



2009



SOUTHERN NEVADA WATER AUTHORITY®  
Annual Report

## Mission

The Southern Nevada Water Authority manages the region's water resources and develops solutions that will ensure adequate future water supplies for the Las Vegas Valley.

## History

Formed in 1991 to address Southern Nevada's unique water needs on a regional basis, the Southern Nevada Water Authority—with an eye toward the importance of our planet's most precious natural resource—also works with agencies in Nevada and in other Colorado River Basin states to help ensure water supplies for consumers throughout the western United States.



## Member Agencies

Big Bend Water District  
City of Boulder City  
Clark County Water Reclamation District  
City of Henderson  
City of Las Vegas  
Las Vegas Valley Water District  
City of North Las Vegas

## Executive Team

**Patricia Mulroy**, General Manager  
**Kay Brothers**, Deputy General Manager of Engineering/Operations  
**Phil Speight**, Deputy General Manager of Administration  
**Chuck Hauser**, General Counsel

## Board of Directors



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City of North Las Vegas



Steven Kirk, Vice Chair,  
City of Henderson



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Las Vegas Valley Water District



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Reclamation District



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To our friends and neighbors:

Unlike any period in recent history, 2009 will be remembered as a year of extraordinary challenges, a year of change, a year of turbulence—financial, environmental, global. How we respond to these challenges defines the very character of an organization. Surviving turbulent times requires a degree of flexibility and adaptation. As the SNWA addresses change on all levels, from drought conditions and climate change to fiscal stability, the Water Authority engages multiple strategies to sustain our limited water resources.

In 2009, Southern Nevada experienced one of the driest years in four decades. As drought conditions persist, the SNWA continues to pursue conservation as our community's most cost-effective water resource. As a result, the Water Smart Landscapes rebate program was updated in 2009 to guarantee that turf-conversion projects will continue. Program changes require property owners to grant a restrictive covenant and grant a conservation easement on their property. To help ensure longevity, the rebate program is now partly funded by SNWA-issued bonds.

As climate change increasingly impacts our global environment, the SNWA urged Congress to examine climate change at the highest federal level and fund research exploring its full range of impacts on water resources. The SNWA advocated federally directed applied research to help provide information water managers need to make sound policy decisions.

The ability to adapt to changing conditions enabled the SNWA to help Southern Nevada achieve its conservation goal two years early; continue progress on state and federal permitting activities associated with the Groundwater Development Project; continue partnerships with state and federal agencies on research projects such as test operations at the Yuma Desalting Plant; and continue construction of one of the world's most complex tunneling projects for the third intake at Lake Mead. By maintaining these strategic approaches, the SNWA will have sufficient resources available or under development to meet water demands through the year 2060.

As the SNWA continues to plan for the future, we persistently identify strategies that help Southern Nevada successfully adapt to the challenges of our changing world. It is because of this responsive, strategic vision that we can feel confident every time we turn on our taps and drink our water.

A handwritten signature in black ink that reads "Shari Buck". The script is fluid and cursive.

Shari L. Buck  
Chair  
Southern Nevada Water Authority



To our community, stakeholders and customers:

The new millennium brought us incredible challenges, and although we have taken successful measures, our future remains tied to the caprice of nature. Water agencies must take the steps necessary to sustain reliable water supplies by adapting and mitigating the challenges caused by these changes.

Connection charges collected by the SNWA decreased \$94 million since 2007 and sales-tax revenue decreased by more than \$6 million since 2008. Meanwhile, decade-long drought conditions continued to threaten the Colorado River, which provides 90 percent of our water. Confronting these challenges requires adjusting to the changing conditions in our economy, our environment and our resources while ensuring adequate future water supplies for the Las Vegas Valley.

A new water supply that is separate from the Colorado River will be needed to ensure Southern Nevada's future if drought conditions persist. Some of these resources lie in the Snake Valley basin where Nevada and Utah worked toward a draft agreement to equally share 132,000 acre-feet of groundwater located there. We also continue to pursue additional in-state water resources associated with the Clark, Lincoln and White Pine Counties Groundwater Development Project.

To assure that our river resources are available to Southern Nevada as long as possible, we are constructing a vital third intake beneath the surface of Lake Mead that will continue to provide high-quality drinking water should lake levels fall below the first intake.

Together with the Basin States, the U.S. Interior Department, the State Department and federal officials in Mexico, the SNWA is exploring the use of ocean desalting facilities to treat water that will eventually supplement our supply. Even while we research alternatives, preserving our existing water supply continues to be a priority. The residents of Southern Nevada are conserving our water; that effort, combined with recent economic conditions, reduced water use by 26 billion gallons between 2002 and 2009 despite a population increase of 400,000, and nearly 36 million annual visitors.

Although the next few years will continue to present a myriad of challenges and change, partnering with our community, our environment and water utilities worldwide will help ensure a sustainable future for Southern Nevada in any economy.

A handwritten signature in black ink that reads "Pat Mulroy". The signature is fluid and cursive, with a long horizontal stroke extending to the left.

Sincerely,  
Pat Mulroy  
SNWA General Manager

# Ensuring our water resources

Persistent drought and other challenges such as storm water runoff/pollution and Endangered Species Act requirements jeopardize the supply and quality of water both locally and throughout the region. Adapting to these situations requires detailed planning to help ensure the reliability of Southern Nevada's current and future water supply. Since its inception in 1991, the SNWA has worked to develop and manage a portfolio of diverse water resources to help ensure a sustainable future for our community.

The high priority water resources in development include conservation, Intentionally Created Surplus (ICS), in-state groundwater and Colorado River system efficiency projects. When necessary, banked reserves and other temporary resources will be used while in-state groundwater resources are developed.

Southern Nevada's conservation efforts have helped to significantly lower projected demands over the next 50 years. Based on recommendations from a citizens advisory committee in 2005, the SNWA and its member agencies have made temporary drought-response measures permanent conservation measures. These include, but are not limited to, landscape-development codes, assigned watering schedules and golf course water budgets.

These conservation measures are part of the SNWA's 2009-2014 Conservation Plan, and are a critical component of the SNWA Water Resource Plan, which is reviewed annually and updated as necessary. The 2009 SNWA Water Resource Plan also incorporates



water-resource management opportunities available under Colorado River interim (guidelines) approved by the Secretary of Interior in 2007, and also identifies how the SNWA plans to meet its delivery obligations if the availability of Colorado River water resources is reduced due to shortage.

Under the new guidelines, Southern Nevada can receive Tributary Conservation ICS for pre-1929 Muddy and Virgin river surface water rights, and imported ICS for Coyote Spring Valley groundwater

Decreased Rocky Mountain snowpack and evaporation significantly reduced runoff to the Colorado River, the source of 90 percent of Southern Nevada's water. The Colorado experienced cumulative flows that were 12 trillion gallons below average during the last decade.



conveyed to Lake Mead. These resources, in addition to other existing banked resources, are available for use during declared shortage.

During 2009, the SNWA created approximately 26,000 acre-feet of Tributary Conservation ICS based on its purchased and leased interests in the Muddy and Virgin rivers. The SNWA plans to continue developing Tributary Conservation ICS during 2010. New facilities are expected to begin treating and conveying Coyote Spring Valley groundwater to Lake Mead for credit in 2010. If the water is not used in the year it is created, it converts to Extraordinary Conservation ICS credits, which can be used like a bank account and stored in Lake Mead for multiple years. Unlike other forms of ICS, Extraordinary Conservation ICS is not available during declared shortages.

The SNWA is partially funding a system efficiency project through the construction of the Drop 2

Reservoir storage project along the All-American Canal. A system efficiency project conserves Colorado River water and increases the amount of water available in the U.S., a portion of which is credited to the user funding the project. The SNWA has agreed to fund a portion of this project in exchange for at least 400,000 acre-feet of available water from Lake Mead under normal conditions on the Colorado River at a maximum rate of 40,000 acre-feet per year beginning in 2011.

Last year, the SNWA also continued participation in Yuma Desalting Plant (YDP) work groups to review and assess engineering, cost, environmental and legal studies and analyses needed to perform YDP pilot operations. The SNWA is funding a portion of the upcoming YDP pilot operation, another system efficiency project, and in return, will be able to use part of the water from the pilot operation in the future.

Groundwater is a critical component of Southern Nevada's water resource portfolio. To help reduce its dependence on the Colorado River, especially during times of shortage, the SNWA proposed the Clark, Lincoln and White Pine Counties Groundwater Development Project. Some of the SNWA's 1989 applications for groundwater rights related to this project were approved by the State Engineer in 2006 and 2008, while others are pending consideration.

Nevada and Utah are drafting an agreement to share 132,000 acre-feet of groundwater in the Snake Valley basin. This agreement is required under a federal law before groundwater can be exported from a basin shared by both states. The agreement underwent public review and comment, and is currently pending approval.

If the agreement is approved, Nevada will delay a hearing on the SNWA's groundwater applications in Snake Valley until 2019, to allow for time to conduct

additional studies and collect data. This 10-year abeyance period would still meet the SNWA's overall schedule for groundwater development from Snake Valley.

Even as the SNWA pursues groundwater resources, drought conditions continue to threaten Southern Nevada's largest water source: Lake Mead. The current, severe 10-year drought conditions have affected Rocky Mountain snowpack and reduced runoff to the Colorado River by approximately 12 trillion gallons during the last decade. Lake Mead storage has declined from approximately 49 percent in January 2009 to approximately 42 percent by December 2009.

If drought conditions persist, Lake Mead's water level could drop below SNWA's first intake, which is used to convey water for treatment and distribution in Southern Nevada. To help offset drought impacts, the SNWA is constructing a critical third intake into Lake Mead. The project is one of the most challenging and technically advanced of its kind in the world.

Workers completed the intake access shaft in 2009, which allows the positioning of equipment to begin tunneling activities. Using a tunnel-boring machine manufactured specifically for this project, workers will excavate a 20-foot diameter tunnel nearly 3 miles long under Lake Mead. At the peak of activity, more than 200 people will be engaged in the design and construction of the intake project, including a tunnel linking intakes 2 and 3. Once completed, the tunnel will be able to convey water to both the Alfred Merritt

Smith and River Mountains water treatment facilities. This project is expected to be completed in 2013.

The SNWA works to augment our water resources both here in Nevada and across our borders. The authority continues to participate in bi-national discussions between the U.S. and Mexico to identify needs and projects to benefit both nations.

Augmentation efforts also include local and interstate arrangements to create a supply of banked resources. The SNWA has acquired temporary banked resources to serve as an important resource management tool. Banked resources can be used to offset reductions in permanent supplies due to declared shortages, meet short-term gaps and serve as a temporary bridge to meet demands while other permanent resources are being developed. Banked resources include the Arizona, California and Southern Nevada water banks.

Several factors may affect the timing of when and how water resources are used, including future agreements, cost, drought and environmental concerns. As a result, having a portfolio of options permitted, under development or being pursued gives the SNWA the ability to adjust some resources if other resources are delayed or revised, or if demands increase.

Based on current conditions and water resources expected to be available, the SNWA has sufficient resources accessible or under development to meet water demands through the year 2060.



A cloud-seeding project, partially funded by the SNWA and operated by the Desert Research Institute, will help increase precipitation in the Ruby and Tuscarora mountains in central Nevada through the spring of 2010. Seeding efforts are expected to increase snow/water by more than 22,000 acre-feet annually in these regions.

Water generated through the cloud-seeding project will enhance soil moisture and rangeland grazing potential, increase runoff into streams and reservoirs, and recharge groundwater supplies at the top of the White River flow system and the lower-flow system basins where the SNWA holds water rights.

# Conserving our water resources

Southern Nevadans know that living in a desert environment requires making some adjustments to ensure a sustainable water supply for our community. From assigned watering days to water-smart appliances, the SNWA helps residents and businesses adapt to our arid environment through improved water efficiency.

Due to diligent community conservation efforts, the SNWA's conservation goal of 250 gallons per capita per day (GPCD) was surpassed two years ahead of schedule. As a result, the SNWA in early 2009 adopted a new conservation goal of 199 GPCD by 2035 and updated its five-year conservation plan in accordance with Nevada revised statutes.

The SNWA uses the population-based GPCD to measure water consumption, water-use trends and evaluate the community's progress toward conservation goals. The new conservation goal will reduce overall use by approximately 50 GPCD. This translates into a savings of approximately 276,000 acre-feet of water per year by the year 2035 with incremental savings in preceding years.

In 2009, residents and businesses converted nearly 17.1 million square feet of turf to water-smart landscaping—that's 2,159 miles of sod removed in one year—enough to stretch from Las Vegas to Miami. Customers conserve an average of 55 gallons of water per square foot when they convert grass to desert landscaping. Since 2001, Southern Nevadans have replaced more than 140 million square feet of grass. Water-efficient landscaping is now saving nearly



The SNWA Water Smart Landscapes rebate program helps property owners convert water-thirsty grass to a lush yet water-efficient desert landscape. The SNWA rebates customers up to \$1.50 per square foot of grass removed and replaced with desert landscaping.

8 billion gallons of water annually and more than 50 million kilowatt hours of electricity.

Since 2001, more than 40,000 projects have been completed through the Water Smart Landscapes Program (WSL), saving more than 266,000 megawatts of power and reducing greenhouse gas emissions by 130,000 metric tons—the equivalent of taking 25,000 cars off the road for one year.

As part of the SNWA WSL rebate program, the University of Nevada Las Vegas (UNLV) converted 204,732 square feet of turf in 2009.

UNLV is also saving water and money by using “smart controllers,” which automatically adjust watering schedules based upon weather conditions.

The WSL rebate program was redesigned to help ensure converted landscapes keep conserving water for decades to come. As of June 2009, property owners must grant a restrictive covenant and grant a conservation easement on their property, agreeing to sustain their conversions indefinitely. Once the covenant is in place, the SNWA issues rebate checks to homeowners.

The SNWA covenant will apply to all current and future owners of the property but will restrict only the portions of the property where a WSL rebate was received. Under the covenant, property owners are able to replace plants, change mulch materials or even redesign the landscape, as long as they do not install irrigated lawn grass, spray irrigation systems, water features or swimming pools in any portion of the converted area. The new covenant requirement assures conversion projects will be sustained in perpetuity, producing a permanent community benefit.

Southern Nevadans did more than just convert their turf in 2009. Enterprising residents and businesses took advantage of a multitude of SNWA rebates. The SNWA issued more than \$21 million in rebates in 2009, including pool cover, rain sensor, smart irrigation controller and landscape rebates. In addition, more than 200 local homeowners participated in the SNWA Smart Sprinkler Study.

Participating homeowners in the study replaced existing traditional pop-up sprinklers with water-saving rotating spray-head devices, reducing dry spots, overwatering and wasteful runoff. The study will measure the water-saving effectiveness of these and other new technologies, such as sprinkler

pressure reducers, helping the SNWA determine the real-world value of new water-saving technologies. Modern water-saving devices form the basis of the SNWA Water Smart Home Program, developed in partnership with the Southern Nevada Home Builders Association in 2004. Builders participating in this program have offered more than 7,500 homes with water-smart landscaping and highly efficient landscape irrigation systems, high-efficiency appliances, plumbing fixtures and hot water systems. A recently concluded study showed that Water Smart Homes use about half as much water as homes built between 1990 and 2003.

As the newest member of the SNWA Water Smart Home program, Habitat for Humanity Las Vegas began building water-efficient homes in 2009. Thanks to these new Water Smart Homes, local families in need will be able to help construct and enjoy a new home that helps assure a level of water and energy efficiency that is also reflected in their monthly bills.

The SNWA Water Smart Home program is available to all Southern Nevada homebuilders committed to providing their customers with a home that exceeds federal water-efficiency standards. The voluntary, builder-funded program is the largest water-efficiency program for new homes in the nation.

Based on citizens advisory committee recommendations, SNWA member agencies in 2006 adopted a resolution to mutually support regional conservation goals and identify additional conservation measures that reduce Southern Nevada's overall water use. The SNWA assesses conservation achievements annually and revises its conservation goals accordingly.



Water-efficient practices, products and programs from around the world are highlighted each year at the WaterSmart Innovations (WSI) Conference and Exposition. In October 2009, more than 1,000 industry leaders and professionals attended the Water Authority's second annual WSI, the world's largest and most comprehensive urban water-efficiency conference of its kind. This self-sustaining event gives local professionals access to world expertise and allows Southern Nevada to share its success with others.

The SNWA hosted the conference in partnership with the U.S. Environmental Protection Agency's WaterSense Program, Alliance for Water Efficiency, American Water Works Association, Audubon International, California Urban Water Conservation Council, International Association of Plumbing and Mechanical Officials, International Center for Water Technology and the Irrigation Association.

# Enhancing our water quality

Natural and man-made elements challenge our water supply on a daily basis—be it the release of compounds created by the water disinfection process, uranium dust blowing into the Colorado River or dissolved selenium from the natural weathering of soils and rocks in the upper river basin. It requires a sophisticated, pliable suite of technology, testing, analysis and treatment to meet federal water-quality standards as well as minimize impacts to our water supply.

Every month, SNWA scientists collect and analyze tens of thousands of water samples taken from intakes, our treatment facilities and from the treated water. The Water Authority prepares an annual water quality report for the Southern Nevada Water System (SNWS), which treats the SNWA water supply, as well as provides a full water analysis for its two water treatment facilities and a source water assessment.

In fact, the SNWS tests even more frequently and extensively than federally required to ensure that the water provided to purveyors—the cities of Boulder City, Henderson and North Las Vegas; Las Vegas Valley Water District; and Nellis Air Force Base—meets or surpasses all Safe Drinking Water Act standards.

Water drawn from Lake Mead is sent to the Alfred Merritt Smith or River Mountains water treatment facilities. The Alfred Merritt Smith treatment facility uses chlorine, while the River Mountains treatment facility uses sodium hypochlorite as part of a multi-stage filtration process. Both facilities also use



ozonation to treat water. Ozone is a very strong disinfectant, but it does not remain in water for extended periods of time. For that reason, chlorine is still added to protect the water while it is in the distribution system. Water also is treated to minimize corrosion to the infrastructure as well as treated again to protect water on its way to customers' taps.

Water-quality treatment advanced in 2009 when the SNWA implemented an improved method to analyze haloacetic acids, a common by-product of chlorination in drinking water. The technique uses ion chromatography coupled with tandem mass spectrometry (IC/MS/MS). This allows the separation of ions and polar molecules in water based on molecular charge and mass for improved sensitivity and selectivity when identifying haloacetic acids. This method provides a 50 percent increase in efficiency over the gas chromatography method.

The Water Quality Laboratory and Applied Research & Development Center at River Mountains is one of the most sophisticated municipal water-quality laboratory complexes in the world. The laboratory staff collects and tests samples from lake to tap, including neighborhood sampling stations, groundwater wells and reservoirs.

This extensive testing process earned the SNWA laboratory certification from the Nevada Division of Environmental Protection, and it is one of few municipal facilities certified by the U.S. Environmental Protection Agency for *Cryptosporidium* and *Giardia* detection.

The SNWA, together with the Water Research Foundation, a nonprofit organization sponsoring research that provides safe and affordable drinking water to consumers, continues to lead a national study identifying methods used to test drinking water for the presence of pharmaceuticals and other endocrine disrupting compounds (EDCs).

The findings could establish a national standard to help water utilities test for the occurrence of trace EDCs and personal care products in water supplies nationwide. EDCs are substances such as hormones, herbicides and other synthetic chemicals that may affect the health of aquatic species. The study includes more than 20 laboratories in the U.S., Australia, Europe and Canada. The final report will be published in 2010.

Underscoring the importance of the Southwest's water quality, the SNWA provided expert testimony to the U.S. Congress twice in 2009.

In July, the SNWA testified before the U.S. Congressional Subcommittee on National Parks, Forests and Public Lands on the importance of evaluating potential impacts to Colorado River water quality from uranium mining activities in an area near the Grand Canyon. The SNWA supports oversight measures to ensure that any future mining activities in the Colorado River Basin do not impact downstream water quality or otherwise impede the ability to deliver a safe and reliable water supply for the communities the SNWA serves.

The SNWA also was invited to address the U.S. House Committee on Natural Resources and its

Subcommittee on Water and Power, advocating the consideration of water quality in Bureau of Reclamation dam-management activities and Colorado River operations. The authority also recommended research and funding for enhanced water-monitoring programs; water-quality regulations and infrastructure for non-point source water; funding for septic tank connections to wastewater treatment facilities; perchlorate remediation and funding for invasive species research.

Invasive species research is necessary to help manage the growing quagga mussel population in Lake Mead. The unwelcomed guests grew to number more than three trillion in 2009, attaching themselves to water intake bar screens that required regular cleaning to keep water flowing.

SNWA divers inspect and clean the intake screens every six months using a pressure blast process, as well as scrape the screens to remove the mussels. Chemical-treatment systems also protect parts of the water system.

Despite more than two years of research and aggressive efforts to combat quagga mussels in Lake Mead, the invasive species continues to multiply rapidly, attaching to solid surfaces, endangering aquatic systems and potentially causing millions of dollars worth of damage to water pipes and intakes. The prevalent issue of quagga mussels presents a threat to waters throughout the nation. As a result, the SNWA continues to partner with other water agencies and explore alternative options for monitoring and combating the growing quagga population.



Invasive quagga mussels clump together and attach to solid surfaces, potentially clogging intakes and threatening water infrastructure. Scientists discovered the presence of non-native quagga mussels in Lake Mead in 2007, likely introduced on a vessel originally from the Great Lakes region, where quagga mussels were first discovered. Quagga mussels can completely dominate an ecosystem and replace native species, wreaking havoc on the ecology.

# Increasing our renewable energy

The treatment and delivery of up to 600 million gallons of water every day requires a significant amount of energy resources. Instead of relying solely on fossil fuel energy, the SNWA pursues and implements adaptable renewable energy options in an effort to reduce its greenhouse gas emissions.

As part of its commitment to sustainable living, the SNWA voluntarily set renewable energy goals that are consistent with the State of Nevada's Renewable Portfolio Standard (RPS). The RPS represents the amount of electricity that an electric service provider must generate, acquire or save from renewable energy systems or energy efficiency measures. Currently, the RPS in Nevada requires that renewable resources constitute 25 percent of an electric provider's total energy portfolio by the year 2025. Renewable energy currently comprises 13 percent of the total SNWA energy portfolio.

The SNWA harnesses solar power through static solar photovoltaic systems, which generate approximately 920,000-kilowatt hours per year at its Alfred Merritt Smith and River Mountains Water Treatment facilities. The power generated from these installations offsets energy loads at the facilities and eliminates 800,000 pounds of carbon dioxide per year, comparable to taking 58 cars off the road.

Last year, the SNWA partnered with UNLV and one of the world's leading manufacturers of High Concentration Photovoltaic (HCPV) power generation systems to demonstrate new solar technology for utilities. Workers built six HCPV arrays with a net



capacity of 222 kilowatts at the River Mountains Water Treatment Facility, home to the first commercial demonstration of the product.

Each cell on a solar panel will focus and concentrate sunlight approximately 500 times onto a one centimeter-square solar receiver. The system's design uses less land area, leaving a smaller carbon footprint than static photovoltaic panels. More power is captured through integrated dual-axis tracking, which allows the system to automatically track the sun east-to-west and in elevation. The new technology eliminates 75 percent of the parts and cost of other

Renewable energy opportunities are abundant in Southern Nevada: Our region experiences approximately 320 sunny days each year. The SNWA harnesses this solar power through 450 kilowatts of solar photovoltaic systems to provide solar power to the Alfred Merritt Smith Water Treatment Facility and the River Mountains Water Treatment Facility. Combined, these projects generate approximately 920,000-kilowatt hours per year.

solar designs and captures up to 30 percent more energy than fixed photovoltaic systems. Combined with the static solar covered-parking structures, the arrays will generate enough power to support more than 50 average-sized Las Vegas homes.

Additionally, the SNWA established hydropower projects at three Rate-of-Flow Control Stations in Las Vegas and Henderson, which can produce more than 2 megawatts of energy—enough to power 100 average-size homes for one year.

The Arrow Canyon Energy Recovery Hydroturbine Project, currently in development, will use water piped from Coyote Spring Valley to Moapa Valley to create energy through a hydroelectric turbine. The project is expected to generate 0.5 megawatts of power, which will be tied into a local distribution circuit to serve other SNWA loads when it is completed in 2012.

Taking today's waste and turning it into tomorrow's energy is the concept of biomass renewable energy. The SNWA is currently evaluating two biomass projects—one at the Clark County Water Reclamation facility, which would convert waste sludge into 4 megawatts of renewable power beginning in 2013. The second project would convert waste oils into a bio-diesel fuel able to drive a conventional generator producing 3 megawatts of power—enough to power 500 average homes—beginning in 2010.

In addition to its own renewable energy efforts, the SNWA plans to pursue the development of other generation assets through its membership in the Silver State Energy Association (SSEA).

Continuing its work with the SSEA, the SNWA is evaluating various renewable supply alternatives located in Eastern Nevada that can be adapted to its future resource needs, including wind, geothermal and solar resources. The Eastern Nevada Transmission Project, a 230-kilovolt-transmission system, will allow for the interconnection of participating SSEA members' electrical systems with the Mead Substation in Southern Nevada by 2011.

The SNWA procures and manages the energy resources necessary to pump, treat, and deliver water to its member agencies. The Water Authority maintains a portfolio of energy resources that meets all of the water-pumping related electrical load requirements of the SNWA.

The SNWA also provides power to meet much of the water and wastewater treatment needs of the City of Las Vegas and the Las Vegas Valley Water District, thanks to interlocal agreements reached between these entities and the Colorado River Commission.



Through an agreement with the Colorado River Commission, the SNWA can provide power for its member agencies, such as the City of Las Vegas, to meet the city's wastewater treatment needs.

# Protecting our environmental resource

The SNWA continually examines its own ecological impacts and addresses issues and concerns through extensive environmental programs as part of its long-term resource planning. Working with stakeholders throughout Nevada, Utah and surrounding areas, the SNWA actively participates in environmental programs such as the Nevada Breeding Bird Monitoring Program, Least Chub Conservation Team, Muddy River Recovery Implementation Program, Virgin River Habitat Conservation Recovery Program and various other endangered-species recovery teams. Many of these programs form the basis for compliance with appropriate environmental laws and regulations.

In 2009, the SNWA continued to coordinate and contract surveys of endangered, threatened or sensitive species associated with SNWA water resources and facilities. The Water Authority actively supports research related to federally endangered fish and wildlife, including: the woundfin, the razorback sucker, the southwestern willow flycatcher, the Yuma clapper rail and the Moapa dace.

The SNWA acquired the Warm Springs Natural Area (WSNA) in 2007. The 1,218-acre property represents one of the most ecologically significant resources in the region. Containing more than 24 springs which form the headwaters of the Muddy River, these flows support downstream agriculture communities and play a critical role in the regional watershed. The site provides an ideal habitat for a number of listed, threatened and sensitive species, including the endangered Moapa dace, nearly 50 percent of whose remaining habitat is found on the property.



The SNWA is developing the Warm Springs Natural Area Stewardship Plan, a multi-agency effort in coordination with the U.S. Fish and Wildlife Service, The Nature Conservancy, the Moapa Valley Water District, the Moapa Band of Paiutes, Coyote Springs Investments and the Nevada Department of Wildlife. Upon completion, the plan will help ensure proper management of the WSNA and coordinate water development to help ensure sustainable use of the environment.

The SNWA maintains the Warm Springs Natural Area to protect the endangered Moapa dace, which spawn in the headwaters of the upper Muddy River and requires a warm-springs habitat to reproduce. Scientists working on the Muddy River Recovery Implementation Program, a multi-agency endangered species program for the entire Muddy River to Lake Mead, predict the restored habitat will significantly increase the Moapa dace population over the next few years.



Sustainable water development is the impetus behind the Biological and Hydrological Monitoring Plans for Spring, Delamar, Dry Lake and Cave valleys. The SNWA signed stipulated agreements in 2006 and 2007 as part of the water-rights process for these basins with Department of Interior (DOI) agencies, including Bureau of Indian Affairs, Bureau of Land Management, U.S. Fish and Wildlife Service and National Park Service.

The monitoring plans have and are being developed by technical teams from the SNWA and the DOI agencies, pursuant to the obligations of the agreements, and include monitoring of baseline conditions prior to and during groundwater withdrawals. The monitoring plans will be reviewed and revised as needed, and refinement of

monitoring, mitigation and management activities will be made accordingly.

Environmental monitoring and research helps the SNWA better understand the relationships between water resources and the species in and around it. At the Las Vegas Wash, monitoring and research has identified more than 160 species of birds and more than 180 species of plants, in addition to amphibians, bats, fish, reptiles and small mammals.

The Wash supports approximately 134 acres of wetlands, creating a home for a variety of plant and animal species. It also serves as a crucial cleansing point for urban runoff, shallow groundwater, reclaimed water and storm water.

Partnering with state and federal fish and wildlife agencies, the SNWA monitors other sensitive species in the Warm Springs Natural Area. These species include the largest breeding population of vermilion flycatchers in Nevada, the Virgin River chub and other species along the lower Virgin and Muddy rivers, and in Lake Mead and the Colorado River.

A 1998 citizens advisory committee recommended that the SNWA reach out to the community and assemble the Las Vegas Wash Coordination Committee (LVWCC) comprising more than two dozen local, state and federal agencies, businesses, environmental groups and private citizens. The committee developed a long-term Wash management plan to protect and enhance the Wash and surrounding wetlands.

Through a cooperative agreement between the SNWA, the Bureau of Reclamation and the City of Henderson, the LVWCC constructed the Demonstration Wetland at the City of Henderson Water Reclamation Facility. The project examined whether constructed wetlands could be used to improve the water quality of treated wastewater in Southern Nevada, which can have elevated concentrations of nutrients and bacteria. Water-quality measurements were taken at the pond inflow and outflow, as well as three other locations in the area throughout the project.

When the project concluded in 2009, data showed that the average concentration of most metals, nitrogen, total phosphorus, suspended solids and bacteria decreased between the inlet and the outlet, improving water quality. Additionally, biologists identified more than 100 bird species using the demonstration wetland, including 15 nesting on the site.

Construction of the Wash's 12th weir was completed in 2009. The Wetlands No. 2 Weir, located

downstream from the Visitor Center Weir, is one of the smaller erosion control structures at the Wash. The rock riprap structure is 285 feet wide and 160 feet long with a 7-foot drop. Water quality data has shown that the 12 constructed weirs and associated bank protection have reduced the amount of sediment in the Las Vegas Wash by nearly 70 percent.

The Duck Creek trail system, which encompasses more than 3 miles of trails at the Clark County Wetlands Park, was reinforced in 2009 to better protect against erosion and possible damage from storms and floods. During renovations, more than 25 acres of non-native tamarisk trees and common reed were removed from the trail system and replaced with more than 1,000 mesquite trees and a variety of native plants and shrubs. This trails rehabilitation project is just the first of several projects to be completed at the Wetlands Park.

Revegetation projects enhance the Wash and help prevent erosion. More than 1,300 volunteers planted nearly 10,000 trees and shrubs during 2009's Green-up events. Volunteers re-vegetated a 7.5-acre site called the Downstream Pabco North and 28 acres near the Clark County Water Reclamation District facility with Desert Willow, Emory Waterweed, Alkali Sacaton and Screwbean Mesquite; and wildflowers such as Desert Marigolds, Sunflowers and Brittlebush.

To date, volunteers have planted more than 46,000 trees, shrubs and emergents covering nearly 120 acres during the 15 Green-up events.



The Water Authority supports the Las Vegas Wash Coordination Committee (LVWCC), which developed and implements the Las Vegas Wash Comprehensive Adaptive Management Plan.

The plan is a long-term strategy addressing erosion impacts on water quality and other environmental issues as water flows through the Wash into Lake Mead. The LVWCC and its member agencies have made significant progress toward improving the Wash, including erosion control projects that increase the wetlands area and sustain a habitat for and about 300 fish and wildlife species that make the Wash their home.

# Sustaining our environment

Reducing our corporate footprint and raising awareness among our employees, partners and community about sustainable living are among the SNWA's core values. The Water Authority's main sustainability focus is managing the region's water resources and developing solutions to ensure future water resources, but we also incorporate sustainability into our daily business practices.

The SNWA's organizational strategy to incorporate sustainability into every aspect of operation and further reduce environmental impacts focuses on four areas: Water; Energy; Public Education, Outreach and Partnerships and Organizational and Individual Behavior.

The plan focuses on building partnerships with employees, other businesses and community collaborators to reduce not only the SNWA environmental impact, but also Southern Nevada's environmental impact. Results are emerging both inside and outside the organization.

Partnering locally with MGM Mirage, Harrah's Entertainment, the cities of Henderson, Las Vegas and North Las Vegas, and Nevada State Bank in August 2009, the SNWA joined Green Chips, a nonprofit organization formed to encourage and facilitate sustainability in Southern Nevada.

Through Green Chips, the SNWA and its partners will help local residents and businesses conserve energy and water, recycle and reuse and reduce



our community's carbon footprint. Through these efforts, Green Chips intends to raise awareness and support of green initiatives, attract green investment, create green jobs and encourage resident and tourist involvement. Green Chips' goal is to establish Southern Nevada as a national leader in environmental sustainability and energy efficiency.

Joining a worldwide effort, the SNWA united with local businesses and agencies, as well as more than 930 cities in 80 countries around the world, to support Earth Hour 2009. The SNWA extinguished all non-essential lighting at its facilities for one hour and encouraged employees to do the same at home as part of a global effort to reduce its carbon footprint and raise awareness about climate change.

Further emphasizing the effects of climate change on our region, the SNWA was asked to provide

The SNWA, partnering with public and private organizations in the community, joined Green Chips to encourage widespread sustainability in Southern Nevada. Projects include a solar energy retrofit at a local nonprofit agency and making comprehensive energy audits available to low-income households in Southern Nevada.

recommendations in a report briefing President Barack Obama. The forum convened by the Brookings Institution in Washington, D.C., in January 2009, provided the SNWA the opportunity to stress the importance of research, preparation and adaptation when addressing the challenges posed by climate change on our nation's water infrastructure.

The SNWA returned to our nation's capital in May to urge federal lawmakers on the House Energy and Commerce Subcommittee on Energy and the Environment to examine climate change at the highest federal level and fund research exploring its full range of impacts on water resources. The authority advocates this type of applied research to help provide information water managers need to make sound policy decisions.

As part of the Water Utility Climate Alliance (WUCA), the SNWA continued its work to reduce the impact of climate change in 2009. At the U.S. Environmental Protection Agency's First National Expert and Stakeholder Workshop in January, WUCA recommended the establishment of a comprehensive, coordinated and federally sponsored applied research program that addresses predictive and decision support tools, including necessary data resources, to help utilities plan for the future impacts of climate change. WUCA also recommended strong federal participation in meeting climate change research needs. More than 130 invited experts

and stakeholders attended the workshop from the federal, research, utility, engineering and academic sectors.

WUCA is a consortium of water providers serving 10 of the country's large metropolitan regions, working together to improve research into the impacts of climate change on water utilities, develop strategies for adapting to climate change, and implement tactics to reduce greenhouse gas emissions.

Closer to home, if you are reviewing this 2009 Annual Report electronically, you are contributing to our sustainability efforts. Producing the report on limited compact discs as well as publishing the report on [snwa.com](http://snwa.com) instead of printing, saved as much as 3 million BTUs of net energy, 510 pounds of greenhouse gases, 312 gallons of wastewater and 122 pounds of solid waste based on environmental impact estimates determined by the Environmental Defense Fund Paper Calculator.



The SNWA continues to strive for sustainability in all aspects of operations. From recycling, to alternative fuel vehicles, to an electronic annual report, we're working toward a greener Southern Nevada.

# Educating our community

Instilling the conservation ethic in every aspect of community life and in each generation is fundamental to the principles of the SNWA. The Water Authority maintains the youth education program H2OUniversity as a way to educate the leaders of tomorrow.

The program provides training and resources to teachers so they can help students learn how to sustain our most precious natural resource: water. H2OUniversity.org offers online tools, resources, games and information to help SNWA's youth education program reach teachers, parents and students. The program's goals are linked to the Clark County School District curriculum and Nevada State Standards.

H2O: The Source Water Resource Kits are comprised of lessons that meet required criteria in the areas of science, social studies, language arts and math. The resource kits include a teacher's lesson plans and activities, multimedia and visual tools.

The authority provides teachers with special training through its Water Education Institute. The 15-hour session is linked to Nevada State teaching standards. Institute participants earn a Professional Development Education (PDE) credit with the Clark County School District.

The SNWA's educational outreach efforts also include distribution of Desert Discovery newsletters. The publication provides age-appropriate information



about conservation, emphasizing the plants, animals and water resources found in Southern Nevada. Spanish versions also are available. The newsletter distributes free of charge to local public and private elementary schools. A teacher's edition provides additional resources, ideas and activities to complement the content.

Since 1999, the SNWA has helped high-school students gain perspectives and understanding of water issues that face our world. The Youth Advisory Council (YAC) program provides high-school students the opportunity to gain leadership experience

The Southern Nevada Water Authority created the Youth Advisory Council (YAC) to gain a fresh perspective on water issues. The YAC provides opportunities for youth to participate in the planning, policy development and evaluation of water conservation. Local high-school students meet monthly to research and discuss issues. The YAC organizes and implements a water-related project and makes formal recommendations to the SNWA Board of Directors.



through studying water issues. Each year, the program culminates with a public presentation to the SNWA Board of Directors and a water-related project.

As its water-related project in 2009, the YAC presented the second-annual World Water Day event; a daylong festival highlighted by a 1.5-mile walk representing the trek many people in underdeveloped countries travel daily to obtain water. With a theme of “Think globally, act locally,” the students partnered with the City of Henderson and attracted more than 500 participants as well as helped heighten awareness of the struggles many people face to acquire safe, reliable drinking water. The 2008/09 YAC included 37 students representing 20 high schools.

Community education is conducted through a collaborative partnership with the Springs Preserve, a 180-acre cultural institution designed

to commemorate Las Vegas’ dynamic history and provide a vision for a sustainable future. The Preserve features museums, galleries, outdoor concerts and events, colorful botanical gardens and an interpretive trail system that meanders through a scenic wetland habitat. Since it opened in 2007, more than 360,000 visitors have experienced the Springs Preserve—a hands-on learning center and world-class model of sustainable living. All Preserve buildings are LEED (Leadership in Energy and Environmental Design) Platinum-certified and demonstrate to the community that living sustainably can be educational and entertaining.

SNWA conservation experts conduct public classes at the Preserve on topics such as landscape design and drip irrigation systems. These instructors show residents how to adapt native desert landscaping, create attractive yards and remain water efficient.

The SNWA is a proud sponsor of Earth Day, instructional classes and plant sales at the Springs Preserve, and collaborates on educational programs with the Clark County School District.

# Adjusting our budget

Southern Nevada remained in an economic recession through 2009, and its effects were felt all over the valley. Connection charges collected by the SNWA totaled \$27 million dollars in 2009, a decrease of \$94 million since 2007; and sales-tax revenue—currently the Water Authority's strongest revenue source—experienced more than a \$6 million decrease since 2008.

Stalled construction, higher-than-national unemployment and home foreclosure rates indicate that future growth in Southern Nevada will likely be slower and more challenging. Adapting to these challenges during calendar year 2009 has allowed the SNWA to ensure its fiscal stability partly through budget reductions totaling more than \$571 million. Reductions include \$50 million in operational costs, \$45 million in debt restructuring and \$382 million in deferred capital projects.

While the Water Authority deferred millions of dollars in major construction projects, construction continues on the critical third intake to help mitigate drought impacts on Southern Nevada's water supply. The new intake will allow the SNWA to continue drawing water even if persistent drought conditions cause Lake Mead's level to drop below the upper intake.

The authority has a financial reserve fund of \$464 million, which allows the SNWA to sell bonds through the Las Vegas Valley Water District and the State and County Bond Banks to finance capital improvement projects such as the third intake at Lake Mead. The SNWA operates from three primary sub funds:

- Wholesale Delivery Operations, which is funded by wholesale delivery charges paid by retail purveyor members of the Water Authority;
- New Expansion Debt Service, which is funded primarily by connection charges, usage fees and sales taxes; and
- Capital Improvements Construction, which is funded almost entirely by tax-exempt municipal bonds the SNWA has sold.

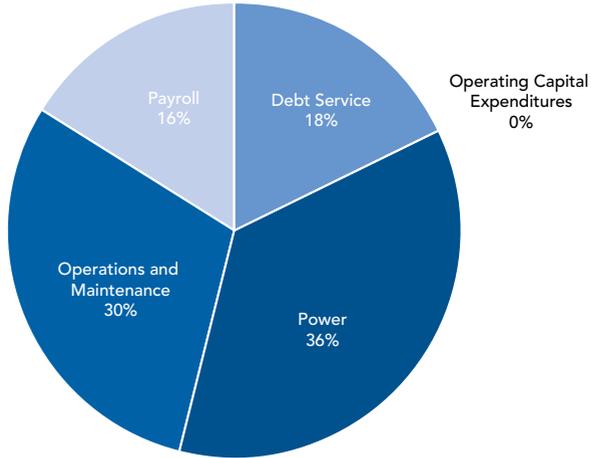
Sub funds for the SNWA's Groundwater Management Program and for the Las Vegas Wash are also operated, but their activity is minimal.

By state statute, the SNWA operates as a single proprietary fund. Costs of providing goods and services to customers are recovered through user charges.

The SNWA requires significant power resources to treat and deliver water to retail purveyors. The Water Authority has managed to avoid the impacts of higher energy costs by managing some of its own power supplies in a cooperative effort with the Colorado River Commission. These efforts resulted in an estimated savings of \$45 million over the last three years. Mitigating the financial effects of rising power rates will continue to be a primary focus for the SNWA.

## Wholesale Delivery Charge Expenditures

Fiscal Year Ended June 30, 2009



The following financial information is based on the Fiscal Year ended June 30, 2009, and represents an overview of the SNWA's individual operating programs, funds, revenues and expenditures.

### Wholesale Delivery Operations

The Wholesale Delivery Operations sub fund had a balance of \$11.2 million as of June 30, 2009. The Wholesale Delivery Charge is designed to cover the costs of administration and delivery of water through the Southern Nevada Water System.

For the fiscal year ended June 30, 2009, the Wholesale Delivery Charge was \$262 per acre-foot of treated Colorado River water delivered to purveyor members of the SNWA. Purveyor members then sell the water to retail customers. The SNWA has no retail customers of its own. Nellis Air Force Base pays a modified Wholesale Delivery Charge, and Boulder City pays a Raw Water Wholesale Delivery Charge.

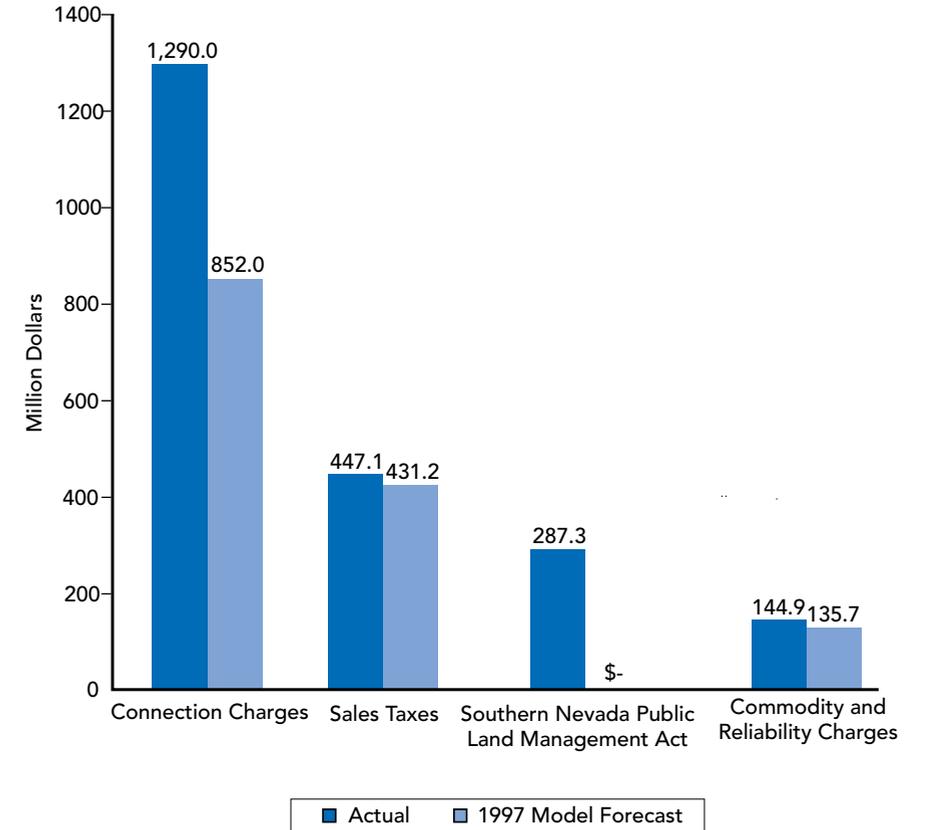
### New Expansion Debt Service

The New Expansion Debt Service sub fund had a balance of \$447.3 million as of June 30, 2009. This balance is needed to provide a prudent debt service coverage ratio, and is consistent with projections of the Capital Improvements Funding Program, which determines how the costs of the SNWA Capital Improvements Plan (CIP) will be funded. Most of the construction costs will be provided by funds from the sale of tax-exempt municipal bonds. The money to make debt service payments on those bonds will continue for years after the last connection to the new system is sold; the balance in this fund is projected to continue to grow for years, and then will begin to decline to a zero balance.

This graph shows the major revenue sources in the New Expansion Debt Service Fund through June 2009. The major revenue source in this fund is the regional connection charge. This charge on every new connection to the system is collected by the SNWA's purveyor members and remitted monthly. By the close of 2009, new connection revenue decreased by more than \$33 million since 2008, and by more than

## New Expansion Revenues

Cumulative through June 2009  
Actual vs. 1997 Model Forecast



\$160 million since 2006. Regional connections in 2010 are predicted to decrease an additional \$13 million. The second major revenue source in this fund is sales tax. This is the one-quarter of 1 percent that was added to the existing sales tax rate in Clark County in April 1999. This revenue is collected by the state Department of Taxation and remitted to the SNWA monthly on a two-month lag. The SNWA shares this revenue with wastewater agencies, rural water and wastewater systems and the Las Vegas Wash. Sales tax collections will conclude in June 2025, or when \$2.3 billion has been collected, whichever occurs first.

The SNWA has received approximately \$715 million through June 30, 2009, retaining approximately \$447 million, with the balance allocated to the Las Vegas Wash, rural systems and wastewater purveyors.

One revenue source that is challenging to forecast is the SNWA's share of revenues from the Southern Nevada Public Land Management Act (SNPLMA), a federal law passed in 1997. The SNPLMA calls for the SNWA to receive an amount equal to 10 percent of the purchase price of certain public land sales in the Las Vegas Valley, with proceeds restricted to paying debt service of construction costs of the SNWA's Capital Improvements Plan.

SNWA revenues from the SNPLMA are based solely on the availability and sale price of public lands in the valley. Since the act was finalized after the 1997 model forecast was prepared, that forecast contained

no projection of revenue from this source. The \$287.3 million in SNPLMA revenue received to date makes it the third-largest New Expansion revenue source. However, its prominence as a revenue source is expected to decrease substantially in future years.

The primary outflow of this fund is debt service payments on bonds sold to fund the Capital Improvements Program. Also, according to the Capital Improvements Funding Plan, the fund also pays some construction expenses directly (pay-as-you-go), which eliminates the cost of borrowing (interest).

A fourth revenue source is a combined rate-based commodity charge and reliability surcharge. Southern Nevada residents who are connected to a municipal water system pay the commodity charge monthly. Funds raised from this charge are used to improve water quality and enhance the reliability of the water system. The Water Authority commodity charge is 10 cents per 1,000 gallons of water used and is applied to all customers. In 2009, the SNWA Board of Directors approved an incremental increase in the commodity charge, effective Jan. 1, 2010, to offset reductions in other funding sources. This accounts for about 10 percent of Capital Improvements Program (CIP) funding.

The reliability surcharge is based on the need of every customer to have water when they turn on their tap. The reliability surcharge is based on the

concept that customers have varying levels of critical need for water and should pay accordingly. The surcharge shifts some of the financial burden of costs associated with reliability from residential customers to all other customers. The rate, which is applied against the total water bill with a few line item exceptions, has been set at 0.25 percent for residential customers and at 2.5 percent for all other customers. The reliability surcharge provides about 5 percent of CIP funding.

#### **Capital Improvements Construction**

This fund receives bond proceeds and pays construction expenses with those proceeds. When bond funds are depleted, the cash balance in the New Expansion Debt Service sub fund is used until additional bonds can be sold. All funds were expended during fiscal year 2009.

At that time the New Expansion Debt Service sub fund is reimbursed for its capital expenditures and the remaining bond funds stay in the Capital Improvements Construction sub fund to pay for future capital expenses. The SNWA sold additional bonds in November 2006. The Capital Improvements Construction sub fund is almost always "over-committed but under-expended," meaning construction contract commitments generally exceed the amount of bond proceeds on hand. This fund has earned an estimated \$6 million in tax-exempt arbitrage interest by complying with federal requirements for exemption. These interest earnings

have reduced the overall costs associated with the Capital Improvements Construction sub fund. Debt-management strategies are expected to save an additional \$370 million over the life of the projects.

#### **Groundwater Management Program**

The Groundwater Program sub fund had a balance of \$4 million as of June 30, 2009. As authorized by state law, the SNWA assesses an annual fee of \$30 per acre-foot of permitted groundwater rights, or \$30 per domestic well. Proceeds from this fee are used to manage the aquifer, fund permanent recharge of the aquifer and, when needed, fund well abandonment and conversion to municipal water systems. Much of the ending balance will be spent on artificial recharge and well conversions in future fiscal years.

#### **Las Vegas Wash**

The Las Vegas Wash sub fund had a balance of \$1.2 million as of June 30, 2009. The SNWA invests in programs and research to find solutions to critical environmental and water quality issues surrounding the Las Vegas Wash, the natural channel that returns runoff from the Las Vegas Valley to Lake Mead. One such effort resulted in the Las Vegas Wash Coordination Committee, comprised of stakeholders who provide input toward the management of the Wash. Operating costs are funded by assessments of member agencies. In addition, the Las Vegas Wash receives 4 percent of sales-tax proceeds received

by the SNWA. These proceeds have been used to fund capital improvements in the Wash, such as the construction of weirs to stabilize and protect Wash banks. However, a funding formula is in place for stakeholders in the Las Vegas Wash to reimburse the SNWA for operations of the committee. Grants also represent a significant revenue source for activity related to the Wash.

The table on the following page provides a ledger view of sources and uses of funds within the individual sub funds discussed in this financial overview for the Fiscal Year ending June 30, 2009. The first half of the ledger represents sources of funds received during the Fiscal Year; the bottom half represents expenditures of those funds. Dollar amounts in each row are added across for a total. The numbers shown in the beginning and ending balance rows are balances in these funds before and after this year's sources and uses of funds. Dollar amounts are presented in millions.

The SNWA regional commodity charge increased 10 cents per thousand gallons in 2010 and will increase 10 cents per thousand gallons in 2011. The commodity charge increase will help fund SNWA capital improvements and address revenue shortfalls resulting from a significant decline in connection charges.

Revenues help fund ongoing construction of the critical third intake at Lake Mead and help defray costs associated with an Arizona water-banking agreement, which guarantees Nevada access to 1.25 million acre-feet of Colorado River water stored by Arizona.

The Southern Nevada Water System Facilities and Operations Agreement requires the SNWA to establish a regional commodity charge for every 1,000 gallons of water used. The charge is assessed to SNWA purveyor members and remitted to the SNWA monthly.

## Sources and Uses of Funds Summary

Fiscal Year Ended June 30, 2009

(In millions of dollars)

	Wholesale Delivery Operations	New Expansion Debt Service	Capital Improvements Construction	Groundwater Management Program	Las Vegas Wash	Total
<b>Beginning Balance</b> (July 1, 2008)	<b>12.3</b>	<b>402.3</b>		<b>4.0</b>	<b>1.2</b>	<b>419.8</b>
Sources of Funds						
Operating Revenues	112.5			2.1	1.1	115.8
Other Revenues	1.0	1.9			2.6	5.5
New Expansion Revenues		91.4			3.1	94.5
Intra Fund Loans	(1.4)	155.0	(153.0)		(0.6)	(0.0)
Debt Issuance Proceeds			424.8			424.8
Interest Income	0.1	12.7	2.9	0.1		15.8
Total Sources of Funds	112.2	261.0	274.7	2.2	6.2	656.4
Uses of Funds						
Power Costs	(40.2)					(40.2)
Payroll Costs	(33.9)			(0.2)	(0.7)	(34.8)
Operations and Maintenance	(18.2)			(1.6)	(0.6)	(20.4)
Operating Capital Expenditures	(0.5)					(0.5)
Reclassifying Prior Period Expenses						
Const. & Resource Expenditures		(47.7)	(274.7)		(5.0)	(327.4)
Debt Service	(20.5)	(168.3)				(188.8)
Total Uses of Funds	(113.3)	(216.0)	(274.7)	(1.8)	(6.3)	(612.1)
Fiscal Year Net Change	(1.1)	45.0		0.4	(0.1)	44.3
<b>Ending Balance</b> (June 30, 2009)	<b>11.2</b>	<b>447.3</b>	<b>-</b>	<b>4.4</b>	<b>1.1</b>	<b>464.0</b>



SOUTHERN NEVADA WATER AUTHORITY®

1001 S. Valley View Blvd.  
Las Vegas, NV 89153  
(702) 258-3930

[snwa.com](http://snwa.com)