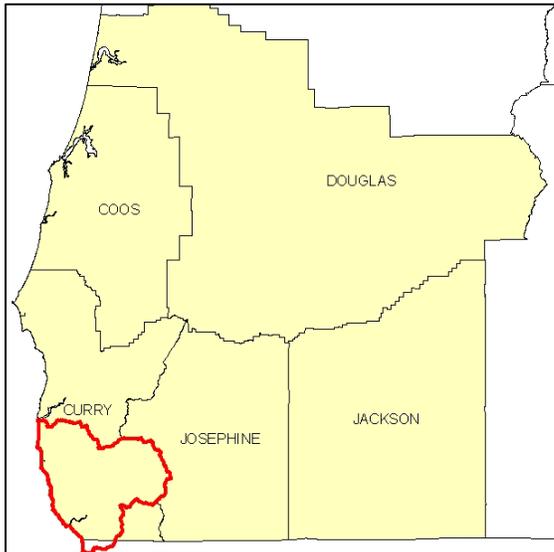


SWCD	Acres
Curry	392,558
Illinois Valley	291



### Introduction

The Chetco 8-Digit Hydrologic Unit Code (HUC) subbasin is comprised of 405,170 acres. Approximately two percent of the watershed is in California, and ninety-eight percent is in Curry County, Oregon. Ninety-three percent of the subbasin is forest land, two-thirds of which is public land. Because the subbasin is largely public land, the 2002 census reported only 48 farms in the entire subbasin. One-third of the farms are less than 50 acres in size.

Most of the Chetco subbasin is in the extreme southwestern corner of Oregon. It is largely uninhabited except for a few small towns and tourist destinations along Pacific Coast Highway 101.

Conservation assistance is provided by three service centers, one resource conservation and development (RC&D) office, and seven soil and water conservation districts.

### Profile Contents

[Introduction](#)

[Physical Description](#)

[Land Use Map & Precipitation Map](#)

[Common Resource Area](#)

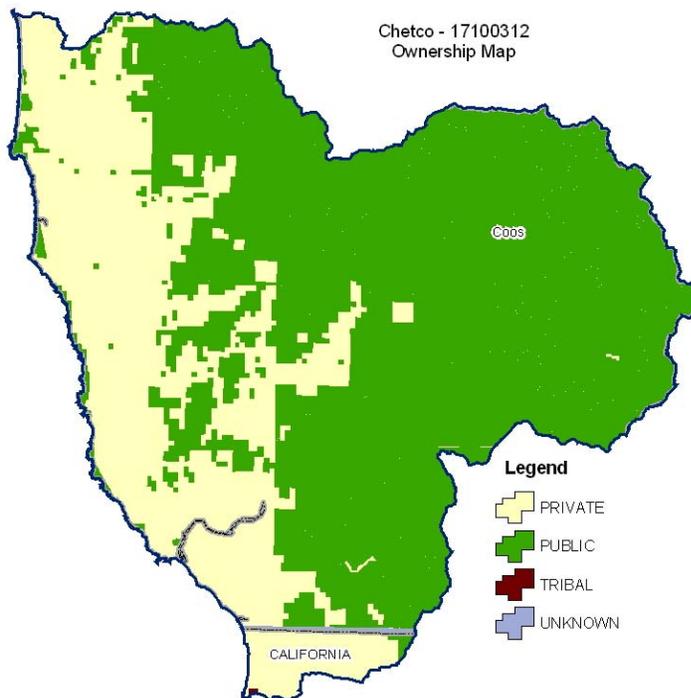
[Resource Concerns](#)

[Census and Social Data](#)

[Progress/Status](#)

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### Relief Map



### Physical Description

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**ALL NUMBERS IN THIS PROFILE ARE FOR OREGON ONLY**

Land Cover/Land Use (NLCD <sup>2</sup> )	Ownership - (2003 Draft BLM Surface Map Set <sup>1</sup> )						Totals	%
	Public		Private		Tribal			
	Acres	%	Acres	%	Acres	%		
Forest	254,800	65%	108,500	28%	0	0%	364,400	93%
Grain Crops	0	0%	0	0%	0	0%	0	0%
Conservation Reserve Program Land <sup>a</sup>	0	0%	0	0%	0	0%	0	0%
Grass/Pasture/Hay	11,300	3%	8,300	2%	0	0%	19,800	5%
Orchards/Vineyards	0	0%	0	0%	0	0%	0	0%
Row Crops	0	0%	*	---	0	0%	*	--
Shrub/Rangelands	3,500	1%	*	---	0	0%	4,400	1%
Water/Wetlands/Developed/Barren	*	---	*	---	0	0%	4,200	1%
<b>Oregon HUC Totals <sup>b</sup></b>	<b>270,400</b>	<b>68%</b>	<b>120,600</b>	<b>30%</b>	<b>0</b>	<b>0%</b>	<b>392,800</b>	<b>100%</b>

\*: Less than one percent of total acres. See below for special considerations.

a: Estimate from Farm Service Agency records and includes CRP/CREP.

b: Totals are approximate due to rounding and small unknown acreages.

#### **Special Considerations for This 8-Digit HUC:**

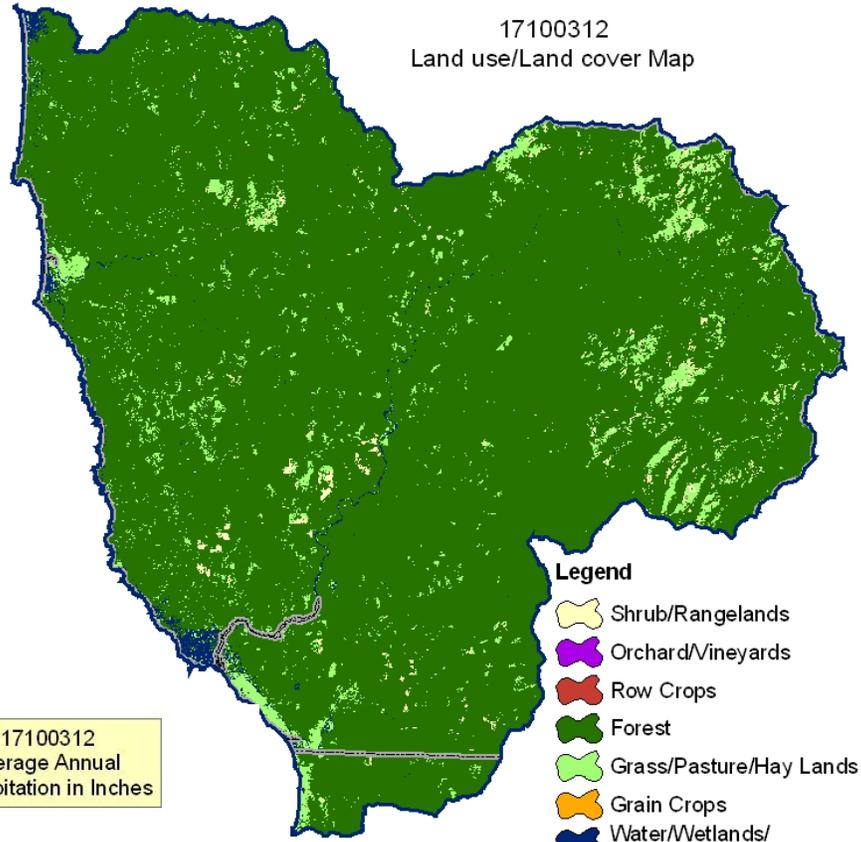
- ~ Field office staff estimate that there are 700 acres of lily bulbs (row crops) grown in this hydrologic unit.
- ~ Most pasture and hay is on small farms.
- ~ Sixty-two percent of the private forest land is under industrial ownership and management.

	Type of Land	ACRES	% of Irrigated Lands	% of HUC
<b>Irrigated Lands</b> (1997 NRI <sup>3</sup> Estimates for Non-Federal Lands Only)	Cultivated Cropland	0	0%	0%
	Uncultivated Cropland	0	0%	0%
	Pastureland	200	100%	0%
	<b>Total Irrigated Lands</b>	<b>200</b>	<b>100%</b>	<b>0%</b>

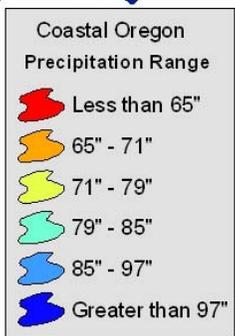
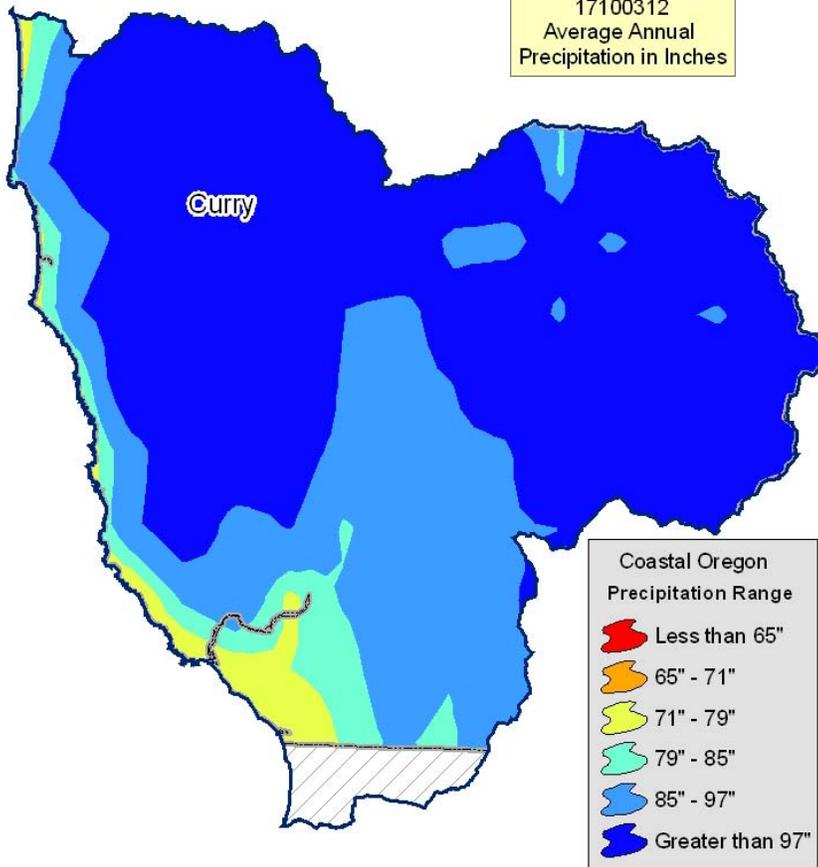
*(Continued on the following pages)*

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17100312  
Land use/Land cover Map



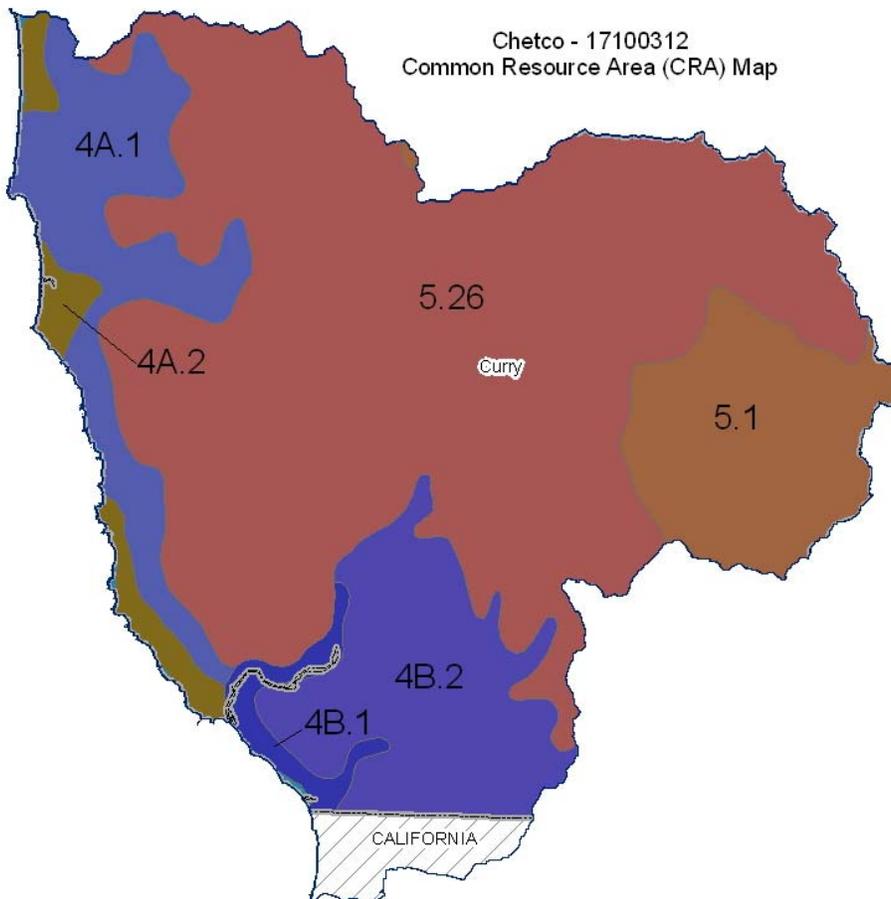
17100312  
Average Annual  
Precipitation in Inches



## Common Resource Area Map

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Only the major units are described below - for descriptions of all units within the HUC, go to: <http://ice.or.nrcs.usda.gov/website/cra/viewer.htm>



### **4A.1 - Sitka Spruce Belt - Coastal Sedimentary Uplands:**

This unit is comprised of mountains that have sedimentary bedrock and are in the "fogbelt." The temperature regime is isomesic, and the moisture regime is udic. Sitka spruce is present, and it separates this unit from unit 1.1.

### **4A.2 - Sitka Spruce Belt - Coastal Lowlands:**

This unit is comprised of marine terraces, diked and undiked flood plains, and estuaries. The temperature regime is isomesic, and the moisture regime is udic.

### **4B.2 - Coastal Redwood Belt - Northern Franciscan:**

This unit is in a steep mountainous area of the northern California Coast Range that has a substantial oceanic influence on the climate, including summer fog. The soil temperature regime is dominantly isomesic. The soil moisture regime is mostly udic, but some areas are aquic. Common vegetation includes redwood, Douglas-fir, and tanoak. The Klamath and Smith Rivers, which drain from the Klamath Mountains, cross this unit to reach the ocean.

**5.1 - Siskiyou-Trinity Area - Gasquet Mountain Ultramafics:** This unit encompasses ultramafic rock of Josephine ophiolite. The soil temperature regime is dominantly mesic, and the soil moisture regime is xeric. Common vegetation includes Jeffrey pine, lodgepole pine, and Port Orford cedar. This unit drains into Smith River and tributaries of the Klamath River.

**5.26 - Siskiyou-Trinity Area - Coastal Siskiyou:** This unit is similar to unit 5.24 except that precipitation is much higher and tanoak is significant in the plant community. The higher precipitation and management considerations for tanoak (sprouter) make this area unique from unit 5.24.

**Physical Description – Continued**

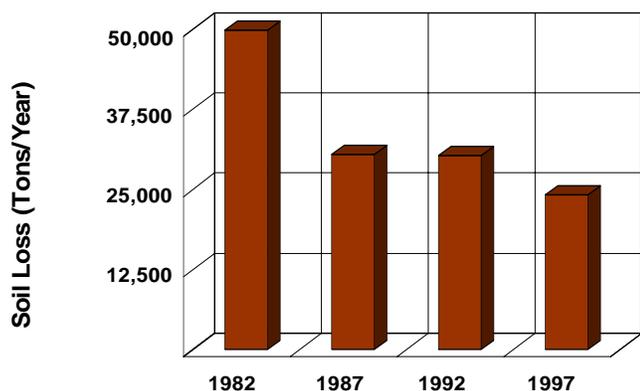
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		ACRES	ACRE-FEET			
<b>Irrigated Adjudicated Water Rights</b> <i>(OWRD<sup>/4</sup>)</i>	Surface	2,161	5,462			
	Well	524	1,324			
	<b>Total Irrigated Adjudicated Water Rights</b>	<b>2,685</b>	<b>6,785</b>			
<b>Stream Flow Data</b>	USGS 14400000 CHETCO RIVER, NEAR BROOKINGS, OR	<b>Total Avg. Yield</b>	1,627,791			
		<b>May – Sept. Yield</b>	136,846			
		<b>MILES</b>	<b>PERCENT</b>			
<b>Stream Data</b> <sup>/5</sup>  <i>*Percent of Total Miles of Streams in HUC</i>	Total Miles – Major (100K Hydro GIS Layer)	674	---			
	303d/TMDL Listed Streams (DEQ)	77	11%			
	Anadromous Fish Presence (StreamNet)	96	14%			
	Bull Trout Presence (StreamNet)	0	0%			
		<b>ACRES</b>	<b>PERCENT</b>			
<b>Land Cover/Use</b> <sup>/2</sup> Based on a 100-foot stretch on both sides of all streams in the 100K Hydro GIS Layer	Forest	14,243	89%			
	Grain Crops	0	0%			
	Grass/Pasture/Hay	831	5%			
	Orchards/Vineyards	0	0%			
	Row Crops	0	0%			
	Shrub/Rangelands – Includes CRP Lands	105	1%			
	Water/Wetlands/Developed/Barren	857	5%			
	<b>Total Acres of 100-foot Stream Buffers</b>	<b>16,037</b>	<b>100%</b>			
<b>Land Capability Class</b>  <i>(Croplands &amp; Pasturelands Only)</i>  <i>(1997 NRI<sup>/3</sup> Estimates for Non-Federal Lands Only)</i>	<b>1</b> – slight limitations	0	0%			
	<b>2</b> – moderate limitations	1,700	21%			
	<b>3</b> – severe limitations	1,200	15%			
	<b>4</b> – very severe limitations	1,000	12%			
	<b>5</b> – no erosion hazard, but other limitations	0	0%			
	<b>6</b> – severe limitations; unsuitable for cultivation; limited to pasture, range, forest	4,300	52%			
	<b>7</b> – very severe limitations; unsuitable for cultivation; limited to grazing, forest, wildlife habitat	0	0%			
	<b>8</b> – miscellaneous areas; limited to recreation, wildlife habitat, water supply	0	0%			
	<b>Total Crop &amp; Pasture Lands</b>	<b>8,200</b>	<b>---</b>			
	<b>Confined Animal Feeding Operations – Oregon CAFO Permit – 12/2004</b>					
<b>Animal Type</b>	<b>Dairy</b>	<b>Feedlot</b>	<b>Poultry</b>	<b>Swine</b>	<b>Mink</b>	<b>Other</b>
<b>No. of Permitted Farms</b>	1	0	0	0	0	0
<b>No. of Permitted Animals</b>	130	0	0	0	0	0

### Resource Concerns

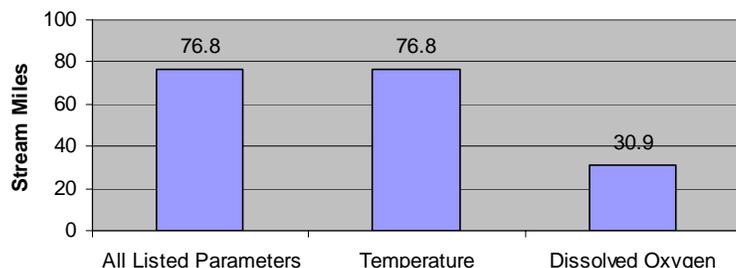
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#### Tons of Soil Loss by Water Erosion



- ❖ Sheet and rill erosion by water on croplands and pasturelands have been reduced by more than 25,000 tons of soil per year from 1982 to 1997.
- ❖ NRI estimates indicate that 1,200 acres of the agricultural lands had water erosion rates above a sustainable level in 1997.
- ❖ Controlling erosion not only sustains the long-term productivity of the land, but it also affects the amount of soil, pesticides, fertilizer, and other substances that move into the Nation's waters.
- ❖ Through NRCS programs, many farmers and ranchers have applied conservation practices to reduce the effects of erosion by water. As a result, erosion rates on croplands and pasturelands fell 14 percent, from 3.4 tons/acre/year to 2.9 tons/acre/year, from 1982 to 1997.

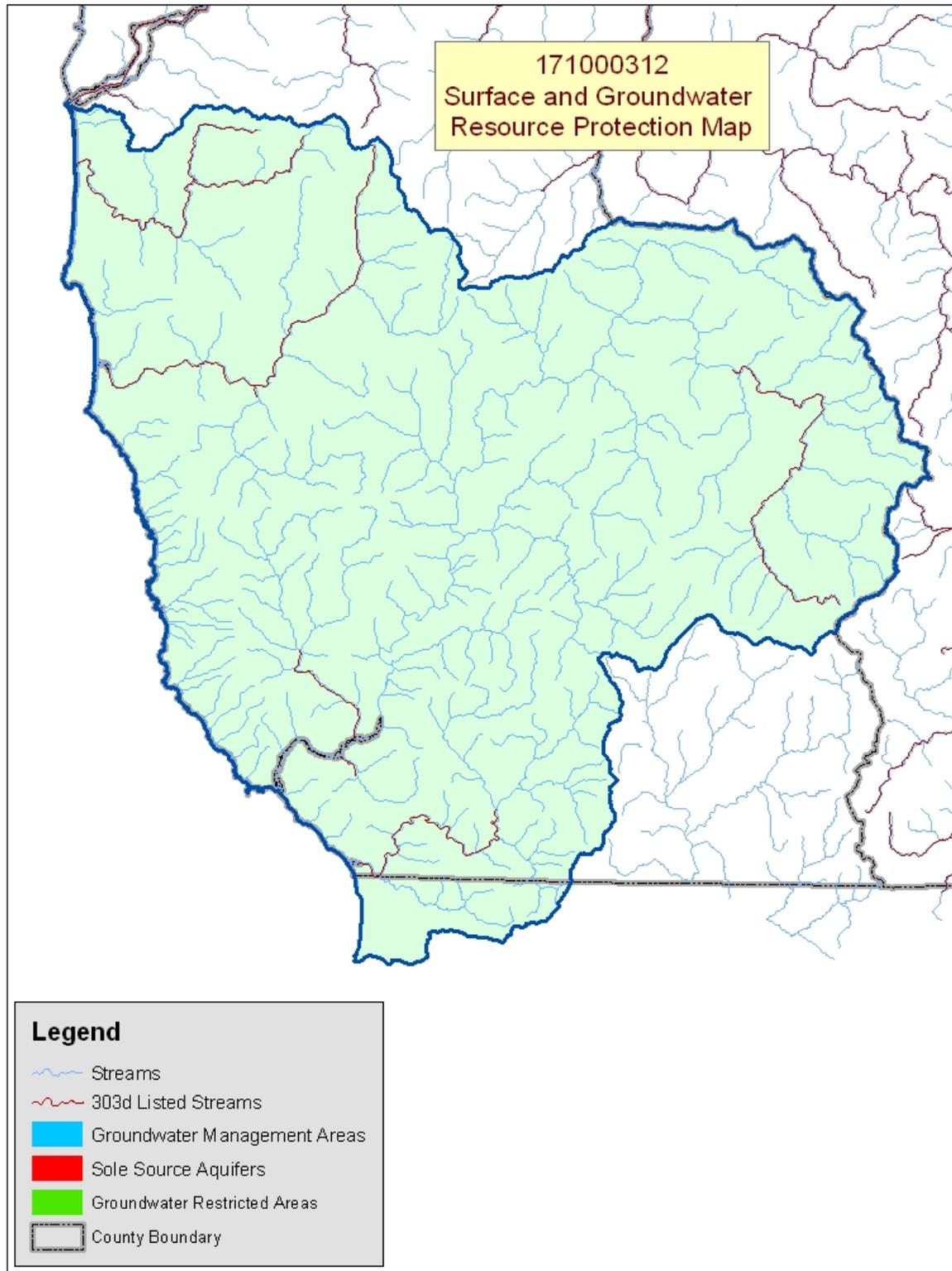
#### 2002 Water Quality Concerns 303d list and TMDL Parameters



- ❖ Almost all the listed stream miles exceed State water quality standards for temperature. Elevated stream temperatures may be due to inadequate riparian shade, stream channel widening, warm irrigation return flows, and other anthropogenic or natural causes.
- ❖ Conservation practices that can be used to address these water quality issues include grazing management and use of riparian buffers.

Watershed Projects, Plans, Studies, and Assessments			
NRCS Watershed Projects <sup>6</sup>		NRCS Watershed Plans, Studies, and Assessments <sup>7</sup>	
Name	Status	Name	Status
None		None	
ODEQ TMDL's <sup>8</sup>		ODA Agricultural Water Quality Management Plans <sup>9</sup>	
Name	Status	Name	Status
None		Curry	Completed
OWEB Watershed Councils <sup>10</sup>		Watershed Council Assessments <sup>11</sup>	NWPCC Subbasin Plans & Assessments <sup>18</sup>
South Coast Coordinating, Chetco, Hunter Creek/Pistol River, and Winchuck Watershed Councils		Chetco River, Hunter Creek, and Pistol River Watershed Assessments	Not Applicable

(Continued on page 8)



Map Footnote [17](#)

### Resource Concerns - Continued

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Resource Concerns/Issues by Land Use							
SWAPA +H Concerns	Specific Resource Concern/Issue	Pasture \Hay	Grain Crops	Row Crops	Orchards \Vnyrd	Shrub /Range	Forest
Soil Erosion	Sheet and Rill			X			
	Streambank	X					
	Irrigation Induced			X			
Water Quantity	Ponding and Flooding			X			
	Temperature	X					X
	Pathogens	X					
	Aquatic Habitat Suitability						X
Plant Condition	Productivity, Health, and Vigor	X					
Animal Habitat, Domestic	Food, Cover, and Shelter						X
Human, Economics	High Risk and Uncertainty	X					X
	High Capital/Financial Cost						X
	High Management Level Required			X			
	Low or Unreliable Profitability	X		X			

#### Grass/Pasture/Hay

- Erosion (streambanks) and water quality (temperature and pathogens) are concerns commonly because of a lack of riparian buffers.
- Insufficient forage and grazing management contributes to low-producing pastures.
- High risk and low profitability limit use of additional conservation practices.

#### Row Crops (Lilies)

- Sheet and rill erosion and irrigation-induced erosion can be problems.
- The high level of management needed to grow lilies and unpredictable profit make it difficult for these operators to invest in conservation practices.

#### Forest Land (Private, non-industrial)

- The effect of forest harvesting on temperature and aquatic suitability in stream corridors is the most significant natural resource concerns.
- Conservation on private, non-industrial forest land is limited as a result of:
  - Short growth cycle (40 to 60 years) for harvestable timber.
  - High capital cost to establish and manage timber.
  - Various market risks.
  - Environmental uncertainties.

FEDERALLY LISTED THREATENED AND ENDANGERED SPECIES <sup>12</sup>	
THREATENED SPECIES	CANDIDATE SPECIES
<b>Birds</b> - Marbled murrelet, Western snowy plover (coastal), Bald eagle, Brown pelican, Short-tailed albatross, Northern spotted owl	<b>Fish</b> - Steelhead (Oregon Coast), Steelhead (Klamath Mountains Province)
<b>Fish</b> - Coho salmon (Oregon Coast), Coho salmon (S. Oregon/N. Calif. Coast)	
<b>Plants</b> - Western lily, McDonald's rockcress, Gentner's fritillary, Cook's lomatium	<b>PROPOSED SPECIES</b> None
<b>ESSENTIAL FISH HABITAT</b> <sup>13</sup> - Coho, Chinook	

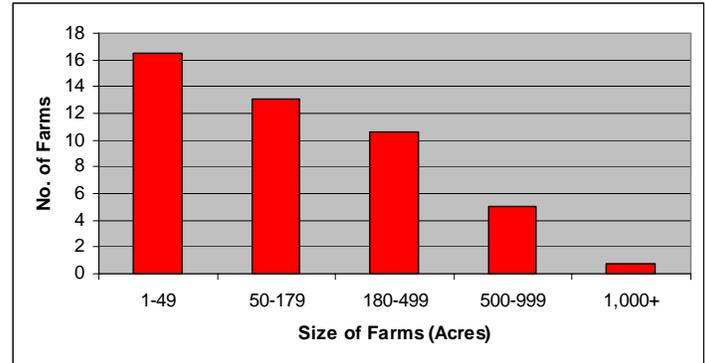
**Census and Social Data**<sup>/14</sup>

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**Number of Farms: 48**

**Number of Operators: 81**

- Full-Time Operators: **29**
- Part-Time Operators: **52**

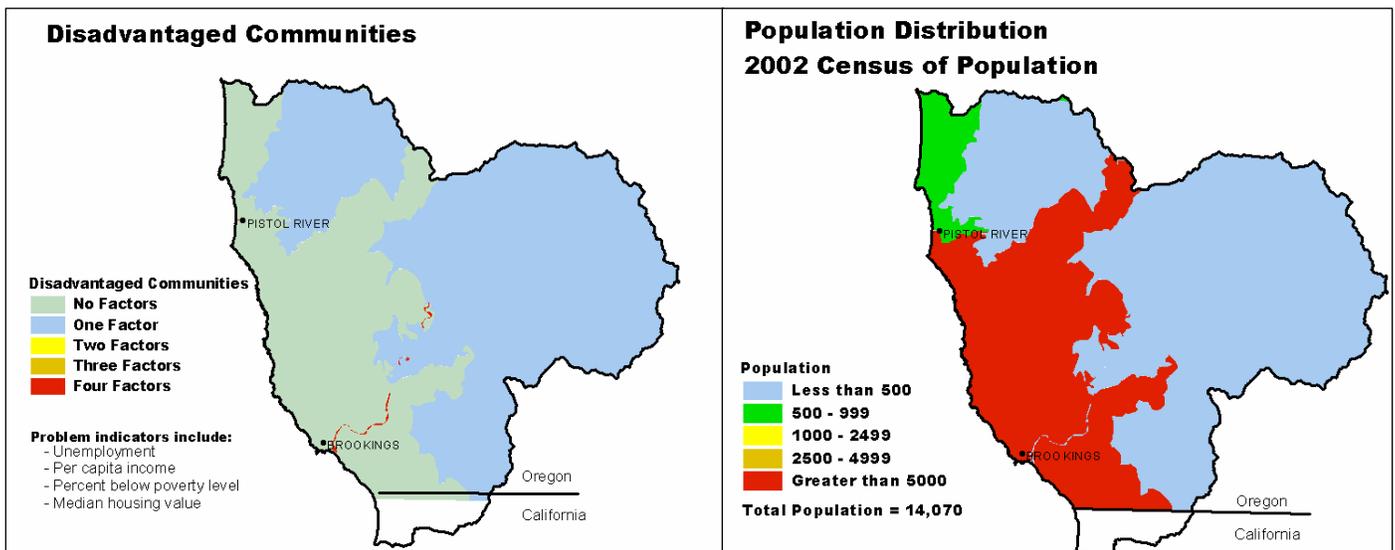


**Estimated Level of Willingness and Ability to Participate in Conservation**<sup>/15</sup>: **Moderate**

**Evaluation of Social Capital**<sup>/16</sup>: **n/a**

Participation in conservation activities among individual landowners in the Chetco watershed varies based on familiarity with USDA programs and assistance, management ability, and perceptions of the benefits of conservation. For those new to agriculture or to the area, one-on-one technical assistance would help to increase their interest in conservation.

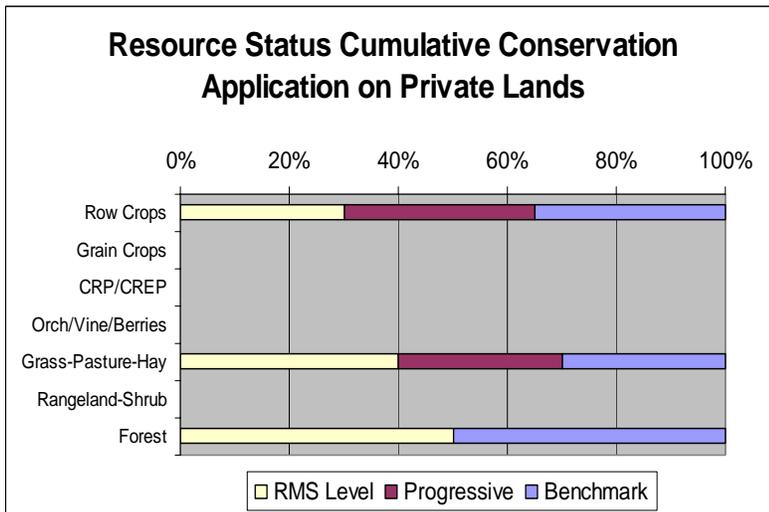
Because the watershed is extremely rural and the landowners tend to be isolated, there are not many opportunities to develop an effective community of farmers, ranchers, or forest landowners. If the agricultural community develops over time, it could become a positive force in increasing the diffusion of conservation throughout the watershed.



### Progress/Status

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PRMS Data	FY99	FY00	FY01	FY02	FY03	Avg/Year	Total
Total Conservation Systems Planned (Acres)	0	1	0	0	0	0	1
Total Conservation Systems Applied (Acres)	0	1	0	0	0	0	1
Conservation Treatment							
Waste Management (Number)	0	0	0	0	0	0	0
Riparian Forest Buffers (Acres)	0	0	0	0	0	0	0
Erosion Control (Acres)	0	0	0	0	0	0	0
Irrigation Water Management (acres)	0	0	0	0	0	0	0
Nutrient Management (Acres)	0	0	0	0	0	0	0
Pest Management (Acres)	0	0	0	0	0	0	0
Prescribed Grazing (Acres)	0	0	0	0	0	0	0
Trees and Shrubs (Acres)	0	0	0	0	0	0	0
Conservation Tillage (Acres)	0	0	0	0	0	0	0
Wildlife Habitat (Acres)	0	0	0	0	0	0	0
Wetlands (Acres)	0	0	0	0	0	0	0



*Estimates are based on information received from local conservationists.*

- ❖ Further progress with lily growers limited by economics.
- ❖ High risk and low profitability limit use of additional conservation practices on small livestock farms.
- ❖ Private industrial forest landowners typically do not work with NRCS and SWCDs; however, their land commonly complies with State forest practice requirements.
- ❖ Some non-industrial private forest land is not in compliance with State forest practice requirements.

### Lands Removed from Production through Farm Bill Programs

- ❖ Conservation Reserve Program (CRP): **none**
- ❖ Wetland Restoration Program (WRP): **none**
- ❖ Conservation Reserve Enhancement Program (CREP): **none**

### Footnotes/Bibliography

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All data is provided "as is." There are no warranties, express or implied, including the warranty of fitness for a particular purpose, accompanying this document. Use for general planning purposes only.

1. Ownership Layer – Source: The 1:24,000 scale public ownership layer is the land ownership/management for public entities, including Federal, Tribal, State, and local entities. This is a seamless, statewide Oregon Public Ownership vector layer composed of fee ownership of lands by Federal, State, Tribal, county, and city agencies. The layer is comprised of the best available data compiled at 1:24,000 scale or larger, and the line work matches GCDB boundary locations and ORMAP standards where possible. The layer is available from the State of Oregon GIS Service Center: <http://www.gis.state.or.us/data/alphalist.html>. For current ownership status, consult official records at appropriate Federal, State, and county offices. Ownership classes grouped to calculate Federal ownership vs. non-Federal ownership by the Water Resources Planning Team.
2. National Land Cover Dataset (NLCD) - Originator: U.S. Geological Survey (USGS); Publication date: 19990631; Title: Oregon Land Cover Data Set, Edition: 1; Geospatial data presentation form: Raster digital data; Publisher: U.S. Geological Survey, Sioux Falls, SD, USA; Online linkage: <http://edcwww.cr.usgs.gov/programs/lccp/nationallandcover.html>; Abstract: These data can be used in a geographic information system (GIS) for any number of purposes, such as assessing wildlife habitat, water quality, pesticide runoff, land use change, etc. The State data sets are provided with a 300-meter buffer beyond the State border to facilitate combining the State files into larger regions.
3. ESTIMATES FROM THE 1997 NRI DATABASE (REVISED DECEMBER 2000) REPLACE ALL PREVIOUS REPORTS AND ESTIMATES. Comparisons made using data published for the 1982, 1987, or 1992 NRI may produce erroneous results. This is because of changes in statistical estimation protocols and because all data collected prior to 1997 were simultaneously reviewed (edited) as 1997 NRI data were collected. All definitions are available in the glossary. In addition, this December 2000 revision of the 1997 NRI data updates information released in December 1999 and corrects a computer error discovered in March 2000. For more information: <http://www.nrcs.usda.gov/technical/NRI/>
4. Irrigated Adjudicated Water Rights – Water Rights Information System (WRIS), Oregon Water Resources Department, <http://www.wrd.state.or.us/maps/wlexport.shtml>
5. StreamNet is a cooperative venture of the Pacific Northwest's fish and wildlife agencies and tribes and is administered by the [Pacific States Marine Fisheries Commission](#). StreamNet provided data and data services in support of the region's fish and wildlife program and other efforts to manage and restore the region's aquatic resources. Official StreamNet website: <http://www.streamnet.org/>
6. Natural Resources Conservation Service, Watershed Projects Planned and Authorized, <http://www.nrcs.usda.gov/programs/watershed/Purpose>.
7. Natural Resources Conservation Service, Watershed Plans, Studies, and Assessments completed, [http://www.nrcs.usda.gov/programs/watershed/Surveys\\_Plng.html#Watershed%20Surveys%20and%20Plan](http://www.nrcs.usda.gov/programs/watershed/Surveys_Plng.html#Watershed%20Surveys%20and%20Plan)
8. Oregon Department of Environmental Quality Total Maximum Daily Loads, <http://www.deq.state.or.us/wq/TMDLs/TMDLs.htm>
9. Oregon Department of Agriculture, Agricultural Water Quality Management Plans, [http://www.oregon.gov/ODA/NRD/water\\_agplans.shtml](http://www.oregon.gov/ODA/NRD/water_agplans.shtml)

## Footnotes/Bibliography Continued

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10. Oregon Watershed Enhancement Board, <http://oregon.gov/OWEB/WSHEDS/index.shtml>
11. Watershed Assessments completed by local watershed councils following the Oregon Watershed Assessment Manual, [http://oregon.gov/OWEB/docs/pubs/ws\\_assess\\_manual.shtml](http://oregon.gov/OWEB/docs/pubs/ws_assess_manual.shtml).
12. NRCS Field Office Technical Guide, Section II, Threatened and Endangered List.
13. Magnuson-Stevens Fishery Conservation and Management Act, Public Law 94-265. As amended through October 11, 1996.
14. Data were taken from the 2002 Agricultural Census and adjusted by percent of HUC in the county or by percent of zip code area in the HUC, depending on the level of data available. Data were also taken from the U.S. Population Census, 2000.
15. Conservation participation was estimated using NRCS Social Sciences Technical Note 1801, Guide for Estimating Participation in Conservation, 2004. Four categories of indicators were evaluated: Personal characteristics, farm structural characteristics, perceptions of conservation, and community context. Estimates are based on information received from local conservationists in the watershed.
16. Social capital is an indicator of the community's ability and willingness to work together to solve problems. A high amount of social capital helps a community to be physically healthy, socially progressive, and economically vigorous. A low amount of social capital typically results in community conflict, lack of trust and respect, and unsuccessful attempts to solve problems. The evaluation is based on NRCS Technical Report Release 4.1, March, 2002: Adding Up Social Capital: An Investment in Communities. Local conservationists provided information to measure social capital. Scores range from 0 to 76.
17. Surface and Groundwater Resource Protection Map
  - a. 2002 303d Listed Streams designated by Oregon Department of Environmental Quality and approved by the Environmental Protection Agency, Section 303d Clean Water Act, <http://www.deq.state.or.us/wq/303dlist/303dpage.htm>
  - b. Groundwater Management Areas designated by the Oregon Department of Environmental Quality, Oregon Revised Statutes – Ground Water ORS 468B.150 to ORS 468B.190, <http://www.deq.state.or.us/wq/groundwa/wqgw.htm>
  - c. Groundwater Restricted Areas designated by Oregon Water Resources Commission, Oregon Department of Water Resources, [http://egov.oregon.gov/OWRD/PUBS/aquabook\\_protections.shtml](http://egov.oregon.gov/OWRD/PUBS/aquabook_protections.shtml)
  - d. The Sole Source Aquifer (SSA) Protection Program is authorized by Section 1424(e) of the Safe Drinking Water Act of 1974 (Public Law 93-523, 42 U.S.C. 300 et. seq), <http://www.epa.gov/safewater/ssanp.html>
18. Subbasin assessments and plans are developed by local groups (SWCDs, watershed councils, tribes, and others) as part of the Northwest Power and Conservation Council's fish and wildlife program in the Columbia River Basin. This program is funded and implemented by the Bonneville Power Administration. <http://www.nwcouncil.org/fw/subbasinplanning/Default.htm>.