## 5 year Water & Wastewater Capital Improvement Plan

Water Projects	Fiscal Year						
	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022		
Local Surface and North County Water Supply Investigations with other Agencies	\$100,000	\$100,000	\$100,000	\$140,000	\$200,000		
Crosstown Pipeline and Booster Station	\$800,000	\$4,000,000	\$0	\$0	\$0		
Water Meter Replacements	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000		
Upgrade Airline Highway Booster Station	\$0	\$0	\$165,000	\$0	\$0		
New Fairview/John Smith Booster Station	\$0	\$0	\$0	\$0	\$265,000		
Well 5 Upgrades for Irrigation Water system supply	\$0	\$0	\$175,000	\$0	\$0		
Irrigation Water system pipeline installation/repair	\$0	\$0	\$50,000	\$0	\$125,000		
Pipeline connection from Valley View Rd. to Union Rd.	\$0	\$0	\$50,000	\$0	\$0		
Cathodic Protection for Lessalt filter and finish water tanks	\$0	\$20,000	\$0	\$0	\$0		
SCADA at Pressure Reducing Stations	\$0	\$0	\$0	\$45,000	\$0		
Generator at Paullus Sewer Lift Station	\$0	\$0	\$50,000	\$0	\$0		

### <u>Local Surface Water & North County Groundwater Investigations</u>

As recommended in the 2017 Hollister Urban Area Water and Wastewater Master Plan Update, the District needs to begin investigations to locate and secure additional high quality water supplies for the Hollister Urban Area. In partnership with San Benito County Water District and the City of Hollister investigations and studies will need to begin in 2018 to acquire additional water supplies for the planned future expansion of the West Hills Water Treatment Plant and to continue improving the water quality delivered to the Hollister Urban Area. Actual construction of future facilities is expected beyond 2025.

### Crosstown Pipeline

The Crosstown Pipeline is currently being designed by Kennedy/Jenks Consultants and is a joint project with the City of Hollister. The project is scheduled to go to construction in the late spring or early summer of 2018 and will allow surface water from the West Hills Water Treatment Plant to be delivered to the District's distribution system.

#### Water Meter Replacements

The District continues to replace water meters throughout the distribution system with new meters to ensure accuracy in billing water customers. This is an ongoing project and will result in making sure the meters in use are 15 years old or younger.

### <u>Upgrade Airline Highway Booster Station</u>

SSCWD plans to replace the existing booster pump located in San Benito County right-of-way southeast of the intersection of Airline Highway and Enterprise Road with a larger pump and motor. A variable frequency drive would control the pump motor to move water flows ranging from 100-700 gallons per minute from the middle (Fairview) pressure zone to the high (Ridgemark) pressure zone. The station would also be connected to and controlled by the District's SCADA system.

### New Fairview/John Smith Booster Station

During the final phase of the Award Homes West of Fairview development, a new booster station between the middle (Fairview) pressure zone and high (Ridgemark) pressure zone shall be installed near current Fairview Rd. and John Smith Rd. intersection. The division of costs for this new booster station between the District and the developer will be negotiated at a time closer to installation.

### Well 5 Upgrades for Irrigation Water system supply

In order to preserve higher quality surface water for domestic uses, the District has developed a plan to supply large public landscape areas such as parks and roadway landscape with groundwater for irrigation. Well #5 is anticipated to be the source for a dedicated landscape irrigation water system. Once this system is sufficiently expanded by anticipated developments and their landscape demands, the District plans to install a VFD, pressure tanks, associated plumbing, and SCADA controls.

### <u>Irrigation Water system pipeline installation/repair</u>

A pipeline dedicated by San Benito County Water District to SSCWD for the dedicated Irrigation Water system described under the Well 5 Upgrades is believed to have multiple breaks along its length. The District therefore anticipates that repairs to this pipeline will be required before to Irrigation Water system become operational. Later the District may extend the Irrigation Water system farther to reduce use of surface water for irrigation. Ideally such extensions would coincide with future developments.

### <u>Pipeline connecting Valley View Rd. to Union Rd.</u>

Due to the Hollister Conduit and USBR easement crossing Valley View Rd. near the intersection with Union Road, the District pipeline in Valley View Road does not connect with the pipeline in Union Road. In order to improve the system hydraulics in this area, the District plans to install a pipeline over the Hollister Conduit to connect the Valley View Road and Union Road pipelines.

### Cathodic Protection for Lessalt filter and finish water tanks

With the Lessalt upgrade, new steel Green Sand, GAC, and a new Finish Water Tanks were installed into the treatment process. No cathodic protection for these tanks were installed during the upgrade and several corrosion issues may become a problem in these tanks. The District therefore plans to add cathodic protection to prevent further corrosion in these tanks. The cost will be split 50/50 between the City of Hollister and the District.

### **SCADA at Pressure Reducing Stations**

The District plans to add SCADA controls to the pressure reducing valves at Quail Ridge, Quail Hollow, and Oak Creek in order to remotely monitor and adjust these valves. Water quality, pressure, and flow data from each site can then be better monitored and controlled.

### Generator at Paullus Sewer Lift Station

The wastewater lift station on Paullus Dr. does not have an onsite generator for operation during a power outage. In order to provide better reliability and emergency response for the wastewater system, the District plans to purchase and install a dedicated back-up generator for this site.

# Water & Wastewater Capital Projects Completed

Water Projects	Fiscal Year Completed/Construction Costs						
	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017		
Ridgemark Wastewater Treatment Plant	\$-	\$9,750,000	\$0	\$0	\$0		
Water Meter Replacements	\$0	\$0	\$120,000	\$100,000	\$250,000		
Lessalt Water Treatment Plant Upgrade	\$-	\$6,141,000	\$0	\$0	\$0		
Wastewater Manhole Replacements	\$0	\$0	\$92,000	\$0	\$0		
Wastewater Lift Station SCADA	\$0	\$20,000	\$0	\$0	\$0		
Fairview Road Pipeline	\$0	\$705,000	\$0	\$0	\$0		
West Hills Water Treatment Plant	\$0	\$0	\$0	\$0	\$24,500,000		
Lessalt WTP Filter Replacements	\$427,000	\$0	\$0	\$0	\$0		
Fairview & Ridgemark Tank Rehabilitation	\$0	\$0	\$0	\$1,016,000	\$0		
Southside Road City Water System Intertie	0\$	\$0	\$0	\$0	NA		
16" Pipeline to Fairview Tanks	\$0	\$0	\$202,200	\$117,600	\$210,324		
Nitrate Injection at Paullus Drive & Ridgemark II Sewer Lift Stations	\$0	\$5,000	\$5,000	\$0	\$0		
Water System Map Update	\$0	\$0	\$0	\$0	NA		

### Ridgemark Wastewater Treatment Plant

The wastewater treatment plant was completed in September of 2013 at a construction cost of approximately \$9,750,000. The project was funded with a \$11.4 million low interest loan from the State that will be paid off in 2034.

### Water Meter Replacements

The District began replacing water meters in the 2013/2014 fiscal year. This will be an ongoing replacement program every year to keep meters in service that are 15 years or younger to ensure accuracy.

### Lessalt Water Treatment Plant Upgrade

The upgrade to the treatment plant included the addition of green sand and granulated activated carbon filters and was completed in December 2014. A finished water tank and pump stations to pump the water into the high pressure zone and the middle pressure zone were also part of the plant upgrade. The construction costs for the project totaled approximately \$6,141,000.

### Wastewater Manhole Replacements

Six sewer manholes were replaced on Paullus and South Ridgemark Drive. The work was completed in January of 2015 at a cost of \$92,200.

### Wastewater Lift Station SCADA Improvements

SCADA monitoring and controls were added to the Paullus Drive and Oak Creek Sewer Lift Stations giving staff the ability to monitor the lift stations remotely and receive alarms in the case of failures. The improvements were completed in the spring of 2014 for a cost of approximately \$20,000.

### Fairview Road Pipeline

A new 16" transmission pipeline was installed in Fairview Road from the Lessalt Water Treatment Plant to south of John Smith Road to allow the District to move higher quality surface water to the Ridgemark area. This pipeline was constructed at the same time as the upgrade was done to the Lessalt Water Treatment Plant and was completed in December of 2014 at a construction cost of \$705,000.

#### West Hills Water Treatment Plant

The West Hills Water Treatment Plant was completed in September of 2017 at a construction cost of approximately \$24.5 million. Warranty work and punch list items are still being completed.

### Lessalt Water Treatment Plant Membrane Filter Replacements

District staff replaced all 288 membrane filters at the Lessalt Water Treatment Plant in the spring of 2013 for a cost of \$427.000. Sunnyslope's share of the cost was \$213,500 and the City of Hollister was responsible for the remaining 50% of the costs.

### Fairview & Ridgemark Tank Rehabilitation

The District's 3.5 million gallon Fairview tank was recoated on the interior and on the exterior roof. The two Ridgemark Tanks (0.5 million gallon and 1.0 million gallon) were both recoated on the interior and exterior. Cathodic protection was added to all three tanks. The construction cost of the rehabilitation was approximately \$1,016,000.

### Southside Road City Water System Intertie

At the request of the Farm Labor Camp, a new intertie with the City's water system was installed to improve water pressures for the County facilities including the Farm Labor Camp and other Homeless support services. The County facilities all remain customers of the City but benefit from the water pressure provided by the District's Ridgemark Tanks. The installation of the new intertie included a new meter and a connection to the District's SCADA system so flow through the intertie can be monitored remotely and in real time. The cost of the new intertie was approximately \$20,000 and was paid for by the Farm Labor Camp.

### 16" Pipeline to the Fairview Tanks

A 16" pipeline was installed as part of the Santana Ranch Development from Fairview Road to the District's Fairview Tanks. The development does not benefit from the pipeline so a credit was incorporated into the development agreement approved by the Board and the cost of the pipeline was deducted from fees owed to the District for new water connections. The pipeline improves the water system hydraulics into and out of the Fairview Tanks.

### Nitrate Injection at Paullus Drive & Ridgemark II Sewer Lift Stations

Small storage sheds, chemical tanks, and feed systems were installed at the Paullus Drive and Ridgemark II Sewer Lift Stations to eliminate the development of hydrogen sulfide gas in the sewer system, eliminating odors, and the degradation of manholes downstream from the sewer lift stations. Staff purchased the materials and performed the installation of both systems.

#### Water System Map Update

District staff working with County staff updated the District water system maps and now have them on the County's GIS System. There were no capital expenditures on this project and costs were covered by Sunnyslope and County staff time paid for through our dues for participating in the County GIS system.