DESIGNING WATER CONSERVATION RECOMMENDATIONS FOR THE CONNECTICUT WATER PLAN

Mary Ann Dickinson, President and CEO
Meeting of the Implementation Work Group 4-21-2020
• $50,000 grant provided by Connecticut Water in their merger application before PURA

• Purpose: to provide technical assistance services to the Water Planning Council on water conservation programs identified in the State Water Plan

• Purpose: to help set priorities and provide additional research or models to help drive the implementation of conservation measures

• 9 key ideas for action were provided by AWE in a letter to PURA in April, 2019

• AWE chosen for the grant because of our extensive experience in water conservation in North America as well as our prior experience working in Connecticut
THE ALLIANCE FOR WATER EFFICIENCY

- Our mission is to promote an efficient and sustainable water future
- Over 500 member organizations in 200 watersheds delivering water to 50 million water users
- Our network and research focus is on smart solutions and a goal of Efficiency First
SAMPLE AWE PRODUCTS

- State Scorecard Reports analyzing water conservation laws
- Water Conservation Scenario Planning Tracking Tool
- Rates Handbook and Model to help utilities build water efficient rate structures but with revenue stability
- Rates videos for consumers
- Practical Plumbing Handbook for consumers
- Never Waste consumer education and outreach program
- Net Blue Water Neutral Development Program
- Numerous research studies on practical implementation questions
- Detailed web site resources
As a stakeholder-based nonprofit organization dedicated to the efficient and sustainable use of water, the Alliance for Water Efficiency serves as a North American advocate for water-efficient products and programs, and provides information and assistance on water conservation efforts.
AWE’S LETTER TO PURA
IDENTIFYING 9 POSSIBLE AREAS FOR ACTION

1. Provide an evaluation of existing state laws and regulations
2. Analyze the options for water waste enforcement
3. Review the revenue loss issues arising from conservation programs and recommend solutions for addressing this problem

Review and evaluate specific areas in the State Water Plan and provide recommendations:
4. Water conservation education outreach
5. Calculating passive conservation savings
6. Incentives for outdoor water conservation measures
7. Construction standards
8. Evaluation of barriers to green building and infrastructure
9. Working with the Green Industry
IWG IDENTIFIED THEIR PRIORITIES FOR THIS WORK

1. Review the revenue loss issues arising from conservation programs and recommend solutions for addressing this problem
2. Provide an evaluation of existing state laws and regulations
3. Analyze the options for water waste compliance/enforcement
4. Provide recommendations on water conservation education outreach
5. Provide recommendations on incentives for outdoor water conservation measures
• Original proposal from AWE had been to investigate all nine areas and present summary results in a report
• IWG preferred to do the identified priority areas in more depth
• Stakeholder input is desired, and AWE will comply with whatever process is defined
• First priority topic to be addressed is the topic of rates and revenue loss
• AWE has considerable experience in this area
• Our utility members with conservation programs were all suffering from reduced revenues and needed help
• We developed our Financing Sustainable Water initiative specifically to deal with this problem and to offer solutions
Financing Sustainable Water
Building Better Rates in an Uncertain World: A Handbook to explain key concepts, provide case studies and implementation advice

AWE Sales Forecasting and Rate Model: Innovative, user-friendly tool to model scenarios, solve for flaws, and incorporate uncertainty into rate making

FinancingSustainableWater.org: Web-based resources to convene the latest research and information in one location
WHAT AFFECTS REVENUE STABILITY?

• Reduced demand from:
  • Efficient fixture replacement under national plumbing and appliance codes
  • Active conservation programs
  • Economic recessions

• Reduced peak demand in wet years

• Increased infrastructure costs

• Rise in other fixed costs (staffing, insurance)

• Demand Forecasting that doesn’t take passive conservation into account and thus overestimates sales
SEATTLE’S CONSERVATION STORY AND REVENUE STABILITY
FOCUSING ON THE UTILITY REVENUE REQUIREMENT
CONSUMER MESSAGING: “WATER: WHAT YOU PAY FOR” VIDEO
CONSUMER MESSAGING: “WHY ARE MY WATER RATES GOING UP?” VIDEO
Financial Instruments to Manage Revenue Risk

A new white paper explores opportunities for utilities to use financial instruments - such as derivatives, insurance and bonds - to manage weather-related revenue risk in an increasingly volatile climate.

Rates. Revenue. Resources.

Financing Sustainable Water is an initiative of the Alliance for Water Efficiency. It was created to provide practical information to guide utilities from development through implementation of rate structures that balance revenue management, resource efficiency and fiscal sustainability. This website will be updated frequently with new content and we encourage visitors to return often for additional information and resources. The Alliance serves as a North American advocate for water efficient products and programs, and provides information and assistance on water conservation efforts. Learn More

WATER MANAGERS
Find guidance on sustainable financial management

ELECTED OFFICIALS
Support your utility through smart management practices

CONCERNED CITIZENS
Learn how you can help create a sustainable water future

MEDIA
Get facts on today's water challenges and solutions
WHERE TO START ON THE RATES TASK?

• We recommend a one-day 7 hour Rates Workshop to provide solutions on methods for stabilizing revenue loss
• We will bring in Dr. Janice Beecher, Executive Director of the Institute of Public Utilities, an expert on rate setting and RAM’s
• We will demonstrate how to use the free Sales Forecasting and Rates Model using a Connecticut example
• The workshop is very participatory, with panels such as local officials discussing how to get to “yes” on a rates increase
• AWE has held rates workshops in Colorado, California, Texas, Arizona and Massachusetts
• The Massachusetts workshop was sponsored by the Massachusetts Department of Conservation and Recreation
• After the workshop we can provide specific guidance to water utilities as follow-up
EVALUATING STATE LAWS AND REGULATIONS
• 2012 Water Efficiency and Conservation State Scorecard
• 2017 Water Efficiency and Conservation State Scorecard
• 2018 State-Level Water Efficiency and Conservation Laws in the Colorado River Basin
• 2019 State-Level Water Loss Laws in the United States
• Direct work with states on policy review and recommendations
• Nevada adopted new laws in 2018 as a result
<table>
<thead>
<tr>
<th>QUESTION</th>
<th>POINTS</th>
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</thead>
<tbody>
<tr>
<td>1. State agency in charge of drinking water conservation/efficiency?</td>
<td>2</td>
</tr>
<tr>
<td>2. Water consumption law* for toilets?</td>
<td>0</td>
</tr>
<tr>
<td>3. Water consumption law* for showerheads?</td>
<td>0</td>
</tr>
<tr>
<td>4. Water consumption law* for urinals?</td>
<td>0</td>
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<tr>
<td>5. Water consumption law* for clothes washers?</td>
<td>0</td>
</tr>
<tr>
<td>6. Water consumption law* for pre-rinse spray valves?</td>
<td>0</td>
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<tr>
<td>7. Building/plumbing codes require* water efficient products?</td>
<td>0</td>
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<tr>
<td>8. Limitation on water loss in utility distribution systems?</td>
<td>3</td>
</tr>
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<td>9. Water conservation is a condition of a water right permit?</td>
<td>7</td>
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<tr>
<td>10. Water suppliers must develop a drought preparedness plan?</td>
<td>5</td>
</tr>
<tr>
<td>11. Water suppliers must develop water conservation/efficiency plans?</td>
<td>8</td>
</tr>
<tr>
<td>12. State offers financial assistance for urban water conservation?***</td>
<td>0</td>
</tr>
<tr>
<td>13. State offers technical assistance for urban water conservation?</td>
<td>1</td>
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<tr>
<td>14. Water connections that are part of a public supply must be metered?</td>
<td>0</td>
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<tr>
<td>15. Water suppliers must implement volumetric billing?</td>
<td>0</td>
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<tr>
<td>16. Rate structures must encourage water conservation?</td>
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</tbody>
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* Requirement is more stringent than the federal standard
** Beyond Drinking Water State Revolving Funds

**Grade: B-**

**Total: 26**
• Ranked in top 17 out of 50
• 26 points (average was 19)
• “B-” Grade
• Tied with UT and NC
SUCCESS AND OPPORTUNITY FOR IMPROVEMENT

Connecticut Points Earned for Each Primary Scorecard Category

- **Plumbing Fixture and Appliance Standards and Building Codes**: 0% points earned, 0% total points available
- **Water Loss**: 0% points earned, 20% total points available
- **Water Conservation Connected to Water Supplier Permits**: 0% points earned, 45% total points available
- **Water Supplier Drought Plan Requirements**: 0% points earned, 48% total points available
- **Water Conservation Plan Requirements (beyond permit requirements)**: 0% points earned, 57% total points available
- **Financial Assistance**: 0% points earned, 0% total points available
- **Technical Assistance**: 0% points earned, 33% total points available
- **Metering and Billing**: 0% points earned, 0% total points available

Legend:
- Points Earned
- Total Points Available
WATER CONSERVATION EDUCATION OUTREACH
HOME
WATER
WORKS
WEBSITE
WATER
USE
CALCULATOR
PROVIDING USEFUL INFORMATION TO THE CONSUMER

• Consumer-oriented DIY Guide
• Covers toilets, faucets, showerheads, clothes washers, dishwashers, and irrigation systems
• Also discusses meters, water pressure, water heaters, pools & spas, and water softeners
• Helps consumers identify and repair leaks
• Provides installation and maintenance tips
• Handy 4”x6” size
PROVIDING MOTIVATIONAL MESSAGES TO THE CONSUMER

THE WATER A RUNNING TOILET WASTES CAN FILL 800 OF THESE BOTTLES IN ONE DAY.

Learn more at neverwaste.org.
Providing motivational messages to the consumer.

A broken sprinkler head can waste 384 of these bottles in ten minutes. Learn more at neverwaste.org.
INCENTIVES FOR OUTDOOR WATER CONSERVATION MEASURES
SUSTAINABLE LANDSCAPES: A UTILITY PROGRAM GUIDE

- AWE’s Landscape transformation study found that customers want help from their utilities, so this guide is targeted to utilities just getting started or those enhancing existing programs.

- Organized into two sections:
  1. General considerations
  2. Considerations for specific types of outdoor landscape programs

- Features utility program examples with lessons learned.
QUESTIONS FOR DISCUSSION

Given the COVID-19 pandemic, an in-person rates workshop cannot be held much before the Fall of 2020 or even the Spring of 2021.

1. Shall we wait until we can do it then? We believe an in-person workshop provides more opportunity for utilities to ask questions and participate in discussions.

2. If you prefer not to wait that long, should we attempt this rates workshop in two virtual sessions of 2 hours each? That unfortunately would not be the complete program.

3. While we wait we could start immediately on the state law and policy review. Or would you prefer that we do the tasks in the order given to us?

4. How shall we structure stakeholder input into the process?
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