

Santa Ana River - Mill Creek Cooperative Water Project

Daily Flow Report Summary

Date: 5/13/2016

Time: 7:00:00 AM

| Santa Ana River | | Flow Rate (cfs) |
|-----------------|-----------------------------|--------------------|
| A5 | Total SAR Inflows | 23.0 |
| N2 | Total SAR Deliveries | 23.0 |
| A1 | SAR PH#3 Penstock (calc) | 10.7 |
| B1 | BVMWC Highline | 3.9 |
| C1 | Greenspot Pipeline | 0.0 |
| L2 | SBVMWD Parshall Flume | 2.0 |
| G2 | North Fork Canal Weir | 4.8 |
| H2 | Edwards Canal | 0.8 |
| W1 | Redlands Aqueduct (calc) | 11.5 |
| | Other | 0.0 |

| Mill Creek | | Flow Rate (cfs) |
|------------|----------------------------|--------------------|
| D3 | Total MC Inflows | 13.3 |
| U3 | Total MC Deliveries | 13.3 |
| K3 | Yucaipa Pipeline | 0.0 |
| O3 | SBVMWD Spreading | 2.5 |
| T3 | MC #1 Flow (Cooley Hat) | 13.3 |

| State Water Project | | Flow Rate (cfs) |
|---------------------|-----------------------------|--------------------|
| G | Total SWP Inflows | 4.0 |
| V | Total SWP Deliveries | 4.0 |
| J | Northfork Canal | 4.0 |
| 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) | 18.2 |
| Mentone Reservoir Level | 19.8 |

| River Recharge | AF |
|------------------------------|-----|
| Estimate SAR Recharge | 0.0 |
| Estimate Mill Creek Recharge | 0.0 |
| Total River Recharge | 0.0 |

| Location | Type | WY to Date (AF) | Target |
|-------------------------------|--------|-----------------|---------|
| Santa Ana River | SAR | 2,586 | 123,000 |
| Santa Ana River to Mill Creek | SAR-MC | 132 | 0 |
| Santa Ana River | SWP | 0 | 0 |
| Mill Creek | MC | 1,036 | 73,800 |
| Mill Creek | SWP | 0 | 714 |
| SBVMWD | SWP | 0 | 0 |
| WMWD | 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 thruout the day.

Santa Ana River - Mill Creek Cooperative Water Project

Daily Flow Report

Date: 5/13/2016
Time: 7:00:00 AM

State Water Project

| Inflows | | | Deliveries | | | | | |
|---------|--------------------------------|------------|------------|-----------------------|-----|---|-----------------------------|------------|
| A | BBMWD In-lieu | 0.0 | H | EVWD Treatment Plant | 0.0 | P | SARC West | 0.0 |
| B | Muni test at Greenspot Station | 0.0 | I | Santa Ana Low Turnout | 0.0 | Q | Zanja | 0.0 |
| C | Exchange Water | 0.0 | J | Northfork Canal | 4.0 | R | Tate Treatment Plant | 0.0 |
| D | Purchased Water | 4.0 | K | Edwards Canal | 0.0 | S | SBCFCD Grove | 0.0 |
| E | Redlands Aqueduct Leakage | 0.0 | L | Redlands Aqueduct | 0.0 | T | Newport for BVMWC | 0.0 |
| F | Recharge Project | 0.0 | M | Crafton Unger Lane | 0.0 | U | M/C spreading at Zanja Tate | 0.0 |
| G | Total SWP Inflows | 4.0 | N | BVMWC Boullioun Box | 0.0 | V | Total SWP Deliveries | 4.0 |

Santa Ana River Inflows

| SAR PH #3 Penstock (calc) | | | BVMWC Highline | | | SOD Release Subtotal | | | Total SAR Inflows | | |
|---------------------------|----------------------------------|-------------|----------------|-------------------------------|------------|----------------------|---------------------------------|------------|-------------------|---------------------------|--------------------------|
| G2 | Northfork Canal Weir | 4.8 | A2 | Newport | 0.0 | D1 | BVMWC River PU (USGS) | 8.4 | A1 | SAR PH #3 Penstock (calc) | 10.7 |
| H2 | Edwards Canal | 0.8 | D2 | Boullioun Box Weir | 3.9 | E1 | Main River Gage (USGS) | 0.0 | B1 | BVMWC Highline | 3.9 |
| 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 | 2.0 | F2 | SBVWCD Mill Creek Spreading | 0.0 | F1 | Greenspot Spill | 0.0 | D1 | BVMWC River PU (USGS) | 8.4 |
| V1 | PH#3 Afterbay SpillLoss to SAR | 0.0 | B1 | BVMWC Highline | 3.9 | Z1 | SOD Release Subtotal | 8.4 | E1 | Main River Gage (USGS) | 0.0 |
| W1 | Redlands Aqueduct / Sandbox | 11.8 | Other | | | Seven Oaks Dam | | | D1a | BV Pick-Up gated | <input type="checkbox"/> |
| Y1 | Redlands Sandbox Spill | 0.0 | J1 | Big Bear Lake Release | 0.7 | w | Observation at SOD | 2137.0 | A5 | Total SAR Inflows | 23.0 |
| minus | | | L1 | SCE SAR AVM (SCADA) | 18.5 | x | SOD Reservoir Elevation (scada) | N/A | | | |
| D1 | BVMWC River PU (USGS) | 8.4 | X1 | SAR-MC Spread (Red. Aqueduct) | 0.0 | y | Debris Pool Elevation | 0.0 | | | |
| I1 | Redlands Tunnel | 0.3 | | | | | | | | | |
| A1 | SAR PH #3 Penstock (calc) | 10.7 | | | | | | | | | |
| K1 | PH3# Penstock (SCADA) | 12.3 | | | | | | | | | |

Santa Ana River Deliveries

| Greenspot Pipeline | | | Tailrace Pipeline | | | SBVWCD Parshall Flume To Basins | | | Deliveries | | | |
|--------------------|-----------------------------|------------|-------------------|----------------------------------|------------|---------------------------------|----------------------------------|------------|------------|----------------------------------|----------------|-----|
| M1 | SBCFCD Grove | 0.0 | G2 | Northfork Canal Weir | 4.8 | J2 | Tailrace Valve to Parshall Flume | 0.0 | V1 | SAR PH #3 Afterbay Spill | 0.0 | |
| N1 | BVMWC Highline | 0.0 | H2 | Edwards Canal | 0.8 | K2 | Northfork Parshall Flume | 2.0 | W1 | Redlands Aqueduct / Sandbox | 11.8 | |
| 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 | 2.0 | L2 | SBVWCD Parshall Flume | 2.0 | Z2 | Cuttle Weir To River | 0.0 | |
| Q1 | Crafton WC Unger Lane | 0.0 | I2 | Tailrace Pipeline | 7.6 | Parshall Flume (SCADA) | | | 2.1 | B1 | BVMWC Highline | 3.9 |
| R1 | BVMWC Highline to Boullioun | 0.0 | Irrigation | | | D2 | Boullioun Box Weir | 3.9 | C1 | Greenspot Pipeline | 0.0 | |
| S1 | Crafton WC Boullioun | 0.0 | B2 | Gay Overflow | 1.2 | minus | | | I2 | Tailrace Pipeline | 7.6 | |
| T1 | Tate Pump Station to Zanja | 0.0 | C2 | Irrigation | 2.7 | L2 | SBVWCD Parshall Flume | 2.0 | L2 | SBVWCD Parshall Flume | 2.0 | |
| C1 | Greenspot Pipeline | 0.0 | | | | minus | | | J2 | Tailrace Valve to Parshall Flume | 0.0 | |
| | | | | | | K2 | Northfork Parshall Flume | 2.0 | I1 | Redlands Tunnel | 0.3 | |
| | | | | | | | | | N2 | Total SAR Deliveries | 23.0 | |

Mill Creek Inflows

| Total MC Inflows | | | Other | | |
|------------------|-----------------------------|-------------|-------|----------------------------------|------|
| A3 | RPU Flow | 2.9 | E3 | M/C #1 Penstock Flow | 13.3 |
| B3 | M/C #3 Penstock | 10.4 | 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 | 13.3 | | | |

Mill Creek Deliveries

| Yucaipa Pipeline | | | MC #1 Flow (Cooley Hat) | | | Total MC Deliveries | | | Other | | |
|------------------|-------------------------|------------|-------------------------|--------------------------------|-------------|---------------------|---------------------------------|-------------|-------|-----------------------------------|------|
| I3 | Yucaipa Regional Park | 0.0 | P3 | Tate Inflow | 10.8 | C3 | SBVWCD Mill Creek Diversion | 0.0 | H3 | Mentone Reservoir Level | 19.8 |
| J3 | Wilson Creek Spreading | 0.0 | Q3 | East Weir to Mill Creek | 2.5 | T3 | Mill Creek #1 Flow (Cooley Hat) | 13.3 | R3 | Boullioun to BVMWC Highline | 0.0 |
| K3 | Yucaipa Pipeline | 0.0 | S3 | East Weir to Zanja | 0.0 | U3 | Total MC Deliveries | 13.3 | V3 | Zanja West Weir to CWC Canal | 0.0 |
| | | | T3 | MC #1 Flow (Cooley Hat) | 13.3 | | | | W3 | Mill Creek PH #2,3 Afterbay Spill | 0.0 |
| | | | | | | | | | Y3 | Crafton Reservoir Level (21.3) | 18.2 |

| SBVWCD MC Spreading | | |
|---------------------|-------------------------------|------------|
| C3 | SBVWCD Mill Creek Diversion | 0.0 |
| L3 | East Weir (MC) | 2.5 |
| M3 | BVHL (SAR) | 0.0 |
| X1 | SAR-MC Spread (Red. Aqueduct) | 0.0 |
| O3 | SBVWCD MC Spreading | 2.5 |

SBVWCD Recharge

| Location | | Type | Previous Day (AF) | | WY To Date (AF) | | Target | Calendar Year To Date (AF) | | Target |
|----------|---------------------------------|--------|-------------------|------------------------|-----------------|---------|------------------------------|----------------------------|---------|---------|
| A4 | Santa Ana River | SAR | E4 | 4.0 | I4 | 2,585.9 | 123,000 | I4 | 2,228.7 | 123,000 |
| M4 | Santa Ana Rvr to Mill Creek | SAR-MC | N4 | 0.0 | O4 | 132.0 | | O4 | 132.0 | |
| B4 | Santa Ana River | SWP | F4 | 0.0 | J4 | 0.0 | | J4 | 0.0 | |
| C4 | Mill Creek | MC | G4 | 5.0 | K4 | 1,035.5 | 73,800 | K4 | 848.3 | 73,800 |
| D4 | Mill Creek | SWP | H4 | 0.0 | L4 | 0 | 714 | L4 | 0 | 714 |
| | SBVMWD | SWP | | | | | | | | |
| | WMWD | SWP | | | | | | | | |
| | SAR Passing Cuttle Weir | 0 | | Share of Lost Flow | 0 | | Estimate SAR Recharge | 0 | | |
| | Mill Creek Passing Garnet | 0 | | Share of Lost Flow | 0 | | Estimate Mill Creek Recharge | 0 | | |
| | Flow in the River Above Alabama | 0 | | Flowing Beyond Alabama | 0 | | Total River Recharge | 0 | | |