

SAN GABRIEL VALLEY
MUNICIPAL



WATER DISTRICT

AZUSA | SIERRA MADRE | MONTEREY PARK | ALHAMBRA

MANAGING, CONSERVING & DEVELOPING OUR WATER RESOURCE

2010 ANNUAL REPORT



BOARD OF DIRECTORS



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Joseph C. Reichenberger
Division III, President

Mission Statement

To help our four member cities manage their water supply safely and cost-effectively by:

- Improving the quality and quantity of the water supply
- Investing in water technology and infrastructure
- Providing cost savings and stability for homes and businesses
- Promoting water conservation efforts



Darin J. Kasamoto
General Manager



Dave Johnson
Assistant Manager



Dear Friends:

The Water District had a very successful year delivering supplemental water to our member cities, despite growing water supply challenges. Forethought in prior wet years enabled us to store water, thus, the District and its member cities were able to keep water costs low and avoid stiff water conservation measures implemented in neighboring areas.

Our major accomplishments include delivering 14,400 acre-feet in 2010 (11,520 acre-feet in 2009) from the State Water Project to supplement water supplies in the Basin in spite of severe restrictions on imported water supplies, maintaining our water rate at \$130 per acre-foot (unchanged since 1989 and well below that of other importing agencies), keeping our property tax rate unchanged (one year after lowering our rate by 10 percent), and maintaining our financial reserves.

We broadened our public education message beyond water conservation this year to include supply solutions such as imported water and recycled water. Our educational mascot, H₂Owl, continues to reach out to the community and schools through programs such as the Home Water Survey and Water Quest. Our public education program was expanded this year to include pilot projects that teach smart water saving techniques for residents and businesses:

- An automated water meter reading (AMR) program in the City of Monterey Park
- A water efficient irrigation and landscaping program at Sierra Madre Elementary School featuring California Native Plants and in-school curriculum
- A drought tolerant garden at the new Alhambra Gateway
- Water saving equipment and landscaping at Azusa Pacific University and the Azusa Chamber of Commerce

Despite the recent reprieve from the long-term drought, choppy waters lie ahead as evidenced by the decision to remove the \$11 billion water bond from the 2010 ballot. We will continue to focus on things we can control – efficient operations, creative exploration of new water supply solutions, and educating the public to participate in the decision-making process about our precious water resource. We remain grateful for the partnership that exists with our member cities and welcome your input and recommendations.

Sincerely,

Joe Reichenberger
President, Board of Directors
San Gabriel Valley Municipal Water District

THE WATER CHALLENGE FACING OUR MEMBER CITIES

Good News: Short and Long-Term Solutions Abound

The past decade, as drought conditions worsened and legislative changes affected the water landscape in California, many called for action related to water supply solutions. The recent reprieve from drought conditions, along with the removal of the \$11 billion Water Bond from the November 2010 ballot, may lead some to think the crisis is over or that progress is stalled.

The reality is we will always face geographic, climatic and political challenges to our water supply in the San Gabriel Valley. But, there are promising water infrastructure and reliability solutions if government, businesses and residents become informed and take action.

During its history, the Water District's primary function has been to provide supplemental water to our member cities. We have augmented this service by providing grants, low-interest loans and pilot projects to help member cities invest in water infrastructure projects and public education programs.

We've now broadened the scope of our public education efforts to include a diversified mix of water supply solutions. Following is a brief introduction to the realm of solutions we must consider for the future.

Local Water Supplies

Local water supplies include groundwater pumping from local aquifers, surface reservoir storage, recycled water, and supplies imported through wheeling arrangements or transported via aqueduct from the State Water Project. Groundwater pumping provides the vast majority of historical local supplies.

Water Conservation

Water conservation is the cheapest, lowest-cost alternative to augment local water supplies. More than a technique, it's a "green" ethic and mindset. Modern water conservation includes increasingly sophisticated equipment, technology, materials and procedures. Mandatory water conservation techniques include rationing ordinances, restricted day/time watering ordinances, fines, penalties and price increases. New technological solutions and voluntary water conservation techniques include: satellite-based weather monitoring stations and "smart" water timers; indirect potable reuse and greywater systems; low-flush and waterless toilets, water-efficient appliances, flow restrictors, spray nozzles, sprinkler heads, and pool and spa covers; water-efficient plants and outdoor shading; and rebates/financial incentives to purchase water efficient appliances.

Imported Water

Water from northern California is acquired through the State Water Project and transported to the San Gabriel Valley via the California Aqueduct. The San Gabriel Valley Municipal Water District is one of approximately 30 water agencies that have contracted with the California Department of Water Resources for water deliveries from the State Water Project system.

Recycled Water

There are a variety of types of recycled water such as indirect potable reuse and greywater. Indirect potable reuse includes recycling of wastewater (sewage) that has been treated to remove virtually all of the impurities. Recycled or reclaimed water may be pumped into or percolated down to groundwater aquifers, pumped out, treated again and finally used as drinking water. In most locations, it is only intended to be used for non-potable uses such as irrigation, dust control and fire suppression. Greywater includes collection and re-use of all the non-toilet wastewater produced in the average household including water from bathtubs, showers, sinks, washing machines and dishwashers. Such water comprises 50-80% of residential "waste" water.

Stormwater Capture

The most efficient and natural form of water supply solution is stormwater or rainwater. The amount of stormwater that percolates down into underground aquifers depends on how much permeable surfaces are exposed, how permeable soils are, how much moisture the soils/surfaces already contain, climate, slope of the ground and other factors. Stormwater can be absorbed into the ground in many ways via mountain streams, lakes, ponds and rivers. Spreading grounds, bio-retention, rain barrels and cisterns help collect and save precipitation.

Desalination

Desalination refers to any of several processes that remove excess salt and other minerals from water. Water is desalinated in order to convert salt water to fresh water so it is suitable for human consumption or irrigation. It is used on many seagoing ships and submarines, and desalination projects/facilities can be found locally on Catalina Island and in San Diego County. Desalination is a controversial water supply solution as it is very energy intensive, costly and can have significant effects on marine life and the environment.



*Imported Water:
State Water Project*

2010 HIGHLIGHTS

OPERATIONS HIGHLIGHTS

The District's primary role is to deliver imported replenishment water through a complex delivery system that provides "water insurance" to our member cities – Alhambra, Azusa, Monterey Park and Sierra Madre.

THE WATER DISTRICT'S SERVICE AREA IS SPREAD OVER TWENTY-SEVEN SQUARE MILES AND INCLUDES A POPULATION OF OVER 200,000 PEOPLE.



*Groundwater:
Spreading Grounds*



Our major operational accomplishments in 2010 included:

- Delivering 14,400 acre-feet of water from the State Water Project into the Basin in an era of restricted water supplies (we delivered 11,520 acre-feet in 2009)
- Utilizing a portion of that water to generate "green energy" utilized by the City of Azusa through our 1.05 megawatt hydroelectric power plant
- Upgrading the control valve operators in the three pressure reducing stations along our pipeline in Glendora, LaVerne and Fontana
- Working with the City of Azusa to complete road construction, slope grading, fencing and parking lot re-surfacing at our headquarters office resulting from construction of a neighboring housing development



FINANCIAL HIGHLIGHTS

The District's water rate remains \$130 per acre-foot which is unchanged since 1996 and well below that of other importing agencies which exceed \$250 per acre-foot. This provides low cost "water insurance" to member cities by ensuring that replenishment water is available to member cities at very competitive market prices.



*Water Conservation:
California Native Plants*



Our major financial accomplishments in 2010 included:

- Keeping our property tax rate unchanged (one year after lowering our rate by 10 percent)
- Maintaining our financial reserves
- Investing in exploratory research related to increased infrastructure for recycled water projects
- Providing more than half a million dollars in grants to our member cities to create pilot or demonstration projects related to water conservation



WATER CONSERVATION HIGHLIGHTS

A major, new initiative of the Water District in 2010 was to develop pilot or demonstration projects related to water conservation in each of our member cities. Our objective is two-fold: first, to save water at each location and, second, to provide teaching examples of technology, materials and procedures that save water.

In addition to focusing on public sites such as city halls, parks and recreation facilities, we partnered with large, highly visible water customers such as schools and universities. As these projects progress, we will share project information and results via tours, speaking engagements, printed materials and our website.

PILOT PROJECTS

WATER SAVING FEATURE

	Irrigation	Landscaping	Technology	
Alhambra				
Gateway Plaza	💧	💧		A) Alhambra Gateway Plaza
Azusa				
Azusa Chamber of Commerce	💧	💧		B) Azusa Chamber of Commerce
North Park Recreation Center	💧	💧		
Department of Light and Water	💧	💧		C) Monterey Park City Hall
Gateway Center	💧	💧		D) Sierra Madre School
Monterey Park				
Medians	💧	💧		
City Hall Planters and Smart Controller	💧		💧	
Automated Meter Reader (AMR)			💧	
Sierra Madre				
Miramonte Reservoir/Mt. Wilson Trailhead	💧	💧		
Sturtevant Street Flood Control Right of Way	💧	💧		
Sierra Vista Park	💧	💧	💧	
Large Water User Public/Commercial Locations				
Azusa Pacific University	💧	💧	💧	
Sierra Madre School	💧	💧	💧	



A



B



C



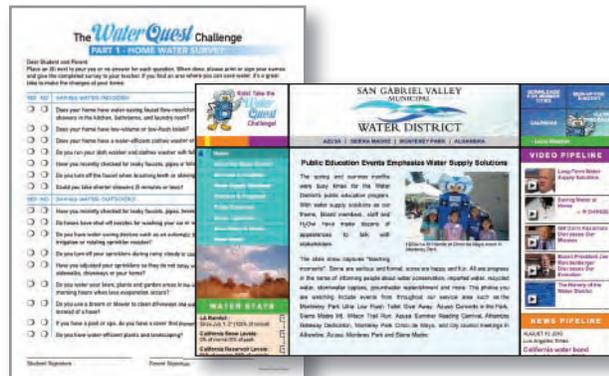
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PUBLIC EDUCATION HIGHLIGHTS

Our public education and outreach program continues to be an essential part of our operations. This year, we built on our foundation of water conservation education to begin educating people about other water supply solutions such as imported water, recycled water, stormwater capture and groundwater replenishment.

Our major public education accomplishments in 2010 included:

- Our water conservation guru, H₂Owl, reached out to thousands of stakeholders at official city meetings, schools and community events
- Placement of water conservation and supply solution messages on street banners and public information ads in newspapers and bus shelters
- Continued operation of the *Ultra Low Flush Toilet* giveaway program
- Development of educational videos which further enhanced our interactive website
- Distribution of 'Home Water Saving Surveys' to students and creation of online 'Water Quest Research Project'



Click for choices...

RESEARCH FOR ANSWER

Water Conservation:
Hose nozzles help
restrict water flow.



Green Power/Hydroelectric Generator

A turbine generator, powered by water flowing in the pipeline, creates electricity. Built in 1985, this generator produces enough electricity for over 500 homes annually. The revenue helps to offset some of our operating costs.



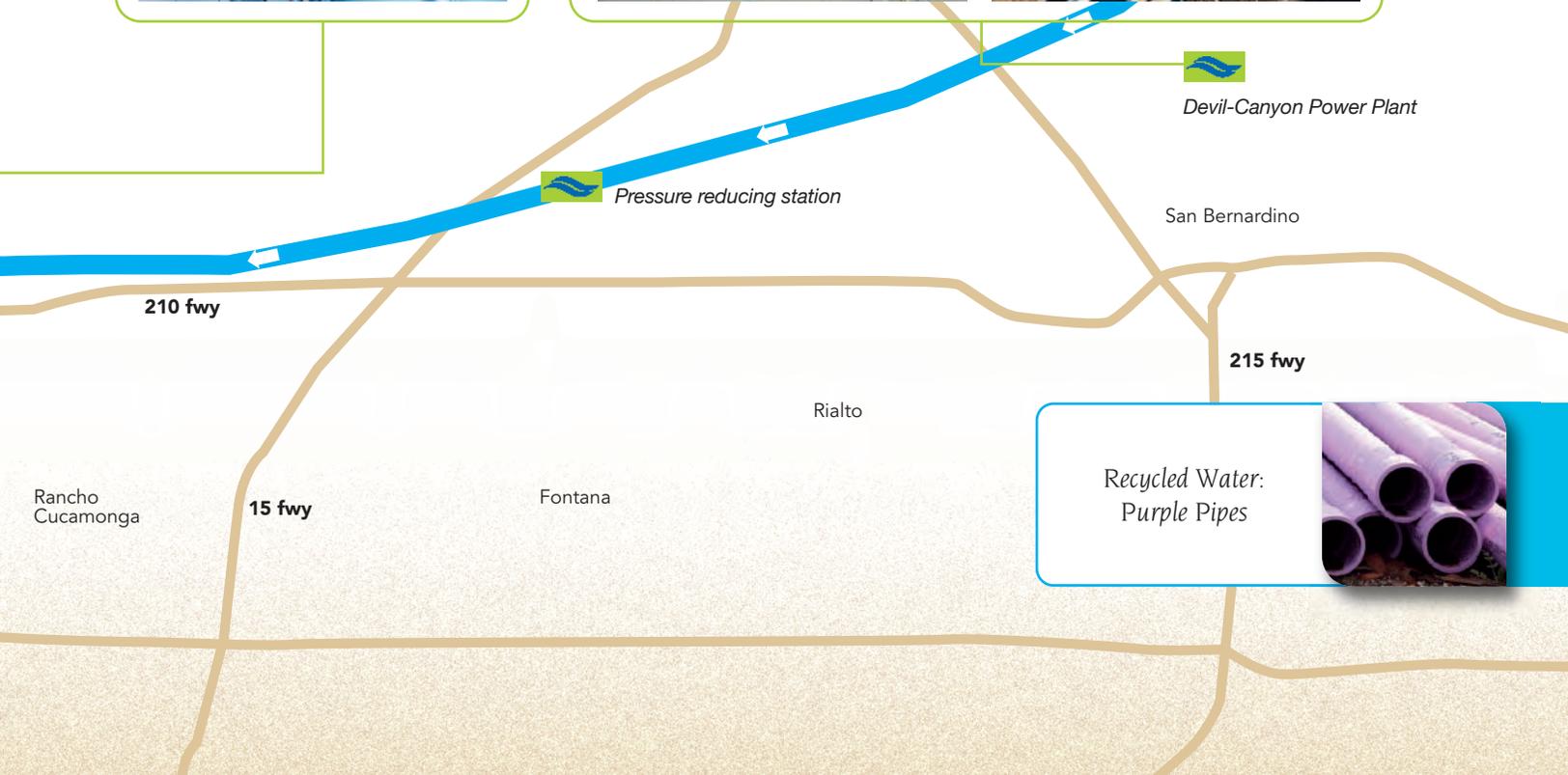
Devil Canyon Power Plant

Water coming from the State Water Project (California Aqueduct) powers turbines in the Devil Canyon Power Plant near Lake Silverwood, and then enters the pipeline through the slidegate.



State Water Project (California Aqueduct)

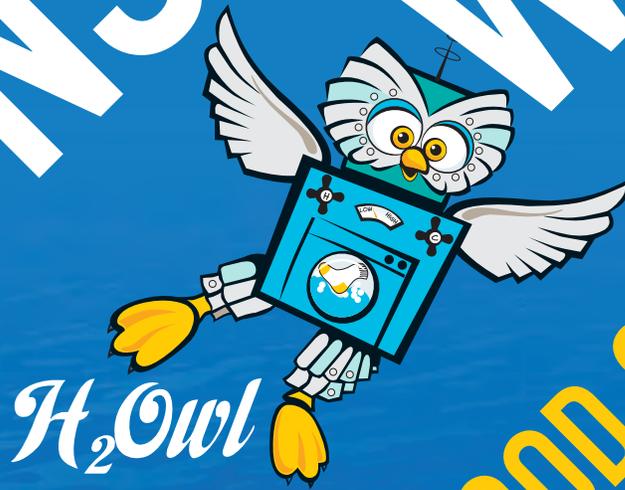
Water for the Main San Gabriel Basin originates from the State Water Project, also known as the California Aqueduct. Pumps and gravity help move the water from northern California to our Basin.



Recycled Water:
Purple Pipes



CONSERVE WATER



A GOOD START
TOWARDS A RELIABLE
WATER SUPPLY

CONSERVATION | GROUNDWATER REPLENISHMENT
RECYCLED WATER | STORMWATER CAPTURE | IMPORTED WATER

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