

Santa Ana River - Mill Creek Cooperative Water Project

Daily Flow Report Summary

Date: 11/19/2019

Time: 7:00:00 AM

| Santa Ana River | | Flow Rate (cfs) |
|-----------------|-----------------------------|-----------------|
| A5 | Total SAR Inflows | 30.4 |
| N2 | Total SAR Deliveries | 30.4 |
| A1 | SAR PH#3 Penstock (calc) | 18.0 |
| B1 | BVMWC Highline | 6.3 |
| C1 | Greenspot Pipeline | 0.0 |
| L2 | SBVWCD Parshall Flume | 3.0 |
| G2 | North Fork Canal Weir | 5.0 |
| H2 | Edwards Canal | 0.9 |
| W1 | Redlands Aqueduct (calc) | 15.2 |
| | Other | 0.0 |

| Mill Creek | | Flow Rate (cfs) |
|------------|----------------------------|-----------------|
| D3 | Total MC Inflows | 21.3 |
| U3 | Total MC Deliveries | 21.3 |
| K3 | Yucaipa Pipeline | 0.0 |
| O3 | SBVWCD Spreading | 0.0 |
| T3 | MC #1 Flow (Cooley Hat) | 21.3 |

| State Water Project | | Flow Rate (cfs) |
|---------------------|-----------------------------|-----------------|
| G | Total SWP Inflows | 61.2 |
| V | Total SWP Deliveries | 61.2 |
| J | Northfork Canal | 0.0 |
| L | Redlands Aqueduct | 0.0 |
| M | Crafton Unger Lane | 0.0 |
| T | Newport to BVMWC | 0.0 |

| Reservoir Levels | Feet |
|--------------------------------|------|
| Observation at SOD | N/A |
| Crafton Reservoir Level (21.3) | 15.7 |
| Mentone Reservoir Level | 21.0 |

| River Recharge | AF |
|-------------------------------------|----|
| Estimate SAR Recharge (AF) | 0 |
| Estimate Mill Creek Recharge (AF) | 0 |
| Estimated Total River Recharge (AF) | 0 |

| Location | Type | WY to Date (AF) | Target |
|-------------------------------|--------|-----------------|---------|
| Santa Ana River | SAR | 851 | 176,000 |
| Santa Ana River to Mill Creek | SAR-MC | 0 | 0 |
| Santa Ana River | SWP | 3,109 | 0 |
| Mill Creek | MC | 101 | 106,000 |
| Mill Creek | SWP | 829 | 0 |
| Redlands | SWP | 0 | 0 |
| Loma Linda | SWP | 0 | 0 |
| East Valley | SWP | 0 | 0 |

Notes: Numbers on the Daily Flow Report are a snapshot of water at a given location at the time of the read, normally very early in the morning, and not necessarily what is at that location throughout the day.

Santa Ana River - Mill Creek Cooperative Water Project

Daily Flow Report

Date: 11/19/2019
Time: 7:00:00 AM

State Water Project

| Inflows | | | Deliveries | | | | | | | | |
|---------|--------------------------------|-------------|------------|-----------------------|------|---|----------------------|------|---|-----------------------------|-------------|
| A | BBMWD In-lieu | 0.0 | H | EVWD City Creek | 7.0 | M | Crafton Unger Lane | 0.0 | S | SBCFCD Grove | 0.0 |
| B | Muni test at Greenspot Station | 0.0 | I | Santa Ana Low Turnout | 32.9 | N | BVMWC Boullioun Box | 0.0 | T | Newport for BVMWC | 0.0 |
| C | Exchange Water | 0.0 | J | Northfork Canal | 0.0 | P | SARC West | 0.0 | U | M/C spreading at Zanja Tate | 0.0 |
| D | Purchased Water | 61.2 | K | Edwards Canal | 0.0 | Q | Zanja | 20.0 | W | Tres Lagos | 1.3 |
| E | Redlands Aqueduct Leakage | 0.0 | L | Redlands Aqueduct | 0.0 | R | Tate Treatment Plant | 0.0 | V | Total SWP Deliveries | 61.2 |
| F | Recharge Project | 0.0 | | | | | | | | | |
| G | Total SWP Inflows | 61.2 | | | | | | | | | |

Santa Ana River Inflows

| SAR PH #3 Penstock (calc) | | | BVMWC Highline | | | SOD Release Subtotal | | | Total SAR Inflows | | |
|---------------------------|----------------------------------|-------------|----------------|-------------------------------|------------|----------------------|---------------------------------|------------|---------------------|---------------------------|-------------|
| G2 | Northfork Canal Weir | 5.0 | A2 | Newport | 0.0 | D1 | BVMWC River PU (USGS) | 6.1 | A1 | SAR PH #3 Penstock (calc) | 18.0 |
| H2 | Edwards Canal | 0.9 | D2 | Boullioun Box Weir | 6.3 | E1 | Main River Gage (USGS) | 0.0 | B1 | BVMWC Highline | 6.3 |
| J2 | Tailrace Valve to Parshall Flume | 0.0 | E2 | Boullioun Box to Zanja | 0.0 | minus | | | C1 | Greenspot Pipeline | 0.0 |
| K2 | Northfork Parshall Flume | 3.0 | F2 | SBVWCD Mill Creek Spreading | 0.0 | F1 | Greenspot Spill | 0.0 | D1 | BVMWC River PU (USGS) | 6.1 |
| V1 | PH#3 Afterbay SpillLoss to SAR | 0.0 | B1 | BVMWC Highline | 6.3 | Z1 | SOD Release Subtotal | 6.1 | E1 | Main River Gage (USGS) | 0.0 |
| W1 | Redlands Aqueduct / Sandbox | 15.5 | | | | | | | D1a | BV Pick-Up gated | ☐ |
| Y1 | Redlands Sandbox Spill | 0.0 | Other | | | | | | A5 | Total SAR Inflows | 30.4 |
| | | | J1 | Big Bear Lake Release | 1.1 | w | Observation at SOD | N/A | Edison Generation | | |
| D1 | BVMWC River PU (USGS) | 6.1 | L1 | SCE SAR AVM (SCADA) | 27.9 | x | SOD Reservoir Elevation (scada) | N/A | SAR PH#1 Generating | ☐ | |
| I1 | Redlands Tunnel | 0.3 | X1 | SAR-MC Spread (Red. Aqueduct) | 0.0 | y | Debris Pool Elevation | N/A | SAR PH#3 Generating | ☑ | |
| A1 | SAR PH #3 Penstock (calc) | 18.0 | | | | | | | | | |
| K1 | PH3# Penstock (SCADA) | 23.0 | | | | | | | | | |

Santa Ana River Deliveries

| Greenspot Pipeline | | | Tailrace Pipeline | | | SBVWCD Parshall Flume To Basins | | | Deliveries | | |
|--------------------|-----------------------------|------------|-------------------|----------------------------------|------------|---------------------------------|----------------------------------|------------|----------------|----------------------------------|-------------|
| M1 | SBCFCD Grove | 0.0 | G2 | Northfork Canal Weir | 5.0 | J2 | Tailrace Valve to Parshall Flume | 0.0 | V1 | SAR PH #3 Afterbay Spill | 0.0 |
| N1 | BVMWC Highline | 0.0 | H2 | Edwards Canal | 0.9 | K2 | Northfork Parshall Flume | 3.0 | W1 | Redlands Aqueduct / Sandbox | 15.5 |
| O1 | Newport for BVMWC | 0.0 | J2 | Tailrace Valve to Parshall Flume | 0.0 | H1 | SBVWCD Diversion | 0.0 | Y1 | Redlands Sandbox Spill | 0.0 |
| P1 | SBVWCD Mill Creek Spreading | 0.0 | K2 | Northfork Parshall Flume | 3.0 | minus | | | Z2 | Cuttle Weir To River | 0.0 |
| Q1 | Crafton WC Unger Lane | 0.0 | I2 | Tailrace Pipeline | 8.9 | Sedimentation Basin Recharge | 0.0 | B1 | BVMWC Highline | 6.3 | |
| R1 | BVMWC Highline to Boullioun | 0.0 | Irrigation | | | L2 | SBVWCD Parshall Flume | 3.0 | C1 | Greenspot Pipeline | 0.0 |
| S1 | Crafton WC Boullioun | 0.0 | D2 | Boullioun Box Weir | 6.3 | Parshall Flume (SCADA) | | | I2 | Tailrace Pipeline | 8.9 |
| T1 | Tate Pump Station to Zanja | 0.0 | N | BVMWC Boullioun Box | 0.0 | | | | L2 | SBVWCD Parshall Flume | 3.0 |
| C1 | Greenspot Pipeline | 0.0 | minus | | | | | | minus | | |
| | | | B2 | Gay Overflow | 3.1 | | | | J2 | Tailrace Valve to Parshall Flume | 0.0 |
| | | | C2 | Irrigation | 3.2 | | | | K2 | Northfork Parshall Flume | 3.0 |
| | | | | | | | | | I1 | Redlands Tunnel | 0.3 |
| | | | | | | | | | N2 | Total SAR Deliveries | 30.4 |

Mill Creek Inflows

| Total MC Inflows | | | Other | | |
|------------------|-----------------------------|-------------|-------|----------------------------------|------|
| A3 | RPU Flow | 8.2 | E3 | M/C #1 Penstock Flow | 21.3 |
| B3 | M/C #3 Penstock | 13.1 | F3 | Stream Parshall Flume to Yucaipa | 0.0 |
| C3 | SBVWCD Mill Creek Diversion | 0.0 | G3 | Observation at Garnet | 0.0 |
| D3 | Total MC Inflows | 21.3 | | | |

Mill Creek Deliveries

| Yucaipa Pipeline | | | MC #1 Flow (Cooley Hat) | | | Total MC Deliveries | | | Other | | |
|---------------------|-------------------------------|------------|-------------------------|--------------------------------|-------------|---------------------|---------------------------------|-------------|-------|-----------------------------------|------|
| J3 | Wilson Creek Spreading | 0.0 | P3 | Tate Inflow | 17.0 | C3 | SBVWCD Mill Creek Diversion | 0.0 | H3 | Mentone Reservoir Level | 21.0 |
| K3 | Yucaipa Pipeline | 0.0 | Q3 | East Weir to Mill Creek | 0.0 | T3 | Mill Creek #1 Flow (Cooley Hat) | 21.3 | R3 | Boullioun to BVMWC Highline | 0.0 |
| | | | S3 | East Weir to Zanja | 4.3 | U3 | Total MC Deliveries | 21.3 | V3 | Zanja West Weir to CWC Canal | 2.0 |
| | | | T3 | MC #1 Flow (Cooley Hat) | 21.3 | | | | W3 | Mill Creek PH #2,3 Afterbay Spill | 0.0 |
| | | | N3 | Cooley Hat (SCADA) | 22.1 | | | | Y3 | Crafton Reservoir Level (21.3) | 15.7 |
| | | | | | | | | | | | |
| SBVWCD MC Spreading | | | | | | | | | | | |
| C3 | SBVWCD Mill Creek Diversion | 0.0 | | | | | | | | | |
| L3 | East Weir (MC) | 0.0 | | | | | | | | | |
| M3 | BVHL (SAR) | 0.0 | | | | | | | | | |
| X1 | SAR-MC Spread (Red. Aqueduct) | 0.0 | | | | | | | | | |
| O3 | SBVWCD MC Spreading | 0.0 | | | | | | | | | |

SBVWCD Recharge

| Location | Type | Previous Day (AF) | WY To Date (AF) | Target | Calendar Year To Date (AF) | Target | | |
|----------|-----------------------------|-------------------|-----------------|---------|----------------------------|--------|----------|---------|
| A4 | Santa Ana River | 7.9 | I4 | 851.2 | 176,000 | I4 | 36,197.2 | 176,000 |
| M4 | Santa Ana Rvr to Mill Creek | 0.0 | O4 | 0.0 | | O4 | 0.0 | |
| B4 | Santa Ana River | 64.9 | J4 | 3,109.0 | | J4 | 18,481.1 | |
| C4 | Mill Creek | 0.0 | K4 | 101.1 | 106,000 | K4 | 8,812.5 | 106,000 |
| D4 | Mill Creek | 36.7 | L4 | 829.2 | | L4 | 9,446.8 | |
| | Redlands | 0.0 | | 0.0 | | | 0.0 | |
| | Loma Linda | 0.0 | | 0.0 | | | 0.0 | |
| | East Valley | 0.0 | | 0.0 | | | 0.0 | |

| | | | | | | | |
|---------------------------------|---|-------------------------------|---|--------------------------------|---|-----------------------------------|---|
| SAR Passing Cuttle Weir (cfs) | 0 | Share of Lost SAR Flow | 0 | Estimate SAR flow (cfs) | 0 | Estimate SAR Recharge (AF) | 0 |
| Mill Creek Passing Garnet (cfs) | 0 | Share of Lost Mill Creek Flow | 0 | Estimate Mill Creek flow (cfs) | 0 | Estimate Mill Creek Recharge (AF) | 0 |
| Flow in the River Above Alabama | 0 | Flowing Beyond Alabama | 0 | Total River Flow (cfs) | 0 | Total River Recharge (AF) | 0 |