

2014 Community Collaboration Model Project Example

Mountain High Resource Conservation District Water Conservation Program

Background

For years, the local media has been reporting that a catastrophic water supply shortage in the community of Mountain Oasis was imminent. In January 2014, the local water district mandated 50% water conservation for its customers, stating that only 120 days of water supply remains. In our modern society filled with well educated, qualified managers and governing officials, and technology solutions in your pocket for nearly all of our day to day needs; how can this happen?

The competent local water and wastewater districts have developed master plans and adopted capital improvement plans to address their respective identified problems. The county and cities have documented plans and practices to stop future water degradation. These individual disconnected plans contain a number of common water resources issues that are of major concern to their region:

1. A serious lack of water supply during extreme drought
2. An ongoing shortage and conflict over water supply from a local reservoir
3. Increasing water quality degradation in local streams and rivers
4. Very high fire risk caused by water shortages and dry conditions
5. Failing septic systems causing water quality problems in local water bodies
6. Wastewater system overflows caused by capacity deficient mains

Integrated Planning

Through the Integrated Regional Water Management Planning (IRWMP) process, the local water managers, city and county officials, conservation and community service groups agreed through a consensus process to identify problems, interests and integrated solutions.

The collaborators identified that each of the responsible water, wastewater and CSD's in the region had their own individual approach and Capital Improvement Program to address their issues independent of one another. It was determined that due to high project costs to each district, economic downturn and resistance to increased rates, community controversy over growth, and problems where a responsible public agency could not be identified; the water problems continued to mount and solution implementation had stalled.



Community-wide Integrated Solutions

Through this inclusive planning process, the community of Mountain Oasis funded a comprehensive water supply reliability project containing solutions that fully integrated the water resource needs of the community:

- The Park District funded an irrigation system upgrade with Smart technology that significantly reduced water consumption and reduced nutrient runoff to the local creek
- The Park District installed storm drains, runoff catchment, new permeable asphalt and low tech stormwater treatment which irrigated its baseball field.
- The City installed a rainwater harvest system on the library and abandoned its expensive landscape irrigation connection to the District system
- The county cut drought related private well failures in half and nearly eliminated private septic failures by offering funding incentives for homeowners to install greywater and rainwater fed irrigation systems
- The Fire District funded a rainwater storage outreach and installation incentive program to provide alternate water supply in areas with no fire hydrants
- The Water District funded a water service line replacement program, an extensive residential greywater conversion/rainwater harvest incentive program, and smart technology system controls that resulted in:
 - Reduced water demand to the point where a lake intake was eliminated
 - Improved creek flows resulted in nutrient reduction, aquatic species recovery and wetlands restoration
 - Increased water demand control that eliminated the need for an expensive treatment plant expansion
 - Reduced wastewater production, eliminated system overflows and eliminated the need for upsizing of a critical downtown sewer transmission main
- The Wastewater District funded a wastewater reclamation project that irrigated a golf course that was previously over pumping the local groundwater
- The MHRCD funded rainwater harvest for commercial shopping centers, government buildings and large professional offices that:
 - Reduced stormwater pulse flows to the creek and eliminated the need for potable water irrigation use in parking lots
 - Replaced the Cemetery District's need for a new well by irrigating with rainwater
 - Cut school district athletic field water bill by 50% through rainwater harvest and installed a demonstration/community garden with subsurface greywater irrigation

