

# Santa Ana River - Mill Creek Cooperative Water Project

## Daily Flow Report Summary

Date: 7/15/2016

Time: 7:00:00 AM

| Santa Ana River |                             | Flow Rate (cfs) |
|-----------------|-----------------------------|-----------------|
| <b>A5</b>       | <b>Total SAR Inflows</b>    | 7.3             |
| <b>N2</b>       | <b>Total SAR Deliveries</b> | 7.3             |
| A1              | SAR PH#3 Penstock (calc)    | 0.0             |
| B1              | BVMWC Highline              | 4.8             |
| C1              | Greenspot Pipeline          | 0.0             |
| L2              | SBVMWD Parshall Flume       | 0.0             |
| G2              | North Fork Canal Weir       | 0.0             |
| H2              | Edwards Canal               | 0.0             |
| W1              | Redlands Aqueduct (calc)    | 2.5             |
|                 | Other                       | 0.0             |

| State Water Project |                             | Flow Rate (cfs) |
|---------------------|-----------------------------|-----------------|
| <b>G</b>            | <b>Total SWP Inflows</b>    | 46.6            |
| <b>V</b>            | <b>Total SWP Deliveries</b> | 46.6            |
| J                   | Northfork Canal             | 11.6            |
| L                   | Redlands Aqueduct           | 23.0            |
| M                   | Crafton Unger Lane          | 6.0             |
| T                   | Newport to BVMWC            | 1.0             |

| Mill Creek |                            | Flow Rate (cfs) |
|------------|----------------------------|-----------------|
| <b>D3</b>  | <b>Total MC Inflows</b>    | 7.9             |
| <b>U3</b>  | <b>Total MC Deliveries</b> | 7.9             |
| K3         | Yucaipa Pipeline           | 0.0             |
| O3         | SBVMWD Spreading           | 0.0             |
| T3         | MC #1 Flow (Cooley Hat)    | 7.9             |

| Reservoir Levels               | Feet |
|--------------------------------|------|
| Observation at SOD             | N/A  |
| Crafton Reservoir Level (21.3) | 20   |
| Mentone Reservoir Level        | 18.6 |

| 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    | 2,619           | 123,000 |
| Santa Ana River to Mill Creek | SAR-MC | 132             | 0       |
| Santa Ana River               | SWP    | 15              | 0       |
| Mill Creek                    | MC     | 1,040           | 73,800  |
| Mill Creek                    | SWP    | 0               | 714     |
| SBVMWD                        | SWP    | 0               | 0       |
| EV HQ                         | SWP    | 117             | 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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## Daily Flow Report

Date: 7/15/2016  
Time: 7:00:00 AM

### State Water Project

| Inflows |                                |      | Deliveries |                       |      |   |                      |     |   |                             |     |
|---------|--------------------------------|------|------------|-----------------------|------|---|----------------------|-----|---|-----------------------------|-----|
| A       | BBMWD In-lieu                  | 40.6 | H          | EVWD Treatment Plant  | 0.0  | M | Crafton Unger Lane   | 6.0 | S | SBCFCD Grove                | 0.0 |
| B       | Muni test at Greenspot Station | 0.0  | I          | Santa Ana Low Turnout | 0.0  | N | BVMWC Boullioun Box  | 0.0 | T | Newport for BVMWC           | 1.0 |
| C       | Exchange Water                 | 0.0  | J          | Northfork Canal       | 11.6 | P | SARC West            | 0.0 | U | M/C spreading at Zanja Tate | 0.0 |
| D       | Purchased Water                | 6.0  | K          | Edwards Canal         | 0.0  | Q | Zanja                | 0.0 |   | EV HQ Irrigation            | 1.0 |
| E       | Redlands Aqueduct Leakage      | 0.0  | L          | Redlands Aqueduct     | 23.0 | R | Tate Treatment Plant | 4.0 | V | Total SWP Deliveries 46.6   |     |
| F       | Recharge Project               | 0.0  |            |                       |      |   |                      |     |   |                             |     |
| G       | Total SWP Inflows              | 46.6 |            |                       |      |   |                      |     |   |                             |     |

### Santa Ana River Inflows

| SAR PH #3 Penstock (calc) |                                  |     | BVMWC Highline |                               |     | SOD Release Subtotal |                                 |        | Total SAR Inflows |                           |                          |
|---------------------------|----------------------------------|-----|----------------|-------------------------------|-----|----------------------|---------------------------------|--------|-------------------|---------------------------|--------------------------|
| G2                        | Northfork Canal Weir             | 0.0 | A2             | Newport                       | 0.0 | D1                   | BVMWC River PU (USGS)           | 2.5    | A1                | SAR PH #3 Penstock (calc) | 0.0                      |
| H2                        | Edwards Canal                    | 0.0 | D2             | Boullioun Box Weir            | 4.8 | E1                   | Main River Gage (USGS)          | 0.0    | B1                | BVMWC Highline            | 4.8                      |
| 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         | 0.0 | F2             | SBVWCD Mill Creek Spreading   | 0.0 | F1                   | Greenspot Spill                 | 0.0    | D1                | BVMWC River PU (USGS)     | 2.5                      |
| V1                        | PH#3 Afterbay SpillLoss to SAR   | 0.0 | B1             | BVMWC Highline                | 4.8 | Z1                   | SOD Release Subtotal            | 2.5    | E1                | Main River Gage (USGS)    | 0.0                      |
| W1                        | Redlands Aqueduct / Sandbox      | 2.4 | Other          |                               |     | Seven Oaks Dam       |                                 |        | D1a               | BV Pick-Up gated          | <input type="checkbox"/> |
| Y1                        | Redlands Sandbox Spill           | 0.4 |                |                               |     |                      |                                 |        | A5                | Total SAR Inflows         |                          |
| minus                     |                                  |     | J1             | Big Bear Lake Release         | 1.3 | W                    | Observation at SOD              | 2134.6 |                   |                           |                          |
| D1                        | BVMWC River PU (USGS)            | 2.5 | L1             | SCE SAR AVM (SCADA)           | 5.6 | X                    | SOD Reservoir Elevation (scada) | N/A    |                   |                           |                          |
| I1                        | Redlands Tunnel                  | 0.3 | X1             | SAR-MC Spread (Red; Aqueduct) | 0.0 | Y                    | Debris Pool Elevation           | 0.0    |                   |                           |                          |
| A1                        | SAR PH #3 Penstock (calc)        | 0.0 |                |                               |     |                      |                                 |        |                   |                           |                          |
| K1                        | PH3# Penstock (SCADA)            | 0.0 |                |                               |     |                      |                                 |        |                   |                           |                          |

### Santa Ana River Deliveries

| Greenspot Pipeline |                             |     |
|--------------------|-----------------------------|-----|
| M1                 | SBCFCD Grove                | 0.0 |
| N1                 | BVMWC Highline              | 0.0 |
| O1                 | Newport for BVMWC           | 0.0 |
| P1                 | SBVWCD Mill Creek Spreading | 0.0 |
| Q1                 | Crafton WC Unger Lane       | 0.0 |
| R1                 | BVMWC Highline to Boullioun | 0.0 |
| S1                 | Crafton WC Boullioun        | 0.0 |
| T1                 | Tate Pump Station to Zanja  | 0.0 |
| C1                 | Greenspot Pipeline          | 0.0 |

| Tailrace Pipeline |                                  |     |
|-------------------|----------------------------------|-----|
| G2                | Northfork Canal Weir             | 0.0 |
| H2                | Edwards Canal                    | 0.0 |
| J2                | Tailrace Valve to Parshall Flume | 0.0 |
| K2                | Northfork Parshall Flume         | 0.0 |
| I2                | Tailrace Pipeline                | 0.0 |

| SBVWCD Parshall FlumeTo Basins |                                  |     |
|--------------------------------|----------------------------------|-----|
| J2                             | Tailrace Valve to Parshall Flume | 0.0 |
| K2                             | Northfork Parshall Flume         | 0.0 |
| H1                             | SBVWCD Diversion                 | 0.0 |
| L2                             | SBVWCD Parshall Flume            | 0.0 |
|                                | Parshall Flume (SCADA)           | 0.0 |

| Irrigation |                    |       |
|------------|--------------------|-------|
| D2         | Boullioun Box Weir | 4.8   |
|            |                    | minus |
| B2         | Gay Overflow       | 1.4   |
| C2         | Irrigation         | 3.4   |

| Deliveries |                                  |       |
|------------|----------------------------------|-------|
| V1         | SAR PH #3 Afterbay Spill         | 0.0   |
| W1         | Redlands Aqueduct / Sandbox      | 2.4   |
| Y1         | Redlands Sandbox Spill           | 0.4   |
| Z2         | Cuttle Weir To River             | 0.0   |
| B1         | BVMWC Highline                   | 4.8   |
| C1         | Greenspot Pipeline               | 0.0   |
| I2         | Tailrace Pipeline                | 0.0   |
| L2         | SBVWCD Parshall Flume            | 0.0   |
|            |                                  | minus |
| J2         | Tailrace Valve to Parshall Flume | 0.0   |
| K2         | Northfork Parshall Flume         | 0.0   |
| I1         | Redlands Tunnel                  | 0.3   |
| N2         | Total SAR Deliveries             | 7.3   |

### Mill Creek Inflows

| Total MC Inflows |                             |     | Other |                                  |     |
|------------------|-----------------------------|-----|-------|----------------------------------|-----|
| A3               | RPU Flow                    | 2.1 | E3    | M/C #1 Penstock Flow             | 7.9 |
| B3               | M/C #3 Penstock             | 5.8 | 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            | 7.9 |       |                                  |     |

### Mill Creek Deliveries

| Yucaipa Pipeline    |                        |     | MC #1 Flow (Cooley Hat) |                         |     | Total MC Deliveries |                                 |     | Other |                                   |      |
|---------------------|------------------------|-----|-------------------------|-------------------------|-----|---------------------|---------------------------------|-----|-------|-----------------------------------|------|
| I3                  | Yucaipa Regional Park  | 0.0 | P3                      | Tate Inflow             | 6.2 | C3                  | SBVWCD Mill Creek Diversion     | 0.0 | H3    | Mentone Reservoir Level           | 18.6 |
| J3                  | Wilson Creek Spreading | 0.0 | Q3                      | East Weir to Mill Creek | 0.0 | T3                  | Mill Creek #1 Flow (Cooley Hat) | 7.9 | R3    | Boullioun to BVMWC Highline       | 0.0  |
| K3                  | Yucaipa Pipeline       | 0.0 | S3                      | East Weir to Zanja      | 1.7 | U3                  | Total MC Deliveries             | 7.9 | V3    | Zanja West Weir to CWC Canal      | 6.4  |
|                     |                        |     | T3                      | MC #1 Flow (Cooley Hat) | 7.9 |                     |                                 |     | W3    | Mill Creek PH #2,3 Afterbay Spill | 0.0  |
| SBVWCD MC Spreading |                        |     |                         |                         |     |                     |                                 |     | Y3    | Crafton Reservoir Level (21.3)    | 20.0 |

| 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             | SAR    | E4                     | 0.0 | I4                           | 2,619.3 | 123,000 | I4                         | 2,262.1 | 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                           | 15.0    |         | J4                         | 15.0    |         |
| C4                              | Mill Creek                  | MC     | G4                     | 0.0 | K4                           | 1,039.9 | 73,800  | K4                         | 852.7   | 73,800  |
| D4                              | Mill Creek                  | SWP    | H4                     | 0.0 | L4                           | 0       | 714     | L4                         | 0       | 714     |
|                                 | SBVMWD                      | SWP    |                        |     |                              |         |         |                            |         |         |
|                                 | EV HQ                       | SWP    |                        | 2.0 |                              | 116.7   |         |                            | 116.7   |         |
|                                 |                             |        |                        |     |                              |         |         |                            |         |         |
| 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       |         |                            |         |         |