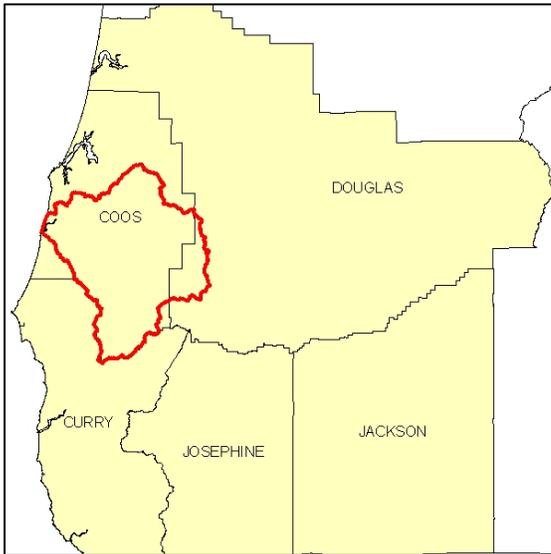


SWCD	Acres
Coos	601,714
Douglas	70,788
Curry	3,246



Introduction

The Coquille 8-Digit Hydrologic Unit Code (HUC) subbasin is comprised of slightly over 675,000 acres, of which about 89 percent is in Coos County, 10 percent is in Douglas County, and less than 1 percent is in Curry County. The subbasin includes 448 farms, of which 45 percent are less than 50 acres in size. There are significant differences in the ability and willingness of landowners and communities in the subbasin to effectively address resource concerns through conservation.

The Coquille subbasin, in southwestern Oregon, is about ninety percent private and public forest land. Less than ten percent is used for pasture, hay, and other various uses. Sixty-six percent of the subbasin is privately owned, most of which is forest land. Much of the remaining land is publicly owned.

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

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[Land Use Map & Precipitation Map](#)

[Common Resource Area](#)

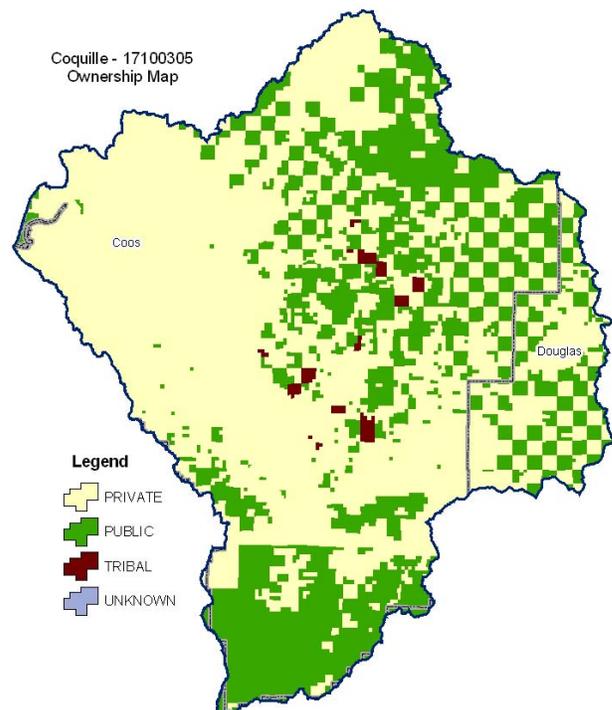
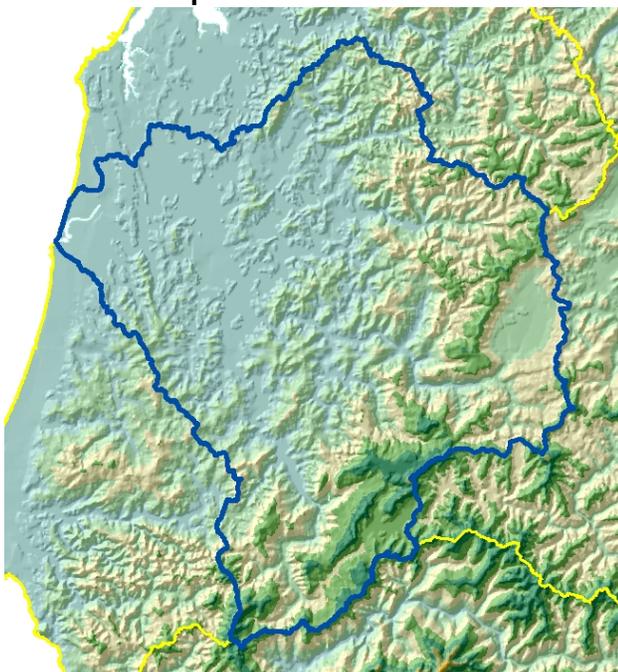
[Resource Concerns](#)

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Relief Map



Physical Description

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Land Cover/Land Use (NLCD ²)	Ownership - (2003 Draft BLM Surface Map Set ¹)						Totals	%
	Public		Private		Tribal			
	Acres	%	Acres	%	Acres	%		
Forest	215,000	32%	386,500	57%	5,300	1%	606,800	90%
Grain Crops	0	0%	*	---	*	---	*	---
Conservation Reserve Program Land ^a	0	0%	*	---	0	0%	0	0%
Grass/Pasture/Hay	*	---	55,800	8%	*	---	59,500	9%
Orchards/Vineyards/Berries	0	0%	*	---	0	0%	*	---
Row Crops	0	0%	*	---	0	0%	*	---
Shrub/Rangelands	*	---	*	---	0	0%	*	---
Water/Wetlands/Developed/Barren	*	---	7,500	1%	0	0%	7,900	1%
Oregon HUC Totals ^b	219,200	32%	450,900	66%	5,400	1%	675,500	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:

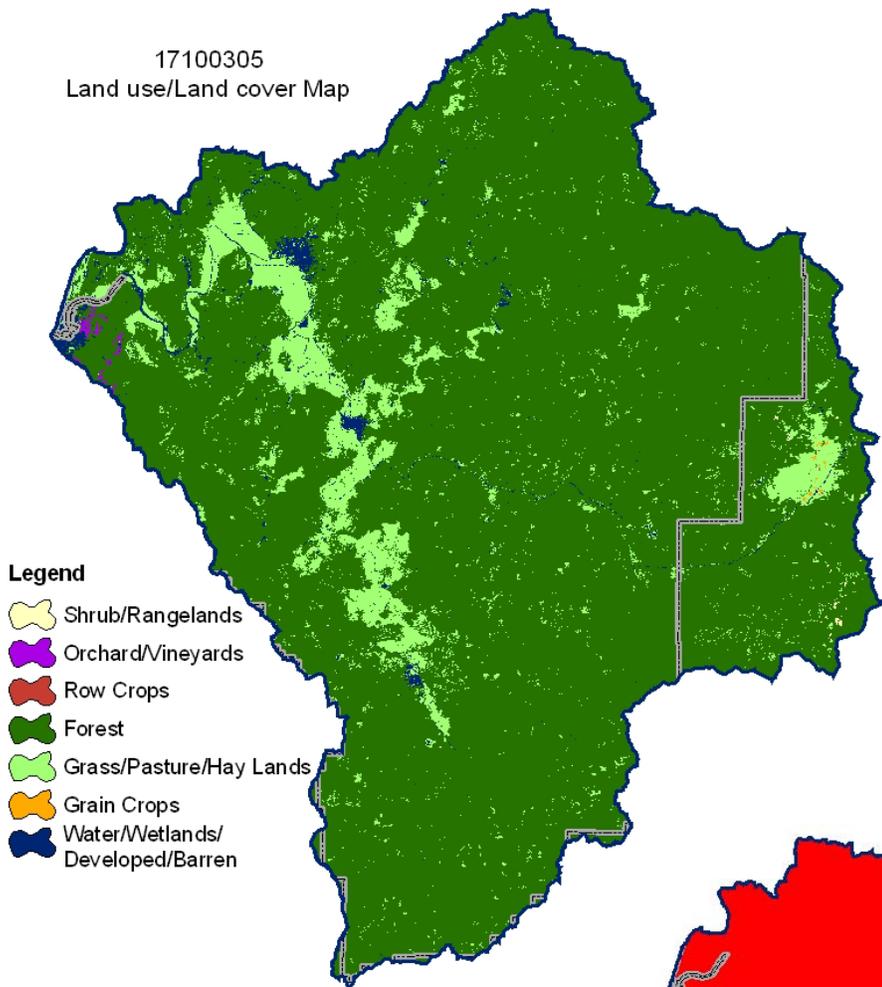
- ~ Twenty-one permitted pasture-based dairy operations grow corn silage on about 200 acres.
- ~ The field office estimates that cranberries are grown on approximately 1,200 acres.
- ~ Pasture and hay is grown on land used for dairy, beef, and sheep operations as well as on small farms.
- ~ Thirty-seven percent of the private forest land is under non-industrial ownership and management, and sixty-three percent is under industrial ownership.
- ~ As of December 2004, 173 acres of streamside pasture have been enrolled in the Conservation Reserve Enhancement Program (CREP).

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	400	4%	0%
	Pastureland	9,500	96%	1%
	Total Irrigated Lands	9,900	100%	1%

(Continued on the following pages)

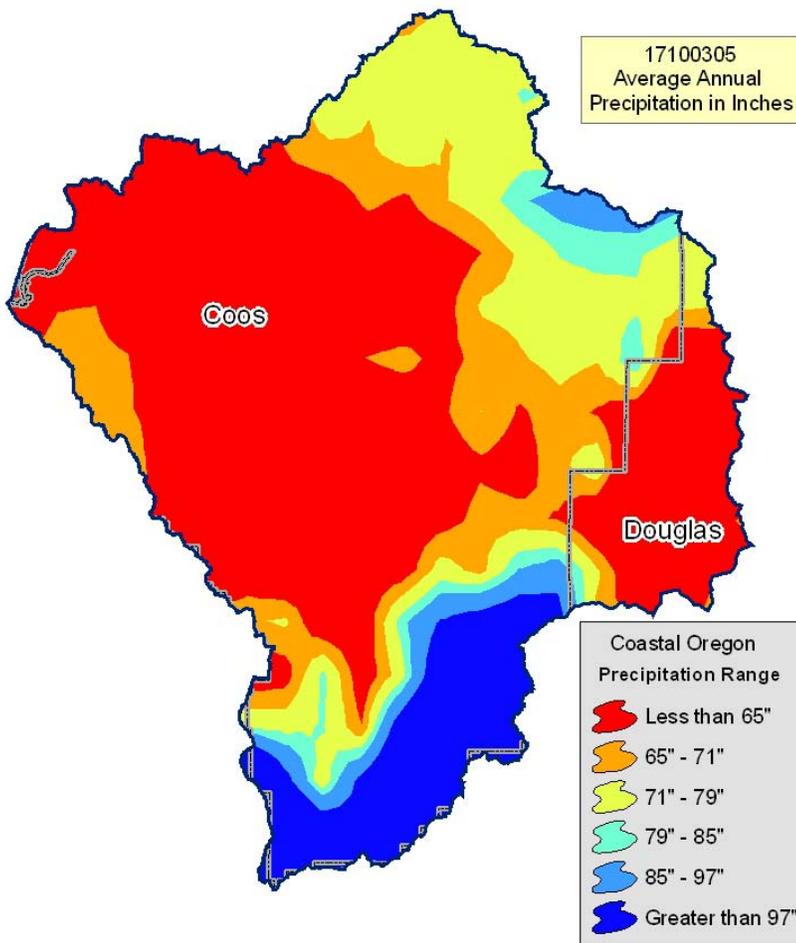
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17100305
Land use/Land cover Map



Legend

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



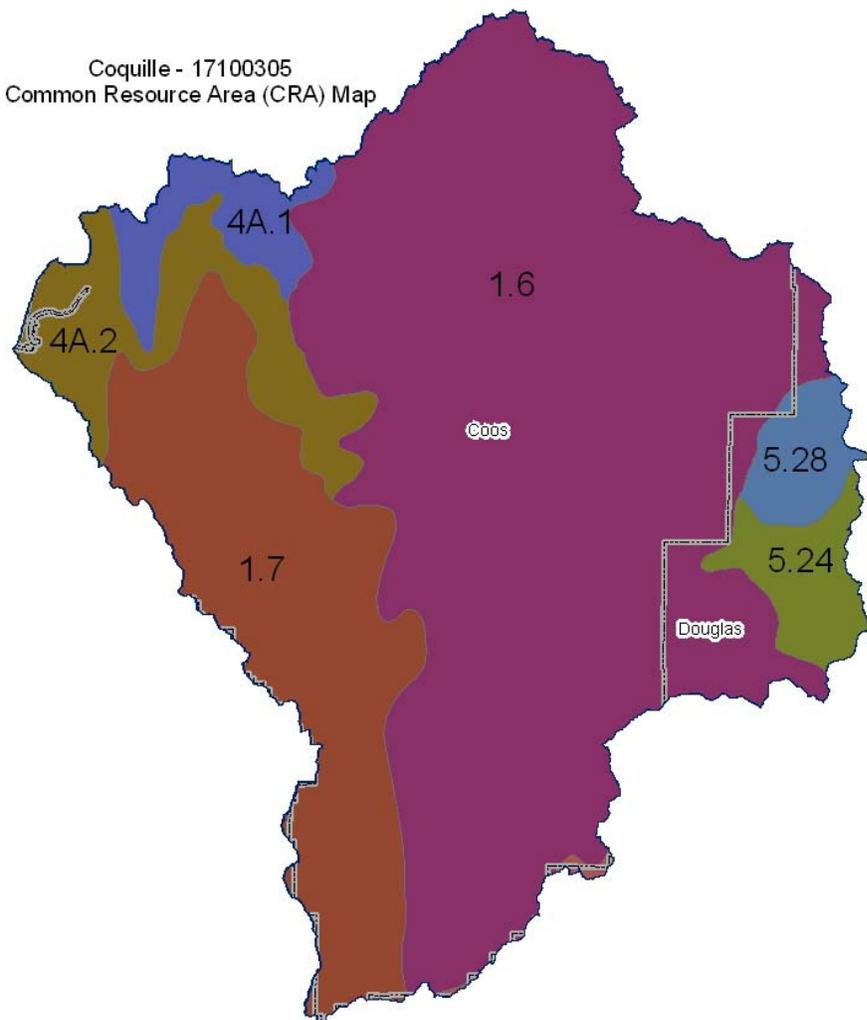
17100305
Average Annual
Precipitation in Inches

- Coastal Oregon
Precipitation Range
- Less than 65"
 - 65" - 71"
 - 71" - 79"
 - 79" - 85"
 - 85" - 97"
 - Greater than 97"

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 have sedimentary bedrock 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. This unit includes narrow inland flood plains and terraces.

1.7 - Northern Pacific Coast Range, Foothills, and Valleys - Southern Oregon Coastal Mountains:

This unit is comprised of mountains that typically have sedimentary bedrock and are outside of the "fogbelt." The temperature regime is mesic, and the moisture regime is udic. Sitka spruce is absent. The dominant vegetation is Douglas-fir, western hemlock, and tanoak. The presence of tanoak separates this unit from unit 1.6, and the presence of western hemlock separates this unit from unit 5.29.

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.

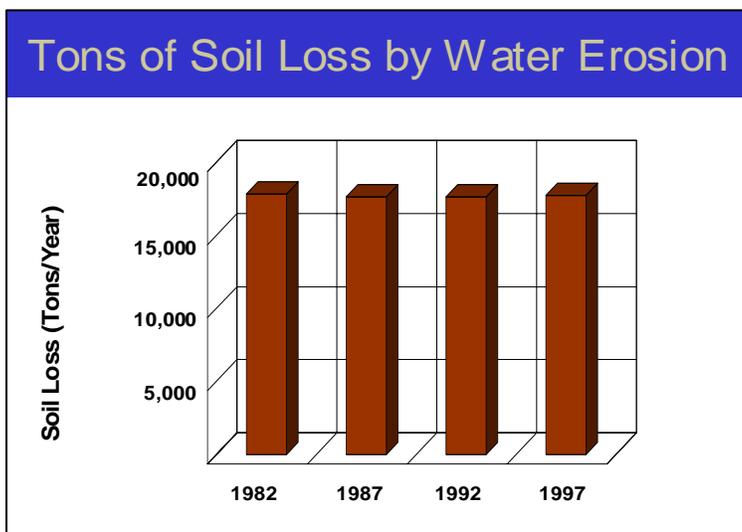
Physical Description – Continued

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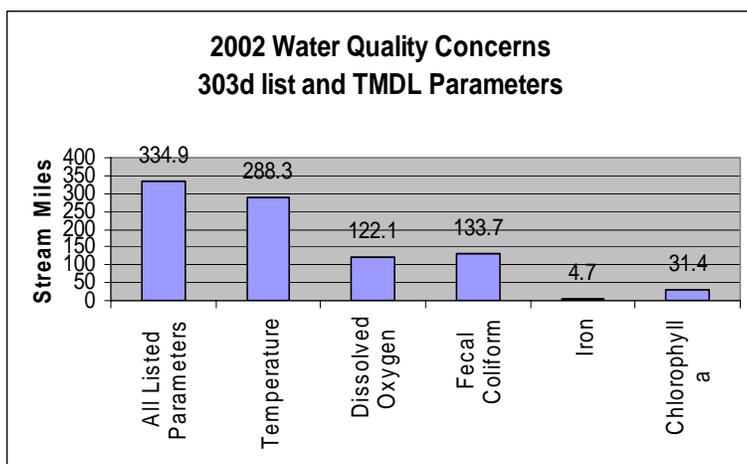
		ACRES	ACRE-FEET			
Irrigated Adjudicated Water Rights (OWRD ⁴)	Surface	17,277	44,628			
	Well	894	2,308			
	Total Irrigated Adjudicated Water Rights	18,171	46,937			
Stream Flow Data	USGS 14326500 MIDDLE FK COQUILLE RIVER, NEAR MYRTLE POINT, OR	Total Avg. Yield	438,591			
		May – Sept. Yield	38,486			
	USGS 14327000 N FK COQUILLE RIVER, NEAR MYRTLE POINT, OR	Total Avg. Yield	676,012			
		May – Sept. Yield	55,456			
	USGS 14325000 S FK COQUILLE RIVER, AT POWERS, OR	Total Avg. Yield	563,473			
		May – Sept. Yield	46,654			
		MILES	PERCENT			
Stream Data ⁵ <i>*Percent of Total Miles of Streams in HUC</i>	Total Miles – Major (100K Hydro GIS Layer)	1,177	---			
	303d/TMDL Listed Streams (DEQ)	335	28%			
	Anadromous Fish Presence (StreamNet)	187	16%			
	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	23,614	83%			
	Grain Crops	9	0%			
	Grass/Pasture/Hay	3,415	12%			
	Orchards/Vineyards	6	0%			
	Row Crops	1	0%			
	Shrub/Rangelands – Includes CRP Lands	5	0%			
	Water/Wetlands/Developed/Barren	1,370	5%			
	Total Acres of 100-foot Stream Buffers	28,421	---			
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	8,800	19%			
	3 – severe limitations	8,100	17%			
	4 – very severe limitations	13,000	28%			
	5 – no erosion hazard, but other limitations	0	0%			
	6 – severe limitations; unsuitable for cultivation; limited to pasture, range, forest	8,200	18%			
	7 – very severe limitations; unsuitable for cultivation; limited to grazing, forest, wildlife habitat	8,400	18%			
	8 – miscellaneous areas; limited to recreation, wildlife habitat, water supply	0	0%			
	Total Croplands & Pasturelands	46,500	--			
	Confined Animal Feeding Operations – Oregon CAFO Permit – 12/2004					
Animal Type	Dairy	Feedlot	Poultry	Swine	Mink	Other
No. of Permitted Farms	19	1	0	0	0	1
No. of Permitted Animals	5,102	80	0	0	0	40

Resource Concerns

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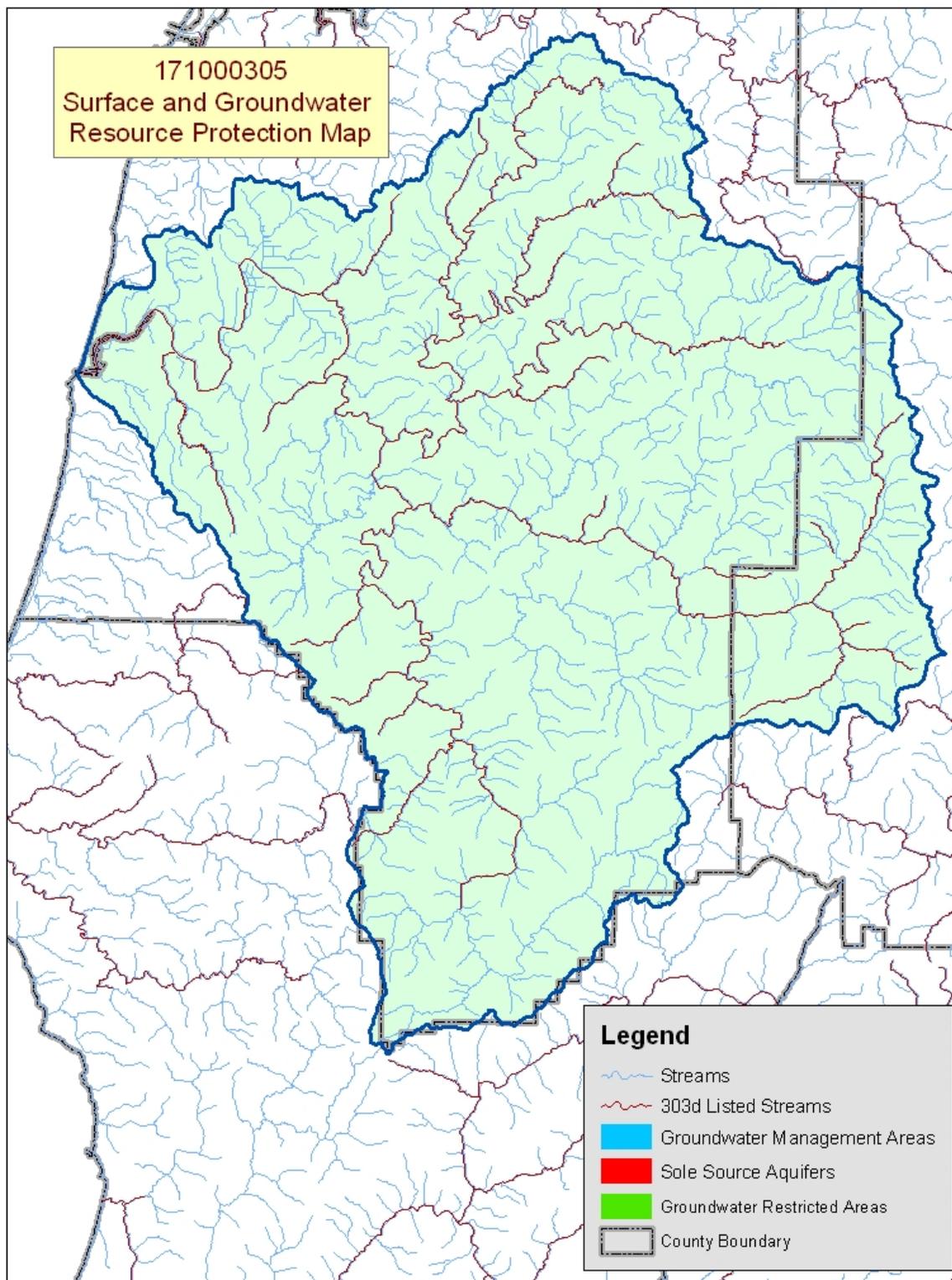
- ❖ Sheet and rill erosion by water on croplands and pasturelands has exhibited little change from 1982 to 1997, remaining at about 17,000 tons per year.
- ❖ NRI estimates indicate that none of the agricultural lands had water erosion rates above a sustainable level in 1997.
- ❖ Controlling erosion not 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 averaged a low 0.4 tons/acre/year in 1982 and 1997.



- ❖ About 85 percent 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, warm irrigation return flows, and other anthropogenic or natural causes.
- ❖ Fecal coliform can be a result of livestock waste runoff, but it also can be from poorly functioning onsite sewage disposal systems.
- ❖ Conservation practices that can be used to address these water quality issues include grazing management, livestock waste 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	
ODEQ TMDL's ⁸		ODA Agricultural Water Quality Management Plans ⁹	
Name	Status	Name	Status
Upper South Fork Coquille River Coquille River	EPA Approved - 2001 EPA Approved - 1996	Coos-Coquille	Completed
OWEB Watershed Councils ¹⁰		Watershed Council Assessments ¹¹	
Coquille Watershed Association	Coquille River Assessment and Coquille Subbasin Working Atlas	NWPC Subbasin Plans & Assessments ¹⁸	
		Not Applicable	

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

Grass/Pasture/Hay

- Erosion (streambanks) and water quality (temperature) are concerns commonly because of a lack of riparian buffers.
- Insufficient forage and grazing management contributes to low-producing pastures.
- New, small-acreage landowners commonly do not have the level of management needed to maintain high-quality pastures.

Cranberries (Orchards/Vineyards/Berries)

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

Forest Land (Private, Non-industrial)

- The primary resource concern is the impact on fish and wildlife of erosion from concentrated flows on roads and landings.
- Conservation on private, non-industrial forestland 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 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	

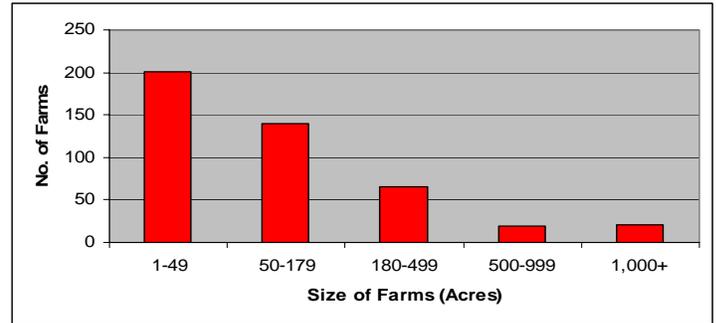
Census and Social Data ^{/14}

Number of Farms: 448

Number of Operators: 754

- Full-Time Operators: **261**
- Part-Time Operators: **493**

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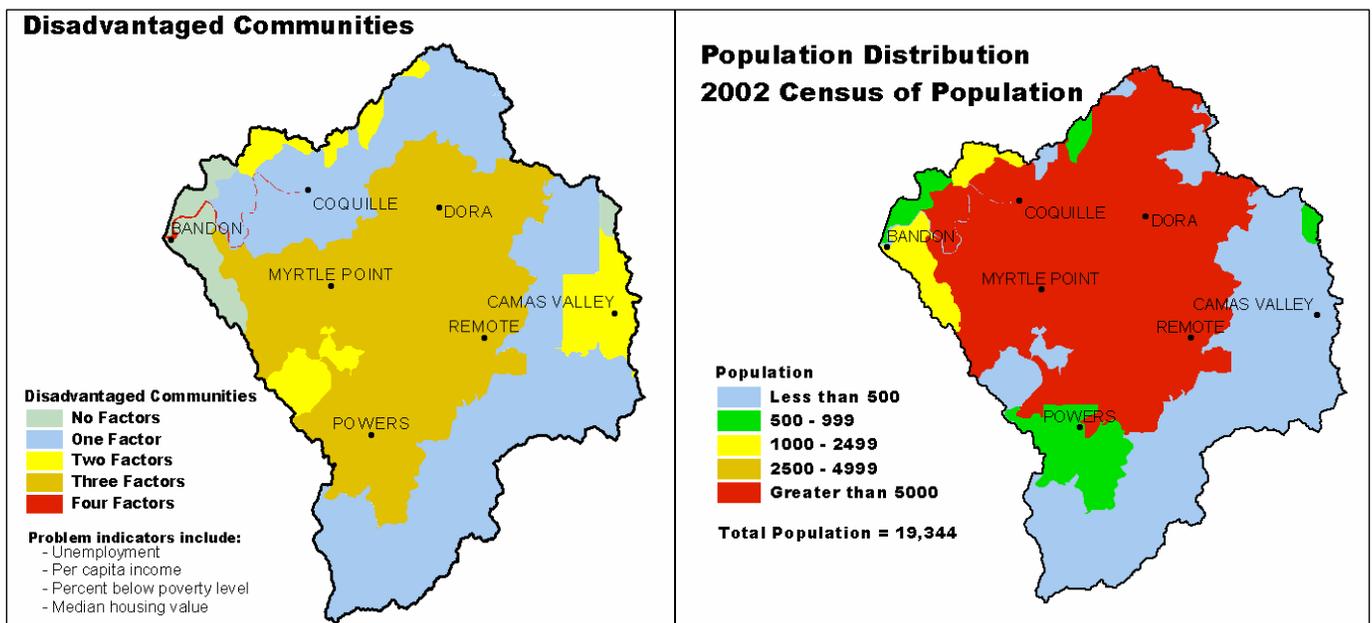
Estimated Level of Willingness and Ability to Participate in Conservation ^{/15}: Low to high, depending on the operators, their operations, the recommended conservation system, and the community

Evaluation of Social Capital ^{/16}: Low to moderate

There are significant differences in the ability and willingness of landowners and communities in the watershed to effectively address resource concerns through conservation. Much of the differences are due to past experiences, or the lack thereof, with resource planning, conservation systems, and government technical and financial assistance.

Individual conservation participation may be increased by tailoring NRCS assistance to meet the specific needs of the operator, increasing awareness of local resource problems, and providing timely technical assistance and adequate financial assistance. Moreover, NRCS may need to take the time to build trust by listening to the landowner about *their* concerns before trying to persuade them to adopt conservation practices for the common good.

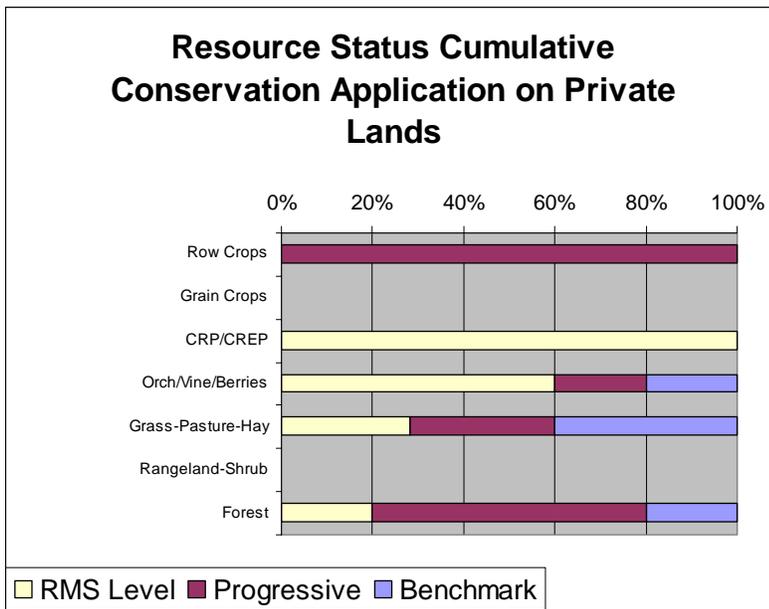
Communities may improve their ability to help farmers by developing mutually beneficial relationships with resource-oriented groups, organizations, and government agencies. Communities can help landowners by providing effective leadership and engaging the entire community in solving resource management problems.



Progress/Status

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PRMS Data	FY99	FY00	FY01	FY02	FY03	Avg/Year	Total
Total Conservation Systems Planned (Acres)	2,044	3,531	722	3,811	557	2,133	10,665
Total Conservation Systems Applied (Acres)	0	2,764	1,968	1,129	889	1,350	6,750
Conservation Treatment							
Waste Management (Number)	3	4	3	1	0	2	11
Riparian Forest Buffers (Acres)	0	160	28	8	107	55	277
Erosion Control (Acres)	0	0	33	0	0	7	33
Irrigation Water Management (Acres)	0	21	76	330	0	85	427
Nutrient Management (Acres)	0	2,406	2,172	425	319	1,064	5,322
Pest Management (Acres)	0	21	0	0	28	10	49
Prescribed Grazing (Acres)	0	2,320	2,584	1,332	314	1,310	6,550
Trees and Shrubs (Acres)	108	40	28	96	69	68	341
Conservation Tillage (Acres)	0	0	0	0	0	0	0
Wildlife Habitat (Acres)	0	16	269	1,064	1,144	499	2,493
Wetlands (Acres)	0	63	0	26	60	30	149



- ❖ Progress over the last five 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 low profit.
- ❖ High capital cost limits adoption of additional livestock waste management facilities on commercial dairies.
- ❖ High risk and low profitability limit additional conservation activities on small livestock farms.
- ❖ Private industrial forest landowners typically do not work with NRCS or 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.

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

Lands Removed from Production through Farm Bill Programs

- ❖ Conservation Reserve Program (CRP): **none**
- ❖ Wetland Restoration Program (WRP): **293 acres**
- ❖ Conservation Reserve Enhancement Program (CREP): **173 acres**

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
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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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.

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>.