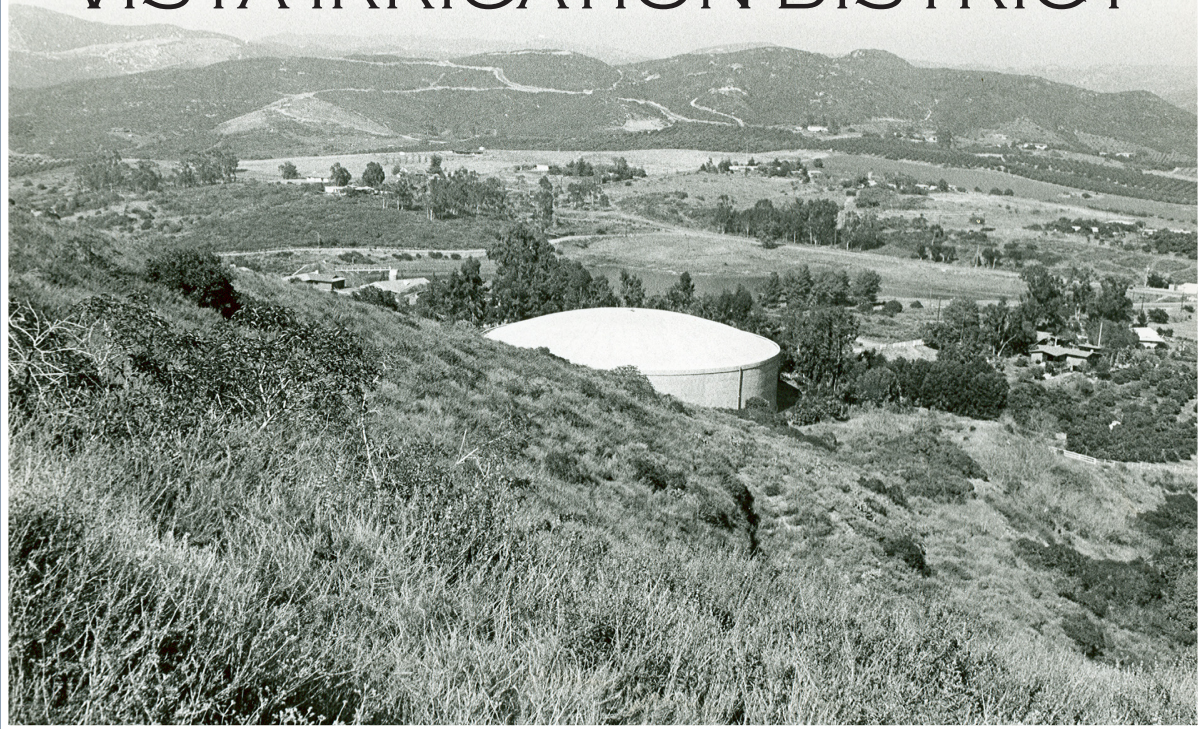
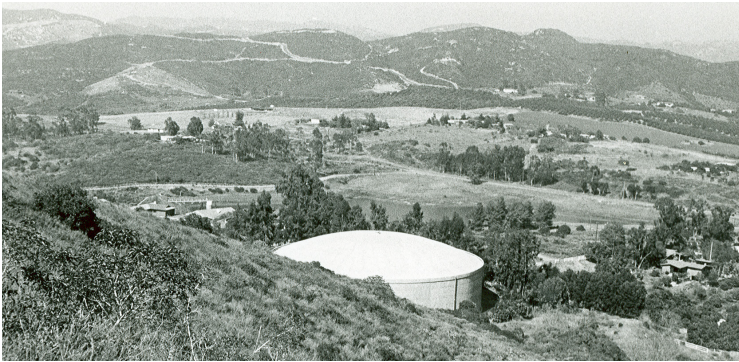


# VISTA IRRIGATION DISTRICT



# 2019 ANNUAL REPORT





Cover photos:

Top: Buena Creek (HB) Reservoir circa 1960's

Bottom: Buena Creek (HB) Reservoir rehabilitation scheduled completion date January 2021

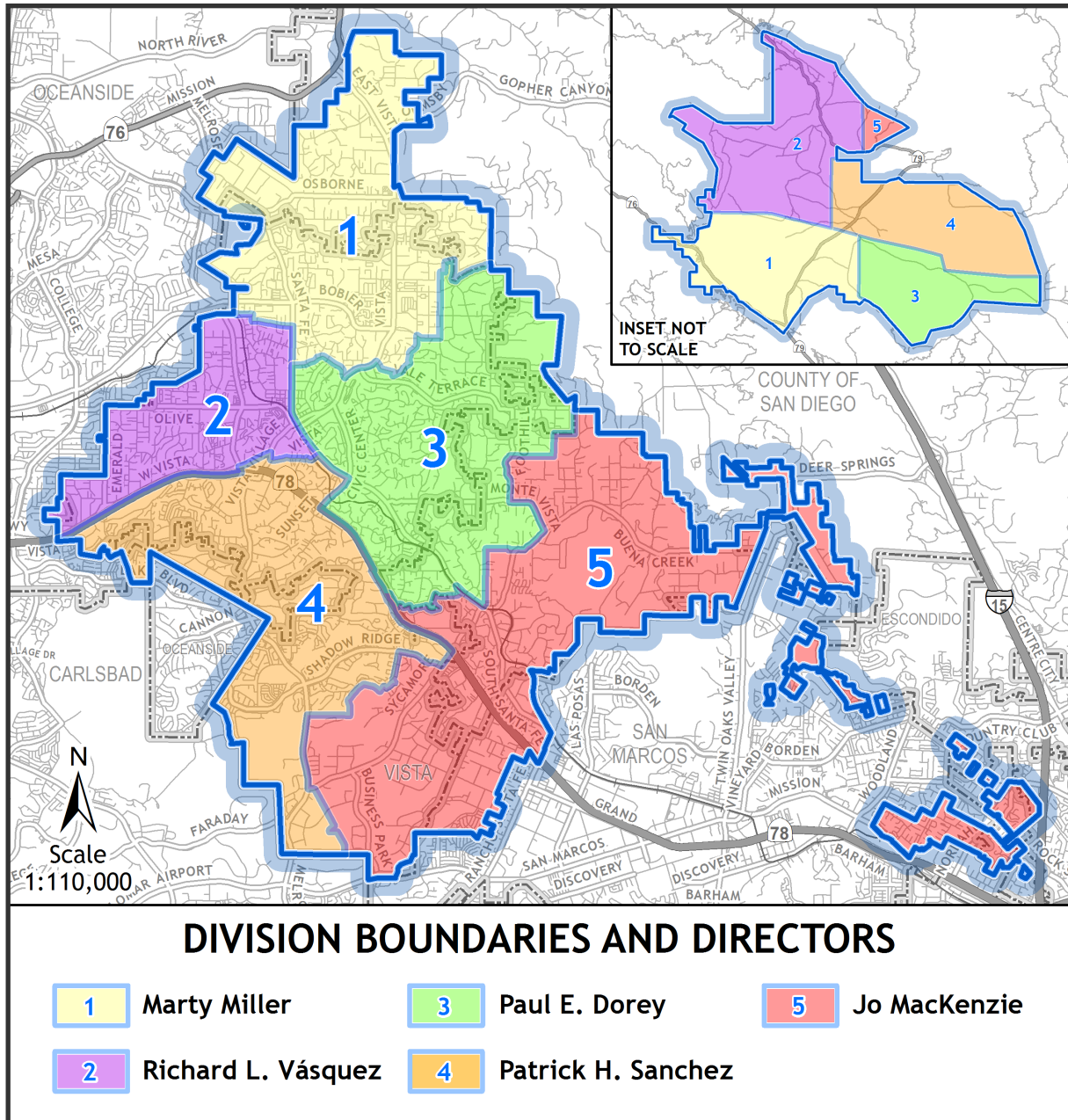
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*The mission of Vista Irrigation District is to provide a reliable supply of high quality water that meets the needs of its present and future customers in an economically and environmentally responsible manner.*

# Vista Irrigation District Division Boundary Map



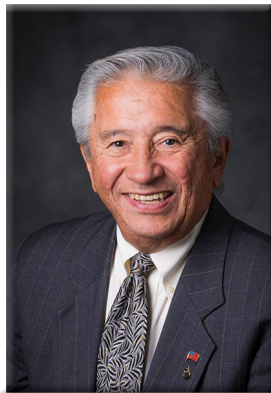
Vista Irrigation District serves more than 136,000 people through approximately 28,700 residential and business connections in Vista and portions of Escondido, Oceanside, San Marcos and unincorporated areas of San Diego County.

# BOARD OF DIRECTORS

**Marty Miller**  
*Division 1*



**Richard L. Vásquez**  
*Division 2*



**Paul E. Dorey**  
*Division 3*



**Patrick H. Sanchez**  
*Division 4*



**Jo MacKenzie**  
*Division 5*



***Board meetings are generally held on the first and third Wednesday of each month. Standing committees meet on an as needed basis. Meetings are held at the District office. Meetings are open to the public, and agendas are posted the Friday prior to the scheduled meeting. For further information about a meeting, or to request a copy of an agenda or staff report, please contact the Board Secretary at (760) 597-3128.***

# A Message from the Board President

---



*Jo MacKenzie*  
*2019 Board President*  
*Director, Division 5*

*“The District’s 96th year of service to its customers saw important upgrades to critical infrastructure and recognitions for financial prudence, governance and transparency.”*

*~ Jo MacKenzie*

As a Board Member of Vista Irrigation District for the past twenty-seven years, I have seen the District go through many changes and face many challenges, including significant growth, several droughts, and legislative and regulatory hurdles. This past year, I was honored to serve my seventh term as Board President and work with the District’s dedicated staff to continue to provide you, our customers, with reliable water service.

New legislation and state and federal regulations, aging infrastructure and managing growth demands continue to stretch the resources of water agencies. The Board and staff work hard to ensure recent regulatory changes have the least impact on our customers. The District’s 96th year of service to its customers saw important upgrades to critical infrastructure and recognitions for financial prudence, governance and transparency by state and national associations.

This past year, the District continued its long-running, proactive mainline replacement program, installing about two miles of new pipe. Additionally, the District initiated work on a Water Supply Planning Study to determine the future of the nearly 100 year old Vista Flume, which is an integral part of the local water system. It also embarked on several significant reservoir projects, including rehabilitation of the Buena Creek (HB) Reservoir.

The District obtained Platinum Level recognition in Special District Governance from the Special District Leadership Foundation for showing its commitment to good governance, transparency, prudent fiscal policies and sound operating practices. The District is one of only eleven special districts statewide to receive this distinguished recognition. The District also received, for the twelfth year in a row, the Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association for the District’s Comprehensive Annual Financial Report for the fiscal year 2018; the Certificate of Achievement is the only national award for public sector financial reporting.

The District is proud of its accomplishments and looks forward to providing reliable water service to the residents and businesses it serves for years to come. I encourage you to contact the District to offer your suggestions on how we can continue to provide the best service possible. We value your input.

# A Message from the General Manager

---



**Brett L. Hodgkiss**  
**General Manager**

*“Our dedicated employees demonstrate excellence in service every day, striving to ensure that when you turn on the tap, water is there and safe to drink, and that is why I am very proud of them.”*

*~ Brett Hodgkiss*

Much has changed since Vista Irrigation District formed in 1923. What hasn't changed is our mission of providing a reliable supply of high quality water to you, our customers. Our knowledgeable and skilled staff make sure that we provide the best quality product and service to the residents and businesses we serve day in and day out.

As we enter a new decade, the water industry continues to face a number of challenges, including regulatory mandates and aging infrastructure. However, with challenges come opportunities to develop a path forward. Our Board of Directors is committed to making the tough decisions to shape that path and to making the necessary investment of resources to ensure Vista Irrigation District is able to secure and deliver a safe, reliable water supply.

Vista Irrigation District conducts thousands of tests for a multitude of drinking water constituents each year to ensure the water it delivers meets safe drinking water standards. As reported in our 2019 Triennial Public Health Goal Report and 2019 Consumer Confidence Report, your water met all federal and state drinking water standards to protect public health. We also assisted schools in our service area with lead sampling in accordance with state law.

Over the past year, Vista Irrigation District continued to implement its capital improvement program, replacing aging pipelines and rehabilitating reservoirs. We began work on the Edgehill Reservoir Replacement and Pump Station Project that will increase storage capacity and enhance water system operations. We also initiated work on a Water Supply Planning Study to assist us in evaluating and managing our water resources.

Our commitment to our customers is first and foremost. Maintaining our water supply, making sure it meets stringent water quality standards and moving it through our distribution system to homes and businesses in the communities we serve is a challenge but it is a challenge that our employees willingly accept and take very seriously. Our dedicated employees demonstrate excellence in service every day, striving to ensure that when you turn on the tap, water is there and safe to drink, and that is why I am very proud of them.

It is a pleasure to lead the Vista Irrigation District, and I look forward to working with our customers, staff and the Board of Directors to chart a path forward our agency and enhance the vital services that we provide. I encourage you to read the information contained in this report to learn more about Vista Irrigation District. We appreciate your continued input and partnership.



# Our Region's Trusted Water Leader San Diego County Water Authority

PIONEERING  
VISIONARY  
AGILE *and*  
DRIVEN  
FOR 75 YEARS...  
AND COUNTING

○ **June 9, 1944**  
The San Diego County Water Authority forms with nine charter members to administer the region's Colorado River rights, import water and take over operations of the regional aqueduct.



○ **December 17, 1946**  
The Water Authority annexes into the Metropolitan Water District of Southern California. As a condition of annexation, MWD requires the City of San Diego to assign its 112,000 acre-foot Colorado River water right to MWD.



**1950**  
The Water Authority serves about 80 percent of county's residents, delivering 59,000 acre-feet of water to 435,000 people.

○ **1954**  
Pipeline 2, a 48-inch-diameter pipeline built adjacent to Pipeline 1, begins delivering imported water.



○ **November 29, 1944**  
President Roosevelt orders the U.S. Navy to construct Pipeline 1, connecting the Colorado River Aqueduct in Riverside County to the City of San Diego's San Vicente Reservoir in Lakeside.



○ **November 24, 1947**  
The first Colorado River water flows into San Diego County just in time to help avoid what could have been a significant water shortage in the region.



○ **1950 - 1951**  
Drought causes concerns in San Diego County, and the Water Authority pursues plans for a second major pipeline.

One acre-foot is about 325,900 gallons, enough to supply 2.5 single-family homes of four for a year.

From a rural agricultural enclave to a bustling southern California region, through historic droughts and significant population growth, the San Diego County Water Authority (Water Authority) has shaped the San Diego region. For 75 years, the Water Authority has played a pivotal role in the region's development as an international hub for innovation, recreation, agriculture, trade and so much more. With few natural water resources, strategic water supply planning and development is critical to San Diego County's continued prosperity – and in 2019 the Water Authority celebrated 75 years of collective successes ensuring a reliable water supply for the region.

On June 9, 1944, San Diego voters approved the Water Authority's formation under the County Water Authority Act. In the beginning, the Water Authority was made up of only nine member agencies; now

there are 24, including cities, special districts, like Vista Irrigation District (District), and Marine Corps Base Camp Pendleton. The Water Authority joined the Metropolitan Water District of Southern California (MWD) in 1946, allowing the region to begin receiving imported water from the Colorado River.

President Roosevelt ordered the United States Navy to construct the Water Authority's Pipeline 1, connecting the Colorado River Aqueduct to the San Vicente Reservoir. When water began flowing through Pipeline 1 in November 1947, San Diego had less than a month's supply of water left. In 1954, Pipeline 2 was built adjacent to Pipeline 1; three additional Pipelines were built over the coming years, culminating in 1982 with Pipeline 5, a pipe capable of carrying nearly three times the water as the first three pipes combined.

**1990**  
The Water Authority serves 2.4 million residents who use 642,000 acre-feet of water. Per capita potable water use is 235 gallons per day.

○ **1991**  
The Water Authority sponsors state Senate Bill 1224, requiring that toilets sold or installed in 1994 or later use no more than 1.6 gallons per flush – a standard adopted nationally in the Energy Policy Act of 1992 and a cornerstone of future water-efficiency efforts nationwide.

○ **1992**  
The Water Authority begins planning and environmental studies for the Emergency Storage Project, a system of reservoirs, pipelines and pump stations designed to serve water throughout the county if a major catastrophe such as an earthquake interrupts imported water supplies.



○ **1998**  
In April, the Water Authority and the Imperial Irrigation District execute an agreement for the largest agricultural-to-urban water transfer in U.S. history. In November, the Water Authority and MWD sign an Exchange Agreement to move the IID transfer water to San Diego County.

○ **2000**  
The State of California amends the County Water Authority Act, expanding the Water Authority's ability to build, own and operate electric and natural gas facilities.



○ **1990**  
The Water Authority initiates its Aqueduct Protection Program, an industry-leading maintenance and repair program for large-diameter pipelines.

○ **1991**  
After five years of drought, Metropolitan Water District deliveries to San Diego are cut by 31 percent for 13 months. The Water Authority purchases additional water from California Drought Water Bank and implements a major water conservation campaign. Economic development in the region suffers a major blow.



○ **1995**  
The Water Authority and Imperial Irrigation District announce a Memorandum of Understanding to pursue a major water conservation-and-transfer agreement for boosting regional water supply reliability.

○ **1997**  
The Water Authority starts developing a master plan for securing diversified water supply sources and implementing the associated capital improvement projects through 2030.

**2000**  
The Water Authority serves 2.8 million people who use 695,000 acre-feet of water. Per capita potable water use drops to 216 gallons per day.



1960

**The Water Authority provides 157,000 acre-feet of water to 956,000 people — almost 95 percent of county residents.**

1964

In *Arizona v. California*, the U.S. Supreme Court rules that California is limited to 4.4 million acre-feet of Colorado River water annually in the absence of a surplus or unused apportionment from Arizona and Nevada.



1976

Pipeline 4, 96 inches in diameter and capable of carrying nearly as much water as first three pipes combined, is completed in the Second Aqueduct.

1976-1977 San Diego County and the rest of California suffer from severe drought conditions.

1980

**The Water Authority serves nearly 99 percent of the county's 1.8 million residents, delivering 310,000 acre-feet of water.**

1989

The Water Authority authorizes an Optimal Storage Study to analyze the agency's water storage needs.



1961

Pipeline 3, a 72-inch-diameter pipeline capable of delivering nearly three times the water as Pipeline 1, is completed in the Second San Diego Aqueduct that terminates at Otay Reservoir.



1970

**The Water Authority's serves more than 1.2 million people, delivering 246,000 acre-feet of water.**

1978

The first water from Northern California is delivered to the San Diego region via the State Water Project's California Aqueduct and the Metropolitan Water District of Southern California.

1987

A major six-year drought begins in California.

1989

A \$530 million Capital Improvement Program is adopted by the Water Authority, encompassing 10 major water infrastructure projects.

1982

Pipeline 5, a 96-inch-diameter pipeline, is added to the Second Aqueduct, increasing regional delivery capacity to about 1 million acre-feet per year.



In 1950, the Water Authority served about 80 percent of San Diego County residents and by the 1980's that number had grown to nearly 99 percent.

While the first four decades focused on building the infrastructure necessary to serve the developing region and its growing need for water, the modern era of the Water Authority started during deep, drought-induced water supply cuts in the early 1990s. Since then, the Water Authority and its 24 member agencies have deployed one of the most aggressive water supply diversification strategies in the nation to improve regional water supply reliability. At the same time, its member agencies, with the help of their customers, have reduced water use to the point that the total regional water use today is well below 1990 levels despite significant growth in the population and economy.

The Water Authority's diversification strategy has been multi-faceted and included large-scale water transfers from Imperial Valley, construction of the nation's largest dam raise to increase local water storage, regional efforts at conservation and sustainable landscapes, and the most technologically advanced seawater desalination plant in the nation. The far-sighted approach to supply diversification has served San Diego County well.

The story of San Diego has revolved around the search for water. The Water Authority will continue to search for ways to ensure a sustainable and reliable water source is available to support a thriving San Diego County.

2003

The Water Authority dedicates Olivenhain Dam, completing Phase One of the agency's \$1.5 billion Emergency & Carryover Storage Project. It is the region's first new dam in 50 years.



2010

**The Water Authority serves 3.2 million residents, who use a total of 566,000 acre-feet of water as per capita potable water use shrinks to 152 gallons per day.**

2011

The 11-mile, 8.5-foot diameter San Vicente Pipeline Tunnel, a key component of the Water Authority's Emergency & Carryover Storage Project, is finished.

2012

The Water Authority's Lake Hodges Pump Storage Project begins operations, providing up to 40 megawatts of clean, on-demand electricity for the region with two 28,000-horsepower pump turbines.

2015

Commercial water production begins at the Claude "Bud" Lewis Carlsbad Desalination Plant, which generates approximately 50 million gallons of high-quality drinking water each day as the nation's largest seawater desalination plant.

2018

**The Water Authority serves 3.3 million residents who use 518,000 acre-feet of water. Per capita potable water use drops to 134 gallons per day.**



2003

The U.S. Secretary of the Interior, the Water Authority, and other parties sign the historic Colorado River Quantification Settlement Agreement. The Water Authority and IID commence their water transfer agreement, and QSA water begins flowing to the San Diego region.



2010

Projects to replace nearly 60 miles of the earthen All-American and Coachella canals with modern, concrete-lined canals are completed. The projects provide San Diego with approximately 80,000 acre-feet of high-priority, low-cost water each year for 110 years as part of the QSA.



2014

The San Vicente Dam Raise, the largest water storage increase in county history, is completed, giving the region a critical hedge against water shortages. The project adds 157,000 acre-feet of water storage capacity to the reservoir, which is owned and operated by the City of San Diego.

2017

The Water Authority's Emergency & Carryover Storage Project wins the engineering industry's most prestigious global award from the American Society of Civil Engineers.

# Tap Water is the Best Deal Around!

Your tap is a source of high quality drinking water that is a great value, especially when compared to the cost of bottled water and other every day necessities, such as gas and milk. Gallon for gallon, your tap water is the best deal around.

## Tap Water Versus Bottled Water

Vista Irrigation District rigorously tests its water to ensure it complies with stringent state and federal water quality standards that meet or exceed those for bottled water. Bottled water is far more expensive than tap water and uses many more resources to package, ship, and dispose of when the bottles are empty. Tap water and bottled water are generally comparable in terms of safety, so the choice of tap or bottled is mostly a matter of personal preference. When you have a choice between bottled water and tap water, drinking from the tap is a better choice for your wallet and the environment.



## Tap Water is a Great Value

The District delivers high quality drinking water to your home or business for about half a cent per gallon. Compare that to the cost of bottled water, which often times is nothing more than processed tap water, and you can see why filling a reusable container with tap water is a safe and less expensive alternative. You already pay for water at the tap; why pay again for bottled water?

For more information about your water, you can read the 2019 Consumer Confidence Report online at [www.vidwater.org/water-quality](http://www.vidwater.org/water-quality) or call us at (760) 597-3100 and request a copy be mailed to you.

**\$0.005 per gallon**



**\$1.47 per gallon**



**\$3.72 per Gallon**



**\$3.32 per Gallon**



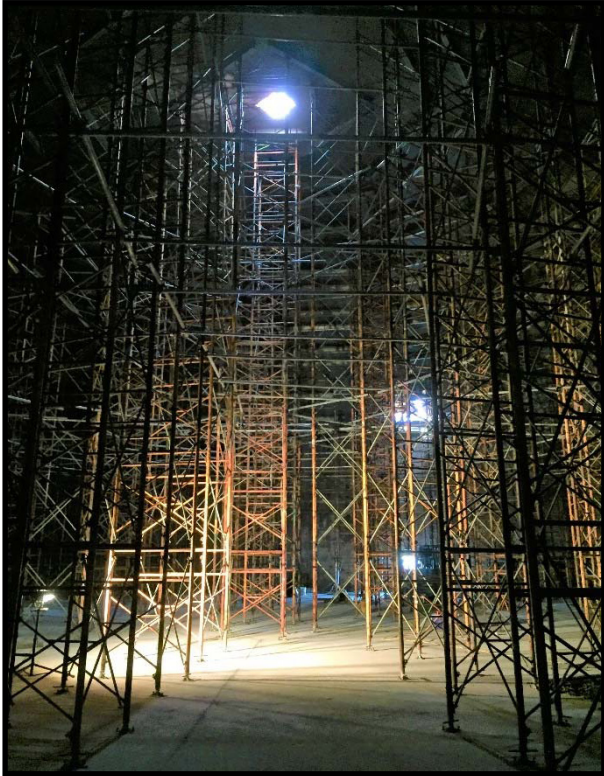
TAP WATER: Vista Irrigation District  
BOTTLED WATER: Costco - Kirkland Bottled Water (40 count 16.9 oz bottles)  
GAS: AAA - 2019 Average for San Diego  
MILK: USDA - 2019 Simple Average for United States

# Reservoir Rehabilitation Saves District Millions

This past year Vista Irrigation District began work on the Buena Creek (HB) Reservoir Rehabilitation project (HB Project). HB Reservoir, a 4.5 million gallon pre-stressed concrete tank located along Buena Creek Road, just west of Blue Bird Canyon Road, was constructed in the early 1960s and was identified as needing seismic upgrades. After careful analysis, the District decided to refurbish the HB Reservoir versus complete tank replacement, saving time and money.

Construction on the HB Project began in November 2019 and is expected to be completed in November 2020. HB Project components include seismic retrofits, structural repairs, reservoir roof replacement, piping work, exterior and interior stair replacement, interior coating, fresh paint, site grading improvements, new pavement and main access road, and safety and security improvements. The projected lifespan of the newly rehabilitated reservoir is about 50 years, the same as a completely new tank.

Choosing to refurbish the HB Reservoir versus replacement has multiple benefits to our customers, including shorter construction duration to lessen impact to District customers and significant cost savings. When the HB Project is complete, the District will have a new reservoir tank for about \$2 million less than it would have cost to demolish the tank and build a new one. HB Reservoir renovations will not only save the District money, they will increase water system reliability and redundancy, ensuring a reliable water supply for our customers for years to come.



Pictured: Roof demolition support system inside the reservoir complete



Pictured: HB Reservoir roof demolition in progress



Pictured: Aerial view of HB Reservoir Project in progress

# WATER SUPPLY FACTS

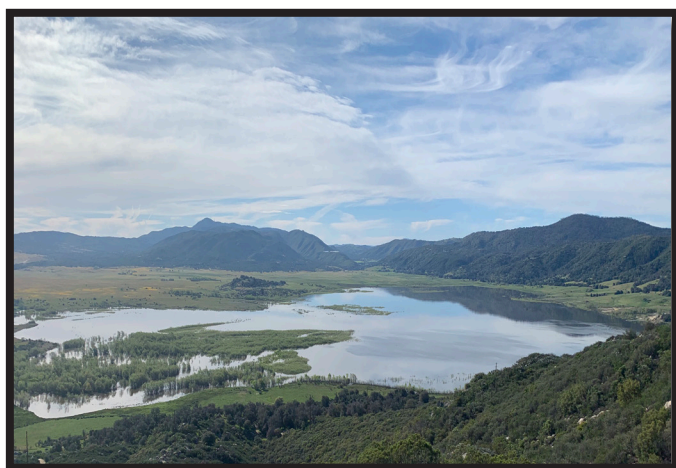
## WATER SOURCES

Vista Irrigation District's original source of water, dating back to 1926, was from Lake Henshaw. The lake was later purchased by the District, along with the 43,000 acre Warner Ranch, in 1946. However, drought conditions and population growth eventually caused the District to look for additional water sources. In 1954, the District became a member of the San Diego County Water Authority to take advantage of water imported from the Colorado River and Northern California.



Imported Water Source: Bay Delta

Over the last three decades, about 30 percent of the District's water has come from Lake Henshaw and 70 percent has come from purchased water sources, including the Colorado River, desalinated seawater and the Sacramento River/San Joaquin River Delta in Northern California. In fiscal year 2019, 16 percent of the District's water came from Lake Henshaw, a decrease of roughly two percent from the previous year.



Local Water Source: Lake Henshaw  
Photo credit: R. Larsen

## WATER QUALITY

Vista Irrigation District takes all steps necessary to safeguard its water supply. Each year staff conducts more than 12,000 tests for over 75 drinking water contaminants, ensuring that the District's water met or exceeded all Federal and State safe drinking water standards.

Every June, the District makes available its Consumer Confidence Report, also known as the Water Quality Report. The report provides a snapshot of the quality of water provided during the past year. Included are details about what is in your water and how it compares to prescribed standards. It also provides answers to commonly asked questions, such as "what affects the taste of my water?"

The District is committed to providing its customers with information about drinking water because informed customers are the District's best customers. If customers have questions or concerns about water quality, they may contact the District and speak with the water distribution supervisor.

2018 WATER QUALITY MONITORING RESULTS									
Parameter	Units	Federal or State MCL (MRDL)	PHG (MRDLG)	Range Average	Treatment Plant Effluents			DLR	Typical Source/ Comments
					Escondido-Vista Water Treatment Plant	Skinner, Twin Oaks Valley, & Warner Water Treatment Plants Combined Effluents	Carlsbad Desalination Plant		
<b>Primary Standards</b>									
<b>Clarity (Turbidity)</b>									
Combined Filter	NTU	TT-1	NA	Range: 0.04 - 0.12 Average: 0.08 Highest: 0.12	0.01 - 0.25	NR	NA	Soil Runoff	
Effluent Turbidity* % of readings below 0.3 NTU	%	95%	NA	Percentage	100.0%	100.0%	98.0%	NA	Soil Runoff
* Turbidity is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results, which meet performance standards, are considered to be in compliance with filtration requirements.									
<b>Inorganic Constituents</b>									
Arsenic (As)	ug/L	10	0.004	Range: NR Average: NR	ND - 3	ND	2	Erosion of natural deposits; glass and electronic production waste	
Chloride	mg/L	1	0.05	Range: 0.13 - 0.23 Average: 0.15	NR	NR	0.02	By products of drinking water chlorination	
Fluoride (F-) Treatment Related	mg/L	2	1	Range: 0.6 - 0.8 Average: 0.7	0.13 - 0.31	0.6 - 0.8	0.1	Erosion of natural deposits; water additive for dental health	

Excerpts from the 2019 Consumer Confidence Report (CCR). The 2020 CCR will be available July 1, 2020.

# WATER SUPPLY FACTS

## WATER INFRASTRUCTURE



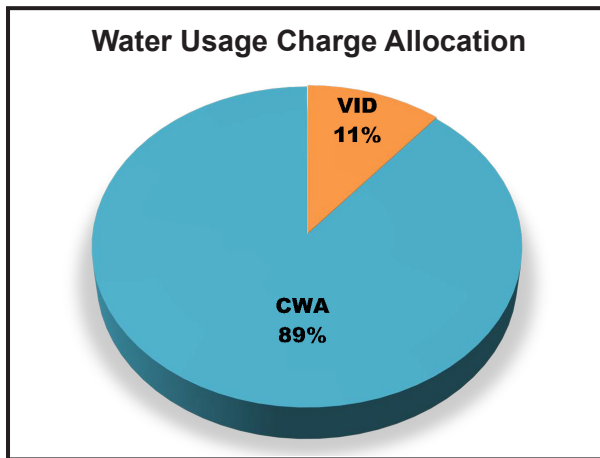
Pictured:  
Mainline Replacement on Montgomery Drive

Replacement of aging infrastructure has always been a high priority for the District. In 1995, the Board of Directors initiated an on-going Main Replacement Program (Program) with the goal of replacing aging pipelines before they reach the end of their useful life and become a maintenance liability. The formalized Program has allowed pipe replacements to be prioritized based on a variety of factors, including age of pipe, leak history, pipe material and input from District crews who evaluate every line's condition at the time repairs are being made.

Since its inception, the District has allocated \$34.5 million to this program, which has allowed the replacement of 34.5 miles of older pipe ranging in size from 4 to 20 inches. This year 9,217 feet (or nearly 1.75 miles) of pipeline was installed or replaced. The Board of Directors approved another \$2.5 million for this Program as part of the budget for fiscal year 2020.

The District's investments in the Main Replacement Program as well as system upgrades and other infrastructure improvements, including the rehabilitation and replacement of reservoirs, help the District meet its goal of providing a reliable and high quality water supply to its customers.

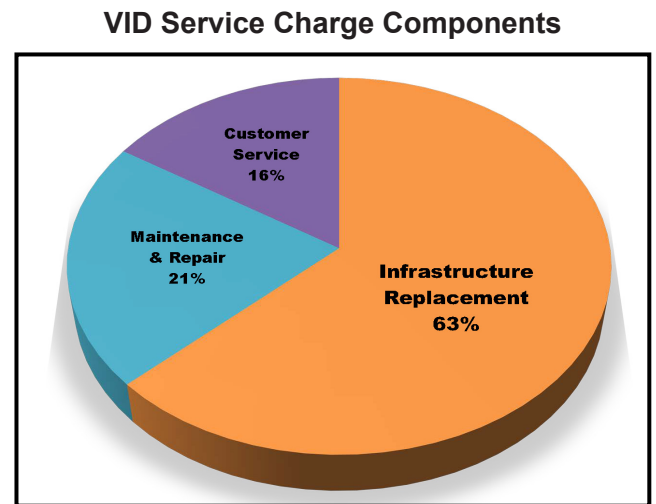
## WATER RATES AND CHARGES



Approximately 11 percent of the revenue generated by water usage charges is utilized by Vista Irrigation District to cover operating and maintenance expenses; the remaining 89 percent is used to pay the San Diego County Water Authority (Water Authority) for water purchases.

The Water Authority is responsible for supplying water to 24 member agencies within San Diego County. Not simply a water provider, the Water Authority is also responsible for the construction and maintenance of regional storage, delivery and treatment infrastructure necessary to ensure the reliable delivery of water to local water agencies like Vista Irrigation District.

Vista Irrigation District's service charge helps pay the District's fixed costs, which exist regardless of the amount of water pumped and delivered. Fixed costs continue without regard to the amount of water that a customer uses and are sometimes called "readiness-to-serve" charges because they are incurred as part of keeping the water system ready to deliver water to any customer at a moment's notice. The largest component of the service charge recovers the cost of replacing the District's aging water system infrastructure.



Information about Vista Irrigation District's water supply as well as an electronic copy of the latest Consumer Confidence Report can be found on the District's web site, [www.vidwater.org](http://www.vidwater.org). Additionally, you can find out more information about District services, rates, water conservation and recent announcements. Customers can also download publications, such as the District's direct payment program application and engineering standard specifications/drawings.

# SERVICE ANNIVERSARY

## 25 Years



*Frank Wolinski*

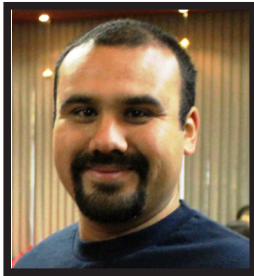
Annually the Board of Directors recognizes employees who have reached major milestones in their careers with the District. Longevity is a hallmark of Vista Irrigation District and this year was no exception. The pictured employees received service awards commemorating their dedicated service with the District.

## 20 Years

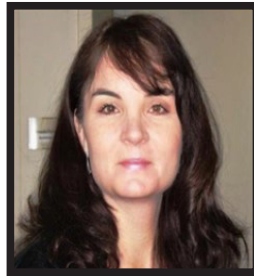


*Sonia Enriquez*

## 15 Years



*Oscar Chavez*



*Christina Moyer*



*Darin Schuck*

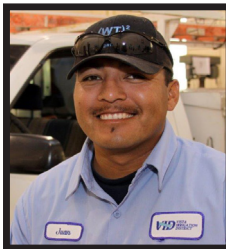
## 10 Years



*Richard Larsen*



*Christian Magill*



*Juan Perez*



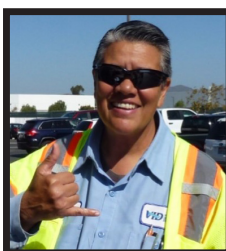
## 5 Years



*Ken Wulf*



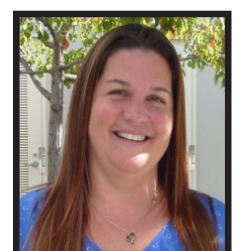
*Steve Tester*



*Sharon Turner*



*Rich Gangloff*



*Breona Paz*

# District Demographics



# DISTRICT DEMOGRAPHICS

## Distribution System

This table shows the District's treated water storage capacity by reservoir. The elevation numbers represent each reservoir's height above mean sea level.

RESERVOIR	SIZE AND TYPE	EXISTING CAPACITY	FLOOR ELEVATIONS	TOP WATER ELEVATIONS
		(Million Gallons)	(Feet)	(Feet)
Lupine Hills	Prestressed Concrete – 137' Dia. – 31' High	3.4	537.0	568.0
Pechstein	Prestressed Concrete – 355' Dia. - 27' High	20.0	810.0	837.0
Deodar	Prestressed Concrete - 86' Dia. - 30' High	1.3	869.0	899.0
San Luis Rey	Concrete - 156' x 136' x 25' High	3.1	540.0	565.0
Virginia Pl. (A)	Concrete - 100' Dia. - 13' High	0.8	695.0	708.0
Summit Trail (C)	Concrete - 100' Dia. - 13' High	0.8	625.0	638.0
Edgehill (E)	Concrete - 96' Dia. - 12' High	1.5	741.0	753.0
Cabrillo Cir. (E-1)	Concrete - 90' Dia. - 13' High	0.6	546.0	559.0
Rockhill (MD)	Concrete - 55' Dia. - 10' High	0.2	886.0	896.0
Edgehill (HP)	Prestressed Concrete – 160' Dia. – 32' High	4.7	943.0	975.0
Buena Creek (HB)	Prestressed Concrete – 160' Dia. – 30' High	4.5	951.0	981.0
Elevado (H)	Prestressed Concrete – 160' Dia. – 36' High	5.4	774.0	810.0
<b>Total</b>		<b>46.3</b>		

## Water Transmission Facilities

Escondido Canal and Intake	Carrying Capacity: 50 CFS	VID rights = 1/2
Vista Main Canal (Flume)	Carrying Capacity: 30 CFS	Twelve miles of conduit from the Escondido-Vista Water Treatment Plant to Pechstein Reservoir

## Water Meters

This table shows the total number of meters in service by the use type.

Residential (Single and Multi-Family)	24,393
Commercial/Industrial	1,581
Irrigation	944
Agricultural	515
Fire Service (Fire Sprinklers)	1,258
Governmental	89
<b>Total</b>	<b>28,780</b>

## VID Pipelines

This table shows miles of pipeline in the District's distribution system by size and material type.

4" to 12" AC	246 miles
14" to 36" AC	17 miles
2.5" to 12" PVC	97 miles
14" to 24" PVC	3 miles
4" to 12" Steel	38 miles
14" to 36" Steel	25 miles
All other materials larger than 4"	3 miles
<b>Total</b>	<b>429 miles</b>

## Water Equivalents

- 1 Acre Foot equals 325,900 gallons
- 1 Acre Foot equals 43,560 cubic feet
- 1 Cubic Foot equals 7.48 gallons
- 1 Cubic Foot per Second (CFS) equals 449 gallons per minute and in 24 hours equals 1.983-acre feet



# DISTRICT DEMOGRAPHICS

## Performance of Distribution Systems

(Fiscal Year 2018–2019)

This table shows water delivered to the District (from purchased and local sources) versus how much was delivered to customers. Losses encompass water that was delivered to the District but not sold to customers. Water losses can be attributable to a number of factors, including pipeline leaks and breaks, theft, hit fire hydrants and fire suppression activities.

	<u>Acre Feet</u>	
	<u>Water In</u>	<u>Water Out</u>
Local Water Received at Escndido-Vista Water Treatment Plant (Henshaw Water)	2,622	
Received from San Diego Aqueduct (Purchased)	13,422	
Metered to VID users		15,484
Losses		560
<b>Total</b>	<b>16,044</b>	<b>16,044</b>

## Lake Henshaw Properties

### Warner Ranch:

43,402 acres (68 square miles)

### Semi-Hydraulic Earth Fill Dam:

Height 110 feet, Length 1,950 feet

### Groundwater Development:

12 active production wells and  
91,000 feet of conduit

### Reservoir (Lake Henshaw):

51,774 acre feet capacity;  
2,219 acres in area, 203 square mile  
watershed

## Lake Henshaw Performance

This table presents an annual accounting of various sources of inflows, such as run-off and pumped water from the Warner Basin aquifer, and outflows of water from the lake.

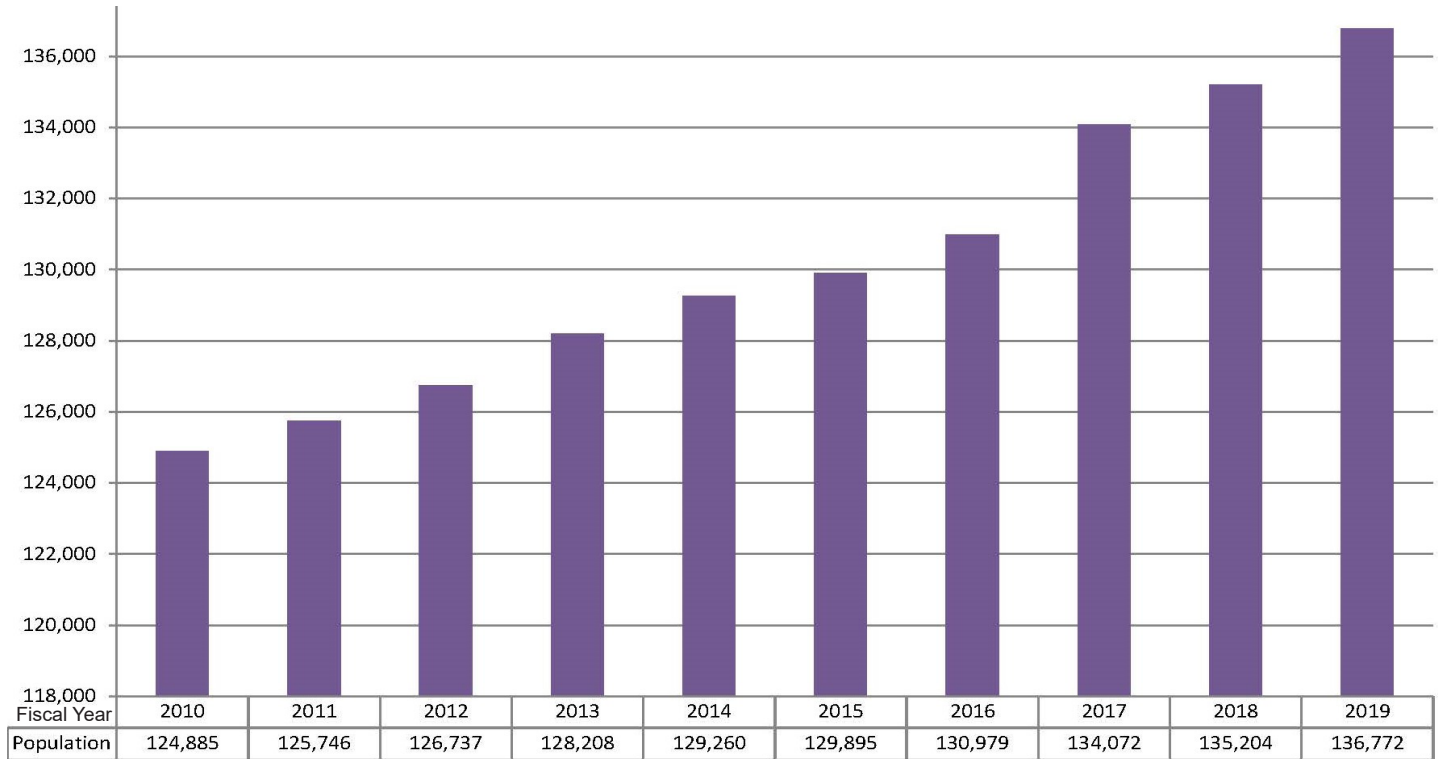
	<u>Acre Feet</u>
Total Storage July 1, 2018	3,706
Plus Pumped Water	3,843
Plus (minus) other gains/(losses)	15,340
Less Release	(4,832)
Less Evaporation	(4,269)
Less Spill	0
<b>Total Storage July 1, 2019</b>	<b>13,788</b>

\* Computed Runoff plus Rainfall, Conserved Evaporation, and Bank Storage.

# DISTRICT DEMOGRAPHICS

## Population

The graph depicts population growth within the District's service area, which is comprised of the city of Vista as well as portions of San Marcos, Escondido, Oceanside and unincorporated areas of the county. Source: San Diego Association of Governments.



## Average Daily Water Use Per Person

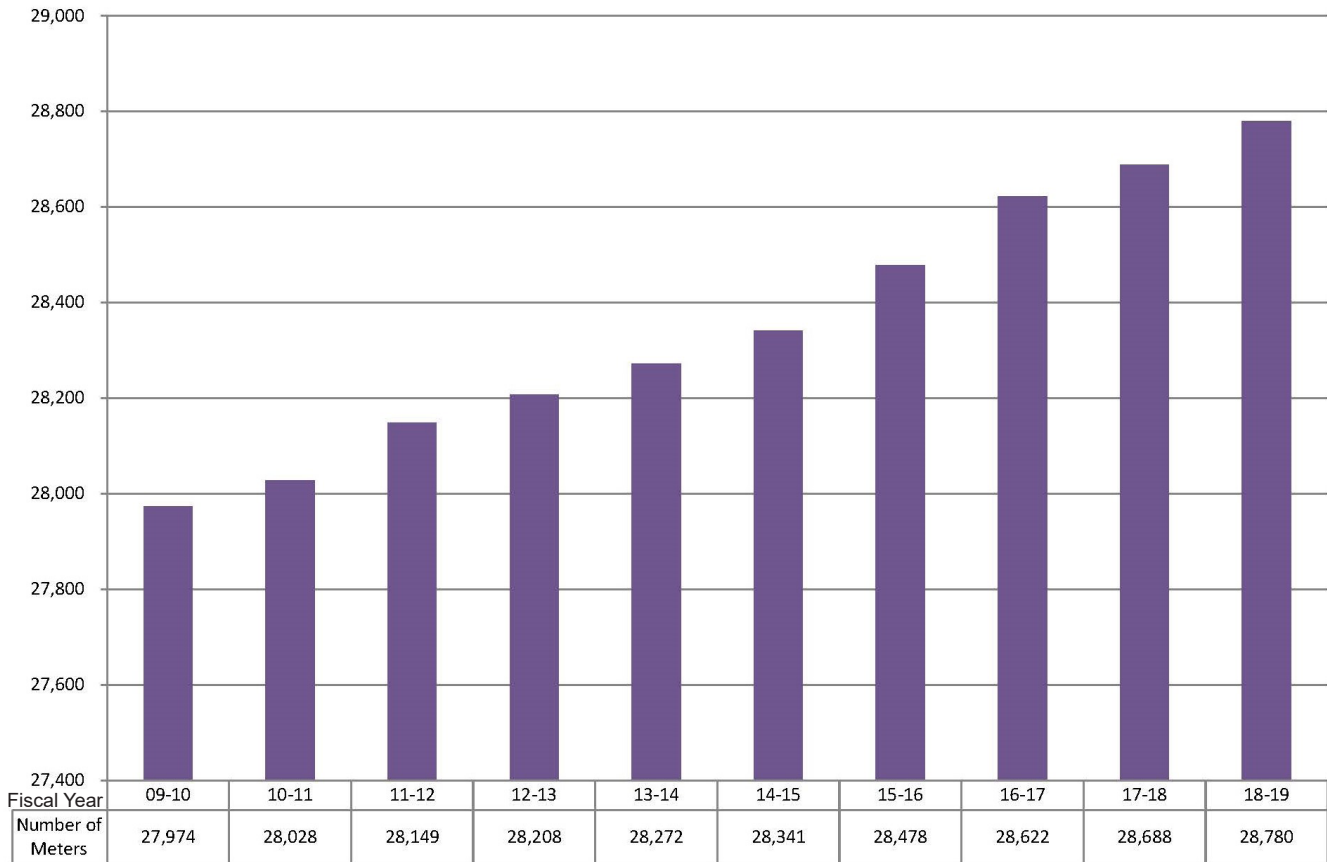
SBX 7-7 requires retail water agencies to achieve a 20% reduction in per capita water use by December 31, 2020 (referred to as "20 X 2020"). The District's 2020 target is 142 GPCD. The District's estimated daily per capita water use in 2019 was 105 gallons per capita per day (GPCD), which is 37 GPCD less than its 2020 target.



# DISTRICT DEMOGRAPHICS

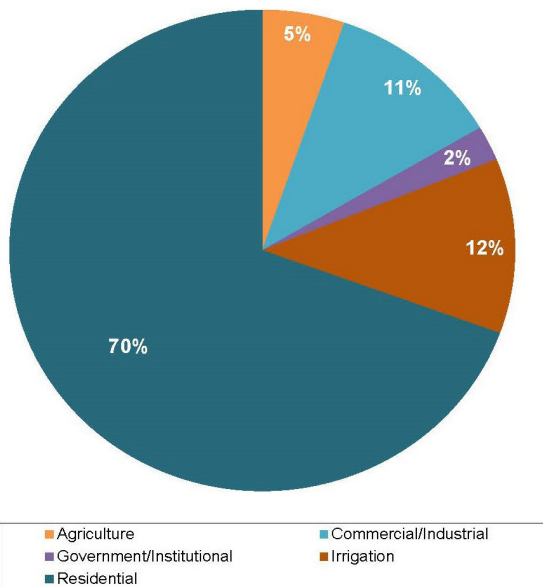
## Meters in Use

This graph shows the increase in the number of meters in use over a ten year period.



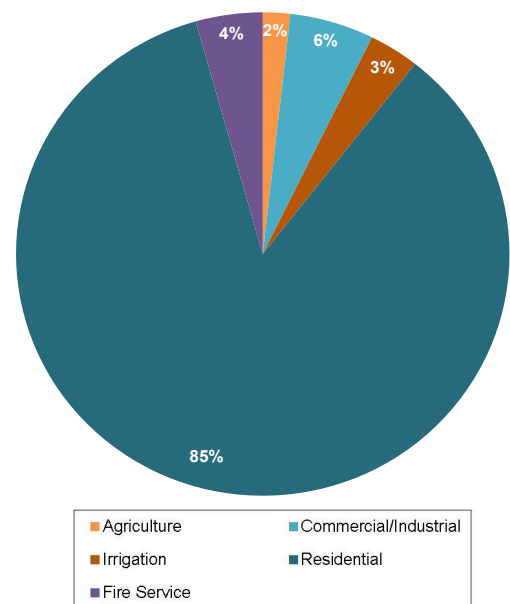
## Water Delivered by Use Type

This graph shows how much water is delivered for different uses. As illustrated, a majority of the water delivered to District customers (70%) is for residential use. The balance is delivered for irrigation, commercial/industrial (business), agriculture and governmental/institutional (parks, libraries, schools) uses.



## Meters in Service by Use Type

This graph shows meters in service by use. Almost 85% of the District's 28,780 meters are used to supply water to single-family residences.

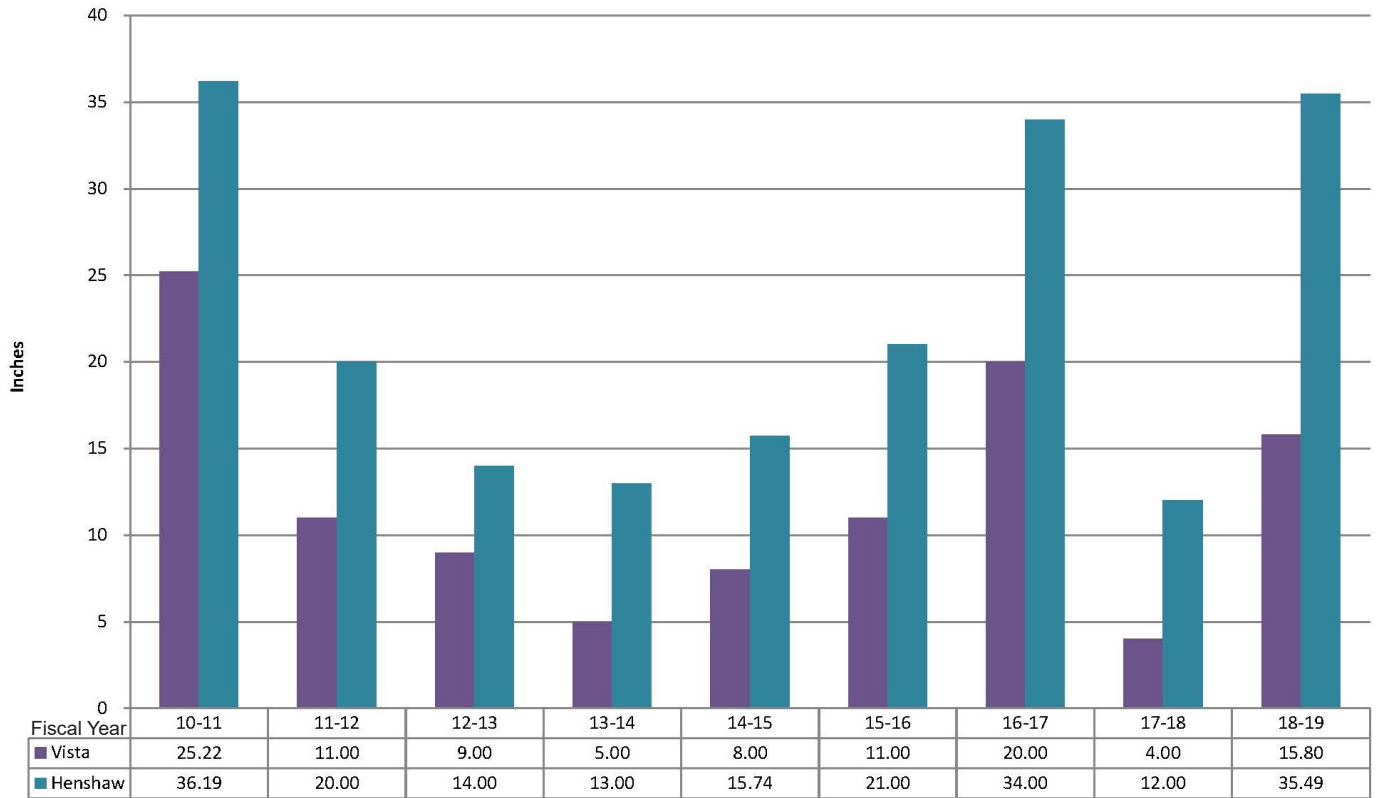


# DISTRICT DEMOGRAPHICS

## Rainfall

(July 1 - June 30)

This graph shows rainfall totals for Vista and the Lake Henshaw area over the past ten years.



## Water Received

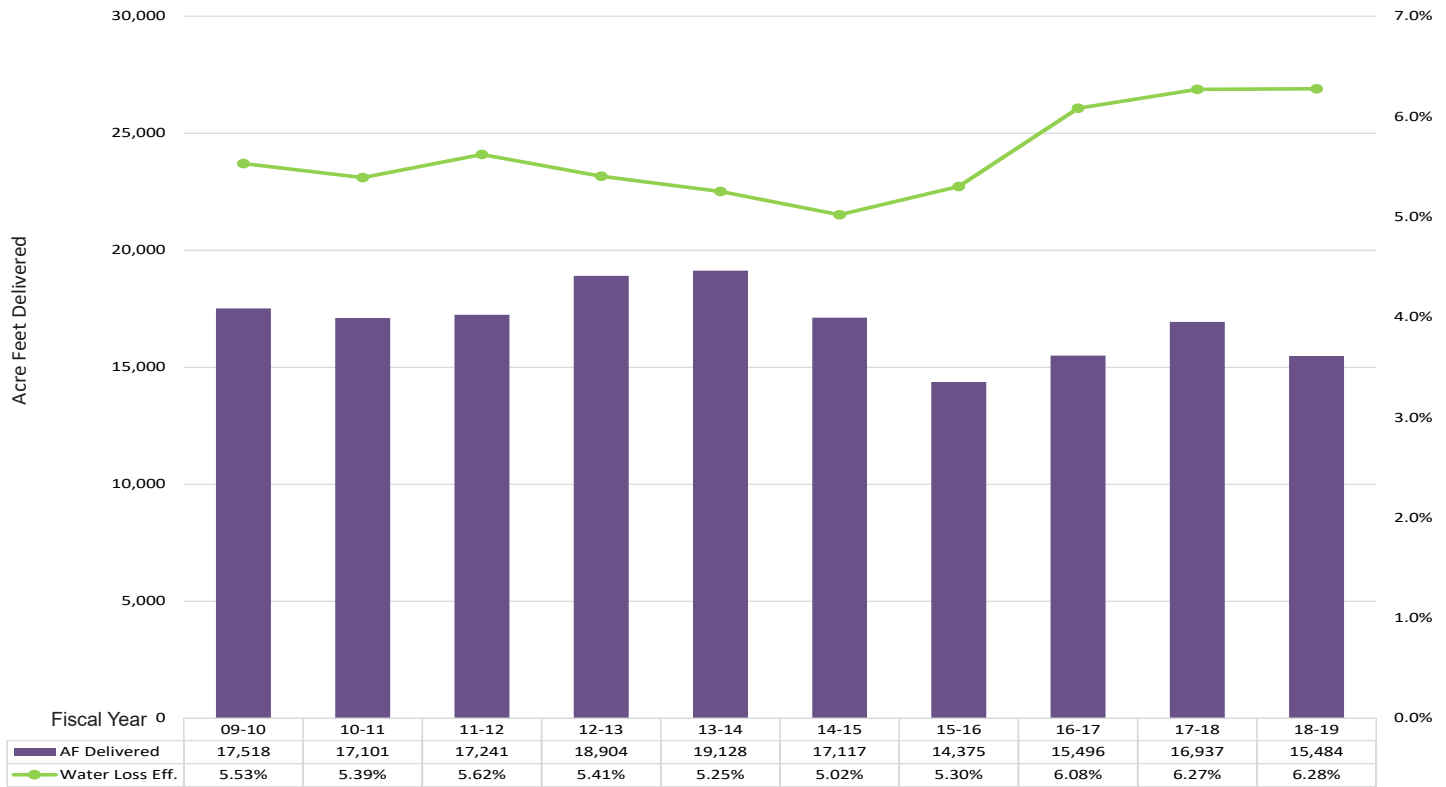
The District receives water from Lake Henshaw (local) and from Northern California, the Colorado River and desalinated sea water (purchased). This graph shows how much of each source was received in a given year.



# DISTRICT DEMOGRAPHICS

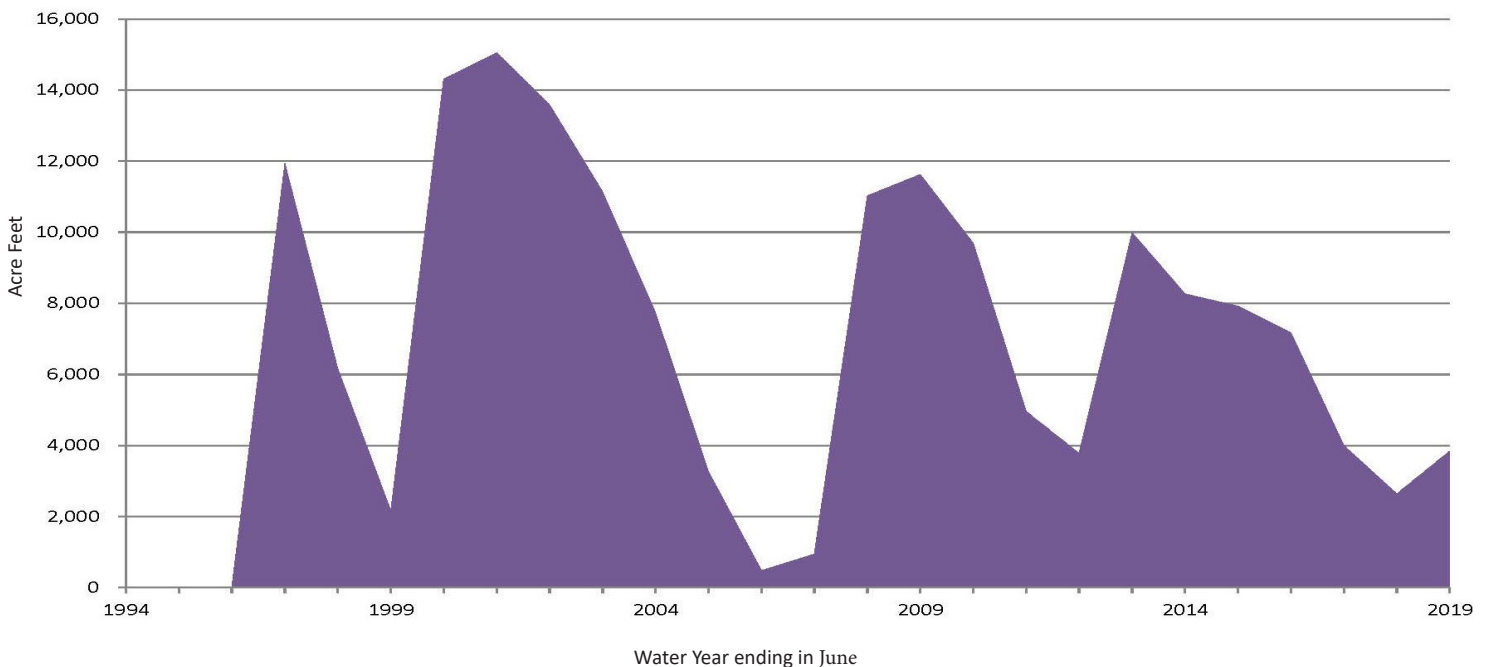
## Distribution Efficiency

The Distribution Efficiency graph shows water delivered to customers (from purchased and local sources) which is represented by the blue bars. The green line shows historical water losses. Losses encompass water that was delivered to the District but not sold to customers. Water losses can be attributable to a number of factors, including pipeline leaks and breaks, under-registering meters, evaporation, theft, hit fire hydrants and fire suppression activities.



## Water Pumped from Warner Basin (Yearly Totals)

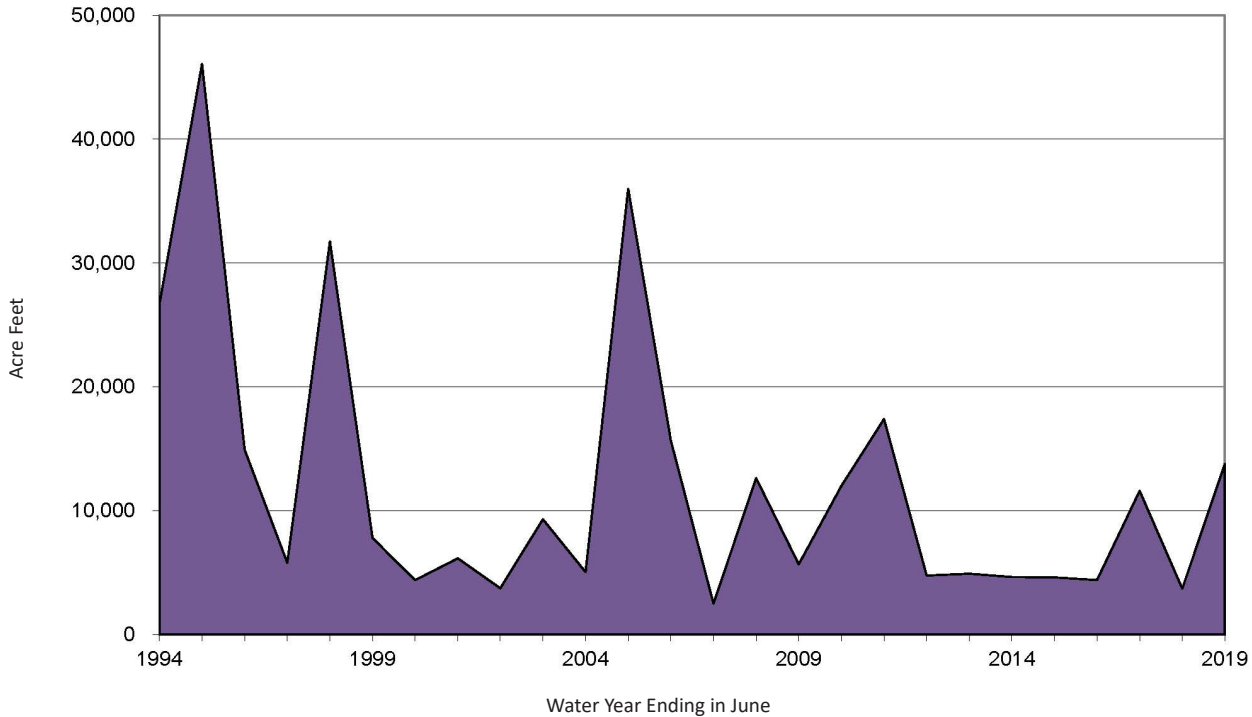
Lake Henshaw's water comes from run-off as well as pumped groundwater from the Warner Basin, which surrounds the lake. This graph shows pumped water totals from 1994 to 2019. Typically, pumped water is more heavily relied on during extended dry periods.



# DISTRICT DEMOGRAPHICS

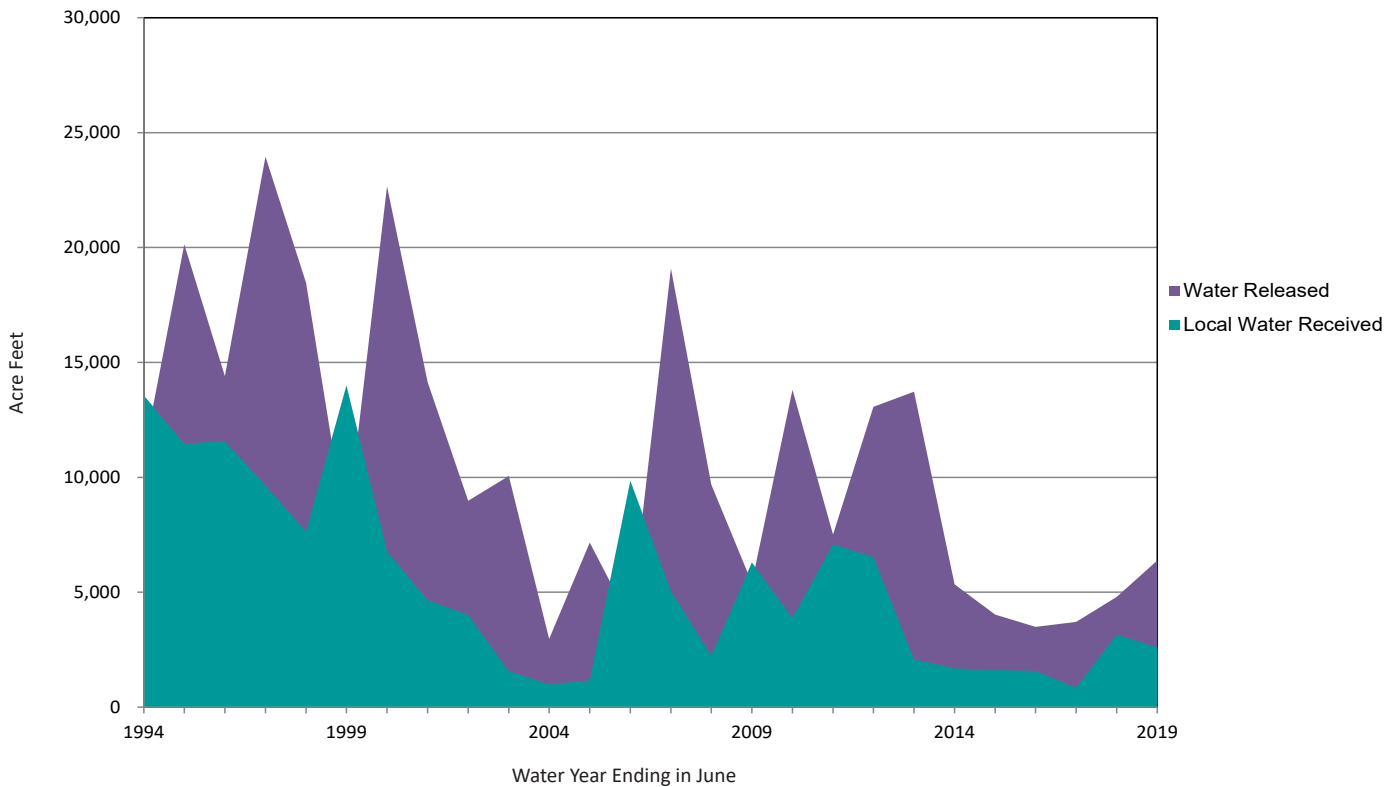
## Water Stored in Lake Henshaw

Lake Henshaw's storage capacity is 51,774 acre feet. This graph shows water stored in Lake Henshaw for the past 25 years.



## Water Released from Lake Henshaw versus Local Water Received

This graph compares the amounts of water released from Lake Henshaw with local water received by the District. Typically, the amount of local water received is less than the amount of water released because a portion of the released water also serves the City of Escondido and the Rincon Band of the Mission Indians.



# DISTRICT FINANCIALS



# *Vista Irrigation District Financial Summary*

## *For the Years Ended June 30, 2018 and June 30, 2019*

Below is a summary of Vista Irrigation District's financial performance for the fiscal year ended June 30, 2019. For a comprehensive representation of the financial position and results of operations of the District, please see the Comprehensive Annual Financial Report for Fiscal Years Ended June 30, 2019 and June 30, 2018, which can be found on Vista Irrigation District website at <https://www.vidwater.org/audited-comprehensive-annual-financial-reports>.

The below summary of the District's financial statements include two components:

- Net Position
- Changes in Net Position

The Net Position table includes the District's assets, deferred outflows, liabilities and deferred inflows, with the difference reported as net position. Net position provides the basis for evaluating the capital structure of the District and assessing its liquidity and financial flexibility.

### Net Position

The District's overall net position increased \$11.7 million between fiscal years 2018 and 2019 from \$112.7 to \$124.4 million. This change is primarily due to a \$5.1 million increase in operating revenue and a \$3.6 million gain on the sale of surplus land.

### **Vista Irrigation District Net Position** (In Millions of Dollars)

	<u>2019</u>	<u>2018</u>
Current assets	\$ 48.5	\$ 43.2
Capital assets	97.8	94.6
Total Assets	<u>146.3</u>	<u>137.8</u>
Deferred outflows of resources	5.0	6.8
Current Liabilities	9.6	13.2
Noncurrent liabilities	16.2	17.1
Total Liabilities	<u>25.8</u>	<u>30.3</u>
Deferred inflows of resources	<u>1.1</u>	<u>1.6</u>
Net Position:		
Investment in capital assets	97.8	94.6
Unrestricted	26.6	18.1
Total Net Position	<u>\$ 124.4</u>	<u>\$ 112.7</u>



# *Vista Irrigation District Financial Summary*

## *For the Years Ended June 30, 2018 and June 30, 2019*

### Change in Net Position

The Changes in Net Position table presents information identifying how the District's net position changed during each year. All of the year's revenues and expenses are recorded when the underlying transaction occurs, regardless of the timing of the related cash flows. Changes in net position measure the success of the District's operations during the year and determine whether the District has recovered its costs through user fees and other charges.

In fiscal year 2019, the District's operating revenues decreased by 2.7% to \$50.4 million; 94.8% of the District's operating revenues came from water sales. The decrease in operating revenues resulted primarily from decreased water sales as a result of increased rainfall.

During fiscal year 2019, the District's operating expenses decreased 2.7% to \$45.3 million primarily due to purchasing less imported water and a decrease in pension expense as a result of GASB 68 valuations.

### **Vista Irrigation District Changes in Net Position** (In Millions of Dollars)

	<u>2019</u>	<u>2018</u>
Operating Revenues		
Water Sales, net	\$ 47.8	\$ 49.8
System fees	1.2	0.7
Property rentals	0.8	0.8
Other services	0.6	0.5
Total Operating Revenues	<u>50.4</u>	<u>51.8</u>
Operating Expenses	<u>45.3</u>	<u>46.5</u>
Operating Income	<u>5.1</u>	<u>5.3</u>
Nonoperating Revenues (Expenses)		
Gain (Loss) on disposal of capital	3.7	-
Investment income	0.9	0.3
Property taxes	0.5	0.5
Total Nonoperating Revenues	<u>5.1</u>	<u>0.8</u>
Contributed Capital	<u>1.5</u>	<u>1.3</u>
Changes in Net Position	11.7	7.4
Total Net Position – beginning	112.7	110.1
Total Net Position – ending	<u>\$ 124.4</u>	<u>\$ 112.7</u>



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