

# Santa Ana River - Mill Creek Cooperative Water Project

## Daily Flow Report Summary

Date: 2/9/2016

Time: 7:30:00 AM

| Santa Ana River |                             | Flow Rate (cfs) |
|-----------------|-----------------------------|-----------------|
| <b>A5</b>       | <b>Total SAR Inflows</b>    | 29.3            |
| <b>N2</b>       | <b>Total SAR Deliveries</b> | 29.3            |
| A1              | SAR PH#3 Penstock (calc)    | 22.7            |
| B1              | BVMWC Highline              | 3.3             |
| C1              | Greenspot Pipeline          | 0.0             |
| L2              | SBVMWD Parshall Flume       | 8.0             |
| G2              | North Fork Canal Weir       | 7.7             |
| H2              | Edwards Canal               | 0.0             |
| W1              | Redlands Aqueduct (calc)    | 10.3            |
|                 | Other                       | 0.0             |

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

| Mill Creek |                            | Flow Rate (cfs) |
|------------|----------------------------|-----------------|
| <b>D3</b>  | <b>Total MC Inflows</b>    | 7.6             |
| <b>U3</b>  | <b>Total MC Deliveries</b> | 7.6             |
| K3         | Yucaipa Pipeline           | 0.0             |
| O3         | SBVMWD Spreading           | 2.0             |
| T3         | MC #1 Flow (Cooley Hat)    | 5.6             |

| Reservoir Levels               | Feet    |
|--------------------------------|---------|
| Observation at SOD             | 2178.91 |
| Crafton Reservoir Level (21.3) | 21.1    |
| Mentone Reservoir Level        | 20.1    |

| 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    | 888             | 123,000 |
| Santa Ana River to Mill Creek | SAR-MC | 0               | 0       |
| Santa Ana River               | SWP    | 0               | 0       |
| Mill Creek                    | MC     | 413             | 73,800  |
| Mill Creek                    | SWP    | 0               | 714     |
| SBVMWD                        | SWP    | 12              | 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.

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Date: 2/9/2016  
Time: 7:30:00 AM

### State Water Project

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

### Santa Ana River Inflows

| SAR PH #3 Penstock (calc) |                                  |             | BVMWC Highline |                               |            | SOD Release Subtotal |                                 |            | Total SAR Inflows |                           |                          |
|---------------------------|----------------------------------|-------------|----------------|-------------------------------|------------|----------------------|---------------------------------|------------|-------------------|---------------------------|--------------------------|
| G2                        | Northfork Canal Weir             | 7.7         | A2             | Newport                       | 0.0        | D1                   | BVMWC River PU (USGS)           | 3.4        | A1                | SAR PH #3 Penstock (calc) | 22.7                     |
| H2                        | Edwards Canal                    | 0.0         | D2             | Boullioun Box Weir            | 3.3        | E1                   | Main River Gage (USGS)          | 0.0        | B1                | BVMWC Highline            | 3.3                      |
| J2                        | Tailrace Valve to Parshall Flume | 7.5         | E2             | Boullioun Box to Zanja        | 0.0        | minus                |                                 |            | C1                | Greenspot Pipeline        | 0.0                      |
| K2                        | Northfork Parshall Flume         | 0.5         | F2             | SBVWCD Mill Creek Spreading   | 0.0        | F1                   | Greenspot Spill                 | 0.1        | D1                | BVMWC River PU (USGS)     | 3.3                      |
| V1                        | PH#3 Afterbay Spill/Loss to SAR  | 0.0         | B1             | <b>BVMWC Highline</b>         | <b>3.3</b> | Z1                   | <b>SOD Release Subtotal</b>     | <b>3.3</b> | E1                | Main River Gage (USGS)    | 0.0                      |
| W1                        | Redlands Aqueduct / Sandbox      | 10.5        | Other          |                               |            | Seven Oaks Dam       |                                 |            | D1a               | BV Pick-Up gated          | <input type="checkbox"/> |
| Y1                        | Redlands Sandbox Spill           | 0.1         | J1             | Big Bear Lake Release         | 0.0        | W                    | Observation at SOD              |            | A5                | <b>Total SAR Inflows</b>  | <b>29.3</b>              |
| minus                     |                                  |             | L1             | SCE SAR AVM (SCADA)           | 20.5       | X                    | SOD Reservoir Elevation (scada) | 2178.9     |                   |                           |                          |
| D1                        | BVMWC River PU (USGS)            | 3.3         | X1             | SAR-MC Spread (Red. Aqueduct) | 0.0        | Y                    | Debris Pool Elevation           | 0.0        |                   |                           |                          |
| I1                        | Redlands Tunnel                  | 0.3         |                |                               |            |                      |                                 |            |                   |                           |                          |
| A1                        | <b>SAR PH #3 Penstock (calc)</b> | <b>22.7</b> |                |                               |            |                      |                                 |            |                   |                           |                          |
| K1                        | <b>PH3# Penstock (SCADA)</b>     | <b>NA</b>   |                |                               |            |                      |                                 |            |                   |                           |                          |

### Santa Ana River Deliveries

| Greenspot Pipeline |                             |            | Tailrace Pipeline |                                  |             | SBVWCD Parshall Flume To Basins |                                  |            | Deliveries |                                  |             |
|--------------------|-----------------------------|------------|-------------------|----------------------------------|-------------|---------------------------------|----------------------------------|------------|------------|----------------------------------|-------------|
| M1                 | SBCFCD Grove                | 0.0        | G2                | Northfork Canal Weir             | 7.7         | J2                              | Tailrace Valve to Parshall Flume | 7.5        | V1         | SAR PH #3 Afterbay Spill         | 0.0         |
| N1                 | BVMWC Highline              | 0.0        | H2                | Edwards Canal                    | 0.0         | K2                              | Northfork Parshall Flume         | 0.5        | W1         | Redlands Aqueduct / Sandbox      | 10.5        |
| O1                 | Newport for BVMWC           | 0.0        | J2                | Tailrace Valve to Parshall Flume | 7.5         | H1                              | SBVWCD Diversion                 | 0.0        | Y1         | Redlands Sandbox Spill           | 0.1         |
| P1                 | SBVWCD Mill Creek Spreading | 0.0        | K2                | Northfork Parshall Flume         | 0.5         | L2                              | <b>SBVWCD Parshall Flume</b>     | <b>8.0</b> | Z1         | Cuttle Weir To River             | 0.0         |
| Q1                 | Crafton WC Unger Lane       | 0.0        | I2                | <b>Tailrace Pipeline</b>         | <b>15.7</b> |                                 | <b>Parshall Flume (SCADA)</b>    | <b>7.1</b> | B1         | BVMWC Highline                   | 3.3         |
| R1                 | BVMWC Highline to Boullioun | 0.0        |                   |                                  |             | Irrigation                      |                                  |            | C1         | Greenspot Pipeline               | 0.0         |
| S1                 | Crafton WC Boullioun        | 0.0        |                   |                                  |             | D2                              | Boullioun Box Weir               | 3.3        | I2         | Tailrace Pipeline                | 15.7        |
| T1                 | Tate Pump Station to Zanja  | 0.0        |                   |                                  |             | minus                           |                                  |            | L2         | SBVWCD Parshall Flume            | 8.0         |
| C1                 | <b>Greenspot Pipeline</b>   | <b>0.0</b> |                   |                                  |             | B2                              | Gay Overflow                     | 1.4        | minus      |                                  |             |
|                    |                             |            |                   |                                  |             | C2                              | <b>Irrigation</b>                | <b>1.9</b> | J2         | Tailrace Valve to Parshall Flume | 7.5         |
|                    |                             |            |                   |                                  |             |                                 |                                  |            | K2         | Northfork Parshall Flume         | 0.5         |
|                    |                             |            |                   |                                  |             |                                 |                                  |            | I1         | Redlands Tunnel                  | 0.3         |
|                    |                             |            |                   |                                  |             |                                 |                                  |            | N2         | <b>Total SAR Deliveries</b>      | <b>29.3</b> |

### Mill Creek Inflows

| Total MC Inflows |                             |            | Other |                                  |     |
|------------------|-----------------------------|------------|-------|----------------------------------|-----|
| A3               | RPU Flow                    | 0.0        | E3    | M/C #1 Penstock Flow             | 5.6 |
| B3               | M/C #3 Penstock             | 5.6        | F3    | Stream Parshall Flume to Yucaipa | 0.0 |
| C3               | SBVWCD Mill Creek Diversion | 2.0        | G3    | Observation at Garnet            | 0.0 |
| D3               | <b>Total MC Inflows</b>     | <b>7.6</b> |       |                                  |     |

### Mill Creek Deliveries

| Yucaipa Pipeline |                         |            | MC #1 Flow (Cooley Hat) |                                |            | Total MC Deliveries |                                 |            | Other |                                   |      |
|------------------|-------------------------|------------|-------------------------|--------------------------------|------------|---------------------|---------------------------------|------------|-------|-----------------------------------|------|
| I3               | Yucaipa Regional Park   | 0.0        | P3                      | Tate Inflow                    | 0.0        | C3                  | SBVWCD Mill Creek Diversion     | 2.0        | H3    | Mentone Reservoir Level           | 20.1 |
| J3               | Wilson Creek Spreading  | 0.0        | Q3                      | East Weir to Mill Creek        |            | T3                  | Mill Creek #1 Flow (Cooley Hat) | 5.6        | R3    | Boullioun to BVMWC Highline       | 0.0  |
| K3               | <b>Yucaipa Pipeline</b> | <b>0.0</b> | S3                      | East Weir to Zanja             | 5.6        | U3                  | <b>Total MC Deliveries</b>      | <b>7.6</b> | V3    | Zanja West Weir to CWC Canal      | 0.0  |
|                  |                         |            | T3                      | <b>MC #1 Flow (Cooley Hat)</b> | <b>5.6</b> |                     |                                 |            | W3    | Mill Creek PH #2,3 Afterbay Spill | 0.0  |
|                  |                         |            |                         |                                |            |                     |                                 |            | Y3    | Crafton Reservoir Level (21.3)    | 21.1 |

| SBVWCD MC Spreading |                               |            |
|---------------------|-------------------------------|------------|
| C3                  | SBVWCD Mill Creek Diversion   | 2.0        |
| L3                  | East Weir (MC)                | 0.0        |
| M3                  | BVHL (SAR)                    | 0.0        |
| X1                  | SAR-MC Spread (Red. Aqueduct) | 0.0        |
| O3                  | <b>SBVWCD MC Spreading</b>    | <b>2.0</b> |

### SBVWCD Recharge

| Location                        |                             | Type   | Previous Day (AF)      |      | WY To Date (AF) |                              | Target  | Calendar Year To Date (AF) |       | Target  |
|---------------------------------|-----------------------------|--------|------------------------|------|-----------------|------------------------------|---------|----------------------------|-------|---------|
| A4                              | Santa Ana River             | SAR    | E4                     | 16.0 | I4              | 888.0                        | 123,000 | I4                         | 543.0 | 123,000 |
| M4                              | Santa Ana Rvr to Mill Creek | SAR-MC | N4                     | 0.0  | O4              | 0.0                          |         | O4                         | 0.0   |         |
| B4                              | Santa Ana River             | SWP    | F4                     | 0.0  | J4              | 0.0                          |         | J4                         | 0.0   |         |
| C4                              | Mill Creek                  | MC     | G4                     | 6.6  | K4              | 412.9                        | 73,800  | K4                         | 228.6 | 73,800  |
| D4                              | Mill Creek                  | SWP    | H4                     | 0.0  | L4              | 0                            | 714     | L4                         | 0     | 714     |
|                                 | SBVMWD                      | SWP    |                        | 0.0  |                 | 12                           |         |                            | 12    |         |
|                                 | 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                          |       |         |