

Eastern Washington Municipalities **Projected Water Demand Savings**



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2008 WUE Reporting Roundup

💧 Annual Reports Received

- Before July 1 deadline = 45%
- As of today = 90% submitted

💧 Leakage

- State average = 10.1%
- State median = 8.5%

Setting Goals: State Trends

- 💧 **Goal must indicate:**
 - Measurable water savings
 - Timeframe to achieve the goal
- 💧 **Most set a supply side (optional) and demand side (mandatory) goal**
- 💧 **Goals more aggressive to reduce leaks**

Why Are Goals More Aggressive to Reduce Leaks?

- 💧 **Recovers lost revenue**
- 💧 **Target date for compliance**
 - **July 2010 = 3 year average**
- 💧 **Have more control over the ability to achieve the goal**
 - **Supply side management vs. demand side management (uncertainty on how customers will respond)**

Over or Under the 10% Leakage Standard...Now What?

- 💧 **If over the 10% leakage standard:**
 - **Develop and implement a water loss control action plan**
 - **Higher leakage % = more aggressive water loss plan needs to be**
- 💧 **Once under the 10% standard, DOH would like to see more focused effort on customers**

Fixing Leaks Reduces Water Withdrawals/Diversions

- 💧 **Affects the total production, not the customer demand**
- 💧 **Pasadena Park IR District (Spokane Co.)**
 - **Kathy Small - 2008 DOH “Operator of Year”**
 - **75% leakage in Winter of 2001-02**
 - **Quickest and easiest fix is to turn lost water into money**
 - **Leakage rate went from 31 – 45% in 3 years, yet customer demand stayed the same**

Eastern WA Communities: 2008 Trends in Water Efficiency

- 💧 **Looked at 28 municipalities**
- 💧 **15 set goals to reduce customer use**
- 💧 **The other 13:**
 - **Set one goal to reduce leaks**
 - **Maintain current customer consumption levels**
 - **Did not set a customer goal at all**
- 💧 **Driver's for goal setting**
 - **Meet the state leakage standard**
 - **Meet the minimum regulatory criteria**

Chosen Measures to Meet Supply Side Goals

💧 Need to understand the data

- Leak detection surveys
- Water audits
- Replacing old meters w/ new technology
- Testing/calibrating source meters
- Addressing unmetered uses such as fire department use, IR of parks

Efforts Taken to Reduce Customer Use in Eastern WA Communities

- 💧 **Overwhelmingly using education**
 - School programs
 - Bill stuffers (conservation tips)
 - Booths at fairs, local events
- 💧 **Non-hardware measures that are hard to quantify**
- 💧 **Easy to do and low-cost**
- 💧 **Who's going to be the hero?**

Why Less Emphasis on Reducing Customer Use?

- 💧 **Need time to determine if current WUE program supports the established goal**
- 💧 **Hesitation to set the bar too high for fear of not reaching the goal**
- 💧 **Impact on revenue**
 1. Evaluate the rates (demand management)
 2. Reduce cost to produce water by fixing leaks (supply management)

How to Reduce Customer Demand

💧 Rates

- 5 of 28 E. WA looking at changing rates
- Declining block to flat rate
- Flat rate to inclining block

💧 Outdoor IR

- Target highest users (affluent homes)
- IR messages can reduce use by 20% for these users

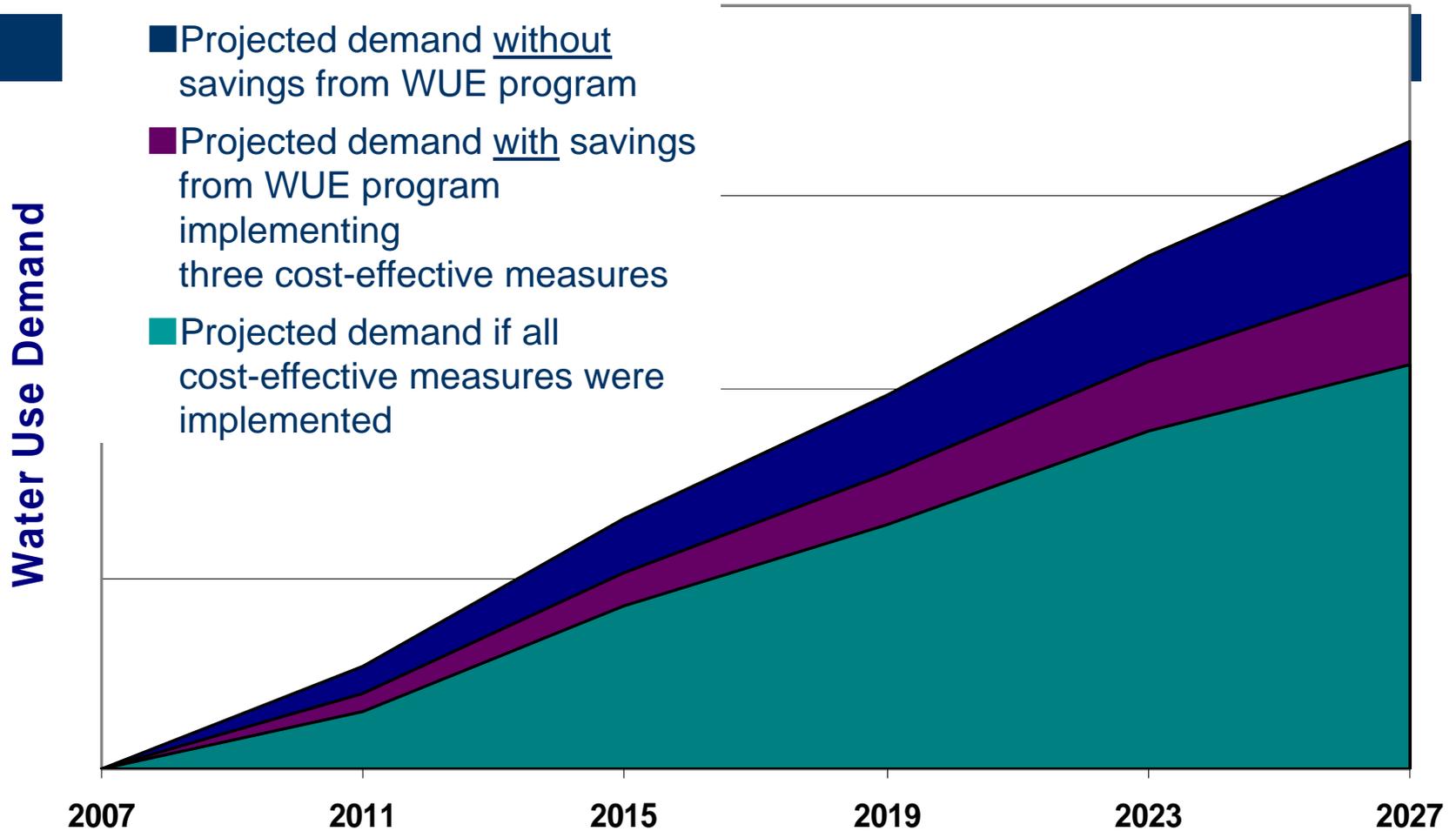
How to Reduce Customer Demand

- 💧 **Are we asking to reduce/eliminate water use or just use it efficiently?**
- 💧 **You can have your grass and water it too!**
 - **Green space for fire protection**
 - **Use rain sensors**
 - **Soil moisture sensors**
 - **Convert some lawn to drip IR landscape**

Demand Forecasts

- 💧 **Identify future water needs within a Water System Plan**
- 💧 **To figure out demand:**
 - **Use historic consumption data**
 - **Current population and future projections from OFM or local planning agency**
 - **Impact of water rates on consumption patterns**
 - **Economic development and employment projections**
 - **Projected WUE savings**

Projected Water Use Demand Example



Columbia River Report due November 15, 2011

💧 RCW 90.90.040

- **Develop a Columbia river...long-term water supply and demand forecast**
- **A list of conservation projects that have been implemented...and the amount of water conservation they have achieved**
- **The department...shall complete the first Columbia river long-term water supply and demand forecast by November 15, 2006, and shall update the report every five years thereafter**

How to Meet the 2011 Reporting Requirement

- 💧 **What are the projects and how much have they saved?**
- 💧 **How might demand forecasts change with more aggressive conservation?**
- 💧 **How can the state encourage more than just the minimum?**
 - **Fund a study to see how water savings might be achieved**
 - **Develop pilot program for a proactive municipality**

Promoting Water Efficiency in Eastern Washington

- 💧 **Consider the water supply characteristics (mandatory when setting goals)**
 - **Communities with higher risks for drought, static water levels dropping, high summer peak demands**
- 💧 **Could ECY and DOH provide incentives?**
 - **Create a more cost-effective and aggressive conservation program**

Criteria for Aggressive WUE Program

💧 What would it look like?

- Focus on outdoor measures
- Persistent customer education program: changing social behaviors/water use patterns
- How to build/create a water efficient home (EPA's WaterSense criteria)
- Rebate programs (toilets, appliances)
- Adopting a rate structure that sends a price signal to customers
- Good data (i.e. annual meter testing) to support results

So What's the Incentive?

- **Successful completion of criteria results in “payback” from the state**
 - **Credit for**
 - **Every water efficient house**
 - **Every acre foot of water saved**
 - **Every square foot of lawn eliminated**

Next Steps?

- 💧 **Fund a study looking at how the state can incentivize conservation for a high risk community**
- 💧 **Create a pilot program**
- 💧 **Hire a consultant to**
 - **research E. WA municipal water efficiency possibilities**
 - **identify WUE measures that customers will respond to (demographics)**

For More Information

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**[http://www.doh.wa.gov/ehp/dw/
programs/wue.htm](http://www.doh.wa.gov/ehp/dw/programs/wue.htm)**

Questions?

*It's Worth
Saving 
Drinking Water*