

Every Drop Counts

Local Action to Save Energy, Water and
Money

Water Leak Detection Program



What we are doing and Why

- Energy Efficiency is a critical function of our Daily Operation
- Annual Pump Efficiency test at all of our sites provide
 - The performance of each pump and motor in real time conditions
 - Ability to schedule most efficient well pumps during peak energy cost
 - Early indicators of potential problems lowering repair cost
 - Production Meter calibration and certification
 - “Real Time” efficiency thru SCADA

What we are doing and Why

- Water Leak Detection Program (WLDP)
 - A comprehensive look at the management of leaks and the “True” cost of those leaks
 - A complete audit of Production versus Deliveries
 - Non-Revenue water losses and how to manage it
 - Pressure Management – Consistency, Tolerance, Risk
 - Meter efficiencies and deficiencies the right meter for the application.
 - Cost of repairing leaks versus doing nothing

Non-Revenue Water

- The most important factor in managing our system
- California Urban Water Conservation Council has set a benchmark of 10%
- Mid-Size system cost for an “acceptable level” of non-revenue water
 - Water- Pumped and Import = \$698,100.00
 - Energy Cost = \$58,240.00
 - Lost Revenue = \$173,420.00
 - Total Cost = **\$929,760.00**

WLDP Challenges and Solutions

- By far the biggest challenge for us has been letting others “inside” our organization.
 - We all want to believe we are doing the best for our systems. Are we?
 - This requires out of the box thinking. There is always room for improvement
 - The thought of change presents certain challenges and risk.
 - I found that presenting this as a challenge to staff to raise the bar in our organization and at least look at our operations and ways to do better created buy in to the program

WLDP Challenges and Solutions

- Data Collection (a lot of data collection)
 - Reliance on other departments
 - I explained how important their data was to our project and offered to help in any way I could
 - Data availability
 - Not all data was easily available, we had to “dig” a little to produce the needed information. This helped us see where we needed to improve our record keeping.
- Time involved gathering the data, Staff time
 - At first the task seemed overwhelming but broken down into smaller pieces made the work more manageable

Working Together

- The partnership between Utilities that rely on one another is long overdue.
- Southern California Edison is one of our larger budget items. Working together not only benefits the City and SCE but ultimately the end user.
- Lower demands translates into lower cost to the City and needed power back to the grid for SCE
- A big Thank You to the companies that have made this project a success; Southern California Edison, Willdan Energy Solutions, and Water Systems Optimization. Together we achieve great things

What's Next

- All of this work is for nothing if we don't take action
- For Westminster we have already identified some meters that could be improperly sized for the application
- We will implement a plan to better manage our pressures system wide
- Work to change our policy for import water charges
- Help promote the Water Leak Detection Program with our partners