



CLATSOP COUNTY
COMPREHENSIVE PLAN UPDATE
NORTHEAST CITIZEN ADVISORY COMMITTEE
OCTOBER 8, 2020
4:00 PM
ELECTRONIC MEETING

The Northeast Citizen Advisory Committee will host virtual meetings on GoToMeeting

During the COVID-19 pandemic, the County remains committed to broad community engagement and transparency of government. To provide an opportunity for public input while physical distancing guidelines are in effect, the County will host virtual meetings on GoToMeeting.

To join the meeting from your computer, tablet or smartphone.

<https://global.gotomeeting.com/join/241020789>

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Access Code: 241-020-789

Those wishing to provide input will need to be recognized to speak by the Chairperson. The public may also submit comments via email to be read to the Citizen Advisory Committee at the designated time. Please send submissions to comdev@co.clatsop.or.us.

TIME	TOPIC	LEAD
4:00 PM	Call to Order	CPCAC Chair
4:05 PM	Introductions	All
4:10 PM	Review of Meeting Summary -September 10, 2020	CPCAC Members
4:15 PM	Public Comment and Input County-owned properties map	Public Staff
4:30 PM	Review of Goal 5 Topics: Groundwater Resources -Overview of existing groundwater resources -Review of existing policies and inventories -Identify new policies and additions to inventories	CPCAC Members Staff CPCAC Members CPCAC Members
5:45 PM	Public Comment and Input	Public
5:55 PM	Closing comments and adjournment	CPCAC Members

All Comprehensive Plan Citizen Advisory Committee meetings are open to the public. Community members are welcome to observe and provide written comment at any time to comdev.co.clatsop.or.us. As time allows, verbal comment is welcome during the time specified on the agenda.

NOTE TO CAC MEMBERS: Please contact the Community Development Department (503-325-8611) if you are unable to attend this meeting.

ACCESSIBILITY: This meeting is accessible to persons with disabilities or wish to attend but do not have computer access or cell phone access. Please call 325-1000 if you require special accommodations at least 48 hours prior to the meeting in order to participate.

Summary of September 10, 2020 Northeast Citizen Advisory Committee Meeting #10 Electronic Meeting

NOTE: THIS MEETING FAILED TO RECORD PROPERTY. THIS SUMMARY IS PREPARED FROM NOTES ONLY.

The meeting was called to order at 4:00 p.m. by Jennifer Rasmussen, Chair.

<u>NECAC Members Present</u>	<u>NECAC Commissioners Absent</u>	<u>Staff Present</u>	<u>Public Present</u>
Tallie Spiller Cheryl Johnson Kelly Huckestein Dirk Rohne Jennifer Rasmussen		Gail Henrikson	Jed Arnold

Welcome and Introductions

The NECAC members, staff and members of the public introduced themselves.

Review of Meeting Summaries:

There were no corrections, additions or deletions to the August 13, 2020, meeting summary.

Public Comment and Input:

None.

Review of Goal 5 Topics – Historic and Cultural Resources:

The committee reviewed the list of known historic sites within unincorporated Clatsop County. Ms. Johnson expressed concerns about the lack of recognition of Scandinavian or Chinese culture or historic sites in the comprehensive plan.

The committee members agreed that staff should conduct additional historic research for the Svensen Cemetery and Bradwood and Clifton, particularly the net shed at Clifton. Staff is to conduct additional research and report back to the committee at a future meeting. The additional information is required in order to determine if any or all of those sites should be included on the County's Goal 5 historic resource inventory.

The committee reviewed the existing historic and cultural resources policies. The consensus of the committee was:

- **Historic Policy #1:**
- **Historic Policy #2:**
- **Historic Policy #3:**
- **Historic Policy #4:** Retain this policy
- **Historic Policy #5:**
- **Historic Policy #6:** Revise this policy to read "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."
- **Historic Policy #7:**
- **Cultural Policy #1:** Revise this policy as recommended by the Clatsop Plains CAC to read "The County will 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 archaeological site, the County shall consult with the Chinook Indian Nation and then the State Historic Preservation Office on appropriate measures to preserve or protect the site and its contents."

1 • **Cultural Policy #2:**
2

3 The committee members also discussed the need to list all peoples who were known to have
4 traditionally inhabited lands within Clatsop County. The committee also stated that the County should
5 reach out to the tribal leaders in order to determine the appropriate nomenclature for each tribe.
6

7 The committee discussed proposed policies that should be recommended for inclusion in the
8 comprehensive plan. The committee recommended that the following policies be added:
9

10 **Historic Resource Policy:** The County shall obtain public input in order to determine whether there is
11 public support for the County becoming a Certified Local Government.
12

13 **Cultural Resource Policy:** The County shall, within two years of the date of adoption of this plan,
14 develop a public education and outreach program to inform property owners about how to property deal
15 with found artifacts.
16

17 **Cultural Resource Policy:** The County shall identify ways to incorporate more input and cultural and
18 historical knowledge from the Chinook Indian Nation. Such methods may include revising the Planning
19 Commission bylaws to include a member of the Chinook Indian Nation on the Commission and
20 including the Chinook Indian Nation on all public notices.
21

22 **Public Comment and Input:**

23 None.
24

25 **Closing Comments and Adjournment:**

26 None
27



Clatsop County
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TO: Northeast Citizen Advisory Committee Members
FROM: Gail Henrikson, Community Development Director
DATE: October 8, 2020
RE: **GOAL 5 RESOURCE TOPIC – GROUNDWATER RESOURCES**

ACTION ITEMS FOR OCTOBER 8, 2020, MEETING:

- (1) Review the existing policies in the comprehensive plan addressing groundwater resources (**Table 1**) to verify whether those policies should be removed, retained, or amended.
- (2) Review the specific policies for the Northeast planning area related to groundwater resources (**Table 2**) to verify whether those policies should be removed, retained or amended.
- (3) Identify any new issues regarding groundwater resources that should be addressed in the comprehensive plan and/or community plan and develop proposed policies designed to address those issues (**Table 3**).

OVERVIEW

Statewide Planning Goal 5 – Natural Resources, Scenic and Historic Areas, and Open Spaces – has identified the following inventories that either are required or encouraged to be provided and reviewed in each jurisdictions’ Comprehensive Plan:

REQUIRED INVENTORIES	ENCOURAGED INVENTORIES
Riparian corridors, including water and riparian areas and fish habitat	Historic Resources
Wetlands	Open Space
Wildlife Habitat	Scenic Views and Sites
Federal Wild and Scenic Rivers	
State Scenic Waterways	
Groundwater Resources	
Approved Oregon Recreation Trails	
Natural Areas	
Wilderness Areas	
Mineral and Aggregate Resources	
Energy Sources	
Cultural 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. These applicable policies have been extracted and collated into two tables:

- Table 1: Existing County-wide Comprehensive Plan groundwater resource policies

- Table 2: Northeast Community Plan groundwater resource policies

Table 3 is to be used to identify new issues or concerns that are not addressed in the current comprehensive plan and to prepare draft policies to address those concerns or issues.

REQUIRED ACTION

- (1) Review the existing policies in the comprehensive plan addressing groundwater resources (**Table 1**) to verify whether those policies should be removed, retained, or amended.
- (2) Review the specific policies for the Northeast planning area related to groundwater resources (**Table 2**) to verify whether those policies should be removed, retained or amended.
- (3) Identify any new issues regarding groundwater resources that should be addressed in the comprehensive plan and/or community plan and develop proposed policies designed to address those issues (**Table 3**).

ATTACHED MATERIALS

Groundwater Resources Background Materials

- Watershed Inventory Memo
- Relevant excerpts from Goals 5 and 6 related to water quality
- Table 1: Groundwater resources policies in the current county-wide comprehensive plan
- Table 2: Groundwater resources policies in the Northeast Community Plan
- Table 3: Worksheet to identify new issues and groundwater resources policies that should be addressed in the comprehensive plan

SUPPLEMENTAL MATERIALS

Additional reference materials for those interested in further research and technical information:

- [OAR 660-016-0000 Inventory Goal 5 Resources](#)
- [OAR 660-016-0005 Identify Conflicting Uses](#)
- [OAR 660-016-0010 Develop Program to Achieve the Goal](#)
- [OAR 660-023-0030 Inventory Process](#)
- [OAR 660-023-0040 ESEE Decision Process](#)
- [OAR 660-023-0050 Programs to Achieve Goal 5](#)
- [OAR 660-023-0140 Groundwater Resources](#)
- [Goal 6 Water Quality Background Report](#)
- [Statewide Groundwater Monitoring Program: North Coast 2015-2016 Report](#)
- [Oregon Public Water Systems Groundwater Resource Guide for Drinking Water Source Protection](#)
- [Groundwater Information System Mapping Tool \(Oregon Water Resources Department\)](#)
- [Understanding Groundwater \(OSU\)](#)



TABLE 1: GROUNDWATER RESOURCES EXISTING POLICIES – COUNTYWIDE COMPREHENSIVE PLAN

POLICY REVIEW			
CLATSOP COUNTY GOALS AND POLICIES	GOAL MET (Y/N)	RETAIN GOAL (Y/N)	STAFF COMMENTS AND RECOMMENDED CHANGES
WATER RESOURCES POLICIES (GOAL 5)			
<p>POLICY 1 The County will cooperate and coordinate with State and Federal Agencies in assuring the maximum beneficial use of all water areas in the County.</p>			<p>STAFF RECOMMENDATION: Continue to retain this policy. Oregon DEQ identifies “beneficial uses” as:</p> <ul style="list-style-type: none"> • 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
<p>POLICY 2 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, and the Department of Water Resources.</p>			<p>STAFF RECOMMENDATION: Change policy to read “The County will continue to coordinate...”</p>
<p>POLICY 3 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 Northwest Region Forest Practices Committee in the development of amendments to the</p>			<p>STAFF RECOMMENDATION: Retain this policy. NOTE: This committee still exists. Regional Forest Practice Committees are advisory committees established to assist the Board of Forestry in developing</p>



TABLE 1: GROUNDWATER RESOURCES EXISTING POLICIES – COUNTYWIDE COMPREHENSIVE PLAN

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CLATSOP COUNTY GOALS AND POLICIES	GOAL MET (Y/N)	RETAIN GOAL (Y/N)	STAFF COMMENTS AND RECOMMENDED CHANGES
Oregon Forest Practices Act that will provide needed modification and protection of state licensed water supply systems.			appropriate forest practice rules. The committees are comprised of citizens qualified by education or experience in natural resource management. The committees may review proposed forest practice rules, identify the need to amend forest practice rules or propose amended forest practice rules.
POLICY 4 The County encourages the development of community dock facilities rather than individual piers or docks.			STAFF RECOMMENDATION: This policy is more related to surface water than ground water. Recommend moving to Goals 16/17 and to include in the Clatsop Plains Community Plan.
WATERSHED POLICIES (GOAL 5)			
POLICY 1 As information becomes available, Clatsop County shall apply Goal 5 Administrative Rules to the 14 identified watersheds and the small or minor watersheds identified in this element.			STAFF RECOMMENDATION/COMMENT: It appears that the intent was to conduct and ESEE analysis for the identified watersheds. To the best of staff's knowledge this was never completed. Recommend revising policy to remove "As information becomes available".
WATER RESOURCES POLICIES (GOAL 6)			
POLICY 1 The County shall encourage the maintenance of a high quality of air, water and land through the following actions: <ul style="list-style-type: none"> (a) Encouraging concentration of urban development inside Urban Growth Boundaries, (b) Encouraging maintenance and improvement of pollution control facilities, 			STAFF COMMENT: Sub-policies "c" and "e" are not applicable to groundwater resources.



TABLE 1: GROUNDWATER RESOURCES EXISTING POLICIES – COUNTYWIDE COMPREHENSIVE PLAN

POLICY REVIEW			
CLATSOP COUNTY GOALS AND POLICIES	GOAL MET (Y/N)	RETAIN GOAL (Y/N)	STAFF COMMENTS AND RECOMMENDED CHANGES
(d) Encouraging indigenous, clean industries such as fishing, boat building, tourism, and forest products utilization			
<p>POLICY 2 The County Planning Department shall work with the Department of Environmental Quality (DEQ) to monitor and keep its environmental data base current including information on air quality, surface and groundwater quality, and land quality including waste disposal and erosion problems.</p>			<p>STAFF COMMENT: To the best of staff’s knowledge, this data base was not created or maintained. STAFF RECOMMENDATION: Delete policy as this data is collected and maintained by state agencies and is readily available via the internet.</p>
<p>POLICY 3 The cumulative effect of development on the County’s environment should be monitored and, where appropriate, regulated. When evaluating proposals that would affect the quality of the air, water or land in the County, consideration should be given to the impact on other resources important to the County’s economy such as marine resource habitat and recreational and aesthetic resources important to the tourist industry.</p>			<p>STAFF COMMENT: Proposed development is reviewed for consistency with comprehensive plan goals and policies. This includes Goal 9 (Economic Development) policies.</p>
<p>POLICY 6 Upon completion of the Clatsop Plains Groundwater Study, the County shall reevaluate the Clatsop Plains Community Plan to determine whether existing policies and standards are adequate to protect water quality in the aquifer, lakes and streams. Consideration shall be given to protection of the lakes from further degradation (eutrophication), and possible remedial actions to improve water quality.</p>			<p>STAFF COMMENT: See specific Groundwater Study recommendations on Table 2. STAFF RECOMMENDATION: Eliminate first sentence. Move second sentence to the Clatsop Plains Community Plan.</p>
<p>POLICY 8 The County shall cooperate with DEQ, State Forestry Department, State Transportation Department and other agencies in implementing best management practices to reduce non-point pollution.</p>			<p>STAFF RECOMMENDATION: Retain policy. Update department names.</p>
<p>POLICY 9 The County shall recommend that state agencies regulate the issuance of water rights so as to insure that the total water rights of a stream bed do not exceed the minimum stream flow.</p>			<p>STAFF COMMENT: The County can only “encourage” or “recommend”. There is no way to enforce this policy as this is not</p>



TABLE 1: GROUNDWATER RESOURCES EXISTING POLICIES – COUNTYWIDE COMPREHENSIVE PLAN

POLICY REVIEW			
CLATSOP COUNTY GOALS AND POLICIES	GOAL MET (Y/N)	RETAIN GOAL (Y/N)	STAFF COMMENTS AND RECOMMENDED CHANGES
			within the County’s jurisdiction. STAFF RECOMMENDATION: Remove policy.
HIGH GROUNDWATER AND/OR COMPRESSIBLE SOILS POLICIES (GOAL 7)			
<p><u>POLICY 1</u> The County shall recognize the development limitations of lands with high groundwater and compressible soils during its planning process.</p>			STAFF COMMENT: Regulations regarding compressible soils are currently included in the code. STAFF RECOMMENDATION: Retain policy.
<p><u>POLICY 2</u> It is recommended that in all areas identified as having a high groundwater level, DEQ conduct a winter water check before issuing any septic tank permits.</p>			STAFF COMMENT: The Environmental Health Division of the County’s Public Health Department administers the on-site wastewater program. Per information from Public Health, this policy predates the use of soils to determine water table levels (redox). PH only does this on a case-by-case basis and it is usually resolved by installing a curtain or by just denying the site. STAFF RECOMMENDATION: Remove policy.
<p><u>POLICY 5</u> The County shall update its compressible soils and high water table maps as detailed soils information becomes available.</p>			STAFF COMMENT: Maps are not regularly updated in-house, but information is available on the internet from the National Resources Conservation Service (NRCS) and other sources. DLCD requires County to adopt a date-specific map. STAFF RECOMMENDATION: Revise policy to read “The County shall review its compressible soils and high water table maps every two years and adopt updated maps if new information has become available.”
POPULATION POLICIES (GOAL 10)			



TABLE 1: GROUNDWATER RESOURCES EXISTING POLICIES – COUNTYWIDE COMPREHENSIVE PLAN

POLICY REVIEW			
CLATSOP COUNTY GOALS AND POLICIES	GOAL MET (Y/N)	RETAIN GOAL (Y/N)	STAFF COMMENTS AND RECOMMENDED CHANGES
<p><u>POLICY 3</u> Promote the accommodation of growth within areas where it will have minimal negative impacts on the County’s environment and natural resources.</p>			STAFF RECOMMENDATION: Retain policy.
GENERAL PUBLIC FACILITIES POLICIES (GOAL 11)			
<p><u>POLICY 6</u> Clatsop County should work with State agencies to conduct a study of the Gnat Creek aquifer to determine the potential to provide a water source for residents of the area.</p>			STAFF COMMENT/RECOMMENDATION: Staff was unable to determine why this policy was needed and included in the countywide comp plan. Recommend moving to the Northeast Community Plan.
POLICIES AND DISTRICT AGREEMENTS (GOAL 14)			
<p><u>POLICY</u> Plans providing for the transition from rural to urban land use should take into consideration as to a major determination the carrying capacity of the air, land and water resources of the planning area. The land conservation and development actions provided for by such plans should not exceed the carrying capacity of such resources.</p>			STAFF RECOMMENDATION: Retain policy.
BEACHES AND DUNES POLICIES (GOAL 18)			
<p><u>POLICY 6</u> Land use actions (i.e., Comprehensive Plan changes, zone changes, subdivisions and partitions, planned developments, conditional use permits) shall be reviewed by the Planning Commission or the Department of Planning and Development so that the proposed activity(ies) will not result in the drawdown of the groundwater supply which could lead to any or all of the following: (a) The loss of stabilizing vegetation, (b) The loss of water quality, (c) Salt water intrusion into the water supply, (d) Result in the permanent drawdown of the dune lakes.</p>			STAFF RECOMMENDATION: Retain policy.



TABLE 1: GROUNDWATER RESOURCES EXISTING POLICIES – COUNTYWIDE COMPREHENSIVE PLAN

POLICY REVIEW			
CLATSOP COUNTY GOALS AND POLICIES	GOAL MET (Y/N)	RETAIN GOAL (Y/N)	STAFF COMMENTS AND RECOMMENDED CHANGES
<p><u>RECOMMENDED ACTION 1</u> To avoid desiccation of the groundwater lakes and encroachment of sea water, a water management program which is consistent with the water budget equation for the Clatsop Plains should be developed. The County should request technical and financial assistance from state and federal agencies in evaluating water development potentials.</p>			<p>STAFF COMMENT/RECOMMENDATION: It is not clear whether the 208 Water Study referenced here and in the Clatsop Plain Community Plan sufficed to satisfy this policy. Recommend moving policy to the Clatsop Plains Community Plan.</p>
<p><u>RECOMMENDED ACTION 2</u> The County, in cooperation with other local jurisdictions, should consider a cost/benefit comparison of developing the Clatsop Plains aquifer as a water source with other sources of water supply.</p>			<p>STAFF COMMENT/RECOMMENDATION: Staff was unable to verify whether a cost/benefit analysis was completed. Recommending moving this policy to the Clatsop Plains Community Plan.</p>



TABLE 2: GROUNDWATER RESOURCES EXISTING POLICIES - NORTHEAST COMMUNITY PLAN

POLICY REVIEW			
NORTHEAST COMMUNITY PLAN POLICIES AND GOALS	GOAL MET (Y/N)	RETAIN GOAL (Y/N)	STAFF COMMENTS AND RECOMMENDED CHANGES
<u>SURFACE WATER AND GROUNDWATER QUALITY POLICIES</u>			
<p><u>POLICY 1</u> The County shall recommend that state agencies regulate the issuance of water rights so as to insure that the total water rights of a stream bed do not exceed the minimum stream flow.</p>			<p>STAFF COMMENT: The County can only “encourage” or “recommend”. There is no way to enforce this policy as this is not within the County’s jurisdiction. STAFF RECOMMENDATION: Remove policy.</p>
<u>GNAT CREEK AQUIFER POLICIES</u>			
<p><u>POLICY 1</u> Activities which have the potential for contaminating the water supply beyond established acceptable levels shall not be permitted in the aquifer area.</p>			<p>STAFF COMMENT/RECOMMENDATION: Water quality standards and acceptable levels of contaminant are established by state and federal agencies. However, there is no harm in retaining this policy.</p>
<p><u>POLICY 2</u> The County shall investigate the possibility of conducting a study of the aquifer to determine its potential to provide a water source for residents of the area.</p>			<p>STAFF COMMENT/RECOMMENDATION: Staff was unable to determine why this policy was needed and included in the countywide comp plan. Recommend removing to the countywide comprehensive plan and retain in Northeast Community Plan until it is determined whether this policy is needed and should be retained.</p>
<u>PUBLIC FACILITIES AND SERVICES POLICIES</u>			
<p><u>POLICY 5</u> A study should be undertaken to determine the extent of the aquifer (a large underground lake or water supply) areas believed to be along the basalt ridge from Knappa to Westport, currently in forest management. Every effort should be made to utilize this supply for future growth as opposed to expanding surface water systems because of the costliness of required treatment for surface water.</p>			<p>STAFF COMMENT/RECOMMENDATION: The exact location where this aquifer is believed to be is unknown to staff. Recommend retaining policy until it can be determined if this is still applicable and/or desired.</p>



TABLE 2: GROUNDWATER RESOURCES EXISTING POLICIES - NORTHEAST COMMUNITY PLAN

POLICY REVIEW			
NORTHEAST COMMUNITY PLAN POLICIES AND GOALS	GOAL MET (Y/N)	RETAIN GOAL (Y/N)	STAFF COMMENTS AND RECOMMENDED CHANGES
1.			
A.			



Clatsop County

Community Development – Planning

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TO: Clatsop County Citizen Advisory Committee Members
FROM: Victoria Sage, Planner
DATE: September 23, 2020
RE: **GOAL 5 RESOURCE TOPIC – WATERSHEDS**

Watersheds: Clatsop County's Goal 5 makes mention of watersheds as a resource only in passing (page 49), and classifies them as more relevant to Goal 6, Air, Water, and Land Resources Quality. It is too simple to define water and its quality as the only resource in a watershed; all of the land uses, terrain, soils, plants, and animals within the watershed can reasonably be considered a part of the resource as well.

The USGS (US Geological Survey) defines a watershed as, "an area of land that drains all the streams and rainfall to a common outlet such as the outflow of a reservoir, mouth of a bay, or any point along a stream channel. Watersheds can be as small as a footprint or large enough to encompass all the land that drains water into rivers that [enter the ocean]."

The word "watershed" is sometimes used interchangeably with drainage basin or catchment. Ridges and hills that separate two watersheds are called the drainage divide. The watershed consists of surface water--lakes, streams, reservoirs, and wetlands--and all the underlying groundwater. Larger watersheds contain many smaller watersheds. It all depends on the outflow point; all of the land that drains water to the outflow point is the watershed for that outflow location. *Watersheds are important because the streamflow and the water quality of a river are affected by things, human-induced or not, happening in the land area "above" the river-outflow point.*

Watersheds can consist of many streams, creeks, and rivers; for example Moosmoos Creek is in the Youngs River watershed, while Moosmoos Creek itself has its own watershed made up of unnamed rivulets and streams. Each district has water rights to access either all or a portion of these watersheds. Some jurisdictions even have exclusive rights to an entire watershed; for instance the City of Astoria has exclusive rights to the Bear Creek Watershed, which is a part of the larger Columbia River Watershed. In order to manage and protect the Bear Creek Watershed, the access to the land and creek is regulated strictly by the City.



There are several watershed councils in Clatsop County, who aim to work with the stakeholders of the watershed communities to protect, conserve restore, and sustain the health and functions of the watershed.

Necanicum WC	Upper Nehalem WC	Lower Nehalem WC	NCWA Coastal Council:	NCWA River Council
Circle Creek	Nehalem River	Nehalem River	Ecola	Skipanon River
Volmer Creek	Rock Creek	Salmonberry River	Arch Cape	Youngs Bay
Beerman Creek	Pebble Creek	George Creek	Short Sands	Big Creek
Skipanon River	Quartz Creek	Cronin Creek	Necarney	Columbia River Drainages
Kloutchie Creek	Dairy Creek	Gods Valley Vreek	Clayton Creek	Youngs River
South Fork Necanicum River	Lewis and Clark River	Soapstone Creek	Red Rock Creek	Lewis and Clark River
Bergsvik Creek	Fishhawk Creek	Coal Creek	Shark Creek	Moosmoos Creek
Grindy Creek	Clatskanie River	Humbug Creek	Asbury Creek	Wallooskee River
Litle Humbug Creek	Dog Creek	Gravel Creek	Arch Cape Creek	North Fork Klaskanie River
Lewis and Clark River	Kenusky Creek	Big Rackheap Creek	Indian Creek	John Day River
	Carcus Creek		Canyon Creek	Bear Creek
				Big Creek

*The above watersheds are included in the watershed council jurisdictions, but not all are listed.

Watersheds and Water Quality: At the suggestion of the Citizen Advisory Committes, Clatsop County is working on providing a layer on the GIS WebMaps tool showing drinking water district boundaries. Below is a list of permitted water systems in Clatsop County. There are several types of water districts, both public and private, that take water from these sources:

- Surface Water (SW) is provided directly from runoff in rivers and creeks. There is a higher potential for surface water to come in contact with pollutants than naturally-filtered 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 (GW) 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, to name a few.

Drinking Water Districts Clatsop County	Primary Source	Connections	Population
ARCH CAPE WATER DISTRICT	SW	293	150
ASTORIA, CITY OF	SW	4076	9802
BURNSIDE WATER ASSOCIATION	SWP	112	315
CAMP 18	GW	5	69
CAMP 18 LOGGING MUSEUM	GW	1	25
CAMP RILEA	GW	75	136
CANNON BEACH, CITY OF	GW	1781	1710
CANNON VIEW PARK INC	GW	50	75
ELDERBERRY LODGE WATER ASSOC	GW	12	24
ELDERBERRY NEHALEM WS	GW	60	140
EVERGREEN ACRES	GW	47	100
FALCON COVE BEACH WATER DISTRICT	SW		
FERNHILL COMMUNITY WTR SYSTEM	SWP	91	300
GEARHART WATER DEPARTMENT	SWP	1400	1465
GEORGIA PACIFIC CO LLC WAUNA	SW	1	700
HAMLET QUICK-STOP	SW	1	30
JEWELL SCHOOL DISTRICT #8	SWP	1	700
JOHN DAY WATER DISTRICT -	GW	101	350
KNAPPA WATER ASSOCIATION	GW	574	
ODF NORTHRUP CREEK HORSE CAMP HP	GW	1	55
ODF SPRUCE RUN PARK HP	GW	1	40
ODF/WL NEHALEM FISH HATCHERY	GW	7	12
ODOT HD SUNSET SPRINGS RA	GW	3	500
OLNEY-WALLUSKI WATER ASSN	SWP	233	530
ONEYS RESTAURANT/LOUNGE	GW	6	60
OPRD BRADLEY STATE WAYSIDE	GW	2	383
OPRD SADDLE MOUNTAIN SP	GW	5	150
RIVERVIEW HOME SITES	GW	7	15
SEASIDE WATER DEPARTMENT	SW	3691	6605
STANLEY ACRES WATER ASSN	SWP	112	315
SUNSET LAKE RV PARK	GW	100	170
VINEMAPLE ACRES WS	GW	13	23
WARRENTON, CITY OF	SW	3404	9100
WAUNA WATER DISTRICT	GW	68	188
WESTPORT HEIGHTS	GW	40	90
WESTPORT WATER ASSOCIATION	GWP	165	550
WICKIUP WATER DISTRICT	SW	636	1590
WILLOW DALE WATER DISTRICT	SWP	125	300
YOUNGS RIVER LEWIS & CLARK WD	SW	1004	2530

Information pertaining to the water areas, watersheds and groundwater resources of Clatsop County are discussed in the Air, Water, and Land Resources Quality Background Report and the Public Facilities Background Report. Where appropriate, the Community Plans element of the Comprehensive Plan also contain information on these resources.

WETLANDS

The Statewide Planning Goals define wetland as "land areas where excess water is the dominant factor determining the nature of soil development and the types of plant and animal communities living at the soil surface. Wetland soils retain sufficient moisture to support aquatic or semi-aquatic plant life. In marine and estuarine areas, wetlands are bounded at the lower extreme by extreme low water; in fresh-water areas, by a depth of six feet. The area below wetlands are submerged lands".

Clatsop County contains substantial amounts of wetlands. The majority of these wetlands are either estuarine wetlands, which are covered by the Goal #16 element of the County's Plan, or wetlands found in the Coastal Shoreland which are covered in the Goal #17 element of the County's Plan.

In addition, three other types of freshwater wetlands were identified. The first and most important group consisting of seven major non-coastal shoreland wetlands. These sites are found either immediately east of the "coastal shoreland wetlands" of the Clatsop Plains, or along the Columbia River in areas that are defined to be outside of Oregon's Coastal Zone. The following are descriptions taken from Significant Shoreland and Wetland Habitats in the Clatsop Plains, by Duncan Thomas.

SITE 1 (CP9)

Location: Along the Skipanon River, south of Warrenton and SE of Hwy. 101 realignment.

Size: About 93 acres.

Wetland Vegetation Types: 5, 8, 11 (dry var.) 9.

Riparian Vegetation: About 2,000 ft. x 50 ft. along the Skipanon, north of the wetlands.

Soils: Brallier Muck.

Site Description: This peat bog site has reverted to native wetland - vegetation. The Skipanon River, which passes through this site, supports populations of warm water fish. The swamps to the east of the Skipanon are extensively used by elk. The bog area is important habitat for wetland avifauna, and probably supports populations of aquatic furbearers. The site includes an osprey nest.

Natural Areas

1. 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.
2. The County will cooperate with appropriate State and Federal agencies and private groups to ensure that examples of the full range of Oregon's natural ecosystem are preserved for future study and enjoyment.
3. A 1/4 acre site, located on the portion of Onion Peak designated Natural, shall be reserved for a potential radio transmission facility. The siting and placement of such a facility shall minimize impacts on the area's natural qualities.
4. The Natural designation for Sugar Loaf Mountain shall not affect the continued operating and maintenance of the radio transmitter facility located there.

Water Resources

1. The County will cooperate and coordinate with State and Federal agencies in assuring the maximum beneficial use of all water areas in the County.
2. 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, and the Department of Water Resources.
3. 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 Northwest Region Forest Practices Committee in the development of amendments to the Oregon Forest Practices Act that will provide needed modification and protection of state licensed water supply systems.
4. The County encourages the development of community dock facilities rather than individual piers or docks.

Historic Sites

1. The County encourages the State Parks Division, when developing a master program for Ecola Park, to give proper recognition to the historical activities that occurred there.
2. The County encourages the State Highway Division to relocate the Cannon Beach Cannon at a suitable new location should Highway 101 widening ever make the present site unsuitable.
3. The County Parks Department, to the extent funding permits, will continue to maintain the Lindgren House.

* Other Policies

Clatsop County shall rely upon the Forest Practices Act and any supplemental agreements between the Fish and Wildlife Commission and the Board of Forestry to protect critical wildlife habitat sites.

* Wilderness Areas

Clatsop County shall work with federal agencies in the protection of federal wilderness areas.

* Watersheds

As information becomes available, Clatsop County shall apply Goal 5 Administrative Rules to the 14 identified watersheds and the small or minor watersheds identified in this element.

* Amended, 84-9, dated May 23, 1984

WATERSHEDS AND GROUNDWATER RESOURCES

INVENTORY: State-wide Planning Goal 5 requires that the County inventory its watersheds and groundwater resources, including information on the location, quality and quantity of each resource. This section provides information as to the location of the major watershed systems in the County. This information is summarized in tabular form below, and on Map _____, included by reference. Clatsop County does not presently have information on the quality and quantity of the watersheds listed below. The rest of the Goal 5 process for these watersheds will be delayed, pursuant to OAR 660-16-000(1B).

<u>Reference Number</u>	<u>Major Waterway(s)</u>	<u>Approximate Acreage</u>
1.	Plympton Creek/West Creek	8,900
2.	Hunt Creek	5,100
3.	Blind Slough/Grizzley Slough	24,700
4.	Big Creek/Little Creek/Fertile Valley Creek	29,000
5.	Mary's Creek/Bear Creek/Farris Creek	14,500
6.	John Day River	4,400
7.	Young's River/Klaskanine River/Walluski River	80,300
8.	Lewis & Clark River	42,800
9.	Neawanna Creek/Thompson Creek	4,700
10.	Canyon Creek	2,100
11.	Mecanicum River	30,300
12.	Nahalem River	213,200
13.	Elk Creek	15,200
14.	Arch Cape Creek/Asbury Creek/Shark Creek/Fall Creek/Red Rock Creek	7,100
15.	(This drainage area is almost entirely within the City of Astoria)	
16.	Clatsop Plains — see below	

- O. These small or minor watersheds are not included. They consist of small coastal creeks and small creeks draining into the Columbia River. They are not included at this time due to lack of information.

The Clatsop Plains area (Map _____, number 16) consists of two major waterways: the Skipanon River, which drains to the north, and Neacoxie Creek, which drains to the south. The Clatsop Plains area is not notable for its watersheds: it is, however, notable for its groundwater resources.

Clatsop County has complete inventory information for the Clatsop Plains groundwater resource. This information is found in two documents:

R.L. Beck and Associates. Clatsop Plains Ground Water Protection Plan: Summary Report and Environmental Assessment. March, 1982.

Sweet, Edwards and Associates. Clatsop Plains Ground Water Protection Plan: Ground Water Evaluation Report. December, 1981.

These two reports identify conflicting uses, (2) determine the economic, social, environmental and energy consequences of allowing the conflicting uses, and (3) suggest policies to restrict conflicting uses in order to protect the groundwater resource. These reports are included here by reference. The County Board of Commissioners adopted the proposals in these reports on the 24th of March, 1982. The Environmental Quality Commission adopted regulations pursuant to these recommendations on 27 August, 1982 (revised 15 October, 1982).

GOAL 5

Introduction

Clatsop County is fortunate in that it generally has clean air and water. The quality of the County's environment is a factor that yearly draws many visitors to the area and also contributes greatly to the quality of life of its residents.

Basic Findings

Air Quality

The small population, strong year round ocean winds and large amounts of forest lands help to mitigate and remove what localized air quality problems exist in Clatsop County during most of the year. The major point sources of air pollution in the County are the Wauna paper mill and the Astoria plywood mill, both of which are meeting the requirements of their Air Contaminant Discharge Permits. The Wauna mill has installed air pollution control equipment which is removing an estimated 90-95% of its air contaminants.

DEQ air quality officials do not feel that there are significant air pollution problems in Clatsop County. Air Contaminant Discharge Permits are monitored on a regular basis by the State, and the combination of pollution control equipment and the wind in the area mitigate against the need for additional controls. Several major sources of air pollution will be eliminated when the County closes the remaining burning dumps after approval of a new landfill site.

Under EPA and DEQ regulations some air quality deterioration through industrial development could take place in Clatsop County without exceeding national air quality standards.

Water Quality

Because of its coastal location, high rainfall and presence of the Coast Range Mountains, Clatsop County is rich in water resources. Besides the rivers (including the Columbia River, the largest river in western North America), streams, creeks and lakes, there are two known aquifer areas; Clatsop Plains and Gnat Creek aquifers.

Pollution sources in Clatsop County's streams and rivers come from point (direct sources such as sewage outfalls) and non-point (indirect sources such as sedimentation) sources. Point sources require discharge permits and are closely monitored by the Department of Environmental Quality (DEQ) and Environmental Protection Agency (EPA). Non-point sources are regulated by DEQ under the 208 Program. This program contains a statewide assessment of the location, type and severity of water quality problems including streambank erosion, sedimentation, excessive debris, water withdrawal, elevated water temperature and nuisance algae. A complete ranking of the above problems indicated that the Nehalem River has the greatest amount of water quality problems in Clatsop County. The ranking system was arbitrary but was designed to indicate relative problem areas within a region or county.

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Since about 86% of the land area of Clatsop County is forest land, timber management has a significant effect on water quality. The Oregon Forest Practices Act and rules have been designated the best management practices to control forestry related water quality problems. The County has no local control over the enforcement of the Forest Practices Act.

Possible nitrate pollution of the Clatsop Plains aquifer has prompted the County, in conjunction with Warrenton, Hammond and Gearhart, to study and monitor the quality of the groundwater under the 208 Program.

A comparison of existing water rights with average monthly stream flows on most of the major rivers and streams in the County shows that water rights exceed minimum recommended stream flows for aquatic life. No appropriations of water except for human consumption, livestock consumption and water legally released from storage should be granted by a state agency when the average stream flow is less than that sufficient to support aquatic life.

Noise Control

The most probable future noise control problems in Clatsop County would be due to conflicts between noise sensitive properties and noisy industrial users, noise from major arterials and noise conflicts created by airports. In order to minimize these conflicts, noise considerations can be used when designating new industrial zoned land. In addition, performance standards for noise can be used in approving new commercial and industrial uses to minimize any conflicts with surrounding noise sensitive properties. The State Highway Department should be encouraged to use noise pollution considerations when realigning, improving, or building new highways.

The Seaside airport and its clear zones are located in the City of Seaside's and Gearhart's Urban Growth Boundaries. Appropriate zoning limiting conflicting uses will be developed during the UGB adoption process.

Areas surrounding the Clatsop County Airport that are or in the future may be exposed to an aviation noise environment of 55 Ldn have been planned and zoned for industrial, exclusive farm use, and low density residential use (in areas of existing residential use). The current large amounts of open space and agricultural, industrial, and low density residential zoning should result in compatibility with noise standards.

Policies

1. The County shall encourage the maintenance of a high quality of air, water and land through the following actions:
 - (a) encouraging concentration of urban development inside Urban Growth Boundaries,
 - (b) encouraging maintenance and improvement of pollution control facilities,

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(c) cooperating with the State Highway Department to provide an efficient transportation system. Methods to reduce congestion and air pollution on Marine Drive/Commercial Street should be explored.

(d) encouraging indigenous, clean industries such as fishing, boat building, tourism, and forest products utilization and

(e) encouraging development of resource recovery mechanisms such as recycling centers and wood waste processing.

2. The County Planning Department shall work with the Department of Environmental Quality (DEQ) to monitor and keep its environmental data base current including information on air quality, surface and groundwater quality, and land quality including waste disposal and erosion problems.

3. The cumulative effect of development on the County's environment should be monitored and, where appropriate, regulated. When evaluating proposals that would affect the quality of the air, water or land in the County, consideration should be given to the impact on other resources - important to the County's economy such as marineresource habitat and recreational and aesthetic resources important to the tourist industry.

4. The County shall continue its efforts to find an acceptable regional solid waste disposal site or an acceptable alternative (i.e. recycling, electricity generation).

5. Recovery of wood wastes, rather than slash burning, shall be encouraged as a means of reducing air and water pollution, improving the economy, and for producing energy.

6. Upon completion of the Clatsop Plains Groundwater Study, the County shall reevaluate the Clatsop Plains Community Plan to determine whether existing policies and standards are adequate to protect water quality in the aquifer, lakes and streams. Consideration shall be given to protection of the lakes from further degradation (eutrophication), and possible remedial actions to improve water quality.

7. The County shall work to maintain the quality of its estuarine waters through participation in the regional Columbia River estuary planning process.

8. The County shall cooperate with DEQ, State Forestry Department, State Transportation Department and other agencies in implementing best management practices to reduce non-point pollution.

9. The County shall recommend that state agencies regulate the issuance of water rights so as to insure that the total water rights of a stream bed do not exceed the minimum stream flow.

10. Subdivisions adjacent to major arterials shall address the reduction of noise impacts in their site plans.

GOAL 6

Surface Water and Groundwater Quality

The occurrence and distribution of water, whether surface or subsurface, within Clatsop County is dependent upon many complex factors which include such elements as precipitation, topography, geology, soils, vegetation, and winds, waves, and tides.

Over 100 inches of precipitation falls annually along the southeast and northeast axis of the Coast Range, on rocks that are relatively impervious. The slopes of the Coast Range Mountains are steep; as a consequence the waters rapidly run off, drain into the streams and rivers and thence, ultimately to the ocean. Despite the high precipitation in the County, relatively little of the water that falls as rain and snow in the mountains infiltrates into the ground to sustain the stream flows during the late summer and early fall period when there is relatively little precipitation. Thus, during the winter months, the streams have a very low flow because of limited groundwater storage.

The streams in the study area are an invaluable resource for the people in the region. These streams provide water for the residents of the area, provide water for irrigation and industry, as well as providing habitats for both fish and wildlife.

Two of the major streams in the planning area are Big Creek and Gnat Creek. These streams fluctuate considerably between January and August. For example, Big Creek has an average stream flow of 365 cubic feet per second (cfs) in January as compared to a flow of 28 cfs in August. Gnat Creek has an average of 232 cfs in January while in the summer months the stream decreases until August when it is 7 cfs.

During the winter months when the streams are at their peak, there is plenty of water in the stream channels and there is no problem. But as the streams dry up during the summer, if the existing water rights are exercised, a problem could develop.

Big Creek is an example of a stream that could possibly run dry in August. The average stream flow is 28 cfs. Existing water rights on Big Creek presently total 58.120 cfs. Should everyone use their complete water rights at the same time, Big Creek would have a stream flow of -30.120, which removes all the water from the stream.

As long as one-half of all existing water rights are exercised, this problem will not arise. But the people of the study area must be careful in their use of the precious water resources in the area or someday the idea of a dried-up stream bed may be more than an idea.

Policy:

1. The County shall recommend that state agencies regulate the issuance of water rights so as to insure that the total water rights of a stream bed do not exceed the minimum stream flow.

• Gnat Creek Aquifer:

In the Miocene lava rocks in the Northeast corner of the County near Gnat Creek, the water infiltrates downward into layered lava rocks where considerable quantity is stored in the pervious sandstone rock of the interbeds. In this area the groundwater is reported to be under artesian pressure (i.e., the water would flow on the ground surface if a well were not capped).

To date, very few wells have been drilled in this area so its full potential is not known, but this potential artesian area should certainly be explored further. In the lava rock aquifer of Gnat Creek, test wells have been reported to yield in the range of 100 gallons per minute.

The aquifer area has been placed in a CONSERVATION designation reflecting the site's high forest site class and potential for forest uses. This designation will protect the aquifer from potential contamination from septic tanks until a study can be completed on the extent and potential of the aquifer.

Policies:

1. Activities which have the potential for contaminating the water supply beyond established acceptable levels shall not be permitted in the aquifer area.
2. The County shall investigate the possibility of conducting a study of the aquifer to determine its potential to provide a water source for residents of the area.

Agriculture and Forestry

Agriculture and forestry are the primary uses of land in the Northeast. The Brownsmead community is probably the best agricultural area in Clatsop County containing many dairy farms and good crops of corn and peas. The Knappa, Svensen and John Day areas are characterized by many small part-time farms interspersed with rural housing and woodlots. Livestock grazing is the predominant use of farms in these areas, especially in the lowlands subject to water inundation.

Policies:

1. The diked lands of Brownsmead are designated for exclusive farm use (EFU zone). This discourages housing developments, subdivision of farms into small uneconomical units, and keeps property taxes low, thus encouraging farmers to make long term plans and investments.
2. The Forest Practices Act shall be strictly enforced in all watersheds that drain into agricultural lands. Poor drainage is a major problem to agricultural practices. Strict implementation of the Forest Practices Act would help keep siltation of sloughs and drainage ditches to a minimum.