

NORTH THURSTON COUNTY
COORDINATED WATER SYSTEM
PLAN

AREA-WIDE SUPPLEMENT

1996

**THURSTON COUNTY
COORDINATED WATER SYSTEM PLAN
AREA-WIDE SUPPLEMENT**

ABSTRACT

This report comprises the Area-Wide Supplement portion of a Coordinated System Plan (CWSP) for Thurston County established under the provisions of the Public Water System Coordination Act (RCW 70.116) for the urban area of North Thurston County designated as the Urban Water Supply Service Area (UWSSA).

This is an update of the document approved in 1986. The remaining portions of the CWSP are the individual water system plans prepared by each water system that plans to expand in the future.

This Area-Wide Supplement addresses the following issues:

Designation of the UWSSA	Chapter 1
Water System Service Areas	Chapter 2
Water System Development Standards	Chapter 3
Utility System Review and Approval Process	Chapter 4
Water Rights Reservation	Chapter 5
Joint Facility Potential	Chapter 6
Implementation	Chapter 7

The policies and recommendations contained in this Area-Wide Supplement will encourage the effective coordination and development of water systems capable of meeting the domestic and fire protection water requirements of the property owners and residents of the North Thurston urban area.

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1. SUMMARY AND IMPLEMENTATION

1.1 Purpose of the North Thurston County CWSP

In the 1980's, the Cities of Lacey, Olympia, and Tumwater were concerned regarding the impact of existing policy on future annexations and water system consolidations and the potential added costs to the water system users. Consequently, the cities of Lacey and Olympia formally requested the County to lead a coordination study under the provisions of the Public Water System Coordination Act (RCW 70.116). The Thurston County Coordinated Water System Planning Study was undertaken in 1982-85 by Thurston County in order to develop policies and procedures to improve existing water system development practices in the unincorporated areas of the North Thurston Urban area. In particular, the proliferation of small, inadequate water systems serving individual land development projects was of concern. Many of these systems are built to less than acceptable urban water system standards and are unable to offer fire protection to the properties they serve.

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

- ♦ Discourage the proliferation of small, inadequate water systems in the urban growth area.
- ♦ Ensure reliable urban-level water service within the North Thurston County Urban Growth Management Area. In the long term, urban-level water service should include fire flow to all developments in the urban area.
- ♦ Provide predictability and a timely permitting process for water purveyors, developers and other parties regarding water service in the North County UGA.
- ♦ Coordinate timely land use development approvals with long-term water system objectives and plans.

This report is an update of the 1986 Area-Wide Supplement portion of the Coordinated Water System Plan. A Coordinated Water System Plan (CWSP) consists of two elements:

Area-Wide Supplement

A set of provisions applying to all public water systems within a Urban Water Supply Service Area (UWSSA) establishing requirements for the development and coordination of those systems. Minimum requirements for the Area-Wide Supplement specified in State guidelines as of 1/96 include:

- ♦ design standards including fire flow,
- ♦ service area maps for expanding systems,
- ♦ procedures for authorizing new systems which minimize proliferation,

- ♦ assessment of potential shared facilities, including intertie and transferring facilities and wheeling of water supplies,
- ♦ satellite system management requirements, and
- ♦ policies and procedures which generally address failing water systems for which counties may become responsible under RCW 43.70.195.

Individual Water System Plans

Prepared by all water systems required to do so by law, and in particular by all water systems within the UWSSA which plan on expanding their service to new areas in the future. The establishment of recognized future service areas is part of these water system plans.

The water purveyors which have indicated their intent to expand are Lacey, Olympia, Tumwater, South Sound Utility, Pattison and Meadows.

All water systems within the UWSSA which plan to expand have been notified of their requirement under RCW 70.116.060 for the preparation of water system plans.

1.2 Study Process

Establishment of the UWSSA: 1980-86 Planning Process

Following the preliminary assessment, which was prepared by the Department of Social and Health Services (DSHS) in 1980, the Thurston County Commissioners passed a motion in 1984 declaring their intention of implementing the Public Water System Coordination Act within a broad area including all of the urbanizing area of North Thurston County. As called for in the Act, Thurston County was the sponsoring agency for the development of the Coordinated Water System Plan.

In 1984, Thurston County, following the guidelines of the Act, appointed a Water Utility Coordinating Committee (WUCC) composed of representatives of all water systems within the North Thurston area having 50 or more users. The County, together with the WUCC, began the study process by interviewing and selecting a consultant to assist in the preparation of the Area-Wide Supplement. Warren Consultants, Inc. of Seattle was chosen to be the prime consultant. The County also contracted with Thurston Regional Planning Council (TRPC) for local staff support, information, and coordination with the consultant during the study.

The first step by the Consultant and the County staff was to develop a work program for preparing the Area-Wide Supplement. Using this, together with the activities of the WUCC and others involved in water supply in the area, a grant application was prepared and submitted to the Department of Social and Health Services for a 50 percent matching grant to fund the preparation

of the Area-Wide Supplement. This grant was approved by DSHS on March 13, 1984 and the study began.

The investigative work of the 1984-86 study was performed by Warren Consultants, Inc. and County Planning staff. Together they developed a series of recommendations regarding each of the study elements. These elements were submitted to the WUCC for discussion and the development of policies. Through a series of more than 35 meetings, WUCC developed policy positions on each of the various study elements, outlined below, and submitted these recommendations to the Thurston County Commissioners for action.

The open public meetings of the WUCC provided a forum for the thorough discussion of issues prior to their presentation to the County Commissioners. This, together with regular mailings to all affected water systems within the study area and the later Urban Water Supply Service Area (UWSSA), ensured that all water systems would have an opportunity to participate in the development of the Area-Wide Supplement and the overall Coordinated Water System Plan.

The original Area-Wide Supplement was adopted by the Board of Thurston County Commissioners in January, 1986 and approved by the Washington State Department of Social and Health Services effective January 29, 1986.

Throughout the 1986 study, every effort was made to incorporate the prior planning and land use determinations of the County and the other jurisdictions within the study area.

1996 CWSP Update

In March 1996, the Board of Thurston County Commissioners referred several draft Areawide Supplement policy and procedure revisions to the WUCC for recommendation. As stipulated by State guidelines, all water systems with over 50 customers were invited to participate on the WUCC. The WUCC met four times to review the items referred by the Board. Seven private purveyors actively participated, along with the three cities, the PUD, the Fire Marshall, and local and State health staff. Several of the participants were involved with formulating the original 1986 CWSP, and provided valuable insight into the original intent of various provisions in the Plan.

The revisions recommended by the WUCC included:

- ♦ Increase flexibility in water system construction standards regarding storage and installation of fire hydrants which lack fire flow at the time of development;
- ♦ Clarify the water service review process, including encouraging use of the presubmittal review process and specifying alternative service which may be available without altering future water service boundaries of the designated system (such as satellite service or interim service from a neighboring water system).

- ♦ Revise the Urban Water Supply Service Area external boundary to be consistent with the current (1996) Urban Growth Area (UGA) boundary. Revise the Growth Management procedures to ensure that future proposed UGA boundary expansions are referred to the WUCC for comment prior to adoption, to ensure that urban-level water is feasible and to keep the UGA and CWSP boundaries as consistent as possible.
- ♦ Support for annual meetings of the WUCC to explore issues of mutual interest such as water resource development, CWSP implementation, and failing small water systems.

A number of other changes were proposed by staff to update terminology and reflect current conditions regarding the CWSP.

Comment was specifically solicited from the three cities regarding consistency of the revised CWSP with growth management policies and the municipal water system plans.

Service area maps were updated through requesting information from all Group A Community systems in the UWSSA. This included service areas for designated expanding systems as well as current service areas for non-expanding systems. These maps are available from Thurston County Environmental Health.

1.3 Major Study Elements and Findings

The Water System Coordination Act (RCW 70.116) and the subsequent Washington Department of Health (DOH) administrative regulations (WAC 246-293) provide for specific issues to be addressed in preparing a Coordinated Water System Plan and the Area-Wide Supplement portion thereof. Progress since 1986 and significant new issues addressed by this Area-Wide Supplement are:

1.3.1 Boundaries of the Urban Water Supply Service Area

One of the first requirements for an Area-Wide Supplement for a Coordinated Water System Plan is the establishment of specific legal boundaries for what is known in the Act as the Critical Water Supply Service Area (CWSSA) (WAC 246-293-110). This is the area in which all of the other requirements of the Act will be applied. After a thorough review of a number of planning area options, the WUCC recommended a set of external boundaries for the Thurston County Coordinated Water System Plan to the County Commissioners, titled the Thurston County Urban Water Supply Service Area (UWSSA). The County Commissioners modified the recommended boundary and on October 23, 1984, the County Commissioners adopted an initial boundary for the Urban Water Supply Service Area (UWSSA) comprised of the Urban Growth Management Planning Area boundary plus those areas where existing water systems provided service beyond this boundary. This boundary closely approximated the future water service areas of the three cities, established by mutual agreement and approved by the Boundary Review Board in 1975. Figure 1 shows the 1986 UWSSA boundary adopted by the County Commissioners and approved by DSHS. This boundary was determined to best

meet the boundary criteria set forth in WAC 248-56-610. Most importantly, it encompassed the existing and planned urban area and the area with the most coordination needs.

The 1996 update includes revised external boundaries consistent with the original UWSSA boundary rationale (see Figure 2). The 1996 update also includes a process for future revisions intended to maintain consistency between the Urban Growth Area (UGA) and UWSSA boundary. See Section 7, Plan Implementation.

FIGURE 1: 1986 BOUNDARY OF THE URBAN WATER SUPPLY SERVICE AREA

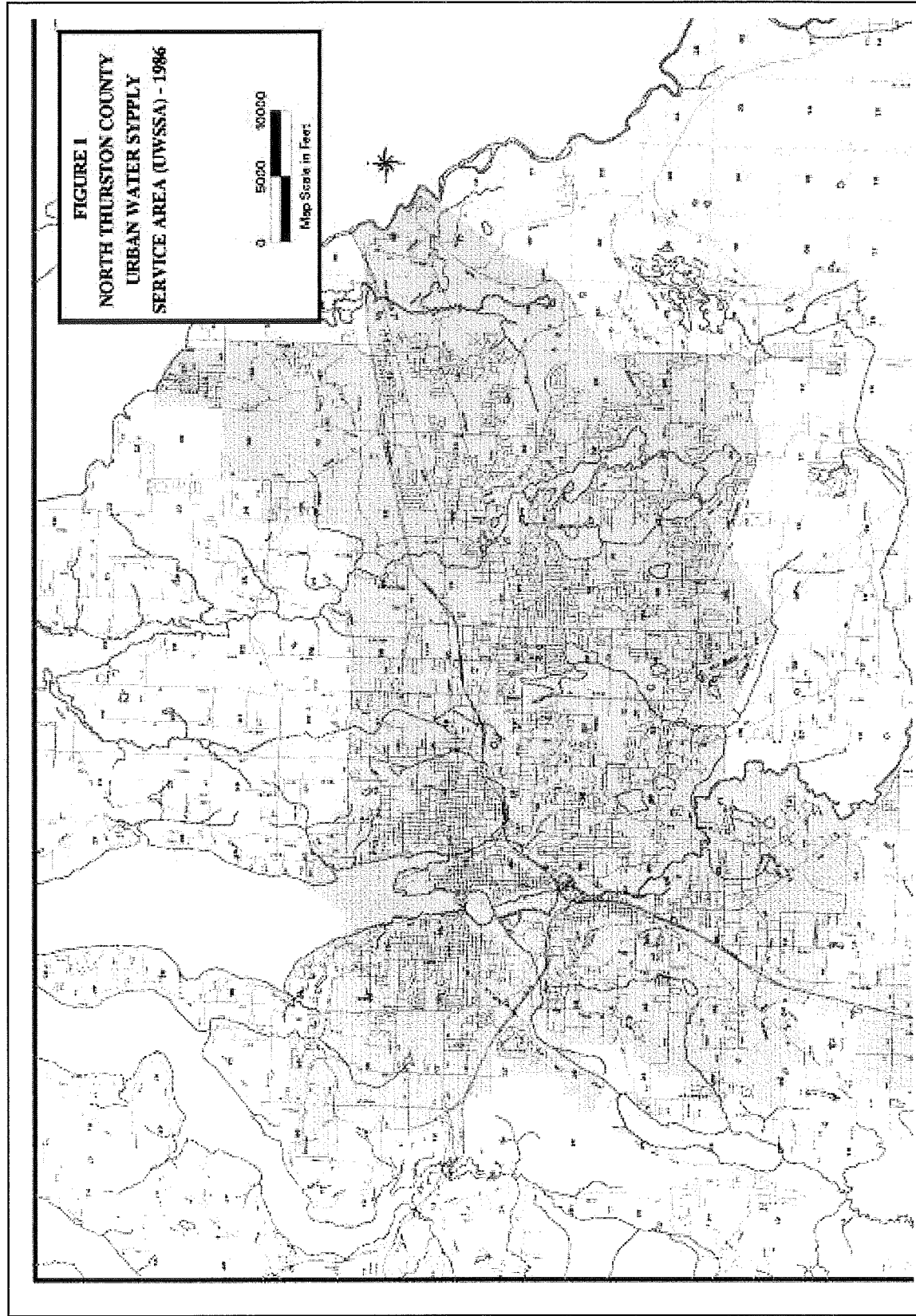
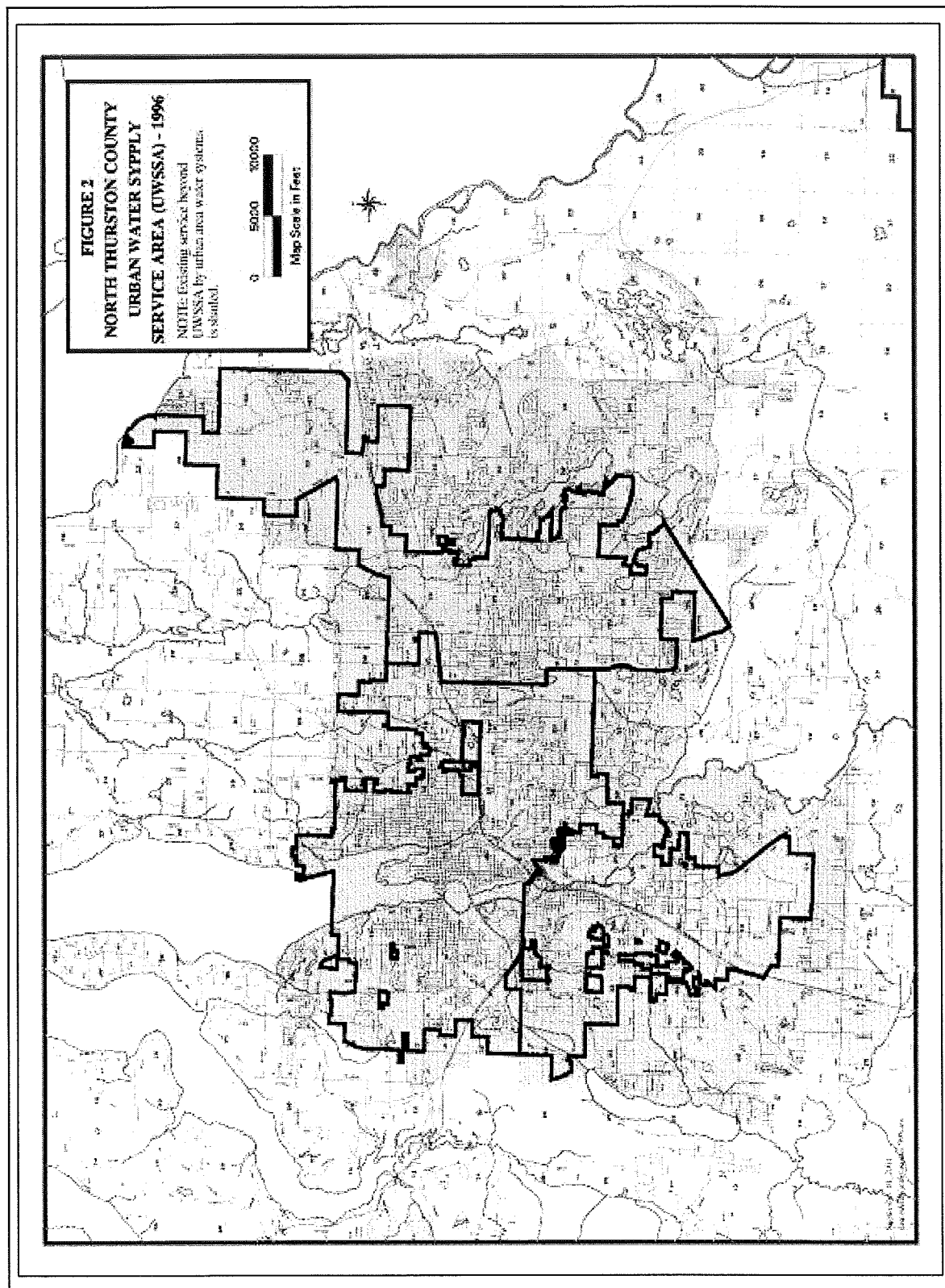


FIGURE 2: 1996 BOUNDARY OF THE URBAN WATER SUPPLY SERVICE AREA



1.3.2 Service Areas and Water System Plans

During the 1984-86 planning process, all water systems within the UWSSA were asked to identify their existing service areas. They were given the opportunity to project and indicate areas where they would plan for and provide water service in the future. Each of the larger water systems having more than 50 users was contacted and interviewed to discuss their existing and potential future boundaries. Following the interview process, all systems within the UWSSA were formally notified of the requirement of the Act and asked to submit maps and descriptions of their existing service and any future boundaries they wish to serve. Where the responses from the water systems indicated that conflict existed with other adjacent water systems, each system was notified of the requirement of the Act that they meet and resolve these conflicts before being awarded a future service area. Twelve systems were identified as having conflicts, including each of the three cities. The process of resolving conflict areas proceeded throughout the 1984-86 study leading to the Area-Wide Supplement and for a time thereafter. In an effort which spanned the period of 1985 to 1995, virtually all service area conflicts were resolved.

During the 1984-86 planning process, the following water systems indicated their intent to expand: Lacey, Olympia, Tumwater, Capital Utilities, Marvin Road Water Company, South Sound Utility, Beachcrest, Meridian Acres, Seasons, Pattison, Meadows, Trails End, and Alderbrook Trailer Park. However, several of these systems either declined to identify future service areas or have been incorporated into city water systems. As of 1996, there are six expanding systems in the UWSSA: Meadows, Pattison, South Sound Utilities and the three cities.

All water systems within the UWSSA which planned to expand were notified in 1986 of their requirement under RCW 70.116.060 for the preparation of water system plans. Water system plans have been completed for all expanding systems in the UWSSA, except Pattison Water Company, following the policy and guidelines established in this Area-Wide Supplement and DOH regulations.

1.3.3 Water System Standards

The Preliminary Assessment prepared in 1984 identified the lack of water system design and development standards within the urban area as one of the most important issues needing coordination. Through their own voluntary coordination process, the three cities (Lacey, Olympia and Tumwater) had over the years preceding the CWSP, developed very similar standards in terms of pipe sizing, fire hydrant placement, and other water system design elements. The cities applied these standards to all developments connected to their systems. The problem, however, was that the majority of water systems developed in the urban area during the rapid growth of the 1970's and 1980's were not connected to a city system and were able to be constructed using only DSHS minimum water system standards without any provisions for fire protection. The Coordination Act requires that the provision of fire flows by all water systems within the UWSSA be addressed.

Therefore, it was essential that water system development standards meeting this goal be prepared and adopted for use throughout the UWSSA.

After an extensive review by the WUCC, standards were recommended to the County in 1985 for the design and construction of all water systems within the UWSSA. After public hearings, standards were adopted by the Thurston County Commissioners on August 5, 1985 through Ordinance No. 8149.

In the ten years since adoption, the standards have been largely effective in serving the objectives of adequate long-term water service within the UWSSA. In the 1996 update, some revisions and clarifications are provided, including additional detail on interim service which may be allowed prior to direct service by the designated expanding water system and greater flexibility regarding calculation of required storage and timing of hydrant installation.

1.3.4 Water System Review and Approval Process

Important to the success of the Coordinated Water System Plan process is a system to discourage the proliferation of small and inadequate water systems within the UWSSA and to coordinate the orderly growth of existing systems.

As a vital component of the 1986 Area-Wide Supplement, a water system review and approval process was developed and adopted. Implementation measures identified in the 1986 plan were accomplished, including establishing administrative rules and fees, agreement with the State Department of Social and Health Services (now Department of Health), and public information materials prepared by the Thurston County Health Department.

Since adoption in 1986, the CWSP has very successfully limited the number of new small water systems. In the ten years since 1986, only about 4 new systems have been created in the UWSSA. Several appeals were heard and resolved by the Hearings Examiner. These mainly concerned timeliness and cost for extending municipal service to properties within future service areas but distant from existing water lines. Most of these resulted in interim water service arrangements. In one case, conditions were offered by both the city (first priority for service) and an existing neighboring utility (second priority) to serve property at Old 99 and 85th Avenue. However, the Examiner sided with the applicant in finding that the terms of service from both purveyors failed to provide timely and reasonable service. A new small independent water system was authorized by the Examiner.

An emerging water service system planning issue of area-wide importance is the existence of over 200 smaller privately operated water systems in the UWSSA. Increasing requirements for water quality monitoring, financial feasibility and wellhead protection are putting increasing pressure on the operators and customers of these

systems. The 1996 Area-Wide Supplement update addresses broad objectives regarding this challenging issue.

1.3.5 Water Rights Reservation

The provision of future water for domestic use in the UWSSA is another important part of the Coordination Act planning process. Prior to development of the 1986 study, the three cities had elected to proceed with a Water Rights Reservation petition to the Department of Ecology under the provisions of RCW 90.54. The three cities jointly funded a 1982 study by Economic and Engineering Services, Inc. (EES) of Olympia for the preparation of the Water Rights Reservation petition. The study by EES dated May, 1982 was reviewed as part of the 1984-86 planning program and was found to be complete and adequate to serve as the water supply element of the Area-Wide Supplement. Findings of the 1982 report include:

- ♦ The North Thurston urban area is expected to grow to a population of approximately 288,100 by the year 2030. This is the estimated population used for the water reservation. The 1980 census population for the area was 100,560.
- ♦ Ground water will continue to be the primary source of the public water supply through the year 2030.
- ♦ Additional water rights must be reserved through the Department of Ecology to insure the availability of the estimated 43.3 MGD required in the year 2030.
- ♦ Ground water quality must be protected if this source is to continue as the primary domestic water supply for the area.

The "Reservation of Future Public Water Supply for Thurston County" was adopted by the Department of Ecology as WAC 173-591. The WAC was filed on July 14, 1986. The reserved groundwater was generally prorated to a number of source locations in northern Thurston County. The intent of the WAC was that the priority date for future permits for public water supply would be the effective date of the Reservation (7/14/86). DOE was charged in WAC 173-591 with maintaining records of appropriations and available reserves for each subarea. The local governments and DOE were responsible under the WAC for implementing a groundwater and surface water-monitoring program. These have been instituted through a variety of regional and local programs.

1.3.6 Coordination With Other Planning

The Coordinated Water System Plan was fully coordinated with all relevant current local planning including:

- ♦ The County Urban Growth Management Agreement approved in June, 1988 and the "Thurston County County-Wide Planning Policies" dated September 8, 1992.

Specifically, the CWSP is consistent with the following provisions excerpted from section II of the County-Wide Planning Policies regarding “promotion of contiguous and orderly development and provision of urban services” through:

- 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.”
- ♦ Local Zoning and Land Use Plans including the joint area plans for the three North Thurston County cities
 - ♦ Individual Water System Comprehensive Plans
 - ♦ The Coordinated Water System Plan for Water Rights Reservation for North Thurston County (1982)
 - ♦ The LOTT, Phase II Wastewater Management Plan (1988) and the Thurston County Sewerage General Plan (1990). In these documents, policies for short-term and long-term UGA sewerage service are defined which are parallel to the water service policies in this Plan. In particular, UGA policies in the LOTT study page IV-4 and Sewerage General Plan page IV-6 stipulate that development beyond the existing sewer system is allowed on interim systems, provided provision is made for future hookup to sewer when it becomes available.

Since water supply appears to be a potential growth limiting factor in the planning area, water system planning is critical to ensuring urban level service to support land use decisions.

1.4 Previous Actions to Implement Study Findings

Following 1985 action by the Board of County Commissioners to establish the Urban Water Supply Service Area boundaries and adopt new water system design standards, the following actions were required to fully implement the Coordinated Water System Plan:

- ♦ The 1986 adoption of the Area-Wide Supplement plan including the necessary hearings and environmental determinations required by state and local law.
- ♦ Development of internal administrative rules to implement the review and approval process contained herein.

- ♦ Completion of the service area agreements for all water systems within the UWSSA that plan to expand.
- ♦ Completion of the water system plans by all water systems planning to expand.

1.5 Future Activity Related to the 1996 Coordinated Water System Plan

- 1.5.1 Each jurisdiction should review their development permit procedures to ensure consistency with the CWSP water service review process, including providing notices of presubmission conferences to the designated water purveyors and providing timely response to requests for water service;
- 1.5.2 Each jurisdiction should review their Hearings Examiner procedures to accommodate the Examiner's proposed role in resolving service area disputes and approving creation of any new water systems as identified in section 4.3;
- 1.5.3 Pursue opportunities for joint opportunities in source development, conservation and intertie through the Public Works Director's meeting. Include operators of the larger privately-operated systems where appropriate;
- 1.5.4 The County should continue the Water Utility Coordinating Committee and should keep them informed of the progress of resolving service area agreements and obtaining completed water system plans. A meeting of the WUCC should be held annually to review the implementation of the recommendations of the Area-Wide Supplement and to determine whether or not any changes or additions are required.
- 1.5.5 Individual water systems must also update their water system plans every five years and these revisions must comply with any changes to the Coordinated Water System Plan. In particular, the 1996 Area-Wide Supplement update identifies that water system plans should address policies for:
 - ♦ Accepting fees in lieu of constructing frontage improvements in locations where final water system engineering is not complete;
 - ♦ Satellite service by the city or by contract to another approved satellite system operator when development is distant from existing city water lines;
 - ♦ Assisting and/or integrating existing small water systems within the city's water service area, including identifying conditions under which the city may be willing to become an authorized receiver of a failed water system.

1.5.6 The Washington State Department of Health and the Thurston County Environmental Health Department should enhance procedures relating to small water systems. Actions identified in section 4.6 of this Plan include:

- ♦ Enhancing the “early warning” system to identify water systems which are encountering problems. Thresholds for response should be identified for both Group A systems (oversight provided by DOH) and Group B systems (oversight provided by Environmental Health). This includes ensuring that Environmental Health is notified when the one-year notice to end water system operation is served by the operator to DOH. Appropriate outreach measures and roles should be identified.
- ♦ The state and local health agencies should adopt internal procedures to apply the priority of service review in section 4.3 to changes in ownership of existing small water systems. Under existing regulations, water system operators must notify doh (group a systems) or Thurston County environmental health (group b systems) of intent to transfer ownership or discontinue service. In addition, the health agency may identify essential requirements that an existing water system can no longer meet. When either of these circumstances occurs, the health agency should apply the service priorities in section 4.3 to identify the priority water system owner.

2. SERVICE AREAS

2.1 Existing Conditions

For the past few decades, the North Thurston planning area has been one of the fastest growing urban areas in the State of Washington. During the period 1970 to 1980, the population of the Olympia/Lacey/Tumwater urban area grew from 62,600 to 97,000 in population, an increase of 54 percent. During the 1980-1990 decade, Thurston County was the second fastest growing County in the State in terms of percentage increase, with a population increase of about 30%.

The North Thurston planning area is characterized by the general availability of high quality ground water within 200 feet or less of the ground surface. Additionally, much of the surface soils of the area are generally suitable for septic tank use based on standard percolation criteria. Prior to the invoking of the Public Water System Coordination Act, the County permitted new water systems to be developed to serve each emerging land development. The consequence is that within the 1996 UWSSA, which is the area within which the County hopes to contain the majority of future urban growth, there are about 270 public (community or commercial) water systems including about 80 Class A Community systems (15 or more services). Of these, only about 21 private water purveyors have more than 50 customers. The three cities of Lacey, Olympia and Tumwater are all within the Urban Water Supply Service Area and serve more than 60 percent of the population within that area boundary.

Until the adoption of the UWSSA and the invoking of the Coordination Act, Thurston County had not exercised specific control over the service areas of the many water systems within the urban growth area.

2.2 Requirements of the Public Water System Coordination Act (RCW 70.116)

Water systems designating future service areas are required by the Public Water System Coordination Act to prepare water system plans for their systems including all future service areas. These plans must be coordinated with the adopted area-wide supplement. The original target date was to have all required water system plans completed and approved by October 1986.

For systems that did not identify future service areas during the 1985-87 planning process, this Plan assumes that the systems are not planning to expand. Existing systems are assumed to have service areas that incorporate the areas for which approved water system plans have been previously issued by DOH or the County's Environmental Health Division or as shown on the service area maps established through the CWSP process. The objectives of the CWSP do not infringe on the rights of existing non-expanding systems to continue to operate within their existing service areas under State and County law and regulations.

At the start of the Coordinated Water System Plan 1996 update effort, computer listings for all water systems of record in Thurston County were obtained from DOH. These lists were used to identify all Group A Community water systems in the Urban Water Supply Service Area. Staff

contacted all systems by mail, and solicited the designation of their existing or future service areas. Revised service area maps were prepared in 1996 and are adopted by reference as part of this Plan.

2.3 Procedure for Resolving Service Area Conflicts

The Act requires a resolution of future service area conflicts as part of the Coordinated Water System Plan. In the 1986 CWSP Area-wide Supplement, several systems were identified as “indicating intent to expand.” Resolution of service area conflicts was a key outstanding action item for the WUCC and Thurston County Environmental Health when the 1986 Area-wide Supplement was adopted. Each water system that was in conflict was notified of the requirements of the Act and the known conflicts that existed, and they were directed to negotiate agreements with all of the water systems with who they were in conflict. The County gave each water system a reasonable time to arrive at an agreement with the other water systems after which the County asked DSHS to invoke the provisions of WAC 246-293 to adjudicate and assigned future water service areas for all unresolved areas.

2.4 Status of Service Area Agreements

The Lacey, Olympia, Tumwater, Meadows, South Sound and Pattison water systems identified future service areas on the CWSP maps prepared in the months following adoption of the 1986 Area-wide Supplement. In certain areas, city water systems provide service to adjoining areas within the neighboring municipality. These inconsistencies between existing water service areas and incorporated boundaries are mutually acceptable and do not constitute a conflict in water service area. Examples of these areas are the Southeast Olympia/Tumwater boundary, the Mottman Road area, and the Lilly Road area.

Several of the 13 systems initially listed in 1986 as “potentially expanding” were incorporated into larger systems or have gone out of business (Capital Utilities, Beachcrest, Seasons, Meridian Acres and Trail’s End). Other systems in the original list did not identify a future service area during the 1986-87 completion of the service area mapping process (Alderbrook Trailer Park and Marvin Road Water Company).

There were several remaining conflict areas in the initial service area maps prepared in 1986-87. These conflict areas appear to have been resolved at the time of the 1996 CWSP update.

2.5 Status of Water System Plans for Expanding Systems

Expanding water systems are required to produce or update water system plans, which include their future service areas, as part of the Coordinated Water System Act process. Water system plan status of the expanding systems (as of September 1995):

SYSTEMWATER SYSTEM PLAN STATUS

City of Lacey	Revised plan being reviewed by DOH
City of Tumwater	Revised draft plan to DOH 5/11/93; revision and approval pending
City of Olympia	Updated plan approved by DOH 5/96.
Pattison	Revised plan in process
Meadows	Plan approved by DOH 9/30/94
South Sound Utilities	Updated Plan approved by DOH 1/30/96

Coordinated Water System Plan review between DOH and Thurston County Environmental Health is vital to complying with the Water Supply Coordination Action regulations and ensuring compatibility with the Area-Wide Supplement.

3. WATER SYSTEM DEVELOPMENT STANDARDS

3.1 Requirement for Water System Development Standards

The Public Water System Coordination Act and the subsequent regulations and guidelines require the adoption of water system development standards governing the development of all future water systems within the Urban Water Supply Service Area. It is important to Thurston County that water system standards in the Lacey, Olympia and Tumwater Urban Growth Areas be coordinated and be to urban requirements. In this way, as the land develops, the residents and businesses in the North Thurston area can be assured of a high quality of water service and fire protection.

3.2 Prior Actions Related to Standards

For many years prior to initiating the CWSP, Lacey, Olympia and Tumwater were aware that annexations sometimes brought with them assumption of previously independent water systems that had been constructed to DSHS minimum design standards. Often, these systems did not meet typical municipal system standards. Such systems often have undersized mains, no fire hydrants, and are poorly constructed. These deficiencies result in the need for substantial public investment to bring such water systems up to city standards for fire protection and general water service. This problem was recognized in the Coordination Act, the Preliminary Assessment, and was one of the compelling reasons for the County invoking the Public Water System Coordination Act.

Through informal interjurisdictional coordination efforts predating the CWSP, the three cities established standards for each city which required essentially the same care and cost for all new developments which were to be connected to the city systems.

As an early action in the CWSP process, minimum design standards including fire flow were adopted for the UWSSA on August 5, 1985 by the Thurston County Commissioners through Ordinance No. 8149.

The desirability of compatible design standards in the urbanizing area was affirmed with the adoption of the 1988 "Memorandum of Understanding: An Urban Growth Management Agreement" and the "County-Wide Planning Policies" dated August 16, 1993.

3.3 Water System Design Standards

The adopted water system design standards are contained in Table 1 together with an explanation of the impact of the provisions of these standards on water service and public cost. In general, it is anticipated that administration and enforcement of these standards will result in substantially improved water service to all new developments. The initial cost for water system extensions for existing independent water systems may be slightly higher under the new standards than under DSHS minimum requirements. However, the long-range public cost should be substantially less since future rehabilitation and replacement will be avoided.

3.3.1 Standards for development which will be connected at the time of project development to an approved water system

Where new development will be connected at the time of project development to an approved water system, design will conform to the purveyor's adopted construction standards and specifications. These shall equal or exceed the Urban Design Standards for Public Water Systems contained in Table 1. Where the water system has no adopted construction standards and specifications, the minimum standards contained herein shall apply.

3.3.2 Standards for interim service within municipal water system service areas (Urban Growth Areas)

Where an interim water system is allowed by the review procedure in Section 4, the Urban Water System Design Standards in Table 1 will apply to temporary components. Components intended to be integrated into the designated water system will be constructed to adopted construction standards of the designated water system and will be consistent with the designated water system's approved water system plan.

3.3.3 Water System Design Standards Outside the Urban Growth Boundary

Where a purveyor within the UWSSA provides service to contiguous rural areas outside the UGA boundary, DOH minimum design standards will apply.

TABLE 1: DESIGN STANDARDS FOR PUBLIC WATER SYSTEMS THURSTON COUNTY URBAN WATER SUPPLY SERVICE AREA

<u>STANDARD</u>	<u>DISCUSSION</u>
1. APPLICABILITY	
1.1 These minimum regulations apply to all existing and future "public" water systems located within the Thurston County Urban Water Supply Service Area, as designated by motion of the Thurston County Board of County Commissioners on October 23, 1984, and as thereafter amended. For new development, facilities intended to be integrated into the designated water system will be constructed to the designated purveyor's adopted construction standards and specifications, provided these equal or exceed the minimum standards contained herein.	<i>These are minimum standards and individual water systems may adopt and enforce more stringent requirements as a condition of service.</i>
1.2 Water system facilities existing on the effective date of these regulations (September, 1985) need not be modified to meet these standards. However, any new water system facilities or extension, expansion, or enlargement of existing water system facilities must comply with these standards unless, prior to the effective date of these regulations, plans for said action were approved by the Thurston County Health Department or the State of Washington Department of Health (DOH) pursuant to WAC 246-290	<i>Existing water systems will not be required to replace existing facilities unless such improvements are needed to serve a larger area.</i>
1.3 Reference herein to a "group" of water system refers to a category, pursuant to WAC 246-290 and 246-291, based upon the number of new services to be provided by the water system.	

2. WATER SUPPLY

2.1 Each water system must have a supply of water which meets water quantity requirements of WAC 246-290 or WAC 246-291. Water supply shall be based upon recorded water rights in accordance with RCW 90.54, WAC 173-590, and requirements of the State of Washington Department of Ecology (DOE).

No change from existing State and County requirements.

2.2 In order to enhance the reliability of water supply, water systems are encouraged to have multiple sources of supply.

2.3 In order to ensure the reliability of water supply during power failure or other emergency conditions, Group A systems shall have gravity storage, standby power, multiple power sources, or alternative sources of supply.

3. DISTRIBUTION SYSTEM In addition to complying with DOH requirements for water distribution systems, water systems shall comply with the following requirements:

3.1 Except as specified herein, all water mains shall be constructed in accordance with the most recent edition of the "Standard Specifications for Road, Bridge and Municipal Construction" prepared by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association, referred to hereafter as the Standard Specifications.

3.2 Group A water systems shall be designed by a professional engineer licensed by the State of Washington. Group B water systems shall be designed by such an engineer or by a water system designer certified by the Thurston County Health Department.

This section establishes the design criteria for sizing the pipes in a water system. It is not setting a storage requirement. This is done in paragraph 5.2

3.3 Whether or not storage of water for fire flow is provided in a system, the system must be hydraulically capable of

distributing the following flows to fire hydrants serving the following land uses occupancy classifications pursuant to the Uniform Fire Code:

3.3.1 Group R, Division 3

Dwellings and lodging houses:

Provide 750 gallons per minute (gpm) at 20 pounds per square inch (psi) residual pressure while simultaneously maintaining no less than 10 psi residual pressure at any point in the distribution system, while meeting the peak hourly design flow conditions.

3.3.2 All other occupancy

Classifications:

As determined by the Thurston County Fire Marshall.

3.4 The following minimum distribution pipe sizes apply to various distribution system configurations regardless of water pipe sizes which may be capable of delivering the fire flow prescribed in Section 3.3.

3.4.1 Standard distribution main installation: 8-inch diameter.

3.4.2 Looped main installation with interties at one quarter mile intervals or closer: 6-inch diameter.

3.4.3 Cul-de-sacs or non-extendible, deadend water mains: 2-inch or whatever size is required to meet the projected maximum fire flow and instantaneous domestic water demand.

3.5 PVC pipe shall meet the standards of SDR 21 and be no less than the Class 200 working pressure standards of the American Society of Testing Materials (ASTM). All other pipe and materials including service lines and meters shall meet no less than AWWA Class 150 working pressure requirements.

3.6 Valves shall be installed in the distribution system at sufficient intervals to facilitate system repair and maintenance, but

Regardless of the calculations from 3.3 above, these minimum pipe sizes are considered good practice to insure that the system can supply fire protection in the future.

in no case shall there be less than one valve every one thousand feet (1,000').

3.7 When fire hydrants are not provided on dead end mains, 2-inch blow-off assemblies with gate valve and box meeting AWWA standards shall be installed to allow flushing of the dead end main.

4. FIRE HYDRANTS

4.1 Fire hydrants shall be installed at intervals of not more than 700 feet on all lines serving R-3 occupancies (dwellings and lodging houses), provided that for cul-de-sacs or dead-end streets, no property shall be more than 350 feet from a fire hydrant. For lines serving other occupancies, fire hydrants shall be installed, if at all, at intervals and locations designated by the Thurston County Fire Marshal.

4.2 Fire hydrants shall be served by water mains 6 inches in diameter or larger.

4.3 Fire hydrants shall be furnished and installed according to Standard Specifications and shall be equipped with 6 inch auxiliary valves, valve boxes, blocking or tie rods, and drain pits.

4.4 Fire hydrants shall be provided with two, 2-1/2 inch nozzle ports and one pumper connection port. All pumper ports shall meet the sizing and hose requirements of the Fire District or Fire Department in whose service area the hydrant is located. The 2-1/2 inch nozzle threads shall be National Standard threads. Fire hydrants shall be painted to standards of the applicable fire protection agency.

4.5 Where a water system does not provide the fire storage and/or fire flow specified in these standards at the time of

Some small systems may not be able to meet the fire storage requirements initially.

development, the hydrants shall be either painted a color designated by the applicable fire protection agency to indicate that the hydrant is not a full service hydrant, or hydrant installation may be deferred through agreement between the developer, the utility and the Fire Marshall.

5. STORAGE

5.1 Domestic Storage: Water systems shall comply with DOH requirements for domestic Equalizing, Standby and other DOH prescribed domestic storage components.

5.2 Fire Flow Storage: Water systems shall have fire flow which is capable of providing the following fire flow:

5.2.1: Group R, Division 3
(Dwellings and lodging houses): 750 gpm for 30 minutes

5.2.2: All other occupancy classifications: As determined by the Thurston County Fire Marshal pursuant to the Uniform Fire Code

5.3 Calculation of storage requirement: The greater of the Standby volume calculated under 5.1 or the Fire Flow volume calculated under 5.2 shall be provided as a component of the system's total storage requirement.

Storage facilities shall be designed such that the system's Fire Flow volume and required fire flow performance is not impacted by utilization of the peak day domestic Operational and Equalizing storage volumes. Storage facilities shall be designed to maintain the system's required Fire Flow to the end of the fire flow duration.

5.4 Fire Flow Exceptions: For interim systems, the Thurston County Fire Marshal may grant exceptions to the fire flow

The dwellings portions of this paragraph extend to residential development which has been exempted by current County ordinances.

The 1986 standards required separate storage volumes for 1.) standby and 2.) fire flow. This lead to high costs and poor circulation within storage tanks due to very high volume compared to normal usage. In 1996, the WUCC, including the County Fire Marshall, concurred that this requirement for separate storage volumes be dropped. This should not pose a problem for either service reliability or fire flow.

All systems are required to provide fire storage; however, it is recognized that this could be a severe burden to short plats or

storage requirements prescribed in Section 5.2, if the Marshal finds that the proposed system for which an exception is desired lies within the future service area of an existing purveyor, but the service is too distant from the purveyor's existing service to be connected at the time of the request, and a plan for the proposed system exists which shows how fire flow will be provided in the future, either independently or by intertie with another purveyor. If the plan proposes that the storage capability be provided by intertie, then the water system plan of the other purveyor shall be amended to accommodate the planned intertie.

6. Administrative Appeal or Variance Request to Hearings Examiner: Any person who desires a variance from these standards, or any person who is aggrieved by an administrative decision pertaining to the application of these regulations may appeal to the Hearings Examiner of the pertinent jurisdiction, following the prescribed appeal process.

Written Notice: In addition to any other requirements of the prescribed appeal process, written notice shall be mailed to the appellant, the subject purveyor (if other than the appellant), and other affected parties as determined by the Health Department.

6.1.1 Variance Standard:

The written request for a variance shall include information addressing the following issues:

- a. The nature of the relief requested.
- b. Why the water system is unable to comply with the standards.
- c. Documentation prepared by a licensed professional engineer that granting the relief requested would not result in an unreasonable risk to public health or safety.
- d. A proposed schedule for attaining compliance with the standards, or providing mitigating measures or conditions.

small developments served by interim water service.

The Hearings Examiner was chosen as the appeal authority since the examiner is directly involved in the land development process and most water systems are developed as part of a land development action. No new appeal process is required and since the development industry is accustomed to the Hearings Examiner process, there should be little difficulty in using this procedure.

- e. Other pertinent facts.

If the examiner finds that special hardships would result by not granting the relief request, and that the general purposes of these standards would not be frustrated by granting relief, then the examiner may grant the relief requested, or grant such other relief, including the attachment of conditions, as he deems reasonable under the circumstances. The examiner may receive or solicit information or opinions from governmental agencies, the Water Utility Coordinating Committee, or persons regarding the request for relief.

6.1.2 Administrative Appeal

Standard: The written administrative appeal shall include information addressing the following issues:

- a. Identify the specific regulatory provision which has allegedly been misinterpreted or misapplied.
- b. The nature of the relief requested.
- c. Other pertinent facts.

If the examiner finds that the staff erred in interpreting or applying these standards, the examiner shall issue a written decision accordingly.

6.3 Appeal to Elected Officials:

The decision of the Hearings Examiner may be appealed to the elected officials of the jurisdiction, following the process prescribed for such appeals.

ORDINANCE NO. 11312

AN ORDINANCE relating to the North Thurston County Urban Water Supply Service Area Design Standards and the Thurston County Coordinated Water System Plan Area-wide Supplement (1996); and amending sections 15.04.090 and 15.04.100 of the Thurston County Code.

WHEREAS, by Ordinance No. 8149 the Board of County Commissioners adopted the Thurston County Design Standards for Public Water Systems which was codified at TCC 15.04.090; and

WHEREAS, by Ordinance No. 3202 the Board of County Commissioners approved the Thurston County Coordinated Water System Plan--Area-wide Supplement, 1985, which was codified at TCC 15.04.100; and

WHEREAS, update of the design standards and Area-wide Supplement was needed to address changed conditions, compatibility with urban growth management policies and maps, and to update standards and procedures; and

WHEREAS, the Water Utility Coordinating Committee was convened as stipulated in chapter 70.116 RCW and has recommended approval of the documents with revisions; and

WHEREAS, the elected officials of the cities have had the opportunity to review consistency with Urban Growth Management agreements and intent, and a public hearing has been held; and

WHEREAS, the Board of County Commissioners finds that the plan is not inconsistent with land use plans and development policies of the County and cities within the area affected by the plan;

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF THURSTON COUNTY as follows:

Section 1. The North Thurston County Urban Water Supply Service Area Design Standards are hereby approved and adopted. Accordingly, section 15.04.090, Thurston County Code, is hereby amended to read as follows:

15.04.090 North Thurston County Urban Water Supply Service Area Design Standards for Public Water Systems--Adopted. The board adopts and incorporates by reference in this chapter the regulations entitled North Thurston County Urban Water Supply Service Area Design Standards for Public Water Systems.

ORDINANCE - 1

15.04.100 North Thurston County Coordinated Water System Plan--Areawide Supplement, ((1985))1996--Adopted. The board approves the North Thurston County Coordinated Water System Plan--Areawide Supplement, ((1985))1996, including the revised Urban Water Supply Service Area and directs that the plan be submitted with a recommendation for approval to the State of Washington Department of ((Social and)) Health ((Services)) for review and action as prescribed by RCW 70.116 and WAC ((246-56)) 246-293.

ADOPTED: November 15, 1996

BOARD OF COUNTY COMMISSIONERS
Thurston County, Washington

LaBonte J. Baermer
Clerk of the Board

Andy Wilson
Chairman

Marie Perquin
Commissioner

BERNARDEAN BROADOUS
PROSECUTING ATTORNEY

By: Angela S. Belbeck
Angela S. Belbeck
Deputy Prosecuting Attorney

Richard W. Nields
Commissioner

CODIFY

TC:ashipolagenda96civsprev.ord

ORDINANCE - 2

3.4 Implementation of the Water System Development Standards

The County Commissioners acted upon the recommendation of the Water Utility Coordinating Committee and adopted the standards detailed in Table 6 of the 1986 Area-Wide Supplement through adoption of Ordinance 8149. The new standards took effect on September 1, 1985.

DOH agreed to utilize the new County standards in reviewing all new construction plans for water system development and expansion within the Urban Water Supply Service Area.

These standards are used by water purveyors and developers in evaluating future water system needs. The standards should be applied to land uses and densities approved in comprehensive plans to determine water system needs for an area.

During the initial planning process in 1984-86, the Water Utility Coordinating Committee recognized the need to provide a mechanism to ensure that the water system development standards were enforced in the Urban Water Supply Service Area and also that the maximum possible coordination of water system construction projects would occur. To this end, a procedure for water system development review was prepared that built upon current practices within the County and DOH. The procedure is indicated in Figure 3. The procedure involves the County Health Department as the County coordinating agency for all new water system construction. The review of water system construction plans by the County Health Department is almost entirely triggered by some development proposals. Once the development proposal has received water system approval in accordance with the water system review and approval process of Chapter 6, the applicant then prepares construction plans following the County's standards and submits the plans to the County Health Department for approval. The County Health Department, depending on the size of the water system that will be providing the service to the development, will coordinate or perform the review and direct the plans to DOH and the Fire Marshal.

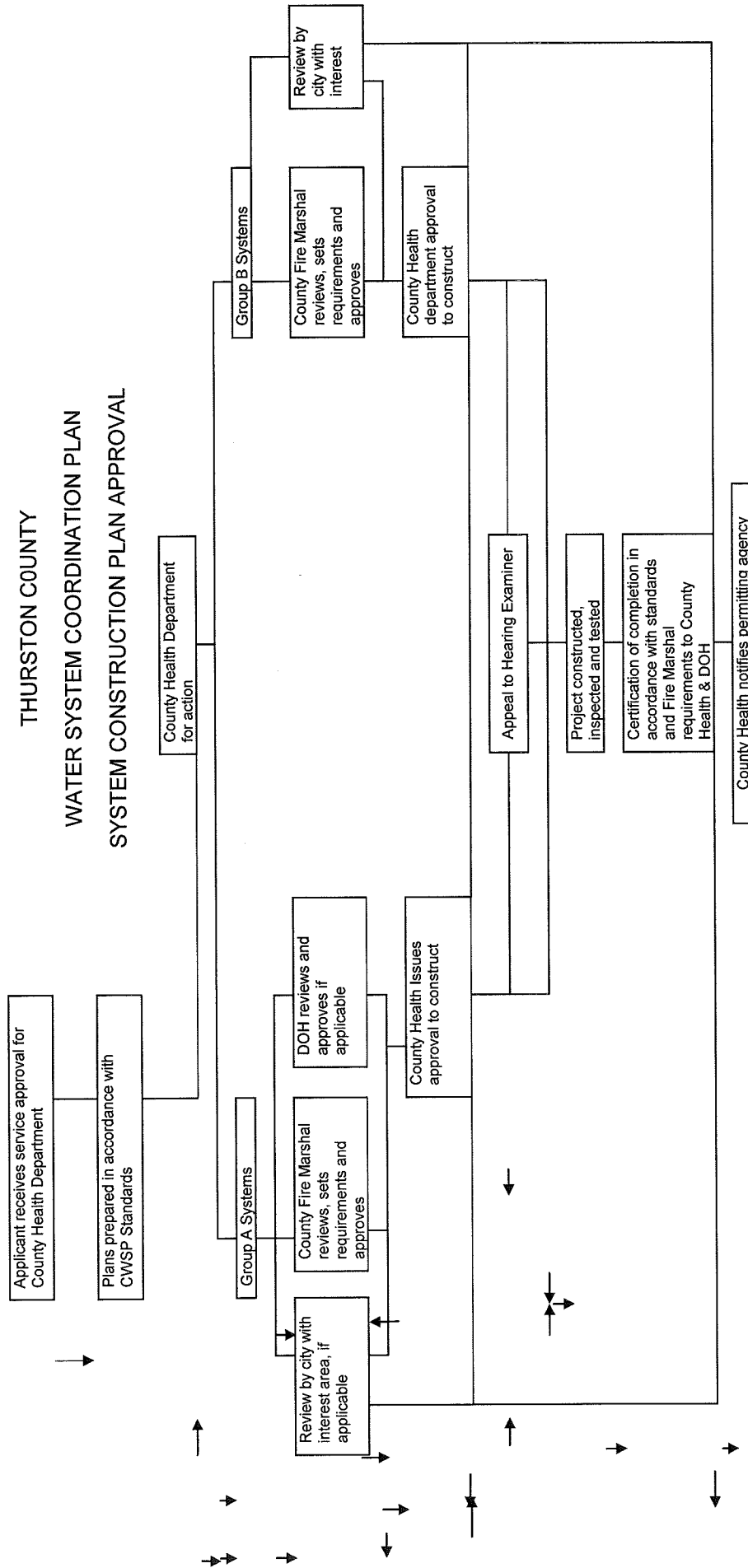
3.4.1 Group A Systems

In the case of Group A water systems, the County Health Department routes sets of plans to the County Fire Marshal, to the State Department of Health, and to the neighboring water system as well as to the city in whose future growth area the improvement is located. When each of these reviewing agencies have responded to the Health Department, the Health Department assembles all comments and prepares a unified response to the applicant. If the applicant agrees and makes whatever corrections or changes are required, the plans and specifications for the system are approved by the County Health Department and DOH for construction. In the event the applicant feels that the requirements placed on the design by any of the agencies are unreasonable or can be handled in a different way, the applicant is free to appeal to the jurisdiction's Hearings Examiner for a review of the County Health Department's findings. Once the findings of the Hearings Examiner are obtained, the project is certified by the County Health Department and DOH and would proceed.

3.4.2 Group B Systems

In the case of Group B water systems, the review process is somewhat simplified in that the basic plan review is performed by the County Health Department itself. The County Health Department circulates copies to the Fire Marshal and to the serving water system and the city in whose growth area the improvement is to be constructed. Again, the County Health Department assembles all responses and follows the same procedure as outlined for Group A systems as far as a final approval or appeal process is concerned.

FIGURE 3 THURSTON COUNTY WATER SYSTEM COORDINATION PLAN – SYSTEM CONSTRUCTION PLAN APPROVAL



4. WATER SYSTEM REVIEW PROCEDURE

4.1 Existing Water System Development Within the UWSSA

Within the UWSSA, the cities of Lacey, Olympia and Tumwater serve approximately 60 percent of the estimated 1995 urban population of 123,229. The remainder of the population within the UWSSA is served by independent water systems or individual wells.

In addition to the three cities, there are about 80 water systems with 15 or more services, about 150 smaller residential systems serving 2 single family units and about 35 systems serving a single commercial user within the UWSSA. These single-user commercial water systems range from restaurants in downtown Olympia to the Olympia Brewery to campgrounds on the edge of the urban area.

The large number of water systems in the County created prior to 1986 was a result of past lack of regulation of water system development by the County. Water systems are primarily developed as part of the land development or subdivision process. Current County regulations require a developer to indicate the source of water and the method of sewage disposal for a proposed development. Use of individual wells and on-site sewage disposal is permitted for lots as small as one acre. For smaller lots, on-site sewage disposal is still allowed, but some form of public water system is required. Prior to the CWSP, developers had the option of obtaining water service from existing water systems or of developing their own water system using DOH minimum standards. Short-term cost was the primary factor in the development decision regarding how to provide water for new development.

4.2 Water System Review and Approval Procedure

One of the primary requirements of a Coordinated Water System Plan is the development of a process for coordinating the development of new or expanded water systems within a Urban Water Supply Service Area. The basic goal of the Public Water System Coordination Act is to limit the development of new water systems within the Urban Water Supply Service Area and to encourage the extension of existing systems and the consolidation of existing systems in such a way that the public will be served by systems large enough to be able to provide the type of operation and control that will insure the highest possible water quality and service to the public.

The North Thurston County CWSP has been very successful in limiting the further proliferation of small water systems. Since CWSP adoption in 1986, only about 4 privately owned and operated water systems have been approved. This is a marked decrease from the earlier rate of private water system creation. In addition, several water systems have been disbanded or consolidated during this period.

There are a number of potential requests or actions related to water service extension that may have to be addressed by such a procedure:

Expansion of an existing system within its designated future service area.

Expansions consistent with approved municipal water system plans proceed without need for further review. In other situations, expansions within designated service areas require nothing more than the submittal of water system construction plans by the existing water system. No further action on the part of the County is necessary other than that described under water system construction plan approval as illustrated in Figure 3. As will be seen in the water service review and approval process, Figure 4, there are several potentials for appeal.

Conflicts between two or more purveyors over water service to development regardless of location.

The possibility may exist that the independent water system designated to provide service to a particular area may not be able to provide service in a timely manner and the developer may seek another method of providing water to his development. Direct conflict may occur as a result and have to be resolved.

Request to establish a new water system by an existing water purveyor.

It would appear that within the Thurston County Urban Water Supply Service Area there will be no unallocated future service area since the cities have indicated their intention of requesting future service areas out to the boundaries of the Urban Water Supply Service Area. Within this area the private purveyors will have future service areas and all remaining areas will be within a future city service area.

Request to establish a new water system by a new water purveyor.

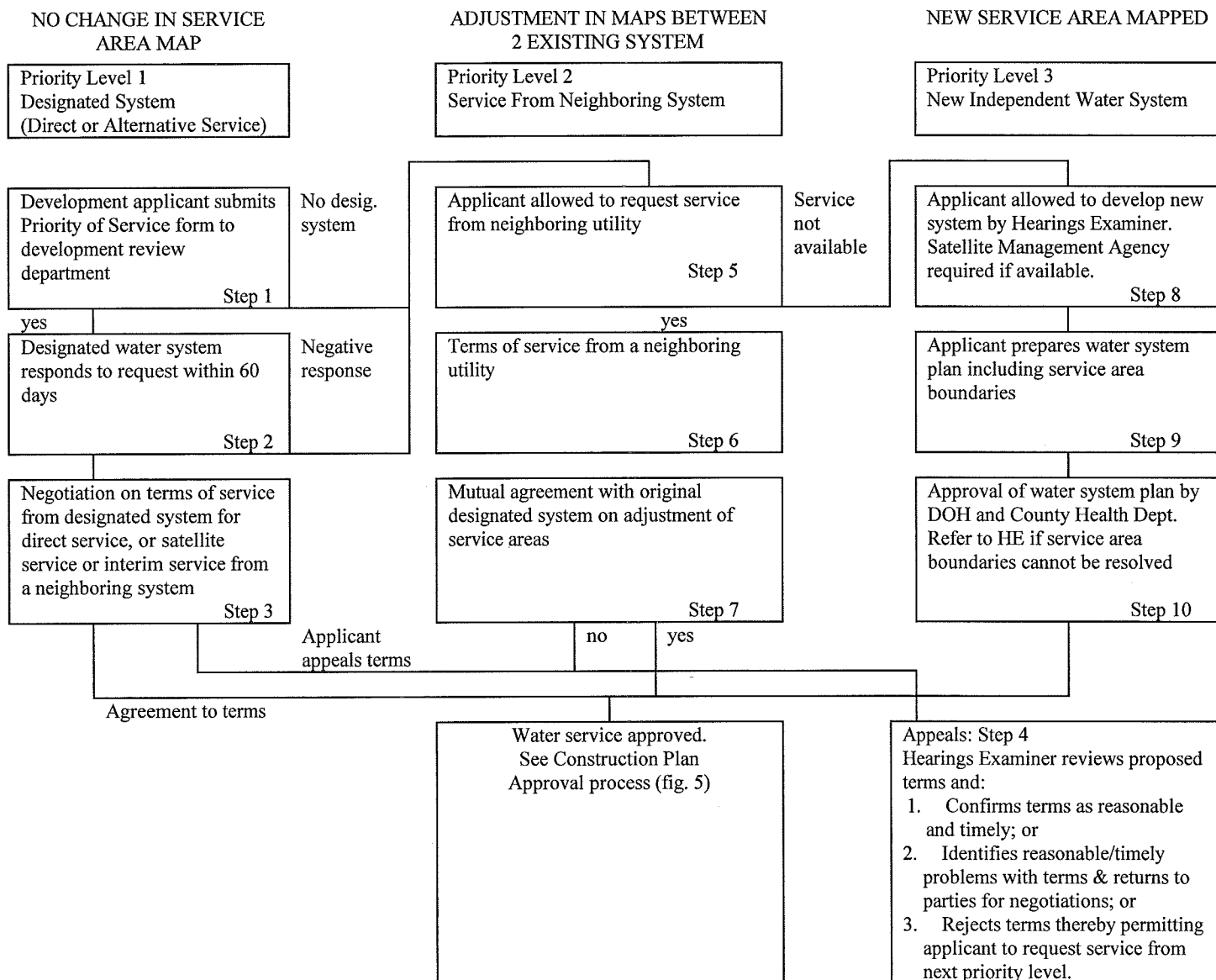
This could occur if other options are not practical and has been anticipated as part of the review process.

Appeals by developers or citizens over the cost of water service from an existing or proposed water purveyor.

Since the plan establishes construction standards and future service areas that are somewhat exclusive, a means needs to be provided to protect the public from unfair charges or conditions of service.

Appeals of water systems from provisions of design and construction standards.

With these standards there will be some need for interpretation and an appeal process from decisions of the County Environmental Health Division and/or DOH. The Hearings Examiner for each jurisdiction is identified as the party to consider appeals of water system service or standards, as this is the forum for similar quasi-judicial land use issues in all four urban area jurisdictions.



4.3 Water Service Review Process for New Development

4.3.1 Water Service Objectives

For new development, service from existing designated water systems is the first priority. Non-expanding systems (systems without designated future service areas) will be the priority system only within their existing area of water distribution lines and must have approved capacity to serve the proposed development. In all other situations, the priority is service from the expanding water system which has been designated to serve the area.

All of the Urban Water Supply Service Area (UWSSA) is currently designated for future water service, mainly through the three cities. The long-term vision is that each municipal service area will eventually be served by the city's central water system. The timing of central water system line extensions is largely determined by land development patterns, as most extensions are provided by a developer to serve a specific project.

Only if: 1.) the designated water system determines that neither hookup to the designated water system nor satellite service are reasonable alternatives in a particular case, or, 2.) the property owner files a successful appeal to the Examiner, will the process move to the next priority level.

4.3.2 Service to Areas Not Included in the Utility's Capital Improvement Plan

The designated Future Water Service Area, particularly for Tumwater and Lacey, is larger than the area which can practically be included in the capital improvement program of the water system's 6-year Water System Plan. Especially for small scale development in the outlying portions of the service area, the cost of water line extension may make service from the central water system impractical. In these situations, a "satellite" water system, physically separate but managed as part of a larger water utility, may allow timely and cost-effective urban-level water service to new developments while ensuring future incorporation into the central water system.

Designated expanding water systems which have significant Future Service Area beyond their capital improvement plan area should adopt:

- ♦ Methods for assessing fees in lieu of frontage construction which the water system may utilize in locations which lack sufficiently detailed water system improvement plans.
- ♦ Satellite system ownership and operation policies and procedures should identify options for addressing the various elements of satellite system ownership and management. There may be potential roles for the designated utility, other approved satellite system management agencies potentially including Thurston County, and/or the property owner or occupants. (See the DOH Guidelines for Satellite System Operation for delineation of options and requirements.)

- ♦ Policies for collecting service connection fees at the time of satellite system development, to avoid charging customers for additional service connection fees when the satellite system is interconnected with the central water system.

4.3.3 Relation of Water Service Review to Development Permit Processing

Water service review will occur as a component of development permit processing. To ensure timely action and coordinate the various components of permit review, the development review departments of the jurisdictions may find it desirable to identify “mileposts” and time frames to supplement the basic water service review process described in this Plan. The city water systems and privately owned expanding water systems may also adopt more detailed policies and guidelines regarding conditions of service issues as part of their water system plans. The following numbers refer to the steps in the water system review process identified on Figure 4.

4.3.4 Water Service Priority Level 1: Service from the Designated Water System

Preliminary review

Prior to submitting a formal permit application, development proponents are encouraged to utilize the presubmittal review process of the local jurisdiction. Development Review departments will route information submitted for presubmittal review to the designated water system. On the basis of preliminary information provided by the applicant, the designated water system will provide preliminary indications of water availability and conditions of service. These preliminary contacts do not constitute a formal application for water service and do not initiate the timeline for water system response.

Step 1: Development permit request submitted by applicant to Development Review department

At the time of development permit submittal, the applicant will submit the Priority of Water Service form and all required information to the jurisdiction’s Development Review department. The submittal will include anticipated time of project development when water service will be required. Submittal of a complete development review application packet will initiate the timeline for response from the designated utility. The jurisdiction’s development review department will be the lead agency to assure that water service review is conducted in a timely manner in coordination with other components of the development review process.

The process described below assumes that there is a designated water system for the subject property. If the project is not located in the existing or future service area of an existing water system, which would be unlikely in the current Thurston

County UWSSA, the applicant is directed to the next priority of water service as indicated in Figure 4.

Step 2: Designated Utility response

The completed Priority of Service request form is routed by the jurisdiction's development review agency to the Priority 1 water provider. The designated utility responds in writing within 60 days from their receipt of the request with a proposed agreement to provide service in one or more of the following ways:

- ♦ Designating the location where the applicant may connect to existing water system lines to obtain service at the anticipated time of project development,
- ♦ Designating the location and approximate time where an anticipated water line extension could provide more convenient water service to the proposed development, or
- ♦ Providing preliminary conditions for alternative service.

Alternative service may be provided via: 1.) Satellite service by the designated utility or by another approved Satellite Management Agency if authorized by the designated system; or 2.) Interim service from a neighboring water system, provided:

- ♦ The adjacent water system has adequate approved system capability to serve the proposed development from the existing water system; and
- ♦ A written agreement is established 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.

See Step 3, NEGOTIATION; OR: The designated water system may recommend that the applicant seek water service from another purveyor. See Step 5, PRIORITY LEVEL 2.

If a timely response is not received, the service request will be routed to potential Priority Level 2 water systems: See Step 5.

Step 3. Negotiation of service by designated utility

Following negotiation of conditions of service, the following may occur:

- ♦ If the conditions are generally agreeable, a contract is negotiated and notification sent to Environmental Health by the water system manager that they will provide service. The completed Priority of Service form will be completed by Environmental Health and provided to the Development Review department. This completes the priority of service review.
- ♦ If terms of service are not agreeable to the applicant, an appeal may be filed with the Hearings Examiner. See Step 4.
- ♦ The designated system may agree that applicant can request interim service from next level of service. See Step 5.

Step 4. Hearings Examiner consideration of appeals

If the applicant considers that the terms of service fail to meet requirements for timely and reasonable service, an appeal of an administrative decision may be submitted to the Hearings Examiner of the pertinent jurisdiction following the prescribed appeal process.

“Reasonable service” criteria considered by the Examiner, in addition to any other requirements of the prescribed appeal process, shall include:

- ♦ Consistency with the North Thurston County Coordinated Water System Plan and the designated system’s water system plan.
- ♦ Consistency with Urban Growth Area land use and utility service policies and objectives.
- ♦ Reasonable use of the property is allowed under the proposed terms of service.

The Hearings Examiner may:

- ♦ Confirm the terms of service proposed by the water system;
- ♦ Identify specifically 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

- ♦ Advise Environmental Health that the terms 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

The decision of the Hearings Examiner may be appealed to the elected officials of the jurisdiction, following the process prescribed for such appeals.

Step 5. Service Request To Next Priority Level

If Environmental Health notifies Development Review that the designated water system has declined service, or the Hearings Examiner determines the terms of service are not “reasonable”,

- ♦ Development Review submits the application to Environmental Health to identify potential water systems at the next priority level.
- ♦ Development Review routes the service request to the identified water systems for response.

4.3.5 Water Service Priority Level 2: Service from a Neighboring System

The second priority for service to a new development is extending service from an existing neighboring water system. This is consistent with the CWSP objective of avoiding creation of new water systems.

The procedure for determining if service is available and for negotiating agreement to terms of service for Priority Level 2 water systems is the same as for Priority Level I Systems (see steps 2-5 above).

Service may be extended from a neighboring water system under the following conditions:

- ♦ The adjacent water system offers service and has the capacity to serve the proposed development from the existing water system; and
- ♦ A written agreement is established between the neighboring purveyor and the original designated future water system adjusting future service area boundaries by mutual agreement.

4.3.6 Water Service Priority 3: New Water System

Service from a new water system may be proposed only if, 1.) Thurston County Environmental Health determines that water service is not available from any Priority

Level 1 or 2 water systems, or, 2.) the Hearings Examiner determines that conditions of service from all other available water system(s) are not reasonable.

The process for considering a new water system is:

- ♦ The proposed new water system will be submitted to the Hearings Examiner of the jurisdiction for approval. If the Hearings Examiner finds that no Priority Level 1 or 2 water systems are able to provide service in a timely and reasonable manner, and that a new water system is appropriate, the Hearings Examiner may authorize establishment of a new independent water system.
- ♦ In conformance with DOH requirements, the new system must be operated by an approved satellite system management agency (SSMA) if one is available. Written indication of unavailability must be provided from each SSMA approved for operation in Thurston County if the applicant desires to establish a new independent water system.
- ♦ The applicant must then prepare construction documents and a water system plan for the system following the regular procedures of DOH.
- ♦ 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.
- ♦ If there is disagreement on the boundaries, it may be necessary to submit the boundaries to the Hearings Examiner for final adjudication of the service area of the new water system and any adjustments to existing system service areas. Pursuant to RCW 70.116.070(2), any final decision by the Hearings Examiner regarding overlapping service areas or any unresolved disputes regarding service area boundaries may be appealed or referred to the Secretary of DOH for resolution.

4.4 Satellite System Management

The Public Water System Coordination Act Handbook, published by DOH, contains guidelines for the preparation of a Coordinated Water System Plan and the Area-Wide Supplement portion of the plan. The guidelines require the consideration of the use of satellite system operation for water systems that cannot be directly intertied with existing water systems.

Under the satellite system concept, a development may require water service within the future water service area of an existing water system, but the designated water system may not be able to immediately extend its water mains and system to directly serve the development. In this case, the designated water system may choose to establish a new water system for the development which it would operate as an independent, or satellite 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.

Within the designated Urban Water Supply Service Area in Thurston County, there is at this time no unclaimed future water service areas. The three cities have indicated their intention to eventually serve all of the area between their existing water system service area and the Urban Water Supply Service Area boundary. The timing of the expansion of the cities' water systems will depend a great deal on land development patterns, since most water line extensions are funded by a developer to serve a specific project, and how aggressively each city seeks to serve land within their future service area. For the short term, and possibly indefinitely, a number of independent private water utilities will continue to operate not only their existing systems, but also additional users within their approved future service area.

The cities will be asked to serve portions of their future service area that are remote from their existing water system facilities. In such cases, it is possible that the cities will elect to serve these requests as satellite systems. It is also possible that the privately owned expanding water systems will have occasion to serve certain portions of their future service areas as satellite systems.

Additionally, if a designated water system is unable or unwilling to serve water to a particular property within its future service area at the time water service is requested, it is possible that through the review and approval process another water system may be approved as an interim or permanent satellite system operator to serve the property in question.

As discussed earlier, the goal of the Water System Coordination Plan is to reduce the number of small independent water systems within the Urban Water Supply Service Area. Consequently, the water system review and approval process detailed in this chapter requires as a condition of approval of interim service by a small independently operated water system, an agreement and schedule for future interconnection with the existing water system in whose service area the system is located. This requirement will tend to make most satellite system operating arrangements temporary in nature and will encourage the extension of the water systems of existing water utilities.

4.4.1 Qualifications of Satellite System Operators

All existing water purveyors within the Urban Water Supply Service Area are eligible to own and/or operate satellite system within their own future service areas, consistent with their adopted water system plan. To provide such satellite system ownership or operation outside of their future area, or as a new satellite system operator, a satellite system operator must meet the qualifications established in State law and Department of Health regulations and be listed by the DOH as a satellite system management agency pursuant to RCW 70.116.134 and related regulations.

4.5 Implementation of the Water Service Approval Process for New Development

In order for these revised water service procedures to go into effect, it is necessary for certain actions to be undertaken.

- ♦ Adoption of the Coordinated Water System Plan. The County must adopt the revised Area-Wide Supplement of the Coordinated Water System Plan, of which these review and approval procedures are a part.
- ♦ Coordinate with the Hearings Examiner. City and County staff must review the revised procedure which includes Hearings Examiner consideration of appeals, review of service area disputes and approval of any proposed new water systems. Local Hearings Examiner enabling ordinances or contracts may need revision to incorporate the new responsibilities.
- ♦ DOH Agreement. The Department of Health must approve the revised Coordinated Water System Plan.
- ♦ Public Information. Materials to inform the applicants and the public of the procedures should be prepared. This work will be coordinated by the Environmental Health Department incorporating the agreements with the State and the Hearings Examiner referenced above.
- ♦ Fees and Costs. Inherent in any procedure relative to land development is the basic expectation that those who would benefit from or require County services will pay all costs involved. County Development Services and the Environmental Health Department would compute a program of fees and charges to implement the review procedure and the construction plan approval procedure. Payment of the fees would be a requirement for any water system approval.

4.6 Existing Small Water Systems

4.6.1 Objectives Regarding Existing Small Water Systems

Minimizing the number of separate water systems is a long-term objective of the CWSP. Incorporating existing small systems into municipal and expanding privately owned systems is consistent with this objective. Also, 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.” A broad overview of issues is included in this Area-Wide Supplement. Detailed policies will be included in the water system plans of the expanding systems.

Some small water systems in the UWSSA have encountered problems in source of supply, source protection, and operations or viability, and this trend will continue in the future. However, a number of existing small water systems in the UWSSA are basically viable and will likely continue in operation for the foreseeable future.

In some situations, it will be to the mutual benefit of the cities and the small system operators/customers to improve the viability of existing systems. Continued operation in the near future of well-managed smaller systems may provide reliable, cost-effective service to small system customers, while reducing demand on municipal water system sources and facilities. In some cases, small system viability may be improved via technical assistance, emergency intertie to improve reliability, or other measures.

In other situations, incorporating existing small systems into larger systems via direct connection or satellite system operation and management will be the best option. Preferably, this will occur via voluntary agreement rather than receivership action through the courts. Small water systems which are encountering problems should be identified as early as possible and action taken to avoid the complicated receivership process to the extent possible.

Changes in service to customers of existing small water systems should be addressed with the same priorities as service to new development, i.e. if the designated water system is willing to serve and the terms of service meet the test of reasonableness, they should be allowed to take over the existing small system when a change of ownership and operation is requested by the operator or required by DOH. This may require new administrative or legislative authority for DOH. However, this is entirely consistent with the intent of the CWSP.

Another critical issue is funding. Existing large system customers should not be forced to shoulder undue financial burdens for integrating smaller, less viable systems.

Responding to problems of small water systems will require creative and cooperative effort on the part of the affected customers, County elected officials and the Departments of Health and Water & Waste Management, the designated large water system, and the State Department of Health. Crafting a workable solution may require a combination of enforcement (via State and County health authorities), technical assistance and water service (from the designated utility or another approved satellite operator), and financing (from affected property owners, potentially supplemented with outside sources of loans or grants).

4.6.2 Action Strategy Regarding Small Water Systems Within the UWSSA

Policies and strategies regarding small water systems, including procedures for incorporating existing water systems, should be adopted by each expanding water system or approved satellite system operator as an element of their water system plan. In addition, the County Environmental Health and State Department of Health (DOH)

should adopt implementing measures to support CWSP objectives regarding existing small water systems. Possible action strategies which might be included in expanding and satellite water system plans and health agency policies:

4.6.2.1 “Early warning” system

The DOH and Thurston County Environmental Health should enhance the “early warning” system to identify water systems which are encountering problems. Thresholds for response should be identified for both Group A systems (oversight by DOH) and Group B systems (oversight provided by Environmental Health). This includes ensuring that Environmental Health is notified when the one-year notice to end water system operation is served by the operator to DOH. Appropriate outreach measures and roles should be identified.

4.6.2.2 Technical assistance

Expanding water system operators should consider providing technical assistance to smaller utilities within their water service area. This could range from advice on specific issues, to assistance with long-range system planning, to water system management.

The County should consider taking a leading role in developing a broad technical assistance program for small water system operators.

4.6.2.3 Emergency intertie

When it is in the interest of the expanding water system to enhance small system viability, some smaller water systems may benefit significantly from emergency intertie. This may increase small water system reliability through providing a temporary replacement water source during emergencies or maintenance, and may also increase the reliability of the expanding water system. Water systems should identify the availability and feasibility of such interties.

4.6.2.4 Policies and procedures regarding incorporating smaller systems

Expanding water systems should consider policies and procedures for responding to small water system operators or customers interested in potentially integrating into the larger system. All water systems wishing to be approved as Satellite Management Agencies must request designation as such by DOH. Funding and other requirements should be identified in water system policies. Where capital costs for remedial improvements would be a financial burden on the larger water system, a ULID or other financing method may be required.

Where a privately operated small system is unable to continue service or meet minimum health requirements, the first priority of the purveyor assuming operation or providing assistance is to establish safe and reliable water service. This may require that the expanding water system initially serve the area under emergency conditions, without meeting fire flow or other standards, provided there is a written agreement on terms of the assistance being offered. Providing water through a master meter and utilizing existing distribution pipes would be an example of such assistance. The agreement defining conditions of service should include provisions for financing improvements to bring the system up to standards acceptable to the expanding water system.

4.6.2.5 Changes in ownership/operation of existing small water systems

The state and local health agencies should adopt internal procedures to apply the priority of service review in section 4.3 to changes in ownership of existing small water systems.

Under existing regulations, water system operators must notify DOH (Group A systems) or Thurston County Environmental Health (Group B systems) of intent to transfer ownership or discontinue service. In addition, the health agency may identify essential requirements that an existing water system can no longer meet.

When either of these circumstances occur, the health agency should apply the service priorities in section 4.3 to identify the priority water system owner.

When the designated water system is willing to provide service and the terms of service are reasonable, the health agency should allocate service to the designated water system. If this is not possible, the next priorities of service are utilized (service from an adjacent water system, or service from an approved SSMA already active in the region).

4.6.2.6 Receivership

The County is identified as the receiver of a failed water system in the event that no other approved satellite system operator is willing and able to take on the system. In such situations, the County is designated the receiver for purposes of designating the system operator and providing regulatory oversight in conjunction with DOH (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.

In the event of receivership, it will generally be preferable for small water systems to be integrated into the designated water system, provided financing and other conditions of the designated expanding system are met. Each designated expanding system or approved satellite operator should adopt a policy regarding

water system receivership by court action. These policies should designate conditions under which it would be willing to become an authorized receiver within its designated service area, with the understanding that the water system does not waive its rights to appear and participate in the court proceedings to determine *if* acceptable conditions of receivership can be established.

5. WATER SUPPLY REQUIREMENTS FOR NORTH THURSTON COUNTY URBAN AREA

5.1 Requirements of State Law

The Coordination Act implementing regulation (WAC 246-293-240) requires the designation of future water supply sources for the Urban Water Supply Service Area. Additionally, the State Water Resources Act of 1971 (RCW 90.54 and WAC 173-590) provides for the future reservation of water sources for public water supply purposes. These legislative requirements make it mandatory that the Area-Wide Supplement address the overall future water supply for the Urban Water Supply Service Area. Prudent engineering planning would, however, dictate that such a determination should be part of any comprehensive water plan.

Prior to the invoking of the Public Water System Coordination Act (RCW 70.116) by the County, the cities of Lacey, Olympia and Tumwater had jointly agreed to file for future water rights reservation under RCW 90.54, previously referenced. The three cities jointly hired a consultant, Economic and Engineering Services, Inc. of Olympia, in May 1982 to prepare the necessary documentation for the filing of a Water Rights Reservation petition with the Department of Ecology. In May 1982, the consultant submitted the Thurston Metropolitan Coordinated Water System Plan for Water Supply Reservation. This 1982 plan was incorporated as a part of the Coordinated Water System Plan Area-Wide Supplement Report and is available from Thurston County Department of Water and Waste Management.

The "Reservation of Future Public Water Supply for Thurston County" was subsequently adopted by the Department of Ecology as WAC 173-591 effective July 14, 1986. The WAC incorporated the Reservation Area boundary and quantities recommended in the consultant report and summarized in the following section.

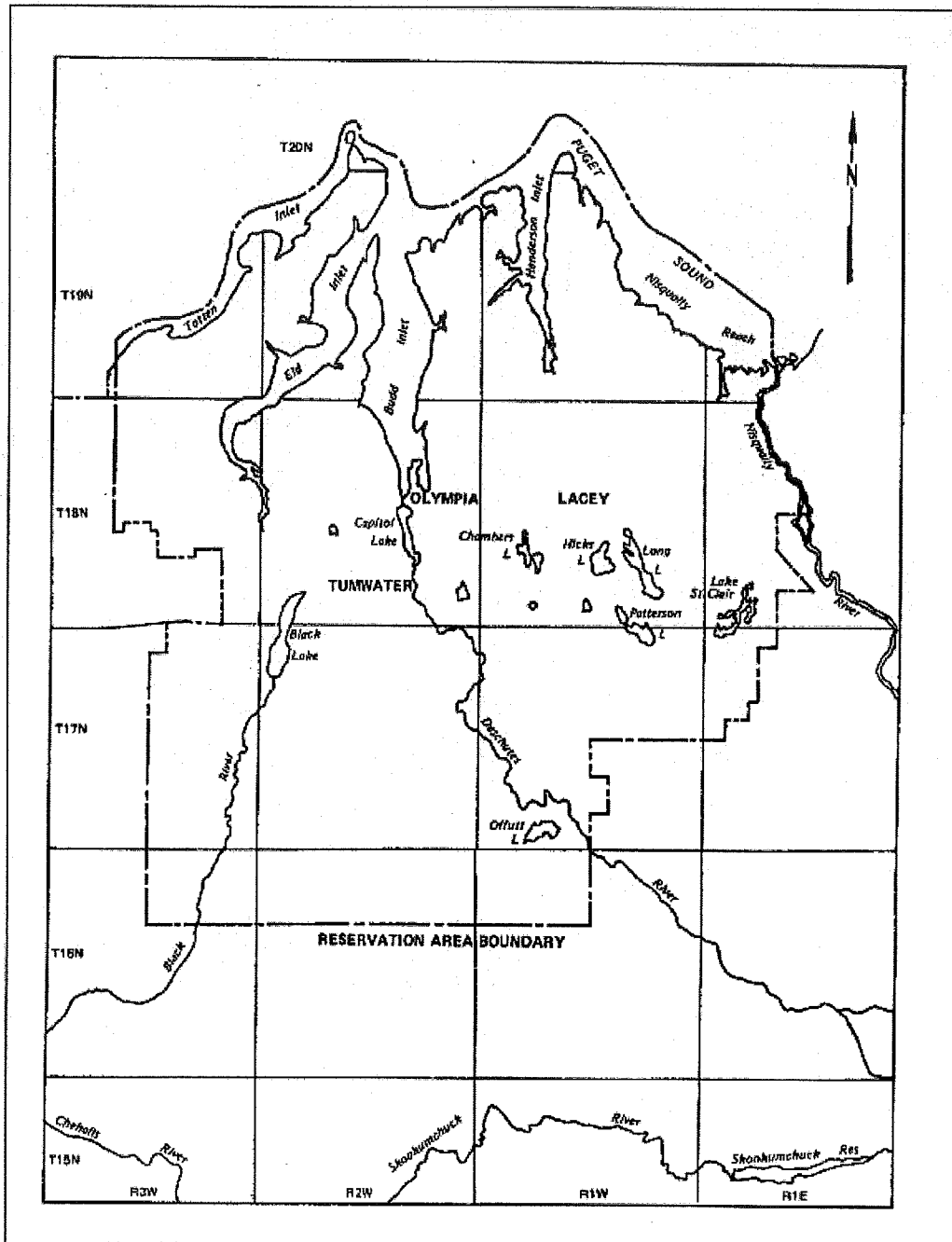
5.2 1982 Water Supply Reservation Study Findings

The 1982 Water Supply Reservation Study established a planning area (Figure 5) that included all of the North Thurston planning area to a point south of Scott Lake. This planning area was developed by the consultants for the study with the joint agreement of the County and the three cities prior to the County undertaking any action related to the Public Water System Coordination Act. The findings of the Water Supply Reservation Study were published prior to the formal formation of the Water Utility Coordinating Committee under the provisions of the Coordination Act.

The findings of the 1982 Water Supply Reservation Study, as enumerated in the summary to that report, included the following:

- ♦ A Reservation Area boundary was selected, as presented in Figure 5, as agreed to by representatives from DOE, DSHS, Thurston County, and the cities of Lacey, Olympia

FIGURE 4: THURSTON COUNTY WATER SUPPLY RESERVATION BOUNDARY



THURSTON COUNTY RESERVATION AREA BOUNDARY MAP
(WAC 173-591-130, Illus. 1)

and Tumwater. This boundary was selected as the area which the tri-cities anticipated they would be serving or have a significant influence on in the next 50 years, based on various geographical and political constraints.

- ♦ A review of the water systems operated by each city revealed that each system is well operated and maintained. Planning efforts to date for these systems have established various needs for future improvements, with the need for additional source capacity as a primary concern. Water system plans for each utility have identified the need for source development in areas geographically separate from existing source sites. This need has been identified in order to provide a source of supply in closer proximity to the demand and/or ensure the overall reliability of the systems.
- ♦ In 1982, within the Reservation Area, there were 115 water utilities which served 10 or more customers. It is estimated that these utilities served a total of about 6,800 customers, excluding the customers served by Lacey, Olympia and Tumwater. Within the next 50 years, it was anticipated that the majority of these customers will be served by one of the tri-city water systems.
- ♦ Of the 121,047 people residing in Thurston County in 1980 (1980 Census), it was estimated that 100,560 people resided within the Reservation Area. Of this total, approximately 63,306 people were served by the tri-cities.
- ♦ Population increases were projected using data from the Washington State Office of Financial Management and the Bonneville Power Administration. Year 2030 populations of about 346,800 and 288,100 for the County and Reservation Area, respectively, were distributed between Lacey, Olympia, Tumwater, and the remainder of the Reservation Area. At the time of the 1996 CWSP update, the long-term population for the Reservation area estimated by EES in 1982 appears well supported. For example, the year 2015 projection by EES (1982) was 225,384; this is within 5% of the 1995 projection for the year 2015 (232,487) based on Thurston Regional Planning Council TAZ population projections.
- ♦ Water demand in 1980 for the Reservation Area was estimated to be about 14.7 MGD average day (16,500 acre-feet/year) and 40.4 MGD peak day (28,000 gpm). Water demand for the year 2030 was projected to be about 43.3 MGD (48,500 acre-feet/year) and about 117.6 MGD peak day (82,000 gpm).
- ♦ In 1982, the three cities had prime water rights totaling about 49,600 gpm and 56,500 acre-feet/year. Certain of these rights are associated with sources which have been abandoned, such as the City of Olympia's Moxlie Creek wells, or have water quality problems, such as the City of Lacey's Fire Station well. In consideration of these sources, it is anticipated that in the future, the total existing prime rights associated with utilized sources will be an amount of about 41,100 gpm and 48,200 acre-feet/year.

- ♦ Eight separate areas within the Reservation Area were identified as probable locations for future source development. These locations were selected based on a combination of proximity to future development, apparent availability of significant quantities of water, likelihood of acceptable quality of water, and compatibility with existing water systems.
- ♦ Based on an analysis of existing water rights and the projected year 2030 water demand, a shortfall of about 40,600 gpm in instantaneous water rights was identified. An estimate of the portion of this quantity which will be provided from each of the eight source locations, plus the remaining portions of the Reservation Area, was estimated in the Reservation WAC.

A complete analysis of the requested reservation is presented in the 1982 EES report, along with references on supporting documentation of source potential. Also presented are alternate sources which would be drawn upon in the event the primary source is ultimately revealed to have insufficient yield potential or is not developed to yield the capacities for which reservation is requested.

- ♦ A 1982 meeting of all public water systems in the Reservation Area was held to present the findings of this report and outline the reservation program. No suggested modifications to the draft report were submitted. It was apparent from this meeting that there was general support for the reservation process.

A full discussion of the ground water availability in the North Thurston planning area is contained in the Thurston Metropolitan Area Coordinated Water System Plan for Water Supply Reservation (EES, 1982) and the existing separate comprehensive plans of the three cities and will not be repeated in this report.

Details of the water supply and distribution systems of the three cities are available in the most recent comprehensive water system plans for each of the cities. These plans are currently being brought up to date as part of the coordination planning process, but the most recent plans available for this Area-Wide Supplement are the following:

- ♦ City of Lacey Water System Comprehensive Plan amendments, 1993.
- ♦ City of Olympia Water System Plan, 1995.
- ♦ City of Tumwater Comprehensive Water System Plan, revised draft May 1993.
- ♦ Northern Thurston County Ground Water Management Plan, September 1992.

5.3 Future Water Supply Conclusions

Based on the 1982 Water Supply Reservation Study, the 1992 North Thurston County Groundwater Management Plan and other studies by the three cities and the County, certain conclusions regarding future water supply can be developed:

- ♦ There appears to be sufficient ground water available within the Water Supply Reservation Boundary to serve the North Thurston planning area projected growth for the next 50 years. This conclusion assumes that the water resources are effectively protected from contamination and are efficiently developed and managed. Relatively small areas of the North Thurston planning area may reach their capacity for major water withdrawals in 10 years or less due to existing major water withdrawals, low-capacity aquifers or conflicts with surface waters. Developing water resources sufficient for the next 50 years may require withdrawals from deeper aquifers than in the past and/or may require treatment before use. Ground water will continue to be the primary source of public water supply for the North Thurston planning area and the Urban Water Supply Service Area for the next 50 years.
- ♦ There are some potential advantages to developing larger well fields outside the urbanized parts in the south part of the Water Rights Reservation Area. These well fields could be developed by one or more of the cities or by larger private water systems.
- ♦ Water supply may be a potential long-term deterrent to urban development within the Urban Water Supply Service Area. Other factors, such as land use considerations and sewage disposal, will generally be more limiting than water supply.
- ♦ Protecting the Vashon Recessional and Vashon Advance Outwash Aquifers, which are the source for most large water supplies, should have the highest priority in land use and development policy, and in making decisions related to activities which might affect ground water in any way. Carefully protecting and monitoring these shallowest aquifers will protect the next deepest aquifer, the Deposits of Penultimate Glaciation, which is a greater potential ground water resource. The deepest aquifer, the Undifferentiated Deposits, is a largely unevaluated but potentially large resource although it may be limited by high mineral content.

5.4 Implementation

The following recommendations relative to water supply in the Urban Water Supply Service Area identified in the 1982 Water Supply Reservation Study and the 1986 Area-Wide Supplement have been implemented:

- ♦ The County and the cities filed the petition with DOE for the reservation of future water supplies for the North Thurston planning area. The "Reservation of Future Public Water Supply for Thurston County" was subsequently adopted by the Department of Ecology as WAC 173-591, which took effect on 7/14/86.
- ♦ The County and cities have taken the lead in insuring that the quality of ground water supplies are protected. Actions include adoption of the 1992 Northern Thurston County Ground Water Management Plan and implementation actions of the four jurisdictions. A key action has been initiating the identification, monitoring and protection of wellhead

protection areas for municipal water supply sources. Groundwater protection has also been addressed in planning and implementation related to solid waste handling and disposal, urban drainage, hazardous materials handling and spill response, and land use planning. As noted in the 1986 CWSP, "given the nature of the geological formations in the Urban Water Supply Service Area and the North Thurston planning area, these issues warrant the highest governmental concern and cognizance."

- ♦ The County and cities have implemented an enhanced system of water quality monitoring throughout the County. A wide range of project-specific and on-going surface and groundwater monitoring has been conducted since the CWSP was established. The multitude of small water systems pose a particular challenge as it is important that the many existing small water supply systems throughout the County and, in particular, throughout the urban area in and around the Urban Water Supply Service Area be monitored to assure a safe public water supply to all users.
- ♦ Conservation programs have been initiated locally and on a regional level.

In the future, the regional and city groundwater programs will continue to be the focal point for addressing the groundwater protection, hazardous materials control, groundwater monitoring and resource conservation objectives identified in the 1982 report which led to the Reservation designation.

6. PROSPECTS FOR JOINT FACILITIES AND MANAGEMENT PROGRAMS WITHIN THE NORTH THURSTON COUNTY URBAN WATER SUPPLY SERVICE AREA

6.1 Potential for Joint City Facilities

The three cities have compatible water system development standards and annexation requirements at this time. Together they share common transit, solid waste, and wastewater treatment facilities, and they cooperate on a number of other governmental issues. Cities of Lacey and Olympia were joint sponsors of the proposal to implement the Public Water System Coordination Act in the urban area of Thurston County.

However, each city operates its own independent water system, including source of supply and storage facilities. Although Lacey receives 10% - 20% of its water supply from the City of Olympia's McAllister Springs, there are few emergency interties between each system. There is not a strong impetus to affect the joining together of the three city water systems. The reasons for this situation are many and varied and include:

- ♦ The historic development of the three cities as separate jurisdictions with independent land use authority. The cities have each used water and sewer service to encourage annexation and adherence to existing land use plans.
- ♦ The way the cities have developed their water systems has created certain incompatibilities between the pressure zones within each city. Each city operates a system of reservoirs and pressure zones that are at different elevations. This is not an insurmountable situation and could be corrected should the systems be combined.
- ♦ Except in the case of a complete merger, it could become somewhat more cumbersome to coordinate water supply with land development activities in the broader areas since the three cities would undoubtedly continue to maintain separate land development activities and policies.

6.2 Potential for Joint Facilities Between Independent Water Systems

Among several larger independent water systems within the Urban Water Supply Service Area, the opportunity exists for some joint sharing of supply and storage facilities. Specific proposals can only be developed in response to development patterns; however, the water system comprehensive plans for each independent system must address this potential. An ongoing interjurisdictional review of water system planning is needed in the County to accomplish an analysis of future joint facilities. Opportunities for future joint facilities or management programs should be explored, including:

- ♦ Emergency interties should be strengthened, as a vital component of overall emergency response planning for major natural disasters such as earthquake. Water system

vulnerability to major disruption may be reduced through careful provision of emergency interties.

- ♦ Joint development of new major groundwater sources should be considered. At the time of the 1996 Area-Wide Supplement update, a joint project to explore groundwater source opportunities upgradient of McAllister Springs has commenced.
- ♦ Certain conservation program activities may be most cost-effective on a region-wide basis.

6.3 Effect of the Coordinated Water System Plan on Joint Facility Potential

The adoption of the provisions in this Area-Wide Supplement to the Coordinated Water System Plan will result in a substantial increase in the coordination of water system development in the Urban Water Supply Service Area portion of Thurston County. The process for water system review and approval and for water system construction plan approval insures that more attention is given to water system development proposals. By this process, opportunities for interconnection and joint facilities will be identified and because some form of land use application or permit process will be involved in these reviews, serious consideration of opportunities for such joint facilities will have to occur.

7. PLAN IMPLEMENTATION AND REVIEW

7.1 Legal Requirements

With the adoption of boundaries for the Urban Water Supply Service Area, the Thurston County Commissioners acted to commit the County to the enforcement of the provisions of the Public Water System Coordination Act and WAC 246-293. Specifically, the adoption of the Urban Water Supply Service Area boundaries in October 1984 implied that:

- ♦ The County would prepare and submit to DOH an adopted Coordinated Water System Plan within two years from the date of adoption of the Urban Water Supply Service Area boundaries. (In this case, by October 1986.)
- ♦ Service area maps would be developed for all purveyors within the Urban Water Supply Service Area planning to expand service to a larger future service area, with mutual agreement by all affected purveyors.
- ♦ All water systems planning to expand must prepare a water system comprehensive plan for their proposed future service area in accordance with WAC 246-293-230.
- ♦ The County must adopt water system development standards capable of meeting the fire protection requirements of the Act and the planning guidelines (adopted and effective September 1, 1980).
- ♦ The County must enact a procedure for determining how water service to new developments will be reviewed and approved.
- ♦ New water systems within the Urban Water Supply Service Area must provide fire protection for both residential and commercial property within their service areas. Some interim fire flow storage provisions may be allowed in lightly developed areas for a short time.

The Coordinated Water System Plan for Thurston County has been prepared in accordance with WAC 246-293 and consists of two parts:

- ♦ This Area-Wide Supplement, covering common planning standards, criteria, and procedures; and
- ♦ Current water system plans for all water systems within the Water Supply Service Area that are planning to expand to serve a future service area.

The Area-Wide Supplement, contained in this document, consists of the recommendations of the Water Utility Coordinating Committee and the consultant and staff team which participated in the 1986 Supplement preparation and 1996 update. The water system plans for each water

system are being prepared separately by each water utility that has indicated an intention to serve a future service area.

WAC 246-293-300 requires that the Area-Wide Supplement and the individual water system comprehensive plans be completed within two years of the adoption of the Urban Water Supply Service Area in order for the Coordinated Water System Plan to be considered complete. Based on the County's designation of the UWSSA in October, 1984, the original target date to have all planning elements completed was October, 1986. Failure to complete the Coordinated Water System Plan planning process by the target date could result in DOH denying requests for the expansion of water systems.

7.2 Prior County Actions

The Thurston County Commissioners adopted the boundaries of the Urban Water Supply Service Area in 1984 and enacted water system development standards in 1986.

The adoption of the Urban Water Supply Service Area boundaries was necessary before the Coordinated Water System Plan could be prepared. Deliberation on the boundaries for the Urban Water Supply Service Area was a major task of the Water Utility Coordinating Committee and required consideration of all of the other coordinated water system plan elements and County land use policies in order that the County Commissioners could fully understand the implications of the adoption of the Urban Water Supply Service Area boundary.

The original Coordinated Water System Plan Area Wide Supplement was adopted by the Board of County Commissioners in January, 1986, with DSHS approval effective on January 29, 1986.

In the months following the 1986 adoption of the CWSP Area Wide Supplement, future service areas were confirmed for Lacey, Olympia, Tumwater, Meadows and Pattison Water Company. Portions of the UWSSA were still in conflict due to overlapping future service intentions when the original maps were prepared. However, at the time of the 1996 update, virtually all service area conflicts have been resolved.

Procedures and public information materials were produced by the Thurston County Health Department following the 1986 adoption of the CWSP. Fees were also established for water system and water service review.

7.3 Required Actions to Implement the Coordinated Water System Plan

Potential future action items at the time of the 1996 update include the following:

7.3.1 Water System Plans

Preparation and review of the individual water system plans which make up one part of the Coordinated Water System Plan are an on-going process. At the time of the 1996 CWSP update, Pattison Water Company has not yet submitted an individual water system plan. Prior to approval by DOH, the County will act upon each comprehensive plan as it

is submitted to ensure that it is keeping with the recommendations of the Area-Wide Supplement and the general County policies adopted in relation to water system coordination. This review will insure the maximum coordination of water system planning within the Urban Water Supply Service Area.

7.3.2 Revision of Future Service Areas

Internal Boundary Revisions

Internal service area boundaries are anticipated to remain fairly stable in the future. Minor revisions may occur based on water system plans, Priority Level 2 service to new development from a neighboring water system, or via establishment of a Priority Level 3 new water system to serve new development in the event that no existing system is available.

If service area conflicts cannot be mutually resolved through participation of the WUCC and individual negotiation, they will be referred to the Hearings Examiner by the Thurston County Health Department for resolution. Pursuant to RCW 70.116, final appeal of the Hearings Examiner's decision may be submitted to the Secretary of the Washington State Department of Health for resolution.¹

UWSSA External Boundary revision

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. The intent of this Area-Wide Supplement is to coordinate growth management planning with water utility planning. Ideally, the UGA boundaries should not be expanded unless the WUCC has made a recommendation that urban-level water service will be available within the proposed expansion area.

The process for revision of the Urban Water Supply Service Area (UWSSA) boundaries and the UGA should be consistent with the 1988 Memorandum of Understanding Urban Growth Management Agreement and applicable Comprehensive Plan policies of the individual cities. These land use plans also provide the criteria for considering revisions to the UGA.

When revisions to the UGA external boundary are proposed, the Water Utility Coordinating Committee will be convened by the County to provide comment on the consistency between the proposed UGA boundary revision and water system coordination objectives, and to make a recommendation on concurrent expansion of the UGA and the

¹ Revisions to RCW 70.116 adopted by the Legislature in 1995 provide the County Commissioners with authority to define a service area dispute resolution process, with DOH involvement only upon appeal of the local authority's decision.

UWSSA external boundaries. The WUCC will also provide a forum to address any conflicts between water system service areas which the external boundary expansion may create.

Following receipt of WUCC recommendation, the County Commissioners will hold a public hearing on revision of the UWSSA. This hearing may be held concurrently with a hearing on the UGA revision. Final action may be taken to concurrently revise the UGA boundary and the external boundaries of the UWSSA.

Service Area Conflicts

Where mutual agreement between affected water systems cannot be reached, the Thurston County Health Department should refer the dispute to the WUCC as a forum to attempt mutual resolution of such disputes, or to make recommendation to the Hearings Examiner in the event that a conflict cannot be voluntarily resolved. If agreement cannot be reached, Thurston County Health Department will refer the issue to the Hearings Examiner. Pursuant to RCW 70.116.070, action of the Hearings Examiner on service area disputes may be appealed to the Secretary of the Washington State Department of Health.

Service Area Maps and Water System Plans

Approved service area revisions will be reflected on the maps maintained by the Thurston County Health Department and distributed in a timely manner to all affected utilities. Service area revisions will also be subsequently incorporated into the affected system's water system plan.

7.3.3 Joint Facilities and Management Opportunities

Opportunities for joint facilities and management in source development, conservation and emergency intertie will be pursued, where appropriate, on a project-specific basis under the direction of the Public Works Directors. In some cases, privately-operated systems should also be included in pursuing these opportunities for joint action.

7.4 County and City Funding Impacts of the Coordinated Water System Plan

The Area-Wide Supplement to the Coordinated Water System Plan contains two procedures for reviewing new water service development and for construction plan review that are more extensive than current County practices. Using existing permit and review procedures, no new agency will be created as a result of the Coordinated Water System Plan. The potential changes in staff work load that will result, include:

7.4.1 Water System Review and Approval Process

7.4.1.1 Development Review Agencies

Initial permit and development review by County and city staff should be unchanged. If appeals are filed regarding water system development, staff would have to provide additional support for the Hearings Examiner's review. The existing system of charges for land use actions could be used to compute fees for actions related to water system development. Little increased cost to city or County development review departments is envisioned as a result of the Coordinated Water System Plan.

Local planning agencies may also need to revise resolutions or ordinances which establish the authority of the Hearings Examiner to reflect revised responsibilities for water system and service area boundary review contained in this Area-Wide Supplement.

7.4.1.2 Municipal Water Systems

Staff from the municipal water systems would be involved in initial review of water service priorities for proposed development. They will be responsible for response to provide direct service or delineate conditions of satellite service.

7.4.1.3 Thurston County Environmental Health Department (TCEH) reviews

The Thurston County Environmental Health Department (TCEH) reviews all development permits within Thurston County to ensure that an appropriate water supply is provided utilizing the water system review and approval process contained in the Coordinated Water System Plan. If a development is to be served by an existing water system, there would be very little increase in the effort required on the part of TCEH over present practice.

For the water system construction plan review process, TCEH would experience some additional work load since the Department would act as coordinator for Group A water system project reviews as well as for the Group B systems they supervise. A fee structure exists for TCEH plan review at this time. Also, DOH has a plan review charge that will continue unchanged. A review of actual costs to the TCEH will be necessary before the Department recommends changes to the Health Code to amend the plan processing fees.

The County has in effect at this time a Health Code which contains a system of annual licensing fees for Group B water systems to be used for the supervision of the water quality of these water systems. This program of annual licensing fees could be expanded to include all water systems in the Urban Water Supply Service Area and the fees could be set sufficiently high to provide the funds to

carry out the Coordinated Water System Plan recommendations and to improve the present level of supervision the TCEH is able to give to the public water systems in the entire County.

7.4.1.4 County Fire Marshal

The County Fire Marshal currently reviews all building permits for commercial and industrial development to ensure that fire protection regulations are met. In most instances, this involves a consideration of water supply. Present County policy exempts residential development in areas outside of the Urban Water Supply Service Area from fire flow regulations.

The adopted UWSSA water system development standards require that all water systems be designed with the capability of providing fire flow to all property including residential development. The County Fire Marshal will review all water system construction plans for compliance with the standards.

The added workload as a result of the new water system development standards will not be a major full-time effort on the part of the County Fire Marshal's office, but will require significant amounts of time. A fee structure should be considered to cover these costs. Since the County Fire Marshal's Office does not charge for plan reviews at this time, a review of the entire Fire Marshal review fee policy should be conducted as part of the development of fees to cover residential plan review.

A regular review of existing permit and processing fees and costs will provide information for the future adjustment of the development review fees to ensure that these fees cover the cost of providing the service.

7.4.2 Water System Plan Revisions

The updated CWSP Area-Wide Supplement identifies several issues which should be included in updates to individual water system plans. These include:

- ♦ Conditions for establishing fees in lieu of constructing frontage improvements or other means to address financial responsibilities of new development where future water line extension is anticipated but engineering has not been accomplished.
- ♦ Policies clarifying when and if satellite systems may be allowed where proposed new development is remote from existing water lines but within the future service area. See section 4.41.
- ♦ Policies and action strategies for existing small water systems within the designated water system's future service area. See section 4.62.

7.5 Future Role of the Water Utility Coordinating Committee

Recommendation on Area-Wide Supplement and boundary revisions

The Public Water System Coordination Act regulations in RCW 70.116.060(6) stipulate that the County Commissioners (as well as the Secretary of DOH) are given the authority to initiate revision of all or part of the CWSP. This includes authority to determine the scope of the update, which is referred for comment to the eligible water systems and agencies composing the Water Utility Coordinating Committee (WUCC). The Plan can be reviewed at any time to meet changes in conditions or to resolve problems that may develop in the enforcement of the Plan's recommendations. The regulations imply that the Water Utility Coordinating Committee should be responsible for the review of the Coordinated Water System Plan. It is recommended that the County Water and Waste Management Department maintain the responsibility for staff support and scheduling of these periodic reviews of the Plan. The Water Utility Coordinating Committee should be convened as necessary during the review process to provide input on the Coordinated Water System Plan and any changes that may be required. Membership in the WUCC should be updated each time the WUCC is convened. In this way current systems with more than 50 services can be identified and included. All systems with approved future service areas should also be included.

The WUCC should also be convened to make comment on any proposed changes to the UGA and UWSSA boundaries, which should ideally be revised concurrently. In addition, any service area boundary disputes which emerge in the future should be referred to by the Thurston County Health Department to the WUCC as a forum to attempt mutual resolution of such disputes, or to make recommendation to the Hearings Examiner in the event that a conflict cannot be voluntarily resolved.

Informal activities of the WUCC

Periodic meetings of the WUCC may be useful in achieving optimal utilization of water system talent and water resources in the North County urbanizing area. Department of Water and Waste Management staff should coordinate at least annual meetings of the WUCC to review CWSP implementation, opportunities for cooperation and shared resources, and other issues of mutual concern.

The WUCC may also be a useful forum for addressing emerging problems related to specific failing water systems or other region-wide concerns. This may entail occasional WUCC meetings to address specific emerging issues in a timely fashion.

APPENDIX A: GLOSSARY OF ACRONYMS AND TERMS

Acronyms:

CWSP:	North Thurston County Coordinated Water System Plan
DOH:	Washington State Department of Health
UGA:	Urban Growth Area designated by mutual agreement of Tumwater, Olympia, Lacey and Thurston County
UWSSA:	North Thurston County Urban Water Supply Service Area
WUCC:	North Thurston County Water Utility Coordinating Committee

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.

“Coordinated Water System Plan (CWSP)”

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 Areawide 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. Interim service may be provided by the designated water system, an adjoining existing water system or an approved satellite system operator.

“North Thurston County Urban Water Supply Service Area (UWSSA)”

Pursuant to RCW 70.116.040, the North Thurston County Urban Water Supply Service Area (UWSSA) was designated as a Critical Water Supply Service Area in October 1994. This was determined to be 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 UWSSA are generally the growth management areas of Tumwater, Lacey and Olympia.

“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.

“Service Area”

The service area is the area within which the designated water system has priority for service. For expanding water systems, service area is defined by the most current of the following:

- ♦ Maps included in the approved Area-wide Supplement, or,
- ♦ The utility’s approved water system plan. For non-expanding water systems, the service area is the specific area within which direct service or retail service is provided by an existing distribution system.

“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. This will be identified by the project proponent as part of the development review process, 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.

“Water System Plan”

The water system plan is a written plan prepared for a particular water system which identifies a schedule of needed improvements, a financial program, and an operations programs. For details of requirements see WAC 246-290-100.

**APPENDIX B: WATER SYSTEMS WITH OVER 50 CUSTOMERS NORTH
THURSTON COUNTY URBAN WATER SUPPLY SERVICE AREA – 1996**

Alonda Villa 1364 Alonda Lane NE Olympia, WA 98516	Marvin Road Water Company 6905 5th Court SE Olympia, WA 98503
Candlewood Mobile Manor 4500 Martin Way Space # 63 Olympia, WA 98516	Meadows Water Company, Inc. 7852 Delphi Road SW Olympia, WA 98512
City of Lacey P.O. Box 3400 Lacey, WA 98509-3400	Melody Pines Mobile Home Estates 9011 Old Highway 99 SE # 200 Olympia, WA 98501
City of Olympia 1401 Eastside Street SE, PO Box 1967 Olympia, WA 98507	North Woodland Water System Inc. 7545 Steilacoom Road SE Olympia, WA 98503
City of Tumwater 555 West Israel Road Tumwater, WA 98501	Pattison Water System P.O. Box 3374 Lacey, WA 98509-3374
Coach Post Mobile Park 3633 7th Avenue SW Olympia, WA 98502	South Sound Utilities 6800 Meridian Road SE Olympia, WA 98513
Detrays Mobile Home Park 1617 Fones Road Olympia, WA 98501	Thurston County PUD # 1 6401 Madera Court SE Lacey, WA 98503
Lakeridge Water Company PO Box 8032 Lacey, WA 98503	Timberlane Mobile Estates 4520 South 290th Auburn, WA 98001
Lakeside Mobile Park 4045 49th SW # 12 Olympia, WA 98502	Tolmie Park Estates Water Company PO Box H Littlerock, WA 98556
Lakeside Villa 6200 Fair Oaks Road SE # 201 Olympia, WA 98513	Turf Acres 5650 Yelm Highway Apt 41 A Olympia, WA 98503
Laurel Park Estates 3244 66th Avenue SW No. 33 Olympia, WA 98502	Washington Land Yacht Harbor 9101 Steilacoom Road SE Olympia, WA 98513
Lazy Acres 2719 70th Avenue SW Olympia, WA 98512	The Vineyard PO Box 648 East Olympia, WA 98540
Martin Way Mobile Home Park 8103 Martin Way SE Lacey, WA 98516	