

# Santa Ana River - Mill Creek Cooperative Water Project

## Daily Flow Report Summary

Date: 4/26/2017

Time: 7:00:00 AM

| Santa Ana River |                                | Flow Rate (cfs) |
|-----------------|--------------------------------|-----------------|
| <b>A5</b>       | <b>Total SAR Inflows</b>       | 66.3            |
| <b>N2</b>       | <b>Total SAR Deliveries</b>    | 66.3            |
| A1              | SAR PH#3 Penstock (calc)       | 44.7            |
| B1              | BVMWC Highline                 | 4.3             |
| C1              | Greenspot Pipeline             | 0.0             |
| L2              | SBVWCD Parshall Flume          | 34.0            |
| G2              | North Fork Canal Weir          | 9.9             |
| H2              | Edwards Canal                  | 0.9             |
| W1              | Redlands Aqueduct (calc)       | 19.6            |
| V1              | PH3 Afterbay Spill Loss to SAR | 2.0             |

| 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>    | 40.5            |
| <b>U3</b>  | <b>Total MC Deliveries</b> | 40.5            |
| K3         | Yucaipa Pipeline           | 0.0             |
| O3         | SBVWCD Spreading           | 19.2            |
| T3         | MC #1 Flow (Cooley Hat)    | 32.6            |

| Reservoir Levels               | Feet   |
|--------------------------------|--------|
| Observation at SOD             | 2156.5 |
| Crafton Reservoir Level (21.3) | 13.6   |
| Mentone Reservoir Level        | 20.7   |

| 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    | 18,098          | 166,000 |
| Santa Ana River to Mill Creek | SAR-MC | 1,220           | 0       |
| Santa Ana River               | SWP    | 1,796           | 0       |
| Mill Creek                    | MC     | 4,185           | 99,700  |
| Mill Creek                    | SWP    | 203             | 0       |
| Redlands                      | SWP    | 33              | 0       |
| Loma Linda                    | SWP    | 487             | 0       |
| East Valley                   | SWP    | 3,668           | 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. EVWD blocked the River-pick up due to treatment issues.

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**Date:** 4/26/2017  
**Time:** 7:00:00 AM

| State Water Project |                                |     |            |                       |     |   |                      |     |   |                             |     |
|---------------------|--------------------------------|-----|------------|-----------------------|-----|---|----------------------|-----|---|-----------------------------|-----|
| Inflows             |                                |     | Deliveries |                       |     |   |                      |     |   |                             |     |
| A                   | BBMWD In-lieu                  | 0.0 | H          | EVWD Treatment Plant  | 0.0 | M | Crafton Unger Lane   | 0.0 | S | SBCFCD Grove                | 0.0 |
| B                   | Muni test at Greenspot Station | 0.0 | I          | Santa Ana Low Turnout | 0.0 | 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                | 0.0 | K          | Edwards Canal         | 0.0 | Q | Zanja                | 0.0 | W | Tres Lagos                  | 0.0 |
| E                   | Redlands Aqueduct Leakage      | 0.0 | L          | Redlands Aqueduct     | 0.0 | R | Tate Treatment Plant | 0.0 | V | Total SWP Deliveries 0.0    |     |
| F                   | Recharge Project               |     |            |                       |     |   |                      |     |   |                             |     |
| G                   | Total SWP Inflows              | 0.0 |            |                       |     |   |                      |     |   |                             |     |

### Santa Ana River Inflows

| SAR PH #3 Penstock (calc) |                                  |       |
|---------------------------|----------------------------------|-------|
| G2                        | Northfork Canal Weir             | 9.9   |
| H2                        | Edwards Canal                    | 0.9   |
| J2                        | Tailrace Valve to Parshall Flume | 16.7  |
| K2                        | Northfork Parshall Flume         | 0.0   |
| V1                        | PH#3 Afterbay SpillLoss to SAR   | 2.0   |
| W1                        | Redlands Aqueduct / Sandbox      | 20.0  |
| Y1                        | Redlands Sandbox Spill           | 0.0   |
|                           |                                  | minus |
| D1                        | BVMWC River PU (USGS)            | 4.4   |
| I1                        | Redlands Tunnel                  | 0.4   |
| A1                        | SAR PH #3 Penstock (calc)        | 44.7  |
| K1                        | PH3# Penstock (SCADA)            | 44.7  |

| BVMWC Highline |                               |      |
|----------------|-------------------------------|------|
| A2             | Newport                       | 0.0  |
| D2             | Boullioun Box Weir            | 4.3  |
| E2             | Boullioun Box to Zanja        | 0.0  |
| F2             | SBVWCD Mill Creek Spreading   | 0.0  |
| B1             | BVMWC Highline                | 4.3  |
| Other          |                               |      |
| J1             | Big Bear Lake Release         | 0.4  |
| L1             | SCE SAR AVM (SCADA)           | 50.0 |
| X1             | SAR-MC Spread (Red. Aqueduct) | 8.0  |

| SOD Release Subtotal |                                 |        |
|----------------------|---------------------------------|--------|
| D1                   | BVMWC River PU (USGS)           | 4.4    |
| E1                   | Main River Gage (USGS)          | 17.3   |
|                      |                                 | minus  |
| F1                   | Greenspot Spill                 | 0.0    |
| Z1                   | SOD Release Subtotal            | 21.7   |
|                      |                                 |        |
| W                    | Observation at SOD              | 2156.5 |
| X                    | SOD Reservoir Elevation (scada) | 2157.0 |
| Y                    | Debris Pool Elevation           | 0.0    |

| Total SAR Inflows   |                           |                                     |
|---------------------|---------------------------|-------------------------------------|
| A1                  | SAR PH #3 Penstock (calc) | 44.7                                |
| B1                  | BVMWC Highline            | 4.3                                 |
| C1                  | Greenspot Pipeline        | 0.0                                 |
| D1                  | BVMWC River PU (USGS)     | 4.4                                 |
| E1                  | Main River Gage (USGS)    | 17.3                                |
| D1a                 | BV Pick-Up gated          | <input checked="" type="checkbox"/> |
| A5                  | Total SAR Inflows         | 66.3                                |
| Edison Generation   |                           |                                     |
| SAR PH#1 Generating |                           | <input checked="" type="checkbox"/> |
| SAR PH#3 Generating |                           | <input checked="" type="checkbox"/> |

### Santa Ana River Deliveries

| Greenspot Pipeline |                             |     | Tailrace Pipeline |                                  |      | SBVWCD Parshall FlumeTo Basins |                                  |      | Deliveries |                                  |      |
|--------------------|-----------------------------|-----|-------------------|----------------------------------|------|--------------------------------|----------------------------------|------|------------|----------------------------------|------|
| M1                 | SBCFCD Grove                | 0.0 | G2                | Northfork Canal Weir             | 9.9  | J2                             | Tailrace Valve to Parshall Flume | 16.7 | V1         | SAR PH #3 Afterbay Spill         | 2.0  |
| N1                 | BVMWC Highline              | 0.0 | H2                | Edwards Canal                    | 0.9  | K2                             | Northfork Parshall Flume         | 0.0  | W1         | Redlands Aqueduct / Sandbox      | 20.0 |
| O1                 | Newport for BVMWC           | 0.0 | J2                | Tailrace Valve to Parshall Flume | 16.7 | H1                             | SBVWCD Diversion                 | 17.3 | W1         | Redlands Sandbox Spill           | 0.0  |
| P1                 | SBVWCD Mill Creek Spreading | 0.0 | K2                | Northfork Parshall Flume         | 0.0  | L2                             | SBVWCD Parshall Flume            | 34.0 | Z2         | Cuttle Weir To River             | 0.0  |
| Q1                 | Crafton WC Unger Lane       | 0.0 | I2                | Tailrace Pipeline                | 27.5 |                                | Parshall Flume (SCADA)           | 34.0 | B1         | BVMWC Highline                   | 4.3  |
| R1                 | BVMWC Highline to Boullioun | 0.0 |                   |                                  |      | Irrigation                     |                                  |      | C1         | Greenspot Pipeline               | 0.0  |
| S1                 | Crafton WC Boullioun        | 0.0 |                   |                                  |      | D2                             | Boullioun Box Weir               | 4.3  | I2         | Tailrace Pipeline                | 27.5 |
| T1                 | Tate Pump Station to Zanja  | 0.0 |                   |                                  |      | minus                          |                                  |      | I2         | SBVWCD Parshall Flume            | 34.0 |
| C1                 | Greenspot Pipeline          | 0.0 |                   |                                  |      | B2                             | Gay Overflow                     | 1.7  | minus      |                                  |      |
|                    |                             |     |                   |                                  |      | C2                             | Irrigation                       | 2.6  | J2         | Tailrace Valve to Parshall Flume | 16.7 |
|                    |                             |     |                   |                                  |      |                                |                                  |      | K2         | Northfork Parshall Flume         | 0.0  |
|                    |                             |     |                   |                                  |      |                                |                                  |      | I1         | Redlands Tunnel                  | 0.4  |
|                    |                             |     |                   |                                  |      |                                |                                  |      | N2         | Total SAR Deliveries             | 66.3 |

### Mill Creek Inflows

| Total MC Inflows |                             |             | Other |                                  |      |
|------------------|-----------------------------|-------------|-------|----------------------------------|------|
| A3               | RPU Flow                    | 16.2        | E3    | M/C #1 Penstock Flow             | 32.6 |
| B3               | M/C #3 Penstock             | 21.6        | F3    | Stream Parshall Flume to Yucaipa | 0.0  |
| C3               | SBVWCD Mill Creek Diversion | 2.7         | G3    | Observation at Garnet            | 0.0  |
| D3               | <b>Total MC Inflows</b>     | <b>40.5</b> |       |                                  |      |

### Mill Creek Deliveries

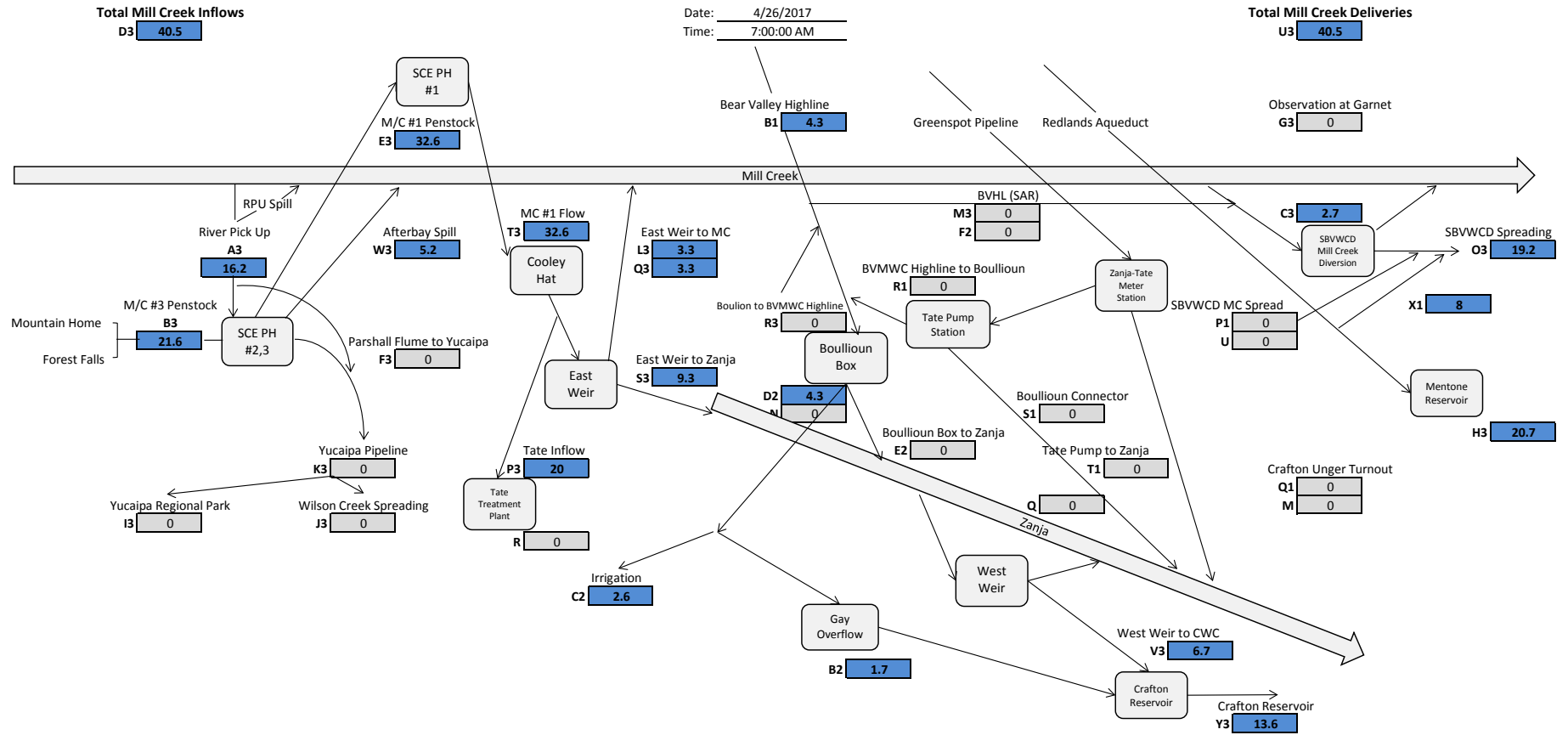
|                     |                                   |      |                         |                         |      |                     |                                   |      |       |                                   |      |
|---------------------|-----------------------------------|------|-------------------------|-------------------------|------|---------------------|-----------------------------------|------|-------|-----------------------------------|------|
| Yucaipa Pipeline    |                                   |      | MC #1 Flow (Cooley Hat) |                         |      | Total MC Deliveries |                                   |      | Other |                                   |      |
| I3                  | Yucaipa Regional Park             | 0.0  | P3                      | Tate Inflow             | 20.0 | C3                  | SBVWCD Mill Creek Diversion       | 2.7  | H3    | Mentone Reservoir Level           | 20.7 |
| J3                  | Wilson Creek Spreading            | 0.0  | Q3                      | East Weir to Mill Creek | 3.3  | T3                  | Mill Creek #1 Flow (Cooley Hat)   | 32.6 | R3    | Boullioun to BVMWC Highline       | 0.0  |
| K3                  | Yucaipa Pipeline                  | 0.0  | S3                      | East Weir to Zanja      | 9.3  | W3                  | Mill Creek PH #2,3 Afterbay Spill | 5.2  | V3    | Zanja West Weir to CWC Canal      | 6.7  |
|                     |                                   |      | T3                      | MC #1 Flow (Cooley Hat) | 32.6 | U3                  | Total MC Deliveries               | 40.5 | W3    | Mill Creek PH #2,3 Afterbay Spill | 5.2  |
| SBVWCD MC Spreading |                                   |      |                         |                         |      |                     |                                   |      | Y3    | Crafton Reservoir Level (21.3)    | 13.6 |
| C3                  | SBVWCD Mill Creek Diversion       | 2.7  |                         |                         |      |                     |                                   |      |       |                                   |      |
| L3                  | East Weir (MC)                    | 3.3  |                         |                         |      |                     |                                   |      |       |                                   |      |
| M3                  | BVHL (SAR)                        | 0.0  |                         |                         |      |                     |                                   |      |       |                                   |      |
| W3                  | Mill Creek PH #2,3 Afterbay Spill | 5.2  |                         |                         |      |                     |                                   |      |       |                                   |      |
| X1                  | SAR-MC Spread (Red. Aqueduct)     | 8.0  |                         |                         |      |                     |                                   |      |       |                                   |      |
| O3                  | SBVWCD MC Spreading               | 19.2 |                         |                         |      |                     |                                   |      |       |                                   |      |

### SBVWCD Recharge

| Location                        |                             | Type   | Previous Day (AF)             |      |  | WY To Date (AF) |                                | Target  | Calendar Year To Date (AF) |                                   | Target  |   |
|---------------------------------|-----------------------------|--------|-------------------------------|------|--|-----------------|--------------------------------|---------|----------------------------|-----------------------------------|---------|---|
| A4                              | Santa Ana River             | SAR    | E4                            | 69.0 |  | I4              | 18,098.3                       | 166,000 | I4                         | 17,195.7                          | 166,000 |   |
| M4                              | Santa Ana Rvr to Mill Creek | SAR-MC | N4                            | 15.9 |  | O4              | 1,220.0                        |         | O4                         | 1,057.4                           |         |   |
| B4                              | Santa Ana River             | SWP    | F4                            | 0.0  |  | J4              | 1,795.9                        |         | J4                         | 1,795.9                           |         |   |
| C4                              | Mill Creek                  | MC     | G4                            | 11.9 |  | K4              | 4,184.9                        | 99,700  | K4                         | 3,956.3                           | 99,700  |   |
| D4                              | Mill Creek                  | SWP    | H4                            | 0.0  |  | L4              | 203.0                          |         | L4                         | 203.0                             |         |   |
|                                 | Redlands                    | SWP    |                               | 0.0  |  |                 | 32.9                           |         |                            | 0.0                               |         |   |
|                                 | Loma Linda                  | SWP    |                               | 0.0  |  |                 | 486.6                          |         |                            | 0.0                               |         |   |
|                                 | East Valley                 | SWP    |                               | 0.0  |  |                 | 3,668.4                        |         |                            | 0.0                               |         |   |
| SAR Passing Cattle 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 Bevond Alabama        |      |  | 0               | Total River Flow (cfs)         |         | 0                          | Total River Recharge (AF)         |         | 0 |

# Santa Ana River - Mill Creek Cooperative Water Project

## Mill Creek Stations



## Santa Ana River - Mill Creek Cooperative Water Project Santa Ana Stations

