

# Santa Ana River - Mill Creek Cooperative Water Project

## Daily Flow Report Summary

Date: 7/31/2018

Time: 6:40:00 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)    | 4.3             |
| B1              | BVMWC Highline              | 1.7             |
| C1              | Greenspot Pipeline          | 0.0             |
| L2              | SBVWCD Parshall Flume       | 0.0             |
| G2              | North Fork Canal Weir       | 5.6             |
| H2              | Edwards Canal               | 0.0             |
| W1              | Redlands Aqueduct (calc)    | 0.0             |
|                 | Other                       | 0.0             |

| Mill Creek |                            | Flow Rate (cfs) |
|------------|----------------------------|-----------------|
| <b>D3</b>  | <b>Total MC Inflows</b>    | 12.1            |
| <b>U3</b>  | <b>Total MC Deliveries</b> | 12.1            |
| K3         | Yucaipa Pipeline           | 0.0             |
| O3         | SBVWCD Spreading           | 8.1             |
| T3         | MC #1 Flow (Cooley Hat)    | 12.1            |

| State Water Project |                             | Flow Rate (cfs) |
|---------------------|-----------------------------|-----------------|
| <b>G</b>            | <b>Total SWP Inflows</b>    | 40.2            |
| <b>V</b>            | <b>Total SWP Deliveries</b> | 40.2            |
| J                   | Northfork Canal             | 4.0             |
| L                   | Redlands Aqueduct           | 16.0            |
| M                   | Crafton Unger Lane          | 1.0             |
| T                   | Newport to BVMWC            | 0.7             |

| Reservoir Levels               | Feet |
|--------------------------------|------|
| Observation at SOD             | N/A  |
| Crafton Reservoir Level (21.3) | 17.7 |
| Mentone Reservoir Level        | 21.5 |

| 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    | 2,462           | 166,000 |
| Santa Ana River to Mill Creek | SAR-MC | 115             | 0       |
| Santa Ana River               | SWP    | 6,502           | 0       |
| Mill Creek                    | MC     | 1,756           | 99,700  |
| Mill Creek                    | SWP    | 1,627           | 0       |
| Redlands                      | SWP    | 0               | 0       |
| Loma Linda                    | SWP    | 0               | 0       |
| East Valley                   | SWP    | 428             | 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.

# Santa Ana River - Mill Creek Cooperative Water Project

## Daily Flow Report

Date: 7/31/2018  
Time: 6:40:00 AM

### State Water Project

| Inflows |                                | Deliveries  |   |                       |      |   |                      |     |   |                             |             |
|---------|--------------------------------|-------------|---|-----------------------|------|---|----------------------|-----|---|-----------------------------|-------------|
| A       | BBMWD In-lieu                  | 29.2        | H | EVWDD City Creek      | 0.0  | M | Crafton Unger Lane   | 1.0 | S | SBCFCD Grove                | 0.0         |
| B       | Muni test at Greenspot Station | 0.0         | I | Santa Ana Low Turnout | 7.2  | N | BVMWC Boullioun Box  | 4.0 | T | Newport for BVMWC           | 0.7         |
| C       | Exchange Water                 | 0.0         | J | Northfork Canal       | 4.0  | P | SARC West            | 0.0 | U | M/C spreading at Zanja Tate | 0.0         |
| D       | Purchased Water                | 11.0        | K | Edwards Canal         | 0.0  | Q | Zanja                | 0.0 | W | Tres Lagos                  | 1.3         |
| E       | Redlands Aqueduct Leakage      | 0.0         | L | Redlands Aqueduct     | 16.0 | R | Tate Treatment Plant | 6.0 | V | <b>Total SWP Deliveries</b> | <b>40.2</b> |
| F       | Recharge Project               | 0.0         |   |                       |      |   |                      |     |   |                             |             |
| G       | <b>Total SWP Inflows</b>       | <b>40.2</b> |   |                       |      |   |                      |     |   |                             |             |

### Santa Ana River Inflows

| SAR PH #3 Penstock (calc) |                                  | BVMWC Highline |       | SOD Release Subtotal          |            | Total SAR Inflows |                                 |            |                     |                                     |                          |
|---------------------------|----------------------------------|----------------|-------|-------------------------------|------------|-------------------|---------------------------------|------------|---------------------|-------------------------------------|--------------------------|
| G2                        | Northfork Canal Weir             | 5.6            | A2    | Newport                       | 0.0        | D1                | BVMWC River PU (USGS)           | 1.3        | A1                  | SAR PH #3 Penstock (calc)           | 4.3                      |
| H2                        | Edwards Canal                    | 0.0            | D2    | Boullioun Box Weir            | 1.7        | E1                | Main River Gage (USGS)          | 0.0        | B1                  | BVMWC Highline                      | 1.7                      |
| 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)               | 1.3                      |
| V1                        | PH#3 Afterbay SpillLoss to SAR   | 0.0            | B1    | <b>BVMWC Highline</b>         | <b>1.7</b> | Z1                | <b>SOD Release Subtotal</b>     | <b>1.3</b> | E1                  | Main River Gage (USGS)              | 0.0                      |
| W1                        | Redlands Aqueduct / Sandbox      | 0.2            |       |                               |            |                   |                                 |            | D1a                 | BV Pick-Up gated                    | <input type="checkbox"/> |
| Y1                        | Redlands Sandbox Spill           | 0.1            |       |                               |            |                   |                                 |            | A5                  | <b>Total SAR Inflows</b>            | <b>7.3</b>               |
| minus                     |                                  |                | Other |                               |            | w                 | Observation at SOD              | N/A        | Edison Generation   |                                     |                          |
| D1                        | BVMWC River PU (USGS)            | 1.3            | J1    | Big Bear Lake Release         | 1.0        | x                 | SOD Reservoir Elevation (scada) | N/A        | SAR PH#1 Generating | <input type="checkbox"/>            |                          |
| I1                        | Redlands Tunnel                  | 0.3            | L1    | SCE SAR AVM (SCADA)           | 7.9        | y                 | Debris Pool Elevation           | N/A        | SAR PH#3 Generating | <input checked="" type="checkbox"/> |                          |
| A1                        | <b>SAR PH #3 Penstock (calc)</b> | <b>4.3</b>     | X1    | SAR-MC Spread (Red. Aqueduct) | 0.0        |                   |                                 |            |                     |                                     |                          |
| K1                        | <b>PH3# Penstock (SCADA)</b>     | <b>4.5</b>     |       |                               |            |                   |                                 |            |                     |                                     |                          |

### Santa Ana River Deliveries

| Greenspot Pipeline |                             | Tailrace Pipeline |    | SBVWCD Parshall Flume To Basins  |            | Deliveries                 |                                  |            |                                  |                             |     |
|--------------------|-----------------------------|-------------------|----|----------------------------------|------------|----------------------------|----------------------------------|------------|----------------------------------|-----------------------------|-----|
| M1                 | SBCFCD Grove                | 0.0               | G2 | Northfork Canal Weir             | 5.6        | 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 | 0.2 |
| O1                 | Newport for BVMWC           | 0.0               | J2 | Tailrace Valve to Parshall Flume | 0.0        | H1                         | SBVWCD Diversion                 | 0.0        | Y1                               | Redlands Sandbox Spill      | 0.1 |
| P1                 | SBVWCD Mill Creek Spreading | 0.0               | K2 | Northfork Parshall Flume         | 0.0        | L2                         | <b>SBVWCD Parshall Flume</b>     | <b>0.0</b> | Z2                               | Cuttle Weir To River        | 0.0 |
| Q1                 | Crafton WC Unger Lane       | 0.0               | I2 | <b>Tailrace Pipeline</b>         | <b>5.6</b> | Parshall Flume (SCADA) 0.0 |                                  | B1         | BVMWC Highline                   | 1.7                         |     |
| R1                 | BVMWC Highline to Boullioun | 0.0               |    |                                  |            |                            |                                  | C1         | Greenspot Pipeline               | 0.0                         |     |
| S1                 | Crafton WC Boullioun        | 0.0               |    |                                  |            |                            |                                  | I2         | Tailrace Pipeline                | 5.6                         |     |
| T1                 | Tate Pump Station to Zanja  | 0.0               |    |                                  |            |                            |                                  | L2         | SBVWCD Parshall Flume            | 0.0                         |     |
| C1                 | <b>Greenspot Pipeline</b>   | <b>0.0</b>        |    |                                  |            |                            |                                  | minus      |                                  |                             |     |
|                    |                             |                   |    |                                  |            |                            |                                  | J2         | Tailrace Valve to Parshall Flume | 0.0                         |     |
|                    |                             |                   |    |                                  |            |                            |                                  | K2         | Northfork Parshall Flume         | 0.0                         |     |
|                    |                             |                   |    |                                  |            |                            |                                  | I1         | Redlands Tunnel                  | 0.3                         |     |
|                    |                             |                   |    |                                  |            |                            |                                  | N2         | <b>Total SAR Deliveries</b>      | <b>7.3</b>                  |     |

### Mill Creek Inflows

| Total MC Inflows |                             | Other       |    |                                  |      |
|------------------|-----------------------------|-------------|----|----------------------------------|------|
| A3               | RPU Flow                    | 4.6         | E3 | M/C #1 Penstock Flow             | 12.1 |
| B3               | M/C #3 Penstock             | 7.5         | F3 | Stream Parshall Flume to Yucaipa | 0.0  |
| C3               | SBVWCD Mill Creek Diversion | 0.0         | G3 | Observation at Garnet            | 0.0  |
| D3               | <b>Total MC Inflows</b>     | <b>12.1</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     | 0.0         | H3 | Mentone Reservoir Level           | 21.5 |
| J3               | Wilson Creek Spreading  | 0.0                     | Q3 | East Weir to Mill Creek        | 8.1         | T3    | Mill Creek #1 Flow (Cooley Hat) | 12.1        | R3 | Boullioun to BVMWC Highline       | 0.0  |
| K3               | <b>Yucaipa Pipeline</b> | <b>0.0</b>              | S3 | East Weir to Zanja             | 4.0         | U3    | <b>Total MC Deliveries</b>      | <b>12.1</b> | V3 | Zanja West Weir to CWC Canal      | 4.0  |
|                  |                         |                         | T3 | <b>MC #1 Flow (Cooley Hat)</b> | <b>12.1</b> |       |                                 |             | W3 | Mill Creek PH #2,3 Afterbay Spill | 0.0  |
|                  |                         |                         | N3 | <b>Cooley Hat (SCADA)</b>      | <b>12.2</b> |       |                                 |             | Y3 | Crafton Reservoir Level (21.3)    | 17.7 |

### 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                             | 2,461.8 | 166,000 | I4                                | 2,461.8 | 166,000 |
| M4                              | Santa Ana Rvr to Mill Creek | SAR-MC | N4                            | 0.0  | O4                             | 114.6   |         | O4                                | 88.3    |         |
| B4                              | Santa Ana River             | SWP    | F4                            | 0.0  | J4                             | 6,502.3 |         | J4                                | 100.9   |         |
| C4                              | Mill Creek                  | MC     | G4                            | 16.6 | K4                             | 1,756.2 | 99,700  | K4                                | 1,542.8 | 99,700  |
| D4                              | Mill Creek                  | SWP    | H4                            | 0.0  | L4                             | 1,627.4 |         | L4                                | 434.1   |         |
|                                 | Redlands                    | SWP    |                               | 0.0  |                                | 0.0     |         |                                   | 0.0     |         |
|                                 | Loma Linda                  | SWP    |                               | 0.0  |                                | 0.0     |         |                                   | 0.0     |         |
|                                 | East Valley                 | SWP    |                               | 14.3 |                                | 427.6   |         |                                   | 427.6   |         |
| 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       |         |