

# Santa Ana River - Mill Creek Cooperative Water Project

## Daily Flow Report Summary

Date: 1/26/2017

Time: 6:50:00 AM

| Santa Ana River |                             | Flow Rate (cfs) |
|-----------------|-----------------------------|-----------------|
| <b>A5</b>       | <b>Total SAR Inflows</b>    | 197.2           |
| <b>N2</b>       | <b>Total SAR Deliveries</b> | 197.2           |
| A1              | SAR PH#3 Penstock (calc)    | 0.0             |
| B1              | BVMWC Highline              | 0.0             |
| C1              | Greenspot Pipeline          | 0.0             |
| L2              | SBVWCD Parshall Flume       | 193.3           |
| G2              | North Fork Canal Weir       | 0.0             |
| H2              | Edwards Canal               | 0.0             |
| W1              | Redlands Aqueduct (calc)    | 3.9             |
|                 | Other                       | 0.0             |

| State Water Project |                             | Flow Rate (cfs) |
|---------------------|-----------------------------|-----------------|
| <b>G</b>            | <b>Total SWP Inflows</b>    | 96.4            |
| <b>V</b>            | <b>Total SWP Deliveries</b> | 96.4            |
| J                   | Northfork Canal             | 8.0             |
| 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>    | 22.3            |
| <b>U3</b>  | <b>Total MC Deliveries</b> | 22.3            |
| K3         | Yucaipa Pipeline           | 0.0             |
| O3         | SBVWCD Spreading           | 17.0            |
| T3         | MC #1 Flow (Cooley Hat)    | 10.8            |

| Reservoir Levels               | Feet |
|--------------------------------|------|
| Observation at SOD             | 0.0  |
| Crafton Reservoir Level (21.3) | 18.2 |
| Mentone Reservoir Level        | 20.5 |

| 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    | 2,391           | 166,000 |
| Santa Ana River to Mill Creek | SAR-MC | 203             | 0       |
| Santa Ana River               | SWP    | 1,283           | 0       |
| Mill Creek                    | MC     | 861             | 99,700  |
| Mill Creek                    | SWP    | 125             | 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.

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## Daily Flow Report

Date: 1/26/2017  
Time: 6:50:00 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 | 80.4 | N | BVMWC Boullioun Box  | 0.0 | T | Newport for BVMWC           | 0.0  |
| C       | Exchange Water                 | 0.0  | J          | Northfork Canal       | 8.0  | P | SARC West            | 0.0 | U | M/C spreading at Zanja Tate | 8.0  |
| D       | Purchased Water                | 3.0  | 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        | 96.4 |
| F       | Recharge Project               | 93.4 |            |                       |      |   |                      |     |   |                             |      |
| G       | Total SWP Inflows              | 96.4 |            |                       |      |   |                      |     |   |                             |      |

### 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)           | 5.1    | A1                  | SAR PH #3 Penstock (calc) | 0.0   |
| H2                        | Edwards Canal                    | 0.0 | D2             | Boullioun Box Weir            | 0.0 | E1                   | Main River Gage (USGS)          | 192.1  | B1                  | BVMWC Highline            | 0.0   |
| 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         | 1.2 | F2             | SBVWCD Mill Creek Spreading   | 0.0 | F1                   | Greenspot Spill                 | 0.0    | D1                  | BVMWC River PU (USGS)     | 5.1   |
| V1                        | PH#3 Afterbay SpillLoss to SAR   | 0.0 | B1             | BVMWC Highline                | 0.0 | Z1                   | SOD Release Subtotal            | 197.2  | E1                  | Main River Gage (USGS)    | 192.1 |
| W1                        | Redlands Aqueduct / Sandbox      | 4.3 |                |                               |     |                      |                                 |        | D1a                 | BV Pick-Up gated          | 0.0   |
| Y1                        | Redlands Sandbox Spill           | 0.0 |                |                               |     |                      |                                 |        | A5                  | Total SAR Inflows         | 197.2 |
| minus                     |                                  |     | Other          |                               |     | Seven Oaks Dam       |                                 |        | Edison Generation   |                           |       |
| D1                        | BVMWC River PU (USGS)            | 5.1 | J1             | Big Bear Lake Release         | 0.0 | W                    | Observation at SOD              | 0.0    | SAR PH#1 Generating |                           |       |
| I1                        | Redlands Tunnel                  | 0.4 | L1             | SCE SAR AVM (SCADA)           | 0.0 | X                    | SOD Reservoir Elevation (scada) | 2229.4 | SAR PH#3 Generating |                           |       |
| A1                        | SAR PH #3 Penstock (calc)        | 0.0 | X1             | SAR-MC Spread (Red. Aqueduct) | 0.0 | Y                    | Debris Pool Elevation           | 0.0    |                     |                           |       |
| K1                        | PH#3 Penstock (SCADA)            | 0.0 |                |                               |     |                      |                                 |        |                     |                           |       |

### Santa Ana River Deliveries

| Greenspot Pipeline |                             |     | Tailrace Pipeline |                                  |     | SBVWCD Parshall FlumeTo Basins |                                  |       | Deliveries |                                  |       |
|--------------------|-----------------------------|-----|-------------------|----------------------------------|-----|--------------------------------|----------------------------------|-------|------------|----------------------------------|-------|
| M1                 | SBCFCD Grove                | 0.0 | G2                | Northfork Canal Weir             | 0.0 | J2                             | Tailrace Valve to Parshall Flume | 0.0   | V1         | SAR PH #3 Afterbay Spill         | 0.0   |
| N1                 | BVMWC Highline              | 0.0 | H2                | Edwards Canal                    | 0.0 | K2                             | Northfork Parshall Flume         | 1.2   | W1         | Redlands Aqueduct / Sandbox      | 4.3   |
| O1                 | Newport for BVMWC           | 0.0 | J2                | Tailrace Valve to Parshall Flume | 0.0 | H1                             | SBVWCD Diversion                 | 192.1 | Y1         | Redlands Sandbox Spill           | 0.0   |
| P1                 | SBVWCD Mill Creek Spreading | 0.0 | K2                | Northfork Parshall Flume         | 1.2 | L2                             | SBVWCD Parshall Flume            | 193.3 | Z2         | Cuttle Weir To River             | 0.0   |
| Q1                 | Crafton WC Unger Lane       | 0.0 | I2                | Tailrace Pipeline                | 1.2 |                                | Parshall Flume (SCADA)           | 193.3 | B1         | BVMWC Highline                   | 0.0   |
| R1                 | BVMWC Highline to Boullioun | 0.0 |                   |                                  |     |                                |                                  |       | C1         | Greenspot Pipeline               | 0.0   |
| S1                 | Crafton WC Boullioun        | 0.0 |                   |                                  |     |                                |                                  |       | I2         | Tailrace Pipeline                | 1.2   |
| T1                 | Tate Pump Station to Zanja  | 0.0 |                   |                                  |     |                                |                                  |       | L2         | SBVWCD Parshall Flume            | 193.3 |
| C1                 | Greenspot Pipeline          | 0.0 |                   |                                  |     |                                |                                  |       | minus      |                                  |       |
|                    |                             |     |                   |                                  |     |                                |                                  |       | J2         | Tailrace Valve to Parshall Flume | 0.0   |
|                    |                             |     |                   |                                  |     |                                |                                  |       | K2         | Northfork Parshall Flume         | 1.2   |
|                    |                             |     |                   |                                  |     |                                |                                  |       | I1         | Redlands Tunnel                  | 0.4   |
|                    |                             |     |                   |                                  |     |                                |                                  |       | N2         | Total SAR Deliveries             | 197.2 |

### Mill Creek Inflows

| Total MC Inflows |                             |      | Other |                                  |     |
|------------------|-----------------------------|------|-------|----------------------------------|-----|
| A3               | RPU Flow                    | 0.0  | E3    | M/C #1 Penstock Flow             | 0.0 |
| B3               | M/C #3 Penstock             | 10.8 | F3    | Stream Parshall Flume to Yucaipa | 0.0 |
| C3               | SBVWCD Mill Creek Diversion | 11.5 | G3    | Observation at Garnet            | 0.0 |
| D3               | Total MC Inflows            | 22.3 |       |                                  |     |

### Mill Creek Deliveries

| Yucaipa Pipeline |                        |     | MC #1 Flow (Cooley Hat) |                         |      | Total MC Deliveries |                                 |      | Other |                                   |      |
|------------------|------------------------|-----|-------------------------|-------------------------|------|---------------------|---------------------------------|------|-------|-----------------------------------|------|
| I3               | Yucaipa Regional Park  | 0.0 | P3                      | Tate Inflow             | 5.3  | C3                  | SBVWCD Mill Creek Diversion     | 11.5 | H3    | Mentone Reservoir Level           | 20.5 |
| J3               | Wilson Creek Spreading | 0.0 | Q3                      | East Weir to Mill Creek | 5.5  | T3                  | Mill Creek #1 Flow (Cooley Hat) | 10.8 | R3    | Boullioun to BVMWC Highline       | 0.0  |
| K3               | Yucaipa Pipeline       | 0.0 | S3                      | East Weir to Zanja      | 0.0  | U3                  | Total MC Deliveries             | 22.3 | V3    | Zanja West Weir to CWC Canal      | 0.0  |
|                  |                        |     | T3                      | MC #1 Flow (Cooley Hat) | 10.8 |                     |                                 |      | W3    | Mill Creek PH #2,3 Afterbay Spill | 0.0  |
|                  |                        |     |                         |                         |      |                     |                                 |      | Y3    | Crafton Reservoir Level (21.3)    | 18.2 |

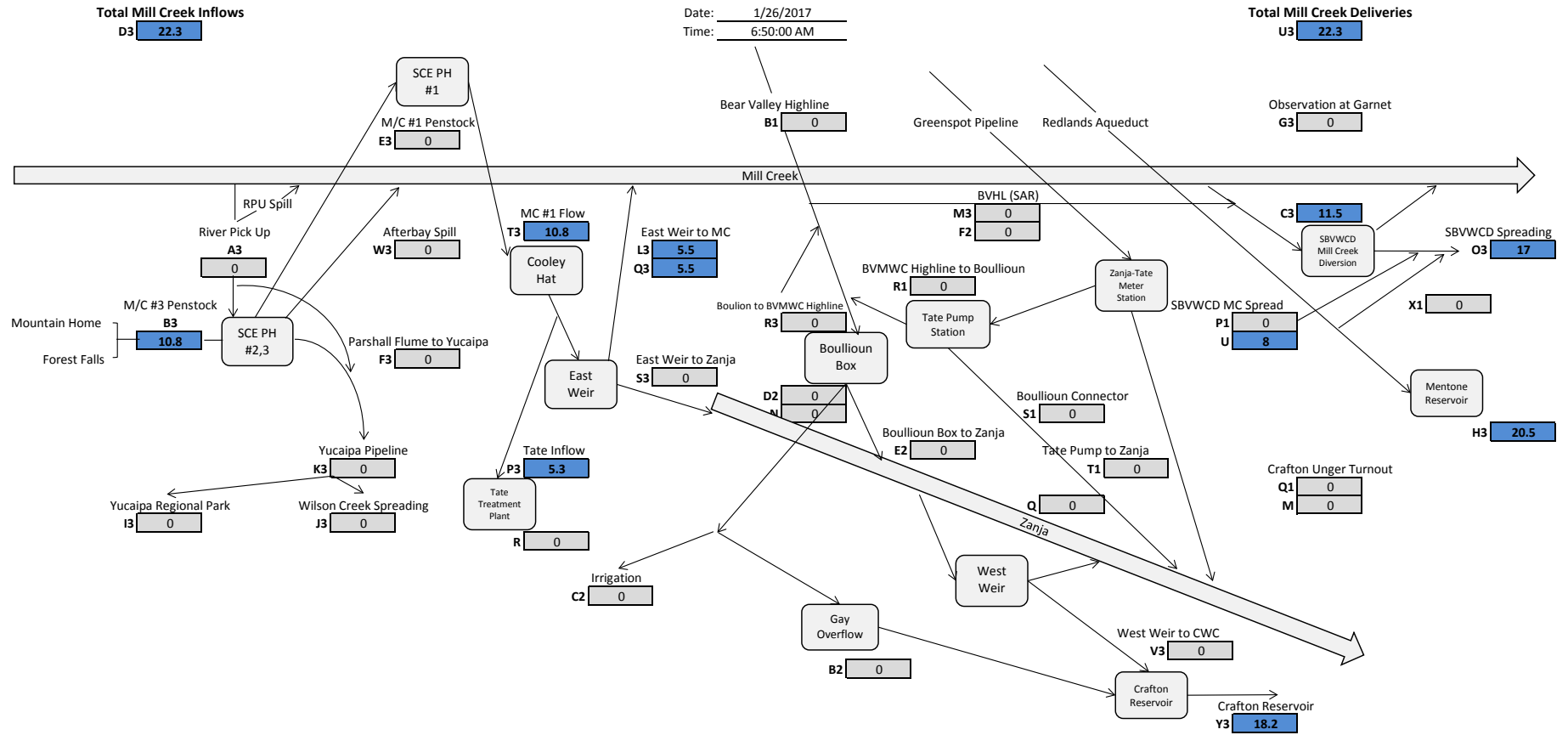
| SBVWCD MC Spreading |                               |      |
|---------------------|-------------------------------|------|
| C3                  | SBVWCD Mill Creek Diversion   | 11.5 |
| L3                  | East Weir (MC)                | 5.5  |
| M3                  | BVHL (SAR)                    | 0.0  |
| X1                  | SAR-MC Spread (Red. Aqueduct) | 0.0  |
| O3                  | SBVWCD MC Spreading           | 17.0 |

### SBVWCD Recharge

| Location                        |                             | Type   | Previous Day (AF)             |       |  | WY To Date (AF) |                                |  | Target  | Calendar Year To Date (AF) |                                   |  | Target  |   |
|---------------------------------|-----------------------------|--------|-------------------------------|-------|--|-----------------|--------------------------------|--|---------|----------------------------|-----------------------------------|--|---------|---|
| A4                              | Santa Ana River             | SAR    | E4                            | 380.0 |  | I4              | 2,391.4                        |  | 166,000 | I4                         | 1,488.8                           |  | 166,000 |   |
| M4                              | Santa Ana Rvr to Mill Creek | SAR-MC | N4                            | 0.0   |  | O4              | 203.4                          |  |         | O4                         | 40.8                              |  |         |   |
| B4                              | Santa Ana River             | SWP    | F4                            | 159.5 |  | J4              | 1,283.3                        |  |         | J4                         | 1,283.3                           |  |         |   |
| C4                              | Mill Creek                  | MC     | G4                            | 39.7  |  | K4              | 860.6                          |  | 99,700  | K4                         | 632.0                             |  | 99,700  |   |
| D4                              | Mill Creek                  | SWP    | H4                            | 15.8  |  | L4              | 124.6                          |  |         | L4                         | 124.6                             |  |         |   |
|                                 | 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 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 |

# Santa Ana River - Mill Creek Cooperative Water Project

## Mill Creek Stations



# Santa Ana River - Mill Creek Cooperative Water Project

## Santa Ana Stations

