

Introduction

The Coos 8-Digit Hydrologic Unit Code (HUC) subbasin is comprised of 459,500 acres, mostly in Coos County (89%). The Coos subbasin is 89 percent private and public forestland, 11 percent hay and pasture, and has three permitted CAFOs. Some resource concerns associated with these land uses include soil erosion, impaired water quality, and loss of wildlife habitat. High operator costs, unreliable profits, and high management requirements limit the diffusion of conservation among landowners in the subbasin.

Coos subbasin includes 375 farms, most of which are less than 50 acres. Many full-time, large-acreage farmers are amenable to conservation. Part-time, small-acreage farmers need direct technical assistance to fit conservation into their management system.

The Coquille USDA Service Center, Coos Soil and Water Conservation District, Southwest Oregon Resource Conservation & Development Area, and the Coos Watershed Association provide much of the conservation assistance in the subbasin.

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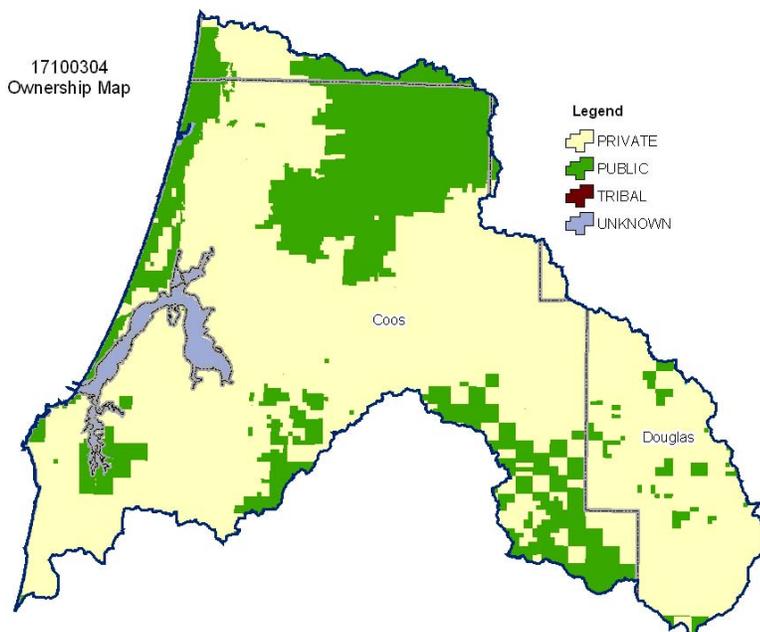
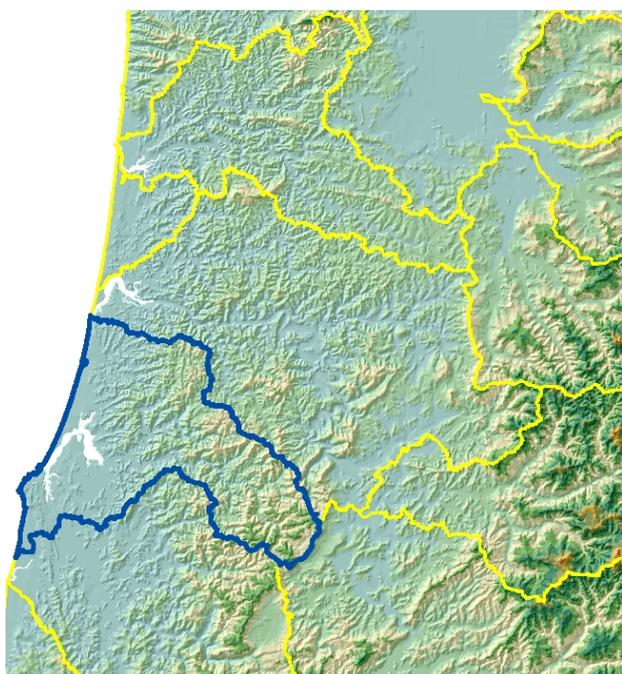
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Relief Map



Physical Description

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ALL NUMBERS IN THIS PROFILE ARE FOR OREGON ONLY

Land Cover/Land Use (NLCD ²)	Ownership - (2003 Draft BLM Surface Map Set ¹)							
	Public		Private		Tribal		Totals	%
	Acres	%	Acres	%	Acres	%		
Forest	112,700	25%	296,500	64%	0	0%	410,100	89%
Grain Crops	0	0%	0	0%	0	0%	0	0%
Conservation Reserve Program Land ^a	0	0%	*	---	0	0%	*	---
Grass/Pasture/Hay	*	---	20,000	4%	0	0%	23,700	5%
Orchards/Vineyards	0	0%	0	0%	0	0%	0	0%
Row Crops	0	0%	0	0%	0	0%	0	0%
Shrub/Rangelands	*	---	*	---	0	0%	*	---
Water/Wetlands/Developed/Barren	9,000	2%	15,300	3%	0	0%	25,400	6%
Oregon HUC Totals ^b	124,900	27%	332,100	72%	0	0%	459,500	100%

*: 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:

- Approximately 76 percent of the private forestland is under industrial forest ownership (OSU, Forestry Sciences Laboratory).
- The field office estimates that cranberries are grown on approximately 1,200 acres.
- Approximately 47 acres of CREP has been installed along area streams.
- Pasture and hay is grown in areas of dairy, beef, and sheep operations as well as on small farms.

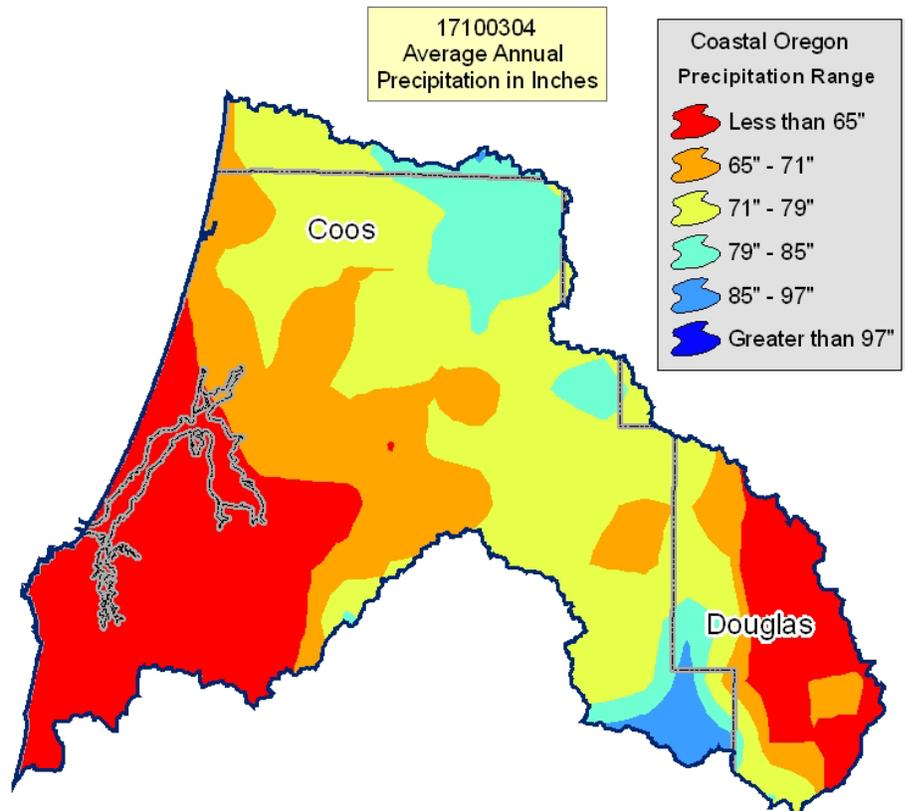
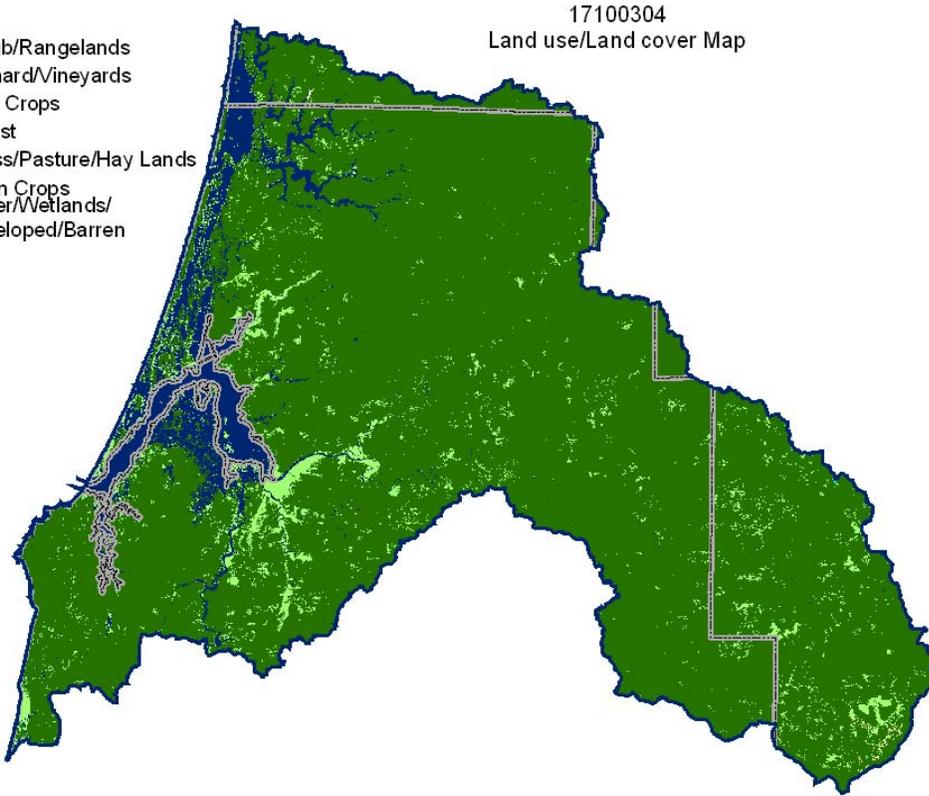
Irrigated Lands (1997 NR ¹³ Estimates for Non-Federal Lands Only)	Type of Land	ACRES	% of Irrigated Lands	% of HUC
	Cultivated Cropland	0	0%	0%
	Uncultivated Cropland	0	0%	0%
	Pastureland	0	0%	0%
	Total Irrigated Lands	0	0%	0%

(Continued on the following pages)

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Legend

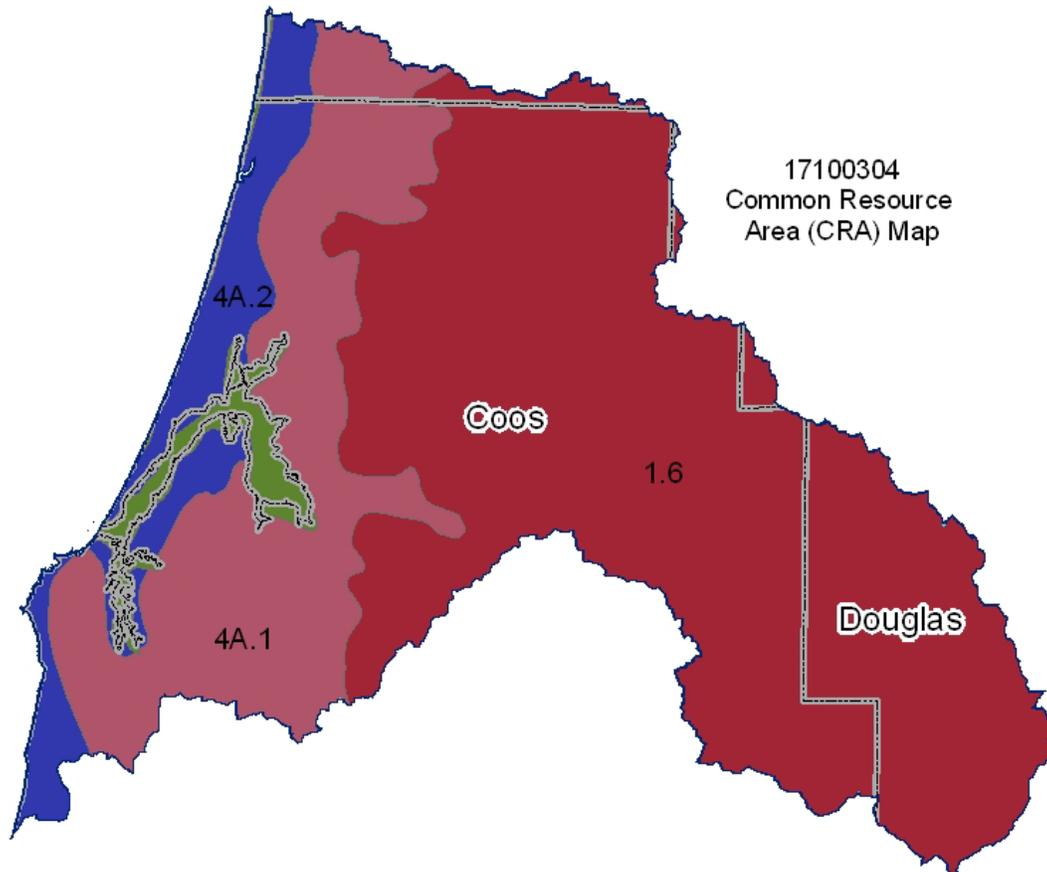
-  Shrub/Rangelands
-  Orchard/Vineyards
-  Row Crops
-  Forest
-  Grass/Pasture/Hay Lands
-  Grain Crops
-  Water/Wetlands/
Developed/Barren



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>



1.6 – Northern Pacific Coast Range, Foothills, and Valleys - Mid-Coastal Sedimentary:

This unit is comprised of mountains that are sedimentary rock and are outside of the "fogbelt." The temperature regime is mesic, and the moisture regime is udic. Sitka spruce typically is absent. The dominant vegetation is Douglas fir and western hemlock. The unit includes narrow inland flood plains and terraces.

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

This unit is comprised of mountains that are sedimentary rock and are in the "fogbelt." The temperature regime is isomesic, and the moisture regime is udic. This unit supports Sitka spruce, which separates it 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.

Physical Description – Continued

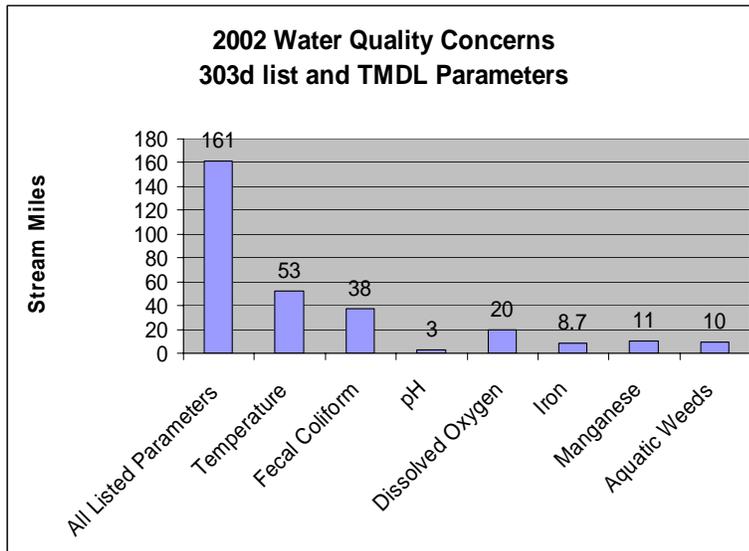
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		ACRES	ACRE-FEET			
Irrigated Adjudicated Water Rights (OWRD ⁴)	Surface	3,503	8,798			
	Well	1,215	3,299			
	Total Adjudicated Water Rights (Irrigation/cranberry bogs)	4,718	12,097			
Stream Flow Data	USGS 14323200 TENMILE CREEK, NEAR LAKESIDE, OR	Total Avg. Yield	244,720			
		May – Sept. Yield	23,132			
		MILES	PERCENT			
Stream Data ⁵ <i>*Percent of Total Miles of Streams in HUC</i>	Total Miles – Major (100K Hydro GIS Layer)	892	---			
	303d/TMDL Listed Streams (DEQ)	161	18%			
	Anadromous Fish Presence (StreamNet)	186	21%			
	Bull Trout Presence (StreamNet)	0	0%			
		ACRES	PERCENT			
Land Cover/Use ² Based on a 100-foot stretch on both sides of all streams in the 100K Hydro GIS Layer	Forest	18,570	84%			
	Grain Crops	0	0%			
	Grass/Pasture/Hay	1,777	8%			
	Orchards/Vineyards	0	0%			
	Row Crops	0	0%			
	Shrub/Rangelands	42	0%			
	Water/Wetlands/Developed/Barren	1,845	8%			
	Total Acres of 100-foot Stream Buffers	22,233	---			
Land Capability Class <i>(Croplands & Pasturelands Only)</i> <i>(1997 NRI³ Estimates for Non-Federal Lands Only)</i>	1 – slight limitations	0	0%			
	2 – moderate limitations	3,300	56%			
	3 – severe limitations	0	0%			
	4 – very severe limitations	1,300	22%			
	5 – no erosion hazard, but other limitations	0	0%			
	6 – severe limitations; unsuitable for cultivation; limited to pasture, range, forest	1,300	22%			
	7 – very severe limitations; unsuitable for cultivation; limited to grazing, forest, wildlife habitat	0	0%			
	8 – miscellaneous areas; limited to recreation, wildlife habitat, water supply	0	0%			
	Total Croplands & Pasturelands	5,900	---			
Confined Animal Feeding Operations – Oregon CAFO Permit – 12/2004						
Animal Type	Dairy	Feed Lot	Poultry	Swine	Mink	Other
No. of Permitted Farms	3	0	0	0	0	0
No. of Permitted Animals	510	0	0	0	0	0

Resource Concerns

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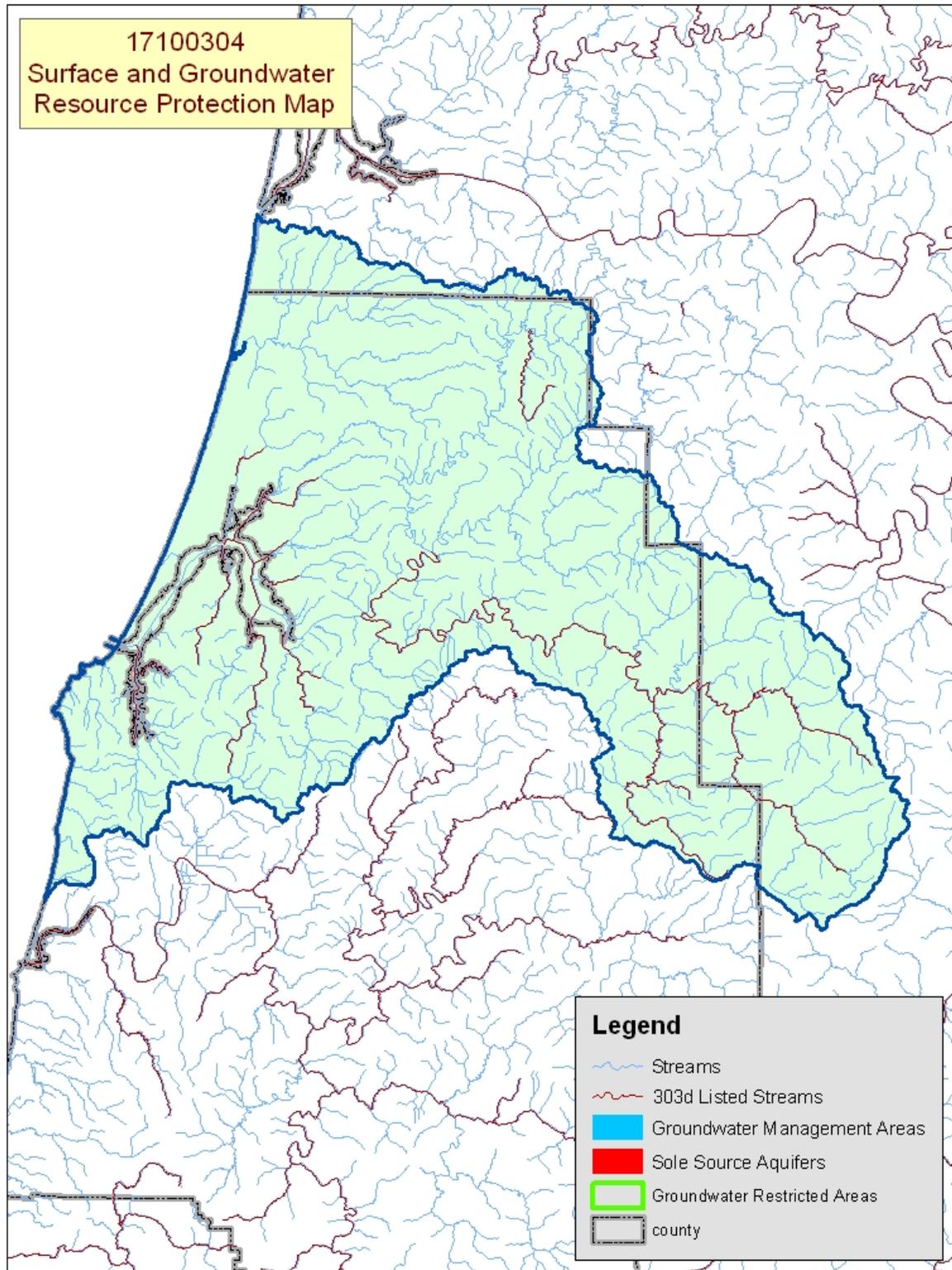
Tons of Soil Loss by Water Erosion: Due to the limited amount of non-Federal cropland and pastureland within this HUC, no reliable NRI soil loss estimates are available.



- ❖ Fifty percent all of the listed stream miles exceed State water quality standards for temperature. Elevated stream temperatures may be due to inadequate riparian shade, stream channel widening, and other anthropogenic or natural causes.
- ❖ Fecal coliform can be indicative of livestock waste, but it also is associated with improperly operating onsite sewage disposal systems.
- ❖ Conservation practices that can be used to address these water quality issues include livestock waste management, grazing management, and use of riparian buffers.

Watershed Projects, Plans, Studies, and Assessments			
NRCS Watershed Projects ⁶		NRCS Watershed Plans, Studies, and Assessments ⁷	
Name	Status	Name	Status
None	None	None	None
ODEQ TMDL's ⁸		ODA Agricultural Water Quality Management Plans ⁹	
Name	Status	Name	Status
None	None	Coos-Coquille	Completed
OWEB Watershed Council ¹⁰		Watershed Council Assessments ¹¹	NWPCC Subbasin Plans and Assessments ¹⁸
Coos Watershed Association, Tenmile Lakes Basin Partnership		Lower Pony Creek Watershed Assessment, Tenmile Lakes Watershed Assessment	None

(Continued on page 8)



Map Footnote [417](#)

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	Concentrated Flow or Gully				
	Streambank	X					
	Soil Mass Movement	X					
Water Quantity	Ponding & Flooding	X					
	Water Management For Irrigated Land				X		
Water Quality, Surface	Pesticides				X		
	Nutrients & Organics	X			X		
	Suspended Sediments & Turbidity						X
Plant Management	Establishment, Growth, & Harvest						X
Animal Habitat, Wildlife	Management				X		X
Human, Economics	High Risk & Uncertainty						X
	High Capital/Financial Costs	X					X
	High Management Level Required	X			X		
	Low or Unreliable Profitability				X		

Grass/Pasture/Hay

- Erosion (streambanks) and water quality (temperature) can be natural resource concerns if pastures do not have riparian buffers or if proper forage and grazing management is not used.

Cranberries (Orchards/Vineyards/Berries)

- Adequate water for cranberry bogs and runoff of nutrients can be resource concerns on undermanaged farms.
- Additional conservation activity in areas of cranberries has been delayed in recent years because of the high level of management needed and low profit.

Forestland (Private, Non-industrial)

- The primary resource concern is the impact of erosion from concentrated flows off roads and landings on fish and wildlife.
- Conservation on private, non-industrial forestland is limited by the:
 - Short growth cycle (40 to 60 years) of harvestable timber
 - High capital costs to establish and manage timber
 - Various market risks
 - Environmental uncertainties

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

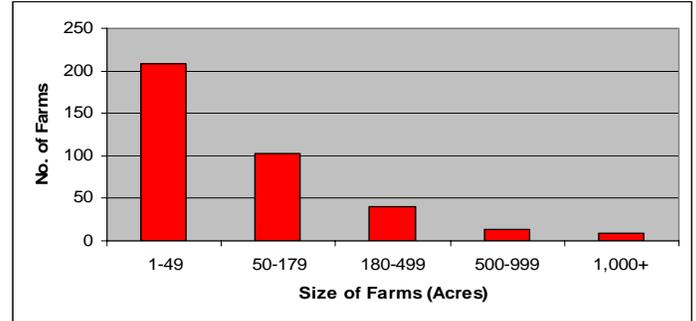
Census and Social Data^{/14}

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Number of Farms: 375

Number of Operators: 610

- Full-Time Operators: **211**
- Part-Time Operators: **399**



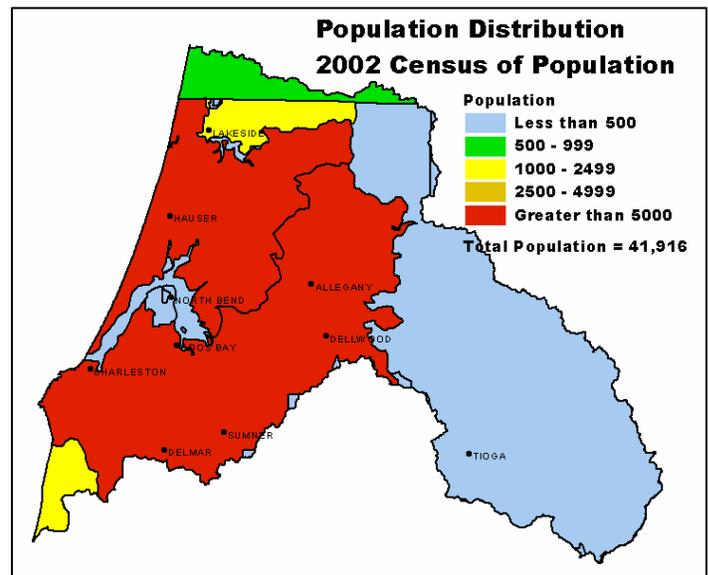
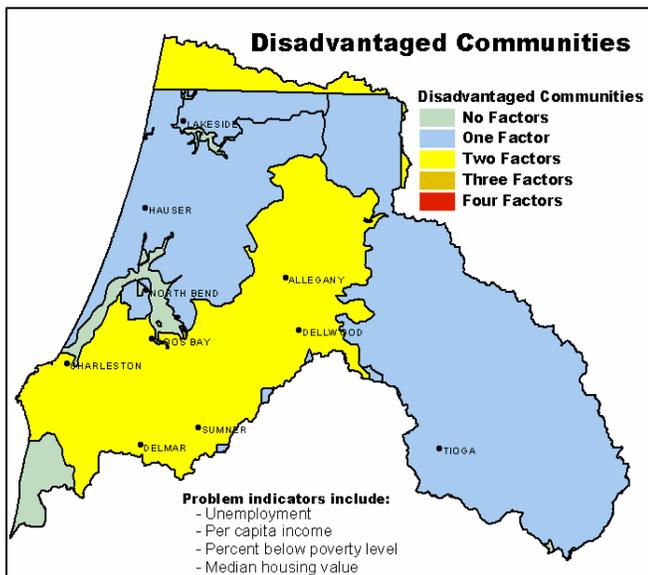
Estimated Level of Willingness and Ability to Participate in Conservation^{/15}: **Low to High**

There are significant differences in the ability and willingness among landowners in the subbasin to effectively address resource concerns through conservation. Most of the differences are due to experience (or lack thereof) with natural resource planning, conservation systems, and government technical and financial assistance. Many full-time, large-acreage farmers are amenable to conservation. Usually part-time, small-acreage farmers need direct technical assistance to fit conservation into their management system.

Individual conservation participation may increase by tailoring NRCS assistance to meet the specific needs of the operator; increasing awareness of local resource problems; and providing *timely* technical assistance, adequate financial assistance, and risk-reducing incentives. Moreover, NRCS might need to take the time to build trust among landowners by listening to them about *their* concerns before trying to persuade them to adopt conservation practices.

Evaluation of Social Capital^{/16}: **Moderate** Social capital, and the communities' ability to solve problems and support conservation, is estimated to be moderate throughout most of the subbasin, and somewhat higher near towns and rural community centers. Having a relatively small population and being in a remote area, it can be difficult for members of these communities to effect change. On the other hand, local communities in the subbasin complete most projects they start, and are often quite active in school, civic, and agricultural activities. Most landowners support and participate in community activities they believe affect their families and livelihoods.

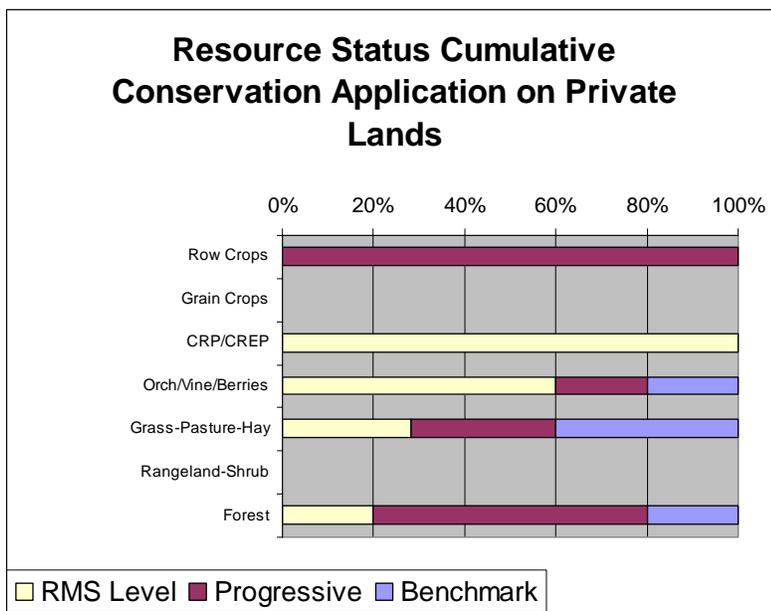
As the importance of conservation to members of the communities in the Coos subbasin increases, community support, and the diffusion of conservation throughout the subbasin will also increase.



Progress/Status

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PRMS Data	FY99	FY00	FY01	FY02	FY03	Avg/Year	Total
Total Conservation Systems Planned (Acres)	106	153	858	968	32	423	2,117
Total Conservation Systems Applied (Acres)	0	55	77	4	1,796	386	1,932
Conservation Treatment Acres							
Waste Management (Number)	0	0	0	0	2	0	2
Buffers (Acres)	0	0	0	36	37	15	73
Erosion Control (Acres)	0	0	0	0	46	9	46
Irrigation Water Management (Acres)	0	0	0	0	165	33	165
Nutrient Management (Acres)	0	93	0	0	240	67	333
Pest Management (Acres)	0	0	0	0	147	29	147
Prescribed Grazing (Acres)	0	0	258	0	240	100	498
Trees & Shrubs (Acres)	0	55	0	36	37	26	128
Conservation Tillage (Acres)	0	0	0	0	0	0	0
Wildlife Habitat (Acres)	0	0	0	56	700	151	756
Wetlands (Acres)	0	0	0	35	97	26	132



Estimates are based on information received from local conservationists in the watershed.

- ❖ Progress over the last 5 years has been focused on:
 - ~ Nutrient management
 - ~ Prescribed grazing
 - ~ Wildlife habitat management
- ❖ Additional conservation activity in areas of cranberries has been restricted in recent years by the high level of management needed and the low profit.
- ❖ High capital costs limit construction of additional livestock waste management facilities on commercial dairies.
- ❖ High risk and low profitability are obstacles to encouraging the use of additional conservation practices on small livestock farms.
- ❖ Private industrial forestland owners typically do not work with NRCS and SWCDs; however, their land commonly complies with State forest practices act requirements.
- ❖ Some non-industrial private forestland is not in compliance with State forest practices act requirements.

Lands Removed from Production through Farm Bill Programs

- ❖ Conservation Reserve Program (CRP): **None**
- ❖ Wetland Restoration Program (WRP): **121 acres**
- ❖ Conservation Reserve Enhancement Program (CREP): **47 acres**

Footnotes/Bibliography

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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/wrexport.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
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

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.
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
 - 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>.