



This page intentionally blank.

ADOPTED JULY 23, 2022

BOARD OF CLATSOP COUNTY COMMISSIONERS

- Mark Kujala, Chair (District 1)
- Lianne Thompson, Vice-Chair (District 5)
- John Toyooka (District 2)
- Pamela Wev (District 3)
- Courtney Bangs (District 4)

NORTHEAST CITIZEN ADVISORY COMMITTEE

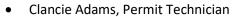
- Jennifer Rasmussen, Chair
- <u>Tallie Spiller, Vice-Chair</u>
- Kelly Huckestein
- Cheryl Johnson
- Dirk Rohne

CLATSOP COUNTY PLANNING COMMISSION

- Nadia Gardner, Chair
- John Orr, Vice-Chair
- Christopher Farrar
- Cary Johnson
- Lam Quang
- Robert Stricklin (former member)

LAND USE PLANNING STAFF

- Don Bohn, County Manager
- Monica Steele, Assistant County Manager
- Joanna Lyons-Antley, County Counsel
- Julia Decker, Planning Manager
- Ian Sisson, Senior Planner
- Jason Pollack, Planner
- Victoria Sage, Planner



• Gail Henrikson, Community



Table of Contents

LANDSCAPE UNITS 4 Alluvial Lowlands 5 Alluvial Terraces 5 Coast Range Foothills 5 Estuary Wetlands, Coastal Shorelands and Water Bodies 5 Sedimentary Uplands 5 Basaltic Highlands 5 NATURAL HAZARD AREAS 4 Mass Movement 5 Streambank Erosion 5 High Groundwater 5 NATURAL RESOURCES 4 Surface and Groundwater Quality 5 Agriculture and Forestry 5 CULTURAL 4
Alluvial Terraces 5 Coast Range Foothills 5 Estuary Wetlands, Coastal Shorelands and Water Bodies 5 Sedimentary Uplands 5 Basaltic Highlands 5 NATURAL HAZARD AREAS 4 Mass Movement 5 Streambank Erosion 5 High Groundwater 5 Natural RESOURCES 4 Surface and Groundwater Quality 5 Agriculture and Forestry 5 CULTURAL 4
Coast Range Foothills 5 Estuary Wetlands, Coastal Shorelands and Water Bodies 5 Sedimentary Uplands 5 Basaltic Highlands 5 NATURAL HAZARD AREAS 4 Mass Movement 5 Streambank Erosion 5 High Groundwater 5 NATURAL RESOURCES 4 Surface and Groundwater Quality 5 Agriculture and Forestry 5 CULTURAL 4
Estuary Wetlands, Coastal Shorelands and Water Bodies
Sedimentary Uplands
Basaltic Highlands
NATURAL HAZARD AREAS
Mass Movement 5 Streambank Erosion 5 High Groundwater 5 NATURAL RESOURCES 4 Surface and Groundwater Quality 5 Agriculture and Forestry 5 CULTURAL 4
Streambank Erosion
High Groundwater 5 NATURAL RESOURCES 4 Surface and Groundwater Quality 5 Agriculture and Forestry 5 CULTURAL 4
A Surface and Groundwater Quality
Surface and Groundwater Quality
Agriculture and Forestry
<u>CULTURAL4</u>
Housing
Recreation
Open Space, Scenic and Historic Areas
Fish and Wildlife
Transportation
Public Facilities
COMMUNITY DEVELOPMENT

i

	Development	5
	Rural Lands	
	Rural Agricultural Lands	5
	Forest Lands	5
	Conservation Other Resources	5
	Natural	5
G	OALS, OBJECTIVES AND POLICIES	5

Index to Figures and Maps

FIGURE 1: Profiles of the Landscape Units
FIGURE 2: Northeast Planning Area – Water Districts2
FIGURE 2: Historical Names and Places Derived from the Historical Society Journals2
MAP 1: Landscape Units of the Northeast Clatsop County Study Area with Coastal Shorelands Boundary Generalized Landscape Units
MAP 2: <mark>Special Flood</mark> Hazard <mark>s</mark> Areas
MAP 3: Geologic Hazard <mark>s</mark> Areas
MAP 34: Open Space, Parks, and Recreation, Scenic, and Historic Areas Map (including Active and Traditional Bald Eagle Nest sites)2
TABLE 1: Big Creek Stream Flow and Net Water Availability2
TABLE 2: Gnat Creek Stream Flow and Net Water Availability2
TABLE 3: U.S. Highway 30 Traffic Volumes (2018-July 9, 2021) 2
TABLE 4: Northeast Planning Area – Drinking Water Systems 2
TABLE 5: Northeast Planning Area – School Systems2

INTRODUCTION

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 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. The estimated 2020 population of the Knappa-Brownsmead and Svensen areas was 2,997 persons.

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 amplification 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.

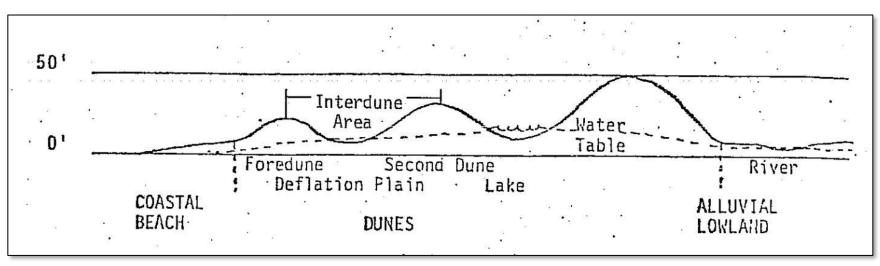
LANDSCAPE UNITS

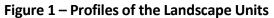
Introduction

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. **Figure 1** demonstrates the profile of the landscape units, while **Map 1** shows their locations in the Northeast planning area.

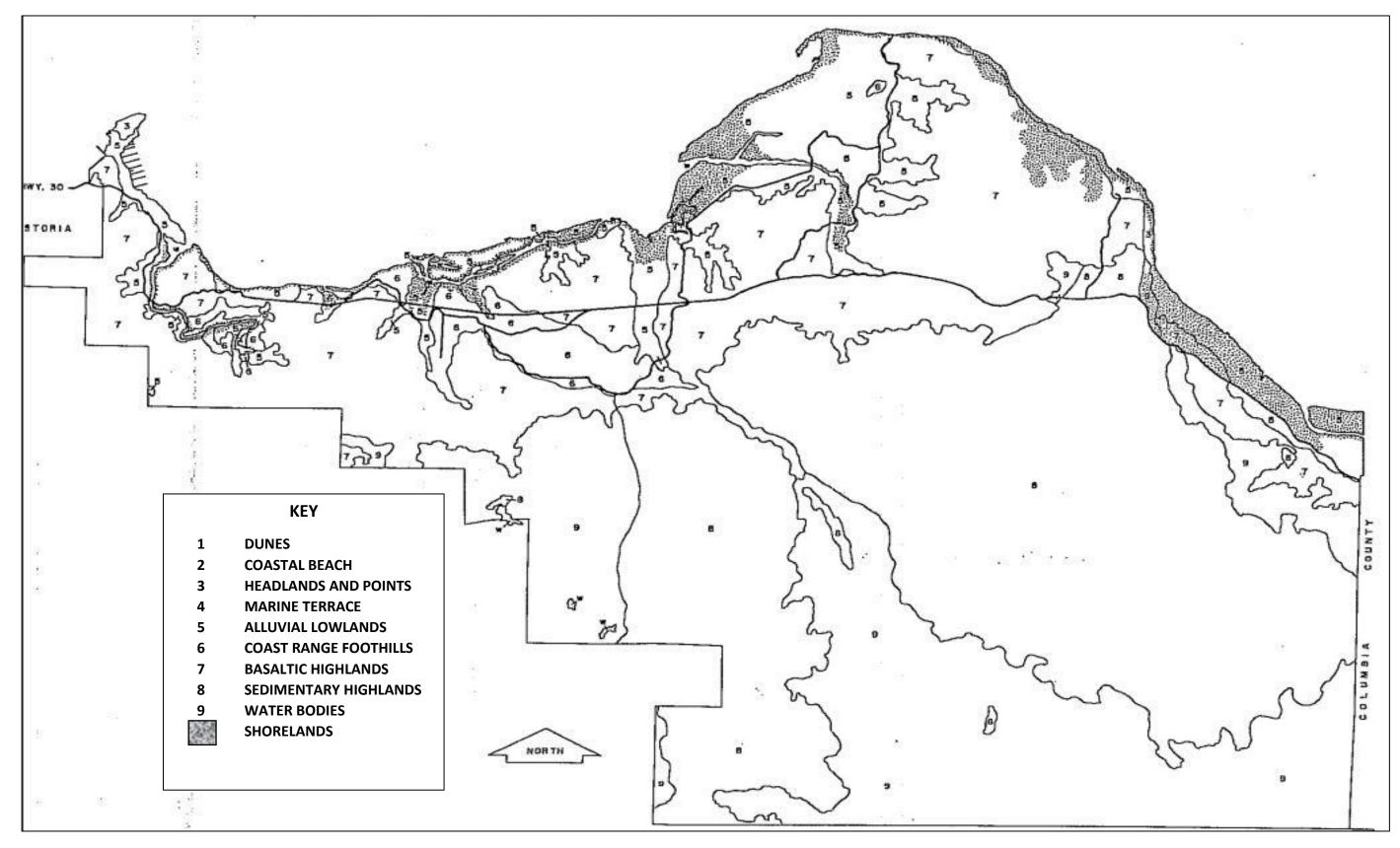
Further discussion on the landscape units capacities and limitations can be found in the Northeast Environmental Plan (1974). The Environmental Plan contains four elements: landscape units, critical hazards areas, an open space program, and priority resources areas.

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.





MAP 1: GENERALIZED LANDSCAPE UNITS



Alluvial Lowlands <mark>(bottom land)</mark>

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-influence 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 and possible relocation of U.S. Highway 30.

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 2000, 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.

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 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. Private docks are located mainly on Blind Slough and a portion of the slough is used for log storage.

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 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 or more gradual slope 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.

CRITICAL NATURAL HAZARD AREAS

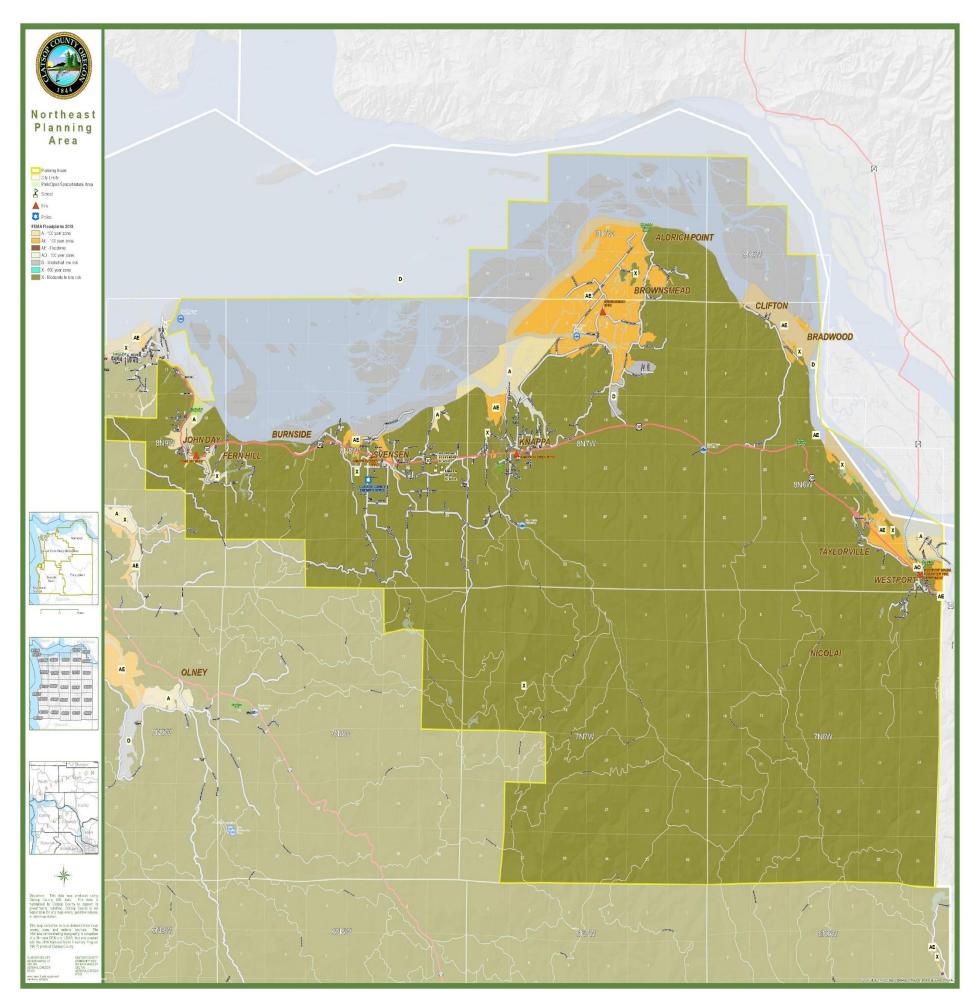
Areas within the Northeast are susceptible to the following natural hazards:

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

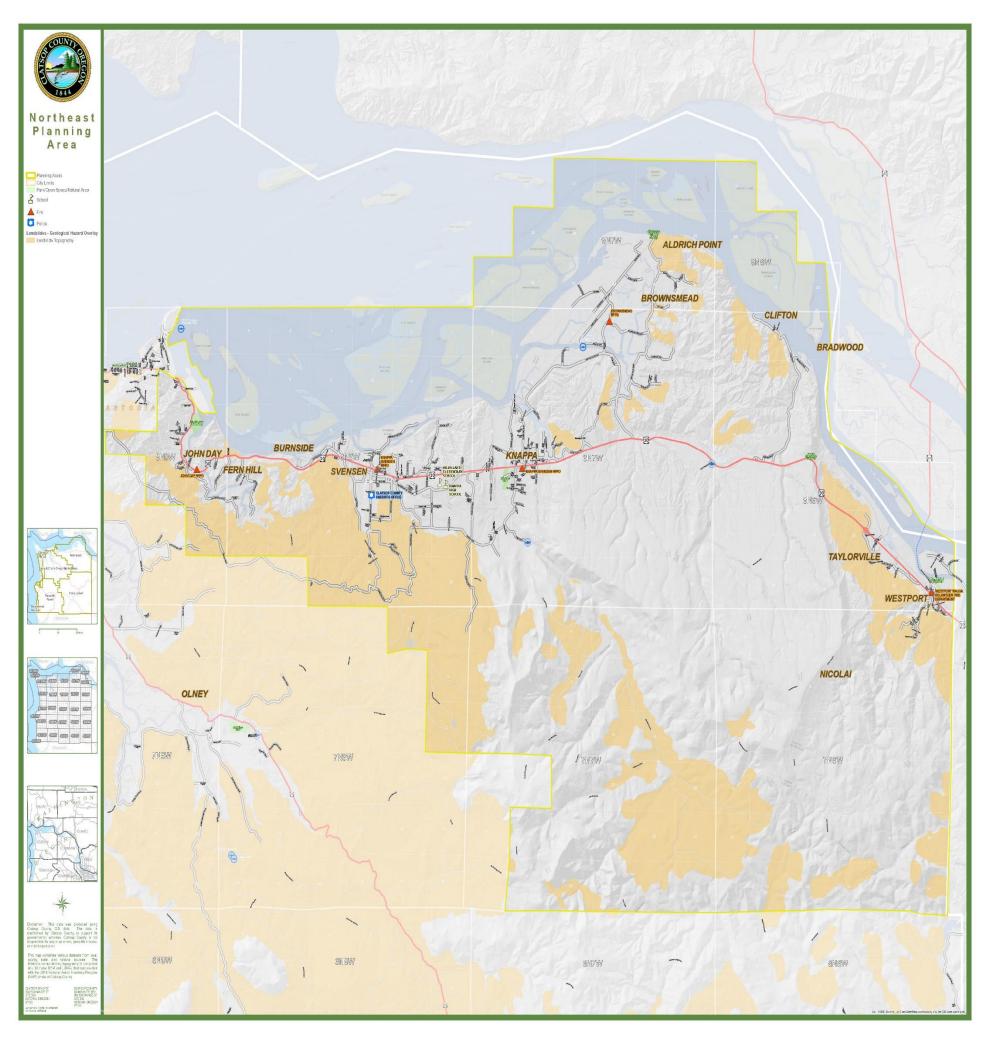
Hazard areas in the Northeast County are shown on Maps 2 and 3.

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.

MAP 2: SPECIAL FLOOD HAZARD AREAS



MAP 3: GEOLOGIC HAZARD AREAS



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.

Over 100 inches of precipitation falls annually along the southeast and northeast axis of the Coast Range, on rocks that are relatively impervious. 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 The slopes of the Coast Range Mountains are steep;. As 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 <u>As shown on Tables 1 and 2, below, these</u> 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.

TABLE 1: BIG CREEK STREAM FLOW AND NET WATER AVAILABILITY (Cubic Feet / Second)								
<u>MONTH</u>	<mark>NATURAL</mark> STREAM FLOW	COMSUMPTIVE USES AND STORAGES	EXPECTED STREAM FLOW	INSTREAM FLOW REQUIREMENTS	<u>NET WATER</u> AVAILABILITY			
<mark>January</mark>	<u>191.00</u>	<mark>3.21</mark>	<mark>188.00</mark>	<mark>130.00</mark>	<mark>57.80</mark>			
<mark>February</mark>	<u>199.00</u>	<u>3.21</u>	<u>196.00</u>	<u>130.00</u>	<mark>65.80</mark>			
<u>March</u>	<u>149.00</u>	<u>3.21</u>	<u>146.00</u>	<u>130.00</u>	<mark>15.80</mark>			
April	<u>123.00</u>	<u>3.21</u>	<u>120.00</u>	<u>130.00</u>	<mark>-10.20</mark>			
<mark>May</mark>	<u>92.20</u>	<u>3.23</u>	<mark>89.00</mark>	<mark>78.00</mark>	<u>11.00</u>			

TABLE 1: BIG CREEK STREAM FLOW AND NET WATER AVAILABILITY (Cubic Feet / Second)							
MONTH	<mark>NATURAL</mark> STREAM FLOW	COMSUMPTIVE USES AND STORAGES	EXPECTED STREAM FLOW	INSTREAM FLOW REQUIREMENTS	<u>NET WATER</u> AVAILABILITY		
<u>June</u>	<u>46.40</u>	<u>4.08</u>	<u>42.30</u>	<u>52.00</u>	<mark>-9.68</mark>		
<u>July</u>	<u>23.90</u>	<mark>4.18</mark>	<u>19.70</u>	<mark>36.30</mark>	<mark>-16.60</mark>		
August	<u>16.70</u>	<u>4.14</u>	<u>12.60</u>	<u>25.20</u>	<mark>-12.60</mark>		
<u>September</u>	<u>17.00</u>	<u>4.03</u>	<u>13.00</u>	<u>24.30</u>	<mark>-11.30</mark>		
<u>October</u>	<u>20.80</u>	<u>3.21</u>	<u>17.60</u>	<u>50.00</u>	<mark>-32.40</mark>		
November	<u>38.10</u>	<u>3.21</u>	<u>34.90</u>	<u>99.00</u>	<mark>-64.10</mark>		
<mark>December</mark>	<u>131.00</u>	<mark>3.21</mark>	<mark>128.00</mark>	<u>130.00</u>	<mark>-2.21</mark>		
	<u>97,000.00</u>	<u>2,540.00</u>	<u>94,400.00</u>	<mark>64,100.00</mark>	<mark>36,000.00</mark>		

Source: Oregon Water Resources Department

TABLE 2: GNAT CREEK STREAM FLOW AND NET WATER AVAILABILITY (Cubic Feet / Second)						
<u>MONTH</u>	NATURAL STREAM FLOW	COMSUMPTIVE USES AND STORAGES	EXPECTED STREAM FLOW	INSTREAM FLOW REQUIREMENTS	<mark>NET WATER</mark> AVAILABILITY	
January	<u>122.00</u>	<mark>1.28</mark>	<mark>121.00</mark>	<mark>0.00</mark>	<mark>121.00</mark>	
February	<u>127.00</u>	<u>1.28</u>	<u>126.00</u>	<mark>0.00</mark>	<mark>126.00</mark>	
March	<mark>94.90</mark>	<u>1.28</u>	<mark>93.60</mark>	<mark>0.00</mark>	<mark>93.60</mark>	
April	<mark>78.10</mark>	<u>1.28</u>	<mark>76.80</mark>	<mark>0.00</mark>	<mark>76.80</mark>	
<u>May</u>	<u>58.80</u>	<u>1.28</u>	<u>57.50</u>	<mark>0.00</mark>	<mark>57.50</mark>	
<u>June</u>	<u>31.80</u>	<u>1.31</u>	<u>30.50</u>	<mark>0.00</mark>	<mark>30.50</mark>	
<mark>July</mark>	<u>18.80</u>	<u>1.32</u>	<u>17.50</u>	<mark>0.00</mark>	<u>17.50</u>	
August	<u>14.40</u>	<u>1.31</u>	<u>13.10</u>	<mark>0.00</mark>	<u>13.10</u>	
<u>September</u>	<u>14.70</u>	<u>1.31</u>	<u>13.40</u>	<mark>0.00</mark>	<u>13.40</u>	
<u>October</u>	<u>16.5</u>	<u>1.28</u>	<u>15.20</u>	<mark>0.00</mark>	<u>15.20</u>	
<u>November</u>	<u>26.10</u>	<u>1.28</u>	<u>24.80</u>	<mark>0.00</mark>	<mark>24.80</mark>	
<u>December</u>	<u>81.00</u>	<u>1.28</u>	<u>79.70</u>	<mark>0.00</mark>	<u>79.70</u>	
ANNUAL	<u>63,000.00</u>	<u>935.00</u>	<u>62.100.00</u>	<mark>0.00</mark>	<u>62.100.00</u>	

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.

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.

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).

To date, very few wells have been drilled in this area so its full potential is now <u>not</u>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.

Now should be NOT

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 <u>are the predominant use</u> cover 90% 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 built prior to 1950, rated "less than fair" by the Assessor. Two older neighborhoods targeted for rehabilitation have been located in the Svensen and Westport areas. Many other homes will need attention if expected to remain in the housing stock in the future.

The biggest building boom occurred in 1967 when the Wauna Mill opened. Since that time, new construction has been steady, averaging <mark>38 building permits per year. There is now a total of 1,466 residences; 1,190 are conventional single family dwellings, 270 are mobile homes, and 6 are multi-family dwellings.</mark>

As construction of buildings increases, proper sewage disposal by individual sewage systems becomes more <u>imperative difficult</u> and the need for community sewers <u>may become more prominent during the 20-year planning horizon</u>. becomes more pressing. Increased populations will also add pressure to <u>the water districts that serve these neighborhoods</u> several water systems nearing capacity. The <u>availability lack</u> of property water and sewer <u>capacity</u> services are limiting factors which must be considered in the housing plan for the area.

Population growth has averaged around 50 persons per year since 1970. Future projections estimate a total of 4,653 persons by 1980, 5,292 in 1990, and 6,452 by the year 2000. The rate of residential growth, however, will be greatly influenced by the rapidity with which new industries locate and construct plants along the lower Columbia River.

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.



Barrier Falls

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.



Nicolai Mountain OHV Area

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 east 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 - Improvements to this 27-acre facility are currently under

construction. The improvements will 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.

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.



Aldrich Point Boat Ramp

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 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. The following policies are intended to address these problems:

Open Space, Historic, Scenic and Natural Areas

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 amidst endless log booms, overhead power lines, and scattered housing, makes this area unique to the other coastal communities. It was here that a Chinook Indian tribe settled centuries before the coming of Lewis and Clark. This ancestral homeland to the Chinook Indian tribe, which remains unceded, was inhabited centuries before the the coming of Lewis and 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.

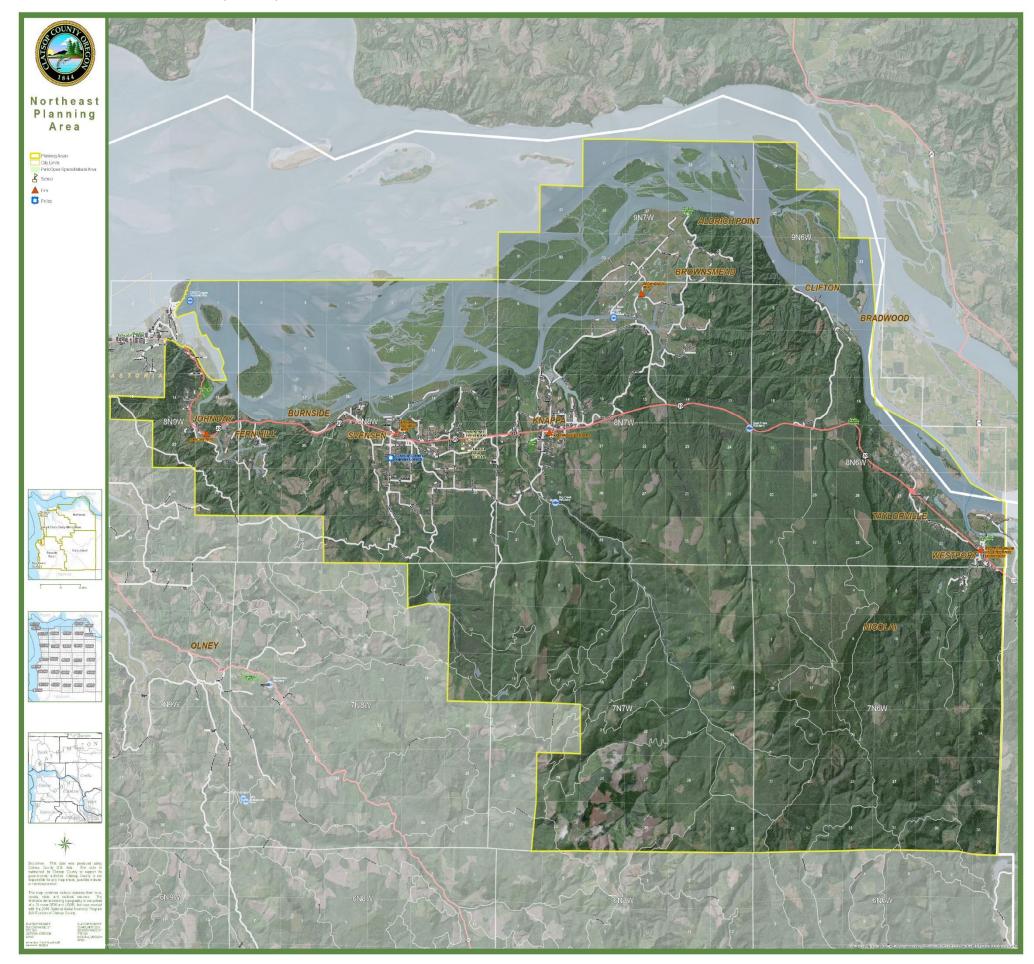
Open Space

Open space is one of the benefits that results from Resource 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.

MAP 4: OPEN SPACE, PARKS, AND RECREATION



22

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. An elk trail leading up to the tunnel is often times used by hikers and there is some concern that continued logging could be harmful to the aesthetic qualities of the site.

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 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 Bradwood 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 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 3,400-3,700-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. Logging and burning has altered the ecosystem from its natural state. With protection, which seems assured, the system should reestablish itself as a Spruce-Hemlock forest.

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.

6. 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 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 fish, eagles, waterfowl 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 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 miles south of Knappa off Highway 30, and is approximately 3 miles upstream from Big Creek's confluence with the Columbia River. The site is at an elevation of approximately 75 feet above sea level. The 48.06-acre site is owned by the Oregon Department of Fish and Wildlife. There are four water sources for the hatchery: Big Creek, Mill Creek and two springs. 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 facility is located at an elevation of about 90 feet above sea level at latitude 46.1692 and longitude 123.4864. 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 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 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 health 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 whitetailed 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.

Grouse <u>Ruffled grouse</u>, <u>blue grouse</u>, mountain quail, <u>valley quail</u>, and <u>ring-necked pheasant pigeons</u> are the most numerous and most hunted upland game birds in <u>ODFW's Harvest Area 1</u>, <u>which includes Clatsop the</u> 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 1, 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. Highway approaches, however, increase every year and could cause problems in the future if not adequately controlled.

TABLE 3: U.S. HIGHWAY 30 TRAFFIC VOLUMES (2018-JULY 9, 2021)					
		AADT*			
ROAD SEGMENT	<mark>2020</mark>	<mark>2019</mark>	<mark>2018</mark>		
Columbia/Clatsop County Line	<mark>6,797</mark>	<mark>7,500</mark>	<mark>6,900</mark>		
0.02 Miles East of Westport Ferry Road	<mark>6,873</mark>	<mark>7,600</mark>	<mark>7,000</mark>		
0.02 Miles West of Westport Ferry Road	<u>6,322</u>	<mark>7,000</mark>	<mark>6,400</mark>		
0.20 Miles East of Taylorville Road	<u>6,056</u>	<u>6,700</u>	<mark>6,300</mark>		
0.20 Miles West of Taylorville Road	<mark>4,566</mark>	<u>5,100</u>	<mark>5,400</mark>		
Fertile Valley Creek Bridge	<u>5,551</u>	<u>6,200</u>	<mark>5,500</mark>		
Big Creek Bridge	<u>6,797</u>	<mark>7,500</mark>	<mark>7,000</mark>		
0.03 Miles West of John Day Road	<mark>7,819</mark>	<u>8,700</u>	<mark>8,400</mark>		
0.05 Miles West of Nimitz Road	<u>9,577</u>	<u>10,600</u>	<u>10,600</u>		
*AADT: Average Appual Daily Trips					

*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 Most residents live within 10-15 minutes of their employment and shopping areas and bicycling and walking is not always feasible. There is no designated bike route in the Northeast but one is planned which would follow U.S. Highway 30 from Portland to Astoria to be called the Portland Astoria Loop. Because of the recent gas shortage, County residents are urged to limit traveling and carpool whenever possible. Although other modes of travel service are not planned, major employers could contribute a great deal in reducing consumption in the area through organized carpooling or vanpooling.

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, log rafts, commercial fishing vessels and pleasure craft. Many of the sloughs and channels are used for transportation.

PUBLIC FACILITIES AND SERVICES

WATER SYSTEMS

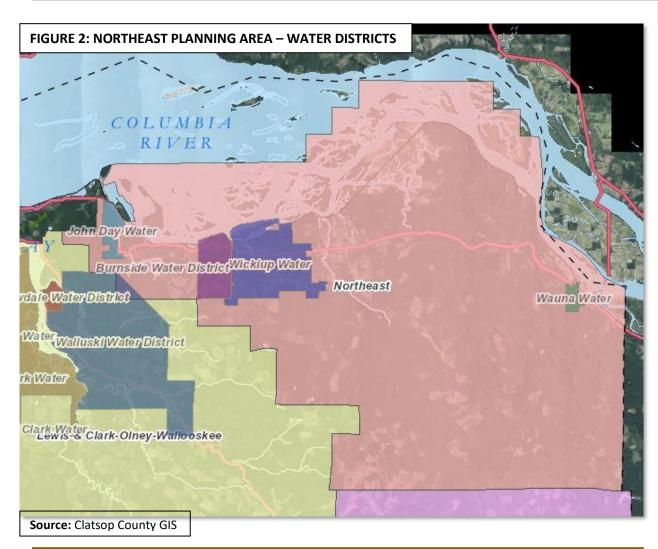
The Northeast Planning Area includes the following water districts:

TABLE 4: NORTHEAST PLANNING AREA - DRINKING WATER SYSTEMS

System	Number of Connections	Estimated Total Population	Existing Source and Water Rights	System Size (Range of Connections)	Current Violations
		Served			
Burnside Water District	112	315	Purchased Surface Water	<u>SMALL: 1-299</u>	<u>None</u>
Fernhill Community Water	91	300	Purchased Surface Water	<mark>SMALL: 1-299</mark>	<u>None</u>
System					
Georgia Pacific CO LLC Wauna	1	700	Surface Water	<u>Data Not Available</u>	<u>None</u>
John Day Water District	101	350	Purchased Surface Water	<mark>Data Not Available</mark>	<u>Yes</u>
Knappa Water Association	574	1,800	Groundwater	LARGE: 300+	<u>Yes</u>
Olney-Walluski Water	233	530	Purchased Surface water	<mark>SMALL: 1-299</mark>	<u>None</u>
Association					
OPRD Bradley State Wayside	2	383	Groundwater	<mark>Data Not Available</mark>	<u>Yes</u>
Wauna Water District	68	188	Groundwater	<mark>Data Not Available</mark>	<u>Yes</u>
Westport Heights	40	90	Groundwater	<mark>Data Not Available</mark>	<u>None</u>
Westport Water Association	165	550	Purchased Groundwater	<u>SMALL: 1-299</u>	<u>Yes</u>
Wickiup Water District	636	1,590	Surface Water	LARGE: 300+	<mark>None</mark>

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).

There are many small community water systems in the Northeast. The John Day, Fernhill and Burnside water systems purchase water from the City of Astoria. Problems of turbidity and degradation of raw water quality could cause the City to begin the task of providing better treatment. Of the <mark>three systems, only the Burnside Water</mark> Association is capable of handling more connections at this time. The other two systems are at capacity because of inadequate pipe size. In addition, at this time the City is reluctant to give more water to these districts than has already been committed.

The Wickiup Water District serves an estimated 1,300-1,590 people in the Svensen area from its water source at Little Creek. The system has connected with the Burnside system given them future potential to purchase water from Astoria.

The Knappa Water System is one of the better managed systems in the County serving serves an estimated 780 1,800 people in the Knappa and Brownsmead areas. Current improvements involve the completion of two wells and a new storage reservoir. The Carmen Creek Water System could hook up to this system, particularly if the Big Creek potential were developed.

Water service to the Wauna-Westport area is provided by a number of systems that are at or near capacity. The Gnat Creek artesian aquifer may be a potential source for expansion of these systems.

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. However, success in well digging has varied. In one area of Knappa, for instance, water was encountered within the first 50 feet while a few thousand feet away the owner had to abandon the project.

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 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.

DIKING DISTRICTS

There are eight 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

As noted above, many of these water 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 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 <mark>#6J</mark>			
	<mark>Hilda Lahti</mark> Elementary	<u>Knappa</u> <u>High</u> <u>School</u>	<u>John Jacob</u> Astor Elementary	Lewis and Clark Elementary	<u>Astoria</u> <u>Middle</u> <u>School</u>	<u>Astoria</u> <u>High</u> <u>School</u>	Clatskanie Elementary	<u>Clatskanie</u> Middle School		
Grades	<u>К-8</u>	<mark>9-12</mark>	<u>K-2</u>	<u>3-5</u>	<mark>6-8</mark>	<u>9-12</u>	<u>К-6</u>	<u>7-12</u>		
Enrollment	<u>349</u>	<u>141</u>	<u>357</u>	<u>424</u>	<u>433</u>	<u>562</u>	<u>367</u>	<u>282</u>		

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

FIRE PROTECTION

The Northeast planning area is served by a number of rural fire protection districts including the <mark>John Day-Fernhill Rural Fire Protection</mark> District (RFPD), Knappa-Svensen-Burnside RFPD and the Wauna-Westport-Westport-Wauna RFPD, all with fair ratings.

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:

- <u>Fires</u>
- <u>Medical</u>
- Public assists
- HAZMET
- Wildland fire
- <u>Mutual aid calls</u>

<u>The District, which was formed in 1955, has merged with the Brownsmead fire district and with the John Day-Fernhill RFPD. The</u> 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.

<u>The Westport-Wauna RFPD serves a population of approximately 380 within a 3-square mile district, per information from the</u> 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 from the 115KV <u>lines from substations in Astoria,</u> Cannon Beach, Fern Hill,, Knappa Svensen, Lewis and Clark, Seaside, Warrenton, and Youngs Bay (Source: 2021 Oregon Distribution System Plan, PacifiCorp).substation at Longview, Washington. This line bisects the Northeast planning area. The mill at Wauna buys directly from the Bonneville Power Administration.

<u>The Clatskanie PUD, which was formed in 1940, provides electric services to the Westport area. The District also owns 50% of the 36</u> megawatt Wauna Co-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.

COMMUNITY DEVELOPMENT

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 and the MARAD Basin. 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 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.

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 nonrenewable 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 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.

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.

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

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 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.

Predominant Uses in the Natural classification include:

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

GOALS, OBJECTIVES AND POLICIES

GENERAL POLICIES

- **Policy 1:** 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 2:** Fishing is a traditional industry and lifestyle of the Northeast County. The fishing industry shall be preserved and promoted:
 - a. through strict enforcement of the Forest Practices Act,
 - b. through encouragement of alternatives to water storage of logs,
 - c. through discouragement of oil tanker traffic on the Columbia River,
 - through the allowance of boat houses, net floats and associated fisheries-related facilities in appropriate waterways,
 - e. through production of fish by both hatchery and natural means, and
 - f. through close evaluation of industrial development and other activities to ensure compatibility and maintenance of water quality.
- **Policy 3:** 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.
- **Policy 4:** As provided by state and federal laws, dredged material from adjoining wetlands may be used by emergency dike maintenance when immediate action is required to prevent a hazard or loss of property.
- **Policy 5:** Coastal shorelands in areas outside of urban or urbanizable areas shall only be used as appropriate for the following uses:

- a. Farm use,
- b. Forest use,
- c. Private and public water-dependent recreation,
- d. Aquaculture,
- e. Water-dependent commercial and industrial uses and water-related uses only upon a finding by the governing body of the County that such uses satisfy a need which cannot be accommodated on shorelands in urban and urbanizable areas,
- f. Subdivision, major and minor partitions and other uses only upon a finding by the governing body of the County that such uses satisfy a need which cannot be accommodated at other upland locations or in urban or urbanizable areas and are compatible with the objectives of this goal to protect riparian vegetation and wildlife habitat, and
- g. A single family residence on existing lots, parcels or units of land when compatible with the objectives and implementation standards of this goal.

ALLUVIAL LOWLANDS POLICIES

- **Policy 1:** Low density activities, such as agriculture, shall be preferred uses in the alluvial lowlands.
- **Policy 2:** Commercial or industrial use proposed in alluvial lowlands should be water dependent or water-related when adjacent to the water.

ALLUVIAL TERRACE POLICY

Policy 1: Development is encouraged on alluvial terraces due to the slight to moderate slopes and moderately well-drained soils.

COAST RANGE FOOTHILLS POLICIES

Policy 1: Residential development within the coast range foothills which do not have a history of landslide activity shall be preferred over development of less suitable landscape units.

- **Policy 2:** Preliminary investigations of slope stability may be necessary if development is proposed in landslide area.
- **Policy 3:** Construction and road building on the foothills shall be designed to minimize cutting and filling.
- **Policy 4:** Forest uses shall be the preferred use of the coast range foothills.

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

Policy 1: 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.

SEDIMENTARY UPLANDS POLICY

Policy 1: The preferred use of the sedimentary uplands is timber production, open space and wildlife habitat.

BASALTIC HIGHLANDS POLICY

Policy 1: The highlands are primarily a resource unit, and uses other than forest uses, wildlife habitat, recreation, preservation of natural features and development of mineral resources shall be discouraged.

NATURAL RESOURCES – AGRICULTURE POLICIES

- **Policy 1:** In all watersheds that drain into agricultural lands, siltation of sloughs and drainage systems can create major problems for agricultural uses. The County encourages non-FPA-regulated activities to minimize siltation and erosion in areas upstream of agricultural lands.
- **Policy 2:** Cleaning of sloughs and ditches and dike maintenance shall be allowed under the supervision of the local diking districts and in cooperation with the Clatsop Soil and Water Conservation District.

NATURAL RESOURCES – OTHER POLICIES

- Policy 1: Clatsop County values and supports watershed assessment documents being updated. The County will support watershed associations and other organizations when they apply for grants.
- Policy 2: Clatsop County should support voluntary acquisition programs to acquire lands around drinking water sources/supplies.

HOUSING POLICIES

- **Policy 1:** The plan shall designate ample areas for a variety of locational and acreage choices for those desiring rural housing.
- **Policy 2:** The clustering of dwellings shall be encouraged to maintain the rural character of the area, provide the best utilization of the land, to reduce housing costs, and to maintain and protect wildlife corridors.
- Policy 3: Current regulations of the Department of Environmental Quality 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.
- **Policy 4:** Large-scale low-income subsidized housing projects should be located in urban areas or rural service areas where necessary community services can be provided, in compliance with Statewide Planning Goal 14: Urbanization.
- Policy 5: The County shall review and revise its codes to allow cottage cluster developments in appropriate areas of the county in order to provide additional opportunities for the development of low-income and workforce housing.
- Policy 6: The County should encourage the installation of electric vehicle charging stations in new residential construction.

RECREATION POLICIES

Policy 1: 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 2: Trespassing on private lands adjacent to public parks shall be discouraged by the development of signage for the park facility that explains the extent of the area for public use and encourages respect for private property rights. The county and the Oregon Department of Parks and Recreation shall coordinate in this effort.
- **Policy 3:** Additional locations for public recreational access or expansion of existing facilities 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:
 - a. 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.
 - b. 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.
 - c. 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.
- **Policy 4:** Existing public land shall be preferred for public recreational development prior to acquiring additional locations. Land trades should also be considered in order to keep property on the tax rolls.
- Policy 5: Clatsop County shall utilize population and demographic projections to determine how changes will affect recreational needs and amenities.
- Policy 6: The County shall install bilingual directional and information signs at its facilities.
- Policy 7:Clatsop County shall establish an educational program to inform park users about safety and proper ways to
interact with nature in order to preserve it. The County shall also post information about the permitted activities
within parks along with interpretive signage.
- Policy 8: The County shall minimize or eliminate reduce run-off from the use of pesticides and herbicides in public parks in order to protect public health.

HISTORIC AREA POLICIES

Goal 1: 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 1:** In coordination with local Native American tribes, professional archeological study team should be encouraged to conduct a survey of the Indian villages in the area and develop a strategy for excavation or protection. Until such a study is complete, the County shall carefully review all development proposals that would impact the archeological sites.
- **Policy 2:** Care shall be taken to avoid placement of incompatible uses on properties adjoining significant archeological and historic sites or permitting activities which would conflict with the nature of identified sites.
- **Policy 3:** The use of identifying signs for historic and cultural landmarks shall be encouraged. Other historic sites such as old churches, school houses, etc. should also be signed. The Clatsop County Historical Society shall be encouraged to assist in this project.
- **Policy 4:** 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 5:** 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 6:** Local state and federal agencies and committees are encouraged to work together to identify and preserve historical sites in Clatsop County.
- Policy 7: The County should conduct an ESEE study to determine whether Bradwood and Clifton should be considered significant historic resources.
- Policy 8: The County shall, within five years of the date of adoption of this plan, develop a public education and outreach program to inform property owners about how to properly deal with found artifacts.

 Policy 9:
 The County shall identify ways to incorporate more input and cultural and historical knowledge from the federally

 recognized and unrecognized local Native American tribes. Such methods may include revising the Planning

 Commission bylaws to include a member of a local Native American tribe on the Commission and including local

 Native American tribes on all public notices.

SCENIC AND NATURAL AREA POLICIES

- **Policy 1** In order to preserve the scenic views and vistas, off-premise signs and billboards shall not be allowed along the Columbia River Highway.
- **Policy 2** 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 1:** New roads, bridges, etc. over rivers and streams shall be designed to minimize removal of shoreline vegetation and shall be installed in a manner that will not impede the flow of water or passage of fish.
- **Policy 2:** Proliferation of individual, single purpose piers and mooring facilities is discouraged in water areas to avoid increasing damage to fish habitat and scattered shoreline alterations.
- **Policy 3:** Parks should be managed to leave natural vegetation when possible.
- **Policy 4:** Chemical spraying along County roads is discouraged. Other methods (i.e. mowing) should be utilized to control plant growth.
- Policy 5: 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 6:** 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 7:** Dredging and filling of freshwater wetlands and water areas should be minimized.

- **Policy 8:** Off-road vehicles should only be allowed in designated areas.
- **Policy 9:** Mining, dredging or removal of gravel or similar materials from streams and other surface water shall be strictly controlled to prevent adverse alteration to flow characteristics, siltation and pollution, and destruction or disruption of spawning areas.
- Policy 10: Considering that the eagle is the national symbol of freedom; it is an endangered species; there are only 708 breeding pairs in the lower 48 United States (August 1978 National Geographic); there are only a few known pairs residing in Clatsop County; the eagle is part of the ecosystem of the estuary; and Clatsop County is a wintering ground for migrating eagles from Alaska, the County should monitor nesting locations and notify the Oregon Department of Fish and Wildlife when development is proposed that might affect eagle nesting locations. eagles should be given full protection through compliance with "Bald Eagle Management Guidelines Oregon and Washington" administered by the U.S. Fish and Wildlife Service. (See Appendix A). Landowners are encouraged to develop eagle habitat plan with these guidelines tailored to suit specific conditions.
- **Policy 11:** The Conservation Other Resources designation for lands comprising habitat for the Columbia White-tailed Deer is intended to protect the species. Any proposal to change the use or modify Columbian White-tailed Deer habitat of these lands shall be carefully evaluated for possible effects on Columbia White-tailed Deer survival.
- **Policy 12:** The County should encourage the use of stream buffers in order to maintain a cold, clear and abundant water supply to promote and maintain healthy fish habitat.
- **Policy 13:** 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 1:** Major industries existing or planned should develop programs to aid employees in fuel conservation.
- **Policy 2:** 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 3:** Clatsop County will continue to support the efforts of the sunset Empire Transportation District to maintain and, if feasible, to expand regular passenger bus serve to the Northeast area of the County.

- **Policy 4:** Housing developments shall be encouraged to locate along existing roads and avoid the creation of new roads. When new roads are created they should be as short as possible and designed to serve as many residents as possible by the use of clustering techniques or other means to minimize travel distances and long stretches of pavement.
- **Policy 5:** Clatsop County shall:
 - a. require new subdivisions to have access taken from the existing collectors and frontage roads unless a variance is given,
 - b. review new access points based upon proximity to existing access points and safety standards developed by the Department of Transportation.

RIPARIAN AREA POLICY

Policy 1: The County shall encourage the protection of riparian corridors, recognizing that they support fish and wildlife habitat and the health of the communities.

PUBLIC FACILITEIS POLICIES

- **Policy 1:** 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 2:** Sewer systems shall be extended outside the Rural Service District only to alleviate a health hazard or water pollution problem identified by DEQ and will be used as a last resort. Every effort will be made to avoid health hazards and failing systems which necessitates costly sewer construction. Periodic inspection of existing septic systems especially in higher density areas will be encouraged in order to anticipate needed improvements or possible needed changes in zoning density.
- **Policy 3:** Composting toilets and the use of other alternative sewage treatment systems are encouraged.
- Policy 4:Efforts to improve and expand existing water systems to serve rural population densities are encouraged.Consolidation of districts is also encouraged for economies of scale and better coordination. In areas where the future

water supply by districts is questionable, well systems may be feasible. Lot sizes in these areas shall be larger to reflect this alternative.

- **Policy 5:** 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 6:** New power transmission lines will be confined to existing easements to eliminate further scarring of the hills.
- Policy 7: 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 8:** Major manufacturing operations shall be encouraged to develop their own sources of energy through waste treatment or other alternatives which utilize renewable resources.
- **Policy 9:** The County shall encourage the creation of a Public Utilities District to increase local control and enhance resiliency.
- Policy 10: Clatsop County will work with public and private land owners to identify a future site or sites for the installation of a solid waste disposal site to accommodate a biodigester or other system for the temporary treatment and/or storage of septage.
- Policy 11: Clatsop County will work with public and private land owners to identify sites for the stockpiling and disposal of organic fill/waste that has been removed from other development sites.

GROUNDWATER RESOURCES POLICIES

Policy 1: In partnership with private landowners and state and federal agencies, Clatsop County will continue to monitor impacts to groundwater resources caused by climate change, and will develop strategies to mitigate those impacts.

 Policy 2:
 In partnership with private landowners and state and federal agencies, Clatsop County will continue to monitor

 impacts to groundwater resources caused by climate change, wildfire, and tectonic uplift and will develop strategies

 to mitigate those impacts.

NATURAL HAZARD POLICIES

- Policy 1: Clatsop County, in conjunction with the County's public health department and appropriate state agencies, will work to increase public awareness of the indirect hazards of wildfire. These include impacts from air and water pollution and a subsequent increase in landslide and flooding risks.
- **Policy 2:** The County shall utilize best management practices related to wildfire prevention and reduction.

ENERGY POLICIES

- Policy 1: Encourage the use of energy-generating technologies such as solar panels, wind energy, geothermal heat pumps, and other developing energy sources in order to reduce transmission costs and pollution generated by the consumption of regionally-produced and -oriented energy sources.
- Policy 2: The County should encourage the location of a public electric vehicle charging station or stations within the Northeast Planning Area.

COMMUNITY DEVELOPMENT – OVERALL GOAL

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

- **Policy 1:** Changes in the Rural Service Area boundary shall be done only after the following factors are considered:
 - a. there is demonstrated need to accommodate long range urban population growth requirements;
 - b. there is need for housing, employment opportunities, and livability;

- c. the change could provide an orderly and economic extension of public facilities and services;
- d. the change would allow for efficient land use and utility patterns within and on the fringe of the existing urban area;
- e. the environmental, energy, economic, and social consequences.
- **Policy 2:** 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.

COMMUNITY DEVELOPMENT – RURAL LANDS AND RURAL AGRICULTURAL LANDS OBJECTIVES

- **Objective 1:** To retain rural areas as sparse settlement, small farms or acreage homesites with hardly any public services.
- **Objective 2:** To protect agricultural land.

COMMUNITY DEVELOPMENT – RURAL LANDS POLICIES

- **Policy 1:** 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.
- **Policy 2:** New commercial zones shall only be considered if of a neighborhood type or if concentrated in and adjacent to existing, well-established business areas, in order to increase the patronage and vitality of these areas and to avoid undue dispersal of new commercial activities.
- **Policy 3:** When considering new commercial buildings or when existing commercial uses are considering expansion, the following standards shall be required in addition to those policies addressed in the Transportation Section:
 - a. Adequate off-street parking shall be provided.
 - b. A buffer or landscape planting area shall be provided when abutting residential zones.
 - c. Signs shall be limited.

COMMUNITY DEVELOPMENT POLICIES – CONSERVATION OTHER RESOURCES OBJECTIVES

- **Objective 1:** To conserve and protect natural, scenic, historic, and cultural resources.
- **Objective 2:** To develop for uses which do not substantially degrade the existing character or interrupt the flow of natural resource use of recreational benefits.
- **Objective 3:** To protect life and property in hazardous areas.

COMMUNITY DEVELOPMENT – FOREST LANDS POLICY

Policy 1: Forest lands shall be conserved for forest uses.

COMMUNITY DEVELOPMENT – CONSERVATION OTHER RESOURCES POLICY

Policy 1: The County shall encourage the identification, conservation, and protection of watersheds, fish and wildlife habitats, and areas of historical, cultural, and/or scientific importance. Forestry, recreational, and associated activities may be reviewed and restricted when such activities are found to be in conflict with the conservation and protection of such areas.

COMMUNITY DEVELOPMENT – NATURAL OBJECTIVES AND POLICIES

- **Objective 1:** To preserve, restore and protect natural areas for scientific, research, and educational needs and for the resource and ecosystem support values and functions they provide.
 - **Policy 1:** 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.
 - **Policy 2:** Landowners shall be encouraged to dedicate isolated natural features (landmarks) such as big trees, waterfalls, etc.

IMPLEMENTING OREGON ADMINISTRATIVE RULES (OA	(R) :	

<u>None</u>

COORDINATING AGENCIES:

Oregon Department of Fish and Wildlife (ODFW)

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)

<u>Oregon Health Authority (OHA)</u>

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

<u>Columbia River Estuary Regional Management Plan, CREST 1979</u>

2021 Oregon Distribution System Plan, PacifiCorp

2020 Clatskanie PUD Annual Audit Report

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