	12,300 gpd

Domestic In-house Use

➤ Defining Domestic Use

- Domestic water use means use of water associated with human health and welfare requirements, including water used for drinking, bathing, sanitary purposes, cooking and laundering and other incidental household uses.

Domestic In-house Use

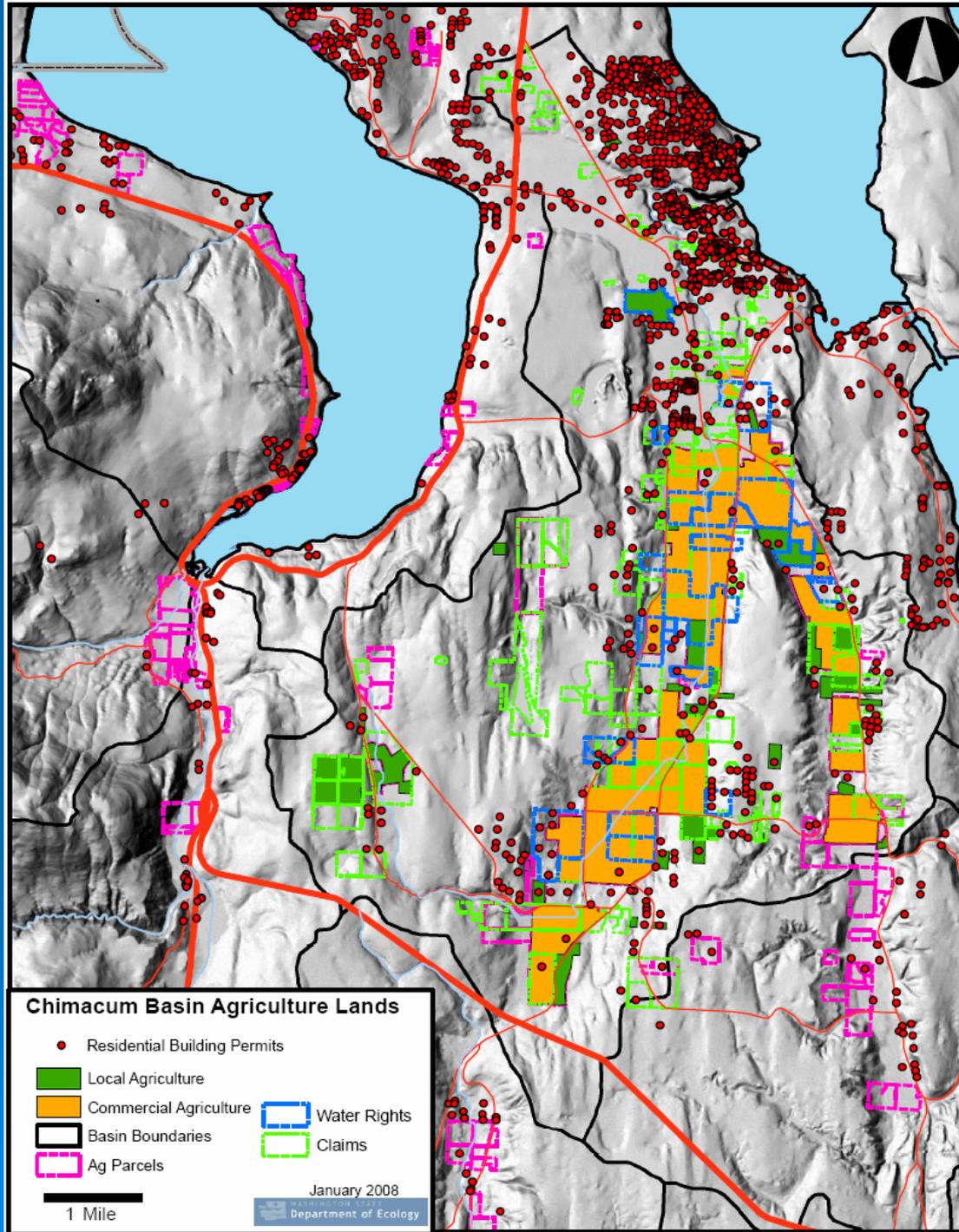
- Estimate of cumulative impact in Chimacum Basin
 - Approximately 300 new homes outside PUD service area 2005 to 2025 based on sub-basin specific growth rates
 - Low flow in Chimacum Creek approximately 3.0 cfs

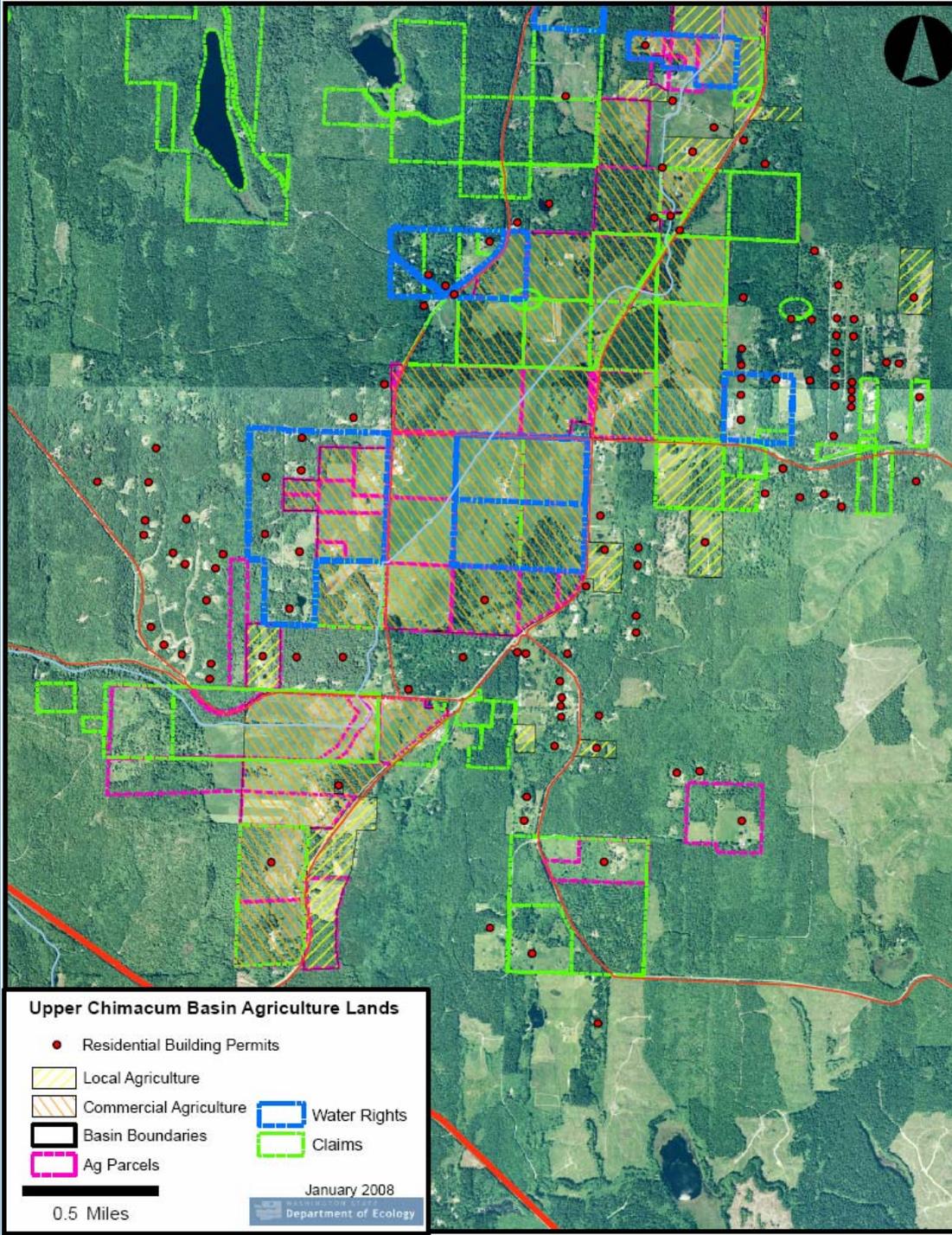
# homes	Indoor use	% return	Total water use
300	136 gpd	87%	.008 cfs

Agriculture

- Agriculture is important to local community
- Protecting existing water rights is key to maintaining agriculture in Jefferson County
- Priority areas for future agriculture:
 - Chimacum
 - Salmon/Snow
 - Miller
 - Quimper
 - Tarboo
 - Big and Little Quilcene – lower reaches







Upper Chimacum Basin Agriculture Lands

- Residential Building Permits
- Local Agriculture
- Commercial Agriculture
- Basin Boundaries
- Ag Parcels
- Water Rights
- Claims

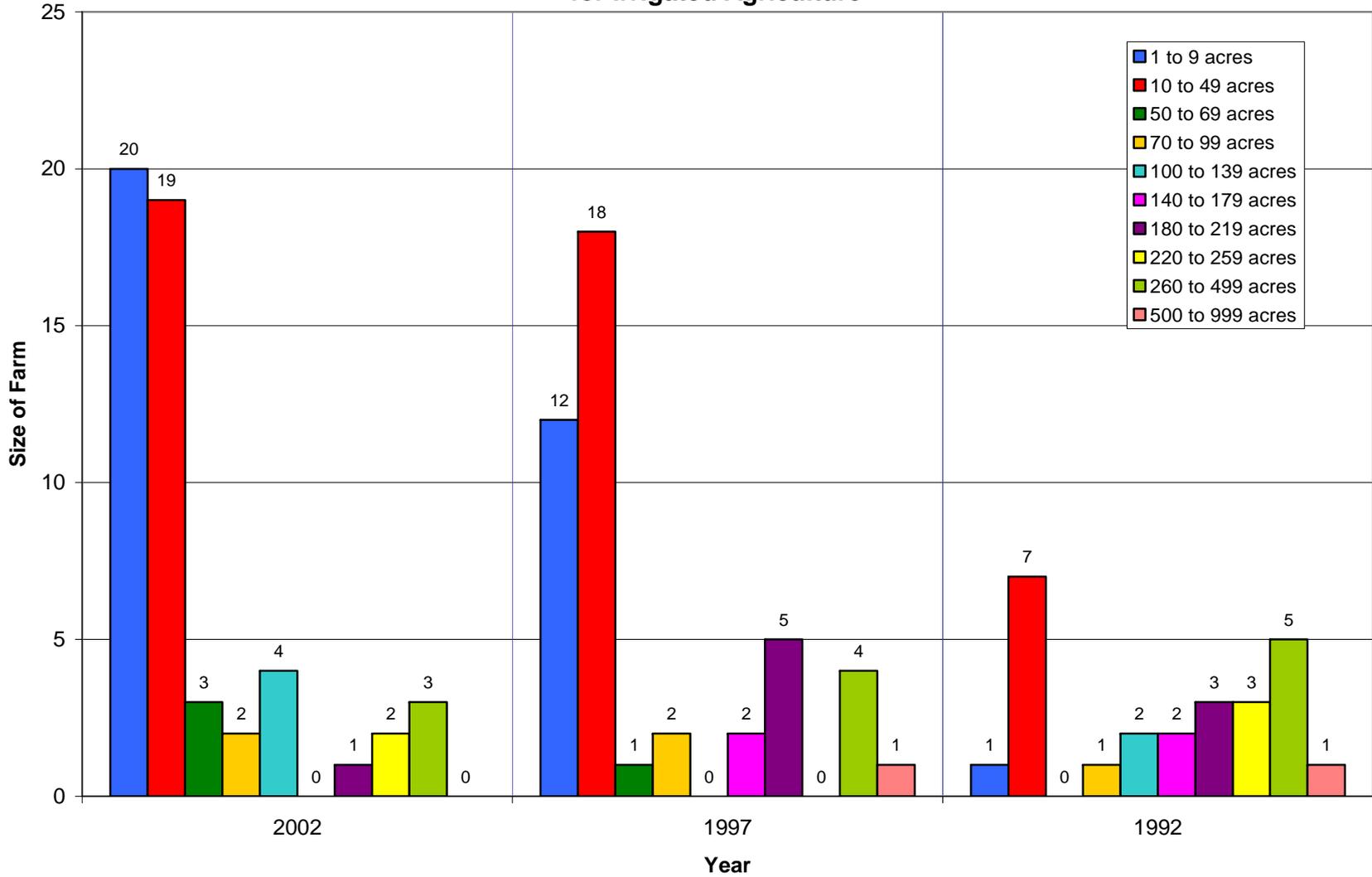
0.5 Miles

January 2008
Department of Ecology

Agriculture

- Trend is towards larger number of smaller farms
- Acreage under irrigation down from 1992 to 2002
- If water for in-house use is readily available, but water for agriculture is not, this could hurt future agriculture, and encourage subdivision of existing agricultural lands.

Jefferson County Farm Size for Irrigated Agriculture



Year	Estimated Acres Irrigated Agriculture	% of 1992 use
1992	4830	100%
1997	4420	92%
2002	3320	69%

Agriculture

- New large-scale agriculture usually requires a water right permit (exceeds the 5,000 gpd limit for an exempt well)
- In most areas, new water right permits will require mitigation
- Ecology is exploring exempt well use for new small agriculture
- Buying property with existing water rights

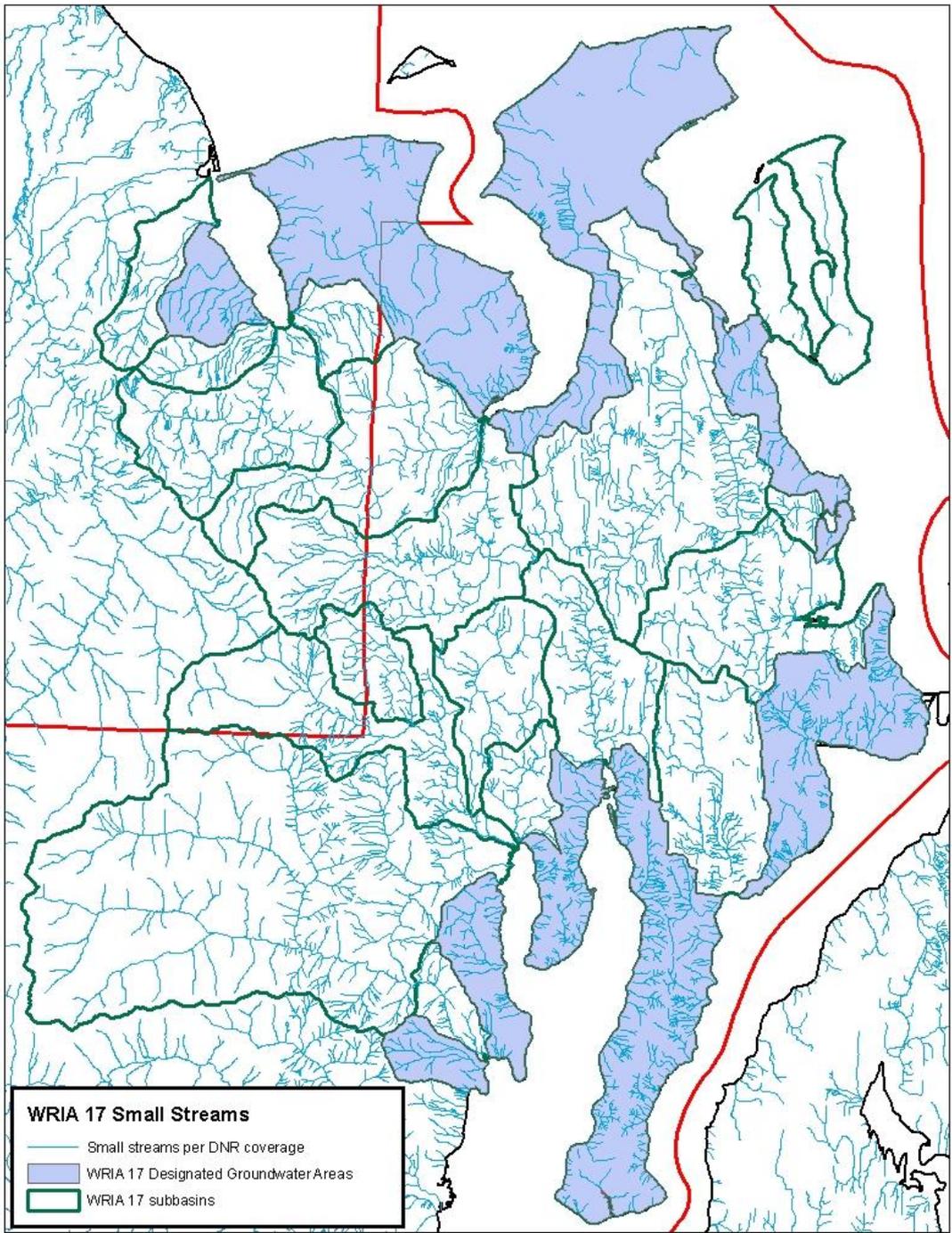
Stockwatering

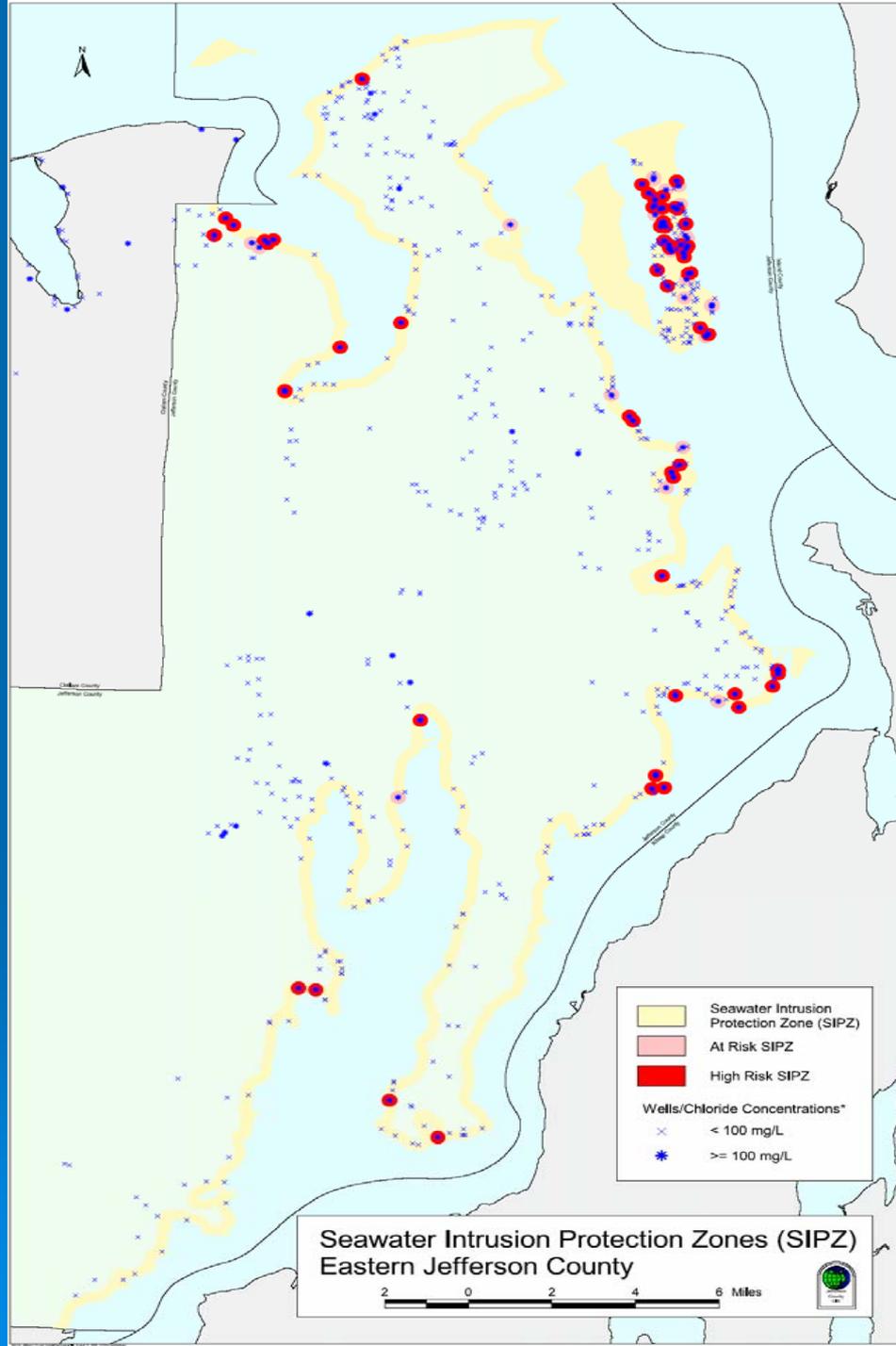
- Codify existing Ecology policy to protect water quality
 - Encourage conveyance of stockwater away from streams to protecting water quality
 - Conveying stockwater to a stock tank must have a minimum impact to the bypassed stream reach

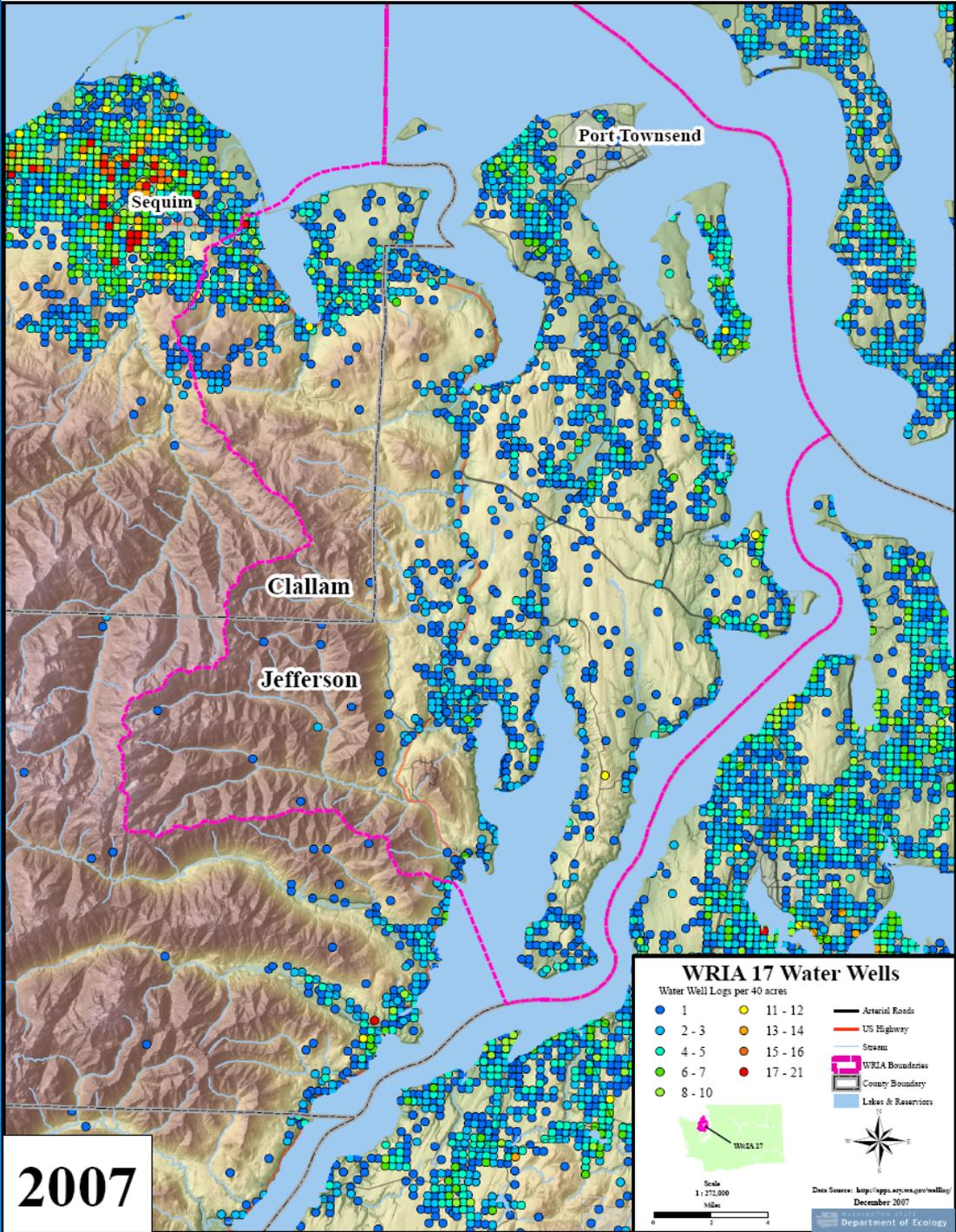
Designated Ground Water Areas

- Concerns expressed about protecting small fish-bearing streams
- Last month talked about 350 gpd plus some expanded agriculture
- Evaluating Quimper and Miller for expanded agriculture use in these areas
 - Several pending water right applications for irrigation
- Should Marrowstone be treated the same?









Actively Looking at Other Water Management Options

- Ecology Assisting Local Governments
 - Rainwater Catchment
 - Water Rights Processing
 - Aquifer Storage and Recovery
 - Water Banking
 - Ground Water Model



Local Governments Working on Water Management Options

- Desalination
- Petersen Lake
- Mitigation
- Efficiencies at the Mill
- Conservation Programs



Rainwater Catchment

- Pending legislation (again)
- Exception to closure in rule
- Ecology process general permit if requested



Water Rights Processing

- PUD Sparling well change
- Ludlow cost recovery
- Quilcene water supply – priority for post rule adoption

Summary – the hard choices

- Availability of Reserves
- Use of Reserves – what uses to debit
- In-house Use – application and enforcement
- Assurances for fish/instream resources
- Water for new public water supply
- Water for new agriculture
- Expanded Agriculture Use in Quimper and Miller