

PUBLIC FACILITIES

(GOAL 11)

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PUBLIC FACILITIES

(Goal 11)

1. PUBLIC FACILITIES AND SERVICES IN TILLAMOOK COUNTY

1.1 INTRODUCTION

A variety of public facilities and services are available throughout the County at various levels. This section of the Services and Facilities Element describes the following facilities and services available in the County.

- a. Water Supply
- b. Sewage Treatment
- c. Solid Waste Disposal
- d. Fire Protection
- e. Public Schools
- f. Police Protection
- g. Storm Drainage
- h. Planning, Zoning and Subdivision Control
- i. Community Health
- j. Energy Utilities
- k. Communications Utilities
- l. Community Government

Two additional types of facilities and services are also available in the County, recreation and transportation. These are discussed in separate elements of the Comprehensive Plan.

The following descriptions of each type of service include the location of service provision, the location of facilities, the level of service and the capacity of facilities when possible.

It is evident from the following descriptions that community areas in general have higher levels of service than non-community areas. Incorporated communities, however, do not necessarily have higher levels of service than unincorporated communities. Even some non-community areas have levels of service that approach those of incorporated communities.

1.2 WATER SUPPLY

Most people in the County, 67.9 percent, receive water from a public water system.* An additional 14.3 percent receive water from private water systems. Only 17.8 percent get water from individual wells or surface sources (See Table 1).

In some areas however, the proportion of households with individual water sources exceeds those on water systems. Communities where this occurs include Beaver, Hebo, Mohler, Tierra Del Mar, and some other unidentified rural areas in the County. For most of these individual supplies, surface water is a more frequently used source than groundwater.

There are 49 water systems in the County that are regulated by the State Health Division or the Environmental Protection Agency; systems having more than 3 hookups. The State Health Division regulates systems with more than three but fewer than 15 hookups. There are 11 of these systems. The remaining 38 systems have 15 or more hookups and are regulated by the Environmental Protection Agency.

Map 1 shows the location of water systems in the County. It also shows district boundaries and the extent of service where possible. More detailed maps are available in the office of the Tillamook County Planning Department. The descriptions which follow also indicate where water service is available.

TABLE 1
SOURCE OF WATER SUPPLY, BY COMMUNITY

Community	Sample Size	Source			Public System	Total
		Individual Source – Surface	Individual Source – Sub-surface	Private Company		
All Respondents	1,453	10.2%	7.6%	14.3%	67.9%	100.0%
Neahkahnie	24	0	0	29.2	70.8	100.0
Manzanita	41	0	0	29.2	70.8	100.0
Mohler	10	40.0	50.0	10.0	0	100.0
Necarney	5	0	0	0	100.0	100.0
Wheeler	21	4.8	0	4.8	90.5	100.0
Nehalem	47	4.3	12.8	0	83.0	100.0
Bayside Garden	20	0	0	0	100.0	100.0
Nedonna	15	0	0	0	100.0	100.0
Rockaway	68	3.0	1.5	0	95.5	100.0
Twin Rocks	33	3.0	3.0	39.4	54.5	100.0
Garibaldi	59	3.4	0	0	96.6	100.0
Bay City	78	2.6	0	0	97.4	100.0
Idaville	18	0	11.1	44.4	44.4	100.0
Tillamook City	226	0.9	0	0.5	98.6	100.0
Tillamook Sub	255	7.3	9.7	25.8	57.3	100.0
Oceanside	20	0	0	0	100.0	100.0
Netarts	52	0	0	12.0	88.0	100.0
Cape Meares	10	10.0	20.0	60.0	10.0	100.0
Beaver	44	31.8	25.00	22.7	20.5	100.0
Tierra Del Mar	11	36.4	18.2	45.5	0	100.0
Hebo	40	36.1	38.9	19.4	5.6	100.0
Cloverdale	41	25.0	20.0	45.0	10.0	100.0
Pacific City	47	4.3	2.2	4.3	89.1	100.0
Neskowin	20	0	20.0	75.0	5.0	100.0
Rural Area of County	139	38.6	15.2	15.2	31.1	100.0

Source: Richard L. Ragatz, "A Survey of the Housing Situation in Tillamook County," p 84

The availability of water for individual residences is very variable in the County. Surface water supplies are limited by watershed size and the storage capacity of the watershed. These supplies are more prone to turbidity and contamination than is groundwater.

The availability of groundwater is limited by the water holding capacity of the underlying geology. Some areas have abundant groundwater supplies including the Nehalem, Bayocean, and Nestucca Sand Spits and the area west of Sand Lake.

The Tillamook lowlands are also very productive.* Shallow depth groundwater can probably be obtained throughout the lower flood plains of the Nehalem and Nestucca Rivers.* The Kilchis River provides groundwater for the Bay City regional water system. Some groundwater supplies are available under more localized conditions because they are perched above relatively impermeable materials. For example, groundwater in volcanic flow braccia commonly remains perched above impermeable sedimentary interbeds. Limited yields of groundwater supplies are available in the marine sedimentary and volcanic rocks which underlie much of the county because they are largely impermeable.* Also, coastal marine terrace deposits consisting of relatively permeable, unconsolidated sand, silt and gravel could provide groundwater in some areas because they receive large quantities of water during the rainy season.* One would expect that these water supplies have less certain quantities of water.

Additional information on groundwater availability and quality is included in the Comprehensive Water and Sewerage Planning Study.*

Although most systems have their own sources of water, 15 buy water from other providers. Most of these buy water from the Tillamook Water Commission. The Tillamook County Creamery Association, Netarts Water District, Fairview Water District and City of Nehalem also sell water to other water systems. In addition, individual residences outside of the cities of Tillamook, Garibaldi and Nehalem are served along those cities' water lines.

All 49 water systems are described below in alphabetical order. These descriptions include an estimate of the residential population served, number of hookups, source of water and treatment, storage facilities, water quality problems, adequacy of the system to meet present needs, and ability of the system to meet future needs.*

- 1) **BASELINE WATER COOPERATIVE** – This system currently serves two families living along Brickyard Road just south of the Long Prairie Water District's southern boundary. The Port of Tillamook Bay is co-owner of the four-inch water line which serves the Co-op and has rights to use water from it. Supply is treated water from the Tillamook Water Commission. The system is currently meeting needs and can expand to a maximum of 6 hookups.
- 2) **BAY CITY** – This system is expanding and developing a new source from wells adjacent to the Kilchis River. It will be supplying water to the Juno Non-Profit Water Company, Inc., The Latimer Road Water District, and the Tillamook County Creamery Association. The Bay City Plan has more information on this water system.

- 3) BEAVER WATER DISTRICT #49 – This system serves approximately 250 people living in the community of Beaver (106 residential and commercial hookups). The supply is surface water from Hester Creek and is treated with chlorine. Two reservoirs store 11,000 gallons of treated water. The system has turbidity problems during rainfall. The present system is not meeting present needs and can not meet expansion needs unless improvements are made to it. Current limitations include water supply, storage and distribution. The District is in the process of making the necessary improvements.*
- 4) BRIGHTON WATER SYSTEM – This system serves approximately 30 people living in the south end of the Brighton Beach subdivision (15 residential hookups). It also serves the Brighton Moorage. The supply is surface water from Donkey Creek and is not treated. One reservoir stores 2,000 gallons of untreated water. The system has turbidity and bacterial problems. The present system is not meeting present needs and can not meet expansion needs. Improvements are needed in source, treatment, storage, and distribution. The Brighton Water System had an easement with Publishers Paper Co. for its water supply site on Donkey Creek that expired in 1980. The system now has to find an alternative supply.
- 5) CAPE MEARES COOPERATIVE WATER SYSTEM – This system serves approximately 120 permanent residents and 230 seasonal residents of the community of Cape Meares (156 residential hookups). The supply is surface water from Coleman Creek and is treated with chlorine. One reservoir stores 800 gallons of treated water. The system has turbidity problems. The system is not meeting present needs and can not meet expansion needs. Improvements are needed in treatment, storage and distribution. The majority of the watershed is owned by Crown Zellerbach and has recently been logged, adding to the system's turbidity problems.*
- 6) CASCADE HEAD RANCH IMPROVEMENT COMPANY – This system serves approximately 20 permanent residents and 100 seasonal residents and visitors of the Cascade Head Ranch development (60 hookups). The supply is surface water from Crowley Creek and is chlorinated, filtered and coagulated. One reservoir stores 100,000 gallons of treated water. There are no water quality problems. The system is meeting present needs and can meet the needs of the 20 additional dwellings possible in the Cascade Head Ranch development.
- 7) CLOVERDALE WATER DISTRICT – This system serves approximately 70 people residing in Cloverdale, (69 hookups). The supply is surface water from an unnamed creek located southeast of the community. The water is stored in a small impoundment holding 40,000 to 50,000 gallons and is treated with chlorine. The system does not permit enough contact time for the chlorine. There have been no bacterial contamination problems recently but there are turbidity problems. The system is barely meeting present needs and would require major renovation to meet future development needs in Cloverdale. The District is attempting to acquire a new source and upgrade their system but is uncertain whether they can afford to do so.

- 8) FAIRVIEW WATER DISTRICT – This system serves approximately 1,800 people living east of the City of Tillamook (500 residential and commercial hookups). The supply is surface water from Hughey, Donaldson and Tillson Creeks, and groundwater from 3 wells located east of Marolf Loop Road. The surface water is treated with chlorine. Three reservoirs store approximately 36,00 gallons of untreated water. The system has no water quality problems and is adequate to meet present needs and the needs of future expansion. The District is in the process of developing an additional well.
- 9) FALCON COVE BEACH DOMESTIC WATER SUPPLY DISTRICT – This system serves approximately 145 permanent and seasonal residents of the communities of Falcon Cove and Cove Beach in Tillamook and Clatsop Counties (58 residential hookups). Supply is from 2 springs. A large spring yielding 0.25 cfs is in Clatsop County. A smaller spring yielding 0.01 cfs is in Tillamook County. The spring in Tillamook County is chlorinated. It is unknown whether water quality standards are being met. The system has an estimated capacity of 100 hookups but during some summer months they have trouble serving the existing users.
- 10) FITZPATRICK WATER ASSOCIATION – This system serves approximately 30 people who live along Fitzpatrick Road (11 hookups). The Tillamook Water Commission supplies this system with treated water. The District has no water storage of its own. Present needs are being met. The system would have only 2 or 3 more hookups along Fitzpatrick Road.
- 11) CITY OF GARIBALDI – The City of Garibaldi water system serves properties within the city limits north of Tillamook Bay and several properties along Miami-Foley Road south of Moss Creek. This system is described in detail in the Garibaldi Comprehensive Plan.
- 12) HEBO WATER SYSTEM – this system serves approximately 200 people residing in the community of Hebo (42 residential and commercial hookups). The supply is surface water from 2 springs located east of the community. Water is treated with chlorine and stored in a 10,000 gallon reservoir. The system does not have water quality problems and is adequate to meet present needs. The system is not adequate to serve future expansion in the Hebo area. Improvements to the source and storage are necessary if future needs are to be met.
- 13) HORIZON VIEW HILLS WATER SYSTEM – This system serves approximately 150 permanent and seasonal residents in the Horizon View Hills subdivision (67 residential hookups). Supply is untreated groundwater. Three reservoirs store 74,752 gallons. It is not known whether this system has any water quality problems. The system is adequate to meet present and future service needs. Water treatment is a desired improvement to the system.
- 14) HUNT WATER DISTRICT – This system serves approximately 50 people living along the southern leg of McCormick Loop Road and along the first half-mile of Nielsen Road (19 residential and farm hookups). The supply is treated water from the Tillamook Water Commission. The District does not have any storage of its own. The adequacy of the system to meet present needs is unknown. The adequacy to meet future needs is dependent on Tillamook City's capabilities and policies.

- 15) JACK CREEK WATER DISTRICT – This system serves approximately 20 people living in the Siskeyville area (10 residential, commercial and industrial hookups). Supply is surface water from Jack Creek that is not treated with chlorine. One reservoir stores 5,000 gallons. Water quality standards are being met and the system is meeting the needs of the District. There will be few additional hookups since service is limited to existing lots within the District. A chlorinator will be installed when sufficient funds are available.
- 16) JUNO NON-PROFIT WATER COMPANY, INC. – This system serves approximately 90 people living along Boquist Road, Suppress Road, Highway 101 north of Latimer Road and south of the Old Coast Highway, Juno Hill, and the Old Coast Highway south of the Kilchis River (45 residential, commercial and farm hookups). Supply is from the Tillamook County Creamery Association but soon will be from Bay City. The Company has no water storage. Its distribution system is provided by the Creamery Association. The system currently meets present needs and will meet future service needs in cooperation with Bay City.
- 17) KILCHIS WATER DISTRICT – This system serves approximately 300 people living in the Kilchis River Valley including the community of Idaville (140 residential and farm hookups). Supply is surface water from Murphy Creek and groundwater. Water is treated with chlorine and stored in a 50,000 gallon reservoir. The system has no water quality problems. Present needs are being met but sometimes supply shortages are experienced in the summer. This may limit the number of additional hookups that can occur in the District. No more additional hookups are being granted for areas outside of the District.
- 18) LATIMER ROAD WATER ASSOCIATION – This system serves approximately 150 people living along the first mile and a half of Latimer Road east of U.S. Highway 101 (34 residential hookups). Supply is from the Tillamook County Creamery Association but will be from Bay City. This system has no water storage facilities of its own. The water supply is not adequate to meet present demands. The availability of water from Bay City should help alleviate water supply problems but the Association is pessimistic about being able to expand to meet future growth needs.
- 19) LONG PRAIRIE WATER DISTRICT – This system serves approximately 550 people living along Long Prairie Road, Chance Road, Mill Creek Road, and Brickyard Road (200 residential and farm hookups). Supply is from the Tillamook Water Commission presently. The District has an intake facility on Mill Creek along with a chlorinator and a storage capacity of 15,000 gallons. These facilities need substantial improvement. The Mill Creek supply is unreliable. The creek was dry from April until October in 1967. The system is having trouble meeting present service needs. Water pressure is a problem. The system has reached its saturation point, which was supposed to have been reached in the year 2000. The District in the summer of 1979 began curtailing hookups to its system. It appears as though substantial improvements will be necessary if the District is to serve additional development.*
- 20) CITY OF MANZANITA – This system serves people within the City of Manzanita and unincorporated areas to the south which have been included within the urban growth boundary. The Manzanita Comprehensive Plan describes this system in detail.

- 21) MEADOWS WATER ASSOCIATION – This system serves approximately 15 permanent and seasonal residents living in the Nestucca Meadows subdivision (6 residential hookups). The supply is from a well and is untreated. One reservoir stores 100 gallons. It is unknown whether water quality meets standards. The system meets present needs but is small and can not be expected to serve additional development.
- 22) MOHLER WATER ASSOCIATION – This system serves 18 people living along Miami-Foley Road east of the junction with Highway 53 and west of the P.U.D. substation (7 residential and farm hookups). Supply is surface water that is not treated with chlorine. One reservoir stores 1,000 gallons. It is unknown whether water quality standards are being met. The system is adequate to meet current needs as well as the addition of 2 or 3 hookups.
- 23) NARROWS WATER COOPERATIVE – This system serves approximately 70 permanent and seasonal residents of the Narrows subdivision and two additional ownerships on the opposite side of Highway 6 (26 residential hookups). The water source is surface and is untreated. One reservoir stores 1,000 gallons. It is unknown whether water quality meets standards. The system is adequate to meet present needs. Additional hookups are limited to unbuilt lots within the Narrows subdivision of which there are approximately 3.
- 24) NEAHKAHNIE WATER DISTRICT – This system serves approximately 360 permanent and seasonal residents and a golf course in Neahkahnie (200 hookups). Supply is from 3 springs and is untreated. One reservoir stores 30,000 gallons. There are no water quality problems. The system is currently meeting supply needs and can handle expansion that occurs within the existing platted area. The system needs additional sources of water and additional storage to handle development outside of the platted areas.
- 25) CITY OF NEHALEM – This system serves people living within the Nehalem Urban Growth boundary and others living along the western half of McDonald Road. The system also provides surplus water to the Tidelands Water Cooperative. Supplies to areas outside of the City UGB are limited because of their status and the Cites limited supply. An additional source is being developed on Cole Creek that won't be available for several years. More detail is contained in the Nehalem Comprehensive Plan.
- 26) NESKOWIN REGIONAL WATER DISTRICT – This system serves approximately 490 permanent and seasonal residents and visitors and two golf courses in the Neskowin area (300 residential and commercial hookups). Supply is surface water from Hawk Creek and is chlorinated. Two reservoirs store 600,000 gallons of untreated water. The water treatment plant is new so it is unknown whether there are any water quality problems. This District supersedes several water companies in the Neskowin area that were having water quality problems. The system is meeting present needs and is capable of meeting future service needs.
- 27) NESTUCCA BEND WATER SYSTEM, INC. – This system serves approximately 40 people living in the Nestucca Bend subdivision (14 residential hookups). The supply is groundwater and is untreated. The system has no water storage. Water quality standards are being met. The system is meeting current needs and can meet the needs of future development within the subdivision.

- 28) NETARTS WATER DISTRICT – This system serves approximately 1,200 permanent and seasonal residents of the Netarts area (420 residential and commercial hookups). The District also sells treated water to the Netarts Bay Water District. The supply is surface water from the east and west forks of Fall Creek and a spring near the west fork.* All water is treated with chlorine. Two reservoirs store 612,000 gallons of untreated water. The system is not experiencing any water quality problems. Present service needs are not being met at times of high water demand. In order to meet those needs, additional treatment facilities must be added as well as larger main pipes. Because of this treated water shortage, the District has put a moratorium on hookups in the Netarts Bay Water District. Future water needs can be met if the above mentioned additions are made to the system.
- 29) NETARTS BAY WATER DISTRICT – This system serves approximately 110 permanent and seasonal residents living along the eastern shore of Netarts Bay south of the Netarts Water District (53 primarily residential hookups). The supply is treated water from the Netarts Water District. This system has no water storage of its own. Present water needs are being met but expansion is not possible unless the Netarts Water District can and is willing to sell more water. Desired improvements to this system include adding storage and increasing the size of some transmission lines.
- 30) NORTHWOODS WATER DISTRICT – This system serves approximately 50 people living in the immediate vicinity of the Northwood Acres subdivision (18 residential hookups). Supply is surface water that is treated with chlorine. One reservoir stores 15,000 gallons of treated water. The system has experienced water quality problems, high bacterial counts. The District is connecting to the Bay City regional system to correct its supply and water quality problems.
- 31) OCEANSIDE WATER DISTRICT – This system serves approximately 525 permanent and seasonal residents and visitors of the Camelot, Oceanside and Short Beach areas (250 residential and commercial hookups). Supply is surface water from Short Creek and is flocculated, filtered and treated with chlorine. Two reservoirs store 140,000 gallons of treated water. The system has no water quality problems and meets present service needs. It will also meet future service needs of anticipated growth in the area.
- 32) PACIFIC CITY WATER DISTRICT – This system serves approximately 1,800 permanent and seasonal residents and visitors in the Pacific City/Woods area (610 residential and commercial hookups). Supply is groundwater (filtration bed, Horn Creek) and is treated with chlorine. Three reservoirs store 520,000 gallons of treated water. The system is not experiencing water quality problems and is meeting present service needs. Improvements to the system are necessary if it is to service anticipated growth in the area. These improvements include dune wells, replacement and looping of 2-inch transmission lines, installing fire hydrants, meters and reservoirs.

- 33) PLEASANT VALLEY WATER COMPANY – This system serves approximately 280 people living along U.S. Highway 101 south of Killam Creek (except for one farm) to approximately Grange Road, along South Prairie Road south of Killam Creek, along a portion of Munson Creek Road and along approximately the first mile of Fawcett Creek Road (105 residential and farm hookups). The supply is untreated water from the Tillamook Water Commission. The system has its own chlorine treatment but it does not have any water storage. There are no water quality problems and present needs are being met. Additional growth can be handled by the system as long as Tillamook City provides sufficient water. Portions of the system, along Munson Creek Road and the upper end of South Prairie Road can not have additional hookups.
- 34) PORT OF TILLAMOOK BAY INDUSTRIAL PARK – This system serves approximately 700 employees working in the industrial park (27 commercial and industrial hookups). Supply is from the Tillamook City Water Commission. The Port has no storage or treatment facilities of its own. The system is adequate to meet current and future needs but the supply is dependent on the ability and willingness of the Tillamook City Water Commission to supply more water.
- 35) CITY OF ROCKAWAY WATER SYSTEM – This system serves areas within the Rockaway City limits as well as the Nedonna Beach subdivision. All areas of service are included in the Rockaway Urban Growth Boundary. Detailed information about the system is available in the Rockaway Comprehensive Plan.
- 36) ROGERS WATERLINE USERS ASSOCIATION – This system serves approximately 37 people living along Matejeck Road (14 residential and farm hookups). The supply is treated water from the Tillamook City Water Commission. The Association has no reservoirs of its own. Present service needs are being met and the Association anticipates being able to expand to meet future needs. The ability to expand is also dependent on Tillamook Water Commission policies and supply capability.
- 37) SECLUDED HILLS WATER SYSTEM – This system serves approximately 30 people residing in the Secluded Hills subdivision (12 residential hookups). Supply is from a spring. Storage is minimal. Water treatment and system adequacy is unknown. The source, a spring, has enough volume to handle the needs of Cloverdale.
- 38) SOUTH PRAIRIE WATER ASSOCIATION – This system serves approximately 230 people living along U.S. Highway 101 south of Long Prairie Road and north of the Pleasant Valley water service area, along Bewley Creek Road, along South Prairie Road near the school, and along a mile of the Tillamook River Loop Road west of the junction with U.S. Highway 101 (87 residential and farm hookups). Supply is from the Tillamook City Water Commission. The system has no treatment or storage facilities of its own. Present needs are being met by the system. The system has the capability to meet expansion needs depending on the supply available from Tillamook.

- 39) TIDELAND WATER COOPERATIVE – this system serves approximately 100 residents and visitors living along Tidelands Road (except for the western most two thirds of a mile) and along Tohl Road. Seventeen homes and 50 trailers are hooked up to the system. Supply is surplus treated water from the City of Nehalem. The system has no storage of its own. The system has some problems meeting present needs because of limitations in Nehalem’s supply. Until Nehalem’s supply improves, additional hookups in the Tidelands system area are very limited.
- 40) TIERRA DEL MAR BEACH WATER COMPANY – This system serves approximately 450 permanent and seasonal residents of Tierra Del Mar (200 residential hookups). Supply is surface water from Beltz Creek that is treated with chlorine. One reservoir provides 10,000 gallons of treated water storage. The system is adequate to meet present and future service needs for Tierra Del Mar.
- 41) TILLAMOOK COUNTY CREAMERY ASSOCIATION – This system serves the Tillamook County Creamery and the Latimer and Juno water systems. It will join with the Bay City regional water system. Supply is primarily groundwater but surface water from Cole Creek can also be used. If surface water is used, it is treated with chlorine. One reservoir on Cole Creek stores 3 million gallons of untreated water. The Creamery has a reserve reservoir which stores 250,000 gallons. The system has no water quality problems and is adequate to handle present and future service needs.
- 42) TILLAMOOK WATER COMMISSION – In addition to customers in the City of Tillamook, this system supplies surplus water to the following water systems in outlying unincorporated areas: Baseline Water Cooperative, Fitzpatrick Water District, Hunt Water District, Long Prairie Water District, Pleasant Valley Water Company, Port of Tillamook Bay, Rogers Waterline Users Association, South Prairie Water Association, Tone Water District, West Hills Water Company, Inc. The system also serves the Tillamook Care Center and approximately 100 individual residences and farms in unincorporated areas that are adjacent to the City’s water mains. Most of these residences are located along Nielsen Road to the boundary of the Hunt Water District. The Trask River Trailer Park on Gienger Road also has a large number of residential hookups. Properties on which there is an easement for a city water main have a right to hook on for the ownership that existed at the time the easement was granted. Other hookups to the system have to be through existing districts or possibly through new districts. Increases in the number of hookups in outlying districts must be approved by the Water Commission. Water supplies are adequate to meet present needs in unincorporated areas and are expected to be adequate to meet future needs.
- 43) TONE WATER DISTRICT – this system serves approximately 80 people living along Tone Road (30 residential and farm hookups). Supply is treated water from the Tillamook Water Commission and is adequate to meet present needs. The District does not know whether it can expand. This in part depends on the availability of water from Tillamook.

- 44) TRASK WATER SYSTEM – This system serves approximately 35 people living along Valley View Drive and along Trask River Road from the edge of Fairview Water District to a little beyond the junction with Long Prairie Road (14 hookups). Treated water is supplied by the Fairview Water District. There are no water quality problems and the supply is adequate for existing uses. This system is at capacity and would require substantial upgrading to accommodate additional hookups.
- 45) TWIN ROCKS WATER DISTRICT – This system serves approximately 580 permanent and seasonal residents of Twin Rocks (264 primarily residential hookups). Treated water is purchased from Rockaway. The system has no storage facilities of its own. The entire district is being included in the City of Rockaway Urban Growth Boundary.
- 46) WATSECO-BARVIEW WATER DISTRICT – This system serves approximately 290 permanent and seasonal residents of Watseco and Barview (130 residential and commercial hookups in addition to Barview County Park and 2 private camps). Supply is groundwater that is not treated. One reservoir stores 300,000 gallons. This system replaces the Barview Water Company and Watseco Water System, both of which had water quality problems. The present system has no water quality problems and is adequate to meet present and future service needs.
- 47) CITY OF WHEELER – This system serves the City of Wheeler. Detailed information is available in the Wheeler Comprehensive Plan.
- 48) WEST HILLS WATER COMPANY, INC. – This system serves approximately 230 people living along State Highway 131 from the Tillamook City limits to approximately a mile past Frazer Road, along Tomlinson Road, and along a portion of Bayocean and Frazer Road (86 residential, commercial and farm hookups). Supply is treated water from the City of Tillamook. One reservoir stores 30,000 gallons. The system is meeting present service needs. It has the potential to meet future service needs depending on the supply available from the City of Tillamook.
- 49) WILSON RIVER WATER DISTRICT – This system serves approximately 350 people residing in the lower Wilson River drainage basin (130 residential, commercial and farm hookups). Supply is groundwater and is not treated. One reservoir stores 40,000 gallons. The system has no water quality problems and is adequate to serve present and anticipated future needs.
- 50) WINEMA CHURCH WATER SYSTEM – This system serves approximately 16 people and the Winema Church Camp (8 hookups including the camp). Supply is surface and groundwater. Surface water is treated with chlorine. Three reservoirs store 95,000 gallons. The system has had no water quality problems and is adequate to meet present and future needs within the property.

1.3 SEWAGE TREATMENT

The majority of the County's households in 1978, 55.1 percent, relied on septic tanks and drainfields or other types of on-site sewage disposal. (See Table 2.) Households relying on central sewage treatment comprised 44.3 percent of the total. *

A number of communities had a much higher percentage of households relying on individual sewage disposal systems. These included Mohler, Nedonna, Idaville, Suburban Tillamook, Oceanside, Netarts, Cape Meares, Beaver, Tierra Del Mar, Hebo, Cloverdale, Pacific City, and Neskowin. It should be noted however, that the communities of Netarts, Oceanside and Pacific City had initiated sewage service after completion of the housing survey. In addition, 98.5 percent of the remaining rural households relied on individual sewage disposal systems. Central sewage disposal occurred mainly in the incorporated cities of the County.

TABLE 2
TYPE OF SEWERAGE DISPOSAL SYSTEM, BY COMMUNITY

Community	Type of System				Total
	Sample Size	Septic Tank	Sewer System	Other	
All Respondents	1,453	55.1	44.3	0.6	100.0
Neahkahnie	24	4.2	95.8	0	100.0
Manzanita	41	2.4	97.6	0	100.0
Mohler	10	100.0	0	0	100.0
Necarney	5	0	100.0	0	100.0
Wheeler	21	42.9	47.6	9.5	100.0
Nehalem	47	25.5	74.5	0	100.0
Bayside Gardens	20	0	100.0	0	100.0
Nedonna	15	100.0	0	0	100.0
Rockaway	68	22.4	76.1	1.5	100.0
Twin Rocks	33	21.2	78.8	0	100.0
Garibaldi	59	10.3	89.7	0	100.0
Bay City	78	11.5	88.5	0	100.0
Idaville	18	100.0	0	0	100.0
Tillamook City	226	7.2	92.3	0.5	100.0
Tillamook Suburban	255	91.7	7.9	0.4	100.0
Oceanside	20	68.4	26.3	5.3	100.0
Netarts	52	87.8	12.2	0	100.0
Cape Meares	10	100.0	0	0	100.0
Beaver	44	100.0	0	0	100.0
Tierra Del Mar	11	100.0	0	0	100.0
Hebo	40	94.9	2.6	2.6	100.0
Cloverdale	41	58.5	41.5	0	100.0
Pacific City	47	100.0	0	0	100.0
Neskowin	20	95.0	5.0	0	100.0
Rural Areas of County	139	98.5	0.7	0.7	100.0

Source: Richard L. Ragatz, "A Survey of the Housing Situation in Tillamook County," p82

On site sewage disposal depends on the suitability of the soil to accept septic tank effluent. Important soil characteristics include slope, depth to permanent water table, depth to seasonal water table, flooding, permeability and soil depth. These characteristics are discussed in more detail in the Justification Section of the Goal 2 Element.

There are 11 sewage treatment facilities in the County. These belong to the City of Bay City, City of Garibaldi, City of Rockaway, City of Tillamook, North Tillamook County Sanitary Authority, Cloverdale Sanitary District, Neskowin Lodge Investors Corporation, Netarts-Oceanside Sanitary District, Pacific City Sanitary District, Port of Tillamook Bay, and the Twin Rocks Sanitary District. The first 4 systems only serve incorporated areas. The fifth serves incorporated and unincorporated areas. The last 6 systems serve only unincorporated areas. The areas included in district boundaries and the areas served are shown in Map 2. More detailed maps are available in the office of the Tillamook County Planning Department.

In addition to sewage treatment systems in the County, there are two sanitary districts without any collection or treatment facilities, the Highway 101 North Sanitary District and the Neskowin Regional Sanitary Authority. These districts include unincorporated areas.

All providers and potential providers of sewage service to unincorporated areas are discussed below.

- 1) CLOVERDALE SANITARY DISTRICT* – This system serves the community of Cloverdale including the Nestucca Union High School. It does not serve any areas south of the high school.

The treatment plant is an activated sludge unit with effluent polishing and chlorination. Up to 50,000 gallons of sewage can be treated per day (410 population equivalents). The plant has the capability of reducing 5 day Biological Oxygen Demand (BOD) and suspended solids to a monthly average of 10 mg/l. Effluent is discharged into the Nestucca River.

There are currently 48 residential connections, 24 commercial connections (including one restaurant), and 1 high school connection with 219 students, faculty and staff. These connections produce an estimated 23,000 gallons of sewage per day. The treatment plant therefore has 54 percent of its capacity, 27,000 gallons per day (gpd), as surplus.

- 2) HIGHWAY 101 NORTH SANITARY DISTRICT #53 – This district was formed in 1973 to provide sewer service to an approximately 500-foot strip of land on both sides of U.S. highway 101 north of the Tillamook City limits to the Wilson River. The District has been included within the proposed urban growth boundary of the City of Tillamook. Health Hazard annexation proceedings are underway for this area. Information about sewer services to this area is included in the Tillamook City Comprehensive Plan.

- 3) NESKOWIN LODGE INVESTORS CORPORATION* – This system serves a limited area in Neskowin including the Neskowin Lodge and Condominium, the Proposal Rock Subdivision, the Point Subdivision and several houses near the southern end of Hawk Drive.

The treatment plant is an extended aeration unit with a design capacity of 50,000 gpd (472 population equivalents). Disinfected effluent is discharged into one of two lagoons with a surface area of one acre. Outflow from the lagoon is sent into Neskowin Creek between September 16 and May 14. During other times of the year this effluent is discharged by spray irrigation to an area to the northeast of the treatment plant.

The sewage collection system is in three separate parts owned by three separate owners.

There are currently 48 residential connections in addition to the lodge and condominium complex. Sewage produced by the lodge and condominium is approximately 25,000 gpd. The residences may be producing 8,000 to 11,000 gpd. The system may be operating at 65 to 72 percent of capacity if there is no excessive infiltration and inflow. Although it appears as though there is sufficient capacity for quite a few additional connections, the Neskowin Lodge Investors Corporation feels that it can extend service to fewer than 20 additional residences.

This sewage system is in poor condition resulting in the discharge of partially treated and untreated wastewater. The owners of the treatment plant have been officially cited by the DEQ for waste discharge permit violations on six different occasions. These violations have included summer discharge into Neskowin Creek, failure to use spray irrigation, and bypassing raw sewage into the holding ponds. The plant malfunctioned in February of 1980 and was still not operating in August of that year. Raw sewage leaking from the primary polishing pond has threatened the integrity of the pond by eroding a steep side hill.

Private collection systems are substandard and not in compliance with DEQ requirements. Numerous complaints have been filed regarding periodic overflow and the surfacing of raw sewage due to pump station.

This system, according to the DEQ waste discharge permit, was intended to be an interim that would serve until an area-wide sewage system was established.

- 4) NESKOWIN REGIONAL SANITARY AUTHORITY* – The Neskowin Regional Sanitary Authority was formed in 1977 under Chapter 450, Sections 450.705 to 450.980 of the Oregon Revised Statutes. These statutes permit sanitary Authorities to study and regulate the disposal of waste water from within their boundary and adjacent lands, assess property and collect assessment for benefits received, and to negotiate and obtain financial aid from the State and Federal Governments for improvement projects.

The Sanitary Authority would be responsible for the administration, operation and maintenance of regional sewerage facilities within the authority's boundary.

In the 1979 tax year property within the authority's boundary had a total assessed valuation of \$25,394,710 and at the present time, there are approximately 161 registered voters within the boundary.

- 5) NETARTS-OCEANSIDE SANITARY DISTRICT* – This system serves the communities of Netarts and Oceanside and the intervening area. Construction of the sewage treatment plant, located in the Avalon area, was completed in 1978.

The treatment plant treats sewage through an activated sludge process. Treated and chlorinated effluent is discharged into the ocean in front of the treatment plant. The average capacity is 400,000 gpd with a maximum capacity of 1,000,000 gpd. The design population is 2,400, which is roughly equivalent to 1,200 connections.

There are currently 100 connections to the system. According to the District, the treatment plant nears capacity on peak summer days. On the other hand, it was reported in a General Accounting Office study that the system sometimes had problems with low flows and putrefaction of sewage in the collector lines.* This is most likely the unfortunate result of the recreational nature of the area with large numbers of seasonal residents and visitors.

The District estimates that the plant will satisfy needs until 1990 when some increase in capacity will be needed. It may be necessary to reduce infiltration and inflow into the system which accounts for 25 to 50 percent of flows during the winter.

- 6) NORTH TILLAMOOK COUNTY SANITARY AUTHORITY* – This system serves the incorporated communities of Manzanita, Nehalem and Wheeler, the unincorporated community of Neahkahnie and some other unincorporated areas. The City of Wheeler is not part of the District but is served on a contract basis.

The treatment plant uses three waste stabilization ponds to reduce BODs and SS to 20 mg/1. The lagoons are located across the Nehalem River from the City of Nehalem. The dry weather load capacity of the treatment plant is 750,000 gpd. This capacity will serve approximately 4,800 population equivalents in the summer and 2,400 population equivalents in the winter.

In 1979, the system had approximately 1,100 residential connections with another 445 commitments for residential connections and 727 commercial connections. The theoretical daily average flow generated from all existing hookups was approximately 382,360 gpd and the total existing and committed connections would have had the potential of generating a total of 492,850 gpd. The theoretical organic loading was equal to 3,753 population equivalents and had the potential of 4,836 population equivalents with the servicing of committed connections. The actual measured loading in the winter was 1,375 population equivalents and 1,916 population equivalents in the summer.

At current growth rates the capacity of the treatment plant will be exceeded before the year 2000. The Sanitary Authority has engaged two consulting firms to analyze the treatment facility and propose changes to increase capacity to be able to handle anticipated loads. One change being pursued is changing the discharge permit to allow 1.3 million gallons per day (MGD) discharge into the Nehalem River instead of the current 0.7 MGD with a discharge of 30 mg/1 of BODs and SS instead of 20 mg/1.

- 7) PACIFIC CITY SANITARY DISTRICT* – The Pacific City Sanitary District provides sewage treatment service to Pacific City, Woods and Cape Kiwanda. The treatment plant, located on Cape Kiwanda Drive north of the Pacific Avenue Bridge, started operation in November of 1979.

The sewage treatment plant provides tertiary treatment with an activated sludge process and advanced treatment with filtration. This results in effluent with 10 mg/1 of BODs and SS. Treated effluent is discharged into the Nestucca River at a point just north of the Pacific Avenue Bridge. The plant has a design capacity of 360,000 gpd. It can serve a population of 3,000, assuming a flow of 100 gpd per person and 60,000 gpd infiltration.

Currently there are approximately 120 connections to the system. The estimated peak population of the area, although not all residences and businesses are connected, is 1,600. It appears as though there is enough extra capacity to serve additional development in the area.

- 8) PORT OF TILLAMOOK BAY* – The Port of Tillamook Bay has a sewage treatment plant serving industrial, office and residential uses in the Port Industrial Park. The plant was constructed in 1967 to treat wastes from the preexisting collection system.

Sewage treatment is provided by 2.1-acre and 0.98-acre stabilization ponds. The plant is designed to accommodate wastewater flows of 70,000 gpd average dry weather and 1,430,000 gpd peak wet weather. An organic loading of 610 population equivalents is discharged into the Trask River and has a maximum BODs and SS of 14 mg/1.

There are currently about 700 people working at the industrial park when the Louisiana Pacific is running at capacity. This may be equal to 17,500 to 35,000 gpd per employee. The system was plagued with infiltration problems but the Port with the help of an EDA grant has cut infiltration by 58 percent. The Port estimates that the system is at 20 to 25 percent of capacity.

- 9) TWIN ROCKS SANITARY DISTRICT* – The Twin Rocks Sanitary District provides sewage treatment service to the Twin Rocks, Watseco and Barview areas. The system was constructed in 1969.

The treatment plant provides secondary treatment with a modified activated sludge process. Between September 30 and June 1, treated effluent is discharged into Watseco Creek. Sewage holding ponds store summer sewage flows for the period when discharge into Watseco Creek is prohibited. These ponds can hold up to 18.1 acre feet, the sewage of approximately 1,730 people. The treatment plant can treat 100,000 gpd and has the potential for adding another 100,000 gpd treatment unit. This is equivalent to the waste produced by a population of 1,000 now and 2,000 when the second treatment unit is added.

There are currently approximately 300 residences, 29 motel units and cabins, 2 commercial structures, 81 trailer sites and 3 camps (Barview County Park, Camp Magruder, Friends Camp) on the system. The system can probably handle approximately 200 more residential connections before an additional treatment unit is added or current inflow problems are corrected.

1.4 SOLID WASTE DISPOSAL

In 1978 Tillamook County obtained a solid waste management planning grant from DEQ for the purpose of locating and acceptable regional sanitary landfill within Tillamook County. Through a series of meetings with the Tillamook County Solid Waste Advisory Committee, siting criteria were established, site feasibility was determined and seventeen proposed disposal sites were selected for analysis. An eliminating process considered such factors as DEQ requirements. Federal Resource Conservation and Recovery Act requirements, including surface water and wetlands criteria; soil workability and availability; public acceptance, haul distance (including energy consumption during transfer), leachate generation and treatment; waste volume and composition.

Four sites were identified for more detailed analysis which resulted in a recommendation for the conversion and expansion of the existing Tillamook open-burning dump to a sanitary landfill. (See Figure 3 for location.) A conditional use permit was granted by the Planning Commission and the Commissioners then approved the site and conversion program. County funding was provided for the program, which also included the closure of the open-burning dumps in Manzanita and Pacific City (See Figure 3) and the conversion of those sites to transfer stations for the haulage of solid waste to the central landfill facility. Completion of the program was basically attained in 1980 and the new facilities in full operation in 1981.

Solid waste collection service is provided by five private companies: City Sanitary Service, Coast Sanitary Service, Nestucca Valley Sanitary Service, Oceanside Sanitary Service, R. Sanitary Service. These companies are franchised by Tillamook County to provide service to specific areas of the County shown in Map 3. Franchise areas cover the entire County and all are distinct except for the areas of Coast Sanitary Service and R. Sanitary Service which overlap in the Rockaway/Twin Rocks area.

1.5 FIRE PROTECTION

Fire protection in Tillamook County is provided by 16 different agencies. Each of the agencies serves a separate area as is shown in figure 4. All of them have signed a County-wide mutual aid agreement pledging to provide assistance to one another.

Map 4 shows that almost all populated areas of the County receive some form of fire protection. The only community without any guaranteed fire protection is Cape Meares although the Tillamook Rural Fire Protection District will respond to a call if possible.

The level of fire protection in each area varies. Major determinants of the level of protection include the distance to the nearest fire station and the presence of fire hydrants. The highest level of protection is in communities where there are fire stations and well developed water systems with hydrants.

Fire departments in the County are predominantly run by volunteers. Only the City of Tillamook and the Tillamook Rural Fire Protection District has some paid fire fighters.

Following is a description of each fire fighting agency in the County. Included in the description is the service area, fire station locations, and the fire insurance rating. The fire insurance rating gives a relative rating of fire fighting capabilities for insurance purposes. As such it provides an indication of the level of fire service provided but it does not provide an absolute measure.

- (1) BAY CITY FIRE DEPARTMENT – Bay City has a voluntary fire department providing protection within the City. There are hydrants in the City and the insurance rating is 7.
- (2) CANNON BEACH RURAL FIRE DISTRICT – This district serves the community of Falcon Cove as well as areas in Clatsop County. There are fire hydrants in the community and there is a facilities and services in nearby Arch Cape. The insurance rating is 6.
- (3) CITY OF GARIBALDI FIRE DEPARTMENT – The City of Garibaldi has a volunteer fire department providing fire protection within its limits. It also provides fire protection to the Garibaldi Rural Fire District on contract. There are hydrants in the City and the insurance rating is 6.
- (4) GARIBALDI RURAL FIRE DISTRICT – This district contracts with the City of Garibaldi for fire protection up most of the Miami-Foley Valley and along the coastal strip from Spring Lake to Larson Cove. The facilities and services are located in Garibaldi. There are fire hydrants in the Twin Rocks, Watseco, Barview areas. The fire insurance rating where there are hydrants is 5 for areas within five miles of the fire station, and 6 for areas further away. Elsewhere, the rating is 8 within 5 miles of the facilities and services and 9 for areas further away.
- (5) CITY OF MANZANITA FIRE DEPARTMENT – The City of Manzanita has a volunteer fire department providing service within the city limits and the Necarney area. It also provides service on contract to the Neahkahnie Water District. There are hydrants in the City and the insurance rating is 8.
- (6) NEAHKAHNIE WATER DISTRICT – This district contracts with the City of Manzanita for fire protection. There are some hydrants in the area. The insurance rating is 8.

- (7) CITY OF NEHALEM FIRE DEPARTMENT – The City of Nehalem has a volunteer fire department providing service within the city limits and on contract to the Nehalem Rural Fire District. There are hydrants in the City and the insurance rating is 7.
- (8) NEHALEM RURAL FIRE DISTRICT – This district contracts with the City of Nehalem for a large area in north County including Bayside Gardens, the North Fork Valley, the Nehalem Valley to Batterson and the coast to Brighton. There are no hydrants in the area and the insurance rating is 9.
- (9) NESTUCCA RURAL FIRE DISTRICT – This district provides fire protection for most of the County from hemlock south. There are fire stations in Beaver, Blaine, Cloverdale, Neskowin and Pacific City. There are hydrants in Neskowin and Pacific City. The Beaver Water District is improving their system and will soon have hydrants. The insurance rating is 7 within most of Pacific City and Neskowin, where there are hydrants. Elsewhere, the rating is 8 for areas within 5 miles of a fire station and 9 for areas further away.
- (10) NETARTS RURAL FIRE DISTRICT – this district provides fire protection to the community of Netarts and to areas along Netarts Bay. A facilities and services is located in Netarts. There are fire hydrants in the area and the insurance rating is 6.
- (11) NEDONNA RURAL FIRE DISTRICT – This district serves Nedonna Beach and on up the coast to the southern end of the Brighton Beach Subdivision. It also serves unincorporated areas surrounding the city of Rockaway as far south as Spring Lake. It surrounds but does not include Neahkahnie High School. Most of the district is included in the Rockaway UGB. The District contracts with the City of Rockaway for fire protection. There are hydrants in Nedonna Beach and Twin Rocks and the insurance rating is 6.
- (12) OCEANSIDE RURAL FIRE DISTRICT – This district provides fire protection to the community of Oceanside and to the Short Beach area. Facilities and services are located in Oceanside. There are fire hydrants in the area and the fire rating is 6.
- (13) CITY OF ROCKAWAY FIRE DEPARTMENT – The Rockaway Fire Department serves the City as well as serving the Nedonna Rural Fire District on contract. The City has fire hydrants and the insurance rating is 6.
- (14) TAFT-NELSCOTT-DELAKE RURAL FIRE DISTRICT – This district in Lincoln County provides fire protection on contract to the Cascade Head Ranch District Improvement Company. The nearest facilities and services are in Otis. There are fire hydrants in Cascade Head Ranch and the insurance rating is 7.
- (15) TILLAMOOK CITY FIRE DEPARTMENT – This department serves the City of Tillamook and also the Tillamook Rural Fire District on contract. The department has paid and volunteer fire fighters. The City has fire hydrants and an insurance rating of 5.

- (16) TILLAMOOK RURAL FIRE DISTRICT – This district serves the Tillamook and Kilchis Valley areas as far north as Bay City and as far south as Hemlock. It covers the West Hills area on the west as well as Bewley Creek, Sutton Creek and Yellow Fir. It does not cover any of the Wilson River Canyon. The district splits expenses with the Tillamook City Fire Department. In addition to the station in Tillamook City, there is a station at the southern junction of South Prairie Road and Highway 101. Fire hydrants are scattered within some water districts in the area. Some small rural areas that are more than 5 miles from either fire station have an insurance rating of 9. Other areas that are within 5 miles have a rating of 8 unless they are within 5 miles have a rating of 8 unless they are within 500 feet of a hydrant in which case the rating is 7.

1.6 PUBLIC SCHOOLS

There are 9 public school districts in the County providing educational service (See Map 5).

There is bus service to all public schools. Service is available to practically all residential areas of the County. There was little concern among school administrators about future bus service because of the extensiveness of the present school bus network.

Public school facilities are described in more detail below. Most schools appear to have sufficient capacity to meet future growth needs. The Tillamook School District is most likely to need facilities expansion.

- (1) BEAVER SCHOOL DISTRICT #8 – This district provides elementary school service, grades 1 through 8, to families living in the Beaver, Blaine, Hemlock, Sandlake and Tierra Del Mar areas. The school is located in Beaver. In the 1979-80 school year, there were 169 students enrolled. The capacity of this school is 225 students. Enrollments have been steady over the past five years.
- (2) CLOVERDALE SCHOOL DISTRICT #22C – This district provides elementary school service, grades K through 8, to families living in the Cloverdale, Pacific City, Woods, Oretown and Neskowin areas. The school is located just south of Cloverdale. In the 1979-80 school year there were 191 students enrolled. The capacity of the school is 275 students. Enrollments have been holding steady.
- (3) HEBO SCHOOL DISTRICT #13j – This district provides elementary school service, grades K through 8, to families living in the Hebo and Three Rivers areas. The school is located in Hebo. The enrollment in the 1979-80 school year was 83 students. The school capacity is 120. Enrollments have declined with personnel reductions at the Mt. Hebo Radar Station.
- (4) NEAHKAHNIE SCHOOL DISTRICT #56 – This district provides elementary and high school service in the north end of the County. There are 3 operating elementary schools and one high school in the district. Two elementary schools, grades K through 6, with a combined capacity of 300 students are located in Nehalem. In the 1979-80 school year, 234 students were enrolled in these schools. In Garibaldi there is one elementary school, grades 1 through 6, with a capacity of 300. In the 1979-80 school year 180 students were enrolled here. Another elementary school with a capacity of 100 is located in Bay City. This school is now being used by the Tillamook Branch of Clatsop Community College. A kindergarten with a capacity of 50 is located in Rockaway. A high school with a capacity of 500 is located just north of Rockaway. Approximately 430 students were enrolled here during the 1979-80 school year.

- (5) NESTUCCA UNION HIGH SCHOOL DISTRICT #UH3 – This district provides high school service, grades 9 through 12, to the south end of the County. The high school is located in Cloverdale and has a capacity of 400. In the 1979-80 school year, the enrollment was 220. Enrollment has been decreasing in recent years.
- (6) TILLAMOOK SCHOOL DISTRICT #9 – This district provides school services to the central area of the County. There are 4 elementary schools, grades 1 through 6, 1 junior high school, grades 7 and 8, and 1 high school, grades 9 through 12. A new elementary school with the capacity of 300 was recently completed in the South Prairie area, replacing the old school. The previous school had a 1979-80 school year enrollment of 144. Three other elementary schools, Wilson, capacity 250, Liberty, capacity 125, and East School, capacity 430, are located in the City of Tillamook. In the 1979-80 school year all three had near capacity enrollments. The junior high school also located in the City of Tillamook has a capacity of 370. The 1979-80 school year enrollment was 329. The high school has been extensively remodeled over the past year increasing the capacity to 750. the 1979-80 school year enrollment was 677. The school district had 200 fewer students in 1980 than in 1970 but in recent years enrollments have been increasing.
- (7) TILLAMOOK COUNTY EDUCATIONAL SERVICE DISTRICT – This district with offices and facilities located at the Port of Tillamook Industrial Park provides support to school districts in the County. These services include an attendance officer, a speech and hearing program, a physical therapy program, a center for the trainable mentally retarded, a vocational training center for older handicapped students, learning centers for students with severe learning disabilities, special student study programs, a resource center, a special education resource center, assistance to parents of preschool handicapped children, and a vision and hearing testing program.
- (8) TILLAMOOK BAY AREA EDUCATION DISTRICT – This district was formed in 1981 to provide post high school education service to Tillamook County. The district contracts with the Clatsop County Community College to provide this service.
- (9) YAMHILL SCHOOL DISTRICT #63 – Two unpopulated portions of Tillamook County are included in this district. No service is provided to Tillamook County residents.

1.7 POLICE PROTECTION

There are 5 police agencies in the County, the County Sheriff's Department, the Garibaldi Police Department, the Rockaway Police Department, the Tillamook City Police Department, and the Oregon State Police. Each of these agencies are described below.

- (1) **TILLAMOOK COUNTY SHERIFF'S DEPARTMENT** – The County provides police protection on a call basis in unincorporated areas of the County as well as in the cities of Manzanita, Nehalem, Wheeler and Bay City. The County contracts with the City of Bay City to provide additional police patrol. Three cars patrol and respond to calls during the day, 2 uniformed police and 1 civil officer. At night, 2 cars patrol and respond to calls. The Sheriff's Department also attempts to place resident patrolmen in all parts of the County to provide additional service. Currently, there are patrolmen in Cloverdale, Manzanita, Nehalem, Oceanside, Pacific City, Tillamook, Wheeler and Woods. Soon there will be a resident patrolman in Beaver.

In addition to contracting with Bay City, the County contracts with the Siuslaw National Forest to patrol the Sandlake Dune Buggy area. The County also has a dog warden for all incorporated and unincorporated areas, and a marine patrol for the County's bays and rivers.

The County acts as the dispatcher for the incorporated cities of Garibaldi, Rockaway and Tillamook on nights, weekends and holidays. The County will also assist these cities when necessary.

The County Sheriff's Department is responsible for emergency services planning and coordination. The County Basic Emergency Services Operation Plan adopted in 1957 and amended in 1970 details the responsibilities of the Sheriff's Department and other agencies. The Department is currently working on a hazardous materials plan.

The County has a jail in the Courthouse built in 1932 which serves the entire County area.

The Sheriff's Department is also responsible for coordinating search and rescue in the County. The Department has the capability of performing search and rescue including underwater search and rescue.

- (2) **INCORPORATED CITIES WITH POLICE PATROL** – The cities of Garibaldi, Rockaway and Tillamook have their own police departments, which patrol within these city limits. They provide their own dispatch during working hours but rely on County dispatch on weekends, nights, and holidays. They do not provide any dog control.
- (3) **STATE POLICE** – The State Police provide traffic patrol, game patrol, and criminal investigation services in the County. There are 8 traffic officers, 3 game officers, 1 criminal officer and 2 supervisors. Headquarters are in the City of Tillamook. State Police are on patrol from 7 in the morning to 3 the following morning. A maximum of 3 traffic officers are on duty at any time. The number on duty fluctuates with time according to the need. There are three traffic patrol districts north, south and east. There are three game patrol areas, north, central and south. The State Police will assist the County Sheriff's Department.

1.8 STORM DRAINAGE

Storm drainage in the unincorporated areas of the County is accommodated in natural swales and creeks and in roadways and ditches. Aside from culverts, which allow water to flow under roads, there are no developed storm drainage facilities.

Improvement of storm drainage is through ditching next to roads, maintaining the ditches free of obstructions and requiring culverts under driveway access ways to roads. In many older platted communities such as Oceanside, narrow rights-of-way and steep slopes have combined to make the provision of adequate drainage ditches on the sides of the road difficult. The optimum roadside ditch has 6:1 or flatter side slopes. Steeper slopes are more dangerous for cars. It is difficult to achieve these side slopes in some of the areas where drainage ditches are forced by conditions closer to the roadway.

1.9 PLANNING, ZONING AND SUBDIVISION CONTROL

Tillamook County maintains a planning department which along with five Citizen Advisory Committees, the Estuary Council, the Planning Commission, and the Board of Commissioners, is responsible for planning, zoning and subdivision control. The department maintains a permanent staff of 6 which includes a planning director, a zoning administrator, a general planner, an enforcement officer, and a secretary. In addition, the County has hired 3 planners to assist in the preparation of the county's Comprehensive Plan and implementing ordinance.

A one-stop permit system has been recently initiated in conjunction with the Building and Sanitation Departments. This has allowed a more efficient use of personnel and has expedited the permit process and created a more coordinated process.

The Planning Commission besides working on the Comprehensive Plan, reviews zone changes, planned developments, subdivisions, conditional uses, and variances. Nine members are on the Planning Commission representing all areas of the County. They meet bimonthly to handle regular business or more frequently to work on the Comprehensive Plan.

Five citizens advisory committees and the Estuary Council have been meeting over the past 4 years to work on the Comprehensive Plan. They have been meeting fairly regularly on a monthly basis. After completion of the Comprehensive Plan, these committees will continue to meet, but less frequently, to assist the Planning Commission with actions that require a more local or specialized perspective and analysis. They will review Planning Commission decisions to ensure citizen and technical concerns are being addressed.

The Board of County Commissioners is also involved in planning, zoning and subdivision control. The Board has actively participated in developing the Comprehensive Plan and implementing ordinances. The Board must review Comprehensive Plan amendments, zone changes, and subdivisions. They also hear all Planning Commission decisions that are appealed. They appoint Planning Commission members and citizen advisory committee members. They have shown a commitment to balanced citizens' input in their appointments to these bodies.

1.10 COMMUNITY HEALTH*

A variety of health services are provided in the County, including planning, education, hospital care, long-term care, counseling, and emergency transportation, as well as the individual services provided by doctors and physicians in the County. Health facilities and agencies providing health services are discussed below. Individual doctor and dentist offices are not discussed. These are listed however in Health Services in Tillamook County.

(1) NORTHWEST OREGON HEALTH SYSTEMS AGENCY – This agency is responsible for health systems planning in Tillamook County, as well as Clackamas, Multnomah, Washington, Clatsop and Columbia Counties. The agency is responsible for planning health services and for reviewing facilities improvements to assure the most efficient provision of health services in the area. The agency office is in Portland.

(2) HOSPITALS

(a) TILLAMOOK COUNTY GENERAL HOSPITAL – This hospital, built in 1948 in the City of Tillamook, is owned by Tillamook County.

It has a bed capacity for 50 to 63 patients. There is a nursing staff of 55, including 9 Registered Nurses, 5 licensed professional nurses, and 25 aides. Doctors include 5 family practitioners, 2 surgeons, 1 pediatrician, 1 preventative medicine specialist and 1 internist. The hospital's emergency room is open 24 hours a day. Other facilities and services include an intensive care unit, x-ray, physical therapy and an audiometry booth.

(b) HARVEY E. RINEHART MEMORIAL HOSPITAL – This 41-bed hospital located in Wheeler is owned by the North Tillamook County Hospital District. This district includes all parts of the County north of Manhattan Beach. The hospital has an acute care wing with 22 beds and a long-term care facility with 19 beds. The acute care wing provides medical surgery, emergency room and specialized arthritis treatment. The doctors include 1 general and orthopedic surgeon and 6 general practitioners. Several of the doctors specialize in rheumatology.

(3) CLINICS AND COUNSELING CENTERS

(a) RINEHART CLINIC – The Rinehart Clinic located in Wheeler specializes in the treatment of arthritis. Approximately 60% of its patients are seeking treatment for arthritis. The clinic only offers outpatient services but the Rinehart Hospital is available for long-term care. Facilities and services include a complete laboratory, x-ray and physical therapy. The staff numbers 21 and includes 6 doctors.

(b) TILLAMOOK COUNTY HEALTH DEPARTMENT – This department provides a wide variety of services to the residents of Tillamook County. These include the following programs:

1. Communicable Disease Program
 - Immunization Clinics
 - Venereal Disease Programs and Treatment
 - Tuberculosis Screening and Treatment
2. Maternal and Child Health Program
 - Prenatal Classes
 - Welfare Child Physical Exams
 - Women, Infants and Children Food Program
 - Dental Care Program
 - Newborn Health Services
 - Fertility Regulation Clinics
3. Home Care Specialist
 - Nurse Services
 - Physical Therapy
4. School Health Program
 - Multi-Modular School Entrance Health Exams
 - Dental Care
 - Hearing Screening and Otology Follow-up
 - Module Screening
 - Vision Screening
 - Communicable Disease Screening
 - Nutrition Screening Assessment and Education
 - Health Education
 - Posture Screening
5. Mental Health Post-hospitalization
6. Adult Dental Health
7. Weight and Hypertension Screening
8. Vital Statistics Registry

The department is located in the County Courthouse and has a professional staff, which includes a registered nurse (director), three consulting doctors and a vital statistics registrar.

- (c) TILLAMOOK COUNTY MENTAL HEALTH CLINIC – The Mental Health Clinic located in Tillamook City offers a variety of services including:
 - 1. Alcohol and Drug Information
 - 2. Child Guidance and Family Counseling
 - 3. Adult Mental and Emotional Problems Counseling
 - 4. Marital Counseling Services
 - 5. Pre and Post Hospitalization
 - 6. Psychiatric and Psychological Evaluations
 - 7. Mental Retardation and Developability Disabled Services.

(4) NURSING HOMES

- (a) ELMORE NURSING HOME – This nursing home in Rockaway has facilities for 31 intermediate care patients. It has a staff of 16. A registered nurse and physician are on call 24 hours a day.
- (b) HARVEY E. RINEHART MEMORIAL HOSPITAL – One wing of this hospital is reserved for long-term care providing 19 beds. The hospital specializes in arthritic care.
- (c) TILLAMOOK CARE CENTER – The Tillamook Care Center located just south of the City of Tillamook offers long-term nursing home care and intermediate care facilities for 80 patients. Other services offered include rehabilitation, hospital-to-home care and light care facilities. The staff numbers 60.

(5) AMBULANCE SERVICE

There are six ambulance services in the County. Most of these are provided by fire departments and are staffed by volunteers. The Tillamook County General Hospital ambulance has a full-time paid staff. Following is a listing of ambulance services and their location.

- (a) Beaver Ambulance and QRT, Beaver (Nestucca Rural Fire District)
- (b) Blaine Ambulance and QRT, Blaine (Nestucca Rural Fire District)
- (c) Cloverdale Ambulance and QRT, Cloverdale (Nestucca Rural Fire District)
- (d) Garibaldi Ambulance and QRT, Garibaldi (Garibaldi Fire Department)
- (e) Nehalem Ambulance and QRT, Nehalem (Nehalem Fire Department)
- (f) Pacific City Ambulance and QRT, Pacific City (Nestucca Rural Fire District)
- (g) Tillamook Hospital Ambulance, Tillamook (Tillamook County General Hospital)

1.11 ENERGY UTILITIES*

The Tillamook Peoples Utility District is the only energy utility in the County. It provides electricity to most developed areas of the County. A small portion of Clatsop County is also within the district.

Electricity is readily available to almost all areas where development is occurring and is likely to occur. Over ninety-nine percent of the County's households are served with electricity (See Housing element, Table 7). Electrical distribution lines extend to almost all developed areas in the County. Map 6 shows the location of these lines. Planned improvement by the Tillamook PUD will handle additional anticipated needs in growth areas of the County.

There are several power transmission corridors in the County. From the north, a PPL transmission line follows the North Fork of the Nehalem River to a BPA substation near Mohler. This line continues down the Miami-Foley Valley to a BPA substation near Garibaldi. It then continues across to the Kilchis River and then south to a substation near Tillamook City. A BPA transmission line also comes into the Tillamook City substation down the Wilson River Valley from Forest Grove. Another BPA transmission line connects this substation with a substation at the Port of Tillamook Industrial Park. From here, a BPA line runs south to a substation in Beaver. Another BPA line runs east to Carlton. A BPA line runs south out of Beaver to Hebo and then down the Three Rivers Valley. The PUD is planning an additional substation in Neskowin to handle additional anticipated power loads in the South County area. A substation in Rockaway is also planned in the near future. Additional lines will be added to Netarts and to Manzanita to handle anticipated growth.

The major source of electrical energy is Columbia River hydropower. This source however is near its limits and can not serve much additional need. Locally the PUD is participating with the BPA, the Water Resources Research Institute at Oregon State University and the Department of Atmospheric Sciences at OSU to identify water and wind generation sites in the County. A study by the U.S. Army Corps of Engineers identified one hydro site on the Wilson River and 3 sites on the Nehalem River. The PUD is studying a site at Nehalem Falls for a low head dam and diversion. In addition the PUD is cooperating with power producers to develop a 500-KW experimental wind generator near Newport. Currently the PUD is also buying power from Publishers Paper, which has a 5 MW cogenerator plant that runs on wood waste.

1.12 COMMUNICATIONS*

The County is served by three phone companies. Map 7 shows the service boundaries. The majority of the County's population is served by Pacific Northwest Bell which serves the central portion of the County, including the communities of Rockaway, Twin Rocks, Barview, Garibaldi, Bay City, Tillamook, Oceanside and Netarts. The northern part of the County is served by the Nehalem Telephone and Telegraph Company which is locally owned and operated. This serves the communities of Wheeler, Nehalem, Manzanita and Neahkahnie. The southern part of the county is served by the United Telephone Company of the Northwest. This serves the communities of Beaver, Hebo, Tierra Del Mar, Cloverdale, Pacific City and Neskowin. As with electrical power, the developed areas of the County are served with phone service.

1.13 COMMUNITY GOVERNMENTAL SERVICE*

Tillamook County provides governmental services to the majority of the land area and a majority of the population of the County.* The county is responsible for providing governmental services pursuant to Oregon Laws. Services provided by the County include roads, legal recording, police protection, maintenance of survey records and markers, legal services, land use planning, zoning, subdivision control, sanitation, community health services, building inspection, and solid waste management.

The County has seven incorporated cities within it: Manzanita, Nehalem, Wheeler, Rockaway, Garibaldi, Bay City and Tillamook. Tillamook County is unique in that these incorporated cities are all located in the central and north parts of the County. There are no incorporated cities in the south part. There are however, several fairly large communities with a variety of community services, including water supply, sewage disposal, fire protection, and street lighting. These communities include Oceanside, Netarts, Cloverdale, Pacific City, and Neskowin. These services are provided by water districts, sewer districts, and fire districts. The absence of incorporation places a burden on the County to provide local services such as road repair and storm drainage.

Several other governmental bodies provide community governmental services. The Soil Conservation District, a locally elected body responsible for agricultural and conservation programs provides services to farmers and homeowners and serves as a conduit for federal conservation funds. The District has also served an important role in agricultural lands planning.

Port districts are also locally elected governmental bodies. These include the Ports of Nehalem, Bay City and Tillamook. Although traditionally focused on water borne economic development these districts have the ability to encourage all forms of economic development. The most active port in this regard is the Port of Tillamook Bay which operates an industrial park and airport located south of Tillamook City and owns a rail line connecting the industrial park to the Southern Pacific tracks in Tillamook.

2.0 PUBLIC FACILITIES AND SERVICES PLANNING REQUIREMENTS

2.1 GOAL 11 AND IT'S PURPOSE

Goal 11, Public Facilities and Services, reads as follows:

“Goal: To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

Urban and rural development shall be guided and supported by types and levels of urban and rural public facilities and services appropriate for, but limited to, the needs and requirements of the urban, urbanizable and rural areas to be served. A provision for key facilities shall be included in each plan. To meet current and long-range needs, a provision for solid waste disposal sites, including sites for inert waste shall be included in each plan.

A Timely, Orderly and Efficient Arrangement – refers to a system or plan that coordinates the type, location and delivery of public facilities and services in a manner that best supports the existing and proposed land use.

Rural Facilities and Services – refers to facilities and services which the governing body determines to be suitable and appropriate solely for the needs of rural use.

Urban Facilities and Services – refers to key facilities and to appropriate types and levels of at least the following: police protection; fire protection; sanitary facilities; storm drainage facilities; planning, zoning and subdivision control; health services; energy and communication services; and community governmental services.”

Public facilities and services are defined by the goals as “projects activities and facilities which the planning agency determines to be necessary for the public health, safety and welfare.” This does not mean that the service or facilities are publicly owned but that they are necessary for public health, safety and welfare. For example, there are several water systems in the County that are privately owned but are essential for the health of the general public.

The purpose of Goal 11 is to coordinate land use with public services such as sewage treatment, water supply, fire protection, schools, and electrical supply. Development that is not coordinated with the capabilities of local public services and facilities can over stress those services and facilities and cause shortages or overly expensive additions and changes. On the other hand, planning and zoning that is not coordinated with development can provide an unrealistic assessment of the land that is available for development. For example, it is misleading to zone land for urban development if urban services are not going to be made available.

The provisions of facilities and services also affects the ability of local government to conserve resource land with the Comprehensive Plan and zoning. The extension of services, especially sewer and water, encourages the conversion of resource land to non-resource uses.

2.2 KEY PROVISIONS OF GOAL 11

Goal 11 contains four key provisions which are discussed below in turn.

(1) TIMELY, ORDERLY AND EFFICIENT ARRANGEMENT OF PUBLIC FACILITIES AND SERVICES

The Goal directs local governments and districts to “Plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.” According to the Goal, a timely, orderly and efficient arrangement refers to “a system or plan that coordinates the type, location and delivery of public facilities and services in a manner that best supports the existing and proposed land uses.” Basically this says that the provision of public facilities and services shall be coordinated with present development and development proposed by the Comprehensive Plan.

(2) TYPES AND LEVELS OF SERVICE

The Goal requires that “urban and rural development shall be guided by types and levels of urban and rural public facilities and services appropriate for but limited to the needs and requirements of the urban, urbanizable and rural areas to be served.”

This provision of the Goal has several important points. First, it indicates that there are two important measurements of the amount of public facilities and services provided, type and level. Type refers to the kind of service such as sewer, water, fire protection, etc. Level refers to the quantity of each service provided. For instance, police protection on a patrol basis is a higher level of service than police protection on a call basis.

Second, the goal states that types and levels of urban and rural facilities and services shall be appropriate for, but limited to the needs and requirements of urban, urbanizable and rural areas to be served. (See the Urbanization Element for discussion of these terms.) These areas have different service needs. Typically, rural areas have fewer types of services and the level of services is lower. Urban areas have more services and higher levels. Urbanizable areas have a level that is somewhere in between.

The Goal requires counties to set maximum as well as minimum amounts of service provision. Minimums are necessary to protect public health, safety and welfare. For example, public sewer is necessary in urban areas because densities are too high to permit on-site disposal of waste. Maximums are required because the over provision of facilities and services is costly and can lead to urban sprawl and the premature conversion of resource land to non-resource uses.

(3) PROVISION OF KEY FACILITIES

The Goal requires plans to pay special attention to key facilities. Key facilities are defined by the goals as “base facilities that are primarily planned for by local government but which also may be provided by private enterprise and are essential to the support of more intensive development including public schools, transportation, water supply, sewage, and solid waste disposal.”

The Goal says that a provision for key facilities shall be included in the Comprehensive Plan. The term provision has been explained by LCDC in its “Common Questions on Urban Development Paper” to mean that the plans must describe a strategy which explains when, how and by whom necessary public facilities and services are to be provided. This is further elaborated by the policy paper as follows:

- a. When services are to be provided (timing). A specific time schedule or capital improvements program could do this. In the absence of such a program, policies must insure that adequate facilities are provided in advance of or concurrent with development. In addition, the timing mechanism should insure that public facilities are provided in a coordinated manner and in an amount sufficient to meet the need for buildable land.
- b. How services are to be provided. This includes an assessment of: 1) the alternative methods of financing needed facilities; and 2) the jurisdiction's ability to provide for such financing. Options to consider include: bonding, grant funding, creation of special districts, creation of local improvement districts (LIDs), systems development charges, developer pays system or a combination of these.
- c. Who will provide services? The jurisdiction must identify service purveyors, including an assessment of the ability to provide adequate levels of service for the planning period.”

LCDC recognizes that local governments cannot guarantee the provision of key facilities due to factors beyond their control.

“A strategy for type, location and delivery of public facilities and services can not guarantee that financing will exist for all identified projects. While the strategy can not compel voters to approve tax levies it represents a commitment by the local government to expend available funds according to the strategy.”*

(4) PROVISION FOR SOLID WASTE DISPOSAL

Lastly, the goal requires that "to meet current and long range needs, a provision for solid waste disposal sites, including sites for inert waste, shall be included in each plan". This requirement is fairly obvious. The County has to plan for solid waste disposal including a strategy for providing a disposal site.

2.3 RELATIONSHIP OF GOAL 11 TO OTHER STATEWIDE PLANNING GOALS

Goal 11 is integrally related to many of the other statewide planning goals including Goals 2, 3, 4, 5, 6, 9, 10, 14, 16, and 17. The relationship of Goal 11 to each of these goals is discussed below:

(1) Goal 2: Land Use Planning

This goal requires that Comprehensive Plans be coordinated with the plans of service providers. In addition, the plans and actions of special service districts (which provide most services in unincorporated areas) must be consistent with the County's Comprehensive Plan.

(2) Goal 6: Air, Water and Land Resources Quality

The ability of a County to maintain the quality of air, water and land resources is dependent on the availability of adequate public services. For example, if a county is to maintain air, water and land resource quality, it must provide an adequate solid waste disposal site.

(3) Goal 9: Economy of the State

The development of employment opportunities is dependent on the availability of services for commerce and industry. Goal 9 cannot be achieved unless the types and levels of public facilities and services available are adequate to meet the needs of commerce and industry.

(4) Goal 10: Housing

The provision of public facilities and services, especially sewer and water, is essential for meeting housing needs. The provision of sewer and water allows the development of high density low and moderate cost housing. Without sewer and water, development is practically limited to low density single family residences. Goal 11 is therefore integrally related to the Housing Goal.

(5) Goal 14: Urbanization

Goal 14 is related to Goal 11 because the location of an urban growth boundary and the conversion of urbanizable land to urban land must be based on the consideration of "orderly and efficient provision of public facilities and services". Also, Goal 11 requires that types and levels of urban and rural public facilities and services be appropriate for, but limited to the needs and requirements of the urban, urbanizable and rural areas to be served.

(6) Goals 3, 4, 5, 16, 17: Agricultural Lands; Forest Lands; Open Space; Scenic and Historic Areas, and Natural Resources; Estuarine Resources; Coastal Shorelands

The location of public facilities and services can affect the success of protecting resource lands. The availability of sewer and water, especially, can act as an inducement to development and encourage the conversion of resource lands to non-resource uses. Also, the unavailability of facilities and services in areas that are appropriate for development can force development onto resource lands. The Goal 11 requirement for consideration of the "needs and requirements of urban, urbanizable and rural areas: includes the consideration of resource values.

2.4 COORDINATION REQUIREMENTS OF SENATE BILL 100

Senate Bill 100 with subsequent amendments has special coordination requirements beyond what is required by Goal 2. Of greatest concern is the coordination of city and county plans with the plans and actions of special districts. The following excerpt from the LCDC Special District Coordination Policy Paper summarizes the legal requirements.

"The planning and coordination responsibilities of special districts are specified in ORS 197.185. It requires the following:

1. Special districts shall exercise their planning duties, powers, and responsibilities and take actions that are authorized by law with respect to programs affecting land use, including annexations, in accordance with the statewide planning goals.
2. Each special district operating within the boundaries of a city or county assigned coordination functions shall enter into a cooperative agreement with such city or county. Other coordination bodies may be designated as provided for by ORS 197.190 (1)-(4). The agreement shall include:
 - (a) tasks and time schedule to bring the district's plans and programs into conformance with the goals; and
 - (b) a program to coordinate the development of the district's plans and programs with other affected government units.
3. Cooperative agreements shall be subject to Commission review.

Special district coordination is also required by ORS 197.190. It states that each county "shall be responsible for coordinating all planning activities affecting land uses within the county, including those of the county, cities, special districts, and state agencies, to assure an integrated Comprehensive Plan for the entire area of the county."

Each county should decide which districts require coordination. This decision should be based on:

- a. The definition of a “Comprehensive Plan” in ORS 197.015 (4) which includes sewer and water systems, transportation systems, education systems recreation facilities and natural resources and air and water quality management programs;
- b. The definition of a “special district” in ORS 197.015 (9) which includes water control districts, irrigation districts, port districts, regional air quality control authorities, fire districts, school districts, hospital districts, mass transit districts, and sanitary districts;
- c. The degree of impact of the district's activities on land use and the implementation of the Comprehensive Plans of the county and its cities;
- d. The degree of impact of the county and cities' Comprehensive Plans on the district's activities; and
- e. The existence of a Boundary Commission which regulates and coordinates the activities of individual districts within its jurisdiction.”

A county is not required to assure that cooperative agreements are developed with all special districts. The county has responsibility for identifying and initiating contracts with special districts that require coordination. It is the responsibility of the special districts to develop a cooperative agreement in conjunction with the county. If a cooperative agreement is entered into the special district is legally bound by the agreement. All such agreements must be reviewed by LCDC for compliance with the Statewide Planning Goals.

The presence of a cooperative agreement is not a prerequisite for acknowledgment. Moreover, if a cooperative agreement does not exist, a special district cannot contest a request for acknowledgment unless the county has been unwilling to enter into an agreement.

Cooperative agreements are not synonymous with coordination according to the policy paper. Coordination is a broader concept than the cooperative agreement. A cooperative agreement is one means to document how coordination during plan development will occur. However, coordination may occur in other forms and is not dependent on a cooperative agreement per se. Coordination also extends beyond the cooperative agreement because it is on going. It applies both before and after a plan is acknowledged. By comparison, the cooperative agreement is intended to be a pre-acknowledgment tool used in the development of the Comprehensive Plan. Any policy or implementation elements of the agreement that are intended to apply after acknowledgment should be included in the plan to ensure their continuity.

3. PUBLIC FACILITIES AND SERVICES FINDINGS AND POLICIES

3.1 A TIMELY, ORDERLY AND EFFICIENT ARRANGEMENT OF PUBLIC FACILITIES AND SERVICES

Findings

Goal 11 requires local governments and special districts “to plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.” This requirement is important for assuring that:

- (1) Sufficient services are available to meet needs for residential, commercial and industrial development;
- (2) Service cost burdens are minimized;
- (3) The extension of services does not lead to urban sprawl;
- (4) Different types of services are provided, in a coordinated fashion and the provision of one service does not place unmanageable burdens on other services; and
- (5) The availability of services does not prematurely commit resource lands to non-resource uses.

Tillamook County can affect the timely, orderly and efficient arrangement of public facilities and services in several ways. The County can:

- (1) Plan and provide services for which it has responsibility;
- (2) Plan and implement a logical pattern of land use;
- (3) Use its authority to approve or disapprove annexations to service districts; and
- (4) Through the A-95 review process, encourage or discourage federal financing of service facilities.

Policy

Tillamook County will further the development of a timely, orderly and efficient arrangement of public facilities and services with the following actions;

- (1) Planning and providing services for which it has responsibility;
- (2) Planning and implementing a logical pattern of land uses;
- (3) Using its authority to approve or disapprove annexations to service districts; and
- (4) Encouraging or discouraging federal financing of service facilities through the A-95 review process.

3.2 TYPES AND LEVEL OF URBAN AND RURAL FACILITIES AND SERVICES

Findings

Many of these facilities and services are also appropriate for urbanizable, rural community, and rural noncommunity areas. These facilities and services are:

- (1) Public Schools
- (2) Transportation
- (3) Water Supply
- (4) Sewage Disposal
- (5) Solid Waste Disposal
- (6) Police Protection
- (7) Fire Protection
- (8) Storm Drainage Facilities
- (9) Planning, Zoning and Subdivision Control
- (10) Health Services
- (11) Recreation Facilities and Services
- (12) Energy Service
- (13) Communications Services
- (14) Community Governmental Service

The first five of these are defined to be key facilities and services by the State Goals.

Following is a summary of available facilities and services in urban, urbanizable, rural community, and rural non-community areas. Also included are findings regarding the need for facilities and services and the reasonableness of their provision.

(1) PUBLIC SCHOOLS

All areas of the County are within public school districts and all populated areas have school bus service. The County's zoning permits future residential development in areas already served with school bus transportation. Most schools are located in urban and rural community areas but several are not.

Neahkahnne High School is located in an urbanizable area. The South Prairie and Cloverdale grade schools are located in rural non-community areas.

School busing and the placement of schools in rural non-community areas and urbanizable areas as well as urban and rural community areas is reasonable given the County's low population density, the resource nature of the county and the economies of scale of providing school service. A rural non-community location may result in less bussing than a community location.

School location in an urbanizable area may be reasonable because of anticipated population increases in that area.

(2) TRANSPORTATION

Rural non-community areas have fewer roads than urban, urbanizable and rural community areas. Houses and other developments in these areas rely primarily on direct access to County or State roads. Access roads are typically unpaved. Rural subdivisions however may have a paved road network.

Community areas shall have paved access road networks consistent with the adopted Tillamook County Transportation System Plan. Such networks are desirable for organizing the amount of traffic present in these areas and for preventing accidents. Paved surfaces are desirable because they are durable and they create less dust.

(3) WATER SUPPLY

Public water supplies exist in all types of areas in the County. Community areas generally have a higher level of service than non-community areas. Urban communities have a higher level of services than rural communities. Urban facilities generally include water treatment, water storage, and fire hydrants. These systems generally have a higher level of operation and maintenance. Because of their sizes, urban communities are more able to expand and improve service. Rural communities generally have water treatment and water storage. They generally do not have fire hydrants. They generally have a low level of operation and maintenance. Rural non-community areas that have public water may not have water treatment and generally have limited water storage. Operation and maintenance is generally limited and difficult for these systems to provide although there are exceptions. Some rural non-community areas, primarily near Bay City and Tillamook City, have high levels of water service because they are hooked into urban or regional water systems.

Public water supplies are essential in community areas because densities make the use of wells and surface water unsafe and impractical.

Public water systems can also be desirable and reasonable in rural non-community areas. Water is needed by dairy farms as well as residences in these areas. Public water may be the most reasonable supply in areas where groundwater and surface water is poorly distributed or where it is more cost effective to buy water from adjacent communities.

Hillside areas appropriate for rural residential development tend to have limited groundwater supplies in Tillamook County. Public water supplies are necessary in these areas if development is to occur.

Water systems in rural non-community areas are typically small and maintenance and operation is difficult. These systems generally do not have the personnel to make repairs and operate treatment facilities. It is important for these facilities to be built to high standards according to designs which minimize the need for maintenance. Groundwater is a preferred water source because it generally does not require treatment.

Where water is provided to rural areas by cities and regional systems there needs to be supply guarantees. This is especially important in the Tillamook City area where 10 water systems and over 100 individual residences and farms and the Tillamook Care Center rely on surplus water from the Tillamook City Water Commission. These rural water users are unable to plan for future service in their areas because they do not know what their future supply will be.

(4) SEWAGE DISPOSAL

Public sewage disposal systems are decidedly urban facilities. The only non-urban facility in the county is located at the Port of Tillamook Industrial Park. The expense and operating problems of such systems makes them unmanageable for rural areas.

Reductions in federal funding have further reduced the ability of rural areas to afford these systems. Rural areas must rely on on-site sewage disposal individually or with small community septic tanks or sand filters and drainfields.

Public sewage disposal is necessary in urban areas because high densities make safe on-site sewage disposal highly impractical.

There are some rural communities that are experiencing on-site sewage disposal problems that would be alleviated with the installation of public sewers. The cost of sewerage however would probably exceed the benefits. (See Urbanization Element section 3.16).

Because public sewers are powerful stimulators of growth, they are generally unsuitable in rural areas and they need to be carefully planned in urban areas. Extensions of sewer services to rural areas can result in the conversion of resource land to non-resource use. It can also result in unmanageable burdens being placed on other public facilities and services. In urbanizable areas the provision of sewer service needs to be coordinated with the provision of other services.

(5) SOLID WASTE DISPOSAL

This service is available throughout the County. Franchise areas for garbage collection cover the entire county area although collection fees can be expected to increase with increased land distances.

Solid waste disposal is necessary throughout the County in order to maintain land, air and water resource quality.

(6) POLICE PROTECTION

Several urban areas, Garibaldi, Rockaway, Tillamook have their own police forces which patrol city streets. Other urban and rural communities and the rest of the County rely on police protection on a call basis. There is a moderately higher level of protection in community areas because of the Sheriff Department's resident patrolman program.

Given the low population densities in the County, police protection on a call basis is the most effective means of protection for community and non-community areas.

(7) FIRE PROTECTION

Most developed areas of the County have fire protection. Exceptions include the community of Cape Meares and the upper Wilson and Trask River Valleys. Forest fire protection is provided by the Oregon Department of Forestry and the Siuslaw National Forest.

The highest level of fire protection is generally found in urban areas. These areas have fire stations, fire hydrants and substantial water reserves. Rural communities and urbanizable areas generally have lower levels of fire protection.

Fire stations may not be located in these areas or fire hydrants may not be present or water storage may be small. Rural non-community areas generally have the lowest level of fire protection. Fire stations are generally far away, fire hydrants if present, are widely spaced, and water storage is generally minimal.

Urban areas generally have insurance ratings ranging from 5 to 7. Ratings for urbanizable areas and rural communities generally range from 6 to 8. Ratings for non-community rural areas generally range from 7 to 10.

Fire protection is an important service in all community areas. The number of households and housing density in communities warrants fire protection. Higher levels of fire protection can be expected in urban areas since populations are greatest and water systems are most highly developed. Cape Meares is the only community without fire protection.

Some level of fire protection is warranted for all rural non-community areas where there is a significant amount of rural housing. The Department of Forestry and the Siuslaw National Forest are not equipped to fight residential fires nor is it their responsibility to do so. Residences in forest areas can be both the cause and casualties of forest fires. The County's disastrous history of forest fires emphasizes the need for rural fire protection in the County. Two rural non-community areas lacking in fire protection are the upper Wilson and Trask River Valleys.

All areas require careful design of residential developments if fire protection is to be effective. For example roads should be designed to provide adequate access to fire trucks. The Northwest Interagency Fire Prevention Group has published guidelines for developments in forested areas that can be useful in most areas of the County. It is especially important that residential developments in forested areas without fire protection or far from fire stations have adequate fire breaks to stop the spread of fires to or from these developments.

(8) STORM DRAINAGE FACILITIES

Storm drainage facilities are not very extensive in the County. Storm drainage is primarily channeled in natural drainageways, roadside ditches and culverts. Urban areas have the highest level of storm drainage facilities. They also have the greatest need for these facilities because of the proportion of land area covered with impermeable surfaces. Urbanizable areas, rural community areas, and rural non-community areas have proportionately lower levels of storm drainage facilities because of lower development densities and smaller proportions of impermeable surfaces.

The cost of providing storm drainage facilities can be minimized if natural drainageways are preserved and used to channel storm water runoff. This also reduces peak storm water discharge.

Minimizing impermeable surfaces and retaining storm water on-site also reduces the need for storm drainage facilities.

(9) PLANNING, ZONING AND SUBDIVISION CONTROL

This service is available fairly uniformly throughout the County in urban and rural areas.

There is a uniform need for planning, zoning and subdivision control throughout the County. Resource protection needs in non-community areas are just as important as community development needs in community areas.

(10) HEALTH SERVICE

Most health services and facilities are located in Tillamook and Wheeler. The level of service available to all residents of the County is uniform. The accessibility of this service though varies with distance from these communities and is unrelated to community type or whether an area is urban or rural.

The proximity of emergency transportation does vary with the type of community and whether an area is urban or rural. Most ambulance services are located in urban communities. An ambulance is located in Beaver, however, and another is located east of Blaine.

Since ambulance service is mostly provided in conjunction with fire department, the distribution of ambulances will be similar to the distribution of fire stations.

(11) RECREATIONAL FACILITIES AND SERVICES

Because of the generally rural nature of Tillamook County, there is little relationship between location of these facilities and the type of community.

(12) ENERGY SERVICE

Almost all populated areas are served with electricity at a fairly uniform level of service.

(13) COMMUNICATIONS SERVICE

The pattern of this service follows the pattern of electrical service.

(14) COMMUNITY GOVERNMENTAL SERVICE

Incorporated areas have a higher level of community governmental service than unincorporated areas. The level of service in unincorporated areas does not vary between community and non-community areas.

Policies

- a) Public schools can be appropriately located in urban areas, urbanizable areas, rural community areas and rural non-community areas. School bus routes are appropriate in all these types of areas.
- b) A higher level of transportation service is appropriate in communities than in non-community areas. The street network shall conform to the adopted Transportation System Plan (TSP). All roads in unincorporated Tillamook County shall be designed and constructed according to the functional classification and cross sections in the County TSP.
- c) Public water supply is appropriate in urban areas, urbanizable areas, rural community areas and rural non-community areas. Urban areas should have substantial water storage and fire hydrants. Rural communities should have substantial water storage and may have fire hydrants depending on local circumstances. All new water systems in rural non-community areas should be constructed to minimize the need for future operation and maintenance.
- d) Sewage disposal is not appropriate outside of urban areas unless there is a significant health and water quality problem and alternatives to central sewer such as repair and rehabilitation of septic systems is infeasible or if there are unusual circumstances in which uses requiring sewer can not be located in urban areas. Sewage disposal is also appropriate for the Port of Tillamook Bay Industrial Park.
- e) Solid waste disposal is a necessary service in all areas of the County.
- f) Police protection on a call basis is an appropriate service for all areas of the County.
- g) All urban communities should have a facilities and services in close proximity. All urbanizable areas and rural community and non-community areas with residential uses should have some level of fire protection. Cape Meares and the upper Wilson and Trask River Valleys should be included in fire districts. Because of the long distances involved, a fire station should be located in the upper Wilson River Valley.
- h) New residential developments in forested areas should follow the guidelines outlined in Fire Safety Considerations for Developments in Forested Areas.
- i) New developments should be designed to minimize peak storm water discharge. Alteration of natural drainageways should be minimized. Roads in urban areas should have adequate ditches and culverts to transport storm water effectively.

- j) Planning, zoning and subdivision control is an appropriate service for all parts of the County.
- k) Health services should be available to all County residents. Ambulances should be located where they can most efficiently serve the population, within the financial capabilities of the local area.
- l) Recreational facilities and services should be located where they best meet the needs of Tillamook County residents and visitors to the County.
- m) Energy service is appropriate for all areas of the County where there is a significant amount of development.
- n) Communications service is appropriate for all areas of the County where there is a significant amount of development.
- o) Community governmental services are appropriate for the entire County. A higher level of such services is appropriate for urban areas.

3.3 SEWAGE DISPOSAL ALTERNATIVES IN SMALL UNINCORPORATED COMMUNITIES

Findings

A number of unincorporated communities without sewer service such as Hebo, Beaver, Tierra Del Mar, Cape Meares and Idaville are parceled into lots that are too small to accommodate ordinary septic systems. Sewering these communities in order to allow the use of small lots would place prohibitive cost burdens on existing residents without substantial public subsidy (see section 3.16 of the Urbanization Element). Where there are failures of existing septic systems, sewage disposal problems may be corrected by repairing, upgrading, or replacing existing systems. For undeveloped properties, alternatives such as low pressure systems and sand filters may permit the use of unfavorable sites. Common drainfields or common sand filters may be able to serve a number of lots. Community management of septic systems can prevent septic problems from occurring. All of these alternatives can allow additional development and correct existing problems without building expensive sewage treatment systems which may have as their primary beneficiaries the developers of large tracts of land. The County will have to assist in implementing some of these alternatives because it is difficult for individual property owners to organize sufficiently to institute them.

In some situations it may be demonstrated that only a sewer system will resolve existing public health or water quality problems. In such cases it will be necessary to seek public subsidies and to assure that the system will be appropriate for, but limited to, the needs of the area in which the problem exists.

Policy

Tillamook County encourages the use of alternative sewage disposal technology, drainfield easements, and community drainfields to utilize small lots in rural unincorporated communities where sewers are not present. In rural communities such as Hebo where a sewer system is the only effective method of solving a public health or water quality problem, installation of such a system will be supported by the County so long as the system will be appropriate for, but limited to, the needs of the rural community.

3.4 DEVELOPMENT IN NON-COMMUNITY RURAL AREAS CONSISTENT WITH PUBLIC FACILITIES AND SERVICES CAPABILITIES

Findings

In non-community areas where there isn't commitment to small lot development, it is important that lot sizes be of sufficient size to assure that development minimizes impacts on public facilities and services. In non-community areas, development on lots that are even as small as a half-acre can cause significant public problems in this regard. Tillamook County has large areas that are appropriate for rural residential development and is likely to have problems unless it has reasonable lot sizes to govern future development.

The impacts of dense rural development are not felt immediately because development over small areas is buffered by the large amounts of resource land which surround them. In fact the rural characteristics that people seek by moving to rural areas may not be present on their own property at all. Small lot owners in rural areas are not providing the open space, but instead are getting significant open space benefits from surrounding undeveloped properties. But if all of the surrounding properties are developed at that same density, the area loses its rural characteristics because no one has provided the open space.

This problem is compounded by the desires of property owners to have the same development rights as their neighbors. The first developments at high densities may have little effect on the area because of the buffering provided by neighboring large undeveloped parcels which surround them. By the time that negative public impacts are felt, a lot size precedent has been formed which may be difficult to change. The owners of undeveloped property would think it unfair that they should have less development options than their neighbors had, although continued development at the higher density will mean that corrective actions need to be taken in order to alleviate problems. This can include the installation of costly sewer and water systems.

Sewage disposal is one issue of concern in rural areas. Under good soil conditions with central water available, the minimum lot size capable of on-site sewage disposal is about a half-acre. Lots using well water need a lot size of at least an acre to provide the necessary setbacks between septic tanks, drainfields and wells. If zoning in a rural area allows development down to a half-acre density outright, then lots will be created on poor quality soils which are too small for accommodating septic systems. However, the owners of such lots are not likely to simply accept their losses. Political pressure will be brought to bear on the County Sanitarian or the DEQ to approve septic systems on marginal or substandard lots. What should be an objective procedure for evaluating sites becomes subjective as a result of this pressure.

As a result, systems fail and pollute ground or surface waters. This is a minor problem if only a few systems are involved but with enough systems, the problem can be considerable. For example, pollution of Mill Creek has been traced to failing septic tanks in the Brickyard/Mill Creek Road area. Many of the lots in this area are too small to accommodate septic systems but meet the required lot size of the zoning. Failing septic systems can create a need for building costly sewer treatment plants or extending lines to existing plants.

Dune aquifers are especially prone to pollution from septic systems. Pollution can occur even if present DEQ rules are followed since those rules don't address contamination of dune aquifers.

Sand dune aquifers experience very high infiltration rates. They are especially susceptible to pollution. Fluid pollutants travel significant distances quickly in this sand medium. Because of this, all sand dune areas down stream or in close proximity to sources of pollutants may become polluted. Those areas of particular concern include all deflation plains and their fringes, areas near lakes, streams and marshes, and near beach sites.*

Bacteria have been shown to travel 100 feet or more through dune sand. Sand is also incapable of removing chemical contaminants, including those used in most household detergents which can render water unfit for domestic purposes. Some such contaminants not only produce a potential health hazard, but may also threaten stabilizing vegetation. Sand aquifers also appear incapable of filtering out viruses. Outbreaks of hepatitis in some counties may be linked to septic tank problems in areas of high water tables or ponding.*

Besides the naturally occurring sources of nitrate nitrogen (NO₃N) septic tank emissions and fertilizer used on pasture and croplands are significant sources in some areas. There are indications that excessive nitrate ingestion may cause methemoglobinemia (blue babies). The U.S. Public Health Service prohibits the use of drinking water with greater than 10 mg/liter concentration of NO₃N. The U.S. Department of Environmental Quality has set a limit of 5 mg/liter in at least some sand aquifer areas on the Oregon Coast due to seasonal population peaks and associated septic tank discharge.* Currently, the State of Oregon assumes no responsibility for drinking water quality and the U.S. Environmental Protection Agency does not have adequate resources allocated to monitor and enforce the federal regulations. The net result is that little or no sampling is being done and potential problems may be going undetected.

The seriousness of this problem depends on the density of development and where that development occurs in relation to groundwater resources.* A larger lot size, at least permitted outright, will assure that workable septic systems can be accommodated and will provide some protection in dune areas.

Another issue of concern is the adequacy of public water and groundwater supplies to support rural development. Individuals can supply their own water from surface or groundwater supplies. Community water systems can get water from wells, surface sources, or other water systems. All of these types of supply are represented in the County and each has its benefits and limitations.

Public systems are limited by their source, treatment capacity and water line sizes. Many rural water systems were designed and built when they only had to serve scattered homesites and farms. Their capacity may not be adequate to serve large areas of dense rural homesites. Some rural systems depend on surplus water from nearby cities for their supplies, as is the case with many systems around the City of Tillamook. These systems don't have their own water sources or treatment facilities or the management to run them. Since these systems buy surplus water, they don't have assurances that they will always have that water available or that water will be made available to handle growth in the area. For example, the Netarts Bay Water District buys surplus water from the Netarts Water District. The Netarts Water District has placed a moratorium on any water hookups in the Netarts Bay Water District because their own supply of treated water is limited.

The availability of groundwater for residential use is limited by the water holding capacity of the underlying geology. If the water demands of development exceed the rate at which the underground aquifers are replenished, the water table is drawn down at the expense of the quality or quantity of water supplies.

Some areas have abundant groundwater supplies including the Nehalem, Bayocean, Nestucca sand spits and the area west of Sand Lake.* The Tillamook lowlands area is also very productive.* Shallow depth groundwater can probably be obtained throughout the lower flood plains of the Nehalem and Nestucca Rivers.* The Kilchis River provides groundwater for the Bay City regional water system.

Some groundwater supplies are available under more localized conditions because they are perched above relatively impermeable materials. For example, groundwater in volcanic flow braccia commonly remain perched above impermeable sedimentary interbeds. Limited yields of groundwater supplies are available in the marine sedimentary and volcanic rocks which underlie much of the County because they are largely impermeable.* Also coastal marine terrace deposits consisting of relatively permeable, unconsolidated sand, silt and gravel could provide groundwater in some areas because they receive large quantities of water during the rainy season.* One would expect that these water supplies have less certain quantities of water.

If the demands of residential development for groundwater exceed the supply available, the water table will be drawn down. This can happen seasonally or permanently. Typically water withdrawal creates a cone-shaped depression from where the water is extracted. Depending on the rate of water removal and the rate of groundwater replenishment, and the density of development, the water availability on neighboring properties can be affected. New residents in an area can draw down the groundwater table below the wells of existing residents.

In coastal areas, over drawing on the aquifer can result in the reduction of lake levels, the draining of wetlands, and the loss of dune vegetation.* Overdrawing groundwater can also result in salt-water intrusion into the aquifer. Such impairment of the groundwater supply can make expensive public water systems necessary.

Policy

Tillamook County recognizes that development densities in rural areas have significant impacts on public facilities. Tillamook County will set its minimum lot size requirement in rural non-community areas at two acres in order to prevent adverse impacts. Higher densities will be allowed on a conditional basis where the cumulative impact of greater densities is not significant.

3.5 CREATION AND EXPANSION OF SEWER AND WATER DISTRICTS OUTSIDE OF THE URBAN GROWTH BOUNDARIES

Findings

The creation and expansion of sewer and water services into resource areas provides incentives to convert those lands to non-resource use. In the past, federal agencies have encouraged and financed water and sewer systems in rural areas without fully considering the impact that this would have on resource lands.

Where significant health and water quality problems exist which can not be corrected through replacement or rehabilitation of septic systems or the use of alternative septic systems, such extensions and their accompanying costs may be justified.

Water systems are more justifiable in rural areas. Their impact on the conversion of resource lands and on costs is less than that of sewer systems. Water systems may be necessary in order to permit development in foothill areas where groundwater is less available. In these areas water systems are desirable because such development reduces the pressure to develop agricultural lands.

Policy

Tillamook County is opposed to the extension of sewer service outside of urban or community growth boundaries unless there is a significant health and water quality problem and alternatives to central sewer such as repair and rehabilitation of septic systems is infeasible or if there are unusual circumstances, such as an approved designation resort, for which uses requiring sewer can not be located in urban areas. In such cases, sewer expansion will be allowed only if guarantees limit connection to the specific area of concern. The County approves of water system creation or expansion only if such systems are limited to the development needs allowed by the Comprehensive Plan. Tillamook County jointly with the Clatsop-Tillamook Intergovernmental Council will actively pursue cooperative agreements with all water and sewer districts and will review cooperative agreements that have already been signed to assure consistency with this policy.

3.6 ESTUARINE AREAS WITHIN SANITARY DISTRICTS AND AUTHORITIES

Findings

Several estuarine areas are within the boundaries of sanitary districts and authorities. The most notable of these are in the Nestucca and Nehalem Estuaries. In the Nestucca Estuary, a large salt marsh south of the Nestucca Keys subdivision is included in the Pacific City Sanitary District. In the Nehalem Estuary, salt marshes and tidal flats south of Dean's Point are included in the North Tillamook County Sanitary Authority.

Both of these areas are designated as Estuary Natural in the Comprehensive Plan. They have this designation because they include major tracts of salt marsh and tide flats. The uses allowed in Estuary Natural areas are contrary to the provision of sewer services. None of the uses allowed outright or conditionally require sewer service. There may be other estuarine areas in the County that are in sanitary district or authorities. The only estuary designation consistent with sewer service is Estuary Development.

The provision of sewer service to these areas is inconsistent with the Comprehensive Plan and the Statewide Goals. The presence of a sewer district or authority suggests that sewer service would be made available if requested. This conflict causes a landowner to attempt to use this property in a way inconsistent with the long-term public interest and state and County regulations. Otherwise, the landowner is burdened with the cost of a service that cannot be delivered.

Disannexation of these areas from the sewer districts would reduce the financial burden on the landowner and would remove the conflict.

Policy

Tillamook County strongly encourages the disannexation from sanitary districts and authorities of estuarine areas that are designated other than Estuary Development in the County's Comprehensive Plan.

3.7 PROVISION FOR KEY FACILITIES

Findings

Goal 11 requires that a provision for key facilities be included in the Comprehensive Plan. This has been explained in the “Common Questions on Urban Development” paper as meaning a strategy describing when services are to be provided, how services are to be provided, and who will provide services. Key facilities are defined in the Goals as “basic facilities that are... essential to the support of more intensive development including public schools, transportation, water supply, sewage and solid waste disposal.”

Cities must make this provision in their plan. The County must make the provision in areas outside the urban growth boundaries of unincorporated cities. Since the types and level of services provided is different for urban communities, rural communities and rural non-community areas, the provision for key facilities will be different. Following is the strategy by service.

(1) PUBLIC SCHOOLS

WHO – The school districts listed in section 1.6 are responsible for providing public school service.

WHEN – School enrollments have remained fairly steady or have declined in the south part of the County despite population and housing increases in this area. This is understandable since approximately 53 percent of this area's housing growth between 1970 and 1980 was seasonal household growth. In addition, approximately 60 percent of households have a household head that is 45 years old or older and can't be expected to contribute much to the demand for school service. Given this trend, the existing facilities, all of which have extra capacity, should be adequate for the foreseeable future. In future plan updates, this trend would need to be checked.

Growth is more of a concern to School District #9. This school district has a plan for upgrading facilities in response to growth needs.* The South Prairie School has been recently rebuilt, greatly increasing elementary school capacity in the District. The high school's capacity has also been increased through additions to the facility.

Enrollments in School District #56 schools, covering the north part of the County, have remained fairly steady. The situation in this part of the County is similar to that existing in the south. Although there was substantial housing growth, only about 27 percent of that growth was for permanent residents. Approximately 70 percent of the household heads in the area are older than 45. Given this trend, the existing facilities, all of which have extra capacity, should be adequate for the foreseeable future. In future plan updates, this trend would need to be checked.

HOW – School districts rely on bond issues and taxation for financing capital improvements. It does not appear that any major capital improvements bond issues will be necessary in the near future.

(2) TRANSPORTATION

WHO – The County has responsibility for most of the roads in unincorporated areas.

WHEN and HOW – The County adopted the Tillamook County Transportation Plan (TSP) in 2004. The TSP is adopted as an appendix to Goal 12 of the Comprehensive Plan, and it describes types, timing and funding of improvements (see also the Transportation Element). The TSP supersedes the Roadway and Traffic Safety management Plan.

(3) WATER SUPPLY

WHO – Water is supplied to areas outside the boundaries of incorporated cities by a variety of providers including cities, districts, associations, cooperative, and companies. A listing of these is included in section 1.4 along with a description of the facilities and an assessment of capabilities to meet growth needs.

WHEN – Most water systems in the County either have enough system capacity to meet needs for the foreseeable future, or have capital improvements programs and the resources necessary to make necessary expansion and improvements, or have limited systems not intended for expansion and have no obligation to expand. A number of systems however must expand or must make substantial improvements. These are:

- Beaver Water District #49
- Brighton Water System
- Cape Meares Cooperative Water System
- Cloverdale Water District
- Hebo Water System
- Long Prairie Water District
- Neahkahnie Water District
- Netarts Water District
- Netarts Bay Water District

The improvements needed to be made to these systems are described in section 1.4. Most of these improvements should be made in the near future if possible.

HOW – Water systems can fund improvements by a variety of methods according to their legal status. Districts and cities have the ability to tax and issue bonds as well as charge user fees and secure loans and grants. Associations, cooperatives and companies must rely on user fees, loans and grants.

The Farmers Home Administration (FmHA) by supplying grants and loans has been an important source of funding for capital improvements to rural water systems. Cutbacks in the federal budget have severely reduced the amount of money available. Beaver Water District has been fortunate enough to recently get approval of a loan from FmHA. Other systems probably won't be so fortunate. More than likely, they will have to finance their own improvements or go without.

High interest rates and the unavailability of money will force water systems to raise fees and encourage water conservation. It is likely that hookup fees and user Charges will be increased. Conservation measures such as metering, instituting water rates that increase with increased water usage, and instituting peak water use rates will probably be necessary.

The County can do little to assist these water systems directly. It can, however, assist them in other ways. The County can offer whatever technical assistance it has available to help water systems plan improvements and secure financing. The County can also encourage the State Health Division and the U.S. EPA to provide adequate technical assistance to water providers to plan improvements and assess the work of contracted engineers for cost effectiveness.

The County can also assist these water systems through the planned development, subdivision, and partition processes. If the County approves such developments in areas where water systems can not serve them along with existing lots, the County is increasing the problems of those systems. Even if a system is not legally obligated to provide service it may have difficulty refusing once the development is in place. In such cases, the County should approve developments only if alternate sources of water are available.

(4) SEWAGE DISPOSAL

WHO – The providers of sewage disposal in the County are identified in section 1.3.

WHEN – Most systems have enough capacity to meet growth needs for the next 20 years. Systems that may run into shortages before this time include the following:

Neskowin Lodge Investors Corporation – This system has severe problems. Its capacity for additional hookups is very limited. The Corporation has no obligation to expand service however.

Neskowin Regional Sanitary Authority – This authority recently failed to get a grant to build a regional sewage treatment facility. It would be very difficult to build any facility in the foreseeable future.

Netarts-Oceanside Sanitary District – This system should be able to handle needs in the area until 1990 at least. Because of the very seasonal nature of the area the useful life of the system may be extended by providing some storage for peak sewage loads. The District currently has no expansion plans although sufficient time is available to analyze growth trends and plan for future expansions.

North Tillamook County Sanitary Authority – The current treatment plant does not have enough capacity to meet anticipated growth needs. However, the Sanitary Authority is making necessary plans and alterations to keep up with growth in the area. A study has been completed to determine what future sewage disposal needs are and how the Authority can meet those needs.* Section 1.3 describes recent actions that have increased sewage handling capacity. The Authority feels that it has the capabilities and resources necessary to plan ahead and make needed alterations and expansions.

HOW – Sewer districts and authorities are able to secure funding by issuing bonds, taxing, charging user fees and securing grants and loans.

Federal grants and loans have been the mainstay of sewer projects in the past. Due to cutbacks in the federal budget, these funds are now much less available. Sewer systems will have to rely more on local resources to finance improvements.

The County has limited means to help the providers of sewage disposal service. The County can offer whatever technical resources it can spare to assist in planning and securing state and federal funding for needed expansions. The County can also encourage the DEQ and the EPA to provide adequate technical assistance to plan needed improvements and assess the work of contracted engineers for cost efficiency.

(5) SOLID WASTE DISPOSAL

Tillamook County has a solid waste disposal site adequate to meet its long-term needs (see Policy 3.8).

Policies

- a) Tillamook County will assist water and sewage providers in planning and securing funding for improvements needed to serve development proposed by the Comprehensive Plan.
- b) Tillamook County strongly encourages state and federal agencies to provide adequate technical assistance to water and sewer providers to plan needed improvements and assess the work of contracted engineers for cost efficiency.
- c) Tillamook County will not approve planned developments, subdivisions or partitions unless an adequate supply of water is available from existing water systems or alternate sources.

3.8 SOLID WASTE DISPOSAL

Findings

Tillamook County has established and is operating a central regional sanitary landfill serving the entire County which is operated in accordance with state and federal standards. Two transfer stations have been established and together with the central landfill site provide facilities and opportunities for materials recycling and resource recovery.

Tillamook County is cooperating with the Clatsop-Tillamook Intergovernmental Council in an application to the Bonneville Power Administration for funding to examine the energy potential of the solid waste at the landfill site. The County believes that there is the potential to operate a small steam plant utilizing burnable wastes that would both generate power and extend the life of the landfill.

This project would quantify and qualify the types of materials going into the landfill and determine what type of equipment could be used to generate power and the cost of the equipment. The landfill is near the Port of Tillamook Bay's Industrial Park, so an energy market survey would be undertaken to attract a small industry to the Industrial Park to utilize the energy resource. The benefit to BPA and the County would be to create new jobs in the area and to not increase the firm load requirements of BPA.

Policies

- a) Tillamook County will continue to operate its sanitary landfill facility in accordance with state and federal standards to dispose of solid waste in the County.
- b) Recycling of materials and resources will continue to be encouraged by the County as part of its solid waste disposal program.
- c) Establishment of a steam electric power generating facility utilizing burnable material at the County's sanitary landfill facility shall be pursued by the County if found to be practical and economically feasible.

3.9 COORDINATION WITH SERVICE PROVIDERS

Findings

Coordination of County Comprehensive Plans with the plans and actions of special districts is an important part of Oregon's planning program. This assures that sufficient types and levels of services are available to meet residential, commercial and industrial needs. It also prevents the provision of services from encouraging sprawl and hastening the conversion of resource land to non-resource uses.

Coordination of land use plans with service districts is especially important in the case of urban growth boundaries. One of the important functions of the urban growth boundary is to indicate where services will be made available over the next 20 years. This tells the developer which areas can be assured of eventually receiving urban services. For the governing body, it indicates where the impacts of urban development will be limited. It is important that this boundary be respected. Extending services beyond the boundary negates the purposes of the boundary by spreading the effects of urban development beyond where they are intended and by reducing the efficiency of providing public services. Such considerations are especially important for functionally urban unincorporated communities since services are provided by districts and not by the County. It is important for the County to coordinate its plans with service districts and use its powers to assure that actions by these districts do not circumvent the Comprehensive Plan.

The County has coordinated its Comprehensive Plan with service providers in a number of ways. It has worked with the Clatsop-Tillamook Intergovernmental Council (CTIC) to coordinate planning for unincorporated areas. CTIC is the body designated as being responsible for planning coordination pursuant to ORS 197.190. CTIC has sent notices to all special districts advising them of ORS requirements and affording assistance in developing agreements of cooperation. Only seven special districts in the County had responded and entered into such cooperative agreements (see Appendix). The County's Comprehensive Plan is consistent with these agreements.

The County has also surveyed special districts to determine the extent and size of their services and facilities and identify concerns that districts have about future development and its effect on future service provision. Tillamook County has compared the capacity of service facilities against the demands of anticipated growth. Surveying was accomplished with mail out surveys, phone calls to managers and district board members, and meeting with district boards.

The County has also frequently included board members of special districts on Citizen Advisory Committees. These members have contributed valuable information about service availability and have helped to articulate the policies of special district boards.

The County also has a long standing policy to review all subdivisions and planned developments with special service districts. This is being continued in the county's Comprehensive Plan, Land Use Ordinance and Subdivision Ordinance.

Policies

- a) Tillamook County will coordinate its Comprehensive Plan with service providers.
- b) Tillamook County will consult with service providers regarding major land use decisions which affect them such as Comprehensive Plan amendments, zone changes, planned developments and subdivisions.
- c) Proposed annexations and disannexations to serve districts and extensions of source on a contract basis will be reviewed by the County Planning Department to assure consistency with the Comprehensive Plan.
- d) Tillamook County will coordinate the establishment and change of urban growth boundaries around unincorporated communities with affected service districts. The County will work with service districts to assure that all areas within the urban growth boundaries will be served.

3.10 HAZARDOUS MATERIALS PLAN

Findings

The management of emergencies involving hazardous materials presents special challenges to the providers of emergency services, fire departments, sheriff's department, ambulance and search and rescue. Land use planning can affect the outcome of hazardous materials emergencies and the ease with which they can be handled by emergency services providers.

The County Department of Emergency Services is in the process of developing a hazardous materials plan. When finished, this plan can be used in conjunction with the County Comprehensive Plan and Land Use Ordinance to help prevent hazardous materials emergencies in the County.

Hazardous materials such as radioactive materials, liquefied petroleum gas, chlorine gas, oils and other flammable, toxic, corrosive, oxidizing and explosive chemicals have become a common part of industrial processes. The general public is increasingly exposed to the dangers posed by those chemicals. The Federal Emergency Management Agency notes that "while major spills are rare, spills in general are not, and in some areas there are daily occurrences in which tanks, drums, bags, bottles, puddles, streams, piles, and clouds of materials of varying degrees of hazard are encountered dispersed in a manner that no one ever intended. These messes can be further complicated by such factors as terrain, population, location, weather, and human elements."* Natural disasters such as floods and forest fires can be complicated by spills or other releases of hazardous materials occurring at the time.

Major spills, fires and explosions when they do occur can cause the evacuation of homes, schools and businesses.

The County Department of Emergency Services is developing a plan for coping with disasters involving hazardous materials. This will involve the identification of hazardous materials in the County and the planning of appropriate responses to hazardous materials emergencies.

Land use planning can assist in reducing personal injuries, economic losses, and environmental degradation resulting in hazardous materials emergencies.

Industries that have the potential for causing major hazardous materials spills, fires, explosions or other releases should be located in areas where the consequences of any accidents will be minimized. They should not be located in hazardous areas such as flood plains and areas prone to landsliding. If possible, they should be located away from densely populated areas but near adequate emergency service facilities.

All industries using significant amounts of hazardous materials should have adequate safeguards to prevent their release and to contain releases which do occur to the greatest extent possible. The Oregon Department of Environmental Quality (DEQ) is responsible for assuring that proper safety precautions are taken. The DEQ must rely, however on voluntary notification by hazardous; materials users. Tillamook County could assist the DEQ in discharging its responsibilities and protect County residents by requiring DEQ approval before a building permit or other planning approvals are issued for industries using hazardous materials.

Policy

Tillamook County will complete a hazardous materials plan and will include relevant features of this plan into County land use ordinances.

3.11 WATERSHED PROTECTION (See also Section 4.11 of the Forestry Element)

Findings

Forest management practices, as well as residential development, and other commercial and industrial activities in the County's watersheds have a significant effect on the quality of public drinking water. Tillamook County currently has 49 state-licensed public water systems (those serving four or more hookups), most of which obtain their water from watersheds in commercial forestland.

A recent study by Fredricksen, Moore, and Norris of the USDA's Forest Sciences Laboratory in Corvallis provides a comprehensive discussion of the impacts of forest management practices on stream water quality in the Pacific Northwest.* They point out that such practices, including road construction, clearcutting, scarification, slash burning, fertilization, and the application of herbicides "can seriously degrade the quality of stream water" (p. 283).

Forest roads crossing steep and unstable slopes are a primary cause of soil erosion and stream SEDIMENTATION (P. 286). Clearcuts are a contributing factor, particularly when they cause landslides which enter streams (pp. 288-93). Slash burning can increase surface soil erosion and thereby increase suspended sediment concentrations in streams (pp. 294-95). Fertilizers are not likely to pose a health hazard if they are not applied directly to major streams in watershed areas (p. 302). The effect of herbicides can be minimized by avoiding drift or direct application of spray materials to stream surfaces as overland flow and leaching of herbicides are relatively unimportant factors in forest stream pollution (pp. 310-11). Fredricksen, Moore and Norris contend that proper application of these forest management practices will minimize adverse effects on water quality.

The effect of forest management practices on water quality in watersheds was one of the “issues and concerns” raised by all five of the County’s Citizen Advisory Committees (CACs) in late 1978 and early 1979 when they initially addressed forestry planning considerations. This issue was then taken up by the Forest Advisory Committee, with agency and industry representatives generally referring CAC members to the provisions of the Oregon Forest Practices Act which addresses the protection of water quality during the conduct of forest operations.

Residential development in watershed areas can reduce the quality of water through failing septic tanks, leaks in sewer lines, chemicals applied to lawns and street, and erosion from building sites. Problems of this nature are more severe in areas of steep slopes where runoff is faster and infiltration is restricted, erosion is greater, septic tank effluent migrates closer to the surface and there is greater danger of pipeline breaks due to ground movement. Commercial and industrial uses can also have harmful effects on water quality through erosion during and after construction, chemical runoff and street and parking lot runoff.

In 1979, the County conducted several surveys of water providers to obtain information that would be useful in the development of the Comprehensive Plan and to satisfy a state requirement go determine the needs of small water providers. The initial survey contained the following question: “Has the utility encountered or anticipated problems with land use activities (such as forest management practices) above or within the utility’s water source?” Of 12 water providers that responded, five indicated that they had encountered or anticipated problems with logging practices (Bay City, Fairview, Pacific City, Twin Rocks, and Watseco-Barview). Four of these districts plus two others (Northwood and Rockaway) responded affirmatively to the question “Is there a need for the County to address land use activities in watershed areas?” (Twin Rocks did not respond to this question.) One water provider (Neahkahnie) indicated that they weren’t concerned because they had a subsurface system and another (Netarts Bay) receives their water from another district. No water providers responded that they encountered or anticipated problems with residential, commercial or industrial uses in their watersheds.

The time remaining in the County’s current Comprehensive Planning process does not allow for adequate consideration and adoption of a watershed management zone or other measures to protect the quality of watersheds. It does permit recognition of the existence of the watershed issue and a commitment to give it that attention that it deserves. A committee could be established by the County Commissioners and directed to provide specific recommendations on the watershed protection issue within a specified period of time. Such a committee should include representatives of public forest management agencies, private timber corporations, Citizen Advisory Committees, and water providers. A local discussion of the issue could be useful in establishing a basis for understanding and cooperation between watershed users and water providers.

Tillamook County acknowledges that (1) certain forest management practices and other land uses in watersheds can introduce contaminants and/or create larger than normal turbidity levels in water systems; (2) that after a point certain turbidity and contamination levels are not desirable from a public health standpoint; and (3) that certain chemicals at certain concentrations should not be introduced into water systems. The County encourages concerned parties to work with the Northwest Region Forest Practices Committee in the development of amendments to the Forest Practices Act that provide needed notification and protection for state-licensed water systems. The County also encourages communication and cooperation between watershed users and water providers in the form of written agreements or more informal arrangements. Finally, the County recognizes the need for further study of this issue, and therefore intends to establish a committee of forest managers, CAC members and affected water providers to make specific recommendations to the Board of County Commissioners by no later than one year from the adoption of this plan.

APPENDIX

Insert Cooperative Agreement between The CTIC & North Tillamook Sanitary

Insert Cooperative Agreement between the CTIC & North Tillamook Sanitary

Insert Watseco-Barview Water District Resolution 78-2

Insert Twin Rocks Sanitary District Resolution 78-1

Insert Cooperative Agreement between the CTIC & Port of Tillamook Bay

Insert Cooperative Agreement between the CTIC & Port of Tillamook Bay

Insert Resolution of the Twin Rocks Water District

Insert Cooperative Agreement between the CTIC & Twin Rocks Water District

Insert Cooperative Agreement between the CTIC & Twin Rocks Water District

Insert Cooperative Agreement between the CTIC & Netarts-Oceanside Sanitary District

Insert Cooperative Agreement between the CTIC & Netarts-Oceanside Sanitary District

Insert Cooperative Agreement between the CTIC & Little Nestucca Drainage District

Insert Cooperative Agreement between the CTIC & Little Nestucca Drainage District