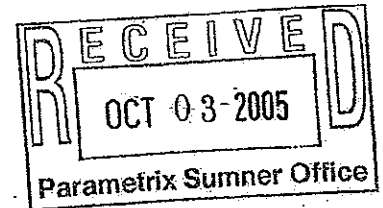


APPENDIX G

Water Conservation Plan



ATTACHMENT C

The following checklists are for use by Ecology and Health staff in their review of water conservation plans submitted as elements of water system plans, or separately in conjunction with water right permit applications. These checklists summarize the water conservation planning requirements for all size and location of public water systems as required by Ecology and Health. Please note that systems that will be pursuing water rights within the next 20 years must also comply with the source of supply requirements pursuant to chapter 246-290-100 WAC. All such systems must comply with both the source of supply analysis elements below and the conservation planning requirements for their particular sized system. These checklists will also be utilized as informational handouts for public water systems to assist them in completing conservation plans.

CONSERVATION PLANNING REQUIREMENTS FOR PUBLIC WATER SYSTEMS WITH FEWER THAN 1,000 SERVICE CONNECTIONS LOCATED IN CRITICAL WATER SUPPLY SERVICE AREAS

The checklists below are for use by public water systems in their efforts to develop a water conservation plan in accordance with the Guidelines and Requirements for Public Water Systems regarding Water Use Reporting, Demand Forecasting Methodology, and Conservation Programs (Conservation Planning Requirements). Ecology and Health staff in reviewing conservation plans required from public water systems will also use these checklists. Conservation plans consist of three elements: data collection and reporting; demand forecasting for future water needs, and; conservation program development and implementation. THESE CHECKLISTS IDENTIFY THE REQUIREMENTS FOR EACH OF THESE THREE COMPONENTS OF A CONSERVATION PLAN FOR PUBLIC WATER SYSTEMS WITH FEWER THAN 1,000 SERVICES LOCATED IN AREAS COVERED BY A COORDINATED WATER SYSTEM PLAN DEVELOPED PURSUANT TO CHAPTER 70.116 RCW. Please note that systems that will be pursuing water rights within the next 20 years must also comply with the source of supply analysis requirements pursuant to chapter 246-290-100 WAC. An additional checklist defining the source of supply requirements is included as attachment H. Please refer to the Conservation Planning Requirements and the Water System Planning Handbook for additional details.

CONSERVATION PLANS ARE REQUIRED COMPONENTS OF WATER SYSTEM PLANS REQUIRED BY THE DEPARTMENT OF HEALTH (HEALTH), AND ARE REQUIRED BY THE DEPARTMENT OF ECOLOGY (ECOLOGY) PRIOR TO THE ISSUANCE OF WATER RIGHTS TO PUBLIC WATER SYSTEMS. Implementation of conservation plans may be conditions of approval of water system plans and for water right permits. Where water system plans are required, Health will be the lead agency in reviewing conservation plans. Health will coordinate review of conservation plans with Ecology. If you have any questions about the Conservation Planning Requirements contact the Health Regional Office Planner for your area, or if your system is not required to complete a water system plan, the Ecology Regional Office for your area. The cost-benefit analysis that is required for evaluating various conservation measures should be commensurate to the water system size and water supply status of the individual water system and the area watershed.

For additional resources to assist in the development of your conservation plan, please refer to the Water Conservation Handbook for Public Water Systems developed by Ecology and Health. Additionally, the Planning Handbook - A Guide for Preparing Water System Plans is available from Health to assist in the development of your overall water system plan. Finally, the Water Conservation Bibliography for Public Water Systems published by Health provides references to additional water conservation information and literature which can be obtained from the library and other sources. All of these documents are available from Ecology or Health.

NOTE: The information in this handout provides an overview of the specific requirements in the Conservation Planning Requirements. You should not rely on this handout exclusively to prepare your conservation plan. Please refer to the Conservation Planning Requirements to determine the specific guidelines and requirements for your conservation plan.

WATER USE DATA COLLECTION REQUIREMENTS CHECKLIST

This checklist summarizes the water use data reporting requirements in the Conservation Planning Requirements. Unless otherwise noted, data should be reported in cubic feet. The Conservation Planning Requirements establish 1991 as the initial year for water use data collection and reporting. If available, data should be shown for the past 5 years. Systems are encouraged to collect more than the minimum required data.

To meet the minimum requirements of the Conservation Planning Requirements, plans must contain currently available data on water usage for the categories of use listed below. If the data has not been collected for any of the categories below, you will be required to make a commitment in your conservation plan to begin collecting the data as required. This commitment must include a schedule for when the data will begin to be collected, and what improvements if any will be made to ensure the data is collectable. Systems which make this commitment to collect data, but do not follow through and collect the information, may be unable to receive subsequent water system plan approval or approval for additional water rights, until data consistent with the checklist below is collected.

All data elements must be reported or a commitment must be made (for each data element not collected) to collect and report the data prior to the next water system plan update. Where available, daily, monthly and annual totals must be reported, not averages. Please read the footnotes to obtain additional information.

A. Are you a new public water system which has not yet collected any water use data? Yes _____ No X

If yes, skip to number 14.

<u>Water Use Data</u>			<u>Data Collected</u>
1. Source of Supply Meter (monthly totals from each source) ¹	Yes <u> X </u>	No _____	See Section 2.1.3.
2. Total Annual Use - Each source (annual totals)	Yes <u> X </u>	No _____	See Section 2.1.4.
3. Emergency Interties - Amount Imported (monthly totals from each intertie).	Yes _____	No _____	None Imported <u> X </u>
4. Wholesale - Amount Purchased (annual totals from each wholesaler)	Yes _____	No _____	None Purchased <u> X </u>
5. Peak Month Usage (peak monthly totals)	Yes <u> X </u>	No _____	See Section 2.1.5.
6. Unaccounted for Water (annual totals)	Yes <u> X </u>	No _____	See Table 2-2 in Section 2.
7. Accounted for Non-Revenue Water annual totals) ²	Yes <u> X </u>	No _____	None _____

8. Service Meter Usage (monthly totals)³

See Section 2.1.4.

Single-Family

Yes X

No

None Served

Multi-Family

Yes

No

None Served X

Commercial/Governmental/Industrial

Yes X

No

None Served

Agricultural

Yes

No

None Served X

9. Emergency Interties - Amount Exported (monthly totals provided to each intertie)

Yes

No

None Exported X

10. Wholesale - Amount Sold (monthly totals provided to each wholesale customer)

Yes

No

None Sold X

11. Population Served. (required to be reported - annual totals)⁴

Yes X

No

See Section 2.1 and Table 2-1.

12. Conservation Data (report the type of measure, level of implementation, duration and date begun - to be included in conservation plan, not reported with other data).⁵

Yes X

No

See Section 5.1.3 of the Water System Plan for selected conservation activities.

13. Existing Rate Schedules

Yes X

No

See Ordinance 401 in Appendix A or Table 10-2 in Section 10.

Data Collection Commitment

14. Unreported Data Elements (for all data elements where data was not collected, the system is required to make a commitment to initiate and continue to collect data)⁶

Yes

No

All Reported X

1. Those systems which do not have source meters will be required to estimate source production.

2. Accounted for non-revenue water includes uses which can be accounted for, but where revenue is not collected. Examples include fire, protection, system flushing and other designated uses.

3. Those systems required to collect data which do not have service meters, will be required to estimate how much each of these users has consumed. Include the number of connections in each category of user. Data may be collected through normal billing procedures. Monthly data may be estimated if customers are billed less frequently.

4. Report the number of connections and customers in the residential class, and number of connections for the other customer classes. Population served must be reported, a commitment to include the information in the next water system plan update is inadequate. Data on population per household is available from the State Office of Financial Management.

5. If no previous conservation efforts have been undertaken, development of a conservation plan consistent with the Conservation Planning Requirements will be acceptable.

6. System must either have collected all data or made a written commitment to initiate and continue data collection or the conservation plan cannot be approved.

DEMAND FORECASTING REQUIREMENTS CHECKLIST

This checklist summarizes the demand forecasting factors that must be considered when forecasting future water needs. Demand forecasts must include demands from wholesale customers. To meet the minimum requirements of the Conservation Planning Requirements demand forecasts must incorporate the four factors, listed below. Other factors determined to be appropriate by the system may be included as is appropriate. Demand forecasts must show demand for 6 and 20 year projections for both average daily demand and peak day demand, which depict future usage with and without conservation savings obtained from the conservation program (i.e. that factor in target water saving projections identified in the conservation program).

<u>Factors Required to be Included</u>	<u>Included</u>		
1. Projected Population (based on information from local government and/or Office of Financial Management)	Yes <u> X </u>	No <u> </u>	See Section 2.2.1.
2. Land Use/Zoning/Capacity (adopted land use and zoning regulations)	Yes <u> X </u>	No <u> </u>	See Section 2.2.1.
3. Conservation Savings (water projected to be saved through the water conservation program must be factored into demand projection)	Yes <u> X </u>	No <u> </u>	See Section 2.2.5.
4. Per Capita Water Use and Other Non-Residential Water Use (based on documented water usage - when available)	Yes <u> X </u>	No <u> </u>	See Section 2.1.4.

WATER CONSERVATION PROGRAM REQUIREMENTS CHECKLIST

Conservation programs must include conservation objectives, evaluation of conservation measures, identification of selected conservation activities, and target water saving projections as discussed below. Please refer to the Conservation Planning Requirements for additional details.

Conservation Objectives. Goals and objectives of the conservation program shall be identified. These objectives should be designed to meet the needs of the specific water system (e.g., attain maximum utilization of current supplies, reduce peak daily consumption, reduce peak monthly consumption, reduce total annual consumption, promote long term efficiency with accelerated conservation on a short term basis, reduce usage from a specific customer class, develop public education and awareness, etc.). **EACH WATER SYSTEM WILL NEED TO DEVELOP CONSERVATION OBJECTIVES WHICH LOGICALLY MEET ITS NEEDS.**

Evaluation of Conservation Measures. Public water systems must evaluate all recommended conservation measures identified in the Conservation Planning Requirements and implement those that are required and those that meet the public water systems' needs. The specific measures to be evaluated depend upon the size of the system. However, systems are encouraged to evaluate measures above the minimum requirements. The system must explain decisions not to implement measures it is required to evaluate.

Identification of Selected Conservation Activities

Description. Description of conservation measures being implemented. (including required measures).

Schedule. Schedule of when the conservation measures will be implemented (emphasis on 6-year implementation schedule).

Budget. Projected budget for each selected conservation measure. Schedule and budget information should be shown together.

Monitoring Requirements. Description of how the system will monitor the success of its conservation measures (e.g., documented reduction in water usage, distribution of conservation materials, implementation of specific measures).

Target Water Savings Projections. Each system will identify a percentage savings goal, based on the measures chosen for implementation, which the entire water conservation program will attempt to save. Because different systems may have already implemented different levels of conservation, and the conservation needs of each system are different, no percentage savings goal has been established in the Conservation Planning Requirements. This percentage savings goal must be factored into the demand forecast.

To meet the minimum requirements of the Conservation Planning Requirements, all required measures must be planned to be implemented within six years, and all recommended measures must be evaluated and implemented if cost effective.

The following checklist summarizes the water conservation measures which are required to be implemented, and measures which are required to be evaluated and implemented where cost effective. In the absence of clear evidence to the contrary, estimates on the costs and benefits of

conservation measures (i.e. selection of non-mandatory measures for implementation) will not be challenged. Please refer to the footnotes for additional information.

<u>Required Conservation Measures¹</u>	<u>Measure Implemented</u>		
1. Program Promotion	Yes <u>X</u>	No <u> </u>	Initiated with adoption of 2005 Water System Plan.
2. Install Source Meters	Yes <u>X</u>	No <u> </u>	Already implemented.
3. Unaccounted Water/Leak Detection	Yes <u>X</u>	No <u> </u>	Initiated with adoption of 2005 Water System Plan.

All recommended measures listed below must be evaluated for implementation in the conservation plan to meet the minimum requirements in the Conservation Planning Requirements.

<u>Recommended Conservation Measures</u>	<u>Measure Evaluated</u>		
3. Install Service Meters	Yes <u>X</u>	No <u> </u>	Already implemented.
4. Conservation Pricing	Yes <u>X</u>	No <u> </u>	Already implemented.

OTHER - REQUIREMENTS CONTAINED IN THE CONSERVATION - PLANNING REQUIREMENTS

In addition to developing a conservation plan as delineated above, the Conservation Planning Requirements also require that all public water systems preparing a water system plan identify existing rate schedules (include schedules for various customers classes if they are different), and inventory major potential sources and uses for reclaimed water.

<u>Other Requirements</u>	<u>Information Included</u>		
1: Inventory of Sources and Uses for Reclaimed Water. ²	Yes <u> </u>	No <u>X</u>	Not applicable to Town of South Prairie with fewer than 25,000 service connections.

¹ Program promotion is required to be implemented for all public water systems. Source metering is required to be implemented by all system prior to receiving additional water rights. If additional water rights are not being sought, this measure must be evaluated and implemented if cost effective. If unaccounted for water is greater than 20 percent a leak detection and repair program must be initiated.

² A list of potential sources and uses of reclaimed water is contained in the Conservation Planning Requirements. Only those system with more than 25,000 service connections will be required to evaluate water reuse as a conservation measure.