

# Santa Ana River - Mill Creek Cooperative Water Project

## Daily Flow Report Summary

Date: 5/24/2019

Time: 6:40:00 AM

| Santa Ana River |                             | Flow Rate<br>(cfs) |
|-----------------|-----------------------------|--------------------|
| <b>A5</b>       | <b>Total SAR Inflows</b>    | 226.0              |
| <b>N2</b>       | <b>Total SAR Deliveries</b> | 226.0              |
| A1              | SAR PH#3 Penstock (calc)    | 0.0                |
| B1              | BVMWC Highline              | 0.0                |
| C1              | Greenspot Pipeline          | 0.0                |
| L2              | SBVWCD Parshall Flume       | 112.0              |
| G2              | North Fork Canal Weir       | 5.3                |
| H2              | Edwards Canal               | 0.0                |
| W1              | Redlands Aqueduct (calc)    | 16.7               |
| Z2              | Cuttle Weir to River        | 92.0               |

| Mill Creek |                            | Flow Rate<br>(cfs) |
|------------|----------------------------|--------------------|
| <b>D3</b>  | <b>Total MC Inflows</b>    | 45.8               |
| <b>U3</b>  | <b>Total MC Deliveries</b> | 45.8               |
| K3         | Yucaipa Pipeline           | 0.0                |
| O3         | SBVWCD Spreading           | 32.0               |
| T3         | MC #1 Flow (Cooley Hat)    | 19.2               |

| State Water Project |                             | Flow Rate<br>(cfs) |
|---------------------|-----------------------------|--------------------|
| <b>G</b>            | <b>Total SWP Inflows</b>    | 37.4               |
| <b>V</b>            | <b>Total SWP Deliveries</b> | 37.4               |
| J                   | Northfork Canal             | 0.0                |
| L                   | Redlands Aqueduct           | 0.0                |
| M                   | Crafton Unger Lane          | 0.0                |
| T                   | Newport to BVMWC            | 0.0                |

| Reservoir Levels               | Feet   |
|--------------------------------|--------|
| Observation at SOD             | 2252.0 |
| Crafton Reservoir Level (21.3) | 13.8   |
| Mentone Reservoir Level        | 21.6   |

| River Recharge                      | AF   |
|-------------------------------------|------|
| Estimate SAR Recharge (AF)          | 1277 |
| Estimate Mill Creek Recharge (AF)   | 0    |
| Estimated Total River Recharge (AF) | 1277 |

| Location                      | Type   | WY to Date (AF) | Target  |
|-------------------------------|--------|-----------------|---------|
| Santa Ana River               | SAR    | 24,148.2        | 176,000 |
| Santa Ana River to Mill Creek | SAR-MC | 208             | 0       |
| Santa Ana River               | SWP    | 8,595           | 0       |
| Mill Creek                    | MC     | 8,424           | 106,000 |
| Mill Creek                    | SWP    | 5,192           | 0       |
| Redlands                      | SWP    | 0               | 0       |
| Loma Linda                    | SWP    | 0               | 0       |
| East Valley                   | SWP    | 134             | 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 throughout the day.

# Santa Ana River - Mill Creek Cooperative Water Project

## Daily Flow Report

Date: 5/24/2019  
Time: 6:40:00 AM

### State Water Project

| Inflows |                                |             | Deliveries |                       |     |   |                      |     |   |                             |             |
|---------|--------------------------------|-------------|------------|-----------------------|-----|---|----------------------|-----|---|-----------------------------|-------------|
| A       | BBMWD In-lieu                  | 2.0         | H          | EVWD City Creek       | 3.0 | 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  | 2.0 | 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 | 32.4        |
| D       | Purchased Water                | 35.4        | 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 | <b>Total SWP Deliveries</b> | <b>37.4</b> |
| F       | Recharge Project               | 0.0         |            |                       |     |   |                      |     |   |                             |             |
| G       | <b>Total SWP Inflows</b>       | <b>37.4</b> |            |                       |     |   |                      |     |   |                             |             |

### Santa Ana River Inflows

| SAR PH #3 Penstock (calc) |                                  | BVMWC Highline |    | SOD Release Subtotal        |            | Total SAR Inflows |                                 |              |     |                           |                          |
|---------------------------|----------------------------------|----------------|----|-----------------------------|------------|-------------------|---------------------------------|--------------|-----|---------------------------|--------------------------|
| G2                        | Northfork Canal Weir             | 5.3            | A2 | Newport                     | 0.0        | D1                | BVMWC River PU (USGS)           | 22.0         | A1  | SAR PH #3 Penstock (calc) | 0.0                      |
| H2                        | Edwards Canal                    | 0.0            | D2 | Boullioun Box Weir          | 0.0        | E1                | Main River Gage (USGS)          | 204.0        | B1  | BVMWC Highline            | 0.0                      |
| J2                        | Tailrace Valve to Parshall Flume | 0.0            | E2 | Boullioun Box to Zanja      | 0.0        |                   | <b>minus</b>                    |              | 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)     | 22.0                     |
| V1                        | PH#3 Afterbay SpillLoss to SAR   | 0.0            | B1 | <b>BVMWC Highline</b>       | <b>0.0</b> | Z1                | <b>SOD Release Subtotal</b>     | <b>226.0</b> | E1  | Main River Gage (USGS)    | 204.0                    |
| W1                        | Redlands Aqueduct / Sandbox      | 17.8           |    |                             |            |                   |                                 |              | D1a | BV Pick-Up gated          | <input type="checkbox"/> |
| Y1                        | Redlands Sandbox Spill           | 0.0            |    |                             |            |                   |                                 |              | A5  | <b>Total SAR Inflows</b>  | <b>226.0</b>             |
|                           | <b>minus</b>                     |                |    |                             |            |                   |                                 |              |     |                           |                          |
| D1                        | BVMWC River PU (USGS)            | 22.0           |    |                             |            | w                 | Observation at SOD              | 2252.0       |     |                           |                          |
| I1                        | Redlands Tunnel                  | 1.1            |    |                             |            | x                 | SOD Reservoir Elevation (scada) | 2252.9       |     |                           |                          |
| A1                        | <b>SAR PH #3 Penstock (calc)</b> | <b>0.0</b>     |    |                             |            | y                 | Debris Pool Elevation           | N/A          |     |                           |                          |
| K1                        | <b>PH#3 Penstock (SCADA)</b>     | <b>N/A</b>     |    |                             |            |                   |                                 |              |     |                           |                          |

  

| Other |                               | Edison Generation |                     |                          |
|-------|-------------------------------|-------------------|---------------------|--------------------------|
| J1    | Big Bear Lake Release         | 0.3               | SAR PH#1 Generating | <input type="checkbox"/> |
| L1    | SCE SAR AVM (SCADA)           | 0.0               | SAR PH#3 Generating | <input type="checkbox"/> |
| X1    | SAR-MC Spread (Red. Aqueduct) | 0.0               |                     |                          |

### Santa Ana River Deliveries

| Greenspot Pipeline |                             | Tailrace Pipeline |    | SBVWCD Parshall Flume To Basins  |            | Deliveries |                                  |              |    |                                  |              |
|--------------------|-----------------------------|-------------------|----|----------------------------------|------------|------------|----------------------------------|--------------|----|----------------------------------|--------------|
| M1                 | SBCFCD Grove                | 0.0               | G2 | Northfork Canal Weir             | 5.3        | 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         | 0.0          | W1 | Redlands Aqueduct / Sandbox      | 17.8         |
| O1                 | Newport for BVMWC           | 0.0               | J2 | Tailrace Valve to Parshall Flume | 0.0        | H1         | SBVWCD Diversion                 | 112.0        | Y1 | Redlands Sandbox Spill           | 0.0          |
| P1                 | SBVWCD Mill Creek Spreading | 0.0               | K2 | Northfork Parshall Flume         | 0.0        |            | <b>minus</b>                     |              | Z2 | Cuttle Weir To River             | 92.0         |
| Q1                 | Crafton WC Unger Lane       | 0.0               | I2 | <b>Tailrace Pipeline</b>         | <b>5.3</b> |            | Sedimentation Basin Recharge     | 0.0          | B1 | BVMWC Highline                   | 0.0          |
| R1                 | BVMWC Highline to Boullioun | 0.0               |    |                                  |            | L2         | <b>SBVWCD Parshall Flume</b>     | <b>112.0</b> | C1 | Greenspot Pipeline               | 0.0          |
| S1                 | Crafton WC Boullioun        | 0.0               |    |                                  |            |            | <b>Parshall Flume (SCADA)</b>    | <b>111.9</b> | I2 | Tailrace Pipeline                | 5.3          |
| T1                 | Tate Pump Station to Zanja  | 0.0               |    |                                  |            |            |                                  |              | L2 | SBVWCD Parshall Flume            | 112.0        |
| C1                 | <b>Greenspot Pipeline</b>   | <b>0.0</b>        |    |                                  |            |            |                                  |              |    | <b>minus</b>                     |              |
|                    |                             |                   |    |                                  |            |            |                                  |              | J2 | Tailrace Valve to Parshall Flume | 0.0          |
|                    |                             |                   |    |                                  |            |            |                                  |              | K2 | Northfork Parshall Flume         | 0.0          |
|                    |                             |                   |    |                                  |            |            |                                  |              | I1 | Redlands Tunnel                  | 1.1          |
|                    |                             |                   |    |                                  |            |            |                                  |              | N2 | <b>Total SAR Deliveries</b>      | <b>226.0</b> |

  

| Irrigation |                     |            |
|------------|---------------------|------------|
| D2         | Boullioun Box Weir  | 0.0        |
| N          | BVMWC Boullioun Box | 2.0        |
|            | <b>minus</b>        |            |
| B2         | Gay Overflow        | 1.2        |
| C2         | <b>Irrigation</b>   | <b>0.8</b> |

### Mill Creek Inflows

| Total MC Inflows |                             | Other       |    |                                  |      |
|------------------|-----------------------------|-------------|----|----------------------------------|------|
| A3               | RPU Flow                    | 19.2        | E3 | M/C #1 Penstock Flow             | 19.2 |
| B3               | M/C #3 Penstock             | 0.0         | F3 | Stream Parshall Flume to Yucaipa | 0.0  |
| C3               | SBVWCD Mill Creek Diversion | 26.6        | G3 | Observation at Garnet            | 0.0  |
| D3               | <b>Total MC Inflows</b>     | <b>45.8</b> |    |                                  |      |

### Mill Creek Deliveries

| Yucaipa Pipeline |                         | MC #1 Flow (Cooley Hat) |    | Total MC Deliveries            |             | Other |                                 |             |    |                                   |      |
|------------------|-------------------------|-------------------------|----|--------------------------------|-------------|-------|---------------------------------|-------------|----|-----------------------------------|------|
|                  | Yucaipa Regional Park   | 0.0                     | P3 | Tate Inflow                    | 11.0        | C3    | SBVWCD Mill Creek Diversion     | 26.6        | H3 | Mentone Reservoir Level           | 21.6 |
| J3               | Wilson Creek Spreading  | 0.0                     | Q3 | East Weir to Mill Creek        | 5.4         | T3    | Mill Creek #1 Flow (Cooley Hat) | 19.2        | R3 | Boullioun to BVMWC Highline       | 0.0  |
| K3               | <b>Yucaipa Pipeline</b> | <b>0.0</b>              | S3 | East Weir to Zanja             | 2.8         | U3    | <b>Total MC Deliveries</b>      | <b>45.8</b> | V3 | Zanja West Weir to CWC Canal      | 1.6  |
|                  |                         |                         | T3 | <b>MC #1 Flow (Cooley Hat)</b> | <b>19.2</b> |       |                                 |             | W3 | Mill Creek PH #2,3 Afterbay Spill | 0.0  |
|                  |                         |                         | N3 | <b>Cooley Hat (SCADA)</b>      | <b>21.2</b> |       |                                 |             | Y3 | Crafton Reservoir Level (21.3)    | 13.8 |

  

| SBVWCD MC Spreading |                               |             |
|---------------------|-------------------------------|-------------|
| C3                  | SBVWCD Mill Creek Diversion   | 26.6        |
| L3                  | East Weir (MC)                | 5.4         |
| M3                  | BVHL (SAR)                    | 0.0         |
| X1                  | SAR-MC Spread (Red. Aqueduct) | 0.0         |
| O3                  | <b>SBVWCD MC Spreading</b>    | <b>32.0</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                            | 906.2 | I4                             | 24,148.2 | 176,000 | I4                                | 24,077.3 | 176,000 |
| M4                              | Santa Ana Rvr to Mill Creek | SAR-MC | N4                            | 0.0   | O4                             | 208.2    |         | O4                                | 116.7    |         |
| B4                              | Santa Ana River             | SWP    | F4                            | 0.0   | J4                             | 8,594.9  |         | J4                                | 7,579.7  |         |
| C4                              | Mill Creek                  | MC     | G4                            | 302.8 | K4                             | 8,424.4  | 106,000 | K4                                | 8,121.0  | 106,000 |
| D4                              | Mill Creek                  | SWP    | H4                            | 251.5 | L4                             | 5,191.8  |         | L4                                | 5,191.8  |         |
|                                 | Redlands                    | SWP    |                               | 0.0   |                                | 0.0      |         |                                   | 0.0      |         |
|                                 | Loma Linda                  | SWP    |                               | 0.0   |                                | 0.0      |         |                                   | 0.0      |         |
|                                 | East Valley                 | SWP    |                               | 0.0   |                                | 134.4    |         |                                   | 0.0      |         |
| SAR Passing Cuttle Weir (cfs)   | 92                          |        | Share of Lost SAR Flow        | 50    | Estimate SAR flow (cfs)        | 42       |         | Estimate SAR Recharge (AF)        | 1277     |         |
| 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 | 92                          |        | Flowing Beyond Alabama        | 50    | Total River Flow (cfs)         | 42       |         | Total River Recharge (AF)         | 1277     |         |