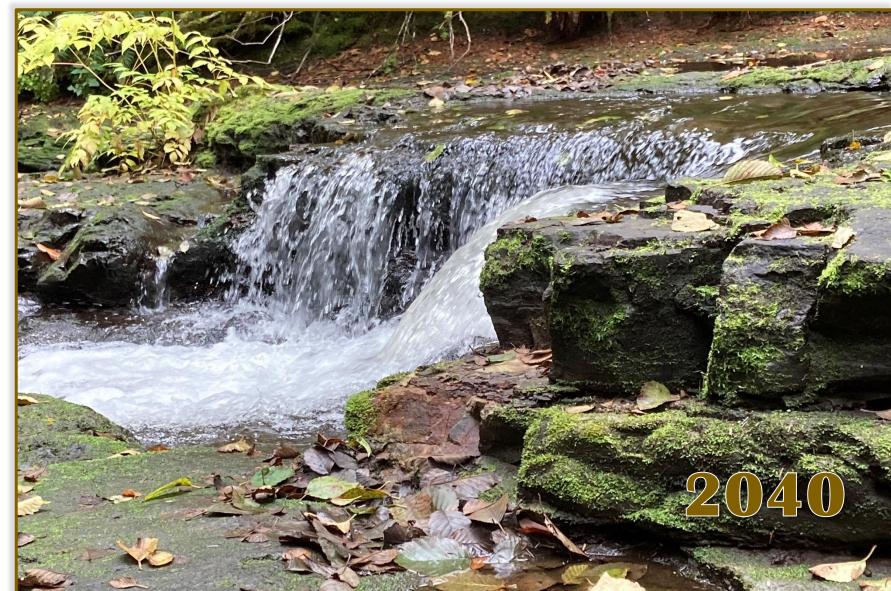
NORTHEAST COMMUNITY PLAN





ORDINANCE 22-1012

ADOPTED SEPTEMBER 28, 2022

ACKNOWLEDGMENTS

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- Joanna Lyons-Antley, County Counsel
- Patty Jo Angelini, Public Affairs Officer

LAND USE PLANNING STAFF

- Julia Decker, Planning Manager
- Jason Pollack, Planner
- Ian Sisson, Senior Planner
- David Cook, Planner
- Clancie Adams, Permit Technician
- Victoria Sage, Planner

Gail Henrikson. **Community Development Director**

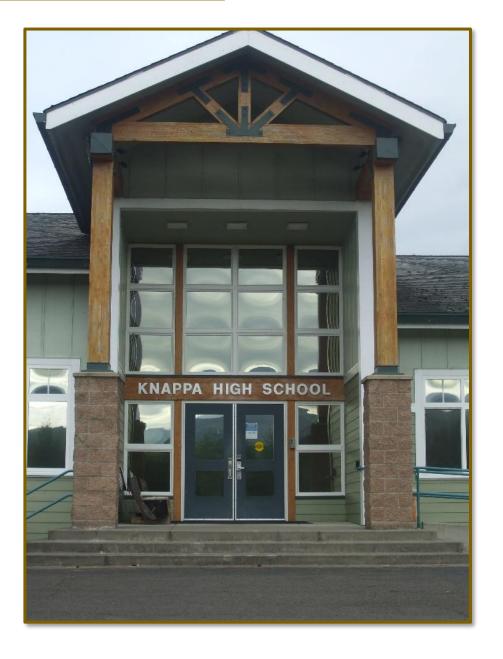


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INTRODUCTION

The Comprehensive Plan for Clatsop County is in two parts: a Countywide Comprehensive Plan and a Community Plan for each planning area. The Countywide plan deals with state goals and programs of Countywide concern such as the economy and housing. The community plans are amplifications of many of the Countywide policies which address specific concerns of the planning area. The community plan also addresses items not covered in the Countywide plan because they are unique to the Northeast, such as a management plan to protect the endangered bald eagle.

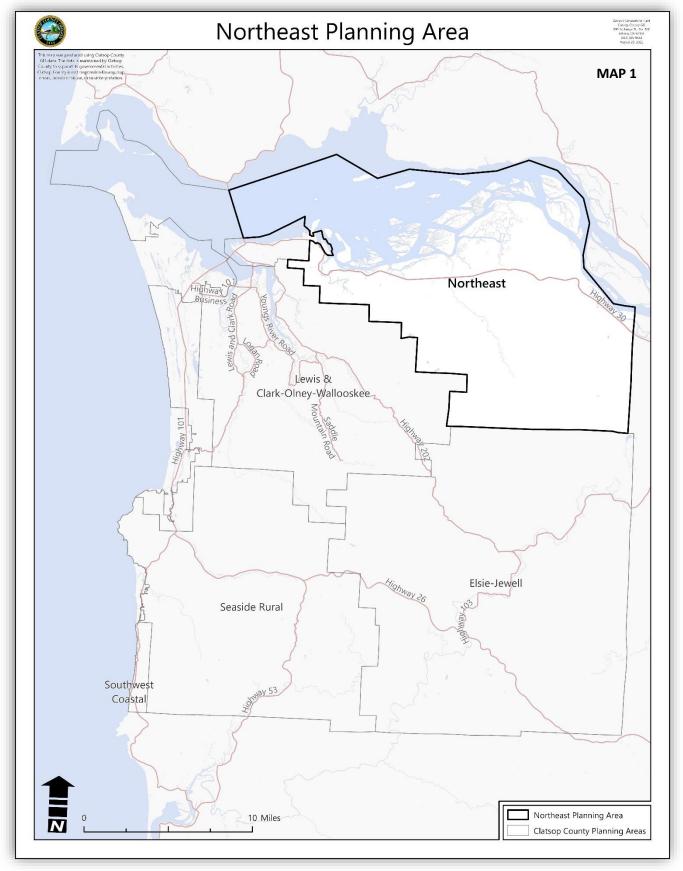
Taken together, the plans provide the foundation for future special, economic and environmental developments in the Northeast Community.

The original Northeast Community Plain was adopted on December 24, 1979 (Ordinance 79-14). The Northeast Community Plan, along with the community plans for each of the other five five other planning areas in Clatsop County is broken down into landscape units. Goals, objectives, policies and/or recommendations are provided for each of the landscape units. Additional sections in each community plan also include specific policies for the planning area related to the 18 statewide planning goals. Since originally adopted, the Northeast Community Plan has been amended several times:

- Ordinance 80-08: Changing an area of Brownsmead from the Rural designation to Rural Exclusive Farm Use
- Ordinance 80-12: Amendments to address existing and future use at the Wauna Mill site
- Ordinance 83-17: Amendments to address comments from the Department of Land Conservation and Development (DLCD)
- Ordinance 03-10: Designating Knappa, Svensen and Westport as Rural Communities

OVERVIEW OF THE NORTHEAST PLANNING AREA

The Northeast planning area includes all of the area along U.S. Highway 30 from the east County line to the eastern edge of Astoria's Urban Growth Boundary (UGB). The southern boundary generally follows the drainage patterns of the coastal hills and valleys. There are no incorporated cities in the planning area, but it does contain the unincorporated communities of Westport, Knappa, and Svensen. In 2003, those communities were designated as Rural Communities and new zoning districts were developed and applied to those areas (Ordinance 03-10). The estimated 2020 population of the Knappa-Brownsmead CCD (Census County Division) was 2,144 persons. This is an increase of 7.58% from 2010, when the population was estimated at 1,993. Precise population estimates for the Northeast Planning Area are difficult to extrapolate from the Census data, as the Census Tracts do not align with the planning area boundary.

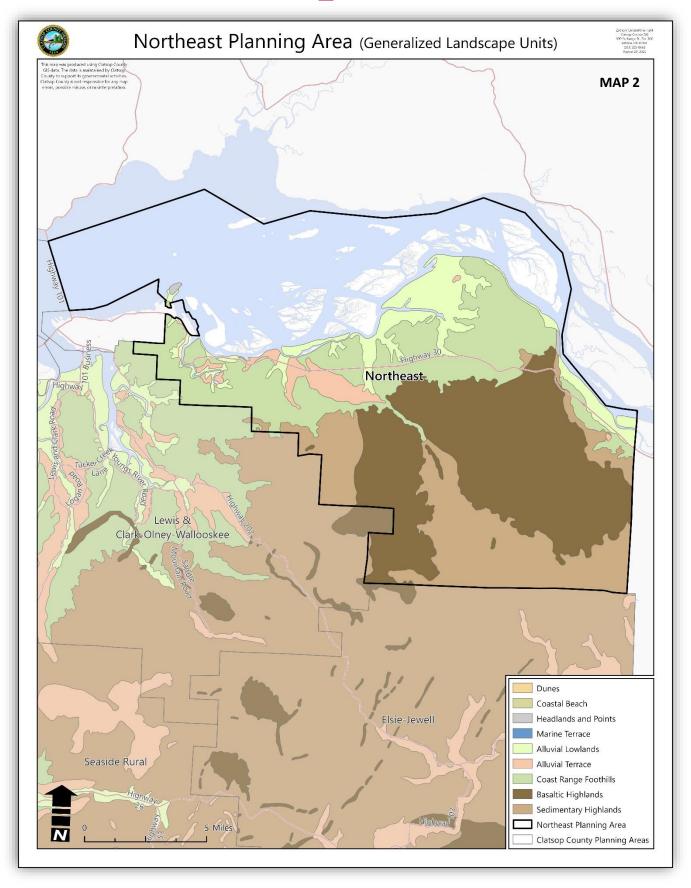


LANDSCAPE UNITS

Introduction

The basic idea of the landscape unit is that it reflects a set of characteristics which, taken together, constitute a natural process. The soils, hydrology, wildlife, vegetation, and land forms are interrelated as a functional unit. The landscape units provide a framework for development that is, in part, based on the land's capability. Each piece of land is in a landscape unit. The landscape units which occur in the Northeast planning area are Alluvial Terraces, Coast Range Foothills, Estuary Wetlands, Waterbodies, Estuary and Shorelands, Sedimentary Uplands, Basaltic Highlands and Headlands and Points. **Map 2** illustrates the generalized landscape units in the Northeast planning area.

Further discussion on the landscape units capacities and limitations can be found in the Northeast Environmental Plan (1974). The Environmental Plan contains four elements: landscape units, critical hazards areas, an open space program, and priority resources areas. Each element performs a specific purpose in incorporating environmental data and policies into the Community Plan Element. The policies in the Environmental Plan are the basis and background for the policies in this section and other sections of the plan.



NORTHEAST COMMUNITY PLAN 2040 – DRAFT 0607

Alluvial Lowlands

Alluvial lowlands are plains occupying valley floors which result from the deposition of material by water. Within the alluvial lowland landscape unit are floodplains, diked lands, fills, and tidal surge plains, or areas where the action of the tide dams the lower Columbia River causing water to spread across the adjacent lowlands.

Alluvial lowlands in the Northeast Clatsop County study area include the lowlands along the Columbia River estuary such as areas southeast of Tongue Point and the areas both east and west of Wauna. Also included are those areas surrounding Brownsmead, the John Day River and Big Creek.

Many of these areas consist primarily of valley floors and possess soils which are poorly drained and constitute serious limitations for development and sanitary facilities.

Alluvial Terraces

Alluvial terraces are relatively flat or gently sloping topographic surfaces which mark former valley floor levels. They are generally the most suitable landscape unit for most types of development in the Northeast. Stream downcutting has caused the terraces to be higher than the present valley floor. Alluvial terrace deposits consist of gravel, sand, and finer material.

In the Northeast area, alluvial terraces are found along the Columbia and John Day Rivers.

The soils of the alluvial terraces consist of well to moderately drained silty soils of the Walluski-Knappa Association. Knappa soils occur on the better drained, front faces of the terrace. Permeability is moderate and slope varies between 0 to 25%.

Walluski soils occur on the lower terraces. Walluski soils have severe limitations for septic tank drainfields due to slow percolation and wetness.

Coast Range Foothills

Coast range foothills are low subsidiary hills on the edges of the coast range uplands. They range in elevation from 250 to 2,000 feet and are generally composed of basaltic and sedimentary rock. They tend to have rounded ridge tops. Slopes vary from 10 to 60%. Much of the rural area of the Northeast is characterized by this landscape unit.

Coast range foothills in the Northeast study area generally start close to the Columbia River shoreline and range southward until they reach heights of about 2,000 feet and become the coast range (i.e. Bradley cliffs). There are some soil limitations due to the high clay and silt content. Foundation characteristics for these soils are generally poor and may have limitations for septic tanks and drainfields.

Estuary Wetlands, Coastal Shorelands and Water Bodies

The Columbia River estuary, its wetlands, tributaries and shorelands are important to the Northeast community as well as the entire state. The Columbia River is the largest river in western North American and plays a major role in the economy, fish and wildlife habitat, energy production, water supply, and scenic and recreational values of the area.

The Columbia River Estuary Study Taskforce (CREST), a bi-state local organization of the governments of Oregon and Washington, completed a regional management program for the estuary in 1979. The program developed for the Northeast County is contained within the Eastern Clatsop Management Unit Plan, one of several plans CREST prepared. The plans together cover the entire Columbia River Estuary and are based on many factors including physical characteristics, biological productivity, fisheries protection, water transport opportunities and economic development.

In 1987, Congress created the National Estuary Program (NEP) to protect and restore estuaries around the nation that are important because of their economic, environmental, and cultural significance. The authorizing language requires the NEPs be locally-driven, cross political boundaries, involve diverse interests, and use science to get actions on-the-ground that improve the nation's significant estuaries.

In 1995, the lower Columbia National Estuary Program was established. The U.S. Environmental Protection Agency (EPA), and the governors of Washington and Oregon created a regional entity of public and private stakeholders to act as a coordinator and convener, to advance scientific understanding, and to get one-the-ground results for the lower Columbia River and Estuary. The mission of this partnership is to preserve and enhance the water quality of the estuary to support its biological and human conditions. The Estuary partnership focuses on the tidally-influenced 146 miles of the Columbia River from Bonneville Dam to the Pacific Ocean in Oregon and Washington (Source: Lower Columbia River Estuary Plan Comprehensive Conservation and Management Plan 2011 Update, Lower Columbia River Estuary Partnership).

The Lower Columbia Estuary Partnership Management Plan was developed between 1996 and 1999 using the scientific research and analysis developed by the Estuary Partnership's predecessor, the Bi-State Water Quality Program, and other contemporary and historical data. That management plan contained 43 actions intended to address seven priority issues:

(1) Biological integrity

- (2) Habitat loss and modification
- (3) Impacts from human activity
- (4) Conventional pollutants
- (5) Toxic contaminants
- (6) Institutional constraints
- (7) Public awareness and stewardship

In 2011, this management plan was again updated, resulting in a set of 17 actions for the region:

Habitat Restoration

- Action 1: Inventory habitat types and attributes in the lower Columbia River and estuary and prioritize those that need protection and conservation; identify habitats and environmentally sensitive lands that should not be altered.
- Action 2: Protect, conserve, and enhance priority habitats, particularly wetlands, on the mainstem of the lower Columbia River and in the estuary.
- Action 3: Monitor status and trends of ecosystem conditions.
- Action 4: Establish and maintain Columbia River flows to meet ecological needs of the lower Columbia River and estuary.
- Action 5: Avoid the introduction of non-native invasive species.
- Action 6: Manage human-caused changes in the river morphology and sediment distribution within the Columbia River channel and estuary to protect native and desired species.

Land Use Practices

- Action 7: Develop floodplain management and shoreland protection programs.
- Action 8: Reduce and improve the water quality of stormwater runoff and other non-point source pollution.
- Action 9: Ensure that development is ecologically sensitive and reduces carbon emissions.

Water Quality and Contaminant Reduction

- Action 10: Expand and sustain regional monitoring of toxic and conventional pollutants.
- Action 11: Reduce conventional pollutants.
- Action 12: Cleanup, reduce or eliminate toxic contaminants, particularly contaminants of regional concern.

Education and Stewardship

- Action 13: Provide information about the lower Columbia River and estuary that focuses on water quality, endangered species, habitat loss and restoration, biological diversity, and climate change to a range of users.
- Action 14: Create and implement education and volunteer opportunities for citizens of all ages to engage in activities that promote stewardship of the lower Columbia River and estuary.
- Action 15: Identify and improve public access to the river.

Regional Coordination and Synchronicity

- Action 16: Facilitate and assist federal, tribal, state and local governments' protection of the lower Columbia River and estuary.
- Action 17: Create and maintain a regional entity (Lower Columbia Estuary Partnership) to advocate for the lower Columbia River and estuary and unify and coordinate Management Plan implementation.

Aquatic and shoreland areas in the Columbia River estuary exhibit a wide range of natural and human features requiring different types of management.

Aquatic areas include the tidal waters and wetlands of the estuary and non-tidal sloughs, streams, lakes, and wetlands within the shoreland planning boundary. The lands underlying the waters are also included. The upper limit of aquatic areas is the line of non-aquatic vegetation or, where such a line cannot be accurately determined, Mean Higher High Water (MHHW) in tidal areas or Ordinary High Water (OHW) in non-tidal areas. Aquatic areas can be divided into wetlands, the upper portion of the aquatic zone, and waters, the lower portion.

Coastal shorelands were also identified in the CREST planning process. The extent of the Coastal Shorelands boundary included:

- 1. Lands which limit, control, or are directly affected by the hydraulic action of the coastal water body, including floodways;
- 2. Adjacent areas of geologic instability;

- 3. Natural or man-made riparian resources, especially vegetation necessary to stabilize the shoreline and to maintain water quality and temperature necessary for the maintenance of fish habitat and spawning areas;
- 4. Areas of significant shoreland and wetland biological habitats;
- 5. Areas necessary for water-dependent and water-related uses, including areas of recreational importance which utilize coastal water or riparian resources, areas appropriate for navigation and port facilities, and areas having characteristics suitable for aquaculture;
- 6. Areas of exceptional aesthetic or scenic quality, where the quality is primarily derived from or related to the association with coastal water areas;
- 7. Coastal headlands.

The following definitions will help one better understand this portion of the Comprehensive Plan concerning the estuarine areas and their related shorelands:

Definitions

AQUATIC AREAS. Aquatic areas include the tidal waters and wetlands of the estuary and non-tidal sloughs, streams, lakes and wetlands within the shoreland planning boundary. The upper limit of aquatic areas is the line of non-aquatic vegetation or, where such a line cannot be accurately determined, Mean Higher High Water (MHHW) in tidal areas or Ordinary High Water (OHW) in non-tidal areas.

SHORELAND AREAS. Estuary shorelands include forests, cliffs and steep topography, diked farm and urban lands along the estuary and the tidal reaches of estuary tributaries; and shoreline areas suitable or already developed for water-dependent uses.

The Columbia River Estuary Study Taskforce (CREST) developed an inventory of Estuary and Shoreland Resources and Regional Policies for the Columbia River Estuary in the 1970s. The policies serve as the base policy statement for the County on development and other actions related to the estuary.

During the process of designating areas for recommended uses in the Northeast planning area, several issues and concerns became apparent. These included wildlife protection, adequate area for development, maintenance of agricultural lands, the use of navigable waters for houseboats, floathouses, and private docking facilities. These issues specifically for the Northeast area are addressed in the plan through policy statements. General policies that pertain to the entire planning area are listed below. More specific policies are

contained in the subarea descriptions which follow.

John Day River – Settlers Point

There is limited development potential in the area. The John Day River being relatively narrow and shallow makes increased river traffic unlikely and could further increase dike erosion. The shorelands of the John Day area are either low and flood prone or steep and unsuitable for intensive development. Factors which could improve development potential in the future would be the use of low areas for disposal of dredged material.

Residential houseboat use has clustered around the John Day bridge for many years. There are also many recreational boathouses in use. The John Day boat ramp is located nearby. In 2003, in coordination with the Department of State Lands and the Department of Environmental Quality, the County revised its regulations and standards for recreational boathouses, floathouses and duck shacks. While all of the existing structures have been allowed to remain as legal non-conforming uses, new floating structures are only permitted within the exception area established within a limited portion of the John Day River.

Tidal marshes are found at the river mouth with significant fish and wildlife values. Fringing tidal marshes also are found adjacent to the railroad along much of the Columbia River shoreline. The tidal marshes at the mouth of Twilight Creek have been intensely studied and are a valuable natural resource. There are several small docks and walkways giving access to tidal channels, managed primarily by a local waterfowl hunting club. Maintenance and improvement of docks and duck shacks is expected.

Dike erosion is a major concern in this area. Property owners are of the opinion that dike material should be obtained using materials dredged from the river. State and federal resource agencies, however, discourage this practice.

Settlers Point, East to Ivy Station and Svensen Island

Most of this area is characterized by rural residential use, agriculture and some forestry. The wetland areas of Mary's, Bear and Ferris Creeks were at one time diked and in agriculture use. Proposals for restoring the dikes have recently been initiated. In 2018, CREST submitted applications to for an estuary enhancement project to restore hydrologic connectivity, including floodplain and tidal processes, between the Columbia River and the Bear, Mary's, and Ferris creek basins. This project was completed in 2019.

The entire Svensen Island is diked and presently used as pasture with several houseboats and private moorage facilities close to the bridge. Some problems with erosion of dikes on the north side of the island have occurred and material to maintain the dikes is difficult to obtain.

Ivy Station to the mouth of Blind Slough

Tidal marshes surrounding Calendar Island and fringing the shoreline north of the railroad have significant fish and wildlife value. Big and Little Creeks, a large tidal spruce swamp at the mouth of the creeks, and Knappa Slough are all predominant features with very high fish and natural resource values. The North Coast Nature Land Conservancy has obtained the old growth spruce swamp at Big and Little creeks and at the mouth of Blind Slough. This estuarine environment is the most important area for anadromous fish populations in the Northeast County, especially with the Big Creek Fish Hatchery located upstream. It also provides needed habitat for bald eagles, great blue herons, and waterfowl. Under the stewardship of the North Coast Land Conservancy, the area is now being conserved and managed. Knappa Slough also has significant historical and archeological value. The Knappa dock was demolished by Clatsop County Public Works in 2019 due to liability and safety issues.

The freshwater wetland areas north and south of Blind Slough are some of the largest, undisturbed tidal spruce and shrub swamps along the shoreline of the estuary. Natural resource values are high and probably similar to the Big Creek area. Blind Slough, Prairie Channel, and Knappa Slough have numerous houseboats, used mainly for recreation, although these are now considered legal non-conforming uses and new houseboats cannot be located in these areas. Water quality is good, water deep enough so that grounding at low water is not a problem, and there are no gillnet fish drifts in the area.

Gnat Creek - Brownsmead

Gnat Creek, with its wetlands, riparian vegetation and important fishery has been recommended for protection by the Nature Conservancy in previous decades. However, information from Clatsop County Assessment and Taxation indicates that the properties immediately adjacent to Gnat Creek remain under private ownership. The recreation value of the stream for sport fishing is high, however, and some pressure exists for installation of private docks on the adjacent shore.

The CREST Plan designated the marsh Conservation with a policy to carefully evaluate each project for docks or moorages. The policy further states that projects or alteration which would have a detrimental impact on fishery values would not be permitted.

The Northeast Plan designates this area south of Brownsmead Hill Road Natural because of the high fisheries value and rich diversity of marsh plants and wildflowers, including wapato (Sagittaria latifolia - a plant species of concern) as well as habitat for marsh wildlife. The wet marsh habitat and dense brush areas naturally restrict access but uses on adjacent lands should also be controlled to avoid possible impact to the site.

The Brownsmead area, according to the U.S. Soil Conservation Service is the best agricultural land in Clatsop County, and is designated Exclusive Farm Use (EFU). The public boat launching facility at Aldrich Point has not and should not be expanded because the traffic

generated by the facility already causes problems with local rural farm uses. There are several other water access points <u>available to the public</u>. Private docks are located mainly on Blind Slough.

Clifton Channel and Bradwood

The old fishing community of Clifton still has several residential structures that are occupied on either a full- or part-time basis. This area was previously used as a staging area for fishing the Clifton Channel with gillnet fish drifts. These fish drifts were very productive, but are hampered by drifts and snag material. In December 2012, the Oregon Fish and Wildlife Commission voted 4-2 to ban gillnets from the mainstem of the Columbia River.

The aquatic areas of Clifton are designated "Conservation" and zoned Aquatic Conservation Two (AC-2). The purpose of the AC-2 zone is to "conserve designated areas of the Columbia River Estuary for long term uses of renewable resources that do not require major alterations of the estuary, except for the purpose of restoration." The AC-2 zone includes "areas needed for maintenance and enhancement of biological productivity, recreational resources, aesthetic values, aquaculture and open water portions of the estuary." The shoreland immediately adjacent to the water is designated "Rural" which would allow the development of on-shore fishing facilities and marina development in conjunction with expanded water use.

The Bradwood industrial site has been dormant for many years. In the past several decades, the site was proposed for a liquified natural gas (LNG) facility and a destination resort. The site contains a variety of zones, including Aquatic Natural, Aquatic Development and Marine Industrial. Both the Aquatic Development and Marine Industrial zoning would allow small to medium sized water dependent development. There is deep water close to shore, some available vacant land, and railroad access. There are constraints to development, however, including poor highway access and the proximity to the wildlife refuge.

Sedimentary Uplands

Sedimentary uplands consist of areas above the alluvial terraces, underlain chiefly by sedimentary rocks. Most sedimentary rocks are round-found below 1,200 feet, although in a few areas Eocene age sedimentary rocks are exposed at elevations of 2,000 feet. Slopes may vary from 10 to 60%.

In the Northeast study area of Clatsop County there are significant areas of sedimentary uplands. Sedimentary uplands are characteristically lower and and or more gradually sloped than the basaltic highland, and are generally found at elevations above 250 feet.

Landslides are the major geologic hazard of the uplands. Landslide topography is present and occurrences of inactive landslides are typical. The sedimentary rock of the upland area is much more susceptible to landslides than are the basalt outcrops of the higher peaks.

Basaltic Highlands

Basaltic highlands are underlain by igneous material. Most basaltic highlands are over 1,200 feet in elevation although outcrops of basalt are also exposed at lower elevations. Slopes are frequently over 40%.

Basaltic highlands in the Northeast study area of Clatsop County are found in the interior, which include both Nicolai and Wickiup Mountains.

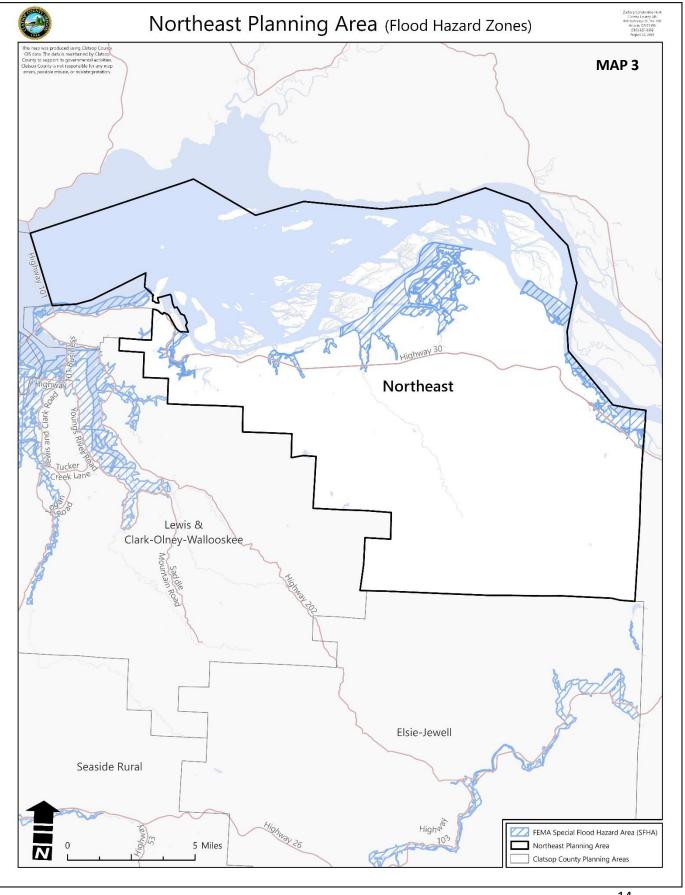
NATURAL HAZARD AREAS

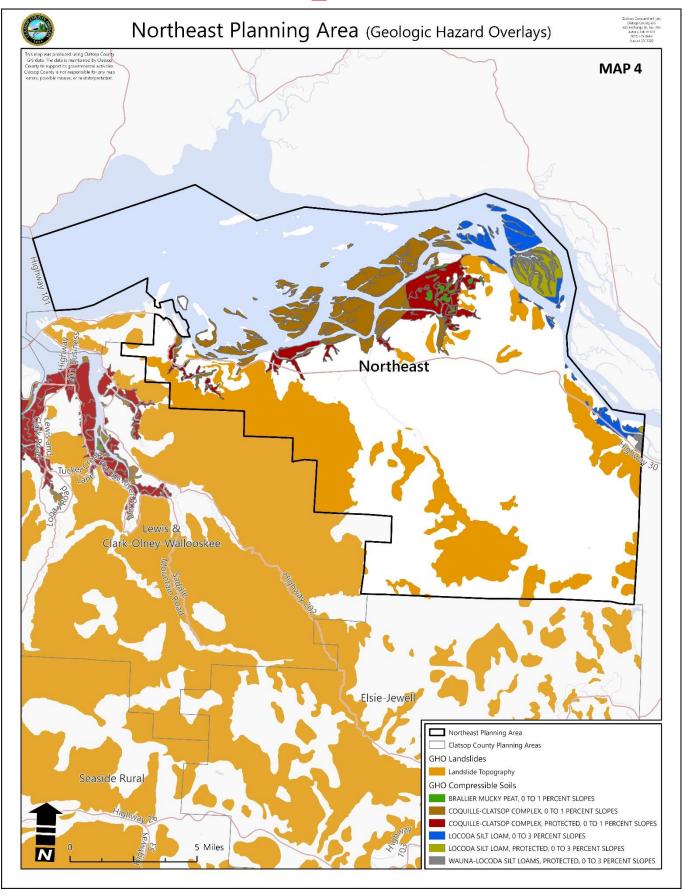
Areas within the Northeast are susceptible to the following natural hazards:

- 1. Mass movement
- 2. Stream flooding
- 3. Streambank erosion
- 4. Wildfires

Hazard areas in the Northeast County are shown on Maps 3 and 4.

These areas pose risks for the construction of buildings, utilities and roads, and for the safety of persons living in those areas. The degree of risk varies over these areas. For example, some areas along Big Creek have chronic stream flooding and erosion problems that can be solved through careful construction; certain sites in landslide prone or mass movement areas of the Northeast (i.e. above George Hill Road and south of the John Day River Road) are suitable for construction if a thorough site investigation is carried out. Hazardous areas are classified with respect to the degree of risk present.





NORTHEAST COMMUNITY PLAN 2040 – DRAFT 0607

NATURAL RESOURCES

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.

Per information from the National Weather Service, average annual rainfall in the Astoria area is approximately 70.26 inches. Oregon State University places precipitation levels in the Northeast Planning Area between 70-100 inches per year. Much of this precipitation falls on the relatively impervious and steep slopes of the Coast Range Mountains. 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 summer 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. As shown on **Tables 1 and 2**, below, these streams fluctuate considerably between January and August. In summer months, there may be insufficient flow to fulfill instream and off-stream water rights. 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 summary months the stream decreases until August when it is 7cfs. 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 summar, 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.

TABLE 1: BIG CREEK STREAM FLOW AND NET WATER AVAILABILITY (Cubic Feet / Second)					
MONTH	NATURAL STREAM FLOW	COMSUMPTIVE USES AND STORAGES	EXPECTED STREAM FLOW	INSTREAM FLOW REQUIREMENTS	NET WATER AVAILABILITY
January	191.00	3.21	188.00	130.00	57.80
February	199.00	3.21	196.00	130.00	65.80
March	149.00	3.21	146.00	130.00	15.80
April	123.00	3.21	120.00	130.00	-10.20
May	92.20	3.23	89.00	78.00	11.00
June	46.40	4.08	42.30	52.00	-9.68
July	23.90	4.18	19.70	36.30	-16.60
August	16.70	4.14	12.60	25.20	-12.60
September	17.00	4.03	13.00	24.30	-11.30
October	20.80	3.21	17.60	50.00	-32.40
November	38.10	3.21	34.90	99.00	-64.10
December	131.00	3.21	128.00	130.00	-2.21
ANNUAL	97,000.00	2,540.00	94,400.00	64,100.00	36,000.00

Source: Oregon Water Resources Department

TABLE 2: GNAT CREEK STREAM FLOW AND NET WATER AVAILABILITY (Cubic Feet / Second)					
MONTH	NATURAL STREAM FLOW	COMSUMPTIVE USES AND STORAGES	EXPECTED STREAM FLOW	INSTREAM FLOW REQUIREMENTS	NET WATER AVAILABILITY
January	122.00	1.28	121.00	0.00	121.00
February	127.00	1.28	126.00	0.00	126.00
March	94.90	1.28	93.60	0.00	93.60
April	78.10	1.28	76.80	0.00	76.80
May	58.80	1.28	57.50	0.00	57.50
June	31.80	1.31	30.50	0.00	30.50
July	18.80	1.32	17.50	0.00	17.50
August	14.40	1.31	13.10	0.00	13.10

TABLE 2: GNAT CREEK STREAM FLOW AND NET WATER AVAILABILITY (Cubic Feet / Second)						
MONTH	NATURAL STREAM FLOW	COMSUMPTIVE USES AND STORAGES	EXPECTED STREAM FLOW	INSTREAM FLOW REQUIREMENTS	NET WATER AVAILABILITY	
September	14.70	1.31	13.40	0.00	13.40	
October	16.5	1.28	15.20	0.00	15.20	
November	26.10	1.28	24.80	0.00	24.80	
December	81.00	1.28	79.70	0.00	79.70	
ANNUAL	63,000.00	935.00	62.100.00	0.00	62.100.00	

Source: Oregon Water Resources Department

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.

It is anticipated that occurrences and duration of drought events will increase in the future.

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). Groundwater usage in Clatsop County has increased along with development over the past 20 years to 30 years. From 1990 to 1995, approximately 250 wells were drilled within the county, compared to over 1,000 wells installed from 2015 to 2020.

Well production rates in the county vary significantly due to the heterogeneity of the Coast Range aquifers, ranging from less than 10 to over 300 gallons per minute (gpm). Relatively shallow wells, most completed to less than 200 feet deep in unconsolidated alluvium (permeable sand and gravel deposited by streams), tend to demonstrate fairly stable water levels over the past 20 years. However, stable groundwater levels demonstrated in some shallow alluvial wells can be due to an efficient hydraulic connection between the groundwater system and nearby streams; in some of these cases, most of the water pumped from hydraulically-connected wells actually originates from the streams (i.e., the groundwater aquifer is "recharged" primarily by water from surface water bodies). This capture of surface water by hydraulically-connected wells can cause or exacerbate existing low streamflow conditions.

Deeper wells constructed in basalt and sandstone aquifers within the northeast portion of Clatsop County typically demonstrate an even greater variability of groundwater levels and well yields. For example, a well at the Gnat Creek Fish Hatchery that is completed in sandstones overlain by basalt historically reported flowing artesian conditions, meaning that the groundwater system there is sufficiently pressurized such that water would flow freely above the ground surface if the well were not capped (however, the last water level from that well was submitted to the state in 1987, so it is not known if flowing artesian conditions still exist at that location). Conversely, two other nearby wells operated by the Knappa Water District, one completed in basalt and sandstone and the other only in basalt, have shown groundwater level declines of about 100 to 140 feet over the past 20 years. Originally-reported well yields for these three particular wells ranged from about 100 to 300 gpm, although it is probable that the two wells suffering significant water level declines can no longer produce their originally-reported yields. Finally, deeper basalt and sandstone wells in this portion of the county may or may not be hydraulically connected to nearby streams.

<u>Due to the exceptional variability of groundwater conditions in Clatsop County, particularly in the upland areas near Big Creek and Gnat Creek, a thorough site-specific hydrogeologic evaluation of prospective well sites should be completed prior to any potential groundwater development efforts by the county.</u>

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.

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.

Forest lands are the predominant use of the land area of the Northeast. Those areas owned by corporate and state interests are intensively managed for timber production. Forestry is the primary industry of the area. While some small property owners operate holly tree farms or nurseries or manage woodlots, many are not at this time taking advantage of the benefits of small woodland management.

CULTURAL

Housing

Per information from the 2020 decennial census, the Knappa-Brownsmead grew 7.6% between 2010 and 2020, have a population of 2,144. Svensen, which was not counted as a separate place in 2010, had a 2020 population of 853.

The biggest building boom occurred in 1967 when the Wauna Mill opened. Since that time, new construction has continued on a relatively steady basis within the Northeast Planning Area. Between 2005 and November 24, 2021, 254 permits were issued for the construction of new single-family and two-family dwellings in the Northeast Planning Area. During that same time period 912 permits were issued countywide, indicating that 27.8% of new homes constructed during that timeframe were located within the Northeast Planning Area.

The 2019 *Clatsop County Housing Strategies Report* states that over 60% of the housing stock in the entire county was constructed prior to 1980. Over 40% of the county's housing stock was constructed prior to 1950. The homes in the Northeast County are primarily single family detached dwellings.

As construction of buildings increases, proper sewage disposal by individual sewage systems becomes more imperative and the need for community sewers may become more prominent during the 20-year planning horizon. Increased populations will also add pressure to the water districts that serve these neighborhoods. The availability of water and sewer-septic capacity must be considered in the housing plan for the area.



Aldrich Point Boat Ramp

Recreation

Clatsop County has emphasized its great recreational resources by developing parks and picnic areas, boat launch sites, and beach access points within the Northeast planning area, including:

- 1. John Day County Park consisting of 54 acres on the river front, public boat launch, toilets and parking facilities.
- 2. Big Creek County Park consisting of 36 acres near the creek. The park contains a ball field and public access to Big Creek fishery and open space recreation. No facilities are provided at the park.

- 3. Aldrich Point Boat Ramp on one acre with one boat lane for Columbia River access. This ramp and access point accommodate both motor boats and kayaks and is privately owned and operated.
- 4. Nicolai OHV Area Located approximately 25 miles east of Astoria off State Route 30, the OHV area offers opportunities for all classes of OHV's with <u>east_easy</u> to moderate trails that meander through 30 miles of working forest. The area has four designated campsites and a staging area, picnic sites, and restroom facilities.
- 5. Westport Boat Ramp Park This 27-acre facility was officially opened to the public on February 1, 2022. The improvements include a public boat launch, picnic and restroom facilities and a park host.

Other access points and recreational facilities in the area are at Gnat Creek, providing fishing, hunting, and picnicking, and at the Bradley Wayside scenic viewpoint and picnic area. Several trails leading from the Gnat Creek Fish Hatchery connect to Gnat Creek Falls and the State Department of Forestry campground on the west side of Highway 101.



Nicolai Mountain OHV Area

Ballfields and playgrounds are located at the Big Creek Park, and Knappa High School. Private riding stables and campgrounds are also located throughout the Northeast Planning Area.

The plan recognizes the importance of providing public access to the Columbia River, its tributaries, and sloughs. But these access points should be limited because of the area's natural environment for wildlife, the desire to protect areas from overuse and potential damage, and in consideration of the rural nature of the area.

The needs of out-of-area visitors are even more difficult to meet. For instance, there has been some pressure to expand the Aldrich Point facility, which currently consists of one boat lane on one acre of land at the terminus of a long, narrow, winding County road that passes through some of the best dairy land in the County. Aldrich Point Road is <u>a</u> typical a country road, with numerous cattle crossings, playing children, and slow vehicles. Additional use of the facility could potentially alter the rural lifestyle of the area.

Recreation is an important human need, it provides the opportunity for personal fulfillment, broadens interest, and helps create social interaction. Policies for recreation are controversial, however. The mass use of recreational areas involves a direct dilution of the opportunity for solitude. Some other major issues involved are problems with trespassing, road safety, wildlife protection, and potential loss of the rural character of the area. In addition, existing parks are not being used to their full potential. Without officially designated

and well-maintained public areas these problems could multiply. New sites must be well chosen and types of uses must be controlled if a benefit is to be realized.

Open Space, Historic, Scenic and Natural Areas



Barrier Falls

The Northeast County is rich in natural history and beauty. The abundant network of channels and shoals, the wooded islands on the river, high sheer bluffs, heavily forested mountains, and green meadows, overhead power lines, and scattered housing, makes this area unique to the other coastal communities. This ancestral homeland to the Chinook Indian tribe, which remains unceded, was inhabited centuries before the coming of Lewis and Clark's Clark. Later loggers, fisherman, hunters and farmers found their way to this land by the river. Today, the Northeast County is still sparsely settled with much to preserve and enhance.

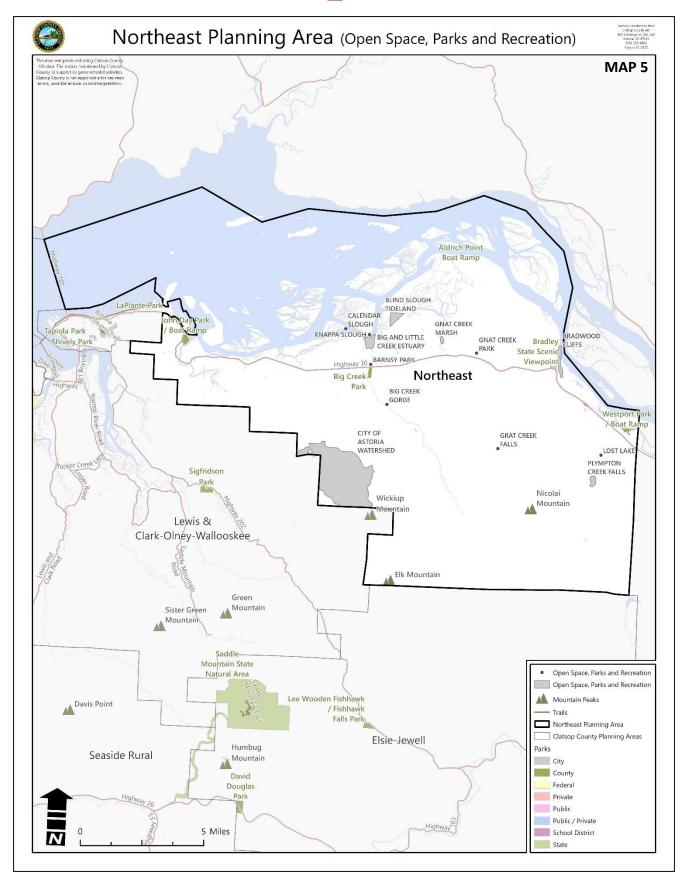
The following discussion and policies are in addition to those found in Goal 5: Open Space, Scenic and Historic Areas and Natural Resources; Goal 8: Recreational Needs; Goal 16: Estuarine Resources; and Goal 17: Coastal Shorelands. Sites inventoried in this section that are in addition to those inventoried in the above referenced reports are local desires and are not to be construed as additional Goal 5 site requirements.

Open Space

Open space is one of the benefits that results from Resource resource Management management, which relates to the ability of the land to yield a resource on a sustained basis. These resource management lands, such as forest and agriculture lands provide or have potential economic value which requires some form of protection to maintain their wise utilization. A majority of the Northeast area will be preserved for forest uses and the entire Brownsmead area preserved for agriculture.

Parks and other recreational areas provide open space as part of their function. Gnat Creek Park and Big Creek Park consists of large open spaces that will remain undeveloped. A complete inventory of recreation areas, including ballparks and playgrounds is contained in the Recreation Section.

Areas that are to be preserved in their natural state for resource or wildlife or wildlife protection such as the Columbia River Islands, will provide large areas of open space in the Northeast. Descriptions of these areas are contained in the following pages.



NORTHEAST COMMUNITY PLAN 2040 – DRAFT 0607

The Northeast Community Plan encourages the clustering of homes to provide additional open space. In addition, the provision of acreage homesites provides elbow room and will maintain a rural open space character for much of the Northeast.

Historic Areas

Historical sites which have been inventoried in the Northeast include the Lewis and Clark campsite near the Knappa dock and the Westport log tunnel. Two old sawmills, the Bradwood Sawmill and the Shepherd and Morse Sawmill, have also been identified and serve as important landmarks of the economic history of the County. These sites are potentially important to industry and are located on land especially suited for water dependent uses. What remains of their past use (i.e. pilings, foundations, etc.) will probably be removed to make room for new development. Signs would be appropriate to inform the public of the historical nature of these sites.

The Lewis and Clark campsite is also believed to be the site of a Native American village and has been investigated by amateur archeologists. A residence presently exists on the site and further excavation of the area would appear difficult. Another archeological site is located under the railroad tracks in approximately the same area. The sites are presently privately owned. The Westport log tunnel is in a forest management area and the owner has recognized its significance and intends to protect the area. A trail leading up to the tunnel is oftentimes used by hikers.

Scenic and Natural Areas

Scenic views that characterize the Northeast area include the vistas of Wickiup, Nicolai and other Coast Range Mountains and views of the Columbia River. The Coast Range Mountains dominate the landscape of the area and can be viewed traveling along the Columbia River Highway as well as through much of the planting planning area. The coastal foothills are a forest resource area and will be protected from intensive development. The Columbia River Highway closely follows the river from the John Day River to Settler's Point providing many scenic vantage points. From this area eastward, a visitor to the area must leave the highway and follow a County road down to the river. Particularly interesting is the Knappa dock area and Aldrich Point, both areas having a boat dock or boat launch open to public use. The most satisfying scenic views, however, can be obtained from the thousands of acres of water open to recreational use.

The <u>Bradwood Bradley</u> wayside, located near the top of Clatsop Crest, offers a sweeping vista of the Columbia River and surrounding miles of countryside. This is probably the most well-known scenic area and is preserved as a State Park.

Various possible natural and scenic areas of the Northeast have been identified through the Oregon Natural Heritage Program. These include the following areas:

1. Bradwood Cliffs.

The area consists of 40 acres of old growth Douglas Fir forest standing on <u>a</u> basalt ledge overlooking the Columbia River. This stand is highly natural and the old trees will continue to constitute a viable natural ecosystem if left alone. The steep rocky slopes could not tolerate logging.

2. Knappa Gorge.

This area consists of a scenic gorge with areas of basalt cliffs, outcroppings, and steep terrain with Big Creek flowing below. A logging road parallels the creek in the bottom of the gorge. Passive recreation potential is high; a trail up the gorge would be compatible with the natural character, as would be scientific research that might be carried out here.

3. City of Astoria Watershed.

This 3,700-acre area contains the entire Bear Creek watershed down to the dam and Astoria reservoir. Included are Wickiup Lake and Middle Lake, both small and natural. Per information from the 2014 *City of Astoria Bear Creek Watershed Forest Resource Management Plan,* the Crown Zellerbach Corporation owned most of the forest within the watershed prior to city ownership. Under corporate management, the majority of the property was logged from the 1930s to the 1950s. The reforestation efforts included a mix of planting, seeding and natural regeneration, resulting in a forest with a mixture of species, density and age classes.

4. Knappa Slough.

The approximately 150 acres is a segment of the natural shoreline on the Columbia River, comprising tidelands, fringe marsh, and riparian swamp. One of the few remaining segments of natural shoreline, the slough provides needed habitat for bald eagles, great blue herons, and waterfowl.

5. Big Creek and Little Creek Estuary.

This highly diverse estuary is exceptionally unique and one of the few remaining examples of pristine estuary on the lower Columbia River. The lowland is estuary dominated by a magnificent Sitka Spruce swamp with fringe marsh and riparian hardwoods bordering on the slough. The streams support large anadromous fish runs and provide excellent feeding grounds for the endangered Northern Bald Eagle.

Gnat Creek Falls.

Gnat Creek has a series of seven falls dropping a total of 1,500 feet in less than one mile, the highest having a drop of 60 feet. This very serene and beautiful area has some of the most spectacular waterfalls in Clatsop County. A well designed trail would alleviate some of the danger of maneuvering on the wet, steep slopes and open the area for hiking.

7. Gnat Creek Marsh.

The marsh is on a flat, lowland surge plain near the mouth of Gnat Creek on Blind Slough. It is dominated by a rich diversity of marsh plants. The marsh is generally undisturbed.

8. Plympton Creek Falls.

The falls lie in a steep forested canyon above Westport. Giant fire-scarred old Douglas Fir up to 6-six feet in diameter cover the rocky steep slopes. A large 75 foot high basalt ridge blocks the canyon to form fan-shaped Plympton Creek Falls which drops 30 feet to a deep pool and gravel bar.

Fish and Wildlife

The Northeast County is perhaps the most important habitat area for salmon and fish species, whales, eulachon, eagles, waterfowl, white-tail deer, marbled murrelet, and other wildlife in Clatsop County.

Sensitive areas for fish in the Northeast County are rivers, streams, and estuaries. Big Creek, Gnat Creek, Bear Creek and Plympton Creek have been identified as anadromous fish spawning streams. Anadromous fish hatch in upland freshwater streams, migrate to sea to spend a major part of their life, and return to the freshwater upland stream to spawn a new generation of fish. Important to these streams is the maintenance of water quality and low turbidity levels. Fish hatcheries, to-which augment the natural production of anadromous fish, are located on Big Creek and Gnat Creek. These facilities are a significant component of the area's economic and environmental sectors.

Big Creek Hatchery, which began operation in 1941, is located 16 miles east of Astoria, Oregon, 2-two miles south of Knappa off Highway 30, and is approximately 3-three miles upstream from Big Creek's confluence with the Columbia River. Current water rights total 36,158 gallons per minute plus an additional 4.2 cubic feet second reservoir water right. All water supplies are delivered by gravity but can be pumped for reuse if required. The facility is staffed with 7.42 FTE's. Per information in the 2020 Program Management Plan, the Fall Chinook, Spring Chinook, Coho and Steelhead programs are harvest programs intended to mitigate for fishing and harvest opportunities due to habitat loss and blockages caused by the Columbia Basin hydropower systems. The Chum Salmon program is a conservation program intended to increase the number of naturally produced fish. (Source: Big Creek Hatchery Program Management Plan 2020).

Gnat Creek Hatchery is located along Gnat Creek, a lower Columbia River tributary approximately 17 miles east of Astoria, Oregon. The hatchery was constructed in 1960 as part of the Columbia River Fisheries Development Program, which was designed to enhance declining fish runs in the Columbia River Basin. The area of the site is 15.27 acres, leased from the Oregon Department of Forestry.

Water rights total 21,643 gallons per minute from Gnat Creek, an unnamed stream and a well. Hatchery water is delivered by gravity flow from Gnat Creek. Water flows range from a high of 3,320 gallons per minute to a low of 1,810 gallons per minute. Well water is used for domestic purposes and the unnamed stream is not currently used for fish culture. The facility is operated with 3.0 FTE's. Per information from the 2019 Management Plan, the Spring Chinook and Water Winter Steelhead programs are harvest programs. (Source: Gnat Creek Hatchery Program Management Plan 2019).

Headwater areas are sensitive drainages that fish generally do not inhabit, but where human activities can cause a direct impact on downstream water quality. The goal for these areas is to reduce erosion and turbidity. Maintaining cold, clear and abundant water supply to promote and maintain healthy fish habitat is imperative. Headwater areas in the Northeast are located in areas planned for forest uses which thereby limits development. Strict adherence to the Forest Practices Act will help to maintain water quality in headwater areas.

The Northeast County is thought to contain one of the last remaining areas inhabited by the endangered Columbian White-tailed Deer. Essential habitat has been mapped to include all of Tenasillahe Island and areas north and east of Westport. Tenashillahe Island is part of the Columbian White-tailed Deer National Wildlife Refuge and is designated predominantly Conservation in the Lower River and Islands Plan.

The diked land east of Westport is designated Conservation Forest Lands which provides for farm, forest, and open space uses compatible with maintenance of Columbia White-Tailed Deer habitat.

Portions of the peninsula north of Westport have previously been committed to residential use. The past subdivision approval required installation of appropriate fencing and that the adjacent wetland be protected for continued habitat use. This wetland area has been designated "Conservation" in the CREST Plan.

The Northeast area is an important nesting, feeding and resting area for resident and migrating waterfowl. The Lewis and Clark National Wildlife Refuge includes approximately 20 islands stretching over 27 miles of the Columbia River, from the mouth upstream nearly to Skamakowa, WA. The riverine islands contain tidal sand flats and marshes, forested swamps and upland pasture. These habitats support large numbers of waterfowl, gulls, terns, wading birds, shorebirds, and a variety of raptors and songbirds. This refuge has been protected with NATURAL and CONSERVATION OTHER RESOURCES designations in the Plan.

The Northeast County also contains some rather small, but very important populations of wildlife such as eagles, hawks, owls and white-tailed deer, whose numbers should be protected wherever possible.

Bald eagles have historically nested in large numbers on the Lower Columbia River. Because of habitat destruction, the population has drastically declined. The Twilight Eagle Sanctuary has been established for the protection of bald eagle habitat.

Ruffled grouse, blue grouse, mountain quail, valley quail, and ring-necked pheasant are the most numerous and most hunted upland game birds in ODFW's Harvest Area 1, which includes Clatsop County. Maintaining a wide variety of vegetation is important, especially seed and fruit bearing plants. Reduced populations of upland game birds are probably the product of chemical manipulation of insects and vegetations, predator increases and habitat changes. With reference to big game, the Oregon Department of Fish and Wildlife classifies areas within the County as Major Big Game Range, Peripheral Big Game Range and Excluded Range.

Transportation

The transportation system in the Northeast as well as the whole County, has been greatly influenced by the natural features of the land and water; the single most important factor being the Columbia River.

Highway 30 is the major state highway in the Northeast. The highway is in good repair. On weekends and holidays, traffic volumes increase, becoming particularly gridlocked as vehicles reduce speeds and enter the Astoria city limits. Traffic volumes during these times also increase queue lengths for drivers waiting to access or cross Highway 30. While highway approaches are minimized by the Oregon Department of Transportation, additional residential development on the north and south sides of Highway 30 are collected via local roads to limited access points with the intersection of the highway. During peak traffic hours, the increased local traffic may have difficulty accessing or exiting the highway. As noted on **Table 13**, below, traffic on U.S. Highway 30 had been increasing prior to the start of the pandemic lockdowns in March 2020. While traffic volumes dropped in 2020, it is anticipated that those volumes will again continue to rise beginning in 2021 and through the 20-year planning horizon.

TABLE 3: U.S. HIGHWAY 30 TRAFFIC VOLUMES (2018-JULY 9, 2021)				
		AADT*		
ROAD SEGMENT	2020	2019	2018	
Columbia/Clatsop County Line	6,797	7,500	6,900	
0.02 Miles East of Westport Ferry Road	6,873	7,600	7,000	
0.02 Miles West of Westport Ferry Road	6,322	7,000	6,400	
0.20 Miles East of Taylorville Road	6,056	6,700	6,300	
0.20 Miles West of Taylorville Road	4,566	5,100	5,400	

TABLE 3: U.S. HIGHWAY 30 TRAFFIC VOLUMES (2018-JULY 9, 2021)				
	AADT*			
ROAD SEGMENT	2020	2019	2018	
Fertile Valley Creek Bridge	5,551	6,200	5,500	
Big Creek Bridge	6,797	7,500	7,000	
0.03 Miles West of John Day Road	7,819	8,700	8,400	
0.05 Miles West of Nimitz Road	9,577	10,600	10,600	

^{*}AADT: Average Annual Daily Trips

Source: Oregon Department of Transportation, State Highway Traffic Volumes

The automobile is the major transportation mode in the Northeast. There is limited bus service for the area. Per information from the 2019 *Clatsop County Housing Strategies Report,* 39% of working residents work somewhere outside of Clatsop County. Of the jobs available within the county, 70% are filled by persons who live within the county. However, if that data is more finely filtered by employment within incorporated areas, the majority of those positions are held by non-residents of the city where the job is located. This indicates that while people may reside in one area of the county, they are commuting to employment in other parts of the county. In unincorporated Clatsop County.

Rail service is provided by Burlington Northern Santa Fe Corporation and is limited to freight traffic. Major rail traffic is from Portland and consists mainly of exports of lumber and paper products from the Wauna mill. Water transportation is also utilized by other industries. The Columbia River handles all classes of waterborne commerce including dry cargo ships and tankers up to 50,000 tons, barges, commercial fishing vessels and pleasure craft. Many of the sloughs and channels are used for transportation.

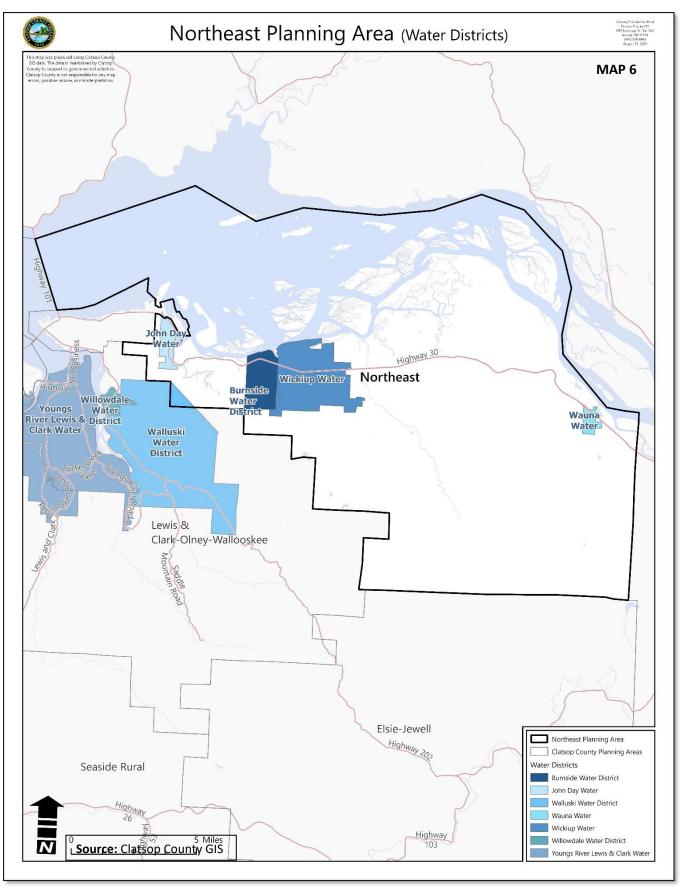
PUBLIC FACILITIES AND SERVICES

WATER SYSTEMS

While the Comprehensive Plan and companion community plans identify water districts that operate within the unincorporated regions of Clatsop County, the County does not have jurisdiction over these special districts. These facilities are subject to state regulations, which are overseen by the Oregon Health Authority's Drinking Water Services program. It should be noted that the information provided in **Table 4** below is only a static representation of the water districts at a specific point in time. The Northeast Planning Area includes the following water districts:

System	Number of Connections	Estimated Total Population Served	Existing Source and Water Rights	System Size (Range of Connections
Burnside Water District	112	315	Purchased Surface Water	SMALL: 1-29
Fernhill Community Water System	91	300	Purchased Surface Water	SMALL: 1-29
Georgia Pacific CO LLC Wauna	1	700	Surface Water	Data Not Available
John Day Water District	101	350	Purchased Surface Water	Data Not Availabl
Knappa Water Association	574	1,800	Groundwater	LARGE: 300
Olney-Walluski Water Association	233	530	Purchased Surface water	SMALL: 1-29
OPRD Bradley State Wayside	2	383	Groundwater	Data Not Availabl
Wauna Water District	68	188	Groundwater	Data Not Availabl
Westport Heights	40	90	Groundwater	Data Not Availabl
Westport Water Association	165	550	Purchased Groundwater	SMALL: 1-29
Wickiup Water District	636	1,590	Surface Water	LARGE: 300

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



The City of Astoria supplies water to the Burnside, Fernhill, John Day, Olney Walluski and Willowdale districts. Per information from the *Astoria Water System Master Plan DRAFT*, dated February 9, 2021, the combined water use of those seven districts, accounted for approximately 10% of the City's total metered water usage. Additional water service is provided to portions of east Clatsop County, such as the River Ranch Subdivision, by the Clatskanie Public Utility District (PUD).

The Wickiup Water District serves an estimated 1,590 people in the Svensen area from its water source at Little Creek. The system has connected with the Burnside system providing this district with the future potential to purchase water from Astoria.

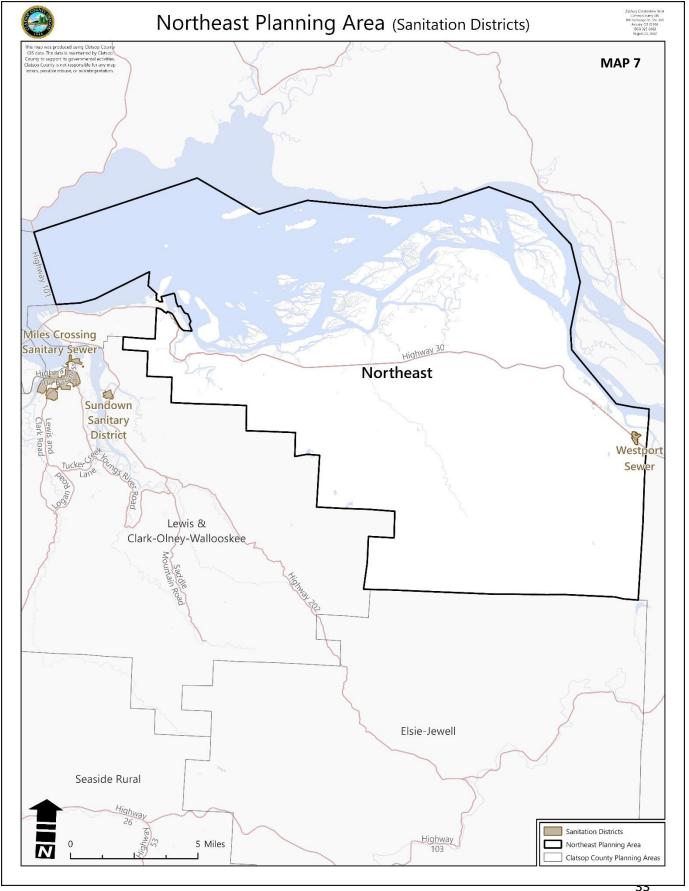
The Knappa Water System serves an estimated 1,800 people in the Knappa and Brownsmead areas.

A number of well systems are also being utilized in the area and may be a feasible alternative where the water districts have limited capacity.

SEWER SYSTEMS

The Northeast is utilizing septic tanks primarily served by individual private septic systems. The only sewer district that is operated within the Planning Area is the Westport Sanitary District, which is operated by Clatsop County Public Works. This district serves 90 connections and is funded by user fees. In 2007, the Oregon Department of Environmental Quality (DEQ) required the district to expand and reconfigure its sewer plant to an_ultraviolet treatment of wastewater in order comply with wastewater standards. Those improvements cost in excess of \$1 million and were funded by a \$1 million grant from the Oregon Economic Development Division, a \$112,250 loan from DEQ and by user fees.

While not connected to sewer systems, houseboats and floating structures are intrinsically combined with septage issues in the Northeast Planning area. Since 2000, expansion of this type of residence has been limited to a portion of the John Day River where they have historically been a way of life. Current regulations of the Department of Environmental Quality (DEQ) concerning sewage disposal indicate that additional houseboats are unlikely. These residences also block navigable waters which could otherwise be used by the public. The County should continue to support all requirements and standards required by DEQ with regard to houseboats and floating structures.



DIKING DISTRICTS

There are 10 diking districts within the Northeast Planning Area:

- John Day #14 (also known as John Day Diking District): Active
- Svensen Island District (formerly known as Svensen Island Drainage Improvement District): Registered as an improvement district in 1976
- Karlson Island #10 (also known as Karlson Island Diking District): Last record in 1939
- Knappa #12 (also known as Knappa Diking District): Last record from 1947. No long official, but function unofficially.
- Blind Slough Dike Improvement #7 (formerly Diking District #7; also known as Blind Slough Diking District): Became a Diking Improvement Company in 1986
- Gnat Creek #4 (also known as Blind Slough / Gnat Creek Diking District): Last record was in 1961
- Blair Diking District: Map was from 1937, but no other records exist. District may never have come into existence
- Tenasilahee Island #6 (also known as Tenasilahee Island Diking District): Dissolved January 6, 1984
- Westport Drainage Improvement #15 (also known as Westport Drainage District): Active
- Clatsop #1 Drainage Improvement Company: Active
- Clatsop Diking Improvement Company #7: Active

As noted above, many of these diking districts are no longer active. This has implications for the responsibility for ongoing repairs and maintenance. Because much of the agricultural land along the Columbia River and contributing sloughs and streams was created by constructing dikes, these areas are vulnerable when maintenance is continually deferred. Rising sea levels will also impact dikes and the land behind those structures if the dikes are not properly maintained.

SCHOOLS

The<u>re are</u> three school districts within the planning area: Astoria District #1, Knappa School District #4 and Clatskanie School District #6J. In 2018, voters approved a \$70 million bond initiative for investments in safety and security, needed repairs and energy efficiencies, replacement of a portion of the Astoria Middle School, and investments in vocational and technical education.

In November 2021, voters approved, by a 68%-32% affirmative vote, to approve a \$14 million bond measure to make improvements to Hilda Lahti Elementary and Knappa High School. The funds will be used to construct a new building containing classrooms, a science lab, a learning hub, and to construct a gym at the elementary school. The monies will also be used to develop a new preschool. Other maintenance issues, such as deteriorating roofs, and upgrades to electrical, heating and ventilation systems are also scheduled as part of the bond package.

TABLE 5: NORTHEAST PLANNING AREA – SCHOOL SYSTEMS								
System	Knappa School District #4		Astoria School District #1				Clatskanie School District #6J	
	Hilda Lahti	Knappa	John Jacob	Lewis and	Astoria	Astoria	Clatskanie	Clatskanie
	Elementary	High	Astor	Clark	Middle	High	Elementary	Middle School
		School	Elementary	Elementary	School	School		
Grades	K-8	9-12	K-2	3-5	6-8	9-12	K-6	7-12
Enrollment	349	141	357	424	433	562	367	282

Source: Oregon Department of Education At-A-Glance District Profiles 2020-21

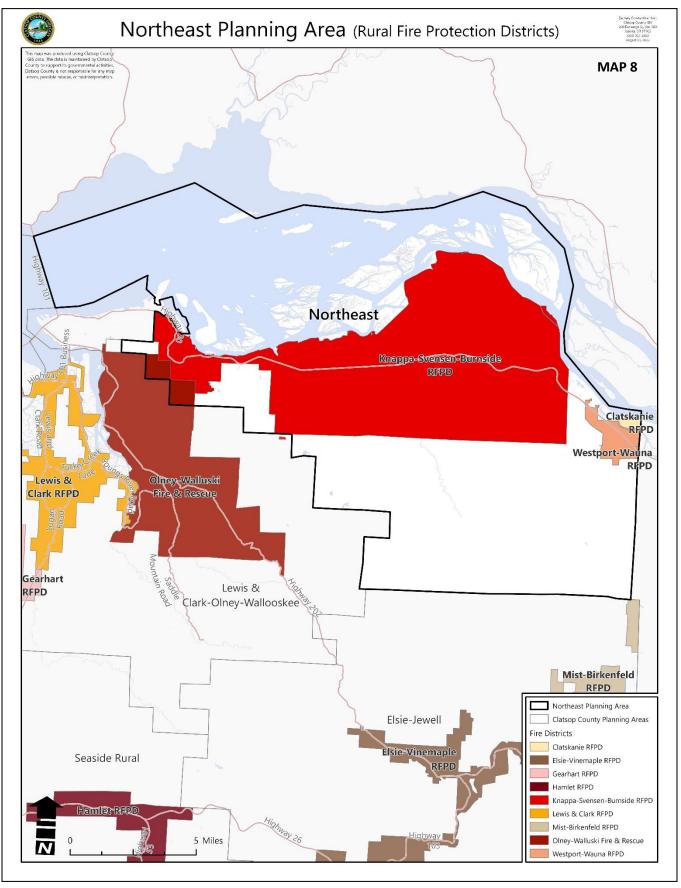
FIRE PROTECTION

The Northeast planning area is served by a the Knappa-Svensen-Burnside-Brownsmead RFPD and the Westport-Wauna RFPD.

The Knappa Fire District services approximately 100 square miles within Clatsop County, from Bradley Summit on Highway 30 to the city limits of Astoria. In 2020 the District responded to over 550 calls for service, including the following:

- Fires
- Medical

- Public assists
- HAZMAT
- Wildland fire
- Mutual aid calls



The District, which was formed in 1955, has merged with the Brownsmead fire district and with the John Day-Fernhill RFPD. The District's main station is located on Hillcrest Loop. Sub-stations are located in Svensen, Brownsmead and on Highway 30 east of the John Day River Bridge. The District has an ISO rating of 4.

The Westport-Wauna RFPD serves a population of approximately 380 within a 3-square mile district, per information from the Oregon State Fire Marshal's 2020 Annual Report. The District also has an ISO rating of 4. The District is primarily volunteer-operated and has only one paid staff position.

POWER GENERATION

The primary Pacific Power & Light (PP&L) transmission lines serving the County are 115KV lines from substations in Astoria, Cannon Beach, Fern Hill, Knappa Svensen, Lewis and Clark, Seaside, Warrenton, and Youngs Bay (Source: 2021 Oregon Distribution System Plan, PacifiCorp).

The Clatskanie PUD, which was formed in 1940, provides electric services to the Westport area. The District also owns 50% of the 36 megawatt Wauna Coco-generation facility, which began operating in 1997. In 2020, 83.4% of the District's power purchases were from the Bonneville Power Administration (BPA) (Source: 2020 Clatskanie PUD Annual Audit Report).

The natural gas main feeder line also bisects the Northeast. No power is directly produced in this County.

LAND USE IN THE NORTHEAST PLANNING AREA

SETTING

Northeast Clatsop County is a predominantly rural area with forest lands covering most of the land. Farming occurs along the Columbia River because of the creation of the various diked tidelands. Upland farming is carried on in logged off areas and was, at one time, a common occurrence. Over the years the Knappa and Svensen areas have developed into rural residential housing. The gentle sloped topography of the alluvial terraces and sedimentary uplands along with sufficient water supply has led to this development.

The Astoria (including Tongue Point) Urban Growth Boundary (UGB) is the western boundary of the area and has historically provided the economic base for employment. Tongue Point was once an active naval facility and then became a storage area for World War II ships. Westport on the eastern part of the County has traditionally provided employment through the logging and wood products industry.

U.S. Highway 30 provides the main route of transportation east and west with numerous County roads bisecting and paralleling the highway. The communities of Knappa, Svensen and Westport provide commercial services to the residents, as well as for some highway travelers.

ASSUMPTIONS

Growth for growth's sake or uncontrolled growth is seen more and more as a questionable ethic. The effects of growth on the quality of life are widely debated, and management and control of growth are seen by many as key factors of the Comprehensive Plan. The costs and benefits of uncontrolled growth has emerged as a real issue the past few years. There is a hesitancy over accommodating further developments with the consequences of greater numbers of people requiring more and more services. These concerns have been expressed at the numerous Citizen Advisory Committee meetings with a growing sentiment.

There are those, however, who also question this approach and questions the implications of growth restrictions. Much of this opposition is based upon the individuals claim of private property rights above that of the common good.

We all have a stake in this community which goes beyond our own personal property lines. The day of the boundless limits of land with few people are behind us. The spread patterns of growth are reminders that we no longer have endless acres of land to build upon and unlimited resources to enjoy and consume.

Our forests, land, water, and other resources are limited in their ability to support the needs and wastes of uncontrolled growth. The land supply is static while the population will continue to grow. The result will be greater demand and need for housing, commercial, and industrial uses.

The following policies under this section attempt to take a positive approach to growth, not a negative one. The population of the area will continue to grow. The Northeast Community Plan will provide for an orderly and efficient transition of current land use to more intensified uses within the framework of a set of policies, standards, and regulations. The plan will apply to all persons equally.

The Plan is based upon the best information available, desires for future livability, economical and environment balances, and lastly, to comply with the Statewide Planning Goals and Guidelines.

Growth is not to be discouraged, but managed to minimize or avoid environmental, cultural, or economic conflicts.

Below are definitions, objectives and policies for DEVELOPMENT, RURAL LANDS, RURAL AGRICULTURAL LANDS, FOREST LANDS, CONSERVATION OTHER RESOURCES, and NATURAL areas:

Development

Areas designated DEVELOPMENT are areas with a combination of physical, biological, and social/economic characteristics which make them necessary and suitable for residential, commercial, or industrial development and includes those which can be adequately served by existing or planned urban services and facilities.

Areas within Urban Growth Boundaries and Rural Service Areas are included in this designation. Lands within the Urban Growth Boundary are those determined to be necessary and suitable for future urban growth. The Urban Growth Boundary for the Northeast area is around Astoria and Tongue Point. This boundary provides for the economic and efficient extension of public facilities and services, to maximize energy savings, and to assure buffers occur between urban development and forest and other rural uses. Buffers may be open space or a decrease in housing density. Generally, the Urban Growth Boundary is a projection of available city services over a 20-year planning horizon.

Astoria's Urban Growth Boundary encompasses Tongue Point. The City has identified the need for additional land to accommodate industrial development. Policies for the Astoria Urban Growth Boundary are contained in the Astoria's UGB Comprehensive Plan.

A Rural Service Area is an unincorporated area located some distance away from a city and contains residential densities similar to those found in cities. The size of Rural Service Areas is based upon many factors, some of which are: population projections, capacity of public facilities and proximity to a city.

The community of Westport has historically had fairly dense housing and has been a small commercial center for the residents and highway travelers. Poor soils, failing septic tanks, and raw sewage outfalls have contributed to the halt of any development in the area for years. A sewer district was formed to correct the situation and later dissolved. Portions of the community has been designated as a rural service area, following the installation of a limited sewer system that is managed by Clatsop County.

As noted in Goal 2, the predominant uses in the Development classification include:

- 1. Medium to high density single family houses (less than 1 acre).
- 2. Multi-family housing (apartment, mobile home parks).
- 3. Offices, commercial facilities.
- 4. Industrial facilities (light/heavy).

Rural Lands and Rural Agricultural Lands

RURAL LANDS. Rural lands are those lands which are outside the urban growth boundary and are not agricultural lands or forest lands. Rural Lands include lands suitable for sparse settlement, small farms or acreage homesites with no or hardly any public services, and which are not suitable, necessary or intended for urban use.

Rural Lands are those which, due to their value for aquaculture, low density residential uses, high intensity recreational uses, and non-renewable mineral and non-mineral resource uses should be protected from conversion to more intensive uses. Rural subdivisions, major and minor partitions, and other uses served by few public services which satisfy a need that cannot be accommodated in urbanizable areas are also likely to occur within this designation.

Most Rural Lands designations in this Plan area contain old town plats and fragmented land ownerships. These areas may require vacation and replatting or utilization of a Planned Development to protect the natural resources of the area. This designation also fulfills the recreational tourist demand for housing which has been characteristic of Clatsop County's Northeast area.

RURAL AGRICULTURAL LANDS. Agricultural lands are those lands that are to be preserved and maintained for farm use, consistent with existing and future needs for agricultural products, forest and open space.

As noted in Goal 2, the predominant uses in the Rural Agricultural Lands classification:

- 1. Farm use.
- 2. Low density residential (1 acre or more).
- 3. Commercial (gas station, grocery store).
- 4. High intensity recreation (i.e. golf course).

Forest Lands and Conservation Other Resources

FOREST LANDS AND CONSERVATION OTHER RESOURCES. Conservation areas provide important resource or ecosystem support functions but because of their value for low-intensity recreation or because of their unsuitability for development (e.g. hazard areas) should be designated for non-consumptive uses. Non-consumptive uses are those uses which can utilize resources on a sustained yield basis while minimally reducing opportunities for other future uses of the area's resources.

FOREST LANDS. Forest Lands are those lands that are to be retained for the production of wood fiber and other forest uses.

CONSERVATION OTHER RESOURCES. Conservation Other Resources areas provide important resource or ecosystem support functions such as lakes and wetlands and federal, state and local parks. Other areas designated CONSERVATION OTHER RESOURCES include lands for low intensity uses which do not disrupt the resource and recreational value of the land.

As noted in Goal 2, the predominant uses in the Forest Land and Conservation Other Resources classifications:

- 1. Forestry/forest processing
- 2. Small woodlots
- 3. Parks and scenic areas
- 4. Community watersheds

Lands designated as Forest Lands comprise a majority of the Northeast Planning Area and are typically located inland from the Columbia River. Lands designated as Conservation Other Resources are located primarily located along rivers and streams.

Natural

A NATURAL area is defined as land and/or water units in which natural processes exist relatively undisturbed or can be restored to a nearly natural state. Natural areas include:

- 1. Native terrestrial, freshwater or marine ecosystems, e.g. a salt marsh or stand of old growth forest.
- 2. Areas containing significant biological, geologic, hydrologic, paleontological, archaeologic or scenic features; e.g., a single fossil bed or waterfall.
- 3. Areas particularly valuable for plants and wildlife:
 - a. as habitat for rare, endangered, endemic or otherwise unique species;
 - b. as exceptionally productive or diverse habitat;
 - c. as vanishing habitat;
 - d. as habitat crucial to a stage in a species' lifestyle, e.g. spawning grounds, or wetlands long flyways.

Natural areas are important to the community as a whole, for they offer a unique aesthetic and educational experience; i.e. the opportunity to view, study and explore the array of natural elements witnessed by the early explorers the array of natural elements witnessed by the early explorers of our region. They serve as the natural heritage to be passed on to future generations.

Natural areas come in a wide variety of sizes, types, ownerships, and protection priorities. They can be protected through a variety of preservation techniques from advising landowners of the natural area values on their land and securing their cooperation, to land acquisition and legal dedication. Most techniques involve a forfeiting of rights to destroy the natural quality of the land. Since the sale value and potential use of the land is altered, taxes are usually diminished.

As noted in Goal 2, the predominant uses in the Natural classification include:

- 1. Open space.
- 2. Scientific study.
- 3. Low intensity recreation (trails, nature observation).
- 4. Wildlife habitat.

In the Northeast Planning Area, lands designated as Natural are located primarily located along the Columbia River shoreline and the islands within the Columbia River.

GOALS, OBJECTIVES AND POLICIES

GENERAL POLICIES

- Policy A: Recognizing the contribution of shallow water areas, fresh water marshes, and wetlands to the biological productivity of the Columbia River estuary, the indiscriminate filling of such areas is discouraged. It is also recognized that to develop areas adjacent to the river, some dredging and filling will be necessary. Therefore, potential water oriented sites that require the least amount of fill shall be preferred for development.
- **Policy B:** Fishing is a traditional industry and lifestyle of the Northeast County. The fishing industry shall be preserved and promoted:
 - 1. through strict enforcement of the Forest Practices Act,
 - 2. through discouragement of oil tanker traffic on the Columbia River,
 - 3. through the allowance of boat houses, net floats and associated fisheries-related facilities in appropriate waterways,
 - 4. through production of fish by both hatchery and natural means, and
 - 5. through close evaluation of industrial development and other activities to ensure compatibility and maintenance of water quality.
- Policy C: Natural areas in the estuary that are necessary to maintain a healthy balance with development and to maintain the existing quality of life in this area should be given full protection to ensure their preservation. Full protection shall include maintaining the Aquatic Natural and Conservation Shorelands zoning and the Conservation Other Resources land use designations.

ESTUARY WETLANDS, COASTAL SHORELANDS AND WATER BODIES POLICY – IVY STATION TO THE MOUTH OF BLIND SLOUGH

Policy A: The Natural designation of the Big Creek spruce swamp is in recognition of the unique natural fish and wildlife values of this area. This area should continue to remain designated as Natural.

HOUSING POLICY

Policy A: Current regulations of the Department of Environmental Quality (DEQ) concerning sewage disposal indicate that additional houseboats are unlikely. These residences also block navigable waters which could otherwise be used by the public. Since 2000, expansion of this type of residence has been limited to a portion of the John Day River where they have historically been a way of life. The County should continue to support all requirements and standards required by DEQ with regard to houseboats and floating structures.

RECREATION POLICIES

- **Policy A:** Big Creek Park and Aldrich Point should be regularly maintained. County staff shall coordinate efforts to ensure that adequate, properly-zoned property is available to serve all local residents' recreational needs.
- Policy B: Additional locations for public recreational access or expansion of existing facilities within the Northeast Planning area should be jointly considered by interested state agencies and the County to assess needs and protect the environment. Non-intensive recreational uses of the shoreland and water areas that are compatible with the rural character of the area (such as bird watching, canoeing, fishing, hiking, etc.) shall be preferred over noisy, high intensity uses. In consideration of expansion of existing or potential recreational facilities along the river, therefore, a public hearing shall be held to assess the needs of the area, and based on the intensity of use, the following standards met:
 - 1. Access from U.S. Highway 30 must be appropriately located and designed to provide for safe exit from and entry to the highway by large motor homes and vehicles pulling trailers.
 - 2. State or County roads connecting U.S. Highway 30 with access points must be capable of handling the types and volumes of traffic that such a facility would create.
 - 3. The impacts of site development and the resulting traffic upon local residential areas shall be carefully considered. The County will develop clear and objective standards to ensure that proposals will not have undue impacts on local citizens.

HISTORIC AREA POLICIES

- **Goal:** Recognize all contributors to local history. The history of Clatsop County is multi-faceted and should be recorded and preserved, whenever possible, for future generations.
 - Policy A: Technical and financial assistance from all sources shall be sought in order to protect, restore, or purchase significant historical areas that can fulfill the needs for parks, recreation, natural and scenic resources. For instance, the Westport log tunnel might be incorporated into the State trail system (proposed Northwest loop).
 - **Policy B:** The County shall work with the Department of Forestry and other adjoining property owners to develop a protection plan for the Westport log tunnel.
 - **Policy C:** The County should conduct additional analysis to determine whether Bradwood and Clifton should be included in the Goal 5 historic resources inventory.

SCENIC AND NATURAL AREA POLICIES

- **Policy A:** In order to preserve the scenic views and vistas, off-premise signs and billboards shall not be allowed along the Columbia River Highway.
- Policy B: Areas identified through the Oregon Natural Heritage Program, including Blind Slough Swamp Preserve and Knappa Slough Island, or the Columbia River Estuary Plan that are rich in wildlife or of a fragile ecological nature shall be considered for protection.

FISH AND WILDLIFE POLICIES

- **Policy A:** Steps to increase native or hatchery runs on Plympton Creek, Little Creek, Mary's Creek, Ferris Creek, Bear Creek or the John Day River are encouraged.
- **Policy B:** Because of the importance of the Gnat Creek and Big Creek hatcheries, activities of development that could be detrimental to their water quality are discouraged in these creeks or in the waters into which they drain. All waters which drain into these creeks should be carefully managed to avoid harmful effects.
- **Policy C:** The County will require that any additional rural residential development at River Ranch be clustered on the more northerly portion of the site. The County will implement other measures recommended to it, by the Oregon

Department of Fish and Wildlife and the U.S. Fish & Wildlife Service, for minimizing the impact of additional rural residential development on Columbian White-tail deer.

TRANSPORTATION POLICIES

- **Policy A:** Walking and bicycling is encouraged. Shoulders along roads should be wide and shaded whenever possible. A footpath/bicycle path should be planned which would link Astoria and Knappa.
- **Policy B:** Clatsop County will continue to support the efforts of the <u>sunset Sunset Empire Transportation District to maintain and, if feasible, to expand regular passenger bus serve to the Northeast area of the County.</u>

PUBLIC FACILITIES POLICIES

- **Policy A:** All diking districts and landowners of affected areas are encouraged to take immediate steps to identify those areas in need of repair and to take appropriate action with assistance from the Corps of Engineers.
- **Policy B:** A study should be undertaken to determine the extent of the aquifer (a large underground reserve) area 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.
- Policy C: Power systems which utilize solar (i.e. solar farms) and wind generated energy are well suited for the Northeast County and shall be encouraged to locate here. 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 D:** The County shall encourage the creation of a Public Utilities District to increase local control and enhance resiliency.

ENERGY POLICIES

Policy A: The County should encourage the location of a public electric vehicle charging station or stations within the Northeast Planning Area.

LAND USE – OVERALL GOAL

To preserve and maintain the present overall rural quality of life now enjoyed in the Northeast.

Policy A: Changes in the Rural Service Area boundary shall be done only after the following factors are considered:

- 1. there is demonstrated need to accommodate long range urban population growth requirements;
- 2. there is need for housing, employment opportunities, and livability;
- 3. the change could provide an orderly and economic extension of public facilities and services;
- 4. the change would allow for efficient land use and utility patterns within and on the fringe of the existing urban area;
- 5. the environmental, energy, economic, and social consequences.
- **Policy B:** The existing commercial zone in Westport should be revised to include a variety of permitted and conditional uses, such as single- and multi-family residential.

LAND USE - RURAL LANDS CLASSIFICATION

Policy A: The conversion of lands adjacent to forest land which are "built upon or irrevocably committed" to a higher density by rezoning shall be encouraged at Plan updates if it is determined that more land is needed for housing than was anticipated at the time of adoption of the Northeast Plan, and public facilities are adequate to serve higher densities. Conversion of these lands to higher densities should occur before conversion of resource lands (EFU, Forest) to housing.

LAND USE – NATURAL CLASSIFICATION

Policy A: The Gnat Creek marsh, Big Creek spruce swamp, Plympton Creek waterfalls, Bradwood cliffs, and important marshes along the Columbia River shall be protected from alteration.

IMPLEMENTING OREGON ADMINISTRATIVE RULES (OAR):

None

COORDINATING AGENCIES:

Oregon Department of Fish and Wildlife (ODFW)

Oregon Department of Education (ODE)

Oregon Department of Environmental Quality (DEQ)

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)

Oregon State Historic Preservation Office (SHPO)

Clatsop Soil and Water Conservation District

BACKGROUND REPORTS AND SUPPORTING DATA:

Future Climate Projections Clatsop County, Oregon Climate Change Research Institute, February 2020

Columbia River Estuary Regional Management Plan, CREST 1979

2021 Oregon Distribution System Plan, PacifiCorp

2020 Clatskanie PUD Annual Audit Report

Bald Eagle Technical Report, March 2016, Oregon Department of Fish and Wildlife

City of Astoria Bear Creek Watershed Forest Resource Management Plan, 2014

Big Creek Hatchery Program Management Plan 2020

Gnat Creek Hatchery Program Management Plan 2019

Northeast Environmental Plan (1974)