## STATEWIDE PLANNING GOAL 5:

To protect natural resources and conserve scenic and historic areas and open spaces.

## **OVERVIEW**

Goal 5 is an extremely broad and complex goal. Almost all of the 15 required and recommended inventoried resources can be found within the county's borders: **Required Inventories** 

- Riparian Corridors, including water and riparian areas and fish habitat
- Wetlands
- Wildlife Habitat
- Federal Wild and Scenic Rivers
- Groundwater Resources
- Approved Oregon Recreation Trails
- Oregon Scenic Waterways
- Natural Areas
- Wilderness Areas
- Mineral and Aggregate Resources
- Energy Sources
- Cultural Areas

#### **Recommended Inventories**

- Historic Resources
- Open Space
- Scenic Views and Sites

Goal 5 requires inventories be developed for each resource to help protect and plan for development and conflicting uses. Inventoried resources are assessed to identify significant sites that warrant formal protection.

Protection of these diverse resources requires a variety of approaches. The role of land use planning in this protection involves a threefold approach:

- Collecting and maintaining data and other inventories of assets;
- Coordinating with local, regional, state and federal programs; and
- Administering local and state regulations that protect the sustainability and quality of the resources.

## HISTORICAL PERSPECTIVE

When Clatsop County first developed its Goal 5 plan, the community looked at the Goal 5 resources that occurred locally and were important to address. The County then reviewed land

## CLATSOP COUNTY GOAL 5:

To protect natural resources and conserve scenic and historic areas and open spaces.

uses allowed on or near each resource site that might have a negative impact on the resource. It then decided on a level of protection appropriate for each resource site and adopted codes to put its policies into effect. State rules for implementing Goal 5 have been adopted and amended over the years. As Clatsop County works through this update of its comprehensive plan and community plans, it has the opportunity to identify new resources and to adopt policies and codes that are consistent with the current state rules for Goal 5.

The "Goal 5 Process" starts with an inventory of Goal 5 resources. Resource sites are assessed and significant sites are protected. Rules for some Goal 5 resource categories rely on inventories and assessments that have been conducted by state or federal entities. There are four Goal 5 resource categories found in Clatsop County that rely on state or federal inventories:

- state scenic water ways
- ground water resources
- Oregon recreation trails
- wilderness areas

Three categories require local inventories:

- Historic resources
- Open space
- Scenic views and sites

In Clatsop County, the following resources have been inventoried:

# TABLE 1: CLATSOP COUNTY GOAL 5 RESOURCE INVENTORY

## **Riparian Corridors**

- -

No Riparian Corridors are included in the current Goal 5 inventory

Wetlands				
Resource Description	Location	Planning Area	<u>Comprehensive Plan Page</u> <u>Reference(s)</u>	<u>Notes</u>
Site 1 (CP 9)	Along the Skipanon River, south of Warrenton and SE of Hwy 101	Clatsop Plains	69-70	Size: 98 acres
Site 2 (CP 13)	Taylor Lake, north of Cullaby Lake	Clatsop Plains	69, 71	Size: 17 acres
Site 3 (CP 14)	Cullaby Lake	Clatsop Plains	69, 71	Size: 280 acres
Site 4 (CP 15)	Between Cullaby Lake and Hwy 101	Clatsop Plains	69, 72	Size: 230 acres
Site 5 (CP 16)	East of Hwy 101 from the south end of Dellmoor Loop Rd south to Palmberg Gravel Works	Clatsop Plains	69, 72	Size: 380 acres
Site 6 (CP 18)	Two small lakes and adjacent wetlands on Cullaby Creek, 4000 ft south of Cullaby Lake	Clatsop Plains	69, 73	Size: 160 acres
Site 7 (CP 19)	North of the road to the Crown site, up to the Palmberg Gravel Co. east of Hwy 101 and Seaside airport	Clatsop Plains	69, 73	Size: 130 acres
Site 8	Southeast of Seaside; south of the Millponds, east of Hwy 101	Clatsop Plains	69, 74	Size: 132 acres
Site 9 (EC 35)	Driscoll Slough marshes, between Wauna Mill and Westport	Northeast	69, 74	Size: 360 acres

## Fish and Wildlife Habitat

Resource Description	<u>Location</u>	<u>Planning Area</u>	<u>Comprehensive Plan Page</u> Reference(s)	<u>Notes</u>
Major Big Game Range	"That portion of the county which supports the majority of big game. In general, these lands are sparsely developed forest lands."	Multiple	22-30, 40	See map on page 40
Peripheral Big Game Range	"Foothill areas of the county, generally located between commercial forest lands and productive agricultural lands."	Multiple	22-30, 40	See map on page 40
Excluded Big Game Range	"Developed areas that are only occasionally used by big game."	Multiple	22-30, 40	See map on page 40
Upland Game Birds (grouse, mountain quail, band-tailed pigeons)	Generally corresponds with Major & Peripheral Big Game Range and includes riparian areas and mineral springs and other watering areas. See also: Sensitive Bird Habitat Overlay District (SBHO)	Multiple	31-33	
Waterfowl	Estuarine and coastal shoreland areas; water areas; riparian areas	Multiple	33-34	



Furbearers and Hunted Non-game Wildlife (aquatic species - beaver, muskrat, mink; terrestrial species - skunk, bobcat, coyote)	Aquatic furbearers: estuarine and coastal shoreland habitat; riparian areas; Terrestrial furbearers: areas considered Major and Peripheral Big Game Range.	Multiple	34	
Non-game Wildlife (eagles, hawks, osprey, herons)	Refer to SBHO and map on page 92	Multiple	34-49, 92	See map on page 92
Snowy Plover	Sparsely vegetated, active dune areas just inland from the high tide line; beach from Necanicum River north to Columbia River. See also: SBHO	Clatsop Plains	42	
Fish Habitat	All rivers and streams with a perennial flow; non-coastal shoreland lakes (including Big Creek Pond, Fishhawk Lake, Lost Lake, Lost Lake (yes there are two), Spruce Run Lake, Riverside Lake, Quartz Lake, Soapstone Lake, Carnahan Lake, and Cullaby Lake); riparian areas along rivers, streams, and lakes.	Multiple	43-47	
Federal Wild and Scenic Rivers				
No Federal Wild and Scenic Rivers are included in the Goal 5 inventory	_			
Groundwater Resources				
Resource Description	Location	Planning Area	Comprehensive Plan Page	<u>Notes</u>
Clatsop Plains Area		Clatsop Plains	<u>Reference(s)</u> 97	
* See also: Goal 6 - Air, Water, and Land Resources Quality				
Water Areas				
Resource Description	Location	Planning Area	Comprehensive Plan Page	<u>Notes</u>
See Wetlands, Watersheds, and Fish and Wildlife Habitat.			<u>Reference(s)</u>	
Watersheds				
Resource Description - Major Waterway(s)	Location	Planning Area	<u>Comprehensive Plan Page</u> <u>Reference(s)</u>	<u>Notes</u>
Plympton Creek / West Creek	-	Northeast	96	Size: 8,900 acres
Hunt Creek	-	Northeast	96	Size: 5,100 acres
	-	Northeast	96	Size: 24,700 acres
Blind Slough / Grizzly Slough				
Blind Slough / Grizzly Slough Big Creek / Little Creek / Fertile Valley Creek Mary's Creek / Bear Creek / Ferris Creek	-	Northeast Northeast	96 96	Size: 29,000 acres Size: 14,500 acres

John Day River	-	Northeast	96	Size: 4,400 acres
Youngs River / Klaskanine River / Walluski River	-	Lewis & Clark, Olney-	96	Size: 80,300 acres
		Wallooskee		
Lewis & Clark River	-	Lewis & Clark, Olney-	96	Size: 42,800 acres
Name and Arthurson Coople		Wallooskee	00	Ci 4 700
Neawanna Creek / Thompson Creek	-	Clatsop Plains, Seaside Rural	96	Size: 4,700 acres
Canyon Creek	-	Seaside Rural	96	Size: 2,100 acres
Necanicum River	-	Seaside Rural	96	Size: 30,300 acres
Nehalem River	-	Elsie-Jewell	96	Size: 213,200 acres
Elk Creek	-	Seaside Rural	96	Size: 15,200 acres
Arch Cape Creek / Asbury Creek / Shark Creek / Fall Creek / Red Ro	ck -	SW Coastal, Seaside Rural	96	Size: 7,100 acres
Creek				
Clatsop Plains (Skipanon River and Neacoxie Creek)	-	Clatsop Plains	96-97	Not listed
* See also: Goal 6 - Air, Water, and Land Resources Quality				
Oregon Recreation Trails				
Resource Description	<u>Location</u>	Planning Area	Comprehensive Plan Page	<u>Notes</u>
			<u>Reference(s)</u>	
Refer to Goal 8 Recreational Lands			85	
Wild and Scenic Waterways				
Resource Description	<u>Location</u>	Planning Area	Comprehensive Plan Page	<u>Notes</u>
Refer to Goal 8 Recreational Lands			<u>Reference(s)</u> 85	
<b>Ecologically and Scientifically Significant Natural Are</b>	eas			
Resource Description	<u>Location</u>	Planning Area	<u>Comprehensive Plan Page</u> <u>Reference(s)</u>	<u>Notes</u>
Bradwood Cliffs	T 8N, R 6W, Sections 9 and 16	Northeast	48-61	-
Walker Creek Old Growth Forest	T 6N, R 6W, Sections 7 and 18	Elsie-Jewell	48-61	<u>-</u>
Elsie County Park (aka Nehalem Park or Red Bluff Park)	T 5N, R 7W, Section 32	Elsie-Jewell	48-61	<u> </u>
David Douglas County Park	T 5N, R 8W, Section 21	Elsie-Jewell	48-61	
Onion Peak	T 4N, R 10W, Section 22-23	Seaside Rural	48-61	
Sugarloaf Mountain	T 4N, R 10W, Section 1	Seaside Rural	48-61	
Klootchy Creek Park	T 5N, R 10W, Section 14	Seaside Rural	48-61	
Saddle Mountain State Park	T 6N, R 8W, Sections 28, 29, 32, 33, 24	Seaside Rural	48-61	
Bradley State Park	T 8N, R 6W, Section 16	Northeast	48-61	-
Oswald West State Park	T4N, R 10W, Section 30-31	SW Coastal	48-61	-
			10.01	-

Wilderness Areas				
Resource Description	Location	Planning Area	<u>Comprehensive Plan Page</u> <u>Reference(s)</u>	<u>Notes</u>
Oregon Islands Wilderness	Tillamook Head Rocks; Bird Rocks; Sea Lion Rocks; Hayst Rock; Castle Rock; Jockey Cap; Tim Rock; Gull Rock; Unna Rocks located in Section 12, Township 5W, Range 10W		79	
Mineral and Aggregate Resources				
Resource Description	Location	Planning Area	<u>Comprehensive Plan Page</u> <u>Reference(s)</u>	<u>Notes</u>
Clatsop County - Clifton	T 8N, R 6W, Section 17	Northeast	15-19, 94	Rock
Clatsop County - Big Creek	T 8N, R 7W, Section 29	Northeast	15-19, 94	Gravel
Howard Johnson - US 101	T 5N, R 10W, Section 4	Clatsop Plains	15-19, 94	Rock
Bayview Transit Mix - US 101	T 5N, R 10W, Section 4	Clatsop Plains	15-19, 94	Basalt
George Ordway	T 5N, R 10W, Section 14	Seaside Rural	15-19, 94	Basalt
Teevin Bros. Logging	T 8N, R 6W, Section 27	Northeast	15-19, 94	Rock
Daren Berg, Humbug Rock	T 5N, R 8W, Section 18	Elsie-Jewell	15-19, 94	Rock
M. Nygaard Logging	T 7N, R 9W, Section 31	Lewis & Clark, Olney- Wallooskee	15-19, 94	Rock
A. Riekkola	T 7N, R 8W, Section 18	Lewis & Clark, Olney- Wallooskee	15-19, 94	Basalt
Tagg	T 7N, R 10W, Section 3	Clatsop Plains	15-19, 94	Sand
Horecny	T 5N, R 9W, Section 23	Seaside Rural	15-19, 94	Rock
Various "Other Sites" are also listed, but are not protec	ted from conflicting uses under Goal 5.	Multiple	15-19, 94	
Energy Sources				
Resource Description	Location	Planning Area	<u>Comprehensive Plan Page</u> <u>Reference(s)</u>	<u>Notes</u>
Refer to Goal 13 Energy Conservation				
Cultural Areas				
Resource Description	Location	Planning Area	Comprehensive Plan Page	Notes

Comprehensive Plan Page <u>Reference(s)</u>

Various archeological sites

"An inventory of 53 known archeological sites is maintained in confidential status at both the Clatsop County Planning Department and the State Historic Preservation Office. Because of the limited number of archeological surveys undertaken, there are undoubtedly other undiscovered archeological sites in Clatsop County."

#### Historic Areas, Sites, Structures and Objects

Resource Description	Location	<u>Planning Area</u>	Comprehensive Plan Page	<u>Notes</u>
			<u>Reference(s)</u>	
Fort Clatsop National Monument	T 7N, R 10W, Section 35	Lewis & Clark, Olney-	79-84, 93	_
		Wallooskee		
Cannon at Cannon Beach	East side of Hwy 101 between Cannon Beach and Arch Cape	SW Coastal	79-84, 93	-
Tillamook Rock Lighthouse	T 5N, R 11W, Section 1	Seaside Rural	79-84, 93	_
Ecola State Park	T 5N, R 10W, Sections 6, 7, 18	Seaside Rural, Clatsop Plains	79-84, 93	_
	T 5N, R 11W, Sections 1, 12			
	T 6N, R 10W, Sections 29, 30, 31, 32			
Lindgren House	T 7N, R 10W, Section 22	Clatsop Plains	79-84, 93	
R.W. Morrison House (aka Tagg Place)	T 7N, R 10W, Section 4	Clatsop Plains	79-84, 93	_
Clatsop Plains Memorial Church	T 7N, R 10W, Section 4	Clatsop Plains	79-84, 93	_
Clatsop Plains Cemetery	T 7N, R 10W, Section 4	Clatsop Plains	79-84, 93	-
The Mill Site of the Falls Pulp Company	T 7N, R 10W, Section 27	Lewis & Clark, Olney-	79-84, 93	_
		Wallooskee		
The Shepherd and Morse Sawmill Site	T 8N, R 6W, Section 36	Northeast	79-84, 93	_
Westport Log Tunnel	T 8N, R 6W, Section 36	Northeast	79-84, 93	_
Open Space				
Resource Description	Location	Planning Area	Comprehensive Plan Page	<u>Notes</u>
Conorol Open Space	Forest lands, agricultural lands, estuaring gross, Desific Ocean	A 11	<u>Reference(s)</u>	Forest and

General Open Space

Forest lands, agricultural lands, estuarine areas, Pacific Ocean All and adjacent beaches.

Parks, wildlife refuges, natural areas, specific scenic sites, and fresh water Countywide All wetlands

Areas provided in conjunction with a specific development, usuallyCountywideAllresidential.Image: CountywideImage: CountywideImage: Countywide

<u>orehensive Plan Page</u>	<u>Notes</u>
<u>ence(s)</u>	
8-9	Forest and agricultural land comprise 95% of the County's land area.
8-9	These categories are addressed in the corresponding section(s) of Goal 5 and Goal 8.
8-9	Subdivisions in the Clatsop Plains area

#### 84-85

Resource Description	Location	Planning Area	<u>Comprehensive Plan Page</u> Reference(s)	<u>Notes</u>
Box Canyon	T 6N, R 10W, Section 13 and	Lewis & Clark, Olney-	62-69	_
	T 6N, R 9W, Sections 18-19	Wallooskee and Seaside Rural		
Knappa Gorge at Big Creek	T 8N, R 7W, Sections 28, 29, 32, 33	Northeast	62-69	_
Gnat Creek Falls	T 7N, R 6W, Section 6	Northeast	62-69	_
Plympton Creek Falls	T 7N, R 6W, Sections 2 and 11	Northeast	62-69	_
Fall Creek Falls	T 4N, R 8W, Section 20	Seaside Rural	62-69	_
Youngs River Falls	T 7N, R 8W, Section 27	Lewis & Clark, Olney- Wallooskee	62-69	-
Nehalem River from Cronin to Gorge Creek	T 4N, R 8W	Elsie-Jewell	62-69	_
Lewis and Clark Rd above Thompson Falls	T 6N, R 10W, Section 14	Clatsop Plains	62-69	_
U.S. Hwy 101 Scenic Corridor	Cannon Beach Junction to Silver Point	Seaside Rural, SW Coastal	62-69	_
Westport - Scenic Conservancy, Hwy Corridor	T 8N, R 6W, Sections 35, 36	Northeast	62-69	_
Hwy 53 - Scenic Conservancy, Hwy Corridor	T4N, R 9W, Sections 20, 27	Seaside Rural	62-69	_
North Fork Nehalem River - Scenic Conservancy, River Corridor	T 4N, R 9W, Section 25 and T 4N, R 8W, Sections 19, 20	Seaside Rural	62-69	-

are required to have clustered lots in order to maintain open space values.

## **CURRENT CONDITIONS**

#### **RIPARIAN CORRIDORS**

As currently approved, Clatsop County Goal 5 has not inventoried any riparian corridors or adopted a "safe harbor" approach to riparian corridor protection. Oregon Administrative Rule (OAR) 660-023-0090 requires local governments to amend acknowledged plans as part of its periodic review process. Because the County is no longer subject to mandatory period review requirements, the County is likely out of compliance with this requirement-an inventory for this resource has not been developed.

Per OAR 660-23-0090(4), completion of a standard inventory would require the County, at a minimum, to collect information regarding "all water areas, fish habitat, riparian areas, and wetlands within riparian corridors." Sources that the County must consult include:

- Oregon Department of Forestry stream classification maps
- United States Geological Service (USGS) 7.5-minute quadrangle maps;
- National Wetlands Inventory maps
- Oregon Department of Fish and Wildlife (ODFW) maps indicating fish habitat
- Federal Emergency Management Agency (FEMA) flood maps
- Aerial photographs

If the County were to opt for the "safe harbor" approach, the same sources noted above would have to be consulted in order to identify fish-bearing lakes and streams. Once those lakes and streams were identified, the following setbacks would be required:

- Along all streams with average annual stream flow greater than 1,000 cubic feet per second (cfs): 75 feet upland from the top of each bank.
- Along all lakes, and fish-bearing streams with average annual stream flow less than 1,000 cfs: 50 feet from the top of bank.
- Where the riparian corridor includes all or portions of a significant wetland as set out in OAR 660-023-0100, the standard distance to the riparian corridor boundary shall be measured from, and include, the upland edge of the wetland.
- In areas where the top of each bank is not clearly defined, or where the predominant terrain consists of steep cliffs, local governments shall apply OAR 660-023-0030 rather than apply the safe harbor provisions of this section.

In discussions with the Board of Clatsop County Commissioners during public work sessions, the Commissioners have indicated that a standard inventory process would be preferred over the

"safe harbor" approach.

#### WETLANDS RESOURCES

Wetlands provide habitat for nursery salmonids; and they absorb and can hold carbon. Clatsop County supports the beneficial use of all water areas within the County, including:

- domestic water supply
- fishing
- industrial water supply
- boating
- irrigation
- water contact recreation
- livestock watering
- aesthetic quality
- fish and aquatic life
- hydropower
- wildlife and hunting
- commercial navigation and transportation
- non-use
- critical habitat for salmonids

OAR 660-023-0100 requires local governments to either adopt the Statewide Wetland Inventory (SWI) as part of its comprehensive plan or to utilize a current version of the SWI as a basis for notifying the Oregon Department of State Lands when development permits or other land use permits are submitted that may affect wetlands on the inventory. Local governments, whose boundaries include lands outside of Urban Growth Boundaries or Urban Unincorporated Communities are not required to amend their comprehensive plans in order to determine significant wetlands.

In 1983, Duncan Thomas prepared a report entitled *Significant Shoreland and Wetland Habitats in the Clatsop Plains*. This report identified 58 significant wetlands, primarily within the Clatsop Plains planning area. That initial report and list was further reviewed and subsequently the nine sites shown on Table 1 were included as inventoried resources. In 2020, Clatsop County contracted with the Columbia River Estuary Task Force (CREST) to update the 1983 wetlands inventory prepared by Duncan Thomas. It is recommended that the County continue to identify significant wetlands in order to better refine the regulations and standards required to protect those inventoried resources.

#### WILDLIFE HABITAT

Clatsop County is historically an area of rich, abundant rivers and forests. Fish and wildlife are among the county's major attributes. Two state agencies' missions include monitoring and protection of fish and wildlife areas and habitats:

• The Oregon Department of Forestry (ODF) administers the Forest Practices Act (FPA), which sets standards for all commercial activities involving the establishment,

management, or harvesting of trees on Oregon's forestlands. Key elements of the act are aimed at protection of water resources. Regulations require landowners to leave forested buffers and other vegetation along streams, wetlands, and lakes to protect water quality and fish and wildlife habitat. Timber harvesting, road building, and chemical use are restricted near streams, rivers, lakes, and wetlands. Wildlife protections, including timing of operation, leaving nesting habitat for birds, bats and other mammals, and modifying harvest activities to protect sensitive areas used by species identified as sensitive, threatened, or endangered.

 More substantially, the Oregon Department of Fish and Wildlife (ODFW) is covered in Chapter 635 of the Oregon Administrative Rules. Divisions under Chapter 635 are vast in scope and address topics that range from tax incentives, fishing seasons, hatchery management, harvest licensing and seasons, to enhancement programs, wildlife rehabilitation, conservation programs and wildlife management programs.

Per OAR 660-023-0110, "wildlife habitat" is defined as an area upon which wildlife depend in order to meet their requirements for food, water, shelter, and reproduction. Examples include wildlife migration corridors, big game winter range, and nesting and roosting sites. The county is also required to obtain current habitat inventory information from ODFW for the following:

- Threatened, endangered, and sensitive wildlife species habitat information;
- Sensitive bird site inventories; and
- Wildlife species of concern and/or habitats of concern identified and mapped by ODFW

The County is required to develop programs to protect wildlife habitat following the standard procedures and requirements of OAR 660-023-0040 and 660-023-0050 and to coordinate with appropriate state and federal agencies when adopting programs intended to protect threatened, endangered, or sensitive species habitat areas.

The current comprehensive plan lists the following fish and wildlife types as Goal 5 inventoried resources:

- **Major Big Game Range:** That portion of the county which supports the majority of big game. In general, these lands are sparsely developed forest lands.
- **Peripheral Big Game Range:** Foothill areas of the county, generally located between commercial forest lands and productive agricultural lands.
- Excluded Big Game Range: Developed areas that are only occasionally used by big game.
- Upland Game Birds (grouse, mountain quail, band-tailed pigeons): Generally, corresponds with Major & Peripheral Big Game Range and includes riparian areas and mineral springs and other watering areas. See also: Sensitive Bird Habitat Overlay District (SBHO).
- Waterfowl: Estuarine and coastal shoreland areas; water areas; riparian areas.
- Furbearers and Hunted Non-Game Wildlife (aquatic species beaver, muskrat, mink; terrestrial species skunk, bobcat, coyote): Aquatic furbearers: estuarine and coastal

shoreland habitat; riparian areas; Terrestrial furbearers: areas considered Major and Peripheral Big Game Range.

- None-game Wildlife (eagles, hawks, osprey, herons): Refer to SBHO and map.
- **Snowy Plover:** Sparsely vegetated, active dune areas just inland from the high tide line; beach from Necanicum River north to Columbia River. See also: SBHO.
- Fish Habitat: All rivers and streams with a perennial flow; non-coastal shoreland lakes (including Big Creek Pond, Fishhawk Lake, Lost Lake 1, Lost Lake 2, Spruce Run Lake, Riverside Lake, Quartz Lake, Soapstone Lake, Carnahan Lake, and Cullaby Lake); riparian areas along rivers, streams, and lakes.

#### **Threatened and Endangered Species**

The Federal Endangered Species Act (ESA) was passed in 1973. The ESA helps to stabilize populations of species at risk of extinction. A primary focus of the ESA is to conserve the habitats upon which threatened and endangered species depend. Additionally, land use planning in Clatsop County can be used to protect wildlife habitat and improve species populations.

The State of Oregon and the federal government maintain separate lists of Threatened and Endangered species. Under ORS 496.171-496.192, the Fish and Wildlife Commission, through the Oregon Department of Fish and Wildlife (ODFW), maintains a list of native wildlife species in Oregon that have been determined to be either "threatened" or "endangered. Per information from ODFW released in July 2021, the following Threatened, Endangered, and Candidate Fish and Wildlife Species have been identified in Oregon:

TABLE 2: THREATENED, ENDAGERED, AND CANDIDATE FISH AND WILDLIFE SPECIES						
Common Name	Scientific Name	State Status*	Federal Status			
FISH						
Bull Trout (range-wide)	Salvelinus confluentus		Т			
Columbia River Chum Salmon	Oncorhynchus keta		Т			
Green Sturgeon (Southern DPS)	Acipenser medirostris		Т			
Hutton Spring Tui Chub	Siphateles bicolor ssp	т	Т			
Lahontan Cutthroat Trout	Oncorhynchus clarki henshawi	т	Т			
Lost River Sucker	Deltistes luxatus	E	E			
Lower Columbia River Chinook Salmon	Oncorhynchus tshawytscha		Т			
Lower Columbia River Coho Salmon	Oncorhynchus kisutch	E	Т			
Lower Columbia River Steelhead	Oncorhynchus mykiss		Т			
Middle Columbia River Steelhead	Oncorhynchus mykiss		Т			

Oregon Coast Coho Salmon	Oncorhynchus kisutch		Т
Pacific Eulachon/Smelt (Southern DPS)	Thaleichthys pacificus		Т
Shortnose Sucker	Chasmistes brevirostris	E	E
Snake River Chinook Salmon (Fall)	Oncorhynchus tshawytscha	Т	Т
Snake River Chinook Salmon (Spring/Summer)	Oncorhynchus tshawytscha	Т	Т
Snake River Sockeye Salmon	Oncorhynchus nerka		E
Snake River Steelhead	Oncorhynchus mykiss		Т
Southern Oregon/Northern California Coast Coho Salmon	Oncorhynchus kisutch		Т
Upper Columbia River Spring Chinook Salmon	Oncorhynchus tshawytscha		E
Upper Columbia River Steelhead	Oncorhynchus mykiss		Т
Upper Willamette River Chinook Salmon	Oncorhynchus tshawytscha		Т
Upper Willamette River Steelhead	Oncorhynchus mykiss		Т
Warner Sucker	Catostomus warnerensis	т	Т
AMPHIBIANS AND REPTILES			
Green Sea Turtle	Chelonia mydas	E	Т
Leatherback Sea Turtle	Dermochelys coriacea	E	E
Loggerhead Sea Turtle	Caretta	Т	E
Olive Ridley Sea Turtle	Lepidochelys olivacea	Т	Т
Oregon Spotted Frog	Rana pretiosa		Т
BIRDS			
California Brown Pelican	Pelecanus occidentalis californicus	E	
California Least Tern	Sternula antillarum browni	E	E
Marbled Murrelet	Brachyramphus marmoratus	E	Т
Northern Spotted Owl	Strix occidentalis caurina	т	Т
Short-tailed Albatross	Phoebastria albatrus	E	E
Streaked Horned Lark	Eremophila alpestris strigata		Т
Western Snowy Plover	Charadrius nivosus nivosus	Т	T (Pacific Coast population DPS)

Yellow-billed Cuckoo (Western DPS)	Coccyzus americanus		Т
MAMMALS			
Blue Whale	Balaenoptera musculus	E	E
Canada Lynx	Lynx canadensis		Т
Columbian White-tailed Deer (Columbia River DPS)	Odocoileus virginianus leucurus		Т
Fin Whale	Balaenoptera physalus	E	E
Gray Whale	Eschrichtius robustus	E	
Humpback Whale	Megaptera novaeangliae	E	E
Killer Whale (Southern Resident DPS)	Orcinus orca		E
Kit Fox	Vulpes macrotis	Т	
North Pacific Right Whale	Eubalaena japonica	E	E
Red Tree Vole (North Oregon Coast DPS)	Arborimus longicaudus		С
Sea Otter	Enhydra lutris	т	Т
Sei Whale	Balaenoptera borealis	E	E
Sperm Whale	Physeter macrocephalus	E	E
Washington Ground Squirrel	Urocitellus washingtoni	E	
Wolverine	Gulo gulo	Т	

(T= Threatened, E= Endangered, C= Candidate, DPS= Distinct Population Segment)

\* Listed under the Oregon Endangered Species Act (ORS 496.171 through 496.192); Revised July, 2021

Listings of threatened or endangered invertebrates is overseen by the U.S. Fish and Wildlife Service and the Oregon Biodiversity Information Center (ORBIC), which is based at Portland State University. The list of rare, threatened and endangered species is updated every two to three years, with the last update released in July 2019. This report has inventoried the following invertebrate species in Clatsop County:

TABLE 3: THREATENED OR ENDANGERED INVERTEBRATES						
SCIENTIFIC NAME	COMMON NAME	S_RANK	ODFW_STRAT	HP_LIST		
Danaus plexippus pop. 1	Monarch - California overwintering population	S1S2B	Strategy species	1		
Margaritifera falcata	Western pearlshell (mussel)	S3		2		
Bombus fervidus	Yellow bumblebee	S3S4		3		
Anodonta oregonensis	Oregon floater (mussel)	S3?		2		
Bombus suckleyi	Suckley's cuckoo bumblebee	S1?		1		
Anodonta nuttalliana	Winged floater (mussel)	S2?	Strategy species	3		

Speyeria cybele pugetensis	Puget Sound fritillary	S3?	Strategy species	3
Megomphix hemphilli	Oregon megomphix (snail)	S3		4
Fluminicola virens	Olympia pebblesnail	S2		2
Bombus caliginosus	Obscure bumblebee	S2?		3
Tanypteryx hageni	Black petaltail	S3?	Strategy species	4
Pristiloma johnsoni	Broadwhorl tightcoil (snail)	S3		3
Lycaena mariposa junia	June's copper	S1?		2
Anodonta californiensis	California floater (mussel)	S2	Strategy species	3
Vorticifex neritoides	Nerite ramshorn (snail)	SH		1
Physella columbiana	Rotund physa (snail)	SH		1
Bembidion tigrinum	Cryptic beach carabid beetle	S4		3
Fluminicola fuscus	Columbia pebblesnail	S1		2
Speyeria zerene hippolyta	Oregon silverspot (butterfly)	S1	Strategy species	1
Polites sonora siris	Sonora skipper (butterfly)	S3?		3
Pristiloma pilsbryi	Crowned tightcoil (snail)	S1		1
Hemphillia glandulosa	Warty jumping-slug	S1?		3

The most widely used NatureServe rank in the United States are the State Ranks, which describe the rarity of a species within each state's boundary. These State Ranks begin with the letter "S". Global, National, and State ranks all use a 1-5 ranking system, summarized below:

1 = Critically imperiled because of extreme rarity or because it is somehow especially vulnerable to extinction or extirpation, typically with 5 or fewer occurrences.

2 = Imperiled because of rarity or because other factors demonstrably make it very vulnerable to extinction (extirpation), typically with 6-20 occurrences.

3 = Rare, uncommon or threatened, but not immediately imperiled, typically with 21-100 occurrences.

4 = Not rare and apparently secure, but with cause for long-term concern, usually with more than 100 occurrences.

5 = Demonstrably widespread, abundant, and secure.

H = Historical Occurrence, formerly part of the native biota with the implied expectation that it may be rediscovered.

X = Presumed extirpated or extinct.

U = Unknown rank.

? = Not yet ranked or assigned rank is uncertain.

The Native Plant Conservation Program, operated by the Oregon Department of Agriculture, oversees the conservation and management of Oregon's listed plant species. Statewide, there are 59 protected plants. In Clatsop County, the following plant species have been listed:

TABLE 4: PROTECTED PLANTS				
ENDANGERED		THREATENED		
Scientific Name	Common Name	Scientific Name		
Abronia umbellate	Nelson's checkermallow	Sidalcea Nelsoniana		
	GERED Scientific Name	GERED THREATE Scientific Name Common Name		

\*Source: Oregon Department of Agriculture, August 27, 2016

Under federal law, the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) share responsibility for implementing the federal Endangered Species Act of 1973, with USFWS overseeing terrestrial and freshwater species and NOAA having responsibility for marine and anadromous species.

#### Clatsop Plains Elk Project

In April 2019, Governor Kate Brown designated the Clatsop Plains Elk Collaborative as an Oregon Solutions Project. The Governor designated Warrenton Mayor Henry Balensifer and Seaside Mayor Jay Barber as co-conveners of the project and Oregon Solutions formed a project team of 26 members consisting of key stakeholders, private landowners, state agency staff, local community and government leaders, academics, Governor's Regional Solutions staff, and area non-profit representatives to focus on the goals of reducing conflict between elk-human interactions, increasing safety, and promoting cohabitation between elk and people in the Clatsop Plains area.

A kick-off meeting with the entire project team was held on May 28, 2019. At that meeting, the team drafted the following purpose statement in order to form the scope of the project:

The community in and around the greater Clatsop Plains study area seeks to reduce elk-human related conflicts. We have expressed a sense of urgency and willingness to work collaboratively to identify management solutions and implementation strategies. The purpose of this collaborative is to find viable ways to improve public safety and reduce property damage through outreach and education and a community-wide approach to reducing urban elk interactions while maintaining healthy and viable herds as a valuable cultural and natural resource.

The project team organized its work through four different sub-committees:

- Elk Management
- Human Behavior Management
- Land Use
- Data

A steering committee oversaw the general work of the sub-committees and full project team.

The work of these four sub-committees culminated in a Declaration of Cooperation, which was signed by Clatsop County on September 1, 2021. By signing the Declaration, the County committed to undertaking the following actions:

- Pass a "no feeding" ordinance for unincorporated areas west of Highway 101
- Assist in the guidance and education of residents and tourists regarding elk safety, landscaping, and best practices for pets; support the development of content, printed materials, and community outreach.
- Conduct community outreach and education to assist residents when making elk fencing options
- Identify land to be maintained in an undeveloped state for the purpose of creating wildlife corridors, open space requirements for subdivisions, and other practices that will decrease pressure on elk habitat. Build necessary partnerships for support and implementation.

- Review subdivision ordinances, develop educational campaigns, and work with private property owners to build support for requiring minimum open space requirements and regulations that provide adequate elk habitat and forage within and between adjacent developments.
- Integrate land use issues regarding the Clatsop Plains Elk Collaborative into the Clatsop County Comprehensive Plan update process. Use the Clatsop Plains Elk Collaborative Declaration of Cooperation as consideration and guidance for zoning code discussions (open space requirements, locations, designs) and density transfer discussions.
- Develop and implement an informal process of coordinating with and notifying developers and private landowners of the presence of elk in areas they may be converting from a more natural state to residential or commercial use. An informal process might include:
  - Ensuring that developers and land owners are aware of wildlife buffers and other land use recommendations from the Clatsop Plains Elk Collaborative
  - Providing an additional disclaimer on over-the-counter building permits to advise applicants of the possible presence of elk
  - Providing mapping of wildlife areas in conjunction with notifications
  - Working with real estate agents to build support for notifying potential buyers of the presence of wildlife where they are buying a home or setting up a business
- Provide ODFW with copies of all public notices for conditional use permits, even in areas not officially designated as Big Game Habitat
- Assist in education and outreach, in coordination with Warrenton and Gearhart, to inform the public and local officials on the relationship between land use planning and wildlife interactions
- House and administer GIS data for the Clatsop Plains Elk Collaborative map
- Review the County's density transfer program and adjust as needed to disperse density transfers throughout appropriate areas of unincorporated Clatsop County
- Support requests for culling permits made by cities within the Clatsop Plains area that would be conducted on unincorporated land outside of city limits when the elk are understood to be biologically attached to the city making the request. This does not require a formal resolution.
- Consider passing a formal resolution for a culling permit from ODFW when requests are made by private entities for elk on unincorporated land that are not biologically attached to a city.

### **GROUNDWATER RESOURCES**

OAR 660-023-0140 defines "Groundwater" as "any water, except capillary moisture, beneath the land surface or beneath the bed of any stream, lake, reservoir, or other body of surface water." While Statewide Planning Goal 5 specifically calls out groundwater resources as a required inventory, policies related to or affecting groundwater resources are found in several goals throughout the comprehensive plan, as well as in the individual community plans for each planning area. In addition to the inventoried wetlands and fish and wildlife habitats included in

Goal 5, 15 distinct groundwater resources are also listed as inventoried groundwater resources on Table 1.

In Oregon, the Department of Environmental Quality (DEQ) has the primary responsibility for groundwater protection. DEQ, in coordination with the Oregon Department of Human Services Drinking Water Program, the Oregon Water Resources Department, and the Oregon Department of Agriculture implement the majority of federal and state programs related to groundwater. Per information from the Oregon Water Resources Department there are four observation wells currently located at Camp Rilea.

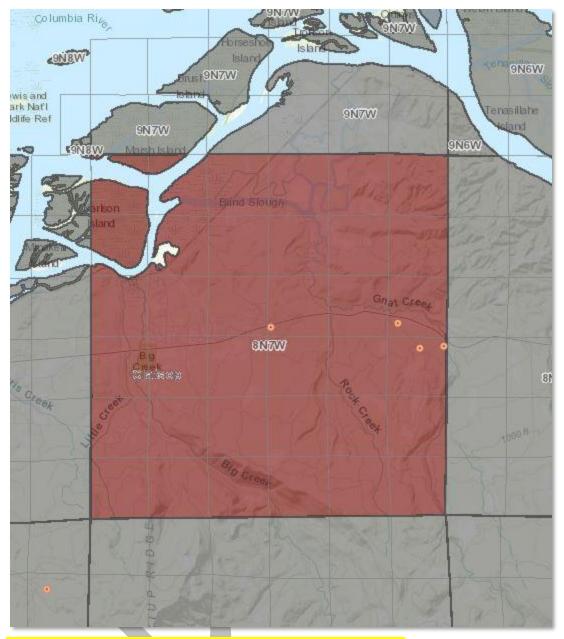


Current observation wells at Camp Rilea. Source: Oregon Water Resources Department

The Oregon Water Resources Department has identified a portion of the Clatsop Plains planning area where limited groundwater yield has been noted as a groundwater resource concern. The area around Big Creek and Gnat Creek has been identified as an area of significant concern.



Area of limited groundwater yield. Source: Oregon Water Resources Department



Area of significant concern. Source: Oregon Water Resources Department

#### Groundwater and Drinking Water

While some drinking water districts obtain their supply from groundwater sources, surface water also plays a significant role as a drinking water resource. Clatsop County is developing a mapping layer on the GIS WebMaps tool to identify drinking water district watershed boundaries. Table 5, below is a list of 32 active public water systems in Clatsop County. These systems draw on both ground and surface water for the supply. Per information from the Oregon Health Authority (OHA), which inventories these systems, these active systems are susceptible to contamination from chemicals, road run-off, and illegal dumping.

TABLE 5: ACTIVE DRINKING WATER SYSTEMS, CLATSOP COUNTY							
PWS ID	PWS Name	Regulating Agency	System Type	Owner Type	Connections	Population Served	Primary Source
OR4100802	ARCH CAPE WATER DISTRICT	State - Reg 1	С	Local Government	293	150	SW
OR4100055	ASTORIA, CITY OF	State - Reg 1	С	Local Government	4,076	9,802	SW
OR4100054	BURNSIDE WATER ASSOCIATION	County	С	Private	112	315	SWP
OR4194481	CAMP 18	County	NC	Private	5	69	GW
OR4195443	CAMP RILEA	County	NTNC	State Government	75	136	GW
OR4100164	CANNON BEACH, CITY OF	State - Reg 1	С	Local Government	1,781	1,710	GW
OR4100044	CANNON VIEW PARK INC	County	NC	Private	50	75	GW
OR4100804	ELDERBERRY NEHALEM WS	County	С	Private	60	140	GW
OR4100805	EVERGREEN ACRES	County	С	Private	47	100	GW
OR4100059	FERNHILL COMMUNITY WTR SYSTEM	County	С	Private	91	300	SWP
OR4100318	GEARHART WATER DEPARTMENT	County	С	Local Government	1,400	1,465	SWP
OR4190416	GEORGIA PACIFIC CO LLC WAUNA	State - Reg 1	NTNC	Private	1	700	SW
OR4194157	HAMLET QUICK-STOP	State - Reg 1	NC	Private	1	30	SW
OR4190531	JEWELL SCHOOL DISTRICT #8	State - Reg 1	NTNC	Local Government	10	200	GU
OR4100060	JOHN DAY WATER DISTRICT	County	С	Private	101	350	SWP
OR4100061	KNAPPA WATER ASSOCIATION	County	С	Private	574	1,800	GW
OR4195297	ODF NORTHRUP CREEK HORSE CAMP HP	County	NC	State Government	1	55	GW
OR4190762	ODF SPRUCE RUN PARK HP	County	NC	State Government	1	40	GW
OR4191097	ODOT HD SUNSET SPRINGS RA	County	NC	State Government	3	500	GW
OR4100057	OLNEY-WALLUSKI WATER ASSN	County	С	Private	233	530	SWP
OR4190413	ONEYS RESTAURANT/LOUNGE	County	NC	Private	6	60	GW
OR4191007	OPRD BRADLEY STATE WAYSIDE	County	NC	State Government	2	383	GW
OR4100799	SEASIDE WATER DEPARTMENT	State - Reg 1	C	Local Government	3,500	6,400	SW
OR4100800	STANLEY ACRES WATER ASSN	County	С	Private	112	315	SWP
OR4100933	SUNSET LAKE RV PARK	County	С	Private	100	170	GW
OR4100932	WARRENTON, CITY OF	State - Reg 1	С	Local Government	3,539	9,100	SW
OR4100951	WAUNA WATER DISTRICT	County	С	Local Government	68	188	GW
OR4100195	WESTPORT HEIGHTS	County	C	Private	40	90	GW
OR4100950	WESTPORT WATER ASSOCIATION	County	c	Private	165	550	GWP
OR4100063	WICKIUP WATER DISTRICT	State - Reg 1	С	Private	636	1,590	SW
OR4100058	WILLOW DALE WATER DISTRICT	County	С	Local Government	125	300	SWP
OR4100062	YOUNGS RIVER LEWIS & CLARK WD	State - Reg 1	С	Local Government	1,004	2,530	SW

Source: Oregon Health Authority, Drinking Water Data Online, October 19, 2021

System Classification:

**C** = **Community Water System**: A water system that has 15 or more service connections used by year-round residents, or that regularly supplies drinking water to 25 or more year-round residents. Examples are cities, towns, subdivisions, and mobile home parks.

**NTNC = Non-Transient Non-Community Water System**: A water system that supplies water to 25 or more of the same people at least six months per year in places other than their residences. Examples include schools, hospitals, and work places.

**NC or TNC = Transient Non-Community Water System**: A water system that provides water to 25 or more persons in a place where people do not remain for long periods of time, such as a restaurant or campground.

**NP = Non-EPA (State Regulated) Water System ("Non-Public")**: A water system that provides water to small residential communities between 4 and 14 connections, or serves from 10 to 24 persons a day at least 60 days a year, or is licensed by the Health Division or delegate county health department but is not a Transient Water System.

W = Wholesale System: A water system that produces finished water and delivers all of that finished water to one or more public water systems.

#### Agency:

Who has primary responsibility to provide oversight and help to the water system

**S** = Oregon Health Authority

**A** = Department of Agriculture

**C** = Local county health department

#### Source Type/Primary Source:

**GW** = Groundwater (wells, springs).

**SW** = Surface water (e.g., rivers, lakes, creeks).

**GU** = Groundwater under direct influence of surface water (GWUDI). GWUDI refers to groundwater sources located close enough to nearby surface water to receive direct surface water recharge.

**GWP** = Purchases water from another water system that uses ground water only.

**SWP** = Purchases water from another water system that uses surface water or surface water and ground water mixed.

**GUP** = Purchases water from another water system that uses GWUDI or GWUDI and ground water mixed.



Arch Cape and Falcon Cove Beach Water Districts Source – Clatsop County GIS

Surface Water Districts: Water is provided directly from runoff in rivers and creeks. There is a higher potential for surface water to come in contact with pollutants than naturallyfiltered ground water. It is generally used by public or larger private/community water districts who have the ability to process and treat the water to meet water quality standards. These districts include the Arch Cape Water District, the Youngs **River/Lewis and Clark Water** District, and the City of Astoria Water District.

**Ground Water Districts:** Water is supplied from aquifers and wells. In Clatsop County, it is generally smaller districts and individual landowners who provide this type of water access. These districts include the Wauna Water District, the Sunset Lake RV Park, and the Knappa Water Association. The Oregon Health Authority also oversees several smaller community water districts such as the one at Elderberry.

Individual and Small Group Systems: In addition to residents and businesses served by water districts, many households outside those districts are served by individual or small group water systems.

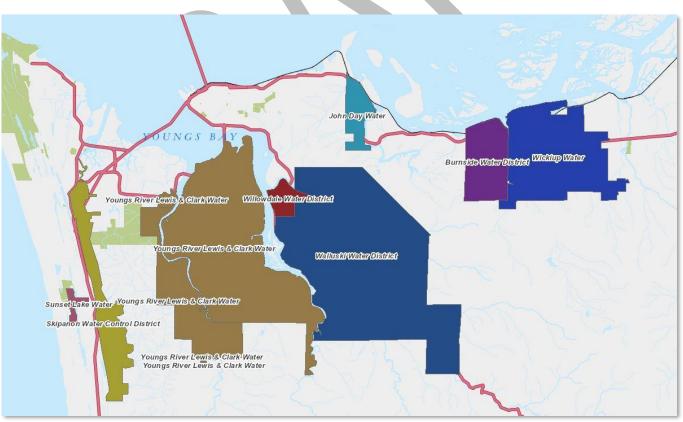
These systems are vulnerable to drought, climate change, and contamination. These vulnerabilities may be accentuated by a lack of testing, impacts from activities on adjacent properties, and lack of expertise to maintain the systems.

During the citizen advisory committee meetings on ground water resources, many committee members addressed the issue of groundwater and surface water pollution and the cumulative impacts of existing and new development. Another common concern raised during these meetings related to the impacts of wildfire and climate change on groundwater resources and aquifer recharge areas. The Clatsop Plains CAC also noted the need to protect both the quantity and the quality of the Clatsop Plains Aquifer.

Many of those same concerns were reiterated during the development of the 2020 Strategic Plan. Members of the Environmental Quality Focus Area Group prepared several recommendations related to water quantity and quality that the county will be implementing beginning in Fiscal Year 2021/22.



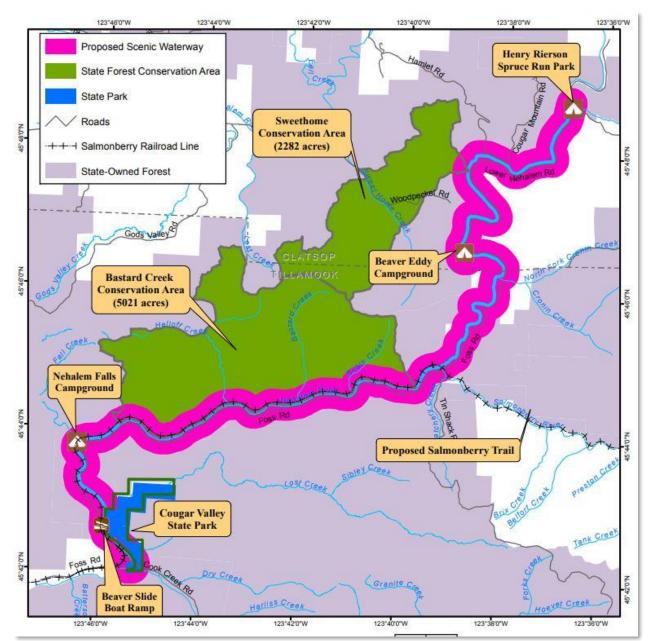
Wauna Water District: Source – Clatsop County GIS



North County Water Districts: Source – Clatsop County GIS

#### STATE SCENIC WATERWAYS

OAR 660-023-0130 requires local governments to amend acknowledged plans and land use regulations to address any Oregon Scenic Waterway (OSW) and associated corridor that is not addressed by the plan. A 17.5-mile section of the Nehalem River was designated as a State Scenic Waterway in June 2019. Approximately ¼ of this section is located in Clatsop County, while the rest is in Tillamook County.



Source: Oregon Forest Conservation Coalition

Per OAR 660-023-0130(4), the County must either adopt a Goal 5 program for this segment of

the Nehalem River by conducting an Economic, Social, Environmental and Energy (ESEE) analysis to identify consequences that could result from a decision to allow, limit, or prohibit a conflicting use on or adjacent to this resource. Alternatively, the County may adopt a "safe harbor" approach, which would require the County to adopt implementing ordinances necessary to carry out the Nehalem River Scenic Waterway Management Plan that has been approved by the Oregon Parks and Recreation Commission. The Oregon Parks and Recreation Department (OPRD) is currently working with a Rules Advisory Committee to finalize riverspecific rules for the designated section.

#### FEDERAL WILD AND SCENIC RIVERS

Local governments are required to amend acknowledged comprehensive plans and land use regulations to address any federal Wild and Scenic River (WSR) and associated corridor established by the federal government that is not addressed by the acknowledged plan. While WSRs are required to be designated as significant Goal 5 resources, they are not subject to the full Goal 5 inventory process, economic-social-environmental-energy consequences analysis (ESEE), or development of implementing ordinances.

There currently are no designated or pending WSRs within Clatsop County.

### **OREGON RECREATIONAL TRAILS**

Pursuant to OAR 660-023-0150, "recreation trail" means an Oregon Recreation Trail designated by rule adopted by the Oregon Parks and Recreation Commission (OPRC). Recreation trails are designated by OPRC in cooperation with local governments and private land owners. Local governments are not required to inventory recreation trails under OAR 660-023-0030. Instead, local governments are required to designate all recreation trails designated by OPRC as significant Goal 5 resources. At each jurisdiction's comprehensive plan is updated, the local government must amend its plan to recognize any recreation trails designated by OPRC subsequent to acknowledgment or a previous periodic review.

Designated trails in Clatsop County include the Saddle Mountain Trail and the Oregon Coast Trail.

#### NATURAL AREAS

The Oregon Natural Areas Program was established by the 1979 Legislature in the Natural Heritage Act (ORS 273.561-.591 [SB 448]), to help protect natural areas in Oregon. The law was based on a tradition of natural area inventory and conservation. Updated, expanded and revised numerous times, more recent review of the now "Oregon Natural Heritage Act and Natural Heritage Program" affirmed that natural areas continue to provide important places for

public education and baseline research and that it remains important for Oregon to maintain a natural areas program.

For Goal 5 purposes, "natural areas" are those sites that are listed in the Oregon State Register of Natural Heritage Resources (OAR 660-023-0160). At the time of adoption of Goal 5 in 1979/1980, several Clatsop County sites were to be added to the Oregon Islands Wilderness. The new sites are mentioned, but not shown as listed in the goal. Also, other sites may have been included in the interim. The comprehensive plan update will verify that all the sites in the federal listing are included in the County's Goal 5 list of resources. Sites currently listed in the Oregon State Register of Natural Heritage Resources, but not yet included in the County's comprehensive plan, include:

- Blind Slough Swamp Preserve
- Knappa Slough Island
- Saddle Mountain
- Humbug Mountain

The county is home to a large number of natural areas that might be appropriate for future listing on the Natural Heritage Resource Register. It is important to note that listing is voluntary and areas can be delisted at the owner's request. An example of potential candidate sites is Onion Peak, which is already included among the eight sites in Oregon listed as a Dedicated Natural Heritage Conservation Area.

#### WILDERNESS AREAS

Per OAR 660-023-0170, wilderness areas are designated by the federal government, under the National Wilderness Preservation System, signed into law by President Lyndon Johnson in 1964. Oregon was among the first states to gain wilderness area under the act.

In Clatsop County, one Wilderness Area is designated: The Oregon Islands Wilderness, managed by the US Fish and Wildlife Service, which runs the length of the Oregon Coast. In Clatsop County, this includes:

- Tillamook Head Rocks
- Bird Rocks
- Sea Lion Rocks
- Haystack Rock
- and Castle Rock

Unnamed Rocks located in T5N, R10W, Section 12, Jockey Cap, Tim Rock and Gull Rock were to be added at the time the Comprehensive Plan was being adopted.

Local governments are not required to inventory wilderness areas, but they are required to list all federally designated wilderness areas as significant Goal 5 resources.

#### MINERAL AND AGGREGATE RESOURCES

Clatsop County is home to significant natural resources. While natural resources are most often associated with the county's forests, the Pacific Ocean, and the Columbia River, as well as all the streams, wetlands and wildlife habitat, Clatsop County currently is home to 13 active mines and quarries that also are Goal 5 resources. This is in addition to five active county rock pits, but does not include an unknown number of rock pits on forest lands used for roads covered by the Forest Practices Act. These quarries and mines produce aggregate, crushed rock, basalt and sand, materials that are used extensively in road building, road maintenance, and other construction activities.

As originally drafted and approved in 1980, Goal 5 is 626 pages in length. Despite the diversity of natural resources within Clatsop County, the majority of Goal 5 is dedicated to mineral and aggregate resources. This would appear to be indicative of the economic importance of mining activities at the time this goal was written. However, much of the material related to mineral and aggregate resources includes copies of staff reports and ordinances that rezone specific parcels for mining uses. The inventoried Goal 5 mineral and aggregate resources include:

- Clatsop County Clifton
- Clatsop County Big Creek
- Howard Johnson US 101
- Bayview Transit Mix US 101
- George Ordway
- Teevin Bros. Logging
- Daren Berg, Humbug Rock
- M. Nygaard Logging
- A. Riekkola
- Tagg
- Horecny

OAR 660-016-0030 states that when planning for and regulating the development of aggregate resources, local governments are required to complete the following three items:

- 1. Address the requirements of ORS 517.750 to 517.900 and OAR chapter 632, divisions 1 and 30.
- 2. Coordinate with the State Department of Geology and Mineral Industries (DOGAMI) to ensure that requirements for the reclamation of surface mines are incorporated into programs to achieve the Goal developed in accordance with OAR 660-016-0010.
- 3. Establish procedures designed to ensure that comprehensive plan provisions, land use regulations, and land use permits necessary to authorize mineral and aggregate development are coordinated with DOGAMI.

When this rule was instituted, the county had until January 1, 1993, to update its comprehensive plan and land use regulations to address these three items. Those items have been included in the acknowledged comprehensive plan and implementing ordinances.

Four state agencies regulate the development and operation of aggregate mining and processing projects in Oregon. The role that each play depends on the scale, design, and associated impacts.

The primary agencies and their specialty areas are:

- <u>Oregon Department of Environmental Quality</u> air quality, stormwater runoff, and wastewater. (DEQ noise standards apply. However, if no DEQ permit is required, the local government addresses noise violations.)
- <u>Oregon Department of Geology and Mineral Industries</u> site reclamation and mine safety standards.
- <u>Oregon Department of State Lands</u> earth removal and fill permits for activities conducted in wetlands, waterways, and other state lands.
- <u>Oregon Water Resources Department</u> water rights for consumptive use of water for processing.

In Clatsop County, mineral and aggregate sites are typically protected by being designed as "Conservation Other Resources" on the comprehensive plan map and being zoned QM – Quarry and Mining; or by being placed in the Quarry and Mining Overlay. During the work of the citizen advisory committees it was noted that many quarry and mining sites are either not zoned QM or have not been placed in the overlay.

Per OAR 660-023-0180(2), local governments are not required to amended acknowledged inventories or plans except in response to an application to amend the plan or during periodic review. Because the County is no longer subject to mandatory periodic review, and because no applications have been submitted to amend the acknowledged plan, the County is not required to amend its acknowledged inventories as part of this process. However, in order to ensure that the plan remains accurate and current it is recommended that the list of acknowledged mineral and aggregate resources be reviewed within five years of the adoption of this plan.

#### **ENERGY SOURCES**

OAR 660-023-0190 defines "energy source" as including naturally occurring locations, accumulations, or deposits of one or more of the following resources used for the generation of energy:

- Natural gas
- Surface water (i.e., dam sites)
- Geothermal
- Solar
- Wind

Energy sources applied for or approved through the Oregon Energy Facility Siting Council (EFSC) or the Federal Energy Regulatory Commission (FERC) shall also be deemed significant energy sources for purposes of Goal 5. Per information on the Oregon Department of Energy website,

there are no EFSC or FERC facilities within Clatsop County at this time.

The current comprehensive plan defers all discussion of energy sources to Goal 13.

#### **CULTURAL AREAS**

The State Historic Preservation Office (SHPO) houses a statewide GIS database of more than 30,000 known archaeological sites in Oregon. According to SHPO, 90 of these known archaeological sites are located within Clatsop County. In order to discourage looting or vandalism, the locations of these sites are not published. An inventory of known archaeological sites in maintained by SHPO.

Discussions during the citizen advisory committee meetings emphasized the need to more fully acknowledge the first peoples that populated Clatsop County and the subsequent ethnic and racial minority groups, such as Chinese immigrants.

#### **HISTORIC RESOURCES**

While historic resources, which are often closely related to cultural areas, are not a required inventory under Goal 5, Clatsop County choose to conduct an inventory when the comprehensive plan was originally adopted. Clatsop County has a long and diverse history and the current inventory includes the following sites:

- Fort Clatsop National Monument
- Cannon at Cannon Beach
- Tillamook Rock Lighthouse
- Ecola State Park
- Lindgren House
- R. W. Morrison Houses (aka Tagg Place)
- Clatsop Plains Memorial Church
- Clatsop Plains Cemetery
- The Mill Site of the Falls Pulp Company
- The Shepherd and Morse Sawmill Site
- Westport Log Tunnel

The citizen advisory committees identified a need to work more closely with local Native American tribes when identifying and protecting known historic resources. Local Native American tribes include both federally-recognized and unrecognized tribes. On June 23, 2021, the Board of Clatsop County Commissioners approved a resolution in support of tribal recognition for the Chinook Indian Nation. The citizen advisory committees also recognized the need to update terminology to reflect the diversity of native persons (i.e., change the term "Indian" to "Native American". Representatives from the Chinook Indian Nation also identified areas within Goal 5 where references to and information about traditional activities of native persons could be incorporated.

The citizen advisory committees also encouraged the County to obtain public input and explore the possibility of becoming a Certified Local Government (CLG). Becoming a CLG would require the County to adopt a local historic preservation ordinance and create a historic preservation committee. However, local input would determine the extent of the regulations included in the ordinance, as there is not a "one-size-fits-all" guide to local preservation activities. Additionally, becoming a CLG would open up funding opportunities for the County with regard to historic preservation activities, including educational programs and restoration projects.

#### **OPEN SPACE**

Per OAR 660-023-0220, "open space" includes parks, forests, wildlife preserves, nature reservations or sanctuaries, and public or private golf courses. Local governments are encouraged, but not required to identify open space resources in acknowledged comprehensive plans. If local governments decide to establish or amend open space inventories, the Goal 5 inventory process outlined in OAR 660-023-0030 through 660-023-0050 applies. Local governments may also adopt a list of significant open space resource sites as part of an open space acquisition program. Such sites do not require the full Goal 5 inventory process unless land use regulations are adopted to protect sites prior to acquisition.

Open space is inclusive of land used for agriculture or forest uses and any land area that would, if preserved and continued in its present use:

- a) Conserve and enhance natural or scenic resources;
- b) Protect air or streams or water supply;
- c) Promote conservation of soils, wetlands, beaches or tidal marshes;
- d) Conserve landscaped areas such as public or private golf courses, that reduce air pollution and enhance the value of abutting or neighboring property;
- e) Enhance the value to the public or abutting or neighboring parks, forests, wildlife preserves, nature reservations or sanctuaries or other open space;
- f) Promote orderly urban development.

The following three categories of open space resources have been identified within Clatsop County, along with potentially-conflicting uses and methods for protection from conflicting uses:

- General Open Space (farm and forest land, estuarine areas, the Pacific Ocean and beaches):
  - <u>Conflicting uses</u>: intensive rural residential, commercial, and industrial development; filling and draining estuarine areas.
  - <u>Protections</u>: Farm and forest zones with large minimum lot sizes and limited land uses; locational criteria for residential, commercial and industrial uses; natural and conservation zoning for estuarine areas; the ocean and beaches are regulated by the State of Oregon.
- **Site-Specific Resources** (parks, wildlife refuges, natural areas, specific scenic sites, and fresh water wetlands)

- <u>Conflicting uses and protections</u>: The Open Space element refers to other elements of Goal 5 and Goal 8 which specifically address these resources.
- Open Spaces Provided in Conjunction with a Specific Development
  - <u>Conflicting uses</u>: development, generally.
  - <u>Protections</u>: policies that encourage cluster development and the retention of open space in residential developments; subdivisions in the Clatsop Plains subarea are required to have clustered lots in order to maintain open space values.

Specific open space resources are included in the inventory on Table 1.

#### SCENIC VIEWS AND SITES

Pursuant to OAR 660-02300230, "scenic views and sites" are lands that are valued for their aesthetic appearance. Local governments are not required to amend acknowledged comprehensive plans in order to identify scenic views and sites. If local governments decide to provide or amend inventories of scenic resources, the requirements of OAR 660-023-0030 through 660-023-0050 apply (Goal 5 inventory process; ESEE analysis; development of implementing ordinances).

The Clatsop Comprehensive Plan currently includes an inventory of 12 scenic views and sites. The Comprehensive Plan Citizen Advisory Committees have suggested the following additions to the Goal 5 inventory of scenic views and sites:

- 1. Clatsop Plains
- 2. Lee Wooden / Fishhawk Falls County Park
- 3. Jewell Meadows
- 4. Nehalem / Red Bluff Park
- 5. Elsie Cemetery
- 6. Twilight Eagle Sanctuary
- 7. Svensen Island
- 8. Bradley Hill
- 9. Knappa Docks
- 10. Remainder of U.S. Highway 101 corridor within Clatsop County
- 11. Ecola State Park
- 12. Oswald West State Park
- 13. Fort Stevens State Park
- 14. Arcadia State Recreation Area
- 15. Hug Point State Recreation Area

## **FUTURE CONDITIONS**

#### Climate Change

In February 2020 the Oregon Climate Change Research Institute published a report entitled

*Future Climate Projects Clatsop County.* This reported was prepared for the Oregon Department of Land Conservation and Development in conjunction with grant assistance to Clatsop County to prepare an update to its Natural Hazard Mitigation Plan. The county-specific future climate projections were derived from 10-20 global climate models and two scenarios of future global greenhouse gas emissions – early 21<sup>st</sup> Century (2010-2039) and mid-21<sup>st</sup> century (2040-2069).

While the State has not yet mandated policies or actions that local governments must undertake to mitigate or adapt to climate change, it is probable that such requirements will be codified within the 20-year planning horizon. In 2021, the Oregon Department of Land Conservation and Development released its *Oregon Climate Change Adaptation Framework 2021,* which details actionable adaptation strategies and approaches based on six themes:

- Economy
- Natural World
- Built Environment and Infrastructure
- Public Health
- Cultural Heritage
- Social Relationships and Systems

Clatsop County should continue to monitor discussions at the state level and adapt policies and requirements to address specific climate change-related concerns and issues within the county.

As part of this comprehensive plan update process, a sub-committee of the Countywide Citizen Advisory Committee utilized strategies from the *Regional Framework for Climate Adaptation Clatsop and Tillamook Counties* to develop recommended policies specific to Clatsop County.

#### FEMA Biological Opinion (BiOp)

The <u>National Flood Insurance Program</u> (NFIP) provides flood insurance for homeowners and property owners. The NFIP is administered by the Federal Emergency Management Agency (FEMA). FEMA sets standards for local governments participating in the NFIP, including requirements for local floodplain development ordinances. The Department of Land Conservation and Development (DLCD) is designated as Oregon's NFIP coordinating agency and assists local governments with implementation of the federal standards.

Because the NFIP has a direct effect on development that occurs in areas adjacent to local streams, rivers, and waterbodies, it is important for the NFIP to consider its effects on endangered species. Marine and anadromous species are protected by the Endangered Species Act (ESA) which is administered by the National Marine Fisheries Service (NMFS), a branch of the National Oceanic Atmospheric Administration (NOAA). This branch is also known as NOAA-Fisheries. The ESA provides for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The ESA requires federal agencies to ensure that actions they authorize, fund, or carry out do not jeopardize the continued existence of any ESA listed species.

For several years, the NMFS and FEMA have been discussing measures that could be used to reduce negative impacts from the National Flood Insurance Program (NFIP) on salmon, steelhead and other species listed as threatened under the Endangered Species Act (ESA). In April 2016, NMFS delivered a jeopardy Biological Opinion (BiOp) to FEMA, stating that parts of the NFIP could have a negative impact on the habitat of endangered salmon species.

Local governments, including Clatsop County, that participate in the NFIP will likely need to change their review process for floodplain development permits. FEMA will use its legal authorities under the National Flood Insurance Act to respond to the findings and recommendations in the BiOp. FEMA Region 10 will work with Clatsop County and other affected communities to determine best ways to implement the interim measures described in the Reasonable and Prudent Alternatives (RPA). FEMA headquarters will review the entire biological opinion to determine best ways to address the full range of recommendations in the RPA.

In October 2021, FEMA released a draft of the Oregon Implementation Plan for NFIP-ESA Integration. Ultimately, NFIP communities in the 31 Oregon counties with ESA listed salmonids will need to increase habitat protections. Development that degrades floodplain functions includes: clearing of native riparian vegetation; increases in impervious surface; displacement or reduction of flood storage via fill or structures; interruption of habitat forming process; and increases of pollutant loading in receiving water bodies. Any new protective measures included in the final implementation plan will have significant impacts for property owners within unincorporated Clatsop County.

#### Demand for Housing

In 2019, Clatsop County and the cities of Astoria, Warrenton, Gearhart, Seaside and Cannon Beach, completed a housing study to identify opportunities and weaknesses associated with housing supply in Clatsop County. That report concluded that while the County has a surplus of potentially buildable lands, certain types of housing and housing products at specific pricepoints are either missing from the county's housing inventory, or are not provided in sufficient quantities.

In March 2020, the coronavirus pandemic resulted in changes worldwide that have significantly altered housing markets, including in Clatsop County. Some people choose to leave more densely populated areas and relocate to more rural areas. Others benefited from remote work options, which no longer tied workers to a specific geographic location. As a result, the median selling price of a home in Clatsop County rose from \$322,500 in November 2018 to \$502,500 in September 2021 (Source: Realtor.com). While some of these home sales will be to households that become permanent Clatsop County residents, many will be vacation homes and some of those will be used for short-term rentals.

The increase in median housing prices, coupled with a lack of long-term rental units, will result in increased pressure to increase housing stock by constructing new residential units. While Goal 14 stresses that higher intensity uses and dense development be directed to urban areas,

there is, and will continue to be, a movement to increasing housing development on rural lands. Encroaching residential development has the potential to impact inventoried Goal 5 resources, including wildlife habitat, groundwater, and open spaces.

#### Transportation Congestion

As the demand for housing increases there is also a corresponding increase in the need to provide new roads to those homes. Again, while Goal 14 directs new housing development primarily to urban areas, partitioning and subdividing of rural lands continues to occur in unincorporated Clatsop County. The construction of new roads, or the expansion of existing roads, has the potential to eliminate or reduce wildlife habitat.

#### <mark>Tourism</mark>

Clatsop County has historically had a strong tourism base. Per information from Travel Oregon, in 2019 local recreationists and visitors spent \$785 million on outdoor recreation in Clatsop County. Many of those visitors are drawn by Goal 5 resources, including scenic views and sites, open spaces, and wildlife. As visitation increases there is the potential for conflicting uses and unintended consequences which may threaten inventoried Goal 5 resources.

## **OBJECTIVES AND POLICIES**

### CLIMATE CHANGE

## OBJECTIVE 1: Clatsop County shall work to protect watersheds, surface waters, aquifers and drinking water supplies from the impacts of climate change.

- **Policy A:** The County shall promote water conservation and reduced use to avoid unnecessary waste and consumption.
- **Policy B:** The County shall encourage the use of natural processes and functions to mitigate projected changes in climate.
- **Policy C:** The County shall review the need for increased riparian protection on public lands.
- **Policy D:** Clatsop County shall encourage state agencies and property owners to develop a framework to protect cold water streams that will serve as thermal refugia.
- **Policy E:** The County shall develop incentives for projects that explicitly increase riparian and floodplain connectivity.

Policy F: The County will include the future planning concerns of the infrastructure districts, including water, sanitary sewer, and fire districts, in looking at future development. Such review will include the number of homes supplied.

### **RIPARIAN CORRIDORS**

<b>OBJECTIVE 1</b> :	Preserve riparian areas to provide for productive ecological function.
Policy A:	The County shall explore creating comprehensive and continuous riparian area protections across all land uses.
Policy B:	The County shall restore riparian structure and function to degraded streamside areas on county-owned properties whenever possible.
Policy C:	The County shall identify and develop standards to protect Goal 5 riparian areas.
Policy D:	The County shall identify problem areas on county-owned lands and restore riparian buffers whenever possible.
Policy E:	The County should continue to work with the Columbia River Estuary Study Taskforce (CREST) to identify significant riparian areas within Clatsop County.
Policy F:	The County should use the Goal 5 Administrative Rule to conduct an ESEE analysis to determine which riparian corridors should be included in the County's Goal 5 resource inventory.
Policy G:	The County should work with property owners, community members, elected and appointed officials to determine the level of regulation necessary to protect any riparian corridors identified as a Goal 5 resource.
Policy H:	The County shall encourage the protection of riparian corridors, recognizing that they support fish and wildlife habitat and the health of the communities.

#### WETLANDS

GOAL 1: The County will protect significant freshwater wetlands as identified in the Statewide Wetland Inventory. Oregon's wetlands and their ecosystems are a highly diverse resource that reflects the physical and biological variability of the state. Streamside wetlands in the Coast Range provide food and shelter to threatened juvenile salmon and trout.

- Identify significant wetlands
- Identify conflicting uses
- Arrive at net wetlands
- **Policy A:** The County will protect identified significant freshwater wetlands, for which no conflicting uses have been identified, from incompatible uses.
- **Policy B:** The following requirements shall apply to Wetland Site 7 (which also contains white-tail deer habitat).
  - All industrial development shall be located north of the railroad right-ofway. The area between the railroad right-of-way and U.S. Highway 30 shall be designated for protection of its wetland characteristics.
  - 2. Development of land adjacent to Driscoll Slough shall be carried out in a way that will minimize the alteration of riparian vegetation, degradation of water quality and stream sedimentation. Proposed development will be evaluated against the Department of Fish and Wildlife's management objectives of maintaining vegetative cover, particularly riparian vegetation, and the maintenance of corridors that provide for deer movement between habitat areas. Piling is preferred to filling for any access corridor across Driscoll Slough.
  - Industrial development on the eastern portion of the site shall be designed to minimize or avoid the removal of riparian vegetation along Westport Slough. Riparian vegetation removal shall be permitted where direct access to the water is required.
  - 4. Filling of the site shall not be permitted until a specific development proposal has been reviewed and approved by the County.
- **Policy C:** The County shall encourage protection and restoration of wetlands and floodplains to improve watershed functions and soil water retention.
- **Policy D:** The County shall review the work of the ad hoc wetlands advisory committee and establish buffer areas around ecologically significant areas as recommended by that committee.
- **Policy E:** Identify newly emergent wetlands. Utilize the Goal 5 Administrative Rule and ESEE process to determine which sites should be included in wetlands resource inventory or utilized for potential wetland mitigation.
- **Policy F:** Continue to work with the Columbia River Estuary Study Taskforce (CREST) to identify wetlands within Clatsop County.

- **Policy G:** Use the Goal 5 Administrative Rule to conduct an ESEE analysis to determine if any additional wetlands should be included in the County's Goal 5 resource inventory.
- **Policy H:** Work with property owners, elected and appointed officials to determine the level of regulation necessary to protect any wetlands identified as a Goal 5 resource.
- **Policy I:** Encourage the protection of freshwater wetlands, recognizing that they support fish and wildlife habitat and the health of the communities.
- **Policy J:** The County should work with CREST to develop educational materials to inform property owners about the importance of wetlands and to encourage maintenance and preservation of wetlands wherever possible.
- **Policy K:** Develop a notification system to advise sellers and buyers of the possibility of wetlands when properties are transferred.
- **Policy L:** Digitize wetland delineations approved by the Oregon Department of State Land in order to reflect ground-truthed conditions on WebMaps.
- **Policy M:** The County shall work with DSL to refine procedures and policies to facilitate development on properties in Clatsop County that contain potential wetlands.
- **Policy N:** Devise a mechanism to be able to relocate zoning lines based on ground-truthed evidence, such as delineations.
- Policy O: The County shall explore adopting the Arch Cape Cove Beach Local Wetland Inventory and going through the appropriate Goal 5 process (ESEE or safe harbor).

# WILDLIFE HABITAT

- GOAL 1: Clatsop County recognizes the importance of riparian vegetation in protecting fish and wildlife habitat resources. Vegetated riparian areas are vital to water quality function including the following:
  - 1. Providing shade to maintain or reduce stream temperatures to meet state water quality standards
  - 2. Supporting wildlife in the stream corridors
  - 3. Minimizing erosion and nutrient loading into water

- 4. Maintaining natural hydrology
- 5. Stabilizing slopes to prevent landslides that contribute to sedimentation of water.

Clatsop County strongly encourages the protection of riparian vegetation to the greatest extent feasible from the impacts of development consistent with the best available ecological science.

- **Policy A:** To ensure that future development does not unduly conflict with Major Big Game Range, the County shall:
  - require that review uses and conditional uses in the F-80 and AF zones be allowed only if they are found to be consistent with the maintenance of big game range;
  - 2. require that review uses and conditional uses in the F-80 and AF zones be subject to clustering and siting criteria;
  - submit proposed review use and conditional use applications to the Oregon Department of Fish and Wildlife for their comments on consistency with Major Big Game habitat and recommendations on appropriate siting criteria to minimize any conflicts; and
  - 4. submit all proposed comprehensive plan and zone changes of land zoned F-80, and AF to a more intensive use zone to the Oregon Department of Fish and Wildlife for a determination of possible conflicts with big game habitat requirements. If the Department identifies conflicts, the County will consider recommendations for resolving these conflicts.
- **Policy B:** To ensure that future development does not unduly conflict with Peripheral Big Game Range, the County shall:
  - require that review use and conditional uses in the F-80 and AF zones be allowed only if they are found to be consistent with the maintenance of big game range;
  - 2. require that review of conditional uses in the F-80 and AF zones be subject to clustering and siting criteria;
  - 3. submit proposed review use and conditional use applications to the Oregon Department of Fish and Wildlife for their comments on consistency with Peripheral Big Game Range and recommendations on appropriate siting criteria to minimize any conflict; and
  - 4. submit all proposed comprehensive plan and zone changes of land zoned F-80 and AF to the Oregon department of Fish and Wildlife for a determination of possible conflicts with big game habitat requirements. If the Department identifies conflicts, the County will consider recommendations for resolving

these conflicts.

- Policy C: The County shall rely on strict enforcement of support and promote enforcement of current riparian vegetation and stream protection standards in the Oregon Forest Practices Act to protect riparian vegetation along Class I-Type F streams and lakes, and Class II Type N streams affecting Class I Type F streams. The county shall seek changes to the Forest Practices Act when necessary to better protect riparian vegetation and water quality, from potential adverse effects of forest practices.
- **Policy D:** Existing riparian vegetation along streams and lakes not subject to the Forest Practices Act should be maintained to the greatest extent feasible to provide fisheries and wildlife habitat, minimize erosion and scouring, retard water velocities and suppress water temperatures. To protect riparian vegetation along streams and lakes not covered by the Forest Practices Act, the County shall implement buffers as required by OAR 629-635-0310, and shall require a minimum setback for non-water dependent uses of 35 feet or as determined by best available ecological practices. The County shall amend buffer requirements as the best available science is updated or when Forest Practices Act-required buffers are amended.
- **Policy E:** The County shall rely on the State Department of Water Resources to ensure that minimum stream flow standards required for the maintenance of fish habitat are developed and implemented.
- **Policy F:** Building permit applications, where a stream is proposed as the water source, shall be accompanied by a water right permit.
- **Policy G:** The County shall rely on the Division of State Lands' permit process, under the Fill and Removal Law, to ensure that proposed stream alterations such as bridges, channelization, or filling do not adversely affect the stream's integrity or its value as fish and wildlife habitat.
- **Policy H:** New developments shall not restrict existing public access to rivers, streams, or lakes. New developments of more than three residential units are may be required encouraged to provide additional public access to rivers, streams and lakes where such access is consistent with the area's environmental characteristics.
- Policy I: The County shall submit all proposals with a potential for impact on identified Columbian White-tail deer habitat (e.g. subdivision, dredge material disposal, industrial development, and land clearing of more than 3,000 square feet) to the Oregon Department of Fish and Wildlife and the U.S. Fish & Wildlife for their determination of conflicts. If either agency identifies conflicts and makes recommendations for resolving these conflicts, the County shall implement those recommendations to the maximum extent feasible, consistent with other land use planning requirements. If in the future subpopulation of the Columbia White-tailed deer are located which are not within identified essential habitat, the County will consider recommendations for protection of these areas to the extent feasible consistent with other land use planning requirements including but not limited to

the Goal 5 Administrative Rule.

- **Policy J:** The County will establish a procedure for protecting nesting sites of sensitive, threatened, and endangered species from incompatible uses and activities.
- **Policy K:** Clatsop county follows the Forest Practices Act and encourages supplemental agreements between the Board of Forestry and the Fish and Wildlife Commission to further protect wildlife habitat.
- **Policy L:** The County, in coordination with property owners and state agencies, shall explore the use of mechanisms to protect large, contiguous areas that currently have high-quality habitats for fish and wildlife.
- **Policy M:** The County shall explore developing incentives for protects that enhance connectivity between existing high-quality habitats or habitats that could be feasibly enhanced and connected.
- **Policy N:** The County shall identify areas of county-owned lands that contain connected, less-fragmented habitats suitable for long-term protection.
- **Policy O:** The County shall identify areas of county-owned lands that may be small, fragmented, or isolated, but which may still be suitable for long-term habitat preservation.
- **Policy P:** The County shall add language to Goal 5 that would allow projects for restoration and enhancement of fish and wildlife habitat to be added as permitted and conditional uses in all zones.
- **Policy Q:** Revise stream and riparian setback language to align with the Oregon Forest Practice Act (FPA) as defined in OAR 629-635-0310.
- **Policy R:** Require cluster developments to provide more open space. Identify and protect wildlife migration corridors that are usable and provide forage and water.
- **Policy S:** Coordinate the culling of elk with local Native American tribes.
- **Policy T:** Coordinate with other signing jurisdictions and agencies to implement the requirements of the Declaration of Cooperation regarding the Oregon Solutions Clatsop Plains Elk Project.

#### FEDERAL WILD AND SCENIC RIVERS

**Policy A:** If any federal Wild and Scenic Rivers are designated within Clatsop County, the designated area(s) shall be added to the Comprehensive Plan Goal 5 resource inventory; and corresponding land use policies shall be added to the Land and Water Development and Use Code as appropriate.

# STATE SCENIC WATERWAYS

- **Policy A:** The OSW-designated section of the Nehalem River shall be included in the Comprehensive Plan Goal 5 resource inventory and corresponding land use policies shall be added to the Land and Water Development and Use Code as appropriate.
- **Policy B:** If any Oregon Scenic Waterways are designated within Clatsop County, the designated area(s) shall be added to the Comprehensive Plan Goal 5 resource inventory; and corresponding land use policies shall be added to the Land and Water Development and Use Code as appropriate.

#### **GROUNDWATER RESOURCES**

- **Policy A:** The County will cooperate and coordinate with State and Federal Agencies in assuring the beneficial use of all water areas in the County.
- **Policy B:** The County will coordinate its actions with water quality planning and implementation activities carried out by such state agencies as the Department of Environmental Quality, the Soil and Water Conservation Commission, the Department of Forestry, the Department of Water Resources, the Oregon Health Authority, CREST, watershed associations, and local entities with policy-relevant expertise.
- **Policy C:** Where municipalities or water districts have identified possible conflicts between forest management practices and the maintenance of the integrity of their watershed, the County encourages these to work with the forest land owners to voluntarily change practices, to address issues and to work with Northwest Region Forest Practices Committee in the development of amendments to the Oregon Forest Practices Act that will provide protection of state licensed water supply systems. The county shall support these municipalities or water districts in seeking amendments to the Oregon Forest Practices and protection of state licensed water supply systems.
- **Policy D:** Clatsop County shall apply Goal 5 Administrative Rules to watersheds identified by the County and to the small or minor watersheds identified in this element.
- **Policy E:** Clatsop County shall identify and map all watersheds, including small local watersheds essential for drinking water supply.
- **Policy F:** Clatsop County shall work with watershed associations to promote management practices that enhance water retention in watersheds.

- **Policy G:** The County shall replace county-maintained culverts that are inadequate to pass anticipated peak stream flows.
- **Policy H:** Whenever possible, the County shall, on county-owned land, re-meander and reconnect streams.
- **Policy I:** The County shall encourage the restoration of floodplains and upper watershed functions to maximize natural soil water retention.
- **Policy J:** In partnership with private landowners and state and federal agencies, Clatsop County will monitor impacts to groundwater resources caused by climate change, and will develop strategies to mitigate those impacts.
- **Policy K:** The County shall establish an education and outreach program to raise awareness of the value and fragility of groundwater resources and the role of the Clatsop Plains aquifer in water regeneration, supply and quality.
- Policy L: In partnership with private landowners and state and federal agencies, monitor the cumulative impacts of pollution on groundwater and surface water. Ensure that inappropriate development (EX: home occupation automobile repair) is directed to appropriate commercial and industrial districts.
- **Policy M**: The County shall ask the State Water Resources Department to study the watershed area of the Nehalem River. Upon completion of the study, the County will cooperate with the State to review the findings.
- **Policy N:** Encourage the use of bioswales and open space to reduce or mitigate impacts from heat islands and road run-off.
- **Policy O:** Encourage appropriate state agencies to monitor impacts on drinking water from windblown pollution and toxins from outside Clatsop County.
- **Policy P:** Provide letters of support or other assistance to watershed councils that are applying for grants to update water assessment documents.
- **Policy Q:** Coordinate with state and federal agencies to monitor impacts from potential sea level change, including the potential for salt water intrusion into coastal aquifers.
- **Policy R:** Encourage new construction be fitted with water saving devices or new construction has to have water tanks and/or rainwater catchment systems.
- Policy S: Encourage the use of native vegetation and landscaping that reduces the need to use chemical fertilizers and irrigation. Encourage the use of reclaimed gray water for irrigation purposes.

- **Policy T:** The County should explore different options to roadside spraying to limit levels of toxins that may enter the surface and groundwater systems.
- Policy U: Consider developing a voluntary acquisition program to acquire lands around drinking water sources/supplies.

## **OREGON RECREATION TRAILS**

- **Policy A:** The Oregon Coast Trail and Saddle Mountain Trail shall be added to the Comprehensive Plan Goal 5 resource inventory and corresponding land use policies shall be added to the Land and Water Development and Use Code as appropriate.
- **Policy B:** If any Oregon Recreation Trails are designated within Clatsop County, the designated trail(s) shall be added to the Comprehensive Plan Goal 5 resource inventory; and corresponding land use policies shall be added to the Land and Water Development and Use Code as appropriate.
- **Policy C:** Clatsop County shall cooperate with public and private property owners and the Oregon Parks and Recreation Commission to support the designation of new Oregon Recreation Trails in Clatsop County.

#### NATURAL AREAS

- **Policy A:** Significant natural and scientific areas and scenic sites should be set aside for preservation and managed so as to protect the unique characteristics of the area.
- **Policy B:** The County will cooperate with appropriate State and Federal agencies and private groups to ensure that examples of the full range of Clatsop County's natural ecosystem are preserved for future study and enjoyment.
- **Policy C:** The County shall proactively coordinate with private property owners and shall Encourage private property owners to enter into conservation easements to preserve natural areas. the county shall Facilitate opportunities for property owners to voluntarily enter into conservation easements, or other instruments, to preserve natural areas.
- **Policy D:** The Natural designation for Sugar Loaf Mountain shall not affect the continued operating and maintenance of the radio transmitter facility located there.
- Policy E: Street vacations shall be based on facts and evidence to establish that the right-of-way at issue no longer has any public benefit or public use potential. Improve public involvement during proposed vacations to consider alternative public uses other than vehicular circulation (e.g. emergency

evacuation routes, greenbelts, trails, etc.).

- **Policy F**: Continue to identify other sites for possible voluntary listing as a Goal 5 inventoried natural area resource.
- **Policy G:** Identify natural areas not previously addressed in periodic reviews and inventory significant areas for future consideration as areas listed in the Oregon State Register of Natural Heritage Resources should the property owners wish to participate.
- **Policy H**: Devise a mechanism to be able to relocate zoning lines based on ground-truthed evidence, such as delineations.

# WILDERNESS AREAS

- **Policy A:** Clatsop County shall work with federal agencies in the protection of federal wilderness areas.
- **Policy B:** Require subdivisions to be clustered countywide in order to provide increased open space, preserve views and protect wildlife habitat to the maximum extent possible.
- **Policy C:** Encourage the development of a voluntary open space acquisition program and identify potential on-going funding sources.
- **Policy D:** Verify that all Clatsop County sites in the Oregon Islands Wilderness Area are listed as Goal 5 resources in Clatsop County's Comprehensive Plan as required by OAR 660-023-0160.
- **Policy F:** Continue to identify other sites for possible voluntary listing as a Goal 5 inventoried natural area resource.
- **Policy G:** Consider developing a voluntary acquisition program to acquire lands around drinking water sources/supplies.

# MINERAL AND AGGREGATE RESOURCES

# GOAL 1: To protect and ensure appropriate use of mineral and aggregate resources of the county, while minimizing any adverse effects of mining and processing upon surrounding land uses.

- Policy A: The county shall protect significant mineral and aggregate resources consistent with Statewide Planning Goal 5 and the process for complying with the Goal specified in Oregon Administrative Rules Chapter 660, Division 16.
- **Policy B:** In making a decision whether to protect a significant mineral or aggregate

site from conflicting uses, the county shall recognize that Goal 5 requires the protection of natural resources for future generations, and that the requirements of other applicable Statewide Planning Goals must be considered in any analysis of conflicting uses.

- **Policy C:** The county shall maintain an inventory of mineral and aggregate resources sites. The comprehensive plan inventory shall consist of three parts:
  - a. An inventory of "significant sites" identified through the Goal 5 process as important resources that will be protected from conflicting uses;
  - An inventory of "potential sites" for which sufficient information concerning the location, quality, and quantity of a resource site is not adequate so as to allow the county to make a determination of significance;
  - c. An inventory of "other sites" for which available information demonstrates that the site is not a significant resource to be protected.
- **Policy D:** The location of a mineral or aggregate resource shall be identified as the site of a recoverable source of materials. A resource site may consist of all or portions of a parcel, and may comprise contiguous parcels in different ownerships. Identification of a resource site need not include mineral and aggregate reserves that are irrevocably committed to other land uses which are incompatible with surface mining.
- **Policy E:** For an aggregate site to be determined significant, the resource must meet Oregon Department of Transportation specifications for concrete aggregate rock. It is the county's policy to protect the highest quality rock for future use.
- **Policy F:** For an aggregate site to be determined significant, the site must possess a minimum of 250K cubic yards of mineable reserves. It is the policy of the county to protect a variety of large reserves in order to serve the regional market.
- **Policy G:** The significance of non-aggregate mineral resources shall be judged on a case by case basis, taking into account information concerning the commercial or industrial use of the resource, as well as the relative quality and relative abundance of the resource within at least the county.
- **Policy H:** Because material source sites owned or controlled by municipal, county or state government agencies have been acquired for the purpose of maintaining the public road system, and collectively form a network of great importance, the county shall deem such sites presumptively significant. Such

sites shall be analyzed along with other significant sites to establish the appropriate level of protection from conflicting uses.

- **Policy I:** For each site determined to be significant, the county shall complete the remainder of the Goal 5 process of identifying conflicting uses, analyzing the ESEE consequences of the conflicting use(s), and designating a level of protection from conflicting uses. If the final decision concerning the site is to fully preserve or partially protect the resource form conflicting sues, the site shall be zoned with the Mineral and Aggregate Resources Overlay.
- **Policy J:** When analyzing the ESEE consequences of potential conflicts between a significant mineral or aggregate resource and another significant Goal 5 resource, the county shall consider the protection program adopted for the conflicting resource. Conflicts with other natural resources shall not be the basis for mining restrictions unless the county has included the conflicting resource on the inventory of significant Goal 5 resources, and adopted a resource protection program.
- Policy K: The county may consider the effects of surface mining operations on public roads and traffic. Consideration may include review of proposed routes, site distances at access points, roadway width and alignment, and level of service. The county may impose conditions or restrictions directly related to the impact created by surface mining; however, any conditions or restrictions shall not be approval criteria, and shall be applied uniformly to all road users in a manner consistent with the county's transportation plan.
- Policy L: In order to approve surface mining at a site zoned for exclusive farm or forestry use, the county shall find, as part of the ESEE analysis, that the proposed activity will not: 1) force a significant change in, or significantly increase the cost of, accepted farming or forestry practices on surrounding lands, and 2) will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel.
- Policy M: The county shall not independently apply the Mineral and Aggregate Resources Overlay to land within another county, or within a city or its urban growth boundary. The county shall seek to ensure protection of significant sites where the impact area surrounding the resource extends across jurisdictional boundaries through cooperative agreements with another county or a city.
- Policy N: The county shall require increased setbacks, insulation, screening, or similar measures as conditions of approval for any new conflicting use within an impact area surrounding a mineral or aggregate resource site when such

measures are deemed necessary to resolve conflicts identified in a sitespecific Goal 5 analysis.

- Policy O: The county may establish and impose conditions on operation of a surface mine when deemed necessary as a result of a site-specific Goal 5 analysis. Where such conditions conflict with criteria and standards in the Mineral and Aggregate Resources Overlay, the conditions developed through the Goal 5 analysis shall control.
- Policy P: As part of the ESEE analysis and decision on the level of protection to be afforded significant mineral and aggregate resource sites, the county shall determine the appropriate post-mining use of the site.
- **Policy Q:** The county recognizes the jurisdiction of the Department of Geology and Mineral Industries for the purpose of mined land reclamation pursuant to ORS 517.750 to 517.900 and the rules adopted thereunder.
- **Policy R:** Unless specifically determined on a case by case basis, it shall be the policy of the county, pursuant to ORS 517.830(3), that DOGAMI delay its final decision on approval of a reclamation plan and issuance of an operating permit, as those terms are defined by statute and administrative rule, until all issues concerning local land use approval have been adjudicated by the county.
- Policy S: No surface mining or processing activity, as defined by the zoning ordinance, shall commence without land use approval from the county, and approval of a reclamation plan and issuance of an operating permit by DOGAMI.
- Policy T: Land shall not be rezoned to remove the Mineral and Aggregate Resources Overlay until the mineral or aggregate resource is depleted, and the site has been reclaimed.
- **Policy U:** The County recognizes the need for a detailed study of the County's aggregate resources. The County will work with the State Department of Geology and Mineral Industries in initiating such a study.
- **Policy V**: The County will develop a quarry and mining zone to protect important aggregate resource areas.
- Policy W: Mineral and aggregate resource sites shall be located and designed so that the potential noise, dust, visual and traffic impact on adjacent residential and commercial uses are minimized.
- **Policy X**: Mineral aggregate resource sites to be located along State Highways shall be designed to minimize their visual impact.
- Policy Y: New mineral and aggregate extraction operations shall include a restoration

program as specified by ORS 517.750 to ORS 517.900.

- **Policy Z**: Removal of material from the bed or banks of a waterway shall be governed by the requirements of ORS 541.605 to 541.665.
- **Policy** AA: New residential and commercial development should not be allowed within 500 feet of established surface mining operation.
- **Policy BB:** Update active/Inactive quarry/mining overlay map, which is inaccurate. Many current sites are not shown.
- **Policy CC:** Revise zoning of quarry sites that are in other than Quarry/Mining Zone to match the actual uses.
- **Policy DD**: Quarry/Mining Zone and Overlay needs to be accurately applied to all sites, as the zone and overlay are intended to protect the resource from conflicting uses developing next to them.
- **Policy EE:** The County shall review its acknowledged inventory of mineral and aggregate resources within five years of the adoption of this plan.

### ENERGY SOURCES

Policy A:	Development shall not be allowed to impair the feasibility of potential wind
	generating facilities at sites identified as appropriate for such generation.
Policy B:	The County will rely on state and federal permitting processes to govern the
	location of low-boad bydro projects and to resolve any conflicts that may result

- location of low-head hydro projects and to resolve any conflicts that may result from such projects. Local watershed councils shall be included on all County public notices for proposed low-head hydro projects.
- **Policy C:** Clatsop County shall apply the Goal 5 Administrative Rule to oil, gas, nuclear, geothermal, and large-scale hydro that are proposed in the future.
- **Policy D:** If and when the City of Astoria intends on constructing a hydroelectric facility at the Youngs River Falls site, Clatsop County shall, in cooperation with the City of Astoria, apply the Goal 5 Administrative Rule.
- **Policy E:** Encourage the private use of energy-generating technologies such as solar panels, wind energy, geothermal heat pumps, and other developing energy sources in order to reduce transmission costs and pollution generated by the consumption of regionally-produced and -oriented energy sources.
- **Policy F:** When new water supply systems are installed, the County shall encourage the use of in-watermain-hydro technology, such as that currently used by the City of Astoria.

- **Policy G:** Encourage the use of upper/lower reservoirs and pump stations to generate electricity (pumped storage sites).
- **Policy H:** Coordinate with Camp Rilea personnel and appropriate agencies to encourage the installation and use of solar panels to generate electricity.

#### **Policy I:** Identify possible sites that could be candidates for wind generation facilities.

- **Policy J:** Review and monitor developments in ocean thermal energy conversion to determine and evaluate impacts to and benefits for Clatsop County.
- **Policy K:** Encourage the use of energy-generating technologies such as solar panels, wind energy, geothermal heat pumps, and other developing energy sources in order to reduce transmission costs and pollution generated by the consumption of regionally-produced and -oriented energy sources.
- **Policy L:** The county recognizes that there are limited agricultural lands within the county, but there is also a need to balance that limitation with the need for renewable, sustainable energy sources. To achieve that balance, the county shall encourage the use of small-scale solar installations (5 acres or less) that integrate grazing or other agricultural practices with the solar installation.
- **Policy M:** Cooperate with state and/or federal agencies in exploring potential sites and reviewing development proposals. Ensure environmental impacts are minimized.
- **Policy N:** Review existing studies and regulations in order to address the pros and cons of using small in-stream hydropower generation.
- **Policy O:** Coordinate with the Oregon Department of Energy (ODOE) conduct a study to identify potential wind generation sites and reassess current sites.
- Policy P: Impacts to commercial fishing shall be minimized when considering offshore energy facilities.
- **Policy Q:** To the extent possible, the county shall consider the impacts on residents and infrastructure from offshore energy facilities in the event of a tsunami.

## CULTURAL AREAS

**Policy A:** The County will review land use activities that may affect known archeological sites. If it is determined that a land-use activity may affect the

integrity of an archaeological site, the County shall consult with local Native American tribes and the State Historic Preservation Office on appropriate measures to preserve or protect the site and its contents.

- Policy B: Native American cairns, graves and other significant archaeological resources uncovered during construction or excavation shall be preserved intact until a plan for their excavation or reinternment has been developed by local Native American tribes and the State Historic Preservation Office.
- **Policy C:** Seek to work cooperatively countywide with state agencies, cities, the Clatsop County Historical Society, and local Native American tribes to recognize and protect cultural and historic sites.
- **Policy D:** Review land use activities that will affect known archaeological sites. If it is determined that a land use activity may affect the integrity of an archeological site, the County shall consult with local Native American tribes or other appropriate tribal agencies and the State Historic Preservation Office on appropriate measures to preserve or protect the site and its contents.
- **Policy E:** Clatsop County shall seek to work cooperatively with state agencies to protect culturally significant and historic industries.

# HISTORIC RESOURCES

- Policy A: Clatsop county shall seek to work cooperatively countywide with state agencies, cities, the Clatsop County Historical Society, local Native American tribes to recognize and protect cultural and historic sites.
- **Policy B:** The County Parks Department, to the extent funding permits, will continue to maintain the Lindgren House.
- **Policy C:** The County encourages the Clatsop County Historical Society, the State Historic Preservation Office and local Native American tribes to place commemorative plaques at the sites of the Falls Pulp Mill and the Shepherd and Morse Sawmill.
- **Policy D:** The County will continue to protect the historical character of the Tillamook Lighthouse, Morrison House, the Clatsop Plains Memorial Church and the Westport Log Tunnel through appropriate provisions in the zoning ordinance.
- **Policy E:** Clatsop County will work with the State Historic Preservation Office and local historic preservation organizations to evaluate the historical significance of sites and buildings identified by the Citizen Advisory Committee. The Goal #5 Administrative Rule evaluation process will also be applied at that time. The

County will take appropriate action to protect any sites that are placed on the State of Oregon Inventory of Historic Sites and Buildings. This will be completed in the next two years.

- Policy F: The County shall identify ways to incorporate more input and cultural and historical knowledge from all Native American tribes who traditionally hunted, gathered, traded and/or lived on the lands now included in Clatsop County. Such methods may include revising the Planning Commission bylaws to include a member of a local Native American tribe and including all known Native American tribes on all public notices.
- **Policy G:** The County shall identify and map historic rural places and buildings in order to preserve that knowledge for future generations.
- **Policy H:** The County should study opportunities for designing rural architectural routes, including information about structures that may no longer physically exist.
- **Policy I:** The County should encourage adaptive reuse of old buildings and encourage preservation of historic buildings.
- **Policy J:** Within five years of the adoption of this plan, the County shall conduct ESEE analyses for the following sites to determine whether they should be included in the Goal 5 inventory of historic resources:
  - Bradwood and Clifton, particularly the Clifton net shed
  - Svensen Cemetery
  - Arch Cape Tunnel
  - Wagon Trail in Arch Cape
  - Hug Point and surrounding geological sites
  - Hamlet School
  - Hamlet Cemetery
  - All sites on the National Register of Historic Places
  - Sites on the State Historic Sites inventory
  - State-identified archaeological sites
  - Historic cemeteries
- **Policy K:** Within two years of the adoption of this plan, the County should explore whether there is public support for the County becoming a certified local government.
- **Policy L:** The County should develop a public education and outreach program to inform property owners about how to properly deal with found artifacts.

## **OPEN SPACE**

- Policy A: The County should develop and apply maximum-allowed lot coverage limitations countywide.
- Policy B: Develop and implement and open space acquisition program for the purposes of protecting Clatsop County's Goal 5 resources such as open space, wetlands, historic sites, and outstanding scenic sites; and for hazard mitigation functions such as flood storage or protection of landslide-prone areas. Identify potential short and long-term funding sources. Acquisitions as part of this program would be opportunistic, as properties become available, rather than a use of eminent domain.
- Policy C: Develop and implement a program to encourage and facilitate private property owners to create conservation easements or other related instruments for the purposes of protecting Clatsop County's open space values.
- **Policy D**: Develop and implement a program to encourage and facilitate private property owners to eradicate noxious and/or invasive plant species.
- **Policy E:** Develop and implement a program to encourage best management practices to reduce wildfire risk.
- Policy F: Require subdivisions to be clustered countywide in order to provide increased open space, preserve views and protect wildlife habitat to the maximum extent possible.
- Policy G: Encourage the development of a voluntary open space acquisition program and identify potential on-going funding sources.
- Policy H: Street vacations shall be based on facts and evidence to establish that the right-of-way at issue no longer has any public benefit or public use potential. Improve public involvement during proposed vacations to consider alternative public uses other than vehicular circulation (e.g. emergency evacuation routes, greenbelts, trails, etc.).

# **SCENIC VIEWS AND SITES**

- **Policy A:** Apply the AC-RCR Zone vegetation preservation standards countywide.
- **Policy B:** Protection of Goal 5 scenic views and sites shall include best management practices to reduce wildfire risk.
- **Policy C:** Review of energy production facilities, including but not limited to wind or off-shore production, shall include an evaluation of potential impacts to Goal

5 scenic views and sites.

- **Policy D:** Encourage private property owners to enter into conservation easements. Facilitate opportunities for property owners to voluntarily enter into conservation easements (or other instruments).
- **Policy E:** Conduct an Economic, Social, Environmental, Energy (ESEE) evaluation for the following sites to determine if those areas should be included as inventoried scenic view and site resources:
  - Clatsop Plains planning area, or portions thereof
  - Fishhawk/Lee Wood Park Falls
  - Jewell Meadows
  - Red Bluff Park
  - Twilight Eagle Sanctuary
  - Svensen Island
  - Bradley Hill
  - Knappa Docks
  - o Fort-to-Sea Trail
  - Highway 101 to the south County border
  - Oswald West State Park
  - o Ecola State Park
  - Fort Stevens State Park
  - Saddle Mountain State Park
  - Arcadia State Recreation Area
  - Hug Point State Recreation Area
  - Cape Falcon Marine Reserve
  - Ecola Forest Reserve

#### **IMPLEMENTING OREGON ADMINISTRATIVE RULES (OAR):**

<u>660-023</u> – Procedures and Requirements for Complying with Goal 5

- <u>660-016</u> Complying with Statewide Planning Goal 5
- 660-031 State Permit Compliance and Compatibility

#### **COORDINATING STATE AGENCIES:**

Oregon Department of Fish and Wildlife (ODFW) Oregon Department of Agriculture (ODA) Oregon Parks and Recreation Department (OPRD) Oregon Department of Energy (ODOE) State Historic Preservation Office (SHPO) Oregon Department of State Lands (DSL) Oregon Health Authority (OHA) Department of Geology and Mineral Inventories (DOGAMI) Oregon Department of Land Conservation and Development (DLCD)

#### BACKGROUND REPORTS AND SUPPORTING DATA:

Threated, Endangered, Candidate Fish and Wildlife Species, ODFW 2021 *Fifth Oregon Climate Assessment,* Oregon Climate Change Research Institute, January 2021 *Future Climate Projects Clatsop County,* Oregon Climate Change Research Institute, February 2020 *Regional Framework for Climate Adaptation Clatsop and Tillamook Counties,* Sea Grant Oregon,

2010 Oregon Climate Change Adaptation Framework 2021, Department of Land Conservation and Development