**BEFORE THE WATER RESOURCES DEPARTMENT**
**OF THE**
**STATE OF OREGON**

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| In the Matter of the Proposed Water Management and Conservation Plan for the Joint Water Commission, Washington County | ) ) ) | FINAL ORDER APPROVING A WATER MANAGEMENT AND CONSERVATION PLAN |

## Authority

OAR Chapter 690, Division 086, establishes the process and criteria for approving water management and conservation plans required under the conditions of permits, permit extensions and other orders of the Department. An approved water management plan may authorize the diversion and use of water under a permit extended pursuant to OAR Chapter 690, Division 315.

## Background

On August 13, 2009, the Joint Water Commission (JWC) submitted a draft Water Management and Conservation Plan for review under OAR Chapter 690, Division 086 (November 2002). At the time this draft plan was submitted, JWC was made up of five member agencies which included the Cities of Hillsboro, Forest Grove, Beaverton, and Tigard and the Tualatin Valley Water District (TVWD). The plan was a coordinated effort on the part of the JWC member agencies to produce a plan that takes a regional approach to water management and conservation planning. Submittal of the plan was required as an update to a previously approved plan.

The Department published notice of receipt of JWC's plan on August 25, 2009, as required under OAR Chapter 690, Division 086. No public comments were received.

The Department provided comments on the plan to JWC on December 15, 2009 and, in response, JWC submitted a revised plan on August 10, 2010.

## Findings of Fact

1. The JWC Water Management and Conservation Plan contains all of the plan elements required under OAR 690-086-0125.

2. The projections of future water needs in the plan demonstrate a need for over 26.0 cfs of water available under Permit S-50879 to meet demands anticipated in 20 years. As part of the future demand analysis, the plan provided the overall JWC demand projections both with and without Tigard demands, as the City of Tigard is expected to become a preferred wholesale customer, instead of a JWC member. The projections included in the plan are reasonable and consistent with the land use plans of the JWC member agencies.

This final order is subject to judicial review by the Court of Appeals under ORS 183.482. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.482(1). Pursuant to ORS 536.075 and OAR 137-003-0675, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

3. The plan includes 5-year conservation benchmarks specific to the City of Hillsboro for:

    a. Implementation of actions and programs to: install an automated meter reading (AMR) system (to be fully completed within 10 years); expand its Community Garden Program and associated public educational materials; conduct a rate study by 2013 to determine if the adopted rate structure had the expected conservation results; become a member of the Alliance for Water Efficiency; include a recently completed feasibility study related to water reuse in high volume industrial areas into the City's next Water Master Plan; revise and improve the City's bulk water program used for construction purposes to be based on volumetric billing by requiring contractors to rent a hydrant meter instead of estimating water use; update and revamp the City's overall website layout to make it more accessible and to include more information on indoor and outdoor conservation tips; work with Master Gardeners at the Washington County Fair Complex Demonstration Garden to provide an educational showcase of water-wise gardening techniques for the general public; and work to replace all Hillsboro and JWC sonic meters with magnetic flow meters in the next treatment plant expansion project (scheduled to occur between 2016 and 2020); and

    b. Evaluation, development, and implementation of programs to: analyze the potential impact on water conservation through the adjustment of its tiered rates; complete a feasibility study in conjunction with the City of Beaverton on the most effective rebate programs within EPA's new WaterSense certification and labeling program, which includes analyzing water savings and completing a cost benefit analysis; analyze whether an evapotranspiration controller program would be suitable for Hillsboro customers; and evaluate the feasibility of encouraging waterless urinals in the Hillsboro School District and other non-profit, industrial or commercial sites.

4. The City of Hillsboro's system is fully metered and the rate structure includes a base charge and volumetric charge. Hillsboro's unaccounted-for water is estimated at negative 8 percent. The City determined these negative figures associated with their unaccounted-for water are likely a result of inaccuracies with their existing sonic master meters, and therefore, has committed to replacing all of those meters with magnetic flow meters, as described above.

5. The plan includes 5-year conservation benchmarks specific to the City of Forest Grove for:

    a. Implementation of actions and programs to: improve water audit record keeping by considering ways of changing computer software to better compare and report water use; convert all meters to an AMR system within the next 5 to 7 years; and expand its website to include more conservation information, including a link to evapotranspiration data; and

    b. Evaluation, development, and implementation of programs to: determine whether to expand the current home energy audit program to include more water conservation consultation; and to determine the potential costs, market penetration and water savings that could result from expanding their rebate program to include toilets, landscape equipment and weather-based irrigation controllers.

6. The City of Forest Grove's system is fully metered and the rate structure includes a base charge and volumetric charge. Unaccounted-for water is estimated at 15 percent.

7. The plan includes 5-year conservation benchmarks specific to the City of Beaverton for:

    a. Implementation of actions and programs to: pilot test an AMR program, and if feasible, replace approximately 10 percent of existing meters by 2015; continue its aggressive meter replacement program with a goal of replacing 700 residential meters annually and commercial meters as needed; continue spending $1,000,000 annually over the next 5 years to repair, replace and upgrade existing water distribution mains, service lines, valves and fire hydrants; conduct a water audit for the Beaverton school district and continue to offer two free water audits per year for large water users; and expand its Aquifer Storage and Recovery (ASR) program by adding approximately two new wells over the next 5 to 10 years; and

    b. Evaluation, development, and implementation of programs to: conduct a rate study that will evaluate alternative rate structures intended to encourage water conservation and present the results and recommended actions to the City Council by January 1, 2015; participate in a WaterSense rebate feasibility study in partnership with the City of Hillsboro; and consider non-potable water use opportunities, for such uses as city irrigation.

8. The City of Beaverton's system is fully metered and the rate structure includes a base charge and volumetric charge. Unaccounted-for water is estimated at 10 percent.

9. The plan includes 5-year conservation benchmarks specific to TVWD for:

    a. Implementation of actions and programs to install AMR for all commercial accounts by 2013 and to use data from its current residential and commercial rebate program participants to market to both programs and attract new participants; and

    b. Evaluation, development, and implementation of programs to: work with local schools to develop new and creative programs that foster water stewardship; conduct a commercial and residential rebate evaluation in 2010 and every 2 years thereafter for both programs; complete an evaluation by 2015 of the feasibility of expanding the AMR program, including possible water conservation benefits; evaluate its home water assessment pilot program by 2012 to determine if the program should be continued or expanded; develop and investigate measures to evaluate and report on rebate and outreach performance from actual customer meter data; investigate opportunities to promote EPA WaterSense labeled products; and develop opportunities to work with business, industry, government and multi-family (B.I.G.) customers that will encourage water re-use and recycling, water conservation and water efficiency.

10. TVWD's system is fully metered and the rate structure includes a base charge and volumetric charge. Unaccounted-for water is estimated at 3 percent.

11. The plan includes 5-year conservation benchmarks specific to the City of Tigard for:

    a. Implementation of actions and programs to: seek increased funding to replace inaccurate or inoperable meters; continue the current system-wide leak repair program and implement new cost-effective programs to reduce unaccounted-for water as they

are identified; retrofit the remaining public facilities during the next five years; and provide the public with information about rainwater catchment systems; and

b. Evaluation, development, and implementation of programs to: conduct a rate study within the next fiscal year to evaluate rate structures intended to encourage water conservation and present the results and recommended actions to the City Council; investigate opportunities during the next five years to provide technical assistance to commercial and industrial customers and to offer residential irrigation audits; investigate a program to retrofit multi-family buildings; explore opportunities to conduct additional contests, both with customers and in schools, to encourage creative water conservation; evaluate the effectiveness of current reimbursement programs, including a reimbursement program for restaurants that install water efficient pre-rinse spray valves; and evaluate the opportunity to develop a program to provide information and messages on water bills to encourage conservation.

12. The City of Tigard's system is fully metered and the rate structure includes a base charge and volumetric charge. The most recent unaccounted-for water figure is estimated at negative 2 percent. The unaccounted-for water figures for the five years prior to this negative figure ranged from 1 to 9 percent. The cause for the negative value has not yet been identified, however because Tigard has had both negative and positive unaccounted-for water values, it may indicate some inconsistency in metering or accounting. As described above in Finding of Fact #11, the City is seeking additional funding to replace inaccurate or inoperable meters.

13. The plan identifies the surface water rights held by the JWC and its members from the Tualatin, Trask and Willamette River Basins. Ground water sources, including aquifer storage and recovery (ASR) wells, are also identified in the plan. The plan also accurately and completely describes, for each surface water source, the appropriate listed fish species and water quality limitations in the Tualatin, Trask and Willamette River Basins. It also accurately describes that several of the JWC member agency ground water rights are within the boundaries of a designated critical ground water area (CGWA), being the Cooper Mountain-Bull Mountain CGWA.

14. The water curtailment element included in the plan for the JWC and its member agencies satisfactorily promotes water curtailment practices. The water curtailment element also includes a list of four stages of alert with concurrent curtailment actions for the JWC, Forest Grove, Tualatin Valley Water District and Tigard and a list of five stages of alert with concurrent curtailment actions for Hillsboro and Beaverton.

15. The diversion of water under Permit S-50879 will be initiated during the next 20 years and is consistent with OAR 690-086-0130(7), as follows:

    a. The JWC and its member agencies are committed to implementing and improving upon their conservation measures, as described in Findings #3 through #12 above, and have considered whether additional non-peak seasonal demand can be met through these conservation measures. However, because the water under Permit S-50879 to which the JWC is requesting access can be diverted through their existing infrastructure, conservation measures would not provide water at a cost equal to or lower than the cost of using water from this source.

b. Considering the available supply under JWC associated water rights, as well as the potential effects on water use of existing and proposed conservation measures to lower water use, JWC's anticipated non-peak season demand (which includes potential ASR development) is expected to exceed their available supply within the next 20 years.

   Furthermore, if climate change results in a greater demand for water during this time, the need for JWC to access water under Permit S-50879 may occur sooner. For these reasons, initiating the use of water under Permit S-50879 is the most feasible and appropriate water supply alternative to the supplier.

c. At this time, there are no known mitigation requirements for the initial diversion of water under Permit S-50879. There are, however, conditions in Permit S-50879 requiring the maintenance of seasonal bypass flows in Scoggins Creek from Scoggins Dam to the mouth.

**Conclusion of Law**

The water management and conservation plan submitted by the JWC is consistent with the criteria in OAR Chapter 690, Division 086.

**Now, therefore, it is ORDERED:**

1. The JWC Water Management and Conservation Plan is approved and shall remain in effect until September 14, 2020, unless this approval is rescinded pursuant to OAR 690-086-0920.

2. The limitation of the diversion of water under Permit S-50879 established by the extension of time approved on September 9, 2010, is removed and, subject to other limitations or conditions of the permit, the JWC is authorized to divert up to 26.0 cfs under Permit S-50879.

3. The JWC shall submit an updated plan within 10 years and no later than September 14, 2020.

4. The JWC shall submit a progress report containing the information required under OAR 690-086-0120(4) by September 14, 2015.

Dated at Salem, Oregon this 14 day of September, 2010.

Phillip C. Ward, Director

*Mailing date:* SEP 16 2010