



# SAN JACINTO RIVER AUTHORITY

## Woodlands Division MUD Report for April 2019

### WASTEWATER

| Parameter                    | WWTF No. 1<br>(Outfall 001) |                 | WWTF No. 2       |                 | WWTF No. 3                   |                 |
|------------------------------|-----------------------------|-----------------|------------------|-----------------|------------------------------|-----------------|
|                              | <u>Permitted</u>            | <u>Reported</u> | <u>Permitted</u> | <u>Reported</u> | <u>Permitted</u>             | <u>Reported</u> |
| Flow (avg.-high; MGD)        | 7.8 avg.                    | 3.238 – 4.420   | 6.0 avg.         | 3.692 – 4.426   | 0.9 avg.                     | 0.526 – 0.644   |
| 2-Hour Peak Flow (MGD)       | 18                          | 04-7-2019       | 15.56            | 04-18-2019      | 3.6                          | 04-18-2019      |
| Rainfall at Highest Peak     |                             | 7.490           |                  | 1.10"           |                              | 7.270           |
| CBOD5 (30 Day avg.; mg/l)    | 10                          | 4.2             | 10               | 3.9             | 10                           | 6.1             |
| TSS (30 Day avg.; mg/l)      | 15                          | 3.8             | 15               | 3.0             | 15                           | 7.0             |
| NH3-N (30 Day avg.; mg/l)    | 3                           | 0.3             | 2.6              | 0.9             | 3                            | 0.3             |
| pH (min-max)                 | 6.0 - 9.0                   | 6.81 – 7.35     | 6.0 - 9.0        | 6.28 – 7.59     | 6.0 - 9.0                    | 6.80 – 7.60     |
| DO (minimum; mg/l)           | 4.0 (min)                   | 6.38            | 4.0 (min)        | 6.13            | 6.0 (min)                    | 7.16            |
| Disinfection (max Cl2; mg/l) | 0.1 mg/l                    | 0.07            | 0.1 mg/l         | 0.05            | 1 mg/l (min)<br>4 mg/l (max) | 1.02<br>3.51    |
| E.coli (max col/100 ml)      | 200                         | *1840           | 200              | 4.0             | 399                          | 2.0             |

\*E-coli violation for WWTF1 on April 29<sup>th</sup>. Cause of elevated results are being investigated.

### WATER

| Parameter                 | March 2019      |               | April 2019  |               |
|---------------------------|-----------------|---------------|-------------|---------------|
|                           | Groundwater     | Surface Water | Groundwater | Surface Water |
| Average (gal/day)         | 8,449,000       | 3,664,000     | 9,872,000   | 4,452,000     |
| Minimum (gal/day)         | 1,330,000       | 3,092,000     | 7,034,000   | 4,000,000     |
| Peak-day (gal/day)        | 12,809,000      | 4,192,000     | 12,236,000  | 5,275,000     |
| Monthly (gallons)         | 261,905,000     | 113,588,000   | 296,154,000 | 133,558,000   |
| Percentage GW/SW          | 68%             | 32%           | 68%         | 32%           |
| Average Avail. Capacity   | 64,567,000      | NA            | 63,162,000  | NA            |
| Rainfall (inches)         | 0.76            |               | 3.84        |               |
| Total Usage               | 375,493,000     |               | 429,712,000 |               |
| Fiscal year-to-date blend | 58% GW / 42% SW |               |             |               |

(Total water usage decreased 8.03% compared to April 2018) Cumulative Total Water Usage: 1,346,662,000 gallons - April 2019

### ENVIRONMENTAL

| Parameter                | April 2019 |
|--------------------------|------------|
| Current Total Permits    | 466        |
| Interceptor Inspections  | 143        |
| Enforcement Action Taken | 9          |



| Item | Project Description   | Project Highlights   | Budget  | Contract Amount  | Total Contract Amount to Date * | Invoiced to Date | Estimated Completion Date |
|------|---|--|---|--|---------------------------------|------------------|---------------------------|
| 2    | WW1701 – Wastewater Treatment Facility No. 2 Disinfection System Improvements | Substantial completion walkthrough on April 23, 2019. Contractor is in the process of correcting punch list items and preparing closeout documentation. Contractor has also provided training on multiple items.   | Design<br>\$448,000<br><br>Construction<br>\$6,500,000    | Design<br>\$439,245<br><br>Construction<br>\$6,327,404 | \$6,766,650                     | \$6,413,306      | Apr 2019                  |
| 3    | WWFM5R – Lift Station No. 5 Force Main Replacement                            | Design of the project is ongoing. The consultant completed the 90% design on May 07, 2018. The 100% design submittal is underway; however, final completion is pending easement acquisition along McDonald Road. Easement acquisition is in progress. Completion of easement acquisition is anticipated to be complete by early summer 2019.   | Design<br>\$688,000<br><br>Construction<br>\$4,510,000    | Design<br>\$537,496<br><br>Construction<br>TBD         | \$537,496                       | \$252,397        | May 2021                  |
| 4    | WWBBGM – Rehabilitation of Bear Branch Gravity Main<br><br><u>Bond funded</u> | The design consultant provided the 90% design submittal on January 22, 2019. Final design revisions are in progress. Contractor access routes and construction staging sites have been identified and developed, and have been discussed with landowners. Easement documents have being prepared to acquire the temporary easements, and are in the process of being obtained. Also, | Design<br>\$1,882,000<br><br>Construction<br>\$16,299,000 | Design<br>\$1,065,459<br><br>Construction<br>TBD       | \$1,065,459                     | \$370,308        | Apr 2020                  |

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|------|---|---|--|--|---------------------------------|------------------|---------------------------|
|      |   | we have been coordinating with Cochran's Crossing Village Association.  |  |  |                                 |                  |                           |
| 5    | WWF3LS – WWTF No. 3 Lift Station Rehabilitation             | Partial Substantial Completion was issued on December 19, 2018 and punch list items were generated. Punch list items are now complete.  | Design<br>\$237,000<br><br>Construction<br>\$1,577,000 | Design<br>\$126,366<br><br>Construction<br>\$543,193   | \$669,559                       | \$636,766        | Feb 2019                  |
| 6    | WWLS4R – Lift Station No. 4 Replacement (Crystal Lake Lane) | Contractor continues installation of on at- grade foundations, mechanical, and plumbing installations. The new generator was delivered to the site and installed. Electrical subcontractor is working on connections to put system online. Contractor is also working on some ongoing issues with a 3 manholes that were installed at the beginning of the project. | Design<br>\$266,000<br><br>Construction<br>\$1,459,000 | Design<br>\$235,155<br><br>Construction<br>\$1,350,419 | \$1,585,574                     | \$1,288,574      | Aug 2019                  |
| 7    | WWLS23 – Lift Station No. 23 Rehabilitation (Baker Hughes)  | Startup of site occurred on February 14, 2019 with no issues and partial substantial completion on March 1, 2019. Contractor has completed all punch list items.  | Design<br>\$68,000<br><br>Construction<br>\$372,000    | Design<br>\$103,012<br><br>Construction<br>\$500,840   | \$603,852                       | \$551,503        | Mar 2019                  |

| Item | Project Description   | Project Highlights  | Budget  | Contract Amount                                       | Total Contract Amount to Date * | Invoiced to Date | Estimated Completion Date |
|------|---|---|---|---|---------------------------------|------------------|---------------------------|
| 8    | WA17WL – Water Distribution – Looping Water Mains               | Contractor has completed all punch list items and working on document closeout for the work on Research Forest Drive, Ken Lakes Drive and FM2978/Chipwyck Way. The replacement of the 12-inch water line crossing Panther Branch at Grogan’s Point has been added to this project. The construction contract for Alcott, Inc. dba TCA was approved at the SJRA Board of Directors meeting on February 28, 2019. Contractor mobilized April 30, 2019 to install low water crossings, survey, and mobilize equipment and materials. | Design<br>\$198,000<br><br>Construction<br>\$972,000  | Design<br>\$36,708<br><br>Construction<br>\$709,609   | \$746,317                       | \$409,629        | May 2019                  |
| 9    | WW17GR – Gravity Main Rehabilitation – Segments 35, 50, and 50A | Notice to Proceed was issued to contractor on December 17, 2018. Contractor completed cleaning and televising, and CIPP of Segment 35 (Sawdust and Grogan’s Point). Contractor setting up diversion bypass pumps and piping for Segments 50 and 50A (W. Isle Place, Leeward Cove Dr. and Pleasure Cove Dr.). Installation expected to be completed mid to late-April, at which point cleaning and televising of the segments will commence.   | Design<br>\$60,000<br><br>Construction<br>\$1,328,000 | Design<br>\$61,396<br><br>Construction<br>\$1,277,079 | \$1,338,475                     | \$372,143        | Jul 2019                  |

| Item | Project Description   | Project Highlights  | Budget   | Contract Amount                                | Total Contract Amount to Date * | Invoiced to Date | Estimated Completion Date |
|------|---|---|--|--|---------------------------------|------------------|---------------------------|
| 10   | WWF1AB – WWTF No. 1 Replacement of Aeration Basin Nos. 1 and 2<br><u>Bond funded</u>    | Preliminary design is ongoing. Options for design were evaluated and discussed. The design consultant submitted a draft Preliminary Engineering Report (PER) on March 3, 2019. The Consultant is addressing comments on the Draft PER and preparing the Final PER. SJRA has advertised a Request for Qualifications (RFQ) for a final design consultant, with responses due May 31, 2019. | Design<br>\$1,191,000<br><br>Construction<br>\$5,279,000 | Design<br>\$500,863<br><br>Construction<br>TBD | \$500,863                       | \$379,347        | Mar 2022                  |
|      | WW1AB – WWTF No. 1 Replacement of Aeration Basin Nos. 1 and 2<br><u>Capacity funded</u> | This project will be completed in conjunction with WWF1AB. WW1AB is a capacity project providing additional treatment capacity for the project.   | Design<br>\$117,000<br><br>Construction<br>\$1,920,000   | Design<br>TBD<br><br>Construction<br>TBD       | \$0                             | \$0              |                           |

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|------|--|--|--|--|---------------------------------|------------------|---------------------------|
| 11   | WARB34- Water Well No. 34 Rehabilitation   | SJRA performed in-house design for the rehabilitation of this water well following an inspection of all the components. The construction project is scheduled to advertise on May 3, 2019.   | Design<br>\$0<br><br>Construction<br>\$300,000 | Design<br>\$24,240<br><br>Construction<br>\$29,115 | \$53,355                        | \$50,409         | Jan 2020                  |
| 12   | WWSES – Sanitary Sewer Transmission Assessment and Renewal (SSTAR) Program – Phase I Project | Phase I project consists of planning-level engineering to identify and investigate areas of excessive infiltration and inflow in the wastewater collection system, while conducting a condition assessment. The consultant completed field investigation to verify locations for flow monitoring equipment in January 2019. The consultant completed installation of rain gauges and flow monitoring equipment in February 2019. Flow and rainfall data collection started March 1, 2019. A condition assessment of lift stations was conducted in April 2019. | Planning<br>\$1,510,000                        | Planning<br>\$1,758,675                            | \$1,758,675                     | \$249,109        | Aug 2020                  |

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|------|---|---|--|--|---------------------------------|------------------|---------------------------|
| 13   | WW2MCC - Wastewater Treatment Facility No. 2 Plant Process Water (PPW) Motor Control Center (MCC) Replacement | This project includes the engineering services for the final design and procurement assistance for WWTF No. 2 PPW MCC replacement. The 100% design package was submitted and reviewed by SJRA in April. The project is scheduled for advertisement on May 10, 2019. | Design<br>\$64,000<br><br>Construction<br>\$322,000    | Design<br>\$52,151<br><br>Construction<br>TBD  | \$52,151                        | \$43,642         | Mar 2020                  |
| 14   | WA4GT2 - Water Plant No. 4 Ground Storage Tank No. 2<br><br><u>Capacity Funded</u>                            | This project is for the construction of a second ground storage tank at Water Plant No. 4. Final Design currently under review by TCEQ. Expected to receive any comments no later than July 10, 2019.   | Design<br>\$620,000<br><br>Construction<br>\$3,413,000 | Design<br>\$244,436<br><br>Construction<br>TBD | \$244,436                       | \$127,462        | Dec 2020                  |

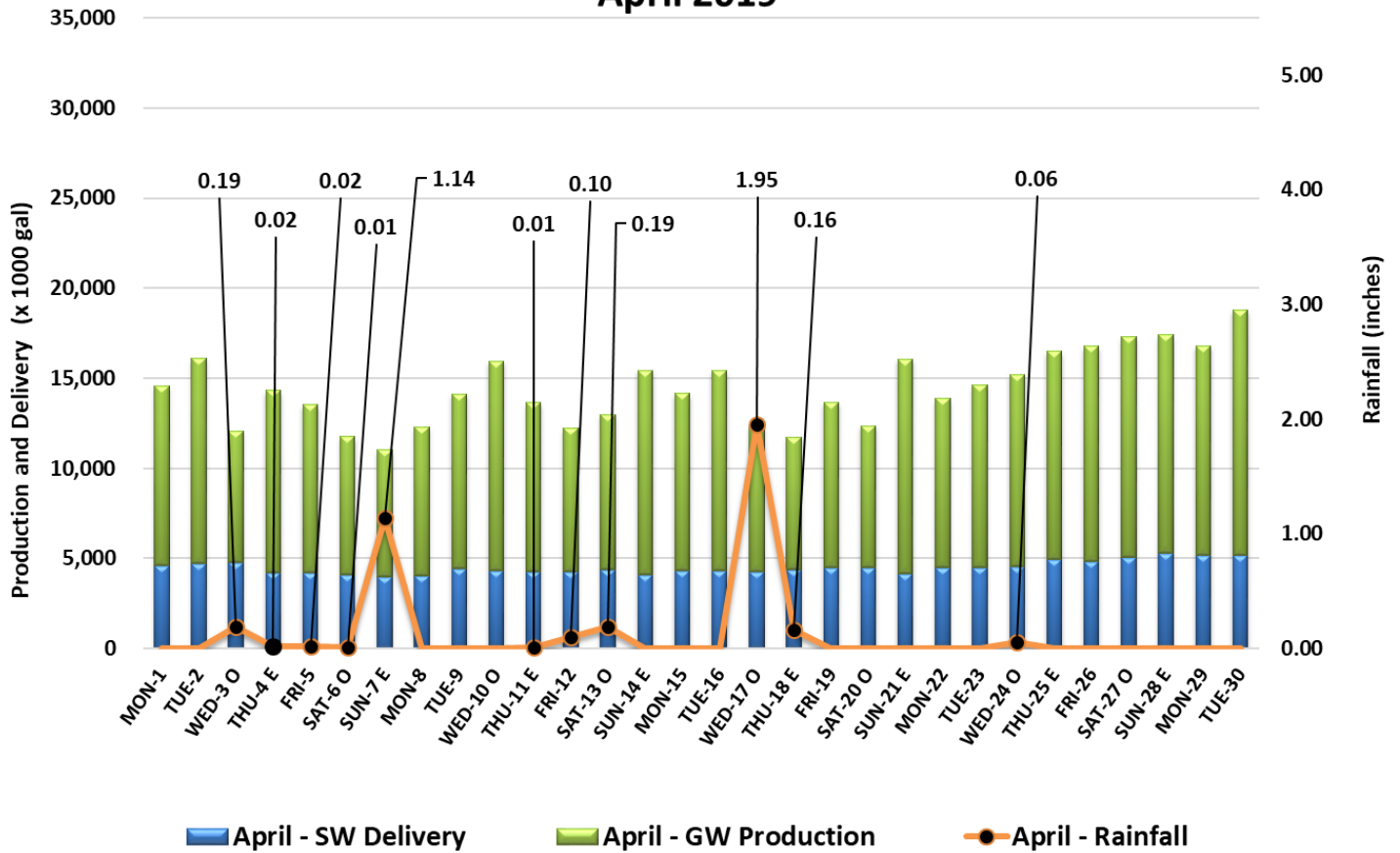


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|------|--|---|--|---|---------------------------------|------------------|---------------------------|
| 15   | WW19LS – Lift Station No. 13 Rehabilitation          | Notice to Proceed for preliminary design was given on December 5, 2018. A kickoff meeting was held on December 8, 2018. Consultant provided the final PER on February 14, 2019. The final design contract with Kimley-Horn and Associates, Inc. was approved at the SJRA Board of Directors meeting on April 25, 2019. A Notice to Proceed for final design will be provided in early May.  | Design<br>\$266,000<br><br>Construction<br>\$1,460,000 | Design<br>\$235,303<br><br>Construction<br>TBD      | \$235,303                       | \$73,861         | Aug 2021                  |
| 16   | WA19WR – Rehabilitation of Water Well Nos. 25 and 31 | This project was designed in-house by SJRA to rehabilitate two water wells. This project will not increase the capacity of the wells, but repair and replace worn or damaged components. The well pump assemblies will be lowered by 100 feet at both locations. The construction contract for Weisinger Incorporated was approved at the SJRA Board of Directors meeting on February 28, 2019. Contractor mobilized to Well 25 and removed the motor on April 30, 2019 in preparation to start down hole well stem rehabilitation. | Design<br>\$20,000<br><br>Construction<br>\$440,000    | Design<br>\$75,987<br><br>Construction<br>\$436,127 | \$512,114                       | \$41,250         | Feb 2020                  |

**Note:** Total Contract Amount to Date also includes costs of public advertisement for construction bids/proposals.

Project is complete and no further invoices are anticipated.

## Woodlands Production, Delivery and Rainfall April 2019



## Woodlands Production and Delivery 2016 - 2019

