

**SOUTH THURSTON COUNTY  
URBAN GROWTH AREAS  
ABBREVIATED  
COORDINATED WATER SYSTEM PLAN**

**JUNE 2000**

**South Thurston County Urban Growth Areas  
Abbreviated Coordinated Water System Plan**

**2000**

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**SOUTH THURSTON COUNTY URBAN GROWTH AREAS**  
**ABBREVIATED COORDINATED WATER SYSTEM PLAN AREA-WIDE SUPPLEMENT**

**1. ASSESSMENT OF NEED FOR COORDINATED WATER SYSTEM PLANNING**

**1.1 Purpose of the ACWSP: Linking Urban Growth Management and Water System Coordination**

Growth management plans adopted by Thurston County and the south Thurston County municipalities identify the municipal and county water systems as the intended water purveyors within the Urban Growth Areas for Yelm, Rainier, Tenino and Grand Mound. While Bucoda does not have an unincorporated Growth Area, the municipal water system intends to expand within the incorporated area. Designation of these Urban Growth Areas as “Critical Water Supply Service Areas” (CWSSA) under the Public Water System Coordination Act (RCW 70.116) is necessary to ensure coordination of long-term urban-level water service. In specific, CWSSA designation ensures that the municipal utilities and the Thurston County Grand Mound utility have the priority opportunity to provide water throughout their respective UGAs.

Only through CWSSA designation do the Washington Department of Health (DOH) and Thurston County Environmental Health have the authority to require new development in the UGAs to utilize the municipal water systems. This priority status is balanced by the Act’s stipulation that service to new development be “timely and reasonable”. The Coordination Act process includes a mechanism to allow a new water system only where no other feasible option exists.

Designation under the Coordination Act also provides the foundation for long-term planning and investment by the municipal utilities toward the ultimate objective of service throughout the UGAs. Water System Plans adopted by the individual utilities and approved by DOH will need to reflect this long-term service objective.

The goals of the South Thurston County UGA Coordinated Water System Plan are to:

- \* Ensure reliable urban-level water service within the designated Urban Growth Areas for Yelm, Rainier, Tenino and Grand Mound.
- \* Link water service review conducted by State and local health agencies with Urban Growth Area land use and utility planning objectives.
- \* Avoid proliferation of small, inadequate water systems in the urban growth areas.
- \* Provide a predictable and timely process for determining water service to new land uses within the UGAs, balancing the interest of property owners in obtaining timely water service with the long-term objectives of growth management policies and water system development plans.

## **1.2 Accommodating Anticipated Long-Term Growth**

Water system coordination for the South Thurston County UGAs is particularly important given the significant future growth that is anticipated in these areas. Thurston County and the municipalities of Yelm, Rainier and Tenino have adopted Joint Plans for the various Urban Growth Areas. Consistent with the Growth Management Act, the various UGAs are intended to be the location of most future development in the region. The Growth Management Act and local growth policies emphasize the need for providing urban-level infrastructure as development occurs.

Significant investments will be required in municipal water system source, storage and transmission lines to accommodate this additional growth. In general, new development will be responsible for extension of water lines and a shared contribution toward basic water system infrastructure, generally through collection of hookup charges or General Facility Charges. Each water system will be responsible to ensure adequate construction standards for the line extensions; install system improvements as identified in Capital Improvement Plans; and plan for ultimate expansion of the system throughout the UGA.

Designation of the municipal utilities as the priority water purveyor within their UGA is essential to long-term coordination of water system development with land development activities.



TABLE 1 – 1  
POPULATION PROJECTIONS - SOUTH COUNTY UGAs

Source: TRPC "The Profile", 1999, Table III-20.

	2000 EST. POPULATION	2015 FORECAST	% INCREASE FROM 2000	2025 FORECAST	% INCREASE FROM 2000
RAINIER	1,430	1,910		2,130	
RAINIER UGA	140	170		190	
TOTAL	1,570	2,080	32%	2,320	48%
TENINO	1,500	1,510		1,570	
TENINO UGA	110	170		370	
TOTAL	1,610	1,680	4%	1,940	20%
YELM	3,030	6,680		8,560	
YELM UGA	1,160	1,640		2,830	
TOTAL	4,190	8,320	99%	11,390	172%
GRAND MOUND	1,070	1,700	59%	2,060	93%
BUCODA	610	630	3%	640	5%
<b>TOTAL SOUTH COUNTY UGAs</b>	<b>9,050</b>	<b>14,410</b>	<b>59%</b>	<b>18,350</b>	<b>103%</b>

Estimated 2000 population and forecasts of UGA population for 2015 and 2025 are identified on Table 1-1. These forecasts are from the 1999 Profile prepared by Thurston Regional Planning Council.

Significant increases in population are anticipated for some jurisdictions. The highest growth rate and largest population increase is anticipated for Yelm: TRPC projects nearly 100% population increase by 2015 and significant additional growth by 2025. Rainier and Grand Mound are also projected to experience substantial growth in the coming years.

Table 1-2  
RESIDENTIAL DEVELOPABLE LANDS IN SOUTH THURSTON COUNTY GROWTH AREAS, 1998  
Source: TRPC "The Profile", 1999, Table III-6.

Jurisdiction	Total Acres	Non-Residential (Commercial, Public, Etc.)	Residential				
			Total Residential Area	Currently Developed Residential Lands		Developable Residential Lands	
		Acres	Acres	Acres	Percent	Acres	Percent
<b>Rainier</b>							
Incorporated	967	328	639	264	41%	375	59%
Rainier UGA	457	110	347	30	9%	317	91%
<b>Total</b>	<b>1,424</b>	<b>438</b>	<b>986</b>	<b>294</b>		<b>692</b>	
<b>Tenino</b>							
Incorporated	492	324	168	96	57%	72	43%
Tenino UGA	738	140	598	10	2%	588	98%
<b>Total</b>	<b>1,230</b>	<b>464</b>	<b>766</b>	<b>106</b>		<b>660</b>	
<b>Yelm</b>							
Incorporated	3,567	2,431	1,136	147	13%	989	87%
Yelm UGA	2,464	395	2,069	193	9%	1,876	91%
<b>Total</b>	<b>6,031</b>	<b>2,826</b>	<b>3,205</b>	<b>340</b>		<b>2,865</b>	
<b>Grand Mound UGA</b>							
UGA #1 Area	360						
Outside LID Area	622						
<b>Total</b>	<b>982</b>	<b>780</b>	<b>202</b>	<b>60</b>	30%	<b>142</b>	70%
<b>Bucoda</b>	<b>275</b>	<b>153</b>	<b>122</b>	<b>62</b>	51%	<b>60</b>	49%
<b>TOTAL SOUTH CO. GROWTH AREAS</b>	<b>9,582</b>	<b>4,661</b>	<b>5,281</b>	<b>862</b>		<b>4,419</b>	84%

Another view of potential development within the designated urban growth areas is provided by assessment of available vacant land. In 1998, TRPC identified "developable residential lands" within each growth area. Available land for future residential development is identified in Table 1-2. Overall, nearly ½ of the residential lands within the South Thurston County UGAs is still available for development. Developable residential lands exceed 600 acres within both the Rainier and Tenino UGAs. For Bucoda, 60 acres of developable residential lands are included within the existing corporate limits – nearly ½ the total residential area. In the Grand Mound UGA, there are 142 acres of developable residential land along with extensive vacant lands designated for future industrial and commercial development.

### **1.3 Source Development Needs**

The obligation of the designated utilities to meet future water needs within their designated UGAs is established by the Urban Growth Management Joint Plans, the Water System Plans and this Coordinated Water System Plan. Adequate water source is a critical factor in meeting this obligation.

Conservation will be pursued as envisioned in the water system plans for each jurisdiction. In Yelm, water reuse is a new source for meeting non-potable needs such as irrigation.

In addition, groundwater source development will be critical within some of the UGAs. Timing of need for additional water rights varies with the circumstances of each system, as described in Chapter 3. Population forecasts provide a benchmark for ensuring timely action to ensure development of adequate source. Provision of additional groundwater to meet public water system needs must be balanced with protecting fish habitat and other instream resources.

### **1.4 Coordinating Development Review and Water Service Review**

This ACWSP provides a framework to avoid proliferation of wells and small water systems as the municipalities and growth areas develop. At the time of development review for single-family homes or larger development projects, the priority for water service will be the designated municipal utility.

Coordination is particularly important in the unincorporated growth areas, where one jurisdiction provides development review (Thurston County Development Services) while a different jurisdiction is the designated water service provider (the municipal utilities). Section 4 provides a review process to minimize new wells or small water systems in these designated urban areas, while protecting the interest of property owners where properties are at a significant distance from the existing municipal water system lines.

## **1.5 Coordination Act Requirements**

The Coordination Act establishes requirements for the development and coordination of all public water systems within a designated Critical Water Supply Service Area (CWSSA). In Thurston County, the term Urban Water Supply Service Area (UWSSA) is utilized for both the previously adopted North Thurston County CWSP and this Plan, in recognition of the integration with Urban Growth Management.

A Coordinated Water System Plan (CWSP) Area-Wide Supplement includes the following minimum contents:

1. Design standards including fire flow. For this CWSP, the design standards for each designated water system (which meet or exceed State minimums) are adopted as the minimum standards within each system's future service area.
2. Service area maps for expanding systems. The future service areas defined for this CWSP are the Urban Growth Areas as designated in adopted land use plans.
3. Procedures for authorizing new systems that minimize proliferation. The cities and the County at Grand Mound are the designated future purveyors within their respective Urban Growth Areas.
4. Assessment of potential shared facilities, including intertie and transferring facilities and wheeling of water supplies.
5. Satellite system management requirements; and
6. Policies and procedures that generally address failing water systems for which counties may become responsible under RCW 43.70.195.

## **1.6 Coordination With Other Planning**

The Coordinated Water System Plan was coordinated with relevant growth area planning policies including:

1. **The State Growth Management Act** (RCW 36.70A) stipulates goals and policies related to provision of services within designated growth areas, including the goal to:

“Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use, without decreasing current service levels below locally established minimum standards.” (RCW 36.70A.020(12))

2. **"Thurston County County-Wide Planning Policies"** dated September 8, 1992 address “promotion of contiguous and orderly development and provision of urban services” through the following policies:
  - “a. Compatible development standards and road/street level of service among adjoining jurisdictions;
  - “b. Development occurring within unincorporated growth areas shall conform to the development standards of the associated city or town;
  - “c. No extensions of urban services and facilities, such as sewer and water, beyond urban growth boundaries except to serve existing development in rural areas with public health or water quality problems.”
3. **“Joint Comprehensive Plans for Growth Management”** have been adopted by Thurston County and the various municipalities. Each of the Joint Plans identify that the municipal utility is intended to provide water service throughout the unincorporated Urban Growth Area. Dates and resolution numbers for Thurston County adoption of these Joint Plans:

<u>Title</u>	<u>Adopted</u>	<u>County Res #</u>
"Joint Comprehensive Plan for Growth Management in the Tenino Urban Growth Area"	8/22/94	10702
"City of Yelm Comprehensive Plan Joint Plan With Thurston County"	2/27/95	10851
"Joint Comprehensive Plan for Growth Management in the Rainier Urban Growth Area"	4/17/95	10894
"Grand Mound Subarea Plan, Grand Mound Wastewater Comprehensive Plan, and Grand Mound Water System/Project Report"	6/24/96	11219

4. **Individual Water System Comprehensive Plans.** Water system plans are approved for all four systems. All four are approved as expanding systems. This Area wide Supplement is coordinated with provisions of the following Water System Plans. Current connections appear to be within the approved services per the DOH SADIE database.

Water System Plan Title	DOH ID #	Plan approval status	Current service level conforms to DOH approved services
City of Yelm Comprehensive Water System Plan (Skillings - Connolly)	99350	Approved 4/30/96	Yes
City of Tenino Water System Plan (Gibbs & Olson)	87400	Approved 6/2/97	Yes
Town of Rainier Water System Plan (Gray & Osborne)	70980	Approved 2/1/99	Yes
Thurston County Grand Mound Water System Plan (Earth Tech/Thurston Co. Dept. of Water & Waste Management)	WS ID# 07158 SMA ID# 134	Approved 7/26/99	Yes
Bucoda Water System Plan	09100	Approved 9/27/94 (Update due 9/27/00)	Yes

## **2. WATER SYSTEM DEVELOPMENT POLICIES**

The following area-wide policies are intended to meet the objectives of the Public Water System Coordination Act (RCW 70.116), the Growth Management Act (RCW 36.70A) and Comprehensive Plan policies of the involved local jurisdictions.

### **2.1 UWSSA Water Service Policies**

The following policies are intended to guide the water service review procedures detailed in Chapter 4.

#### **2.1.1. Designated UWSSA water systems**

The designated water system is assigned a priority right to provide service within their designated Urban Water Supply Service Area (UWSSSA). The UWSSAs for the municipalities of Yelm, Rainier and Tenino are their respective Urban Growth Areas as identified in the Joint Plans adopted by the municipalities and Thurston County. The UWSSA for Grand Mound is the UGA identified in the Thurston County Grand Mound Sub-Area Plan. For the Grand Mound UWSSA, Thurston County is the designated water purveyor as there is no municipality associated with this Growth Area. Bucoda is the designated water system within their incorporated area.

The UWSSA is the area intended to be ultimately served by the designated utility. This service will be provided through planned facilities identified in each designated utility's Water System Plan and through interim service measures such as satellite service.

#### **2.1.2. Existing non-expanding public water systems**

To the extent allowed by hookup policies of the designated water utility, other existing public water systems within a UWSSA may continue to exist in accordance with State and County water system regulations. These non-expanding water systems may only provide service within their existing service areas.

Over time, existing small public water systems should generally be incorporated into the designated utility to ensure adequate fire flow to protect structures and public safety and provide professional water system operation and management. Wells that are no longer used must be properly decommissioned to reduce risk of groundwater contamination and allow full development of these areas. Timing of incorporation into the designated system will depend on connection requirements of the individual water systems. For example, see the summary chart at Appendix 2 summarizing the Connection Policy Guidelines for the Grand Mound water utility.

#### 2.1.3. Proposed Rural-density development in Long-Term UGAs for Rainier, Tenino and Yelm

Land use policies allow development at rural densities in unincorporated portions of the long-term Yelm, Rainier and Tenino UGAs. Permits for this type of development should be routed to the municipality for comment.

The municipal utilities should examine proposed interim Rural-density development, including proposed individual wells, to ensure consistency with long-term utility extension plans. Pre-existing development can pose an obstacle to future extension of municipal water system pipelines. In some cases, it may be in the public interest to provide water service from the municipal system to Rural-density development within the long-term UGA. Another option may be placing conditions on the development permit, such as waiver of protest for a future ULID.

Proposed Rural-density subdivisions of land or other multiple dwelling projects should be considered for satellite service under auspices of the designated utility. See Section 4.2.2 for discussion of the satellite service concept.

#### 2.1.4. Proposed individual wells within city limits or the Grand Mound UGA

Proliferation of individual wells within the UWSSA is contrary to the intent of the Coordination Act. New individual wells will only be allowed where service from the designated utility is not available, as determined through the priority of service process described in Chapter 4 and Section 5.1.1 Thurston County



Sanitary Code. Where service is not available from the designated utility and new individual wells are appropriate, the utility should consider measures to ensure consistency with long-term water system extension.

#### 2.1.5. Proposed new public water systems within city limits or the Grand Mound UGA

Where service from the designated water system is available on a timely and reasonable basis, no new public water systems will be allowed.

Particularly within the Yelm city limits and the Grand Mound UGA, some proposed developments might be distant from the existing water system pipelines. In these situations, the designated UWSSA water system should consider creative solutions such as a satellite system under the direct operation or oversight of the designated utility.

## **2.2 Water System Design Standards for the South Thurston County UWSSAs**

The design standards adopted by each water system are designated as the design standards for each system's future service area, provided these meet or exceed State minimums including provision of fire flow.

## **2.3 UWSSA Water Source Development Objectives**

It is the objective of this CWSP to secure and protect adequate water sources to meet long-range requirements of residential, commercial and industrial development in each UWSSA. The 20-year population projections in the "Joint Comprehensive Plans with Thurston County for Growth Management" and the Grand Mound Sub-Area Plan, and the service projections in the utility Water System Plans, provide benchmarks for development of water sources. This long-range source development objective will be achieved through conservation programs, water rights applications and other measures identified in the six-year Water System Plans.

Local jurisdiction coordination with the Department of Ecology Water Resources Program will be crucial to addressing water source development needs. In particular, additional source development will need to be coordinated with conservation programs approved by the Department of Health and comprehensive water resource management strategies developed through Watershed Plans for Water Resource Inventory Areas (WRIAs).

As the cities and County develop Wellhead Protection Area (WHPA) plans, there will be a need to coordinate protection of capture areas that extend into unincorporated Growth Area and Rural designated areas. Wellhead capture areas should be considered in review of land use applications; in work programs for outreach programs including the Moderate Risk Waste Program, on-site system public education efforts and the Conservation District Farm Plan program; and in outreach by utilities to property owners in the wellhead areas.

### **3. WATER SYSTEM STATUS AND PROJECTIONS**

#### **3.1 Tenino Urban Water Supply Service Area**

a. Existing City of Tenino water service

The City of Tenino water utility was established prior to 1940. Currently, the system provides service throughout the 500-acre town and to a small area of adjacent unincorporated development. The system currently has 639 residential services and 84 commercial customers. The Department of Health classifies the system as expanding, with a status of “green” (system currently complies with DOH water system planning and operating requirements). DOH records identify a current residential service population of 1,550.

Fire flow is provided to most areas at the Fire District #12 requirement of 1,500 gallons per minute (gpm). Ample storage for the next 20 years is provided in a new twin-tank 550,000-gallon reservoir.

Improvements identified in the 1997 Water System Plan include:

- \* Replacement of remaining small water mains (mains 4 inches or under);
- \* Improved fire flow to a few specific areas; and
- \* Installation of about 13 fire hydrants to achieve a maximum distance of 350 feet to a hydrant; and
- \* Consideration of a new well at a different location (separate wellhead capture area) to improve system flexibility and reliability.

b. Future service area boundaries and target population

Tenino is identified as the future water service provider within the designated UGA in the “City of Tenino Joint Comprehensive Plan with Thurston County for Urban Growth Management” adopted in 1994. This UGA boundary is utilized in the Coordinated Water System Plan to identify the future water service area for the City of Tenino: See Figure 3-1. DOH records indicate

that the system is considered “expanding” with a total of 797 approved connections.

The unincorporated Urban Growth Area totals about 740 acres, mainly southwest of the municipal limits along Highway 507 and in the southeast area of the town. This area is about 1½ times the size of the existing municipality. As stipulated by the Joint UGA Plan, the unincorporated portion of the UGA is in a “holding zone” of 1 unit per 5 acres. Development at higher densities will occur through annexation and rezoning. Water service is also anticipated to be extended into the UGA following or concurrent with annexation. The UGA policy linkage of urban-level development with annexation should facilitate logical extension of Tenino water service. Population projections by the Thurston Regional Planning Council assume a modest growth rate for Tenino. Over the coming 25 years, TRPC projects a total population increase of about 20% for the Tenino UGA, to a 2025 population of 1,940 (see Table 1-1.) The designated UGA has capacity to accommodate a substantially greater population increase. TRPC identified 660 “developable” residential acres within the current municipal limits and the adopted UGA – compared to 106 currently developed residential acres within this area.

Among the many factors that will influence future development patterns is sewerage service. Currently, all development in Tenino is served by on-site septic systems, as the City does not operate a sewage treatment facility. Provision of off-site sewage treatment and disposal could significantly increase densities of development and the rate of conversion of the currently undeveloped UGA to urban land uses.

**Figure 3 - 1 Tenino Water Planning Area**

c. Water rights

It appears that Tenino has sufficient water rights for the next decade or two, depending on the actual rate of growth that occurs. Additional rights will be necessary to accommodate full development of the designated long-term UGA.

The City of Tenino has rights for 88 million gallons per year, with a maximum instantaneous withdrawal of 700 gallons per minute. In the record year of usage (1989), 77 million gallons (88% of the rights) were used. Tenino's three existing wells can produce in excess of 668 gpm.

The 1997 City of Tenino Water System Plan is based on 2015 projections of 1,728 population in the service area and consumption of 79.5 million gallons projects. Using the WSP population projections, existing rights and the developed well capacity are sufficient for the planning period ending in 2015 (Gibbs and Olson, 1997). The population estimate used for the Water System Plan is slightly higher than current projections from the Thurston Regional Planning Council (see Table 1-1).

d. Source of supply and wellhead protection

The city's wells are located on the north side of town near the middle school. An initial Wellhead Protection plan was included in the 1997 Water System Plan. A fixed radius capture area was estimated: This is intended to be supplemented in the future with an analytical model which will consider direction and rate of flow in identifying wellhead capture zones.

The key wellhead protection issue identified in the 1997 Water System Plan is susceptibility to contamination from on-site septic systems. As described in the Plan:

"Since Tenino has no sewer system, all houses have septic systems. Most of these septic systems are becoming aged and prone to failure. Should this occur, Tenino's wells could quickly become contaminated

(as the city's three wells are closely clustered on the north side of town). Tenino has passed an aquifer protection ordinance to limit development congestion and land use in the aquifer protection area. These facts support the idea of the establishment of another City well, on City property, but removed from the existing wells. This would allow system flexibility and a continued supply of high quality water should the existing aquifer become contaminated."

e. Other public water systems

Because the city water system was established in the early years of the municipality, the City of Tenino water system supplies nearly all development within the Growth Area. One Group B system (Dashiell) serves 3 lots in the Growth Area south of the current city limits. There are no adjacent Group A public water systems. See Table 3-1 and Figure 3-1 for public water systems in the general vicinity.

The proposed Silverbrook Estates development directly west of the city is a potential major issue for land use changes and for water service in the Tenino vicinity. This proposed project includes a 10-year build out of 520 dwelling units (eventually accommodating roughly the same population as Tenino in the early 1990's). The proposed project is anticipated to utilize 178 acre feet of potable water and 181 acre feet of non-potable irrigation water at the 10-year build out condition (Silverbrook Estates Draft EIS, Table 3). However, at this time the proposed development is outside the UGA, is not designed for urban-level densities and is proposed to utilize independent non-municipal water and sewer utilities.

**Table 3 - 1: Other Public Water Systems - Tenino Water System Planning Area**



## **3.2 Rainier Urban Water Supply Service Area**

### **a. Existing Town of Rainier water service**

Nearly the entire Town of Rainier is served by the municipal water system. In addition, about 24 residences outside the incorporated area are also served by the municipal system. See service area map at Figure 3-2. Reflecting the makeup of the community, over 75% of water service connections are residential. 1998 estimated population within the Town is 1,560 (see Table 3 - 2.)

The Rainier water system was established in 1950 (two years after incorporation) through Town purchase of a private water system. Significant improvements have been made in the past decade to source and storage facilities, through new construction and major repair of existing facilities.

Department of Health data indicates that the system currently has 601 services with a service population of 1,421. The system is approved as an expanding system. As identified in the current Water System Plan, until a new reservoir is constructed Rainier is limited to a total of 725 ERUs.

Fire flow targets of 1,500 gpm in commercial areas and 750 gpm in residential areas were met in most areas during tests and modeling performed for the 1997 Water System Plan. However, nodes did not meet these targets in the northeast commercial area and on Charm Lane west of the town limits.

**Figure 3 - 2: Rainier Water System Planning Area**

b. Future service area boundaries and population

The Urban Growth Area boundaries and policies related to future development are contained in the “Town of Rainier Joint Comprehensive Plan with Thurston County” adopted in 1995. These policies identify Rainier as the intended water purveyor within the UGA. For the Coordinated Water System Plan, the adopted UGA is the designated future service area for the Rainier municipal water utility. See Figure 3-2.

The unincorporated portion of the UGA is in a “holding zone” of 1 unit per 5 acres. Development at higher densities will occur through rezoning which will accompany annexation. Water service is also anticipated to be extended into the UGA following or concurrent with annexation.

The 2015 water service population projection utilized for the 1997 Town of Rainier Water System Plan is 2,868. This projection is somewhat higher than the current TRPC 2015 population projections for the Rainier UGA (see Table 1 - 1).

Total “build-out” population of the UGA is estimated at about 4,200. This is based on estimated population capacity of the vacant developable area within the total UGA of 2,700 (Thurston County Comprehensive Plan Table 2-1). The 1999 residential developable lands study by TRPC identified a total of 692 developable residential acres within the future growth area, divided about equally between the existing incorporated areas and the designated UGA. The “developable” areas are over twice the currently developed residential lands in the Rainier growth area. A current development rates, full build-out population will not be reached for several decades.

c. Water rights

Water rights appear sufficient for about 15 years of anticipated growth (to a service population of approximately 2,680). Water rights documented in the 1997 Water System Plan total 332.2-acre feet/year. These rights are projected to be capable of supporting a service population of approximately 2,680. This population is anticipated to be reached in about 2013 (1997 Water System Plan).

Full build-out of the future water service area (to a population exceeding 4,000) will eventually require significant additional rights. Based on the consumption estimates used in the 1997 Water System Plan and the projections of full UGA build out population discussed above, it appears that roughly 160 acre feet of additional water rights may be required in the coming decades to accommodate full development of the designated UGA (new rights required beginning about 2013).

d. Source of supply and wellhead protection

The town has several wells located in the “core” area near SR 507. The 1997 Water System Plan recommends abandoning Wells 1, 2 and 5 due to concerns for community health and safety. Water rights from these wells would be transferred to Well 3, located south of the town in a site with lower vulnerability to contamination than Wells 1, 2 and 5. Maintaining the existing intertie with the Rainier Sportsman’s Club is also recommended as a emergency alternate source.

e. Key system development issues

Storage is currently the limiting element for the Rainier water system. Additional facilities are required to meet storage requirements and improve pressure in the upper part of the town. The Six-Year Water Utility Capital Improvement Plan estimates project cost for needed reservoir and transmission main improvements at \$1,000,000. In addition, corrosion control facilities are recommended for Wells 3 and 6, at an estimated cost of \$125,000.

f. Other public water systems

The only Group A Community system within the Rainier service area is the Rainier Sportsman's Club. A few Group B water systems are located in or near the Rainier future water service area: See Table 3 - 2 and Figure 3-2. The 1997 WSP identifies that an intertie exists with the Rainier Sportsman's Club. However, this intertie has been disconnected upon advice of the town's consulting engineer.

**Table 3 - 2: Other Public Water Systems - Rainier Water System Planning Area**

### 3.3 Yelm Urban Water Supply Service Area

a. Existing City of Yelm water service

The city provides service to nearly all developed areas of the city plus some limited service into the unincorporated UGA. North of the City of Centralia Power, Yelm water service has been extended beyond the adopted Urban Growth Area to serve existing residential development.

Current DOH water system records identify a total of 1,000 connections and a residential population of 2,750. The estimated 2000 population of Yelm is 3,030. An additional 1,160 are estimated to currently reside in the unincorporated Yelm UGA (see Table 1-1).

Minimum fire flow provided by the system is 750 gallons per minute at 20 psi or as required by Yelm Fire District 2. Based on modeling of the entire system, increased line sizing and looping has been pursued to improve fire flow especially in commercial areas.

b. Future service area boundaries and population

The future Yelm water service area for this Coordinated Water System Plan is defined by the adopted Urban Growth Area boundaries. See Figure 3-4. These boundaries were identified in the City of Yelm Comprehensive Plan: Joint Plan with Thurston County adopted by the two jurisdictions in February 1995. The incorporated area of Yelm constitutes 3,567 acres, with an additional 2,464 acres in the unincorporated Urban Growth Area (see TRPC data on Table 1-2.) The southwest quadrant of the incorporated area is essentially undeveloped.

Significant future development is anticipated for Yelm. Thurston Regional Planning Council projects that population will nearly double by 2015, to a projected 8,320 within the UGA (see Table 1-1). The 1996 Yelm Water System Plan projects even higher rates of growth: The WSP projects a 2015 service area population of about 19,000.

The adopted Yelm UGA has a substantial capacity to accommodate future growth. The TRPC study summarized on Table 1-2 identified 2,865 acres of developable residential lands within the Yelm UGA – compared to a 1998 estimate of 340 developed residential acres in the area. About 2/3 of the developable residential acres are in the currently unincorporated UGA.

Based on the adopted Joint Plan policies for the Yelm UGA, future growth should be well coordinated with water system development. The Joint Plan provides that undeveloped land will remain in a Rural 1 Unit/5 Acre designation throughout the UGA until the land is incorporated and sewer service from the Yelm system is approved. This growth strategy will provide opportunity to coordinate the extensive improvements in source and other water system components that will be required to serve future development.



**Figure 3 - 3: Yelm Water System Planning Area**

c. Water rights

The City of Yelm Comprehensive Water Plan approved in 1996 identifies the need for additional water rights as a priority issue. The current water rights of 501 acre feet per year are adequate for design flows to serve about 1,140 connections. 1996 Water System Plan data indicates that predicted annual consumption will equal or exceed existing rights in the near future.

The Department of Health position as identified in the approval letter for the 1996 Water System Plan is as follows:

“The WSP demonstrates that the City has approached and in 1996 will exceed allowable water rights. Due to this situation DOH will be unable to approve construction documents that increase capacity and/or are growth related until additional water rights are granted by the Department of Ecology. The WSP is being approved because it has defined that the City is currently in the process to obtain additional rights.”

The city has filed several applications for additional water rights. The city's projected 20-year requirement for additional rights, including reclaimed water reuse from the city's new wastewater treatment facilities and conservation, totals 4,500 AFY. The wastewater reuse program was initiated in August 1999, providing irrigation to several public and private sites. Aquifer recharge is anticipated to be an important component of the reuse program.

d. Key system development issues

DOH water system data indicates that existing water system pumping and storage capacity can accommodate 1,989 services. This is a substantial addition to the 1,000 services existing at this time. However, securing additional water rights is an existing critical need, as discussed above.

In the longer-term future, the extensive growth anticipated within the adopted Urban Growth Area will require significant additions to the water system.

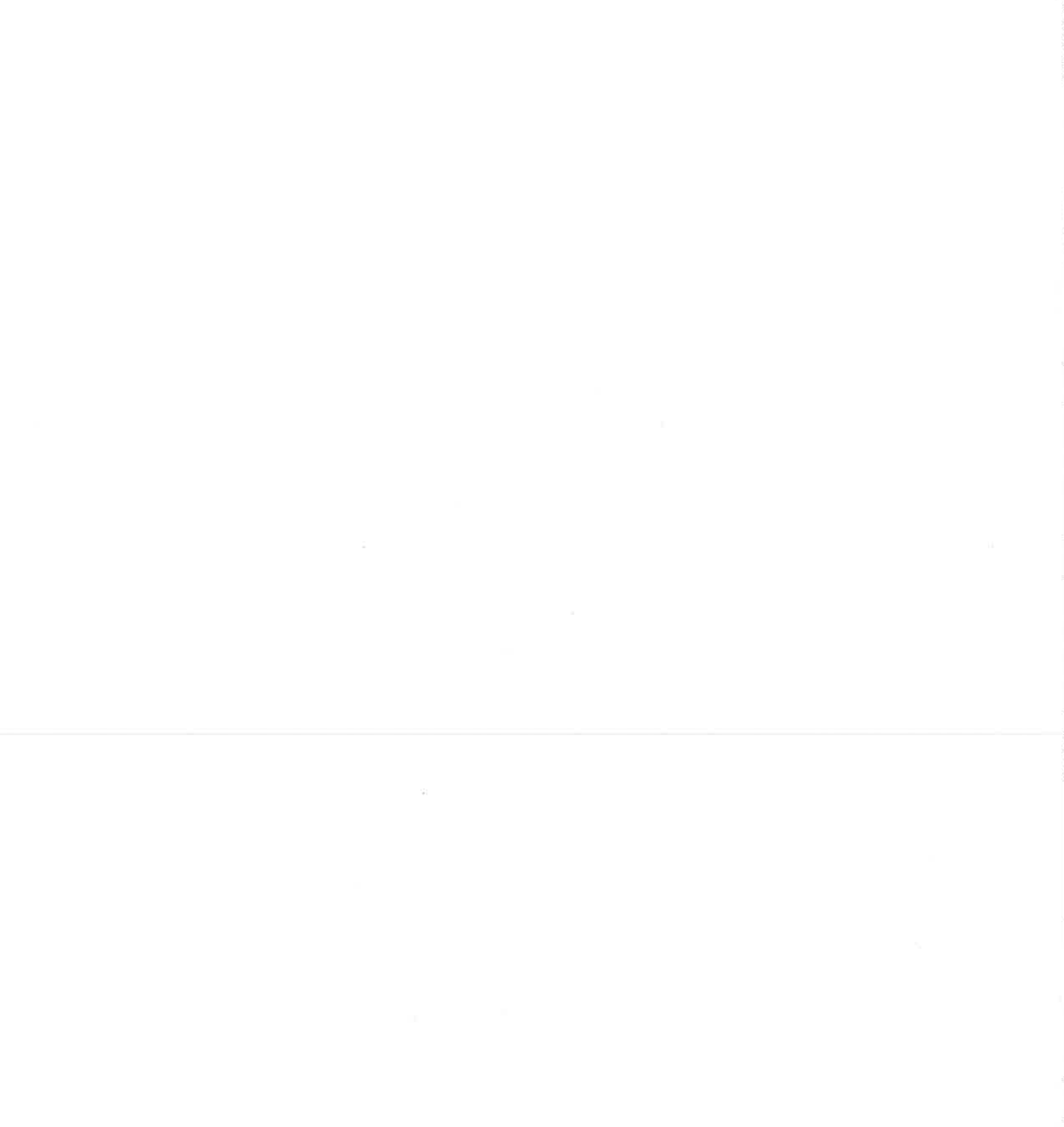
e. Other public water systems in the vicinity

Due to development that occurred prior to Yelm water availability, there are a number of other public water systems in and adjoining the Yelm Urban Water Supply Service Area. Figure 3-4 illustrates location of several of the Group A Community and Group B systems in the vicinity. Parcel-specific mapping of the residential systems on Figure 3-4 is available at the Thurston County Geodata website at [www.geodata.org](http://www.geodata.org).

Attached Table 3-3 lists over 20 public existing public water systems within the designated future Yelm water service area (Urban Water Supply Service Area). These include systems serving commercial uses and smaller residential systems serving up to 30 residences. Over time, some of these systems may be incorporated into the Yelm municipal system.

Table 3-4 identifies several systems in the Yelm vicinity but outside the UWSSA. Two larger systems are directly adjacent to the northeast boundary of the existing Yelm service area. These are Nisqually Pines, with a total of 689 connections, and the South Sound Utilities Andrews First system with 112 connections.

**Figure 3-4: Yelm Area – Other Public Water Systems**



**Table 3 - 3: Other Public Water Systems Within the Yelm Urban Water Supply Service Area**

**Table 3 – 4: Other Public Water Systems – Yelm Vicinity (Outside UWSSA)**

### **3.4 Grand Mound Urban Water Supply Service Area**

#### **a. Existing water service**

The Thurston County Grand Mound Water System began service in 1999. The initial customers are existing commercial uses in the Grand Mound Urban Growth Area in the vicinity of Old 99 and SR 12. Funding for the initial phase water system facilities was largely provided by a ULID on the property owners in the initial service area (see Figure 3-5). Formation of the Grand Mound water and sewer ULIDs was an explicit condition of the Urban Growth Area zoning approved by the Board of County Commissioners in 1997. Thurston County is the water purveyor as there is no established municipality at Grand Mound (unlike the other UGAs in Thurston County.)

Initial storage and source facilities installed in 1998, comprised of Wells 1 and 2 and 470,000 gallon Storage Tank 1. With the current facilities, DOH has approved service for up to 1,000 equivalent residential units.

#### **b. Future water service**

The Urban Water Service Supply Area for the Thurston County Grand Mound System is the adopted Urban Growth Area. See Figure 3-6. The UGA encompasses a total of about 982 acres including right-of-way and other non-buildable areas. The area included in the initial ULID encompasses about 360 acres.

Most development in the Grand Mound UGA is anticipated to be for commercial and industrial purposes. "Full development" estimated flows identified in the 1998 Water System Plan are about 370,000 gallons per day for Industrial/Commercial uses. About 200 acres are designated for residential uses. An estimated 142 acres of developable residential lands were identified in the Thurston Regional Planning Council study (see Table 1-2). Full development of the residential area is anticipated to require about 90,000 gallons per day to serve residential uses.

c. Source of supply and water rights

The Thurston County Grand Mound Water System wells are located in the vicinity of 201st and Tea Street, west of the Grand Mound UGA. A Wellhead Protection Plan is included in the Water System Plan approved by DOE in 1999.

Water rights obtained for the water system are projected to be adequate for a number of years. The right provides for 521 acre-feet of water per year at a maximum flow rate of 870 gallons per minute.

d. Key system development issues

Protection of source water is a key issue for the Grand Mound system. The Scatter Creek aquifer is highly productive but also highly susceptible to contamination due to the extremely porous soils. Lateral groundwater movement is also very rapid. The 2-year capture area for Well 2 extends over 4 miles to the northeast; the 6-month capture zone extends about 1 mile into the core of the designated commercial and industrial zoning in the UGA. Agricultural uses have created documented problems within and proximate to the estimated capture zone. In some cases, improved manure management and other improved practices have led to documented improvement in water quality in a relatively short period, due to the rapid aquifer recharge. As industrial and commercial activity increases, attention to proper practices to avoid contamination from various materials will be vital to success in protecting the groundwater source of the Thurston County Grand Mound Water System.



**Figure 3 - 5 Grand Mound Water System Planning Area**

e. Other public water systems

Existing commercial uses in the Grand Mound area were generally served by one-service “public” water systems. Several mobile home parks are served by their own existing water systems. The Maple Lane School correctional facility is now served by Thurston County Grand Mound Utility sewer but retains its own water system, under special arrangement with Thurston County. Existing public water systems in the Grand Mound Urban Water Supply Service Area are listed on Table 3-5. Service areas of the Group A Community and residential Group B systems are indicated on Figure 3-5.

Some existing systems have already been incorporated into the County Grand Mound system. Over time, it is anticipated that the remaining small water systems serving commercial uses within the UGA will be decommissioned in favor of Thurston County Grand Mound Water System service. Some property owners may elect to maintain the wells for irrigation uses. The other wells should be properly abandoned to reduce potential contamination of the aquifer.

The extensive UGA area beyond existing water service lines may pose a challenge to future water system development. The Grand Mound UGA Sub-Area Plan allows development throughout the UGA, with the condition that areas not provided with urban sewer and water will be designed to ultimately achieve urban levels of density. There may be interim-density development proposals that are too distant for service from the existing water system. Creative solutions such as satellite systems operated under the “wing” of the County water utility may meet property owner desires while allowing eventual Thurston County Grand Mound water service throughout the long-term service area.

The vicinity surrounding the Grand Mound UGA contains numerous small public water systems (see Table 3-5.) In the long run, there may be mutual benefit in exploring intertie opportunities with systems with storage capacity, such as Rochester High School (78,000 gallon storage capacity per DOH records) and Maple Lane School.

**Table 3 - 5: Other Public Water Systems - Grand Mound Urban Water Supply Service Area**

**Table 3 – 6: Other Public Water Systems, Grand Mound Vicinity (Outside UWSSA)**

### **3.5 Bucoda Urban Water Supply Service Area**

#### **a. Existing water service**

The Bucoda water system provides service throughout the town. According to DOH water system data, there are 239 existing connections with a residential population of 645.

#### **b. Future water service**

Based on existing source and storage facility capacity, the Bucoda water system is approved by the Department of Health for a total of 393 services. This would accommodate about 150 additional future connections.

Thurston Regional Planning Council population projections anticipate a very low rate of growth for Bucoda (see Table 1-1). By 2025, population is projected to increase by only 5% over current levels.

A different view of potential future growth in Bucoda is provided by the “developable residential lands” study conducted by TRPC. As shown on Table 1-2, the study identified 60 acres of developable residential land – nearly equal to the currently developed residential area of 62 acres. This available area has the potential to accommodate a significant increase in population and in water service from the Bucoda water system.

#### **c. Source of supply and water rights**

Water system improvements in the mid-1990s include an additional well and storage capacity of 120,000 gallons including fire flow.

The Bucoda water system has a groundwater right for 157 acre-feet per year of withdrawal. This appears to be sufficient to support existing and anticipated future development of the water system. This includes the total of 393 services currently approved by DOH based on existing source and storage facilities.

d. System development issues

The utility is striving to replace aging and undersized water lines, particularly in the south end of town. As described above, both source and storage are adequate for projected needs at this time.

e. Other public water systems in the vicinity

There are no other public water systems within or adjacent to Bucoda. As shown on Table 3-7, DOH data indicates that there are two systems located over 1 mile north of Bucoda, serving a store and a mobile home park. There are no potential opportunities for intertie or arrangements with other public water systems in the Bucoda vicinity.

**TABLE 3-7: PUBLIC WATER SYSTEMS - BUCODA VICINITY**

## 4. WATER SERVICE REVIEW PROCEDURE

### 4.1 Water Service Objectives

The long-term vision of this Plan is that service will eventually be extended from the central water system throughout each designated long-term service area.

Development of new individual wells or small public water systems within an Urban Water Supply Service Area is strictly limited as the last-priority service option, to ensure the highest possible water quality and service to the public. The designated utility may need to pursue creative solutions where proposed new development is distant from the existing water lines. Alternative solutions discussed in this Plan include “satellite” service through a new well or interim service from an existing adjoining public water system.

The designated water utilities will need to be involved throughout the land development process. Table 4 - 1 summarizes the general types of utility commitment anticipated at the various points in the development process.

**Table 4 - 1: Utility Commitment To Service**

UTILITY COMMITMENT	POINT IN DEVELOPMENT PROCESS	PROPERTY OWNER RESPONSIBILITY
<b>1. Preliminary information</b> on water service availability, conditions, costs.	Presubmission conference or direct property owner contact with utility	Provide preliminary information on development proposal (generally no fee for presubmission conference)
<b>2. Conditions of Service</b> from utility. Establishes commitment to serve new lots/new development provided financial commitment and other conditions are met.	Preliminary approval of plat, short plat or site plan; may also be used to establish conditions when a property owner proposes to extend water lines for new services.	Payment of fees, construction of water lines extensions and other site-specific conditions of approval. All conditions must be met prior to final plat approval.
<b>3. Confirmation of Water Availability and Service Connection</b>	Building permit issuance	Payment of GFCs and other fees (if not previously paid). Depending on water use of the proposed occupancy, may require additional GFCs.



## 4.2 Priority Level 1: Water Service From the Designated Water System

**Table 4 - 2: Water Priority of Service Process For New Development**

<b>Applicant submits development permit application including proposed water service.</b> (In unincorporated areas: Utilize "Priority of Service" form from Environmental Health)				
<b>Municipal Utility action options:</b> ↓				
<b>1. Direct service offered:</b> Conditions of water service may include water line extension, hookup fee payment and other conditions to be met by applicant (Section 4.2.1).  ↓	<b>2. Alternative service offered:</b> If development is too distant from existing lines for timely service, utility may propose <b>satellite service</b> to allow water provision through a separate system, with ultimate incorporation into the municipal system. Another option is <b>interim service</b> from an existing adjoining public water system with capacity to serve (Section 4.2.2)  ↓	<b>3. Utility declines to provide water service:</b> Applicant contacts <b>neighboring public water systems</b> regarding opportunities for service (Section 4.3.1)  ↓		
		<b>Neighboring system options:</b>  ↓		
		<b>Neighboring water system has capacity, provides terms of service</b>  ↓	<b>No other option. New water system is allowed</b> (4.3.2)  ↓	
<b>Applicant action options:</b>  ↓			<b>Water System Plan</b> and construction plans submitted to State DOH/Env Health for approval  ↓	
<b>Negotiate and accept water service conditions.</b> Utility provides conditional commitment to serve.  ↓	<b>Applicant appeals water service conditions</b> via the jurisdiction's administrative appeal process (see Section 4.4). <b>Hearing Body options:</b>  ↓			
	<b>Confirm terms of service</b>  ↓	<b>Identify items to renegotiate</b>  ↓		
<b>Water service approved</b>  ↓				
<b>Development approval and construction; water hookup</b>				

Table 4-2 illustrates the key steps in water service review for proposed new development.

In most cases, it is anticipated that the designated municipal water system will provide timely service to new development. "Timely" service is defined for this CWSP as water service available within 120 days of the time of anticipated project development. The time of project development cannot precede the projected time that building permits could be issued for the project.

#### 4.2.1 Direct Service From the Designated System

1. Proposed development within municipalities: For new development occurring inside the municipal boundaries, conditions of water service will be included in approvals for Preliminary Plats or other development projects. The municipality's combined responsibility for land use planning and utility provision should simplify the process of water service review for new development.
2. Proposed development within unincorporated UGAs: In unincorporated UGA areas surrounding the municipalities and in the Grand Mound UGA, development applications are submitted to Thurston County Development Services. Water service is coordinated with development review through the following process:
  - (1) The Priority of Water Service form from Thurston County Environmental Health is provided to the applicant at the earliest opportunity.
  - (2) The proponent contacts the designated water utility. The submittal will include anticipated time of project development and required information on anticipated water service requirements.
  - (3) The Priority of Water Service form is completed by the utility and returned to the applicant. Designated utility offer of service and proponent agreement to terms is the anticipated outcome in most cases.

Where the proposed development is distant from existing water lines, creative solutions such as satellite service may be needed. See the following section for discussion of alternatives where development is too distant for timely and reasonable extension of the central water system.

- (4) The applicant submits the completed Priority of Water Service form to Thurston County Development Services. The water service form is necessary to achieving a “complete application” for the proposed development. The stipulated conditions of water service are then incorporated into approval of the Preliminary Plat, Preliminary Site Plan or other development approval process.

#### 4.2.2 Alternative service under authority of the designated water system

Depending on the location and scale of development, it may not be financially feasible for the development to extend water lines from the existing central water system. Particularly for Grand Mound and Yelm, the UGA extends significantly beyond the current area of water service. Creative alternatives, which may ensure timely service to new development while retaining municipal water service authority, include:

1. Satellite service: Under the satellite system concept, a development may require water service within the future water service area of a city or the county, but may be too distant for feasible extension of water mains to directly serve the development. In this case, a “satellite” water system may be the best option. This situation may particularly apply to Grand Mound, as land use regulations allow development throughout the UGA.

A satellite system could be owned and operated by the city or county, provided the utility has been approved by DOH as a Satellite Management Agency. Alternately, another SMA water system operator could be approved to serve the property in question, with an

agreement for future interconnection with the city or county water system.

The assumption is that by permitting this form of operation, the designated water system will eventually interconnect all of the satellite systems within its future service area into one larger coordinated water system better able to serve the public need.

2. Interim service from another water system: In certain circumstances, the most feasible option may be to authorize interim service from a neighboring existing public water system to the proposed new development. Conditions of interim service include:
  - (1) The adjacent water system must have adequate approved system capacity to serve the proposed development from the existing water system; and
  - (2) A written agreement is required between the interim purveyor and the designated future water system defining responsibilities for interim service and long-term water service, including provision for future incorporation into the designated water system. A notice to future property owners shall reference the agreement and the location where a copy can be obtained. The agreement must be filed with the County Auditor.

### **4.3 Service Declined by Municipal System: Priority of Service Process**

If the designated water system declines to provide service to the proposed development, the priority of service process will continue as follows (see Table 4-2, third column):

#### **4.3.1 Service from Neighboring System**

Neighboring public water systems will be identified by the Environmental Health Department for the applicant to contact. The applicant will contact the neighboring public water systems regarding their capacity and interest in

providing service to the proposed development. If a neighboring public water system has capacity and interest in long-term service to the new development, the applicant will negotiate terms from the system and submit the Priority of Service Form to Environmental Health. The conditions of service are incorporated into development approvals as described above.

If the parties cannot agree to terms, the applicant may appeal the water service conditions as described in Section 4.4.

Under this concept, after final approval from the Department of Health and Environmental Health, the service area boundaries of the municipal utility and the neighboring system will be adjusted to reflect the change in water system service areas.

#### 4.3.2 New Independent Water System or Individual Well

Establishment of a new water system or individual well(s) to serve the development may be proposed only if 1.) Thurston County Environmental Health determines that water service is not available from any existing public water systems, or 2.) On appeal, the Hearing Body determines that conditions of service from all other available water system(s) are not reasonable.

The approval process for a public new water system includes the following:

- (1) In conformance with DOH requirements, the new system must be operated by an approved satellite management agency (SMA) if one is available. Written indication of unavailability must be provided from each SMA approved for operation in Thurston County if the applicant desires to establish a new independent water system.
- (2) The applicant must then prepare and a water system plan and construction documents for the system following the regular procedures of DOH.

- (3) DOH and the County must approve the water system plan and adjustment must be made in the service area boundaries of any affected water systems. Pursuant to RCW 70.116.070(2), disputes regarding service area boundaries may be appealed or referred to the Secretary of DOH for resolution.

Use of individual wells must be approved by Environmental Health, including provision of a sanitary radius around the wellhead.

#### **4.4 Appealing Conditions of Service**

If an applicant considers that the terms of water service fail to meet requirements for timely and reasonable service, an appeal may be submitted as described below. Appeals may be filed relating to cost of required facilities to complete a water system extension, but not hookup fees or rates. The process is summarized as follows:

##### **4.4.1. Hearing body**

- (1) Disputes within incorporated areas: Water service appeals related to proposed development within incorporated areas will be addressed through the city's administrative decision appeals procedures.
- (2) Appeals within unincorporated Growth Areas: Appeals of conditions of water service within the Grand Mound UGA and unincorporated portions of other UGAs will be submitted to the Thurston County Hearings Examiner pursuant to Title 2.06 of the Thurston County Code.

##### **4.4.2 Criteria for "timely and reasonable service"**

Criteria considered for appeals of water service conditions, in addition to any other requirements of the prescribed appeal process, shall include consideration of:

- (1) Consistency with DOH “timely and reasonable service” guidance criteria;
- (2) Consistency with the South Thurston County UGA Coordinated Water System Plan and the designated system’s water system plan;
- (3) Consistency with Urban Growth Area Joint Plan land use and utility service policies and objectives; and
- (4) Ensuring that reasonable use of the property is allowed under the proposed terms of service.

#### 4.4.3 Hearing body action

The body hearing the appeal of water service conditions has three options for action:

- (1) Confirm the terms of service proposed by the designated water system;
- (2) Identify specific items where the proposed terms of service do not satisfy criteria of timely and reasonable service, and return the issue to the parties for further negotiation; or
- (3) Advise Environmental Health that the terms offered by the designated system are unreasonable; that no agreement among the parties is feasible; and that the applicant should be free to proceed with the next alternative method of supplying water to his development.

Under this option, the Environmental Health Department will proceed with the Priority of Service process described in Section 4.3. The next priority for service is extension from an existing neighboring public water system. Only in the last resort will a new independent water system be allowed.

## 4.5 Existing Small Water Systems

Minimizing the number of separate water systems is a long-term objective of the Public Water System Coordination Act. Incorporating existing small systems into municipal systems is consistent with this objective. State legislation [RCW 70.116.050(4)(g)] stipulates that a Coordinated Water System Plan “include policies and procedures that generally address failing water systems for which counties may become responsible under RCW 43.70.195.” Policies are discussed below addressing two types of situations: Opportunities to incorporate existing small systems into the central water system; and response to crises situations in management or operation of existing small systems.

#### 4.5.1 Incorporating existing small systems within the various UGA service areas

Particularly at Yelm and Grand Mound, the designated UWSSA’s contain several existing “public” water systems (see maps and tables in Section 3). Some of these systems serve a single existing business. As these businesses and neighborhoods hook up to the sewer systems at these two communities, they will also generally become water customers for potable water service.

Decommissioning an existing public water system requires coordination with several State and County agencies to ensure that regulations are met and databases are updated. See Appendix B for a draft procedure from the Thurston County Grand Mound system to ensure a smooth incorporation of existing small systems into the designated expanding water system.

Three key steps are:

- (1) Notify the Washington Department of Health Drinking Water Program to inactivate the previous water system and add the new service to the municipal system;
- (2) Coordinate with Thurston County Environmental Health to ensure that the well is properly abandoned (or is provided with the required sanitary radius surrounding the wellhead); and



- (3) Consolidate water rights into the municipal rights through action of the Washington Department of Ecology or the Thurston County Water Conservancy Board.

Inadequate attention to these procedural details may result in problems such as:

- \* Notices of sampling noncompliance from DOH to the former water system operator - even though they are no longer in the water business;
- \* Lack of timely action to properly abandon wells. This may result in unused wells having protective radius compromised by new development or other conflicts with intended uses of the land.

#### 4.5.2. Designated system response in event of small water system failure

There is the potential that certain existing small water systems within UWSSAs will encounter significant problems in source of supply, source protection, or operational viability.

It will generally be preferable for these small water systems to be integrated into the designated water system, provided financing and other conditions of the designated system are met. Through this approach, it should be possible to avoid or greatly reduce the potential that any water system would go into formal receivership. Receivership is a court action, which occurs when there is serious failure of the water system operator to perform (see RCW 43.70.195). However, the receivership process is very difficult for all participants and is not the preferred route for resolving small water system problems.

## **5. PROSPECTS FOR JOINT FACILITIES AND MANAGEMENT PROGRAMS WITHIN THE SOUTH THURSTON COUNTY UGA URBAN WATER SUPPLY SERVICE AREA**

### **5.1 Potential for Joint Activities Between the Purveyors**

Due to the distance between the various UGA service areas, development of joint facilities is not feasible. Joint management efforts may evolve in the future, such as efforts to improve water rights processing within the region or within specific basins.

### **5.2 Emergency interties**

Emergency intertie between the municipal and county purveyors included in the South Thurston County ACWSP is not feasible due to distance between service areas. Such emergency interties should be considered in individual water system planning. The tables in Chapter 3 identify other public water systems within or in the general vicinity of the UGA water systems. While opportunities are limited by the small number and/or limited size of most other water systems in the various UGA service areas, the larger Group A Community systems may achieve mutual benefit from emergency intertie to increase reliability of service. One example is the existing intertie between the Town of Rainier water system and the Rainier Sportsman's Club system.

## **6. PLAN IMPLEMENTATION AND REVIEW**

### **6.1 Water System Plans**

Water system plans update is an on-going process. Prior to approval by DOH, Thurston County Environmental Health will review and comment on each comprehensive plan to ensure consistency with the recommendations of the Area-Wide Supplement and growth management policies related to water system coordination. This review will insure the maximum coordination of water system planning within the Urban Water Supply Service Area.

### **6.2 Revision of Future Service Areas**

External boundaries of the Urban Water Supply Service Area (UWSSA) should be revised at the same time as future revisions to the Urban Growth Area (UGA) boundaries, to ensure coordination of growth management planning with water utility planning.

County Commissioner and city council/commission public hearing process on revision of a UGA should specifically include concurrent consideration of the UWSSA boundaries. This parallel revision should be noted in legal notices and public information. Final action taken by resolution or ordinance should concurrently revise the UGA boundary and the external boundaries of the UWSSA.

## **APPENDIX A: GLOSSARY OF ACRONYMS AND TERMS**

### **Acronyms:**

CWSP:	South Thurston County UGA Coordinated Water System Plan
DOH:	Washington State Department of Health
UGA:	Urban Growth Area designated by mutual agreement of the affected municipality and Thurston County
UWSSA:	Urban Water Supply Service Area

### **Terms:**

#### **“Area-wide Supplement”**

Supplementary provisions addressing area wide water system concerns of the Coordinated Water System Plan. Contents as stipulated in RCW 70.116.050(4) and WAC 246-293 include:

- Assessment of related adopted plans;
- Identification of future service areas for expanding systems;
- Minimum area wide water system design standards including fire flow;
- Procedures for authorizing new water systems in the Critical Water Supply Service Area;
- Assessment of potential shared facilities or programs including agency interties;
- Satellite system management requirements; and
- Policies and procedures generally addressing failing water systems for which counties could become responsible under RCW 43.70.195.

#### **“Abbreviated Coordinated Water System Plan (ACWSP)”**

This is a plan for public water systems within a critical water supply service area as identified through the Public Water System Coordination Act (RCW 70.116.) The Plan consists of the approved Water System Plans for systems within the designated area plus an Area wide Supplement. These documents identify the present and future water system concerns and set forth a means for meeting these concerns in the most efficient manner possible, as stipulated in WAC 246-293-110.

#### **“Designated water system”**

The designated water system is the water purveyor identified to provide service to a given service area. When willing to provide the service in a timely and reasonable manner, the designated water system is assigned a priority right to provide public water service to the area. Expanding designated water systems must have an approved future service area identified in the Area wide Supplement and an approved Water System Plan incorporating the future service area. Non-expanding water systems will be the designated water system within their existing area of water distribution.

**“Interim Water Service”**

Interim water service is allowed within the UWSSA where water is not available in a timely manner by direct service from the designated utility. The assumption is that the designated utility will eventually incorporate the interim system into the central water system. The designated water system, an adjoining existing water system or an approved satellite system operator may provide interim service.

**“South Thurston County UGA Urban Water Supply Service Area (UWSSA)”**

This is the area where efficient and orderly urban-level development may best be achieved through coordinated planning by public water systems in the area. The boundaries of the South Thurston County UWSSA are the growth management areas for Yelm, Rainier, Tenino and Grand Mound and the incorporated area of Bucoda.

**“Public Water System Coordination Act (Coordination Act)”**

Regulations contained in RCW 70.116 and WAC 246-293 establishes a process to coordinate the planning of public water supplies.

**“Time of project development”**

The time of project development is the projected time that water service will be required to serve the occupants of a proposed development. The project proponent as part of the development review process will identify this, with confirmation by the Health Department. The “time of project development” cannot precede the projected time that building permits could be issued for the project.

## APPENDIX B

## GRAND MOUND WATER AND SEWER UTILITY: PROPOSED CONNECTION POLICY

### The Board's intent is:

1. Require existing commercial, industrial and residential uses which exceed allowable density on septic to connect to the sewer and water system: The volume and strength of waste generally associated with these uses warrants centralized sewage system collection and treatment, to reduce exposure of ground water to contamination from on-site septic systems.
2. Allow flexibility for existing low-density residential uses to continue using individual wells and on-site systems provided groundwater quality or public health is not endangered: On-site systems must continue to meet all operating requirements.
3. Provide flexibility to defer connection to sewer and water where existing unoccupied commercial or industrial structures are slated for removal or renovation.
4. Recognize that a single public water supply for the Grand Mound area will meet public interest by enhancing reliability of service and management of groundwater resources. Thus, connection to water will be required at the time of connection to sewer.
5. Ensure compliance with State and local regulations regarding well abandonment, cross-connection and other concerns regarding groundwater protection and public health.

### Summary of connection requirements:

ZONING	LAND USE							
	Single-Family Residential		Multi-Family		Commercial		Industrial	
	Existing	New	Existing	New	Existing	New	Existing	New
Residential 3-6 Units/Acre and 4-16 Units/Acre	Defer connection until on-site failure or redevelopment	Required connection	Required connection if above allowable density for on-site; otherwise defer until on-site failure or redevelopment	Required connection	Required connection unless vacated within 24 months	Not allowed	Required connection unless vacated	Not allowed
Arterial Commercial	Defer connection until on-site failure or redevelopment	Not allowed	Same as above	Required connection	Required connection unless vacated	Required connection	Required connection unless vacated	Not allowed
Planned Industrial District and Light Industrial	Defer for non-conforming residences (must connect caretaker quarters)	Caretakers residences only: Connection required	Not applicable	Not allowed	Required connection unless vacated	Required connection	Required connection unless vacated	Required connection

Note: This simplified table does not address every situation. Detailed regulations are contained in the utility ordinance.

## **APPENDIX C: CONVERSION OF EXISTING “PUBLIC” WATER SYSTEMS TO GRAND MOUND WATER SYSTEM**

*Note: The following draft procedure was prepared for the Thurston County Grand Mound Water System in conjunction with DOH and Environmental Health staff. The procedure identifies actions to ensure a smooth transition from a small “public” water system to the designated UWSSA utility. Inadequate attention to the details discussed below may result in problems such as:*

*\* Notices of sampling noncompliance from DOH to the former water system operator;*

*\* Lack of timely action to properly abandon wells. This may result in unused wells having protective radius compromised by new development or other conflicts with intended uses of the land.*

Extending Thurston County Grand Mound (TCGM) water service to existing commercial uses will generally involve inactivation of a previously existing “public” water system. There are several steps in the process that need to be followed to avoid confusion and ensure compliance with State requirements.

1. **Inactivate the previous public water system; AND add a new service to the TCGM water system** (commercial and multi-user residential systems only). W&WM notifies Rich Hoey at Washington Department of Health (DOH) concerning a change in water system status with:
  - a) Statement that TCGM water system is to serve property that previously operated an independent “public” water system;
  - b) Documentation that cross contamination has been eliminated through either:
    - (1) Disconnecting the well from plumbing and pulling pump facilities; or,
    - (2) Installing a backflow device;
  - c) Request to inactivate previous water system WFI (include water system i.d. number); and add water service data to TCGM WFI; and,
  - d) Request that DOH provide a copy of the WFI following inactivation for our files.
2. **Abandonment or Conversion of Existing Well:** Property owner notifies Phil Brinker at Thurston County Environmental Health (TCEH) that the existing well is to be abandoned OR converted to irrigation use (see WAC 173-160-381). Applies to all existing development connecting to the TCGM system.

IF well is to be abandoned:

  - a) Prior to work: Driller (or property owner) submits Start Notice to DOE and Notice of Intent to Drill to TCEH prior to work (72 hours minimum).
  - b) Following work: Driller submits Driller’s Report to DOE.

IF well is to be converted:

  - a) Property owner submits evidence of 100-foot protective radius to Phil Brinker, TCEH.
3. **Annual Submittal to DOE for Consolidation of Water Rights:** Application to consolidate the water rights for sources that have been replaced by TCGM service will be periodically submitted to DOE. Both formal water rights and exempt sources may be requested for consolidation to the TCGM water right. Information sources for W&WM staff in completing the application for water right consolidation:
  - a) WFI’s of inactivated systems: From W&WM files or DOH SADIE system. Documents the population served and location of the former use. SADIE includes source information.
  - b) Driller’s Reports of properly abandoned wells: From TCEH. Submit request to Phil Brinker for Driller’s Reports by tax parcel number and former water system name.

**APPENDIX D:      NON-PROJECT ENVIRONMENTAL CHECKLIST**



## ENVIRONMENTAL CHECKLIST

<p><b>1. Proponent (c):</b> Board of Thurston County Commissioners</p> <p>Address: 2000 Lakeridge Dr SW Olympia WA 98502</p> <p>Phone: (360) 357-2491</p> <p><b>2. Representative:</b> Tom Clingman</p> <p>Address: Thurston County Water &amp; Waste Mgt. 921 Lakeridge Dr SW Room 100 Olympia WA 98503</p> <p>Phone: (360) 357-2491</p> <p><b>3. Property Address or location (e):</b> Designated Urban Growth Areas of Grand Mound, Rainier, Tenino and Yelm in southern Thurston County</p> <p><b>4. 1/4 S/T/R (f):</b> n/a</p> <p><b>5. Tax Parcel # (g):</b> n/a</p> <p><b>6. Total Acres:</b> Grand Mound UGA - 890 acres Rainier UGA - 1,430 acres Tenino UGA - 1,230 acres Yelm UGA - 6,030 acres</p> <p><b>7. Permit Type:</b> Non-project policy adoption of Coordinated Water System Plan</p> <p><b>8. Zoning:</b> n/a</p> <p><b>9. Shoreline Environment:</b> n/a</p> <p><b>10. Water Body:</b> n/a</p>	<p>***** OFFICIAL USE ONLY *****</p> <p>SEPA # (A): _____</p> <p>Case # (b): _____</p> <p>Related Cases: _____</p> <p>Date Received: _____</p> <p>Submittal: Complete _____</p> <p>Incomplete _____</p> <p>Information Requested: _____</p> <p>_____</p> <p>Proposal (d): _____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>***** OFFICIAL USE ONLY *****</p>
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- 11. Brief Description of the Proposal and Project Name:** Designation of the Grand Mound, Tenino, Rainier and Yelm Urban Growth Areas as Critical Water Supply Service Areas under the Public Water System Coordination Act (RCW 70.116); and adoption of an Abbreviated Coordinated Water System Plan Area-Wide Supplement for the South Thurston County Urban Growth Areas.
- 12. Did you attend a presubmission conference for this project?** Yes n/a No \_\_\_\_\_  
If yes, when? \_\_\_\_\_
- 13. Estimated Completion Date:** Adoption anticipated in late 1999 or early 2000.
- 14. List of all Permits, Licenses or Government Approvals Required for the Proposal (federal, state and local--including rezones):** Approval of the Board of County Commissioners and the Washington Department of Health pursuant to RCW 70.116.
- 15. Do you have any plans for future additions, expansion or further activity related to or connected with this proposal? If yes explain:** See following question.

- 16. Do you know of any plans by others which may affect the property covered by your proposal?**  
**If yes, explain:** Adoption and revision of Water System Plans for the designated utilities addressing water service within the long-term service areas; expansions of the designated water systems to serve the identified growth areas.
- 17. Proposed timing or schedule (including phasing, if applicable):** n/a
- 18. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.** Environmental Impact Statements were prepared for the Joint Comprehensive Plans for Growth Management for Yelm, Rainier and Tenino. See also the Environmental Impact Statement for the Grand Mound Urban Growth Area Sub-Area Plan.

ENVIRONMENTAL ELEMENTS**1. Earth**

- a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other \_\_\_\_\_.**

Not applicable

- b. What is the steepest slope on the site (approximate percent slope)?**

Not applicable

- c. What general types of soils are found on the site (for example, clay, sand gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.**

Not applicable

- d. Are there surface indicators or history of unstable soils in the immediate vicinity? If so, describe.**

Not applicable

- e. Describe the purpose, type and approximate quantities of any filling or grading proposed. Indicate source of fill.**

Not applicable

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**

Not applicable

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

Not applicable

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:**  
Development-related impacts from anticipated land uses within the designated Urban Growth Areas are not considered in this Checklist. The proposed Coordinated Water System Plan does not designate additional areas of future growth. The CWSP is in response to the existing designation of the Urban Growth Areas through the Comprehensive Planning processes of the jurisdictions and provisions of the State Growth Management Act. Policy-level consideration of growth impacts on the environment was conducted as part of the Comprehensive Plan adoption processes.

The CWSP links the adopted Urban land use designations with provision of long-term water service appropriate for urban levels of development. The proposed Plan provides a framework for ensuring reliable, timely service through designating the municipal water utilities of Yelm, Rainier and Tenino and the Thurston County Grand Mound water utility as the priority water purveyor within their respective Growth Areas.

**2. Air**

- a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.**

Not applicable

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.**

Not applicable

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:**

3. Not applicable

**Water****a. Surface**

- (1) **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

Not applicable

- (2) **Will the project require any work over, in or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

Not applicable

- (3) **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

Not applicable

- (4) **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

No

- (5) **Does the proposal lie within a 100-year flood plain? If so, note location on the site plan.**

Not applicable

- (6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

Not applicable

**b. Ground**

- (1) **Will ground water be withdrawn, or will water be discharged to ground water. Give general description, purpose, and approximately quantities if known.**

For domestic water service purposes, the Water System Plans for the affected utilities project the following water usage (in millions of gallons per year):

<u>Current Usage</u>		<u>2015 Usage</u>
Tenino	189,000 gpd (1995)	218,000 gpd
Rainier	170,000 gpd	353,000 gpd (2017)
Yelm	886,000 gpd	6,240,000 gpd (2014)
Grand Mound	(service initiated 1999)	324,309 gpd
(Phase I build out)		

- (2) **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage; industrial, containing the following chemicals . . .; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

Not applicable

**c. Water Runoff (including stormwater)**

- (1) **Describe the source of runoff (including stormwater) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

Not applicable

- (2) **Could waste material enter ground or surface water? If so, generally describe.**

Not applicable

**d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:**

Implementation of conservation plans and other measures identified in CWSP and Water System Plans related to prudent use of water sources. General impacts of growth are not pertinent to this Checklist. See response to Question 1(h).

**4. Plants****a. Check or circle types of vegetation found on the site:**

- ☐ Deciduous tree: alder, maple, aspen, other  
☐ Evergreen tree: fir, cedar, pine, other  
☐ Shrubs  
☐ Grass  
☐ Pasture  
☐ Crop or grain  
☐ Wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other  
☐ Water plants: water lily, eelgrass, milfoil, other  
☐ Other types of vegetation

Not applicable

**b. What kind and amount of vegetation will be removed or altered?**

Not applicable

**c. List threatened or endangered species known to be on or near the site.**

Not applicable

- d. **Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:**  
Not applicable

5. **Animals**

- a. **Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:**

**Birds:** hawk, heron, eagle, songbirds, other:

**Mammals:** deer, bear, elk, beaver, other:

**Fish:** bass, salmon, trout, herring, shellfish, other:

Not applicable

- b. **List any threatened or endangered species known to be on or near the site.**

Not applicable

- c. **Is the site part of a migration route? If so, explain.**

Not applicable

- d. **Proposed measures to preserve or enhance wildlife, if any:**

See response to Question 1(h).

6. **Energy and Natural Resources**

- a. **What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

Not applicable

- b. **Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

Not applicable

- c. **What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:**

Not applicable

7. **Environmental Health**

- a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.**

Not applicable

- (1) **Describe special emergency services that might be required.**

Not applicable

- (2) **Proposed measures to reduce or control environmental health hazards, if any:**

See response to Question 1 (h).

- b. **Noise**

- (1) **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

Not applicable

- (2) **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.**

Not applicable

- (3) **Proposed measures to reduce or control noise impacts, if any:**

Not applicable

**8. Land and Shoreline Use**

- a. What is the current use of the site and adjacent properties?**

Urban level development in core areas. Outlying portions of UGAs have low-density development at this time.

- b. Has the site been used for agriculture? If so, describe.**

Not applicable

- c. Describe any structures on the site.**

Not applicable

- d. Will any structures be demolished? If so, what?**

Not applicable

- e. What is the current zoning classification of the site?**

Various urban-level residential and commercial zones apply within the areas currently intended for urban development. Low-density "holding" zones (1 Unit/5 Acres) apply to nearly all of the unincorporated portions of the Tenino, Rainier and Yelm UGAs: These areas are anticipated for future rezone to Urban designations at the time of annexation to the municipalities. A small area of unincorporated UGA is zoned for commercial development at Yelm and Rainier based on existing commercial uses at these sites.

The entire Grand Mound UGA has urban-level zoning classifications.

- f. What is the current comprehensive plan designation of the site?**

All areas subject to the proposed Coordinated Water System Plan are designated as Urban Growth Areas in the applicable Comprehensive Plans. Yelm, Tenino and Rainier each have a UGA Joint Plan adopted by the municipality and Thurston County. Grand Mound UGA policies are contained in the Grand Mound Sub-Area Plan.

See question above for a general discussion of the various land use designations within the UGAs.

- g. If applicable, what is the current Shoreline Master Program designation of the site?**

Not applicable

- h. Has any part of the site been classified an "environmentally sensitive" area? If so, specify.**

Not applicable

- i. Approximately how many people would reside or work in the completed project?**

Not applicable

- j. Approximately how many people would the completed project displace?**

Not applicable

- k. Proposed measures to avoid or reduce displacement impacts, if any?**

Not applicable.

**I. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:**

The Comprehensive Plans for each of the Urban Growth Areas identify the municipalities (and Thurston County at Grand Mound) as the intended suppliers of urban-level water service. The proposed Coordinated Water System Plan would ensure that water service review for new development by State and County health agencies prioritizes service from these designated water utilities.

The CWSP also emphasizes the obligation of the designated utilities to plan for ultimate service throughout their adopted future service areas, which are the designated UGAs. This will help guide updates of 6-year improvement strategies in Water System Plans. The CWSP will also help guide longer-term activities such as securing adequate water rights to meet long-term water service obligations of the designated Urban Growth Area utilities.

**9. Housing**

**a. Approximately how many units would be provided, if any? Indicate whether high-, middle-, or low-income housing.**

Not applicable

**b. Approximately how many units, if any, would be eliminated? Indicate whether high-, middle-, or low-income housing.**

Not applicable

**c. Proposed measures to reduce or control housing impacts, if any:**

Not applicable

**10. Aesthetics**

**a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

Not applicable

**b. What views in the immediate vicinity would be altered or obstructed?**

Not applicable

**c. Proposed measures to reduce or control aesthetic impacts, if any:**

Not applicable

**11. Light and Glare**

**a. What type of light or glare will the proposal produce? What time of day would it mainly occur?**

Not applicable

**b. Could light or glare from the finished project be a safety hazard or interfere with views?**

Not applicable

**c. What existing off-site sources of light or glare may affect your proposal?**

Not applicable

**d. Proposed measures to reduce or control light and glare impacts, if any:**

Not applicable

**12. Recreation**

**a. What designated and informal recreational opportunities are in the immediate vicinity?**



Not applicable

**b. Would the proposed project displace any existing recreational uses? If so, describe.**

Not applicable

**c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

See response to Question 1 (h).

**13. History and Cultural Preservation**

**a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.**

Not applicable

**b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.**

Not applicable

**c. Proposed measures to reduce or control impacts, if any:**

Not applicable

**14. Transportation**

**a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.**

Not applicable

**b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?**

Not applicable

**c. How many parking spaces would the completed project have? How many would the project eliminate?**

Not applicable

**d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).**

Not applicable

**e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

Not applicable

**f. How many vehicular trips per day would be generated by the completed projects? If known, indicate when peak volumes would occur.**

Not applicable

**g. Proposed measures to reduce or control transportation impacts, if any:**

See response to Question 1 (h).

**15. Public Services**

**a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.**

Not applicable

**b. Proposed measures to reduce or control direct impacts on public services, if any.**

See response to Question 1(h).

**16. Utilities**

- a. **Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.**

Water service is currently provided within the municipal limits of Yelm, Tenino and Rainier by their respective municipal water utilities, with a small amount of service to adjoining unincorporated development. A few other public water systems exist within each UGA. These are described in the Plan.

- b. **Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

The municipal utilities of Yelm, Rainier and Tenino are the proposed designated water purveyors within their respective Urban Growth Areas, with Thurston County the designated system for the Grand Mound UGA.

Over time, extension of the water systems into the Growth Area will occur as development proceeds. In general, water line extensions will be installed by the developer per the standards of the designated water system. To meet long-term service demands, each utility will also need to develop additional water rights, wells and storage facilities as defined in their Water System Plans.

**SIGNATURE**

**The above answers are true and complete to the best of my knowledge. I understand that the land agency is relying on them to make its decision.**

**Date Submitted:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**SUPPLEMENTAL SHEET FOR NON-PROJECT ACTIONS (do not use this sheet for project actions)**

**Non- project proposals are those which are not tied to a specific site, such as adoption of plans, policies, or ordinances.**

**Because these questions are very general, It may be helpful to read them in conjunction with the list of the elements of the environment. When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.**

- 1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?**

The CWSP provides coordination of water service in response to anticipated growth as envisioned in the adopted Urban Growth Area plans. Coordination of water service will not itself create the growth-related impacts listed above. Environmental review of impacts from anticipated urban development was included in the Comprehensive Plan process that led to designation of each Urban Growth Area.

**Proposed measures to avoid or reduce such increases are:**

As described above, environmental review related to avoiding or reducing anticipated impacts from urban development was included in the Comprehensive Plan process related to each Urban Growth Area included in the proposed CWSP.

- 2. How would the proposal be likely to affect plants, animals, fish, or marine life?**

See response to Question 1 regarding general issues of growth-related impacts.

Development of additional water source will be necessary in each UGA to provide long-term service throughout the designated Growth Areas. Potential affects from capture of surface water by wells will be carefully considered during the planning and permitting process, especially where there is possible continuity between the groundwater resource proposed for use and surface waters with low-flow fish habitat concerns.

**Proposed measures to protect or conserve plants, animals, fish, or marine life are:**

These measures will be identified during planning and permitting of specific groundwater withdrawals and other water system development activities.

- 3. How would the proposal be likely to deplete energy or natural resources?**

See response to Question 2.

**Proposed measures to protect or conserve energy and natural resources are:**

Conservation targets and activities will be identified in approved Water System Plans. Measures to protect instream resources will be identified during planning and permitting of specific groundwater withdrawals

- 4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, flood plains, or prime farmlands?**

See response to Question 1.

**Proposed measures to protect such resources or to avoid or reduce impacts are:**

See response to Question 1.

- 5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?**

See response to Question 1.

**Proposed measures to avoid or reduce shoreline and land use impacts are:**

See response to Question 1.

**6. How would the proposal be likely to increase demands on transportation or public services and utilities?**

The proposed Coordinated Water System Plan does not create increased demand for water service. The Plan establishes a framework for *response* to the anticipated growth as forecast in the Urban Growth Area Comprehensive Plans, to ensure that adequate urban-level water service is provided to support the anticipated land uses.

**Proposed measures to reduce or respond to such demand(s) are:**

The CWSP links the land use plans adopted by the local governments with water service review conducted by the State and local health authorities. The municipalities (and the County at Grand Mound) are designated as the priority purveyors throughout their respective Growth Areas, to provide clarity regarding service to new development and clarity regarding the long-term responsibilities of the designated utilities to plan for ultimate service extension throughout the UGA.

**7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.**

The proposed Plan responds to the need for timely provision of urban-level services within designated Urban Growth Areas, as stipulated in the Growth Management Act and local growth management policies. The proposed Abbreviated Coordinated Water System Plan follows the format and procedure delineated by the Water System Coordination Act.

In the long term, each of the designated utilities appears to require additional source to meet their obligation to provide service throughout their UGA. Source development will need to be pursued with attention to possible conflicts with surface water management, particularly concerns about low-flow conditions as defined by Instream Resource Protection Programs, WRIA Watershed Plans or other plans.