



Date: January 29, 2019

To: **Engineering and Operations Committee**
Tom Campbell, Chair
Dante Acosta
Ed Colley
William Cooper
Gary Martin
Lynne Plambeck

From: Brian J. Folsom, Chief Engineer *BJF*
Keith Abercrombie, Chief Operating Officer *KA*

The **Engineering & Operations Committee** is scheduled to meet on **Thursday, February 7, 2019 at 5:30 PM at Rio Vista Water Treatment Plant** located at 27234 Bouquet Canyon Road, Santa Clarita, CA 91350 in the Training Room.

MEETING AGENDA

| <u>ITEM</u> | | <u>PAGE</u> |
|-------------|---|-------------|
| 1. | Public Comments | |
| 2. | Quarterly Safety Presentation | |
| 3. | Update on Recycled Water Program | |
| 4. | Update on Perchlorate Related Activities | |
| 5. * | Operations and Production Report | 3 |
| 6. * | Capital Improvement Projects Construction Status Report | 61 |
| 7. * | Third-Party Agreements Quarterly Report | 63 |
| 8. * | Committee Planning Calendar | 67 |
| 9. | General Report on Treatment, Distribution, Operations and Maintenance Services Section Activities | |
| 10. | General Report on Engineering Services Section Activities | |

11. Adjournment

* Indicates attachments

◆ To be distributed

NOTICES:

Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by telephoning (661) 297-1600, or writing to Santa Clarita Valley Water Agency at 27234 Bouquet Canyon Road, Santa Clarita, CA 91350. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that Agency staff may discuss appropriate arrangements. Persons requesting a disability-related accommodation should make the request with adequate time before the meeting for the Agency to provide the requested accommodation.

Pursuant to Government Code Section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection at the Santa Clarita Valley Water Agency, located at 27234 Bouquet Canyon Road, Santa Clarita, California 91350, during regular business hours. When practical, these public records will also be made available on the Agency's Internet Website, accessible at <http://www.yourscvwater.com>.

Posted on January 30, 2019.

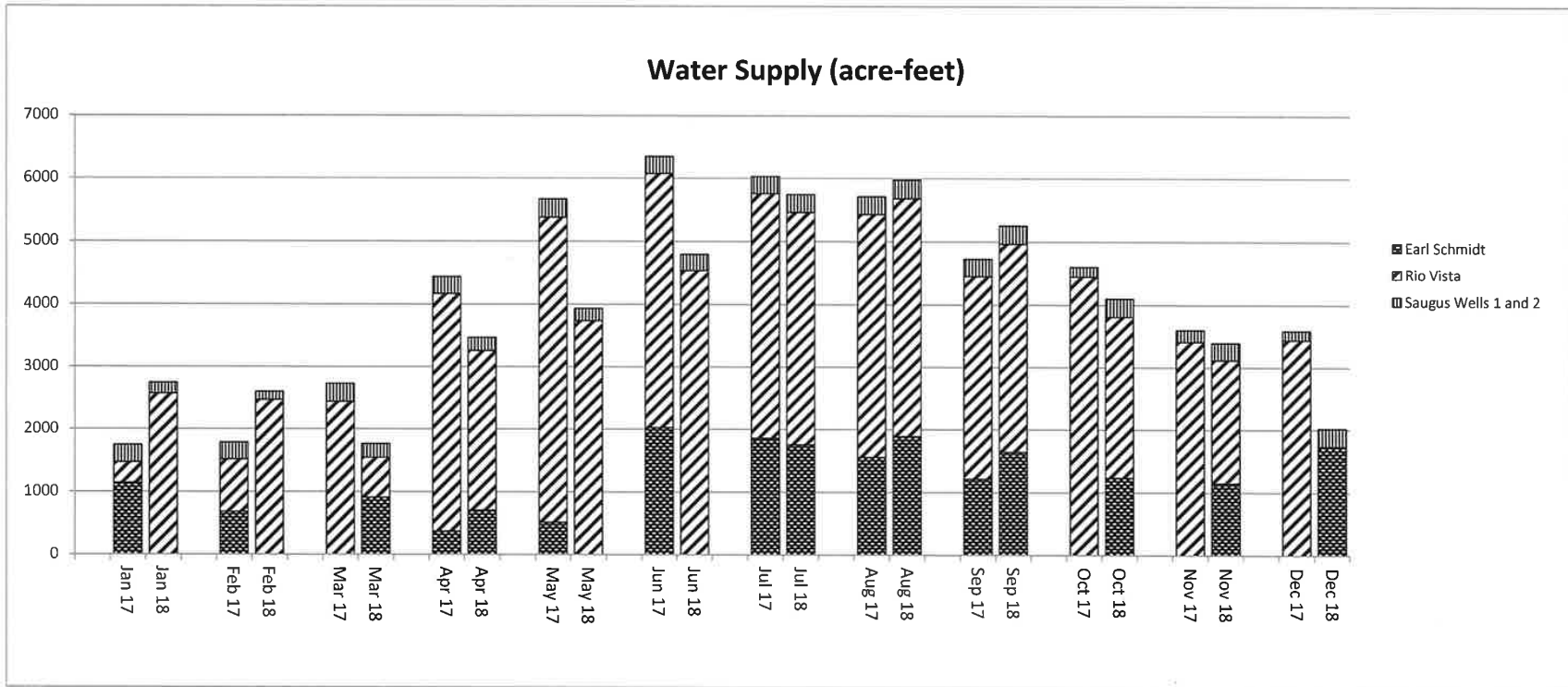


Monthly Operations & Production Report

December 2018

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SANTA CLARITA VALLEY WATER AGENCY
December 2018 Regional Operations Report



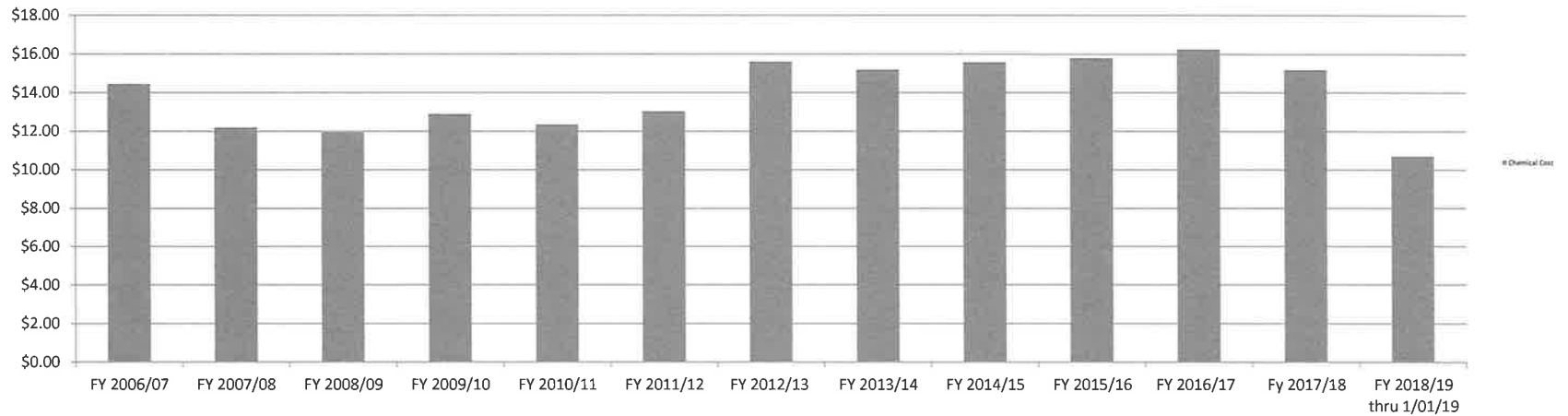
| Source | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 | Jul-18 | Aug-18 | Sep-18 | Oct-18 | Nov-18 | Dec-18 | Total |
|-----------------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|---------------|-----------------|
| Earl Schmidt | 0 | 0 | 0 | 710 | 0 | 0 | 3705 | 1886 | 1645 | 1236.7 | 1154 | 1736 | 12072.7 |
| Rio Vista | 2564 | 2465 | 2436 | 2544 | 3735 | 4539 | 1755 | 3793 | 3321 | 2570 | 1961 | 0 | 31683 |
| Saugus 1 and 2 | 176 | 128 | 290 | 210 | 201 | 260 | 283 | 300 | 289 | 292 | 272 | 286 | 2987 |
| Total | 2740 | 2593 | 2726 | 3464 | 3936 | 4799 | 5743 | 5979 | 5255 | 4098.7 | 3387 | 2022 | 46742.7 |
| Total Sold | 2684 | 2532 | 1746 | 3414 | 3885 | 4695 | 5639 | 5855 | 5160 | 4011 | 3349 | 1947 | 44917 |
| RWTP Use/Storage | 37.6 | 23.58 | 0.71 | 21.8 | 67 | 10 | 22.7 | 44.11 | 17.82 | 60 | 72 | 9 | 386.32 |
| Total Use | 2721.6 | 2555.58 | 1746.71 | 3435.8 | 3952 | 4705 | 5661.7 | 5899.11 | 5177.82 | 4071 | 3421 | 1956 | 45303.32 |
| Water Loss | -0.67% | -1.44% | -35.92% | -0.81% | 0.41% | -1.96% | -1.42% | -1.34% | -1.47% | -0.68% | 1.00% | -3.26% | -3.08% |
| Recycled Water | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 | Jul-18 | Aug-18 | Sep-18 | Oct-18 | Nov-18 | Dec-18 | Total |
| Valencia | 15 | 14 | 9 | 39 | 39 | 64 | 79 | 75 | 17 | 0 | 0 | 0 | 351 |

* Water loss includes water usage at Rio Vista Water Treatment Plant facilities and system storage.

**Treatment Process
December 2018**

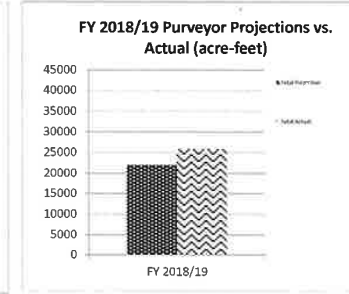
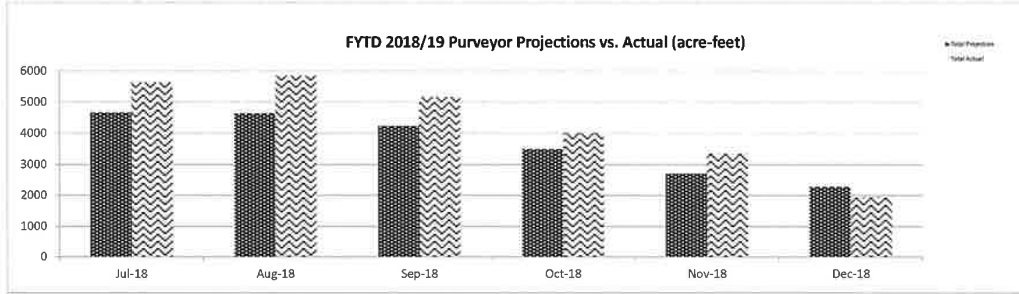
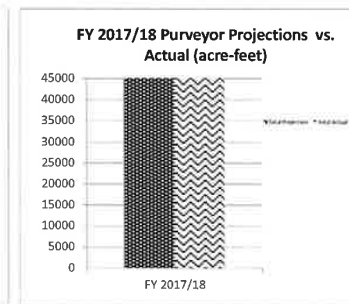
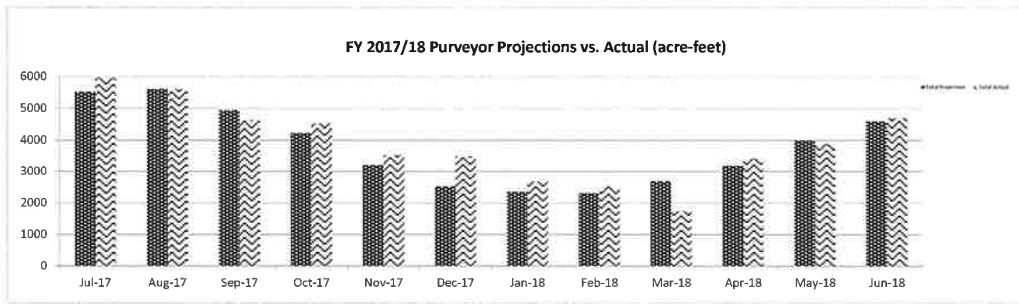
| | Perchlorate Raw Water | Perchlorate Finished Water | Raw NTU | Treated NTU | Percent Reduction | Raw Ph | Adjusted pH | Ferric Chloride Dosage | Polymer Dosage | Chlorine Dosage | Ammonia Dosage | Ozone Dosage |
|----------------|-----------------------|----------------------------|---------|-------------|-------------------|---------|-------------|------------------------|----------------|-----------------|----------------|--------------|
| Rio Vista | | | Offline | Offline | Offline | Offline | Offline | Offline | Offline | Offline | Offline | Offline |
| Earl Schmidt | | | 1.59 | 0.05 | 96.86% | 7.6 | 7.8 | 1.15 | 1.45 | 6.46 | 0.82 | 1.0 |
| Saugus 1 and 2 | 15.5 | <1 | | | | 7.5 | 7.6 | | | 3.3 | 0.66 | |

Chemical Treatment Cost



| | FY 2006/07 | FY 2007/08 | FY 2008/09 | FY 2009/10 | FY 2010/11 | FY 2011/12 | FY 2012/13 | FY 2013/14 | FY 2014/15 | FY 2015/16 | FY 2016/17 | Fy 2017/18 |
|----------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Acre Feet Treated Imported Water | 44,493 | 44,732 | 38,275 | 34,610 | 33,441 | 35,653 | 41,504 | 44,909 | 30,571 | 27,456 | 43,670 | 46,672 |
| Chemical Cost Per Acre Foot* | \$14.46 | \$12.19 | \$11.95 | \$12.89 | \$12.35 | \$13.04 | \$15.62 | \$15.20 | \$15.60 | \$15.80 | \$16.24 | \$15.20 |

* The cost per acre foot includes all chemicals used the treatment process: Chlorine Gas, Sodium Hypochlorite, Caustic Soda (Sodium Hydroxide), Ferric Chloride, Ammonia, and Cationic, non-ionic, and anionic polymers as well as the cost of liquid Oxygen, but does not include the electrical costs to produce the Ozone.



| Purveyor Projections vs. Actual | | | | | | | | | | | | | | | | |
|---------------------------------|-----------------|--------------|-------------|---------------------|-----------------|-------------|--------------------|----------------|-------------|----------------------|------------------|----------|------------------|--------------|------------------------|--|
| Month | SCWD Projection | SCWD Actual | % | Valencia Projection | Valencia Actual | % | Newhall Projection | Newhall Actual | % | LA County Projection | LA County Actual | % | Total Projection | Total Actual | Percentage of Estimate | |
| Jul-17 | 2505 | 3084 | 123% | 2380 | 2088 | 88% | 544 | 785 | 144% | 101 | 0 | 0 | 5530 | 5957 | 108% | |
| Aug-17 | 2585 | 3035 | 117% | 2345 | 1723 | 73% | 544 | 856 | 157% | 140 | 0 | 0 | 5614 | 5614 | 100% | |
| Sep-17 | 2265 | 2589 | 114% | 2070 | 1184 | 57% | 480 | 845 | 176% | 134 | 0 | 0 | 4949 | 4618 | 93% | |
| Oct-17 | 2025 | 2462 | 122% | 1690 | 1260 | 75% | 430 | 804 | 187% | 85 | 0 | 0 | 4230 | 4526 | 107% | |
| Nov-17 | 1545 | 1921 | 124% | 1300 | 965 | 74% | 350 | 640 | 183% | 0 | 0 | 0 | 3195 | 3526 | 110% | |
| Dec-17 | 1265 | 1955 | 155% | 970 | 969 | 100% | 290 | 556 | 192% | 0 | 0 | 0 | 2525 | 3480 | 138% | |
| Jan-18 | 1145 | 1578 | 138% | 990 | 853 | 86% | 229 | 253 | 110% | 0 | 0 | 0 | 2364 | 2684 | 114% | |
| Feb-18 | 1225 | 1580 | 129% | 880 | 676 | 77% | 210 | 275 | 131% | 0 | 0 | 0 | 2315 | 2531 | 109% | |
| Mar-18 | 1305 | 969 | 74% | 1125 | 619 | 55% | 260 | 157 | 60% | 0 | 0 | 0 | 2690 | 1745 | 65% | |
| Apr-18 | 1465 | 1905 | 130% | 1410 | 1160 | 82% | 310 | 349 | 113% | 0 | 0 | 0 | 3185 | 3414 | 107% | |
| May-18 | 1785 | 2075 | 116% | 1880 | 1335 | 71% | 330 | 473 | 143% | 0 | 0 | 0 | 3995 | 3883 | 97% | |
| Jun-18 | 2105 | 2264 | 108% | 2080 | 1622 | 78% | 410 | 808 | 197% | 0 | 0 | 0 | 4595 | 4694 | 102% | |
| FY 2017/18 | 21220 | 25417 | 120% | 19120 | 14454 | 76% | 4387 | 6801 | 155% | 460 | 0 | 0 | 45187 | 46672 | 103% | |
| Jul-18 | 2453 | 2694 | 110% | 1655 | 1921 | 116% | 558 | 1023 | 183% | 0 | 0 | 0 | 4666 | 5638 | 121% | |
| Aug-18 | 2453 | 2816 | 115% | 1637 | 2026 | 124% | 558 | 1012 | 181% | 0 | 0.42 | 0 | 4648 | 5855 | 126% | |
| Sep-18 | 2312 | 2535 | 110% | 1441 | 1743 | 121% | 488 | 881 | 181% | 0 | 0.4 | 0 | 4241 | 5159 | 122% | |
| Oct-18 | 1862 | 2174 | 117% | 1178 | 1300 | 110% | 448 | 537 | 120% | 0 | 0 | 0 | 3488 | 4011 | 115% | |
| Nov-18 | 1445 | 1882 | 130% | 908 | 1084 | 119% | 356 | 382 | 107% | 0 | 0.43 | 0 | 2709 | 3348 | 124% | |
| Dec-18 | 1307 | 1274 | 97% | 673 | 459 | 68% | 295 | 214 | 73% | 0 | 0 | 0 | 2275 | 1947 | 86% | |
| FY 2018/19 | 11832 | 13375 | 113% | 7492 | 8533 | 114% | 2703 | 4049 | 150% | 0 | 1.25 | 0 | 22027 | 25959 | 118% | |

SANTA CLARITA VALLEY WATER AGENCY
Record of Weather Observations
 December 2018

| DATE | High Temperature | Low Temperature | Precipitation 2018 | Precipitation 2017 |
|-------------|-------------------------|------------------------|---------------------------|---------------------------|
| 1-Dec | 63 | 38 | 0.00 | 0.00 |
| 2-Dec | 56 | 40 | 0.00 | 0.00 |
| 3-Dec | 61 | 37 | 0.00 | 0.00 |
| 4-Dec | 61 | 40 | 0.00 | 0.01 |
| 5-Dec | 56 | 41 | 1.13 | 0.00 |
| 6-Dec | 49 | 42 | 1.61 | 0.00 |
| 7-Dec | 60 | 42 | 0.00 | 0.00 |
| 8-Dec | 65 | 37 | 0.01 | 0.00 |
| 9-Dec | 63 | 39 | 0.01 | 0.00 |
| 10-Dec | 66 | 43 | 0.00 | 0.00 |
| 11-Dec | 66 | 39 | 0.00 | 0.00 |
| 12-Dec | 70 | 36 | 0.00 | 0.00 |
| 13-Dec | 67 | 35 | 0.00 | 0.00 |
| 14-Dec | 62 | 41 | 0.00 | 0.00 |
| 15-Dec | 74 | 33 | 0.00 | 0.00 |
| 16-Dec | 73 | 35 | 0.00 | 0.00 |
| 17-Dec | 62 | 45 | 0.00 | 0.00 |
| 18-Dec | 70 | 38 | 0.00 | 0.00 |
| 19-Dec | 72 | 39 | 0.00 | 0.00 |
| 20-Dec | 80 | 37 | 0.00 | 0.00 |
| 21-Dec | 73 | 43 | 0.00 | 0.00 |
| 22-Dec | 74 | 37 | 0.00 | 0.00 |
| 23-Dec | 73 | 37 | 0.00 | 0.00 |
| 24-Dec | 74 | 40 | 0.00 | 0.00 |
| 25-Dec | 57 | 43 | 0.01 | 0.00 |
| 26-Dec | 63 | 34 | 0.00 | 0.00 |
| 27-Dec | 57 | 31 | 0.00 | 0.00 |
| 28-Dec | 54 | 31 | 0.00 | 0.00 |
| 29-Dec | 58 | 34 | 0.00 | 0.00 |
| 30-Dec | 65 | 31 | 0.00 | 0.00 |
| 31-Dec | 55 | 34 | 0.00 | 0.00 |

| | | |
|--------------|-------------|-------------|
| TOTAL | 2.77 | 0.01 |
|--------------|-------------|-------------|

| | 2018-2019 | 2017-2018 |
|--|------------------|------------------|
| <i>Total Precipitation of Current Month</i> | 2.77 | 0.01 |
| <i>Total Precipitation End of Previous Month</i> | 2.39 | 0.06 |
| Total Precipitation Since October 1st | 5.16 | 0.07 |
| <i>Temperature Averages for Current Month</i> | HIGH 64.5 | 71.6 |
| | LOW 37.8 | 38.5 |

Santa Clarita Valley Water Agency
Summary of Annual Precipitation
October 1st through September 30th
(Total in Inches)

| | <i>1997-98</i> | <i>1998-99</i> | <i>1999-00</i> | <i>2000-01</i> | <i>2001-02</i> | <i>2002-03</i> | <i>2003-04</i> | <i>2004-05</i> | <i>2005-06</i> | <i>2006-07</i> | <i>2007-08</i> |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Oct | 0.00 | 0.33 | 0.00 | 1.13 | 0.22 | 0.00 | 1.10 | 4.79 | 1.91 | 0.42 | 0.25 |
| Nov | 3.73 | 1.39 | 0.00 | 0.00 | 3.18 | 3.01 | 0.63 | 0.64 | 0.59 | 0.05 | 0.50 |
| Dec | 6.72 | 1.39 | 0.05 | 0.00 | 1.30 | 5.85 | 2.57 | 8.54 | 0.14 | 0.83 | 2.67 |
| Jan | 3.49 | 2.08 | 1.21 | 5.84 | 1.55 | 0.00 | 0.65 | 17.06 | 3.27 | 1.66 | 17.54 |
| Feb | 22.00 | 0.65 | 9.43 | 10.76 | 0.51 | 9.03 | 8.07 | 16.69 | 3.78 | 1.38 | 1.82 |
| Mar | 5.15 | 3.00 | 3.15 | 3.38 | 0.38 | 2.38 | 0.37 | 2.70 | 5.68 | 0.17 | 0.10 |
| Apr | 2.28 | 3.78 | 2.10 | 2.56 | 0.05 | 2.35 | 0.20 | 1.42 | 4.22 | 0.71 | 0.07 |
| May | 5.50 | 0.00 | 0.00 | 0.00 | 0.12 | 1.70 | 0.00 | 0.45 | 0.99 | 0.00 | 0.17 |
| Jun | 0.06 | 0.48 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Jul | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 |
| Aug | 0.00 | 0.00 | 0.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 | 0.00 |
| Sep | 0.21 | 0.01 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.17 | 0.00 | 1.32 | 0.00 |
| TOTAL | 49.14 | 13.11 | 16.25 | 23.67 | 7.34 | 24.34 | 13.59 | 52.55 | 20.58 | 6.58 | 23.12 |
| | <i>2008-09</i> | <i>2009-10</i> | <i>2010-11</i> | <i>2011-12</i> | <i>2012-13</i> | <i>2013-14</i> | <i>2014-15</i> | <i>2015-16</i> | <i>2016-17</i> | <i>2017-18</i> | <i>2018-19</i> |
| Oct | 0.09 | 4.04 | 1.34 | 1.97 | 0.15 | 0.11 | 0.32 | 0.17 | 0.43 | 0.00 | 0.52 |
| Nov | 1.78 | 0.08 | 1.87 | 2.50 | 2.20 | 1.41 | 0.64 | 0.21 | 1.49 | 0.06 | 1.87 |
| Dec | 3.01 | 4.28 | 11.97 | 1.19 | 1.54 | 0.37 | 6.16 | 0.49 | 3.44 | 0.01 | 2.77 |
| Jan | 0.69 | 9.13 | 0.96 | 1.23 | 1.94 | 0.06 | 1.44 | 6.07 | 10.30 | 3.18 | |
| Feb | 6.78 | 4.96 | 5.36 | 0.13 | 0.42 | 5.26 | 0.74 | 0.69 | 8.98 | 0.35 | |
| Mar | 1.18 | 0.69 | 8.86 | 4.99 | 1.21 | 1.64 | 1.09 | 2.75 | 0.33 | 7.50 | |
| Apr | 0.07 | 2.40 | 0.12 | 4.02 | 0.00 | 0.31 | 0.16 | 0.37 | 0.09 | 0.02 | |
| May | 0.01 | 0.07 | 0.74 | 0.01 | 0.74 | 0.00 | 0.66 | 0.09 | 0.26 | 0.01 | |
| Jun | 0.03 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | |
| Jul | 0.00 | 0.00 | 0.01 | 0.00 | 0.08 | 0.02 | 0.87 | 0.00 | 0.01 | 0.00 | |
| Aug | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.05 | 0.00 | 0.02 | 0.07 | 0.00 | |
| Sep | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.78 | 0.00 | 0.13 | 0.02 | |
| TOTAL | 13.64 | 25.65 | 31.27 | 16.07 | 8.28 | 9.23 | 12.87 | 10.87 | 25.53 | 11.15 | 5.16 |

SANTA CLARITA VALLEY WATER AGENCY
WATER PRODUCTION BY WELL 2018 (ACRE-FEET)

| NEWHALL WATER DIVISION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
|------------------------|------------|------------|------------|------------|------------|-----------|-----------|-----------|-----------|------------|------------|------------|-------------|
| N12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 102 | 117 |
| N13 | 216 | 214 | 164 | 274 | 262 | 44 | 0 | 0 | 0 | 220 | 249 | 120 | 1762 |
| C1 | 30 | 30 | 20 | 33 | 41 | 36 | 41 | 48 | 42 | 42 | 32 | 26 | 421 |
| C2 | 15 | 15 | 9 | 16 | 19 | 17 | 19 | 22 | 20 | 19 | 15 | 12 | 197 |
| C7 | 34 | 33 | 22 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 108 |
| P1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| P3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| P4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| P5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL NWD | 295 | 292 | 214 | 342 | 323 | 96 | 61 | 71 | 61 | 281 | 311 | 259 | 2605 |

| SANTA CLARITA WATER DIVISION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
|------------------------------|-----------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| LOST CANYON NO.2 | 0 | 10 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| LOST CANYON NO.2A | 5 | 28 | 20 | 37 | 68 | 88 | 85 | 40 | 14 | 0 | 1 | 1 | 387 |
| SAND CANYON | 0 | 0 | 18 | 22 | 68 | 85 | 81 | 42 | 14 | 0 | 1 | 1 | 332 |
| MITCHELL 5A | 0 | 0 | 13 | 1 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47 |
| MITCHELL 5B | 0 | 0 | 0 | 2 | 0 | 55 | 39 | 1 | 0 | 0 | 0 | 0 | 97 |
| SIERRA | 2 | 1 | 19 | 2 | 25 | 54 | 31 | 64 | 31 | 0 | 45 | 39 | 313 |
| NORTH OAKS EAST | 1 | 1 | 12 | 5 | 1 | 1 | 1 | 2 | 4 | 1 | 1 | 1 | 31 |
| NORTH OAKS CENTRAL | 1 | 1 | 0 | 2 | 1 | 2 | 2 | 3 | 4 | 2 | 1 | 1 | 20 |
| NORTH OAKS WEST | 1 | 2 | 18 | 4 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| HONBY | 0 | 0 | 12 | 1 | 0 | 0 | 1 | 1 | 3 | 1 | 0 | 0 | 19 |
| GUIDA | 10 | 10 | 21 | 10 | 29 | 26 | 51 | 44 | 42 | 42 | 33 | 29 | 347 |
| CLARK | 14 | 7 | 21 | 12 | 23 | 24 | 52 | 48 | 37 | 17 | 0 | 0 | 255 |
| SANTA CLARA | 1 | 6 | 13 | 1 | 0 | 1 | 0 | 1 | 3 | 1 | 0 | 0 | 27 |
| VALLEY CENTER | 0 | 1 | 19 | 2 | 1 | 36 | 117 | 99 | 96 | 92 | 54 | 30 | 547 |
| TOTAL SCWD | 35 | 67 | 186 | 103 | 255 | 372 | 460 | 345 | 248 | 156 | 136 | 102 | 2465 |

| VALENCIA WATER DIVISION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
|------------------------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| D | 43 | 49 | 27 | 60 | 62 | 79 | 93 | 92 | 87 | 72 | 55 | 33 | 752 |
| E15 | 51 | 44 | 31 | 32 | 43 | 53 | 78 | 70 | 73 | 68 | 42 | 35 | 619 |
| N | 63 | 67 | 31 | 84 | 72 | 115 | 139 | 112 | 80 | 64 | 59 | 60 | 948 |
| N7 | 61 | 138 | 69 | 101 | 137 | 78 | 104 | 118 | 100 | 230 | 105 | 99 | 1340 |
| N8 | 65 | 100 | 58 | 92 | 130 | 75 | 107 | 122 | 111 | 72 | 116 | 116 | 1165 |
| Q2 | 39 | 69 | 40 | 90 | 92 | 113 | 130 | 123 | 113 | 116 | 100 | 74 | 1100 |
| T7 | 4 | 7 | 16 | 7 | 8 | 10 | 6 | 4 | 6 | 12 | 6 | 5 | 90 |
| U6 | 5 | 8 | 12 | 14 | 11 | 4 | 9 | 8 | 6 | 12 | 8 | 5 | 102 |
| U4 | 3 | 6 | 10 | 6 | 6 | 7 | 5 | 4 | 3 | 6 | 3 | 4 | 63 |
| S6 | 65 | 124 | 39 | 81 | 104 | 95 | 147 | 189 | 153 | 145 | 94 | 113 | 1350 |
| S7 | 15 | 28 | 25 | 43 | 57 | 45 | 68 | 51 | 37 | 56 | 44 | 35 | 503 |
| S8 | 24 | 32 | 17 | 44 | 62 | 60 | 53 | 89 | 69 | 32 | 49 | 27 | 558 |
| W11 | 41 | 34 | 28 | 23 | 37 | 65 | 124 | 110 | 72 | 69 | 30 | 16 | 648 |
| W9 | 3 | 2 | 8 | 29 | 29 | 20 | 24 | 21 | 20 | 22 | 16 | 20 | 214 |
| W10 | 65 | 118 | 28 | 111 | 120 | 143 | 169 | 150 | 113 | 140 | 104 | 123 | 1384 |
| 159 (GOLF COURSE IRRIGATION) | 3 | 4 | 1 | 12 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 160 (SYSTEM) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 14 |
| 160 (GOLF COURSE IRRIGATION) | 22 | 28 | 11 | 57 | 58 | 82 | 93 | 77 | 77 | 54 | 34 | 14 | 607 |
| 201 (SYSTEM) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 205 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 206 | 71 | 59 | 30 | 95 | 153 | 141 | 131 | 134 | 142 | 132 | 119 | 124 | 1330 |
| 207 | 66 | 68 | 92 | 94 | 112 | 147 | 186 | 157 | 121 | 158 | 153 | 139 | 1493 |
| TOTAL VWD | 710 | 986 | 575 | 1077 | 1300 | 1334 | 1666 | 1633 | 1382 | 1462 | 1139 | 1043 | 14308 |

| | | | | | | | | | | | | | |
|--------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| S1 | 92 | 68 | 134 | 146 | 151 | 145 | 133 | 150 | 147 | 150 | 142 | 150 | 1609 |
| S2 | 84 | 60 | 86 | 64 | 50 | 115 | 150 | 149 | 142 | 142 | 131 | 136 | 1310 |
| TOTAL S1 & S2 | 176 | 128 | 220 | 210 | 201 | 260 | 283 | 300 | 289 | 292 | 272 | 286 | 2919 |

| | | | | | | | | | | | | | |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| TOTAL WELL PRODUCTION | 1216 | 1474 | 1196 | 1732 | 2078 | 2062 | 2470 | 2348 | 1980 | 2191 | 1858 | 1691 | 22297 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|

| | | | | | | | | | | | | | |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| WELL 201 (NON-SYSTEM) | 224 | 201 | 128 | 155 | 154 | 149 | 153 | 148 | 148 | 165 | 154 | 153 | 1931 |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|

**NEWHALL WATER DIVISION
WATER PRODUCTION 2018 (ACRE-FEET)**

| GROUNDWATER | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | Total |
|---|------------|------------|------------|------------|------------|------------|-------------|-------------|------------|------------|------------|------------|--------------|
| NEWHALL SYSTEM | | | | | | | | | | | | | |
| N12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 102 | 117 |
| N13 | 216 | 214 | 164 | 274 | 262 | 44 | 0 | 0 | 0 | 220 | 249 | 120 | 1762 |
| CASTAIC SYSTEM | | | | | | | | | | | | | |
| C1 | 30 | 30 | 20 | 33 | 41 | 36 | 41 | 48 | 42 | 42 | 32 | 26 | 421 |
| C2 | 15 | 15 | 9 | 16 | 19 | 17 | 19 | 22 | 20 | 19 | 15 | 12 | 197 |
| C7 | 34 | 33 | 22 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 108 |
| PINETREE SYSTEM | | | | | | | | | | | | | |
| P1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| P3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| P4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| P5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| S1 & S2 | 47 | 34 | 59 | 56 | 54 | 70 | 76 | 80 | 77 | 78 | 73 | 77 | 782 |
| TOTAL GROUNDWATER | 342 | 327 | 273 | 398 | 376 | 166 | 137 | 151 | 139 | 359 | 384 | 336 | 3388 |
| IMPORT + S1 & S2 | | | | | | | | | | | | | |
| NEWHALL SYSTEM | | | | | | | | | | | | | |
| N-3 | 51 | 62 | 33 | 61 | 112 | 377 | 500 | 496 | 435 | 163 | 58 | 2 | 2351 |
| CASTAIC SYSTEM | | | | | | | | | | | | | |
| N-1 | 33 | 33 | 24 | 58 | 87 | 120 | 144 | 132 | 112 | 99 | 94 | 62 | 996 |
| PINETREE SYSTEM | | | | | | | | | | | | | |
| N-2 | 120 | 120 | 75 | 153 | 184 | 204 | 244 | 242 | 211 | 177 | 148 | 104 | 1982 |
| TESORO SYSTEM | | | | | | | | | | | | | |
| N-4 | 50 | 60 | 25 | 77 | 90 | 108 | 136 | 141 | 123 | 98 | 83 | 47 | 1037 |
| TOTAL IMPORT + S1 & S2 | 253 | 275 | 157 | 349 | 473 | 808 | 1023 | 1012 | 881 | 537 | 382 | 214 | 6365 |
| VWD- INTERTIE | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| TOTAL GROUNDWATER (INCLUDES S1 & S2) | 342 | 327 | 273 | 398 | 376 | 166 | 137 | 151 | 139 | 359 | 384 | 336 | 3388 |
| TOTAL IMPORT (NO S1 & S2) | 206 | 241 | 98 | 292 | 420 | 738 | 947 | 931 | 804 | 458 | 309 | 137 | 5583 |
| TOTAL VWD INTERTIE | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| TOTAL PRODUCTION | 553 | 568 | 372 | 690 | 796 | 904 | 1084 | 1082 | 943 | 818 | 693 | 473 | 8976 |
| % BY SOURCE | | | | | | | | | | | | | |
| GROUNDWATER | 62% | 58% | 74% | 58% | 47% | 18% | 13% | 14% | 15% | 44% | 55% | 71% | 38% |
| IMPORT | 37% | 42% | 26% | 42% | 53% | 82% | 87% | 86% | 85% | 56% | 45% | 29% | 62% |
| INTERTIE | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

**SANTA CLARITA WATER DIVISION
WATER PRODUCTION 2018 (ACRE-FEET)**

| GROUNDWATER | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| LOST CANYON NO.2 | 0 | 10 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| LOST CANYON NO.2A | 5 | 28 | 20 | 37 | 68 | 88 | 85 | 40 | 14 | 0 | 1 | 1 | 387 |
| SAND CANYON | 0 | 0 | 18 | 22 | 68 | 85 | 81 | 42 | 14 | 0 | 1 | 1 | 332 |
| MITCHELL 5A | 0 | 0 | 13 | 1 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47 |
| MITCHELL 5B | 0 | 0 | 0 | 2 | 0 | 55 | 39 | 1 | 0 | 0 | 0 | 0 | 97 |
| SIERRA | 2 | 1 | 19 | 2 | 25 | 54 | 31 | 64 | 31 | 0 | 45 | 39 | 313 |
| NORTH OAKS EAST | 1 | 1 | 12 | 5 | 1 | 1 | 1 | 2 | 4 | 1 | 1 | 1 | 31 |
| NORTH OAKS CENTRAL | 1 | 1 | 0 | 2 | 1 | 2 | 2 | 3 | 4 | 2 | 1 | 1 | 20 |
| NORTH OAKS WEST | 1 | 2 | 18 | 4 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| HONBY | 0 | 0 | 12 | 1 | 0 | 0 | 1 | 1 | 3 | 1 | 0 | 0 | 19 |
| GUIDA | 10 | 10 | 21 | 10 | 29 | 26 | 51 | 44 | 42 | 42 | 33 | 29 | 347 |
| CLARK | 14 | 7 | 21 | 12 | 23 | 24 | 52 | 48 | 37 | 17 | 0 | 0 | 255 |
| SANTA CLARA | 1 | 6 | 13 | 1 | 0 | 1 | 0 | 1 | 3 | 1 | 0 | 0 | 27 |
| VALLEY CENTER | 0 | 1 | 19 | 2 | 1 | 36 | 117 | 99 | 96 | 92 | 54 | 30 | 547 |
| TOTAL ALLUVIUM | 35 | 67 | 186 | 103 | 255 | 372 | 460 | 345 | 248 | 156 | 136 | 102 | 2465 |
| SAUGUS WELLS S1 & S2 | 129 | 94 | 161 | 154 | 147 | 191 | 207 | 219 | 212 | 214 | 199 | 209 | 2136 |
| TOTAL GROUNDWATER | 164 | 161 | 347 | 257 | 402 | 563 | 667 | 564 | 460 | 370 | 335 | 311 | 4601 |
| IMPORT + S1 & S2 | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
| SC-1 BOUQUET | 138 | 152 | 31 | 47 | 197 | 233 | 283 | 301 | 301 | 266 | 221 | 250 | 2418 |
| SC-2 HONBY | 473 | 445 | 275 | 548 | 626 | 730 | 804 | 809 | 617 | 449 | 393 | 213 | 6382 |
| SC-3 WILEY | 43 | 44 | 47 | 84 | 87 | 91 | 107 | 107 | 92 | 84 | 76 | 58 | 920 |
| SC-4 HONBY #2 | 0 | 0 | 0 | 0 | 80 | 41 | 0 | 0 | 0 | 43 | 142 | 173 | 480 |
| SC-5 RIO VISTA | 177 | 174 | 50 | 319 | 171 | 230 | 230 | 229 | 193 | 199 | 191 | 0 | 2165 |
| SC-6 LOST CANYON | 160 | 239 | 186 | 314 | 243 | 163 | 199 | 144 | 109 | 173 | 106 | 118 | 2155 |
| SC-7 | 49 | 204 | 108 | 126 | 154 | 177 | 295 | 257 | 241 | 189 | 108 | 44 | 1952 |
| SC-8 | 181 | 62 | 32 | 77 | 222 | 185 | 230 | 332 | 310 | 242 | 216 | 81 | 2171 |
| SC-9 | 107 | 99 | 48 | 94 | 177 | 191 | 206 | 141 | 168 | 116 | 147 | 33 | 1528 |
| SC-10 | 57 | 52 | 18 | 87 | 9 | 52 | 68 | 76 | 71 | 85 | 45 | 65 | 685 |
| SC-11 | 46 | 37 | 38 | 103 | 10 | 60 | 95 | 76 | 75 | 96 | 36 | 76 | 747 |
| SC-12 | 76 | 0 | 0 | 0 | 0 | 0 | 41 | 203 | 232 | 143 | 121 | 119 | 934 |
| SC-13 | 71 | 71 | 136 | 106 | 99 | 110 | 135 | 141 | 126 | 90 | 80 | 45 | 1211 |
| TOTAL IMPORT + S1 & S2 | 1,578 | 1,580 | 969 | 1,905 | 2,076 | 2,264 | 2,694 | 2,816 | 2,535 | 2,174 | 1,882 | 1,274 | 23,747 |
| METERING ADJUSTMENT | 0 | 0 | -4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -0.3 | -8 | -12 |
| NET IMPORT + S1 & S2 | 1,578 | 1,580 | 965 | 1,905 | 2,076 | 2,264 | 2,694 | 2,816 | 2,535 | 2,174 | 1,882 | 1,266 | 23,735 |
| TOTAL GROUNDWATER (INCLUDES S1 & S2) | 164 | 161 | 347 | 257 | 402 | 563 | 667 | 564 | 460 | 370 | 335 | 311 | 4601 |
| TOTAL IMPORT (NO S1 & S2) | 1,449 | 1,486 | 808 | 1,751 | 1,929 | 2,074 | 2,487 | 2,597 | 2,324 | 1,960 | 1,683 | 1,065 | 21,611 |
| TOTAL VWD INTERTIE | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| TOTAL PRODUCTION | 1,613 | 1,647 | 1,163 | 2,008 | 2,331 | 2,636 | 3,154 | 3,161 | 2,783 | 2,330 | 2,018 | 1,376 | 26,220 |
| % BY SOURCE | | | | | | | | | | | | | |
| GROUNDWATER | 10% | 10% | 30% | 13% | 17% | 21% | 21% | 18% | 17% | 16% | 17% | 23% | 18% |
| IMPORT | 90% | 90% | 69% | 87% | 83% | 79% | 79% | 82% | 83% | 84% | 83% | 77% | 82% |
| VWD INTERTIE | 0% | 0% | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

**VALENCIA WATER DIVISION
WATER PRODUCTION 2018 (ACRE-FEET)**

| ALLUVIUM | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| D | 43 | 49 | 27 | 60 | 62 | 79 | 93 | 92 | 87 | 72 | 55 | 33 | 752 |
| E15 | 51 | 44 | 31 | 32 | 43 | 53 | 78 | 70 | 73 | 68 | 42 | 35 | 619 |
| N | 63 | 67 | 31 | 84 | 72 | 115 | 139 | 112 | 80 | 64 | 59 | 60 | 948 |
| N7 | 61 | 138 | 69 | 101 | 137 | 78 | 104 | 118 | 100 | 230 | 105 | 99 | 1340 |
| N8 | 65 | 100 | 58 | 92 | 130 | 75 | 107 | 122 | 111 | 72 | 116 | 116 | 1165 |
| Q2 | 39 | 69 | 40 | 90 | 92 | 113 | 130 | 123 | 113 | 116 | 100 | 74 | 1100 |
| T7 | 4 | 7 | 16 | 7 | 8 | 10 | 6 | 4 | 6 | 12 | 6 | 5 | 90 |
| U6 | 5 | 8 | 12 | 14 | 11 | 4 | 9 | 8 | 6 | 12 | 8 | 5 | 102 |
| U4 | 3 | 6 | 10 | 6 | 6 | 7 | 5 | 4 | 3 | 6 | 3 | 4 | 63 |
| S6 | 65 | 124 | 39 | 81 | 104 | 95 | 147 | 189 | 153 | 145 | 94 | 113 | 1350 |
| S7 | 15 | 28 | 25 | 43 | 57 | 45 | 68 | 51 | 37 | 56 | 44 | 35 | 503 |
| S8 | 24 | 32 | 17 | 44 | 62 | 60 | 53 | 89 | 69 | 32 | 49 | 27 | 558 |
| W11 | 41 | 34 | 28 | 23 | 37 | 65 | 124 | 110 | 72 | 69 | 30 | 16 | 648 |
| W9 | 3 | 2 | 8 | 29 | 29 | 20 | 24 | 21 | 20 | 22 | 16 | 20 | 214 |
| W10 | 65 | 118 | 28 | 111 | 120 | 143 | 169 | 150 | 113 | 140 | 104 | 123 | 1384 |
| TOTAL ALLUVIUM | 548 | 825 | 441 | 817 | 970 | 963 | 1255 | 1263 | 1041 | 1117 | 832 | 765 | 10837 |
| SAUGUS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
| 159 | 3 | 4 | 1 | 12 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 160 - DOM | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 14 |
| 160 - VGC* | 22 | 28 | 11 | 57 | 58 | 82 | 93 | 77 | 77 | 54 | 34 | 14 | 607 |
| 201 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 205 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 206 | 71 | 59 | 30 | 95 | 153 | 141 | 131 | 134 | 142 | 132 | 119 | 124 | 1330 |
| 207 | 66 | 68 | 92 | 94 | 112 | 147 | 186 | 157 | 121 | 158 | 153 | 139 | 1493 |
| TOTAL SAUGUS | 162 | 161 | 135 | 261 | 330 | 371 | 411 | 369 | 341 | 345 | 307 | 279 | 3471 |
| IMPORT WATER | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
| V-1 | 95 | 96 | 58 | 94 | 101 | 136 | 174 | 186 | 168 | 145 | 104 | 72 | 1429 |
| V-2 | 220 | 108 | 131 | 273 | 315 | 436 | 510 | 518 | 490 | 204 | 244 | 92 | 3540 |
| V-4 | 91 | 62 | 22 | 40 | 119 | 108 | 234 | 246 | 200 | 274 | 224 | 64 | 1686 |
| V-5 | 183 | 153 | 172 | 307 | 348 | 411 | 394 | 374 | 322 | 186 | 154 | 71 | 3077 |
| V-6 | 150 | 137 | 111 | 164 | 202 | 185 | 144 | 144 | 122 | 133 | 118 | 88 | 1699 |
| V-7 | 24 | 36 | 25 | 51 | 71 | 61 | 71 | 93 | 59 | 53 | 57 | 32 | 633 |
| V-8 | 91 | 84 | 100 | 230 | 180 | 284 | 393 | 465 | 381 | 305 | 183 | 39 | 2736 |
| TOTAL IMPORT | 853 | 676 | 619 | 1,160 | 1,336 | 1,622 | 1,921 | 2,026 | 1,743 | 1,300 | 1,084 | 459 | 14,800 |
| TOTAL GROUNDWATER | 710 | 986 | 575 | 1,077 | 1,300 | 1,334 | 1,666 | 1,633 | 1,382 | 1,462 | 1,139 | 1,043 | 14,308 |
| TOTAL IMPORT | 853 | 676 | 619 | 1,160 | 1,336 | 1,622 | 1,921 | 2,026 | 1,743 | 1,300 | 1,084 | 459 | 14,800 |
| TOTAL PRODUCTION | 1,564 | 1,662 | 1,194 | 2,237 | 2,636 | 2,957 | 3,587 | 3,659 | 3,125 | 2,762 | 2,223 | 1,502 | 29,108 |
| % BY SOURCE | | | | | | | | | | | | | |
| GROUNDWATER | 45% | 59% | 48% | 47% | 48% | 44% | 45% | 43% | 43% | 52% | 50% | 69% | 48% |
| IMPORT WATER | 55% | 41% | 52% | 53% | 52% | 56% | 55% | 57% | 57% | 48% | 50% | 31% | 52% |
| RECYCLED WATER | 15 | 14 | 9 | 39 | 39 | 64 | 79 | 75 | 17 | 0 | 0 | 0 | 352 |
| Well 201 Discharge | 224 | 201 | 128 | 155 | 154 | 149 | 153 | 148 | 148 | 165 | 154 | 153 | 1931 |

*Not used in the calculation for % by source

LOS ANGELES COUNTY WATERWORKS DISTRICT 36

SOURCE

| TURNOUT | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 | Jul-18 | Aug-18 | Sep-18 | Oct-18 | Nov-18 | Dec-18 | TOTAL |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|
| LA 1 | 0 | 0.02 | 0 | 0.01 | 0 | 0.00 | 0.009 | 0 | 0.0031 | 0 | 0.0184 | 0 | 0.06 |
| LA 2 | 0 | 1.04 | 0.44 | 0.38 | 0.6046 | 0.43 | 0.623 | 0.4204 | 0.402 | 0.5647 | 0.4266 | 0 | 5.33 |
| TOTAL | 0 | 1.06 | 0.44 | 0.39 | 0.6046 | 0.4296 | 0.632 | 0.4204 | 0.4051 | 0.5647 | 0.445 | 0.00 | 5.39 |

RAW WATER

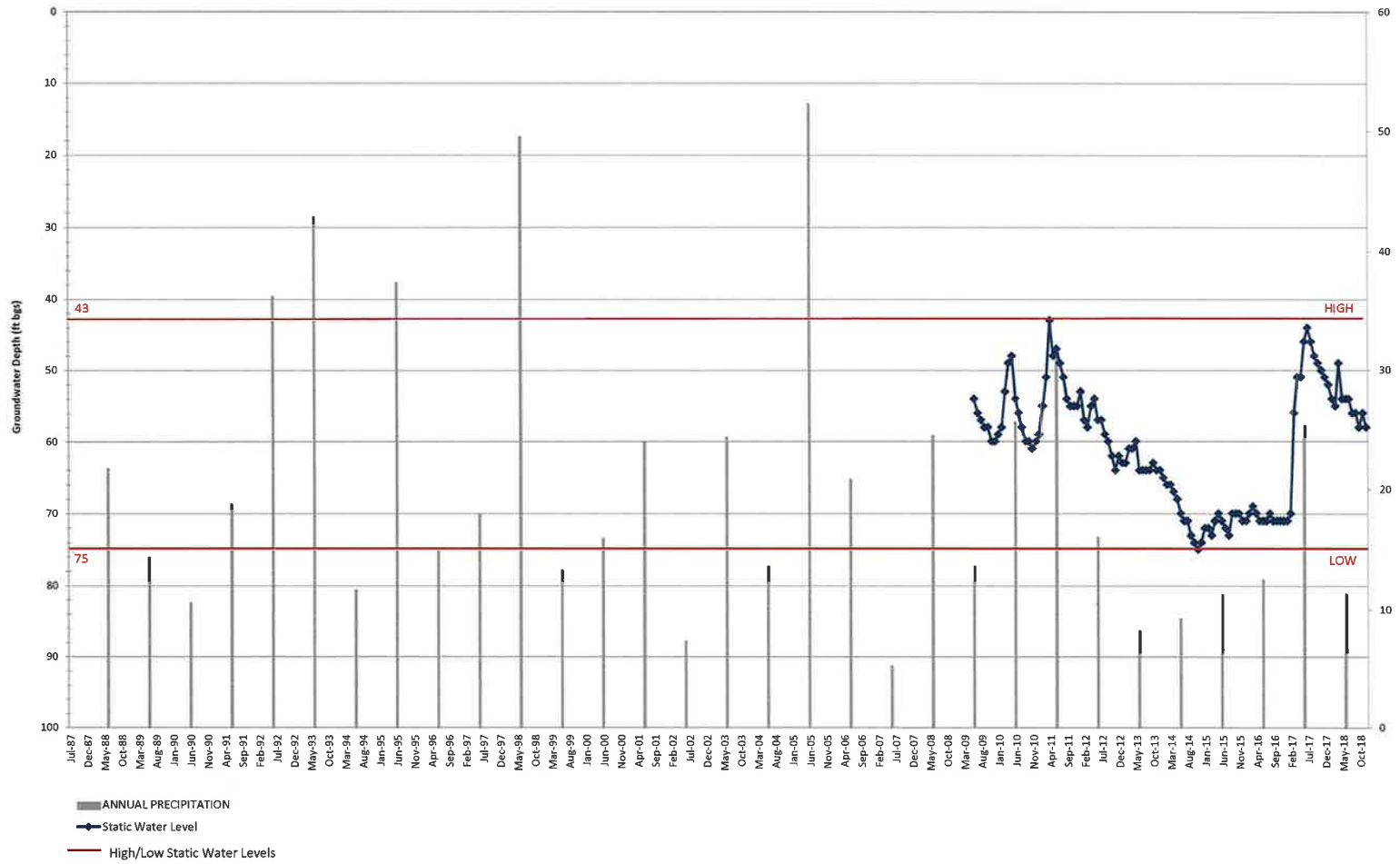
| SOURCE | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 | Jul-18 | Aug-18 | Sep-18 | Oct-18 | Nov-18 | Dec-18 | TOTAL |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------------------|
| RVTP | 2,564 | 2,465 | 637 | 2,545 | 3735 | 4539 | 3,705 | 3,793 | 3,322 | 2,570 | 1,961 | 0 | 31,834.24 |
| ESTP | 0 | 0 | 909 | 710 | 0 | 0 | 1,755 | 1,885 | 1,645 | 1,237 | 1,154 | 1,736 | 11,030.92 |
| Wells | 176 | 126 | 220 | 210 | 201 | 260 | 283 | 300 | 289 | 292 | 272 | 286 | 2,916.79 |
| TOTAL | 2,740 | 2,592 | 1,766 | 3,465 | 3,936 | 4,799 | 5,742 | 5,978 | 5,255 | 4,098 | 3,387 | 2,023 | 45,781.94 |

S1/S2 TREATMENT

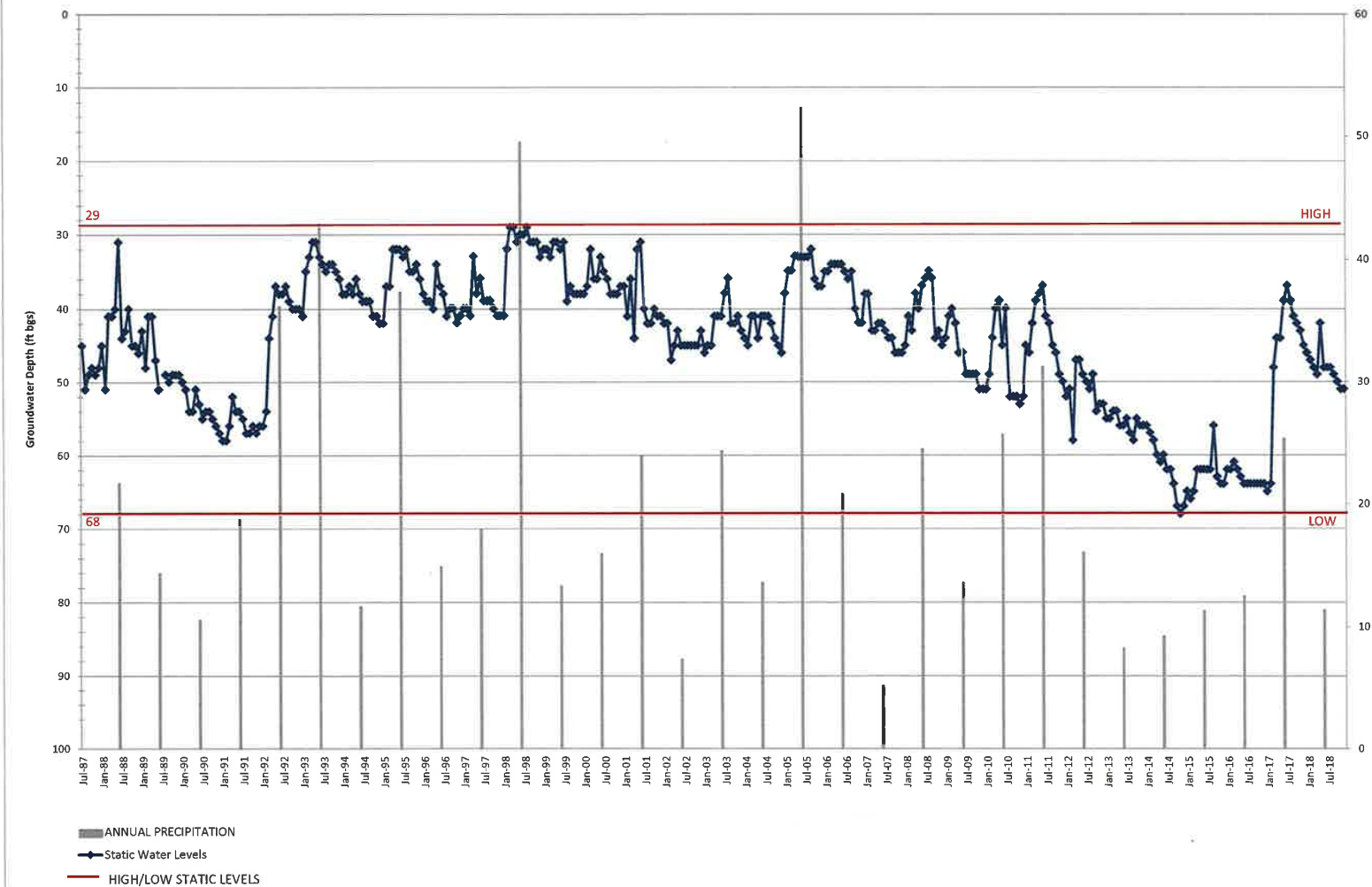
| SOURCE | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 | Jul-18 | Aug-18 | Sep-18 | Oct-18 | Nov-18 | Dec-18 | TOTAL |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------|----------------|
| S1 | 92.091 | 68.445 | 134.13 | 146.44 | 150.73 | 144.99 | 133.4 | 150.31 | 146.62 | 150.19 | 141.67 | 149.7832 | 1608.84 |
| S2 | 84.397 | 60.049 | 86.039 | 63.676 | 49.949 | 115.45 | 149.6 | 149.47 | 142.33 | 141.76 | 130.77 | 136.4182 | 1309.95 |
| TOTAL | 176.49 | 128.49 | 220.17 | 210.12 | 200.68 | 260.45 | 283.1 | 299.78 | 288.95 | 291.94 | 272.44 | 286.2014 | 2918.79 |

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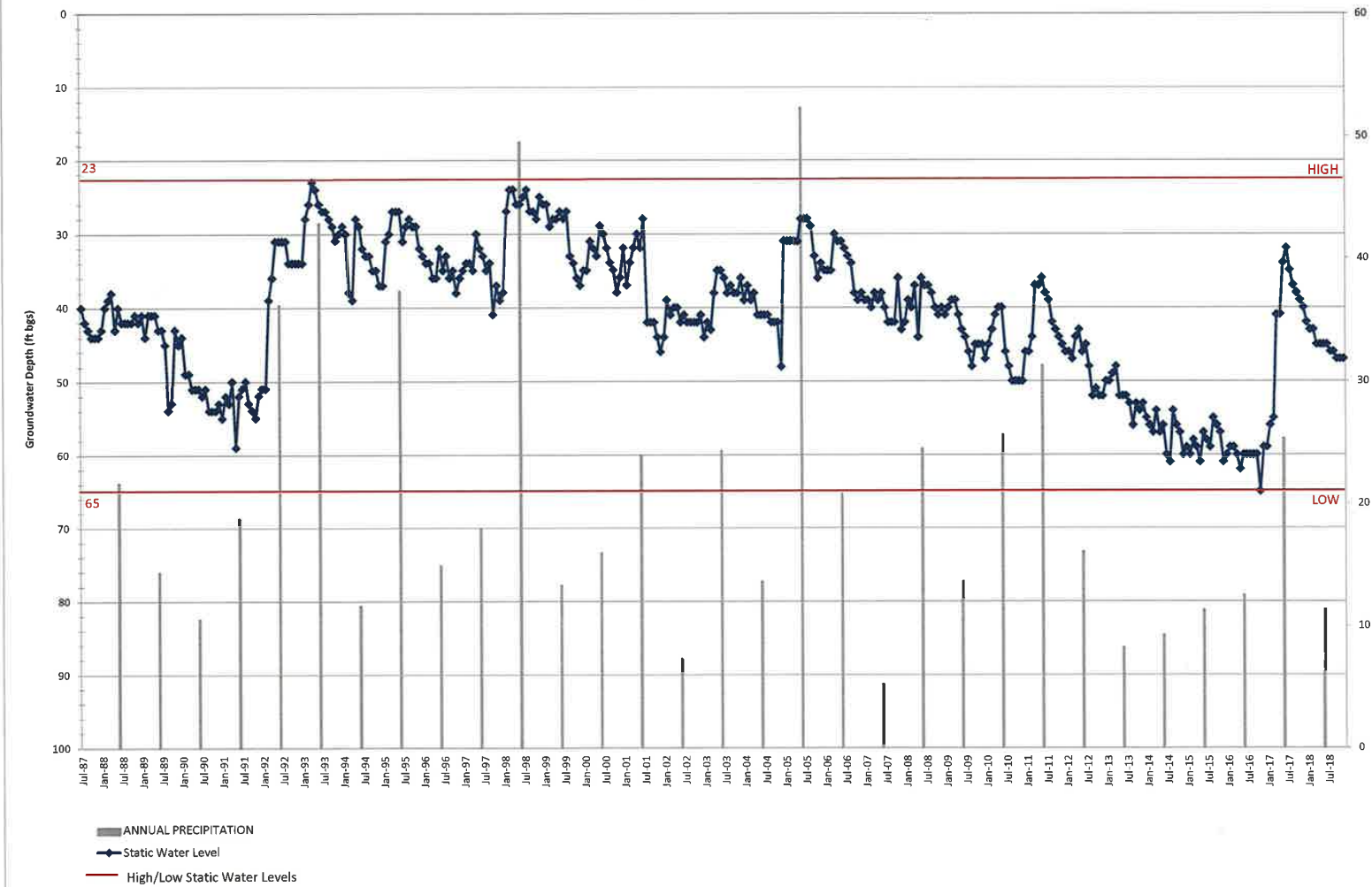
SCV WATER WELL C7
STATIC WATER LEVEL VS PRECIPITATION



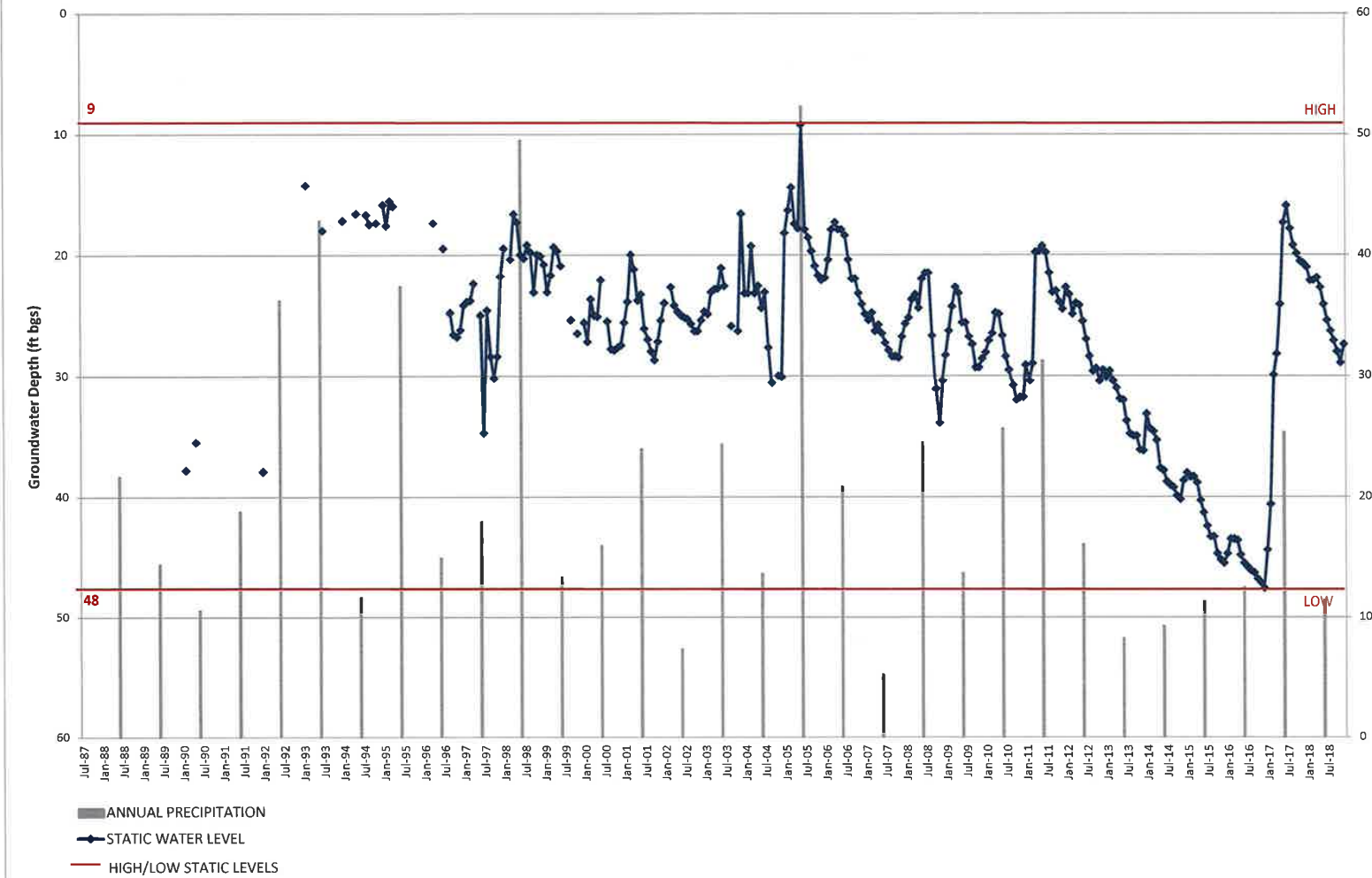
SCV WATER WELL C2
 STATIC WATER LEVEL VS PRECIPITATION



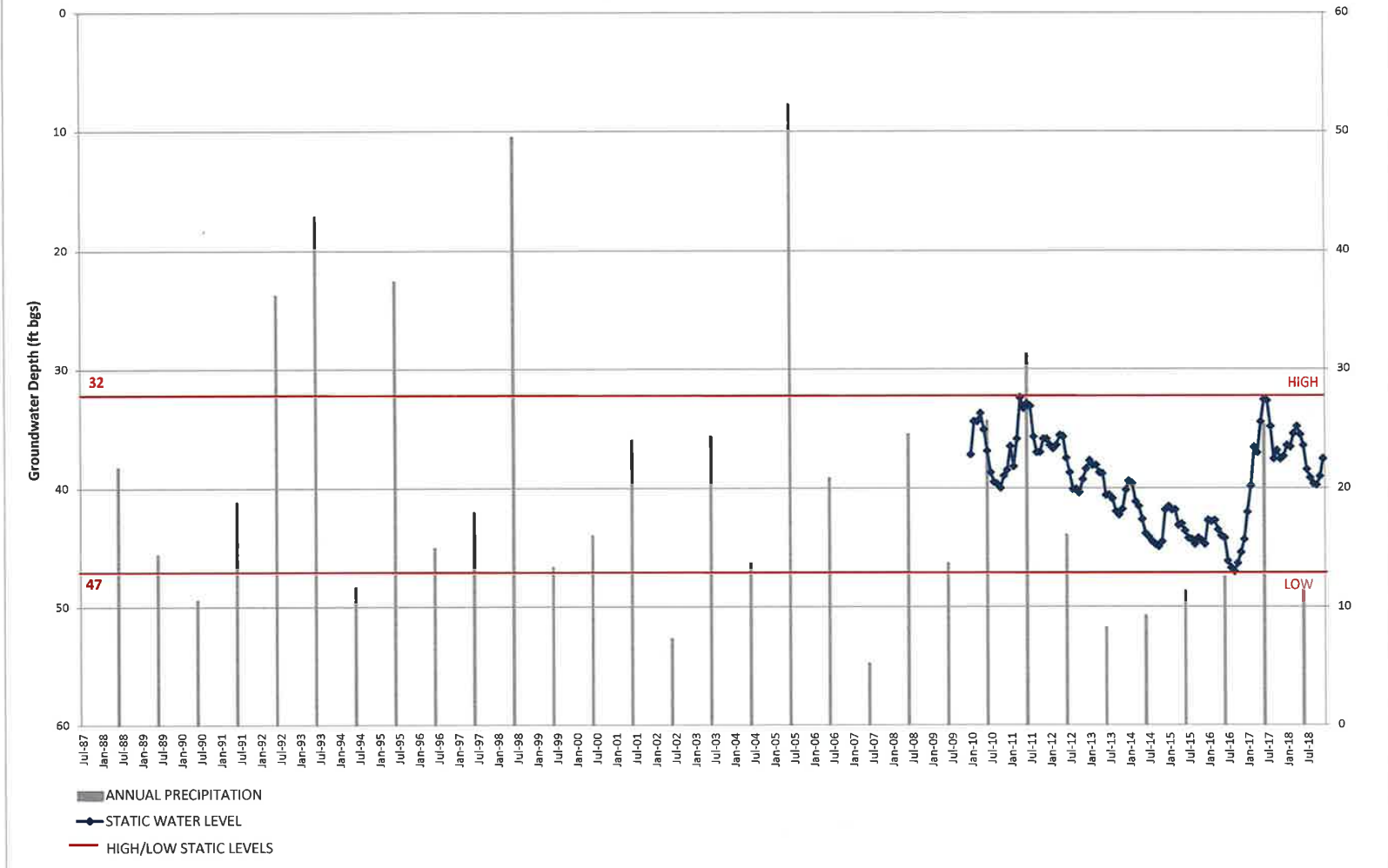
SCV WATER WELL C1
 STATIC WATER LEVEL VS PRECIPITATION



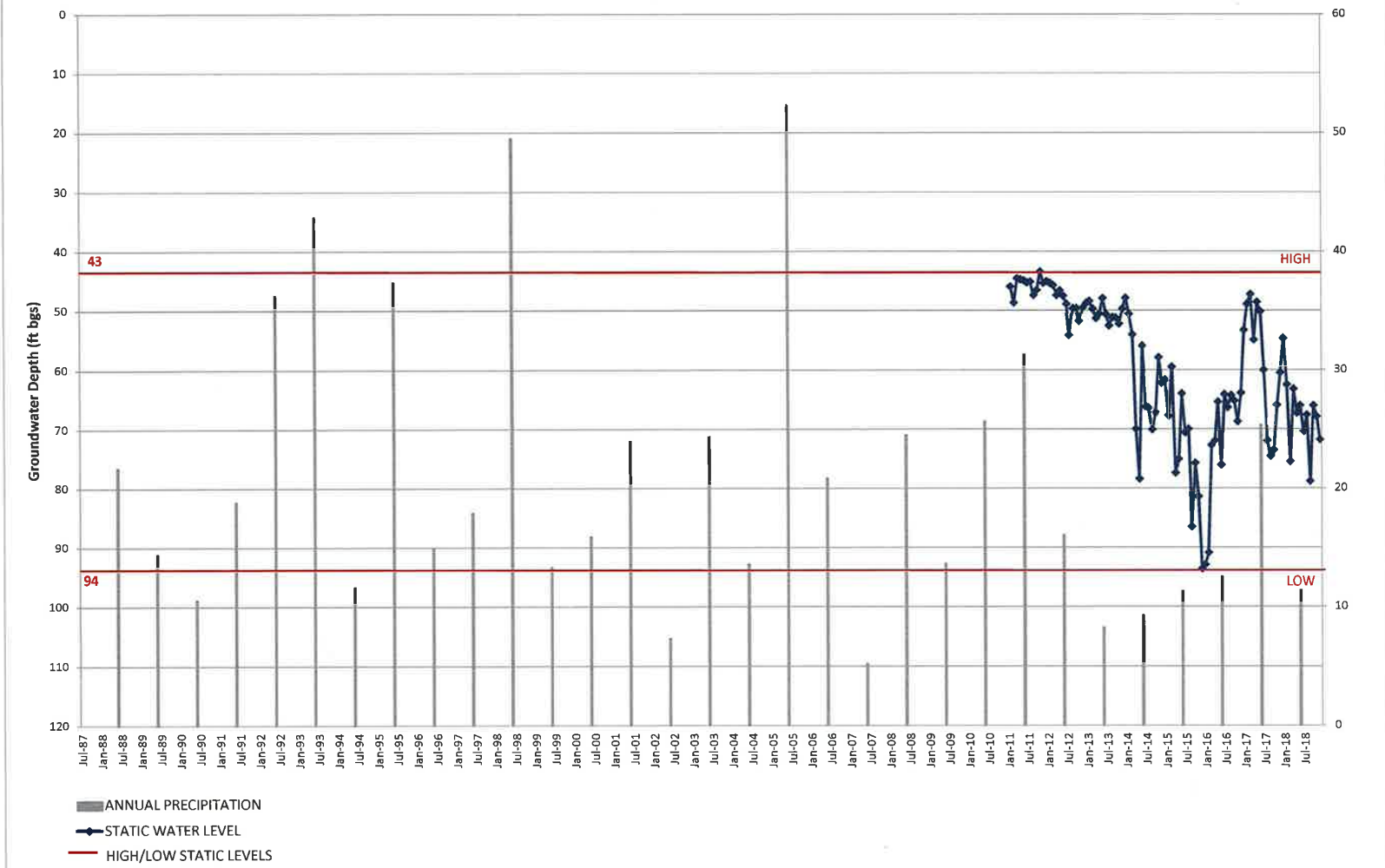
SCV WATER WELL D
 STATIC WATER LEVEL VS PRECIPITATION



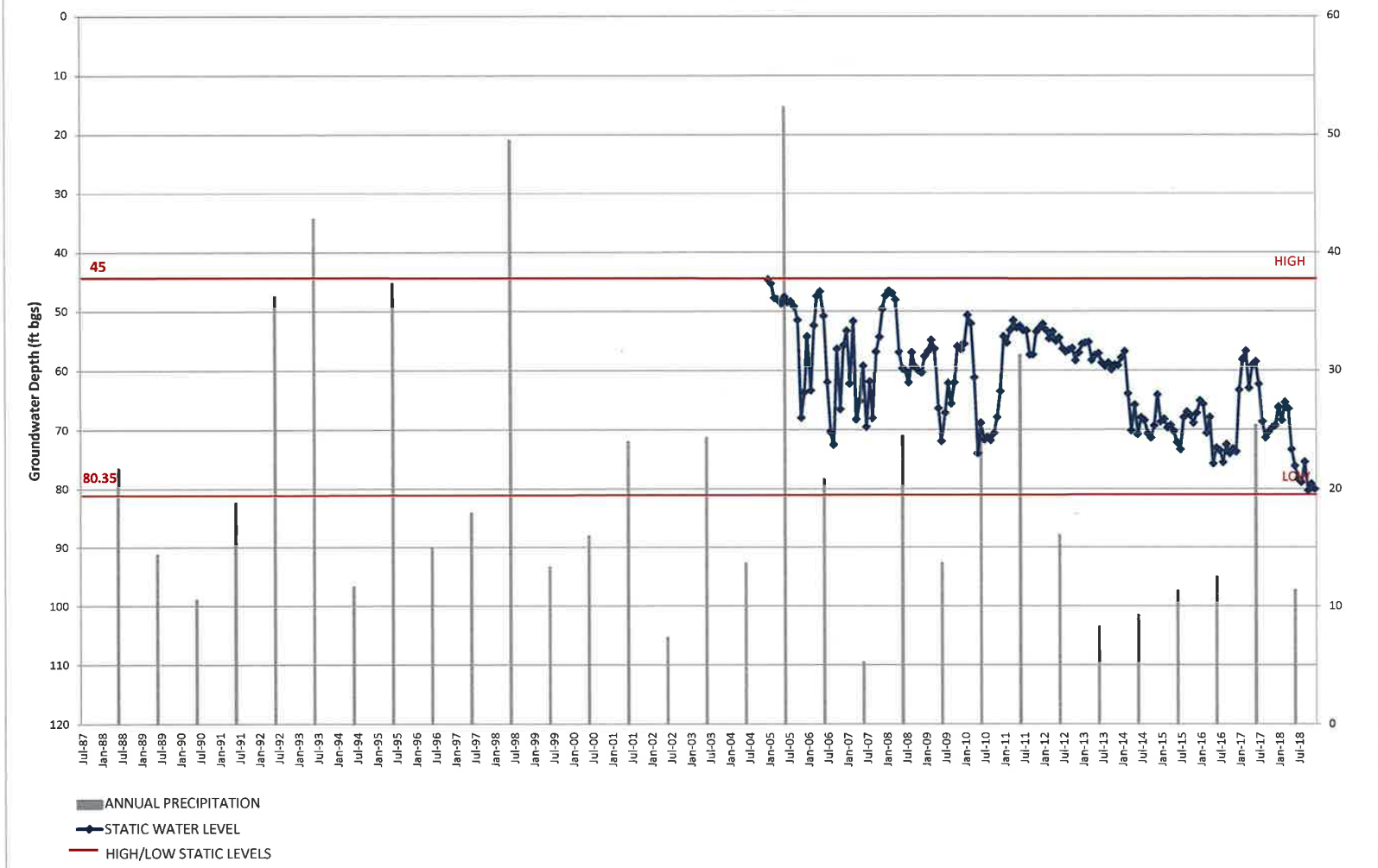
SCV WATER WELL E15
 STATIC WATER LEVEL VS. PRECIPITATION



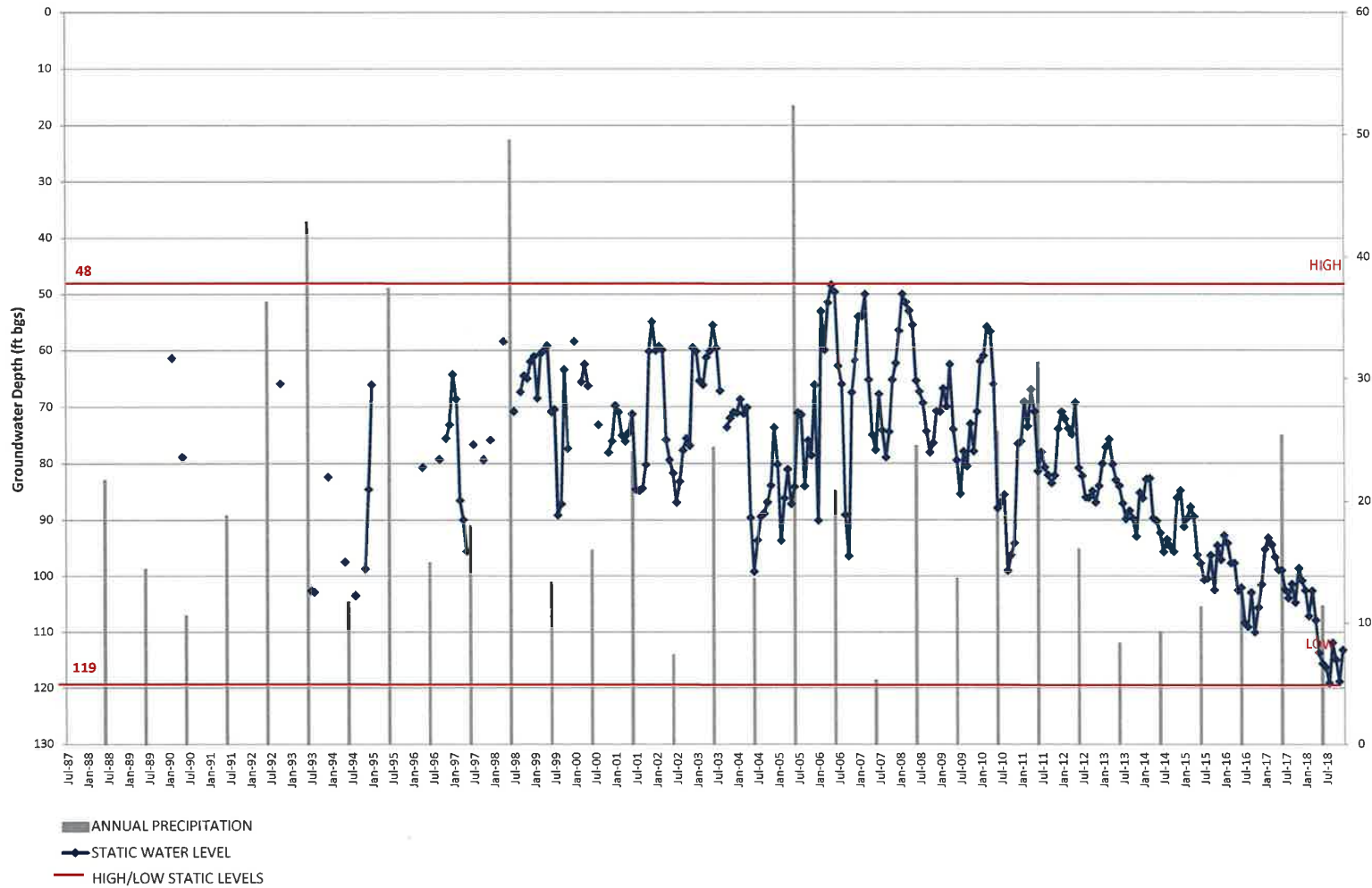
SCV WATER WELL 207
 STATIC WATER LEVEL VS PRECIPITATION



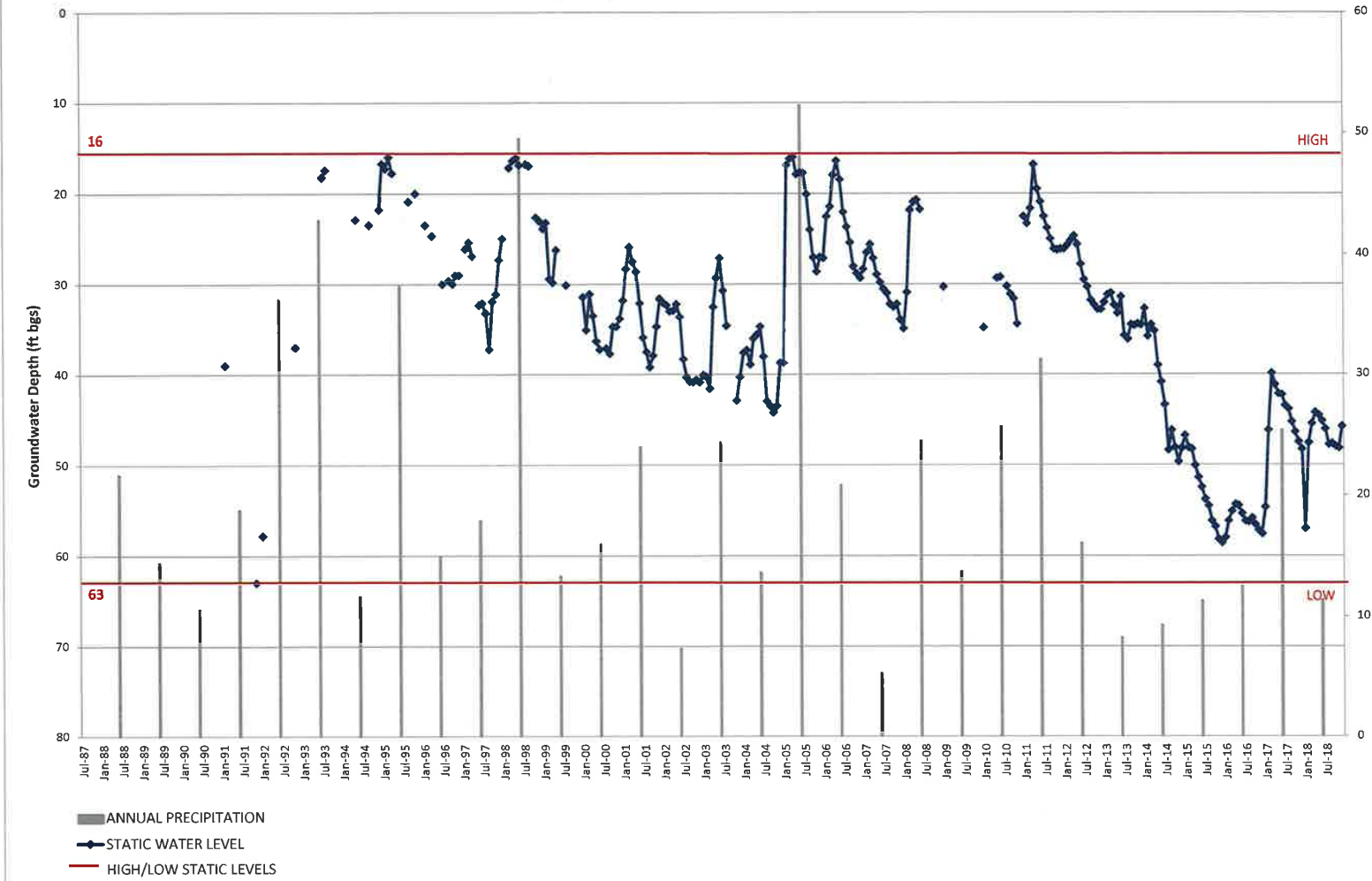
SCV WATER WELL 206
 STATIC WATER LEVEL VS PRECIPITATION



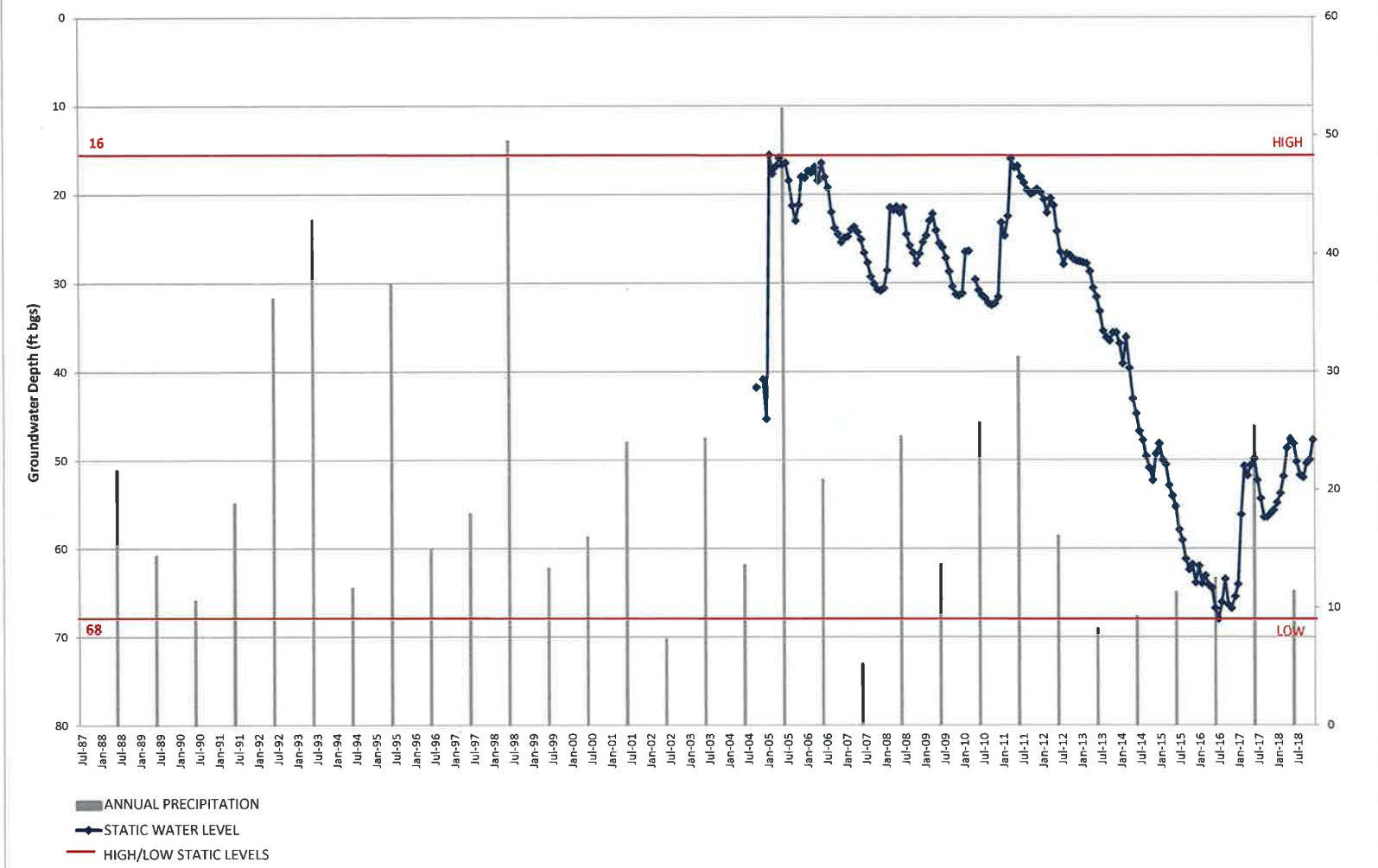
SCV WATER WELL 160
 STATIC WATER LEVEL VS PRECIPITATION



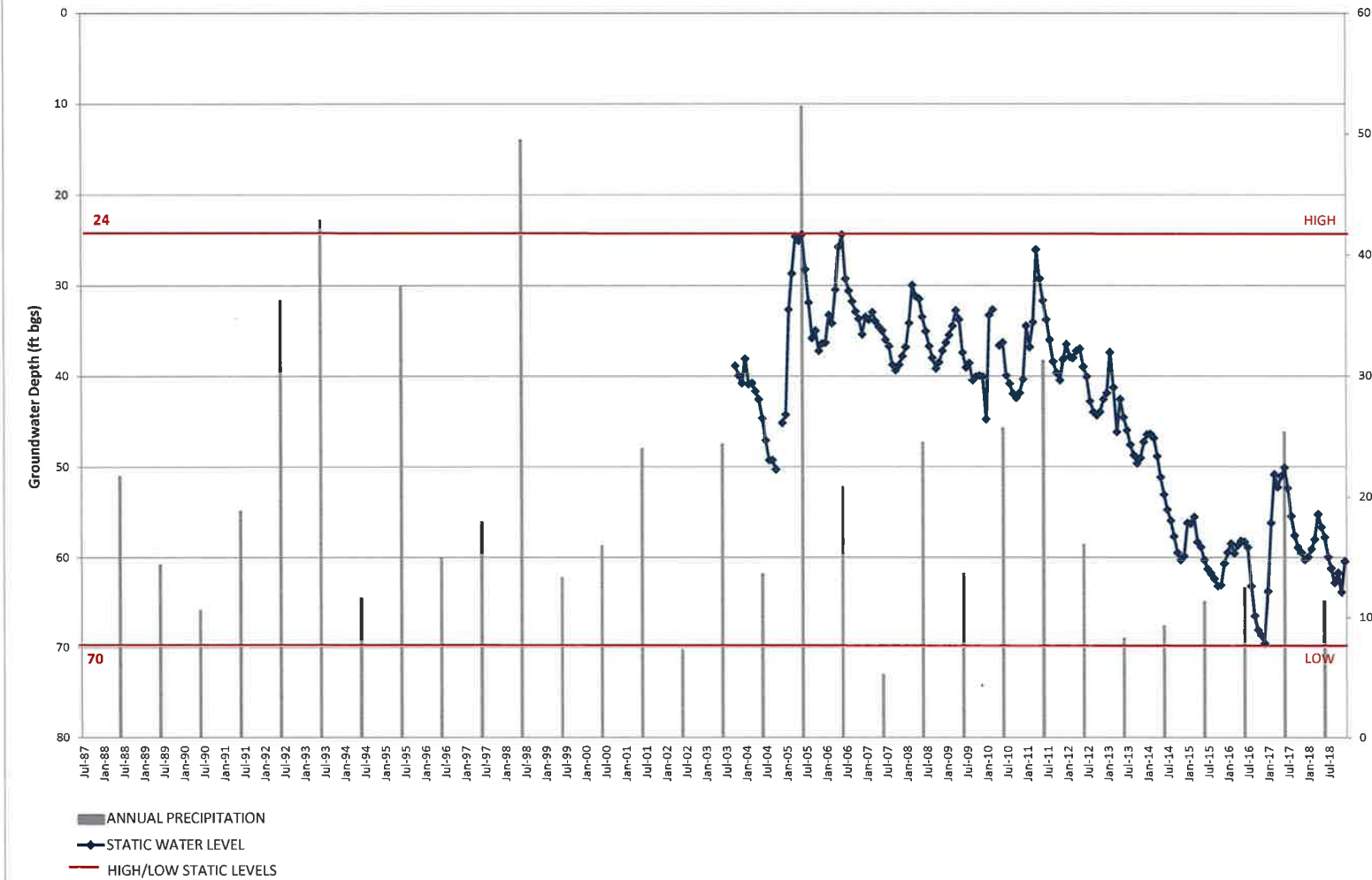
SCV WATER WELL W9
 STATIC WATER LEVEL VS PRECIPITATION



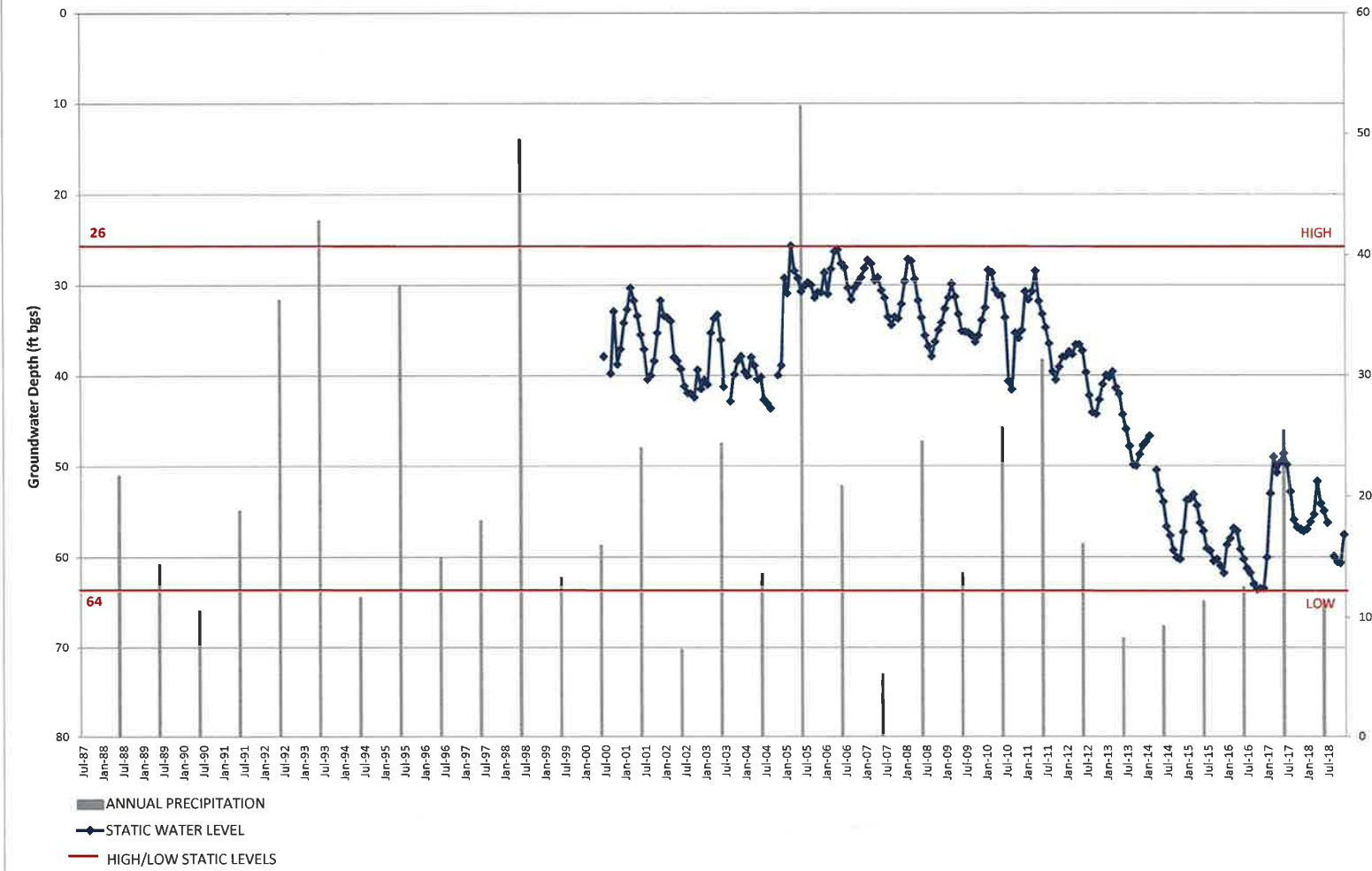
SCV WATER WELL W11
 STATIC WATER LEVEL PRECIPITATION



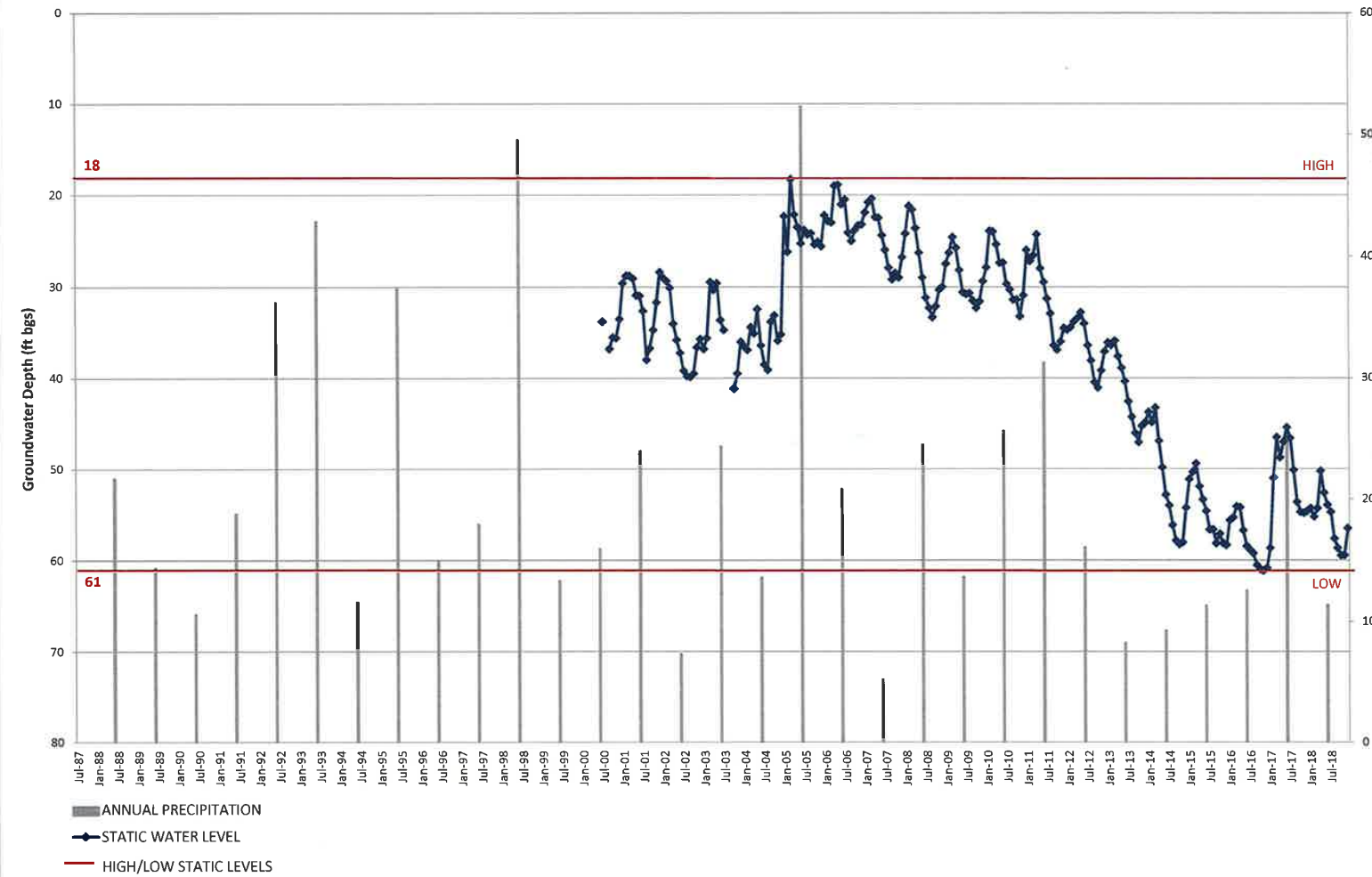
SCV WATER WELL W10
STATIC WATER LEVEL VS PRECIPITATION



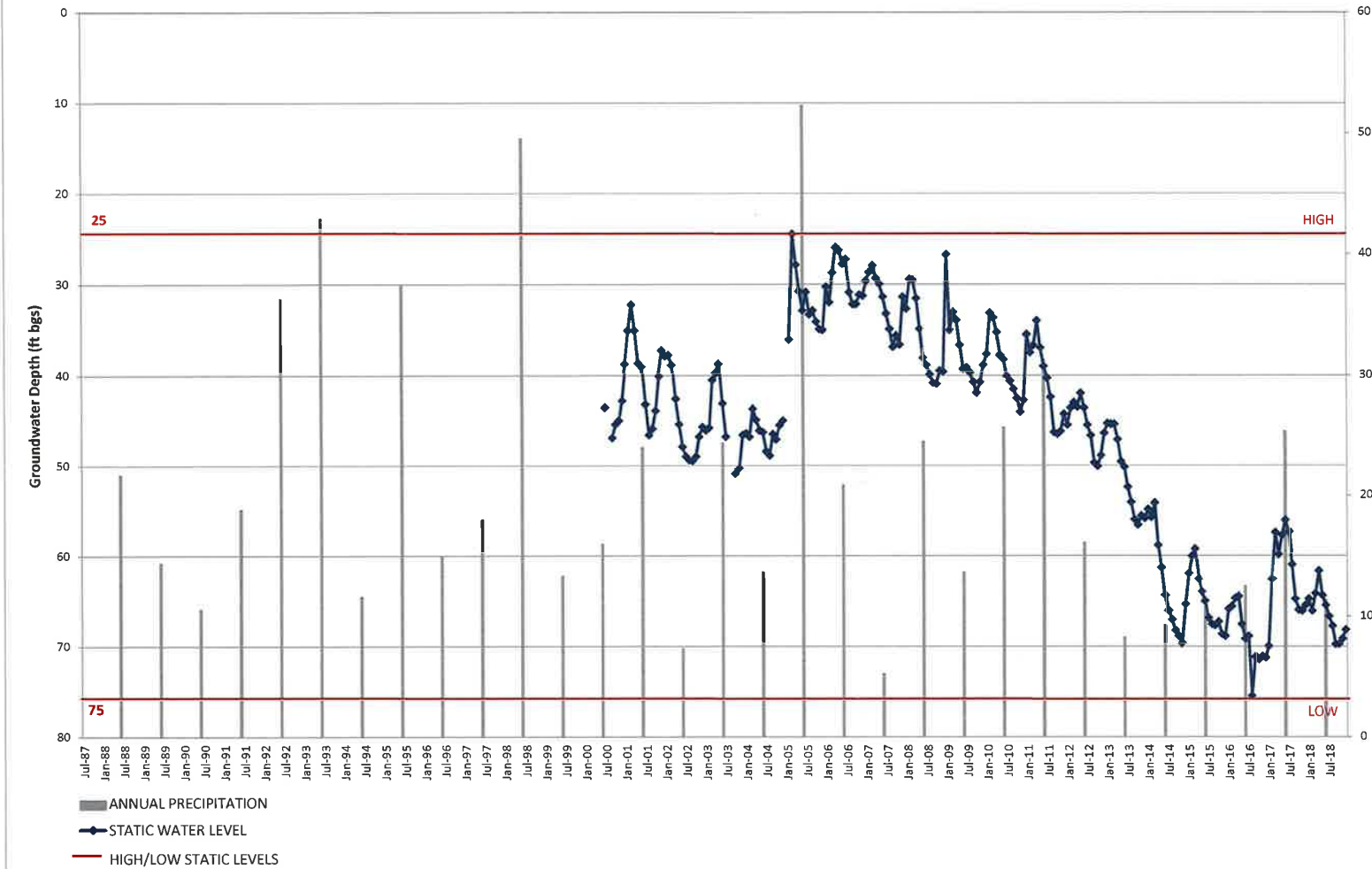
SCV WATER WELL S6
STATIC WATER LEVEL VS PRECIPITATION



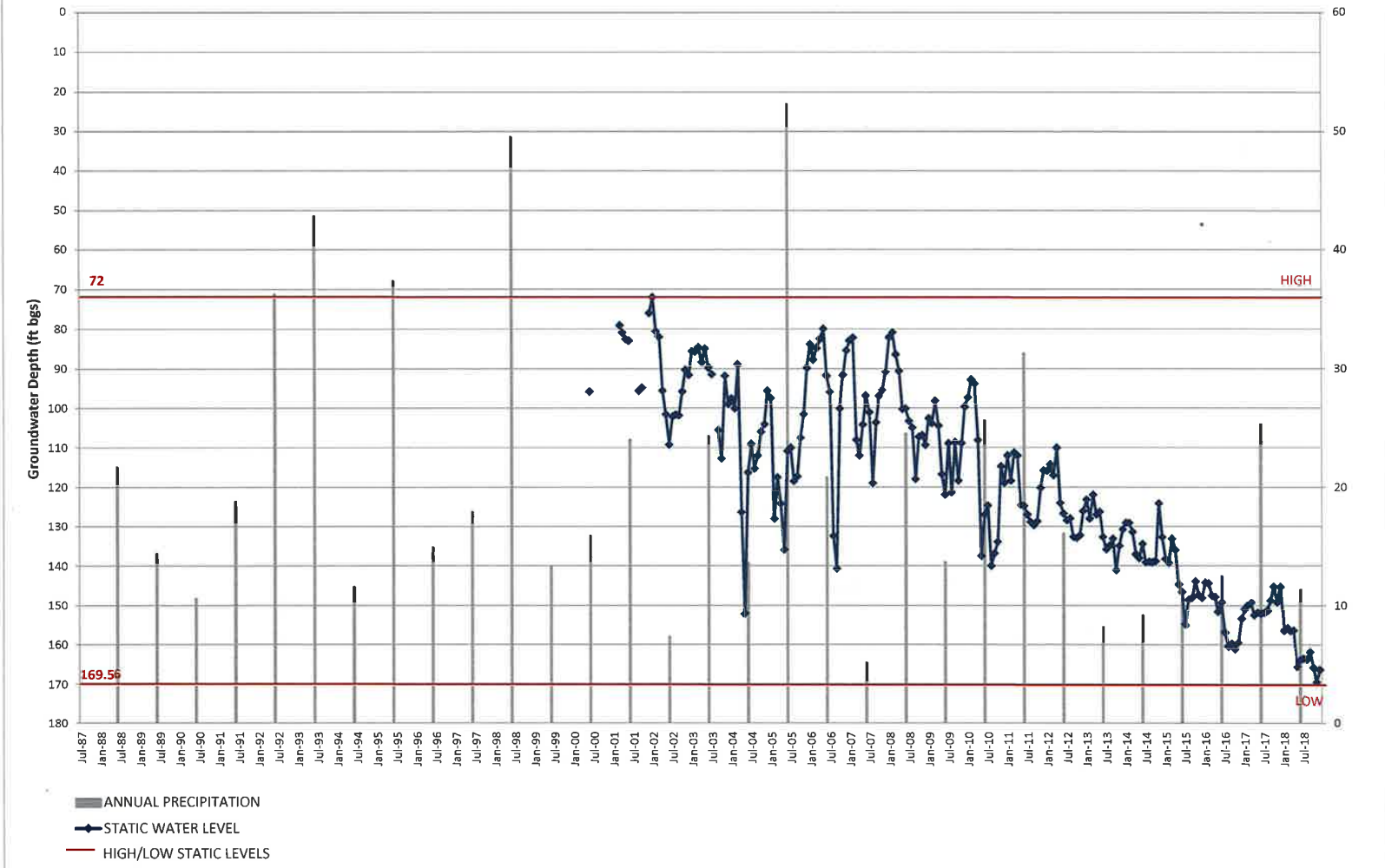
SCV WATER WELL S7
STATIC WATER LEVEL VS PRECIPITATION



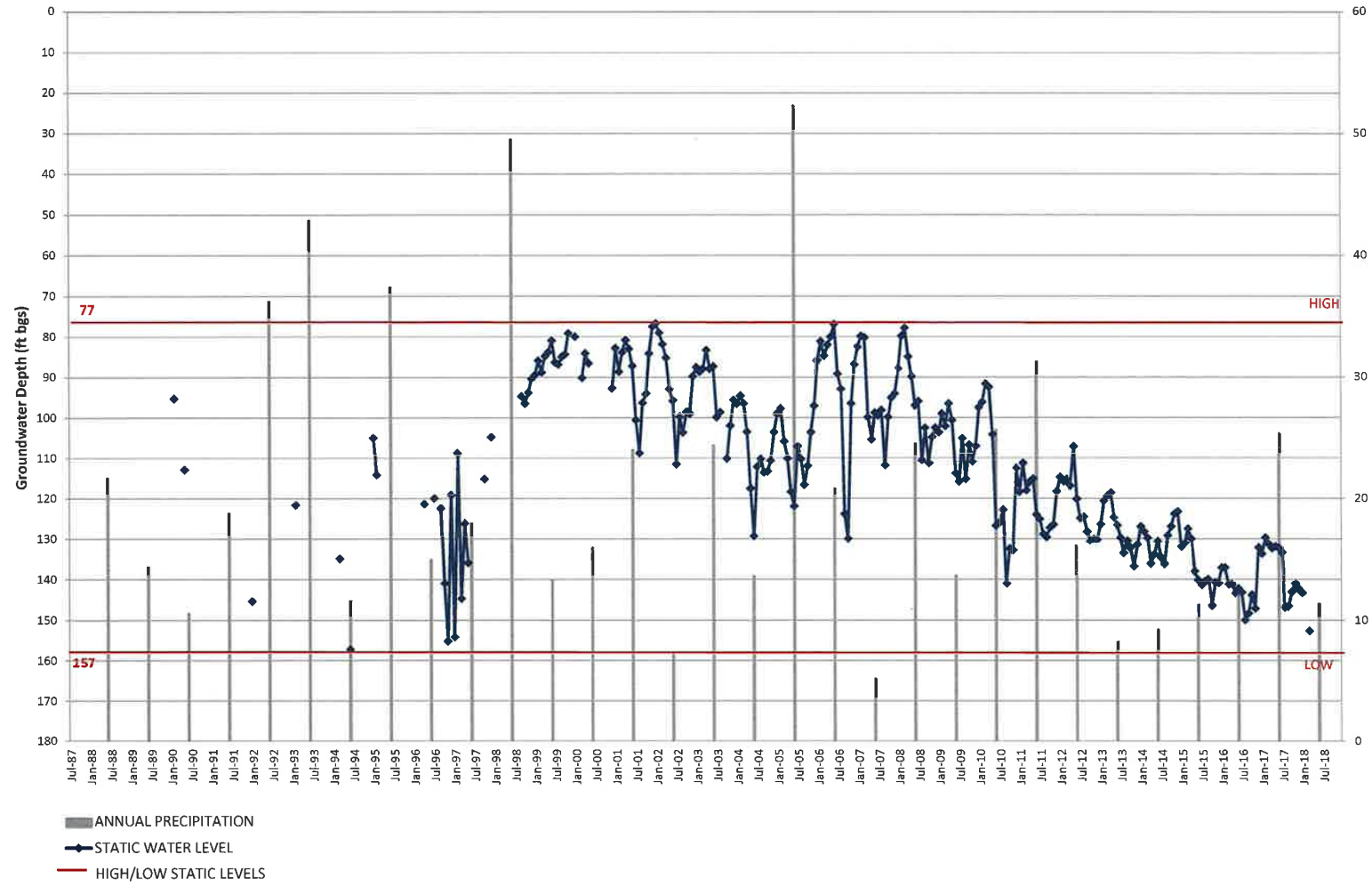
SCV WATER WELL S8
STATIC WATER LEVEL VS PRECIPITATION



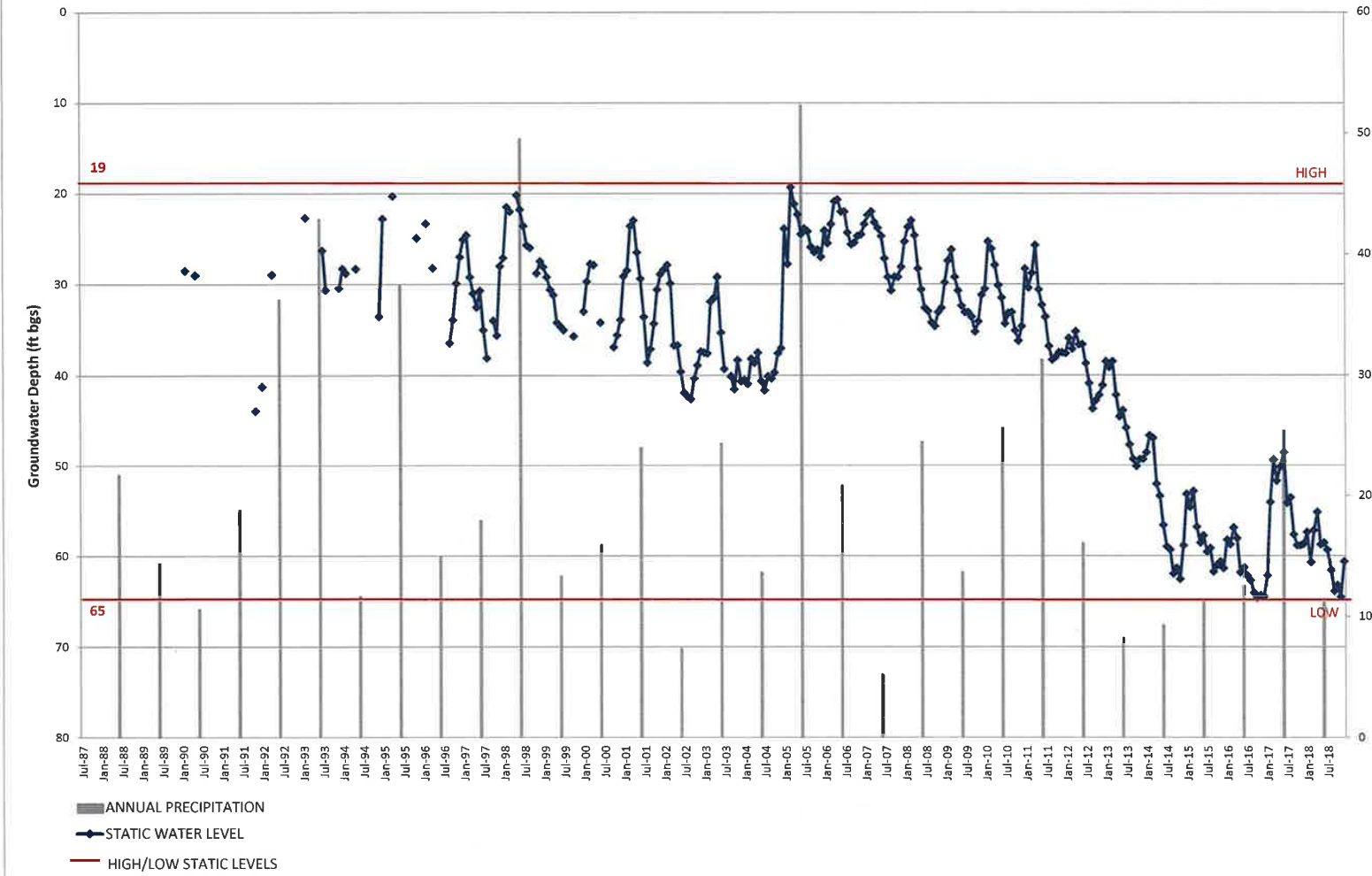
SCV WATER WELL 205
STATIC WATER LEVEL VS PRECIPITATION



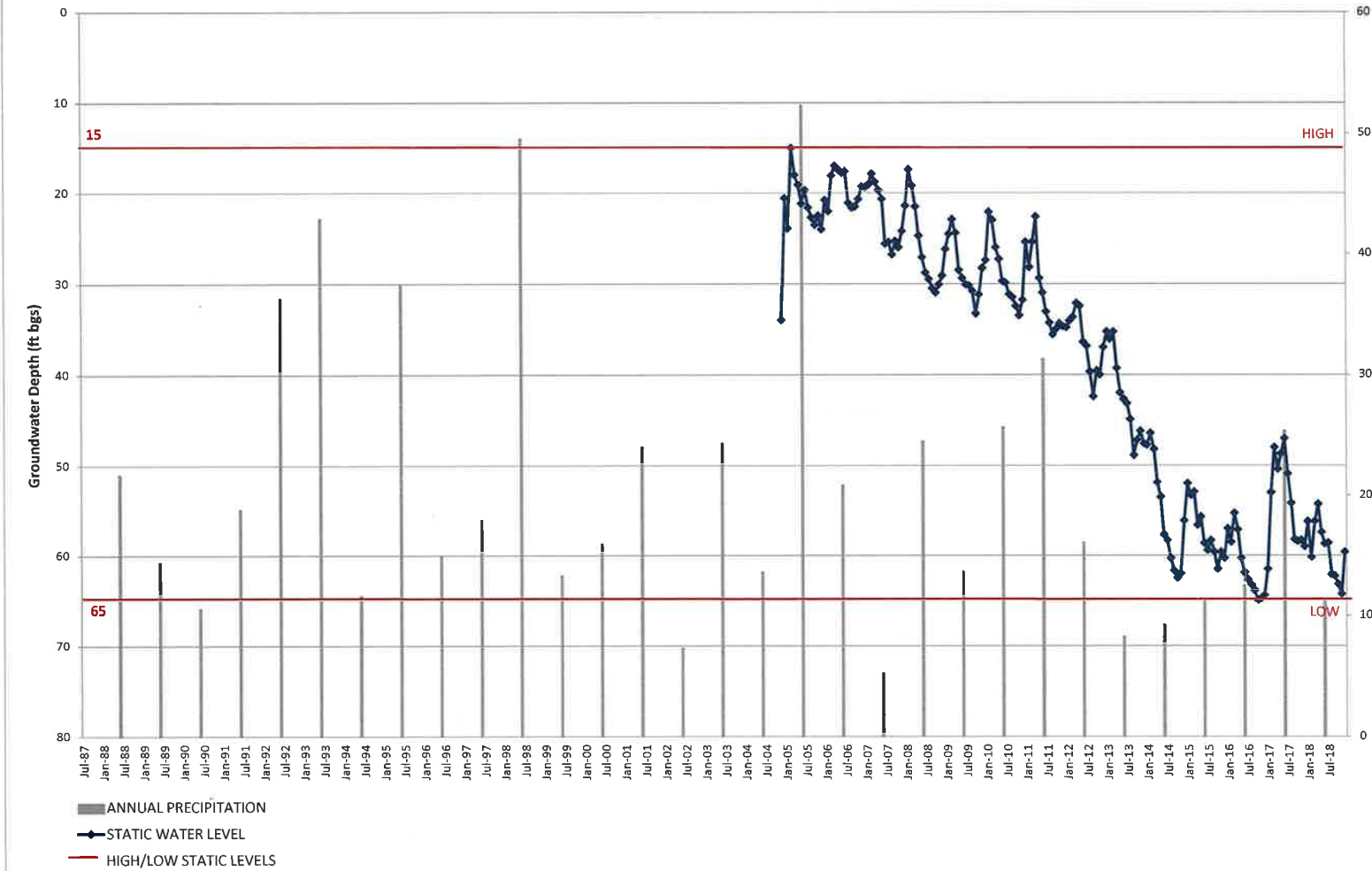
SCV WATER WELL 201
 STATIC WATER LEVEL VS PRECIPITATION



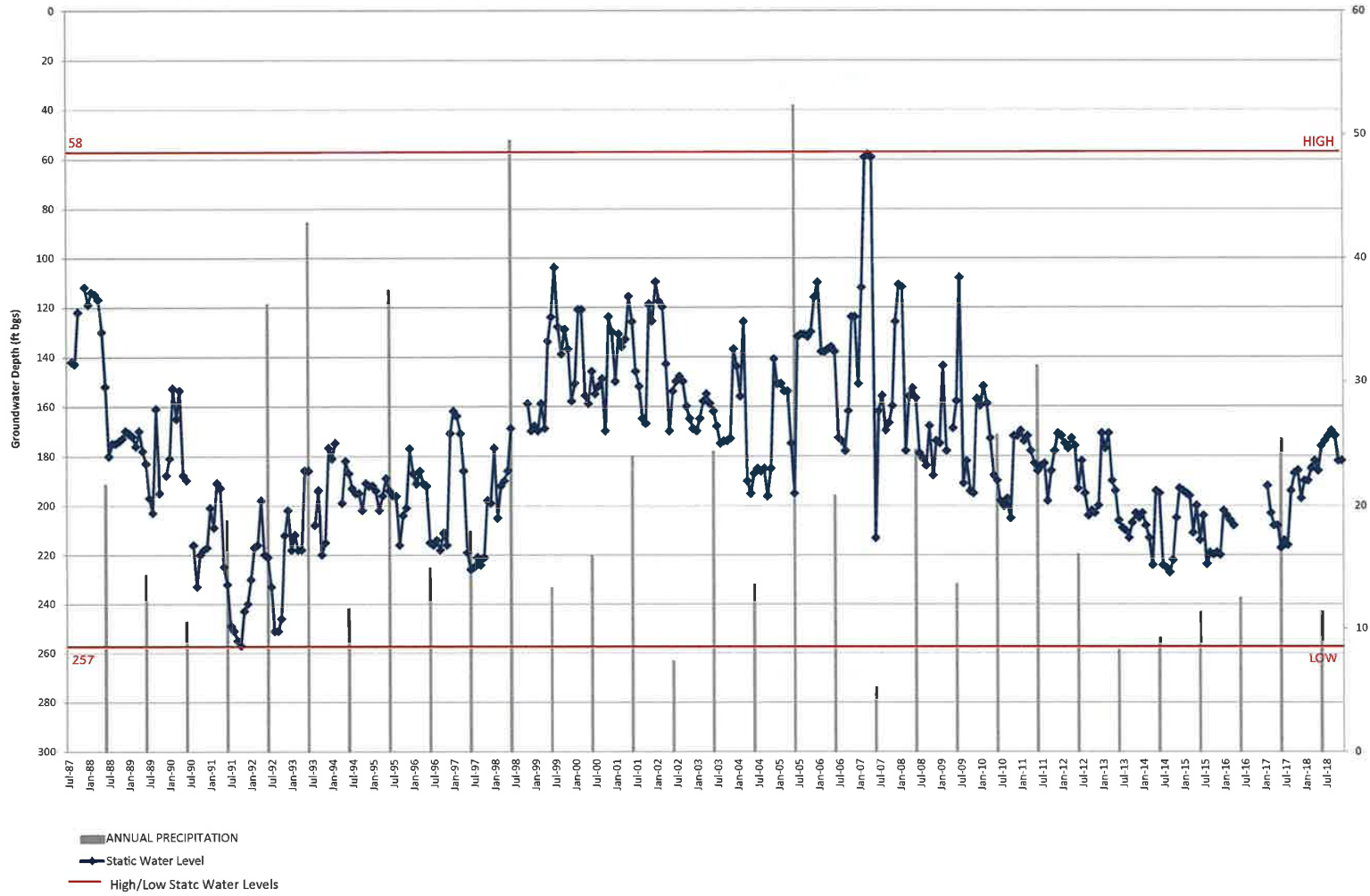
SCV WATER WELL N
 STATIC WATER LEVEL VS PRECIPITATION



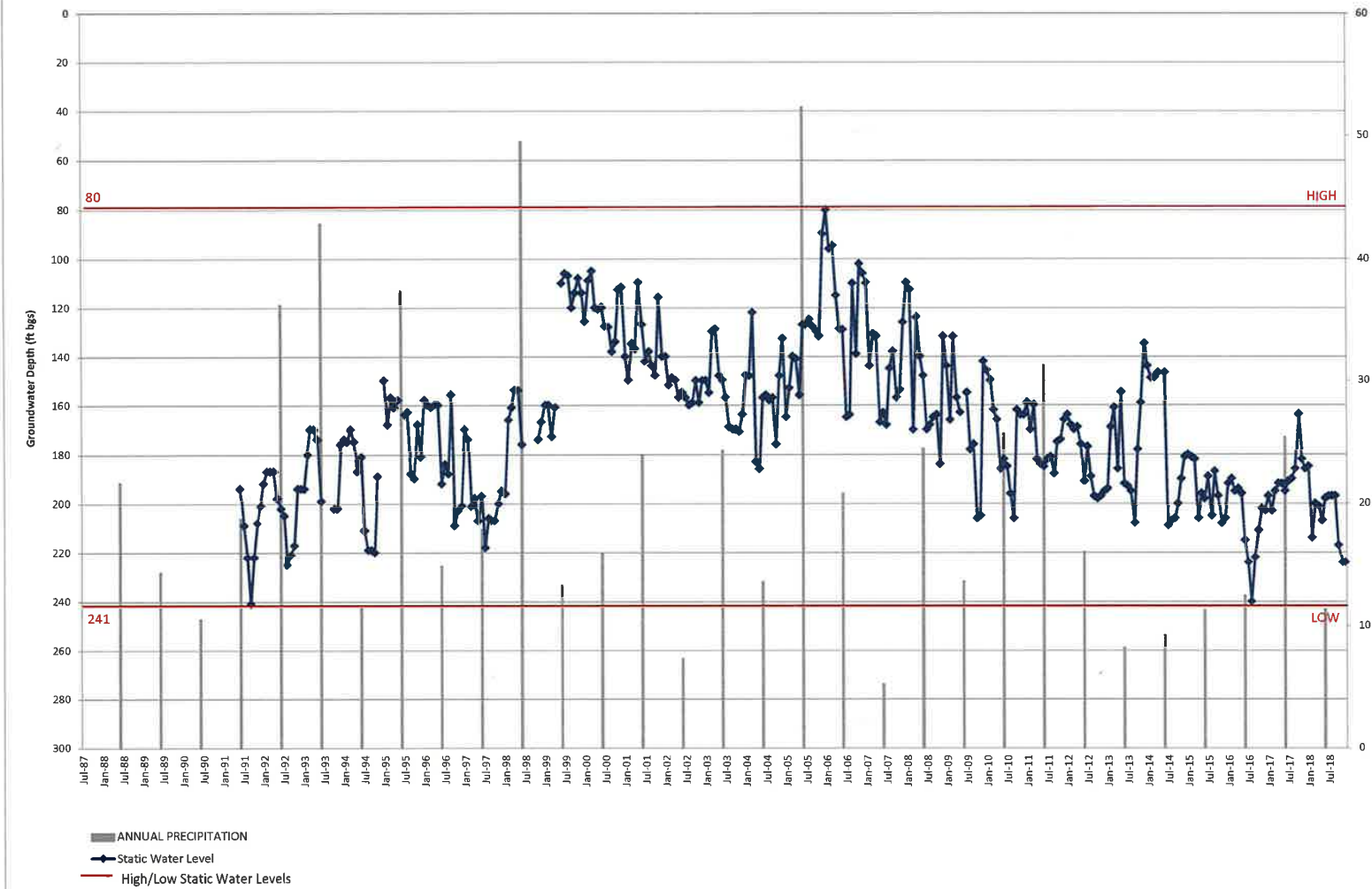
SCV WATER WELL N7
 STATIC WATER LEVEL VS PRECIPITATION



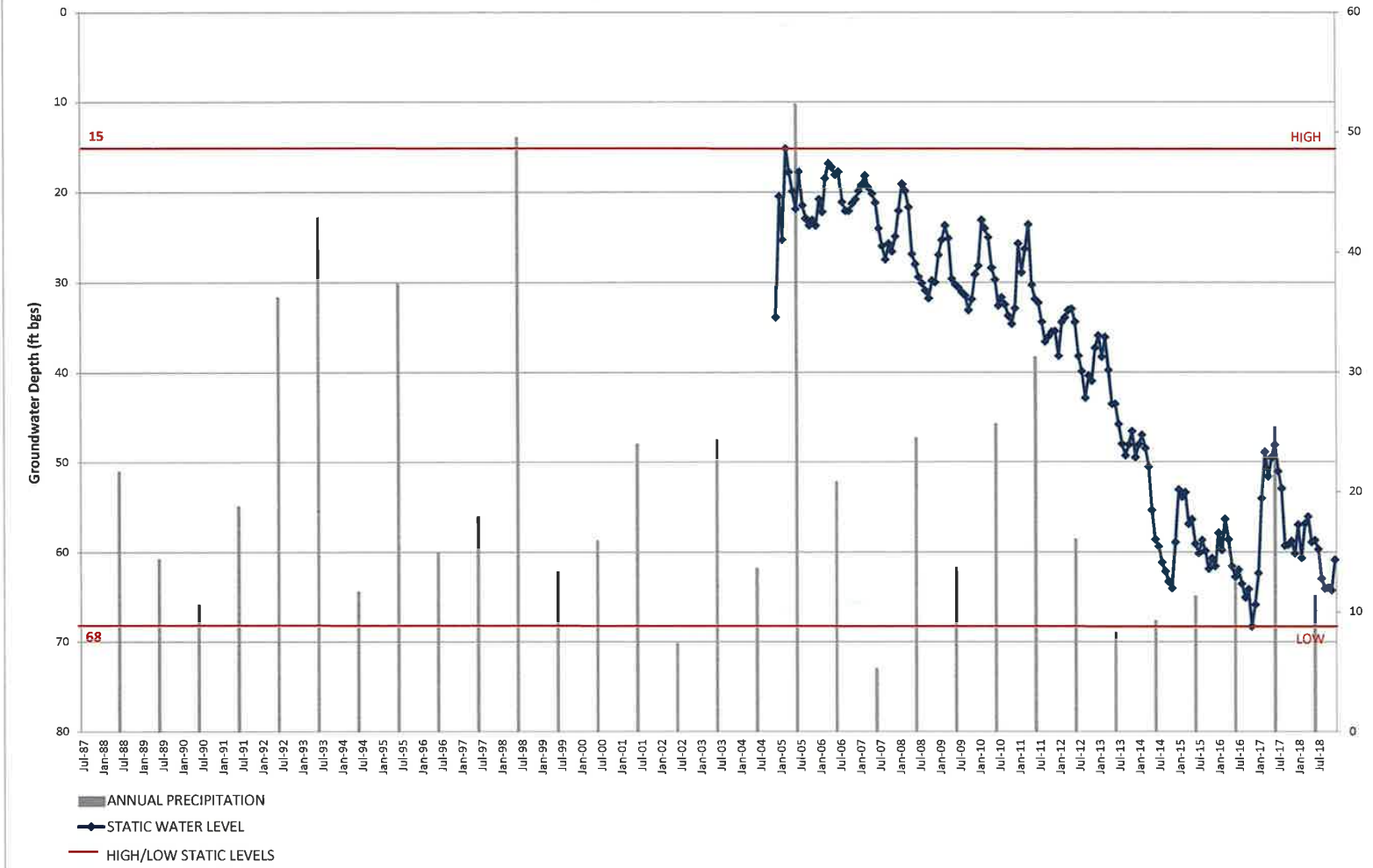
SCV WATER WELL N12
 STATIC WATER LEVEL VS PRECIPITATION



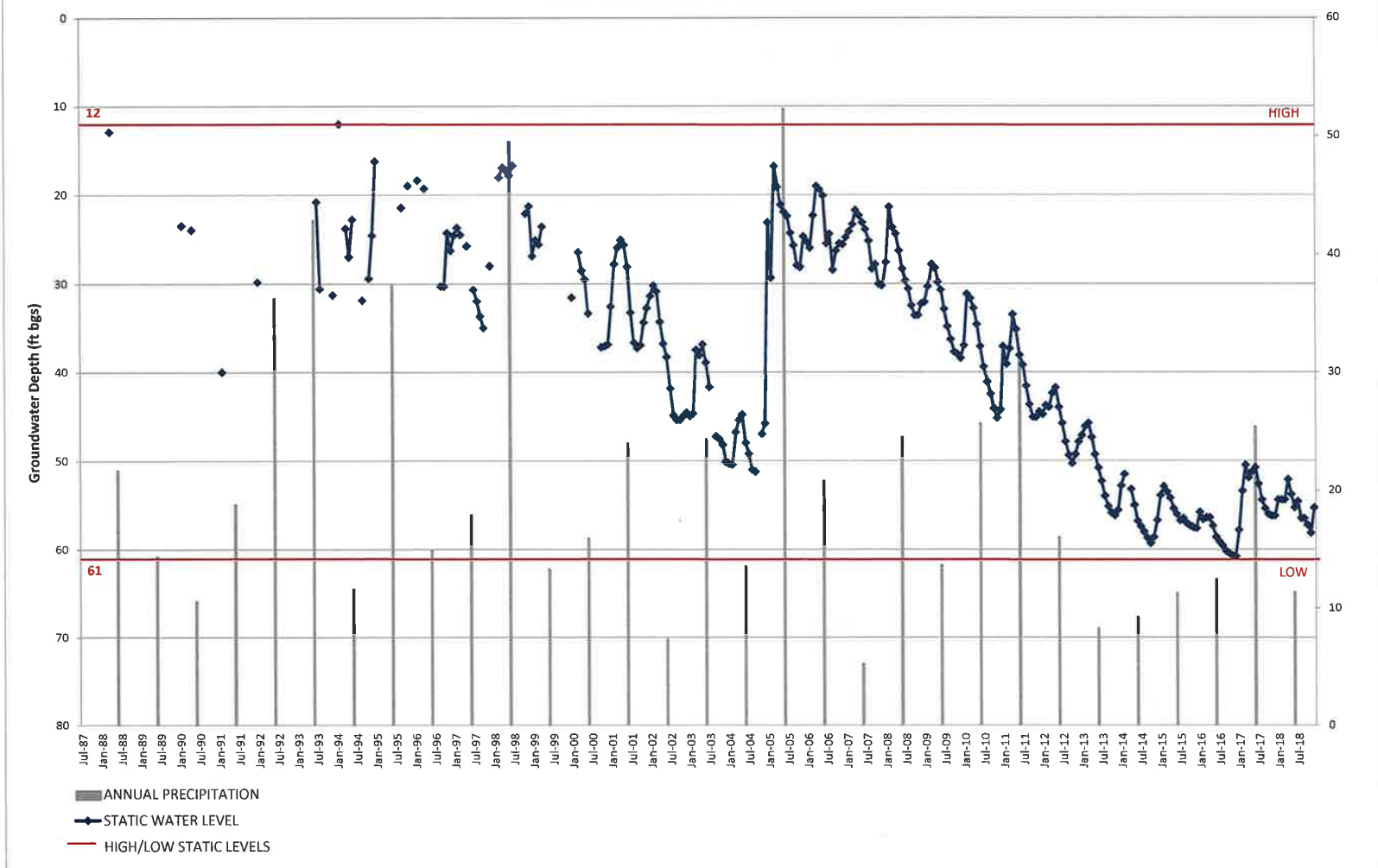
SCV WATER WELL N13
 STATIC WATER LEVEL VS PRECIPITATION



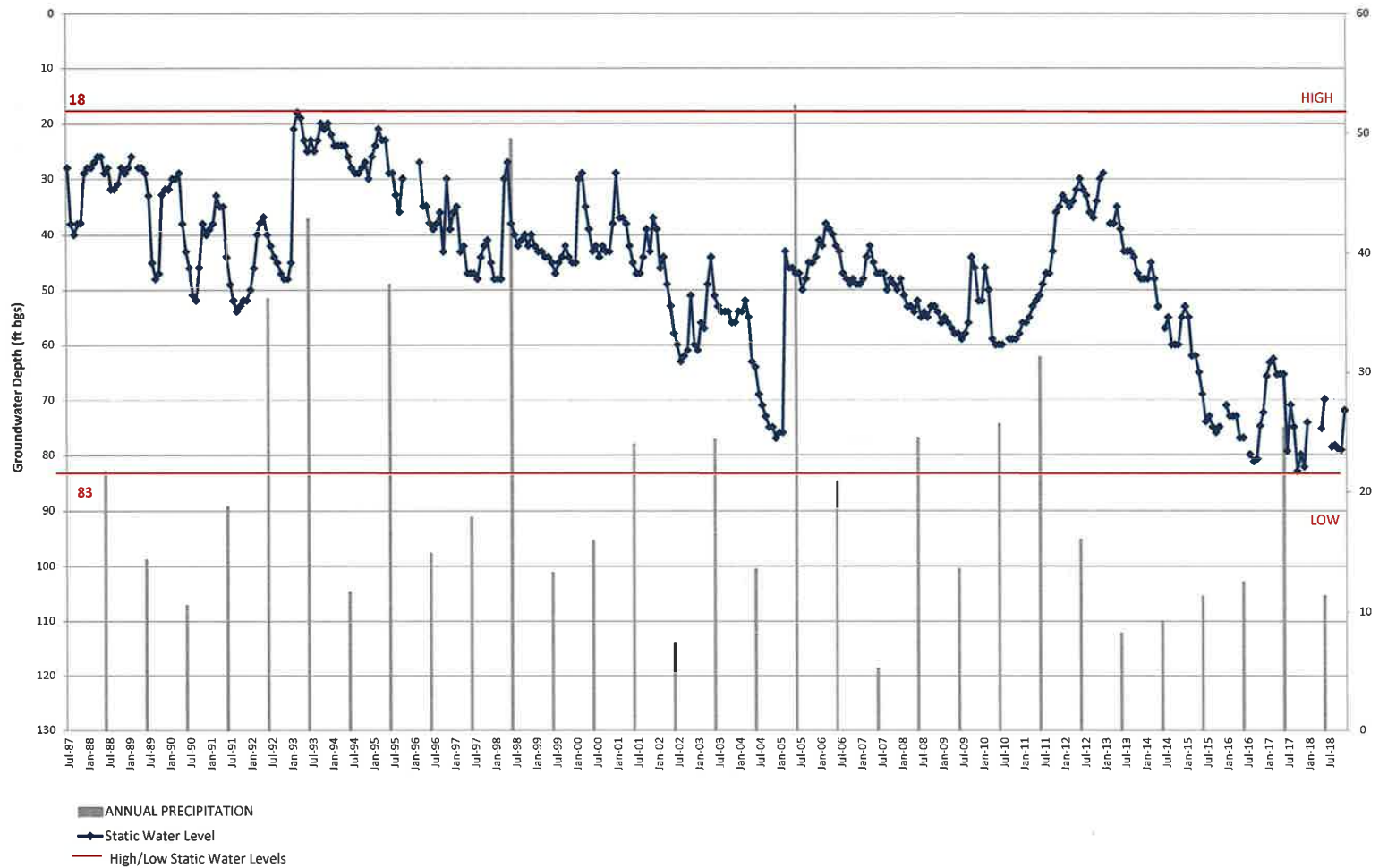
SCV WATER WELL N8
 STATIC WATER LEVEL VS PRECIPITATION



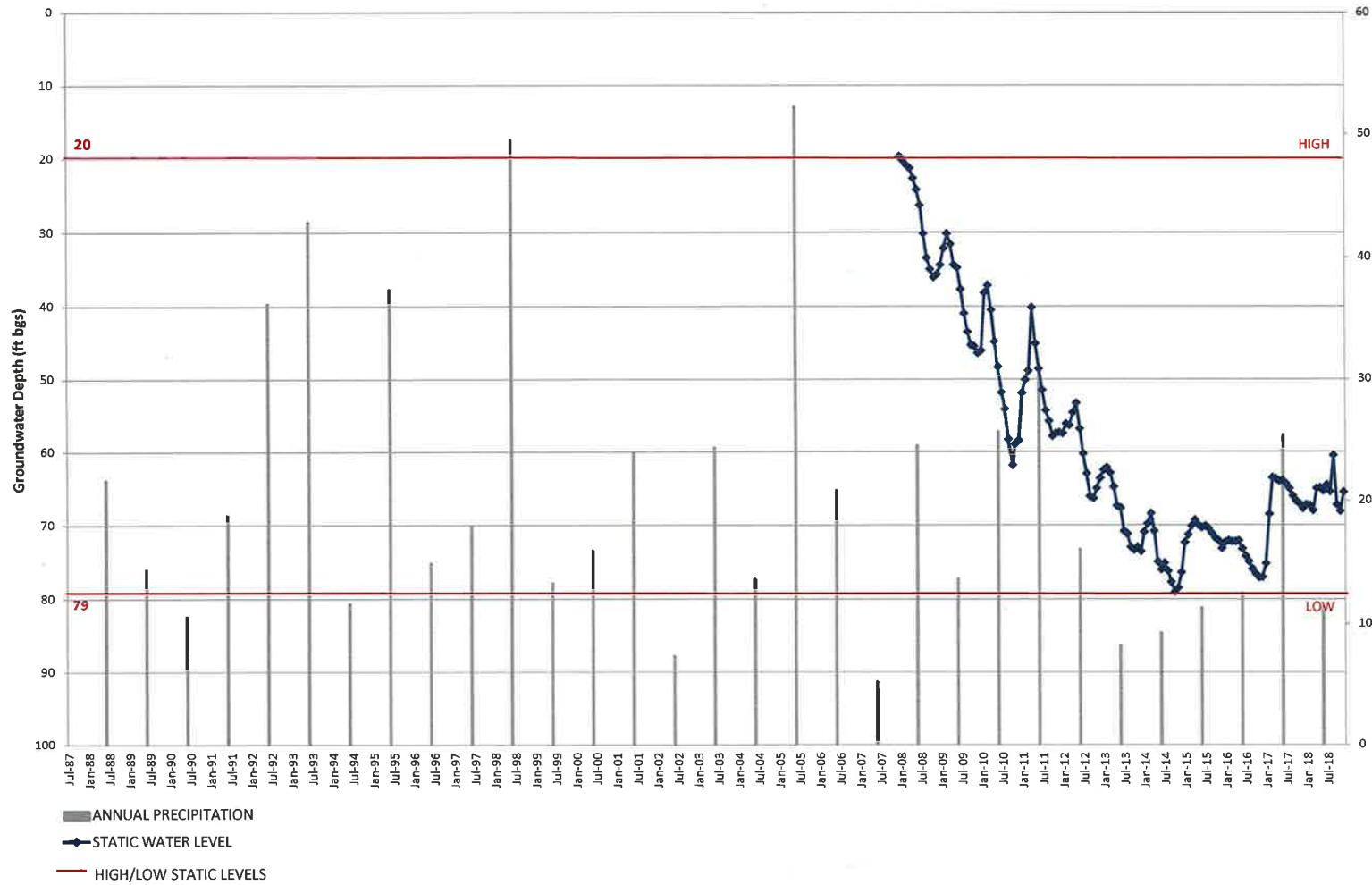
SCV WATER WELL Q2
 STATIC WATER LEVEL VS PRECIPITATION



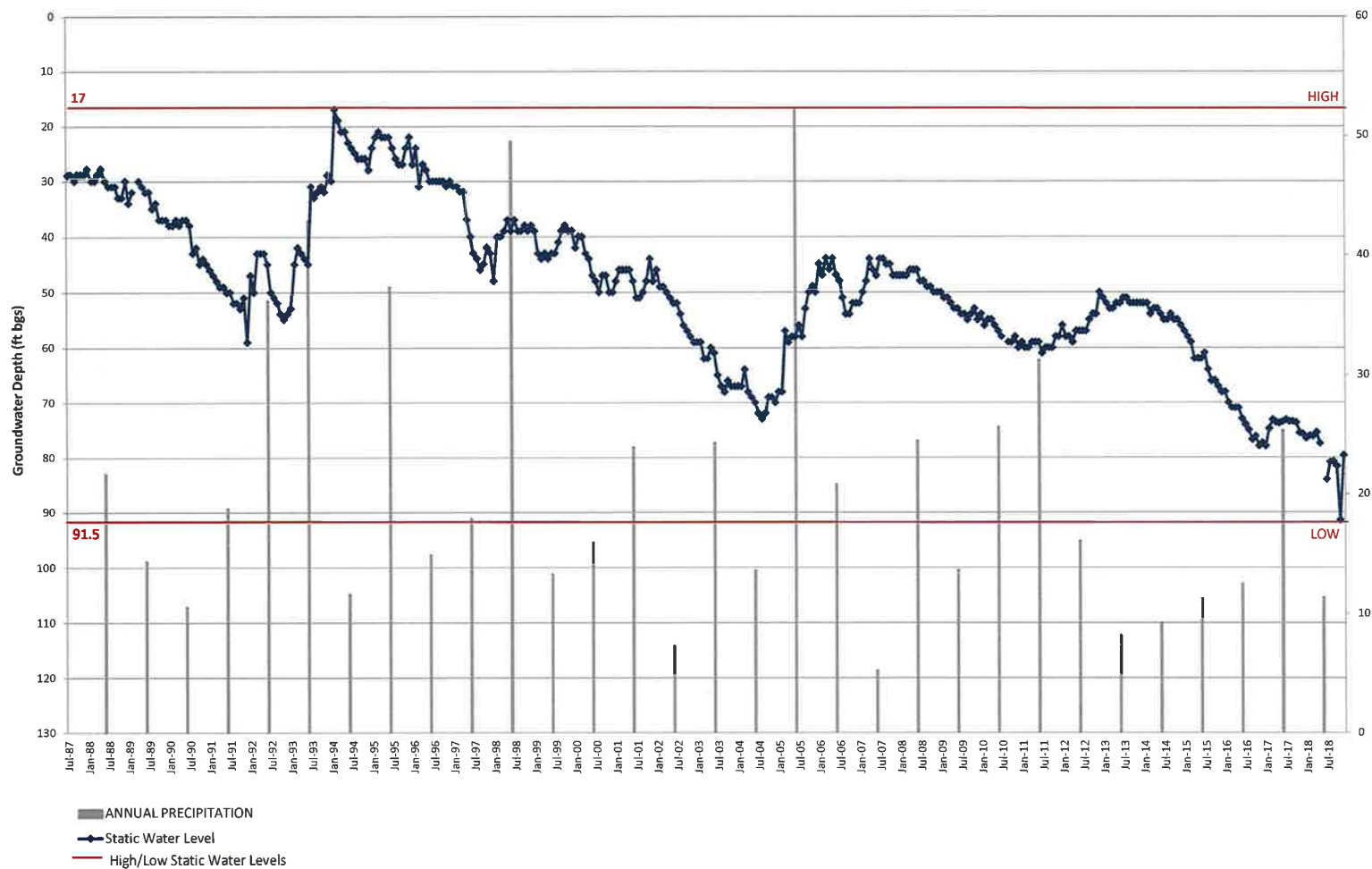
SCV WATER WELL GUIDA #14
 STATIC WATER LEVEL VS PRECIPITATION



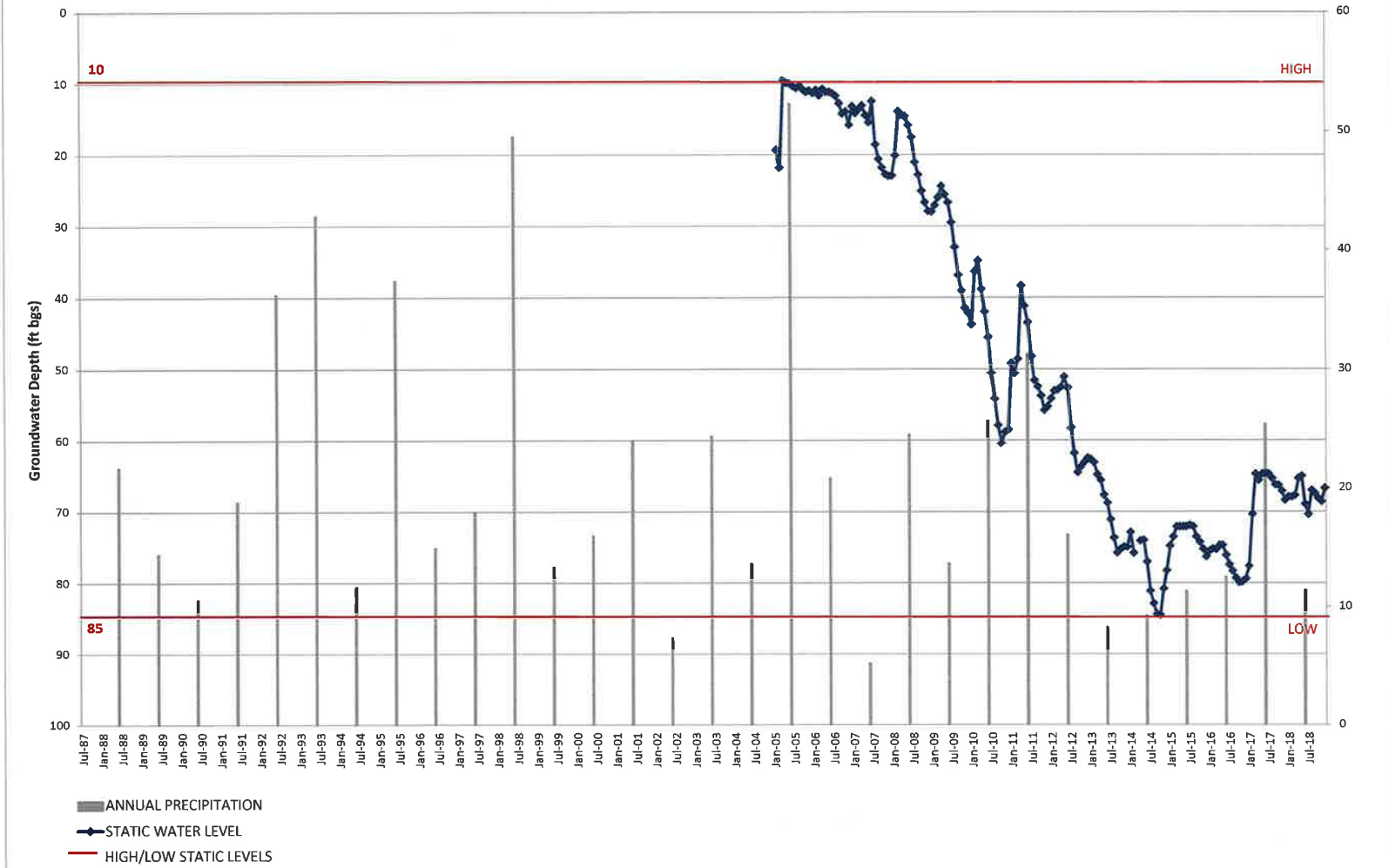
SCV WATER WELL T7
STATIC WATER LEVEL VS PRECIPITATION



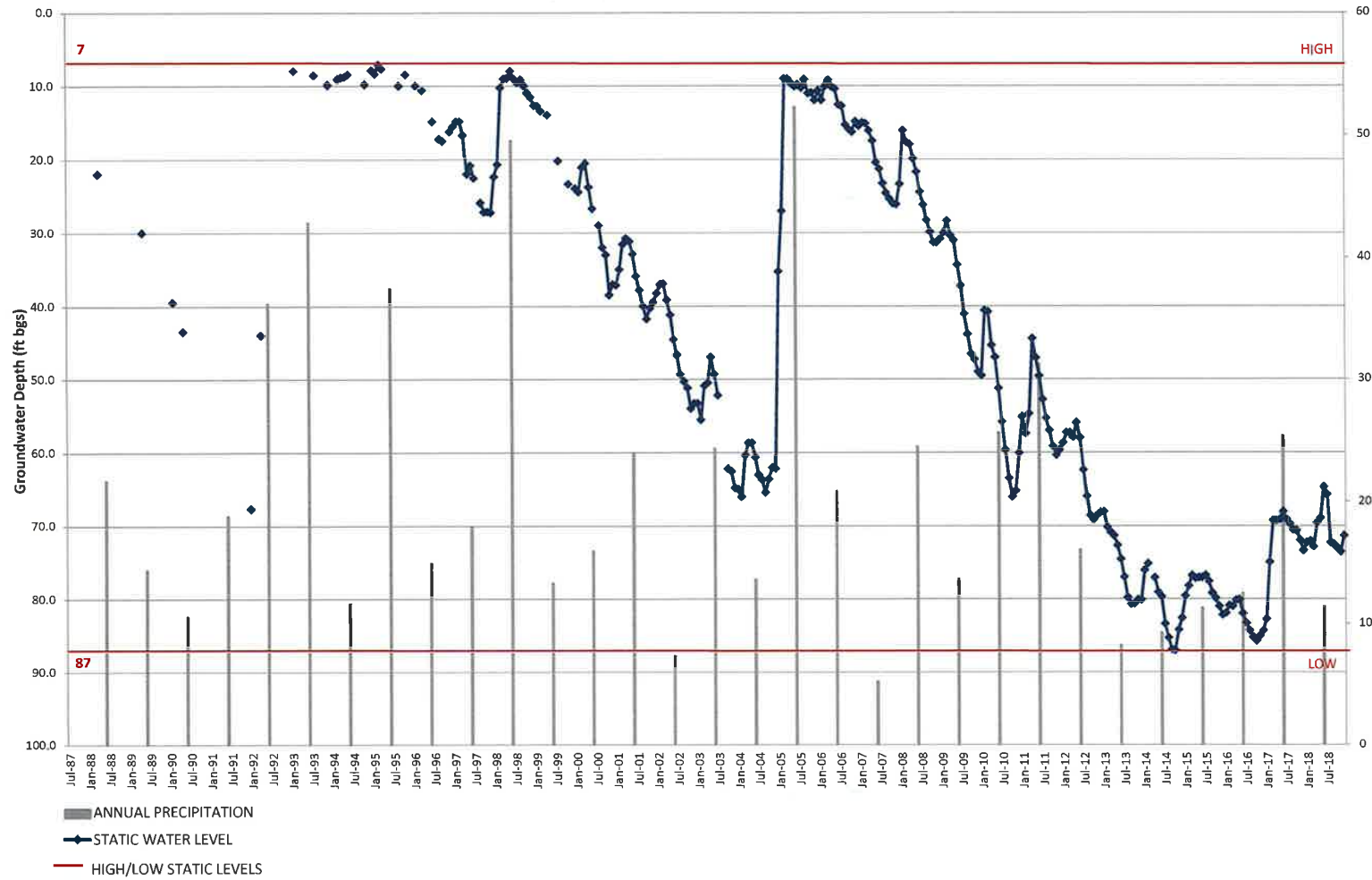
SCV WATER WELL CLARK #15
 STATIC WATER LEVEL VS PRECIPITATION



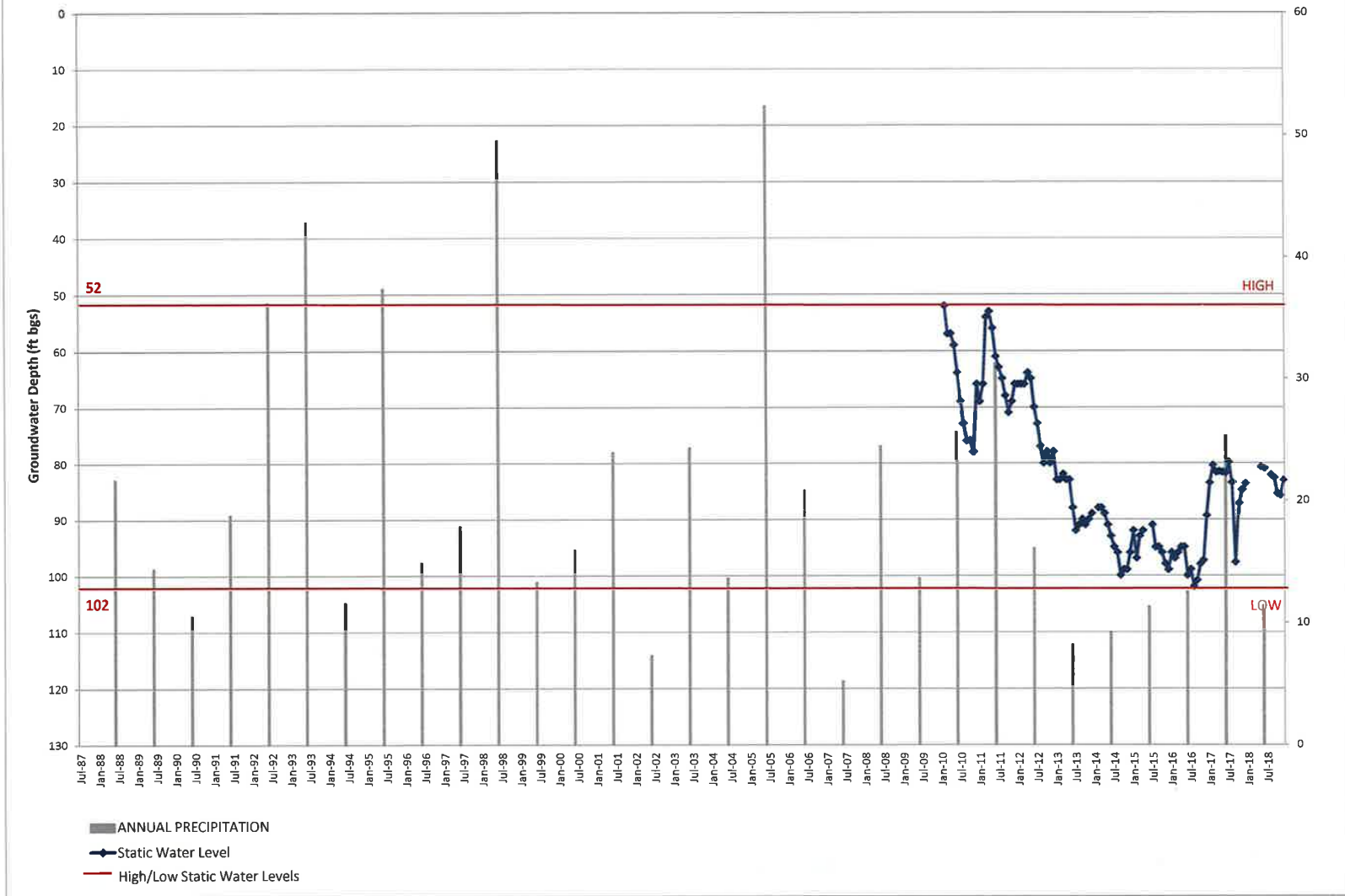
SCV WATER WELL U6
 STATIC WATER LEVEL VS PRECIPITATION



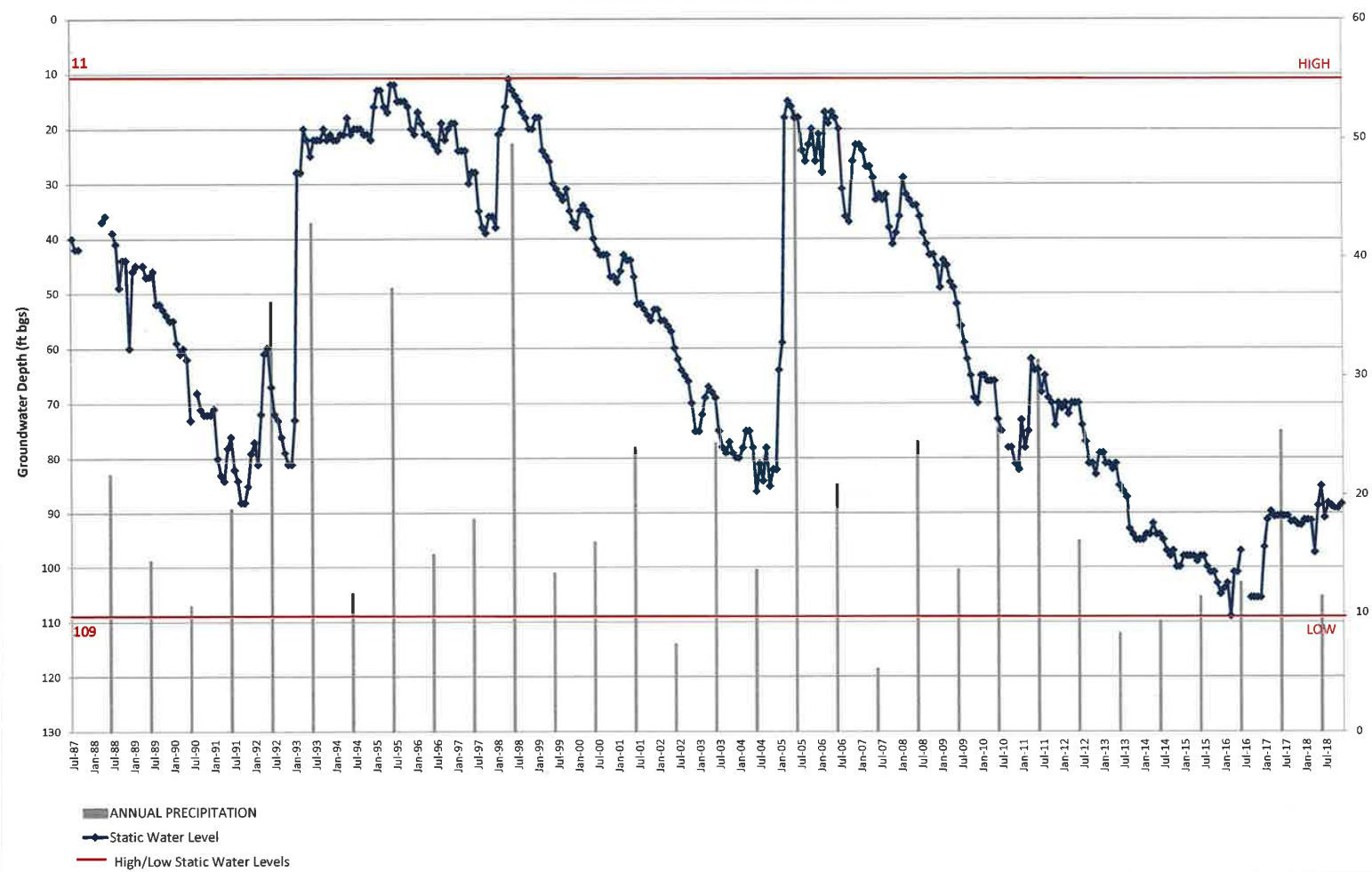
SCV WATER WELL U4
 STATIC WATER LEVEL VS PRECIPITATION



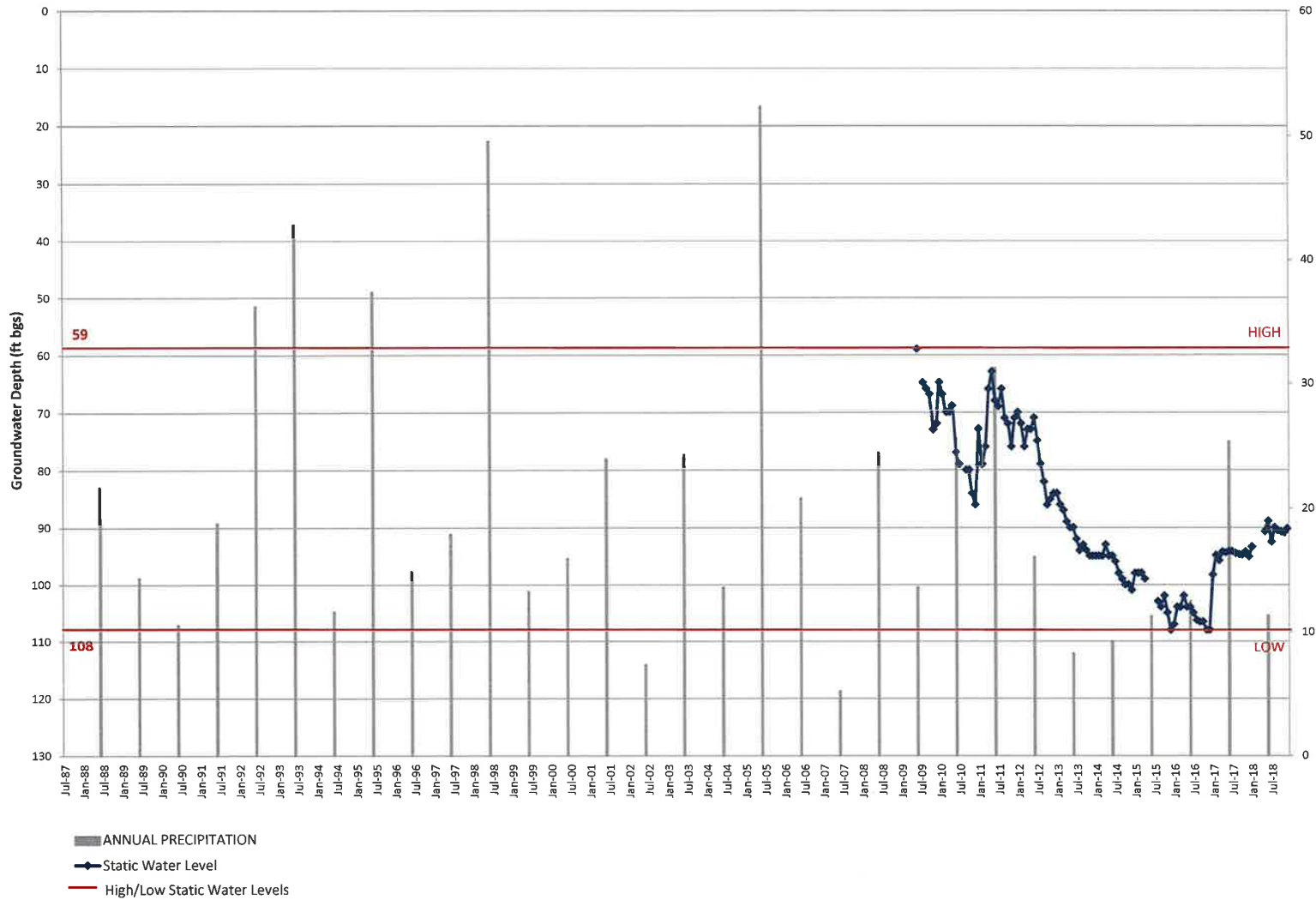
SCV WATER WELL VALLEY CENTER
STATIC WATER LEVEL VS PRECIPITATION



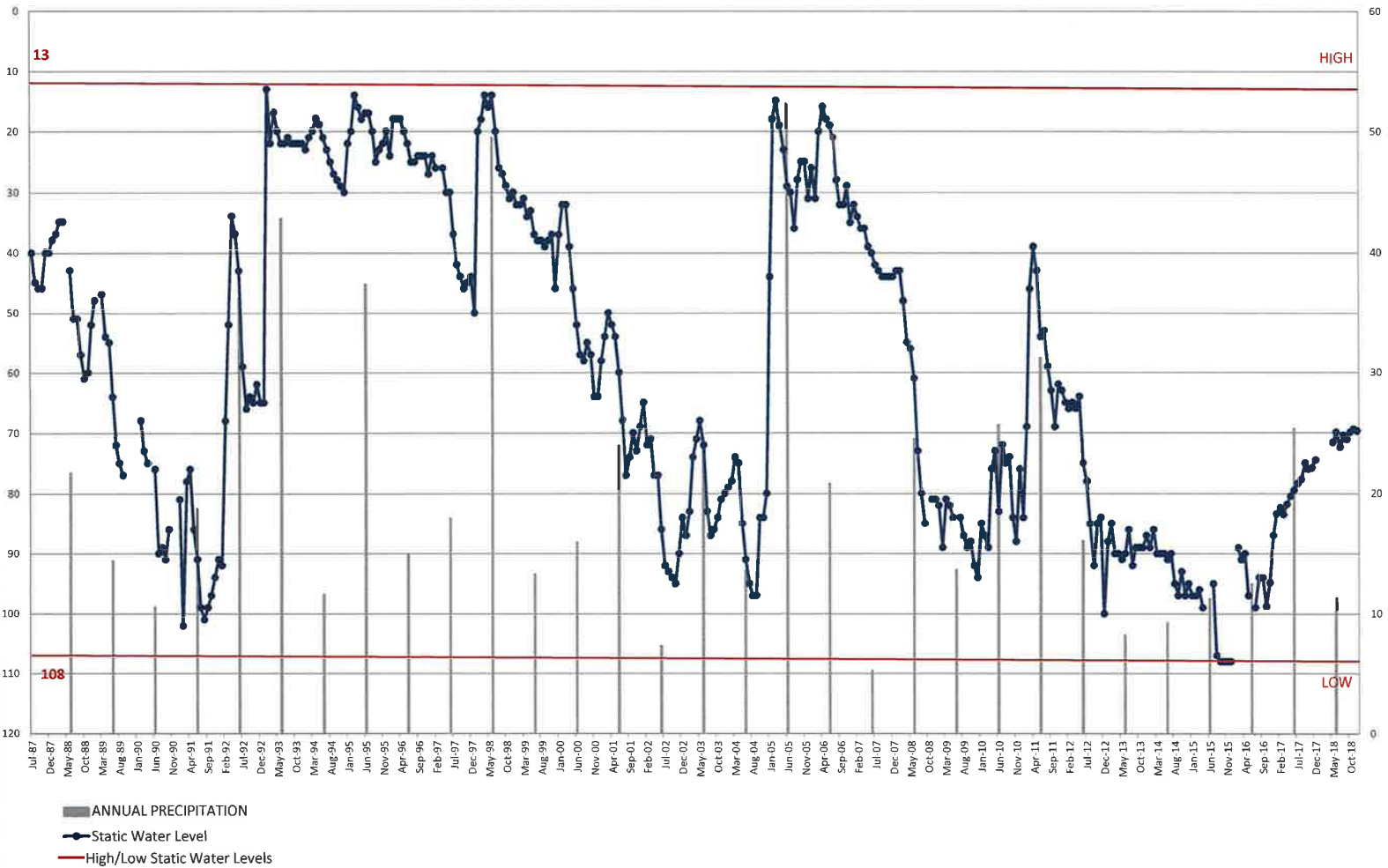
SCV WATER WELL HONBY #12
 STATIC WATER LEVEL VS PRECIPITATION



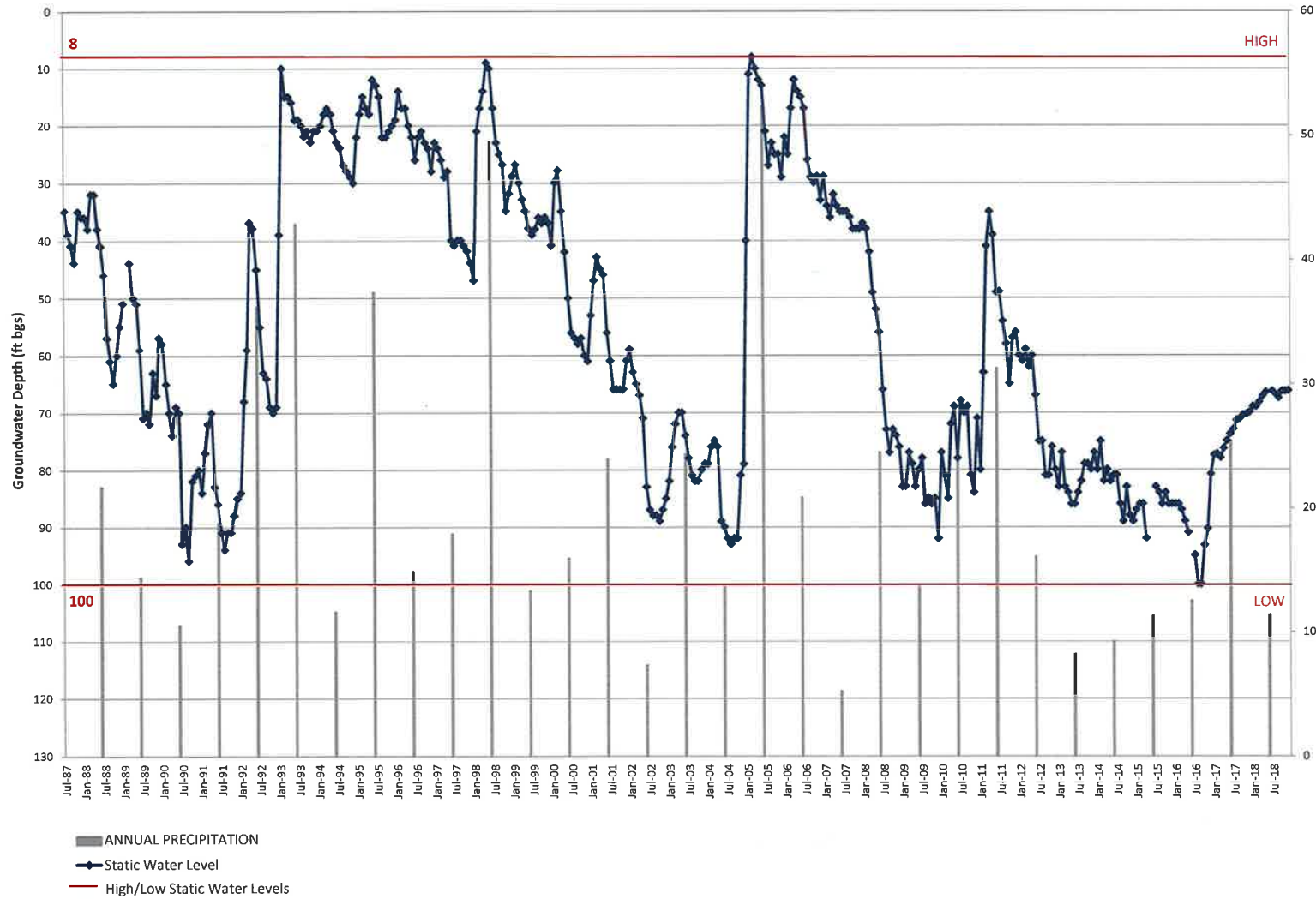
SCV WATER WELL SANTA CLARA
STATIC WATER LEVEL VS PRECIPITATION



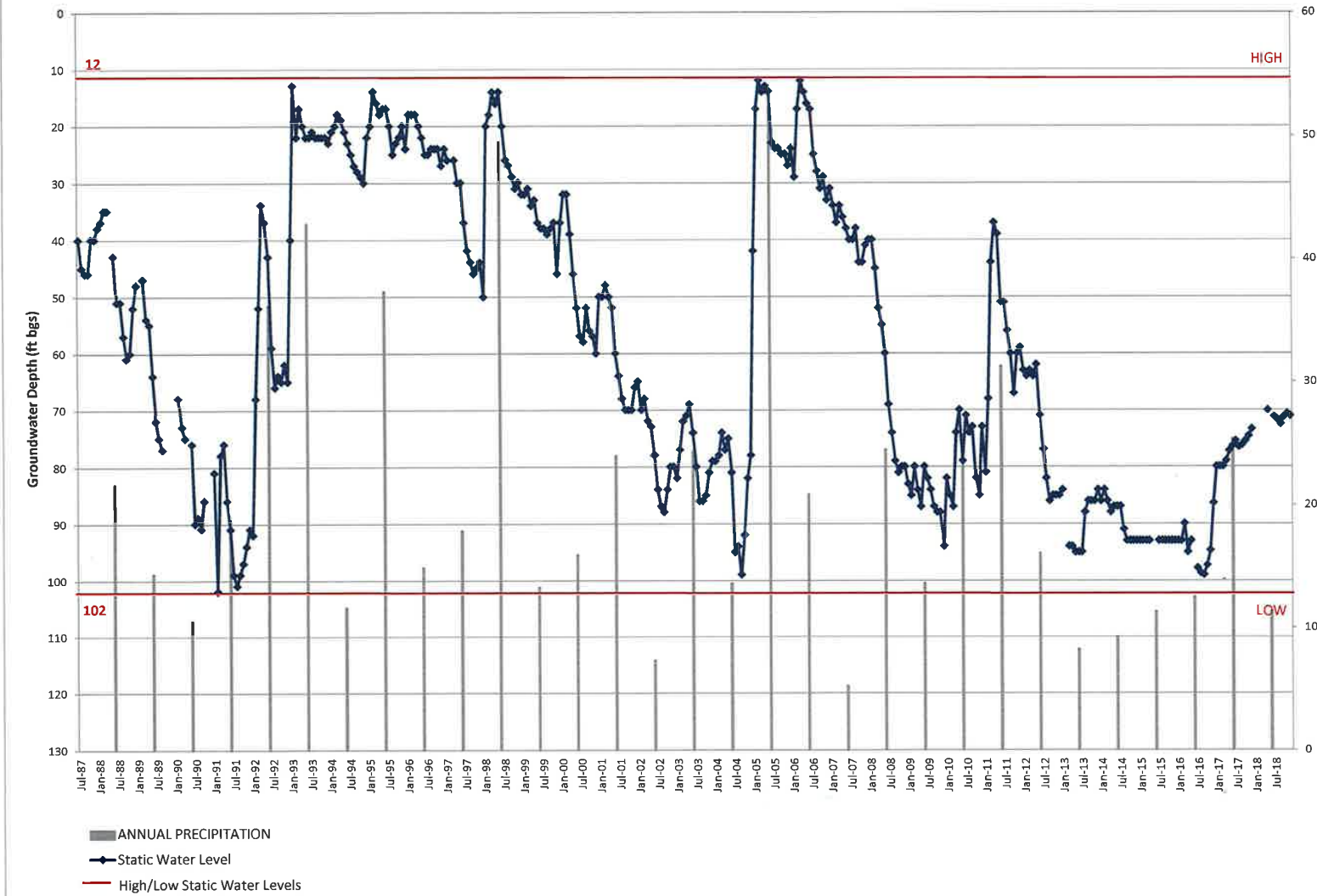
SCV WATER WELL NORTH OAKS CENTRAL #8
 STATIC WATER LEVEL VS. PRECIPITATION



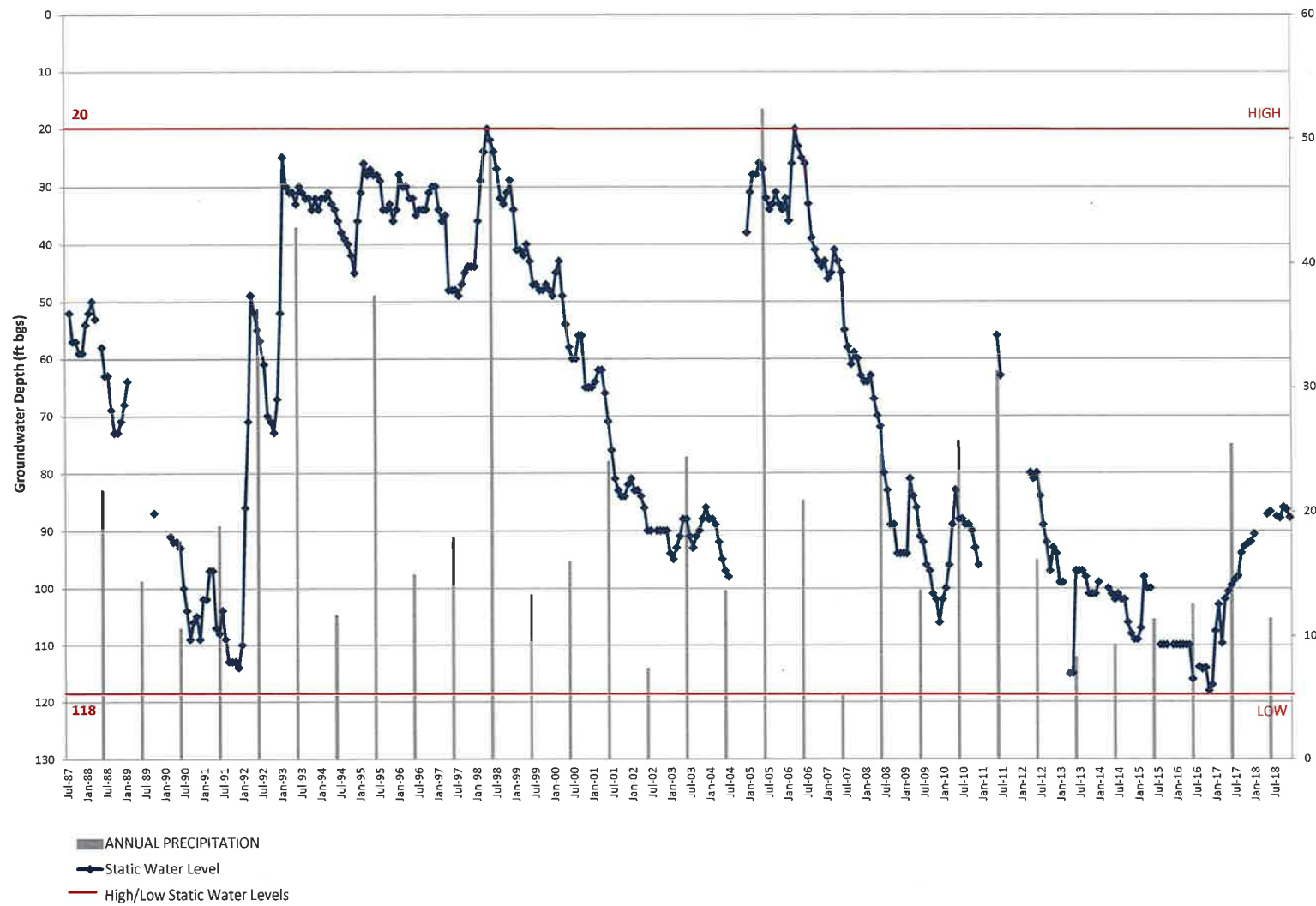
SCV WATER WELL NORTH OAKS WEST #9
 STATIC WATER LEVEL VS PRECIPITATION



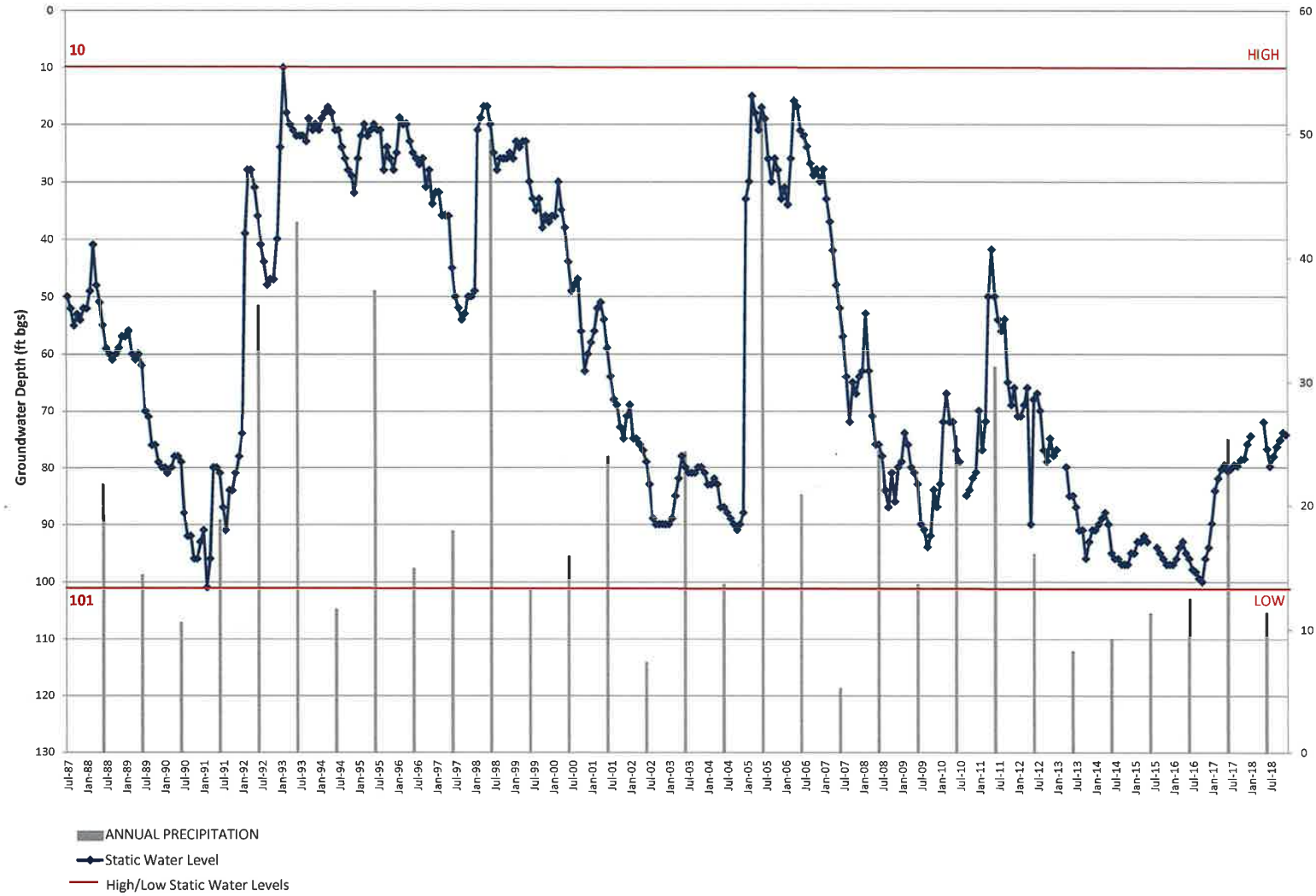
SCV WATER WELL NORTH OAKS EAST #7
 STATIC WATER LEVEL VS PRECIPITATION



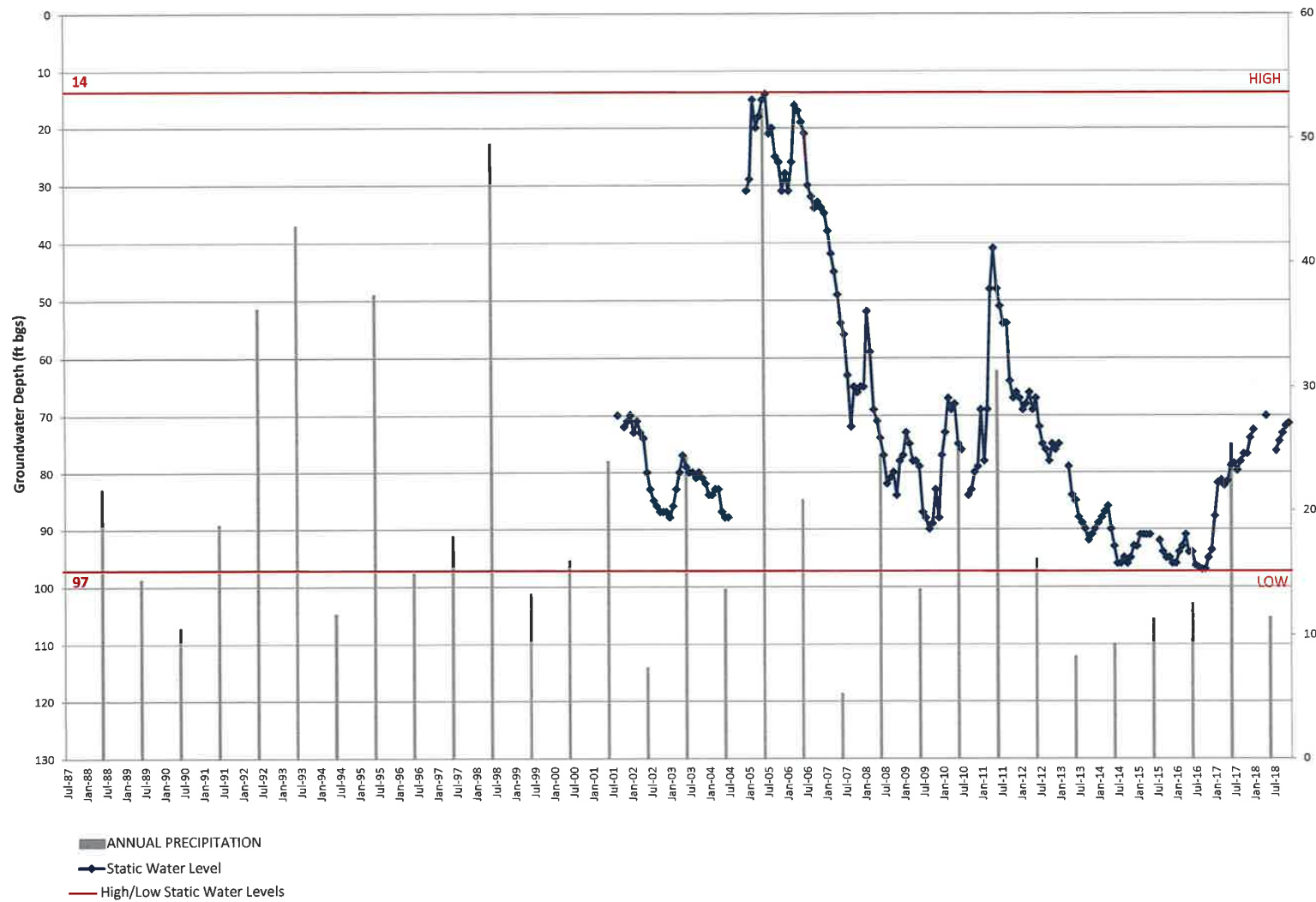
SCV WATER WELL SIERRA #6
 STATIC WATER LEVEL VS PRECIPITATION



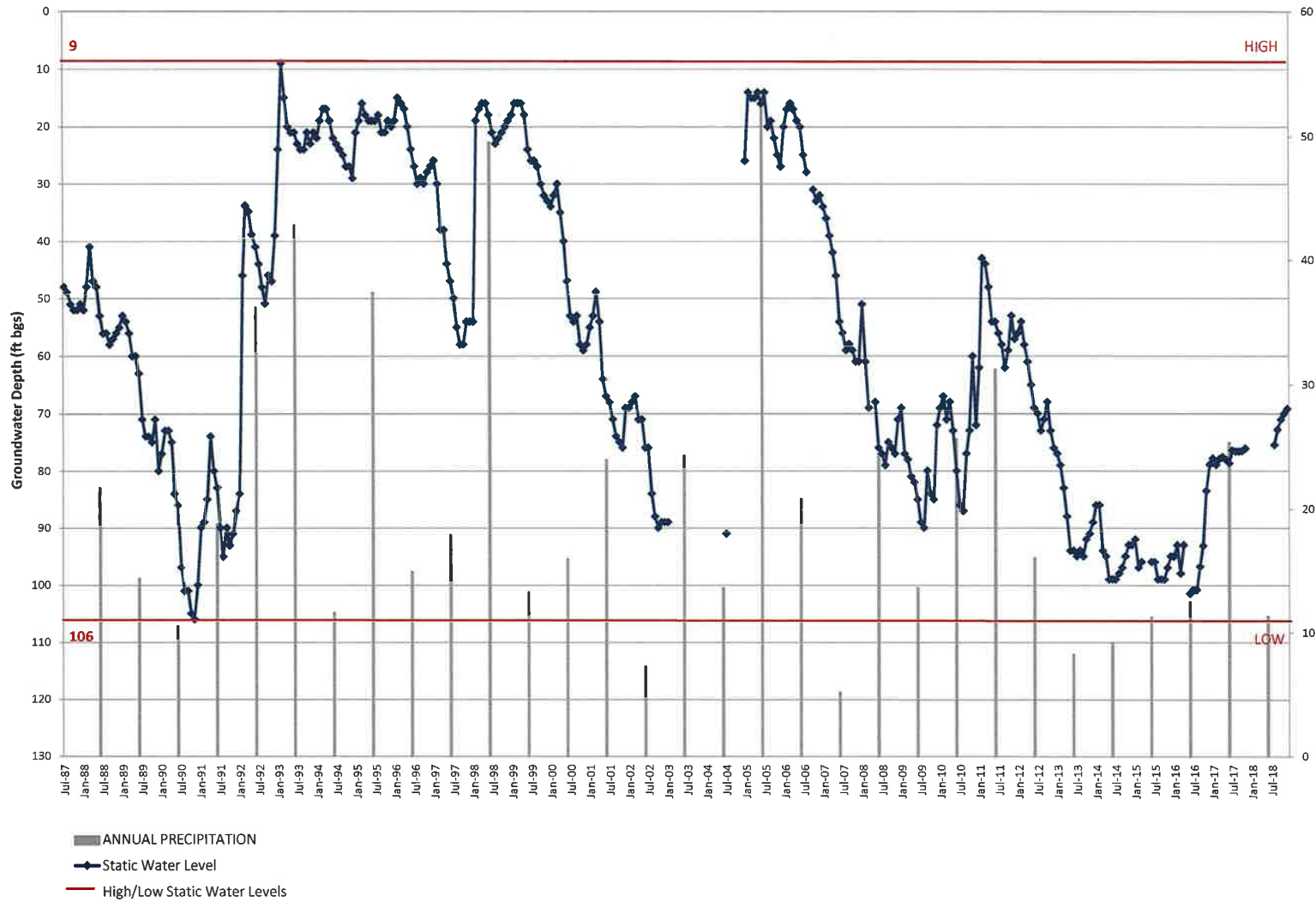
SCV WATER WELL MITCHELL #5A
 STATIC WATER LEVEL VS PRECIPITATION



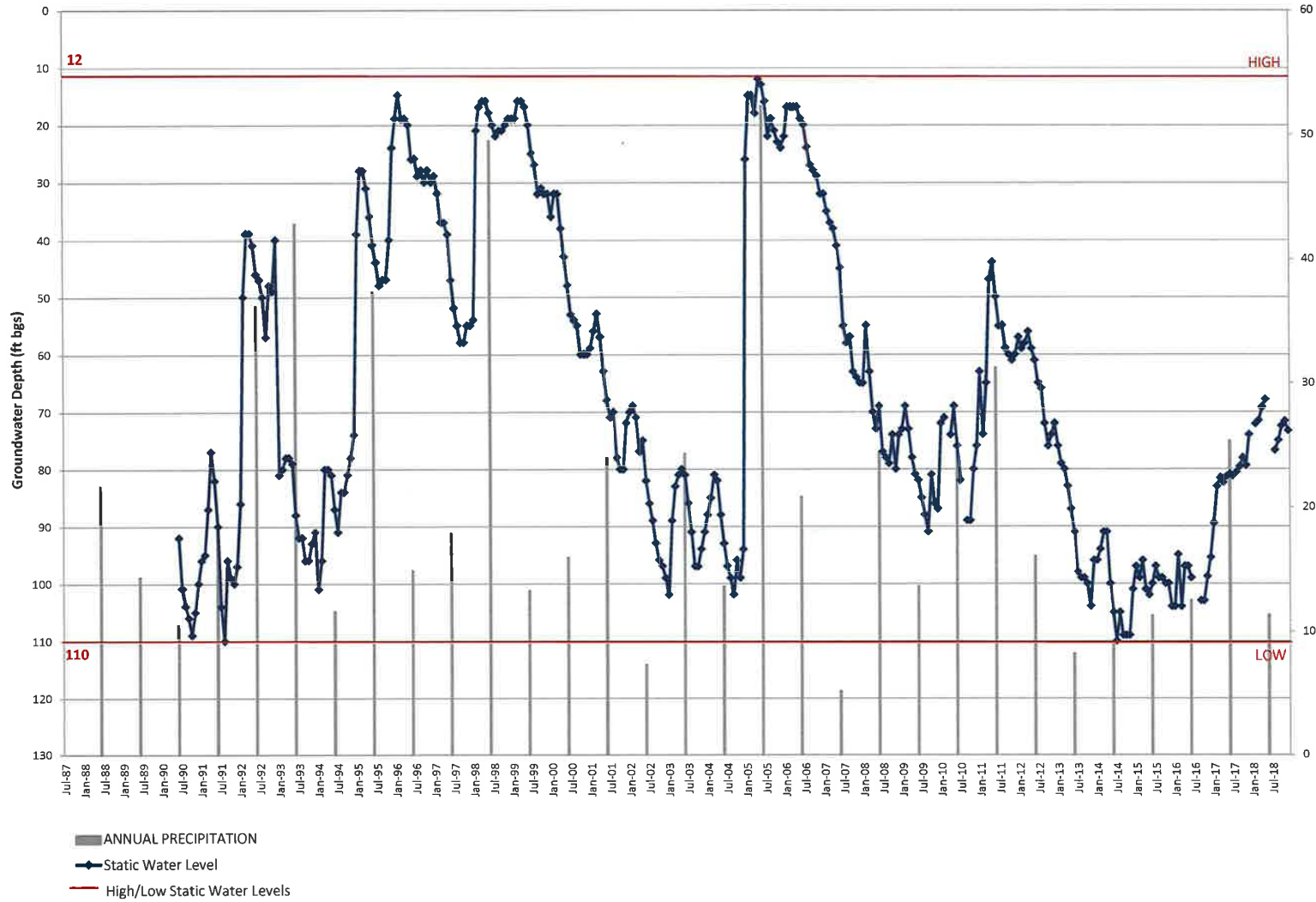
SCV WATER WELL MITCHELL #5B
STATIC WATER LEVEL VS PRECIPITATION



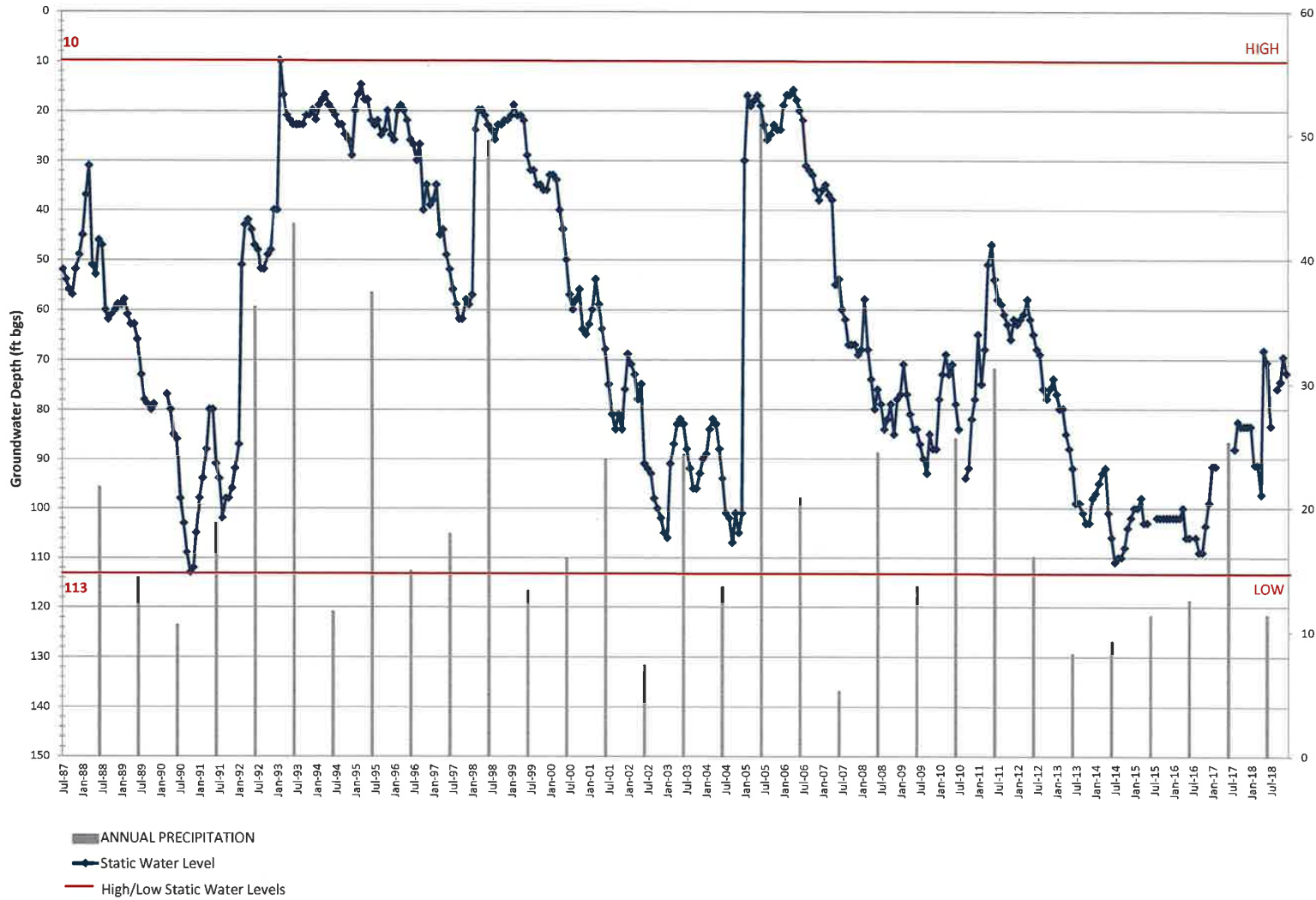
SCV WATER WELL SAND CANYON #3
 STATIC WATER LEVEL VS PRECIPITATION



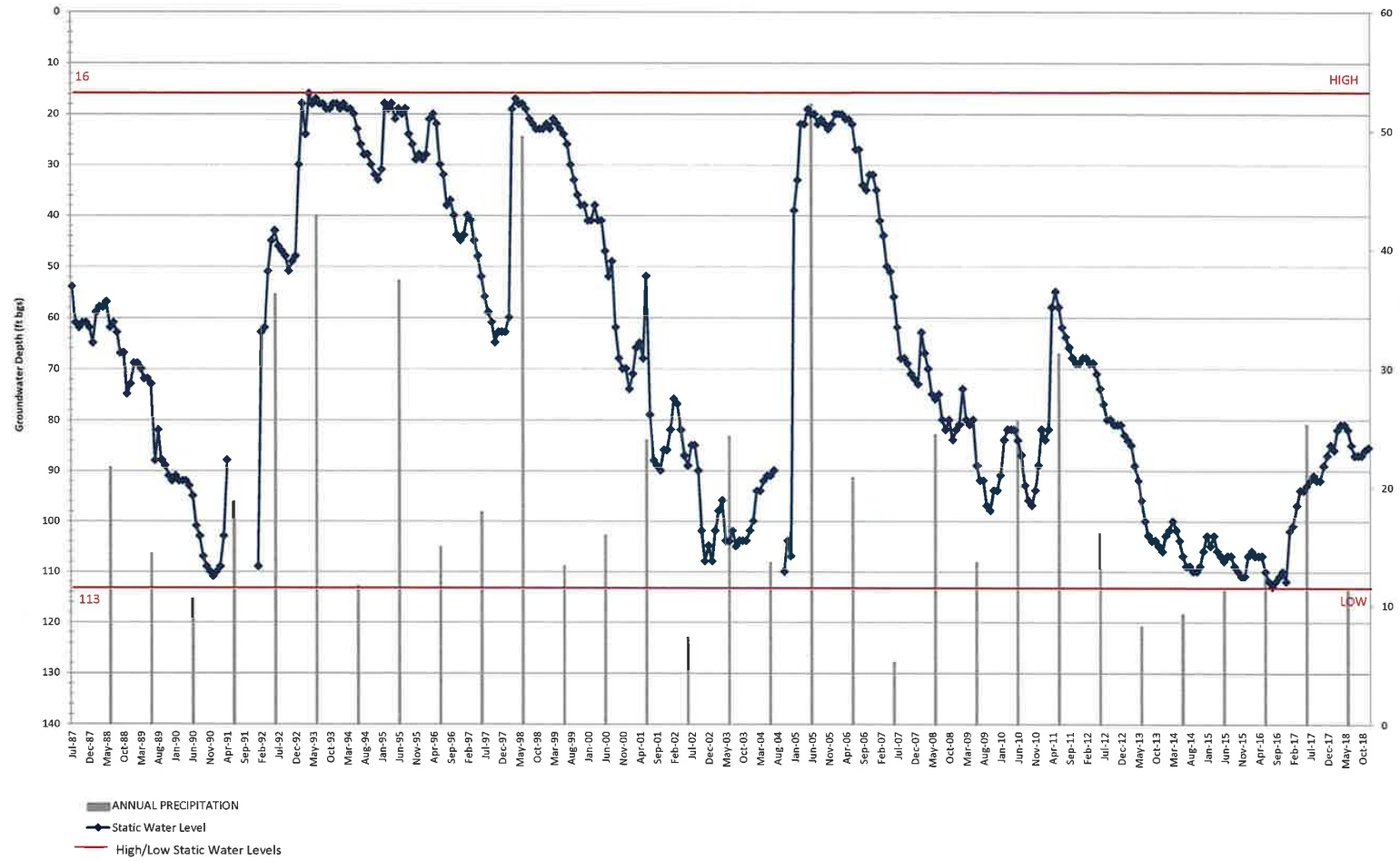
SCV WATER WELL LOST CANYON #2A
 STATIC WATER LEVEL VS PRECIPITATION



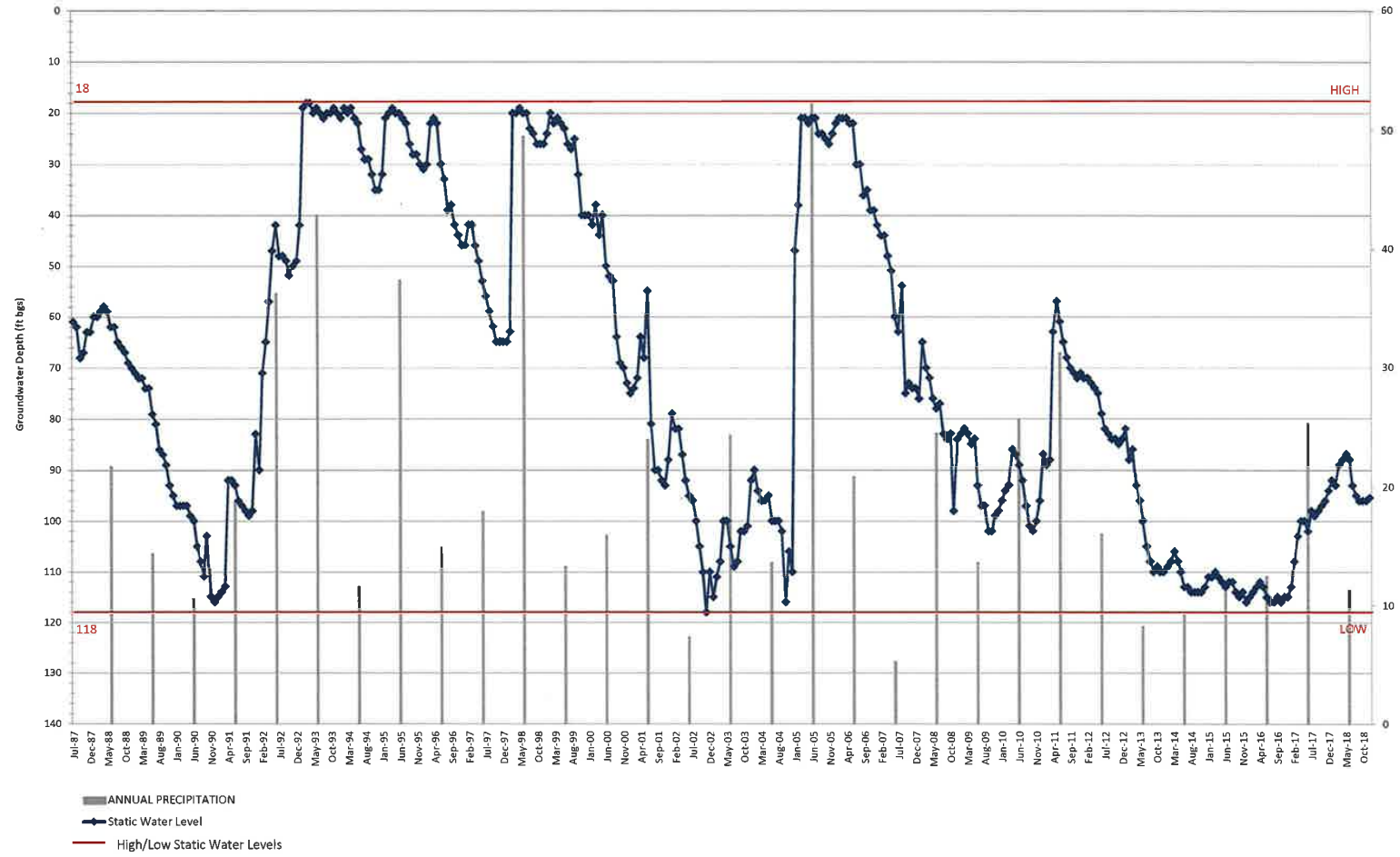
SCV WATER WELL LOST CANYON #2
 STATIC WATER LEVEL VS PRECIPITATION



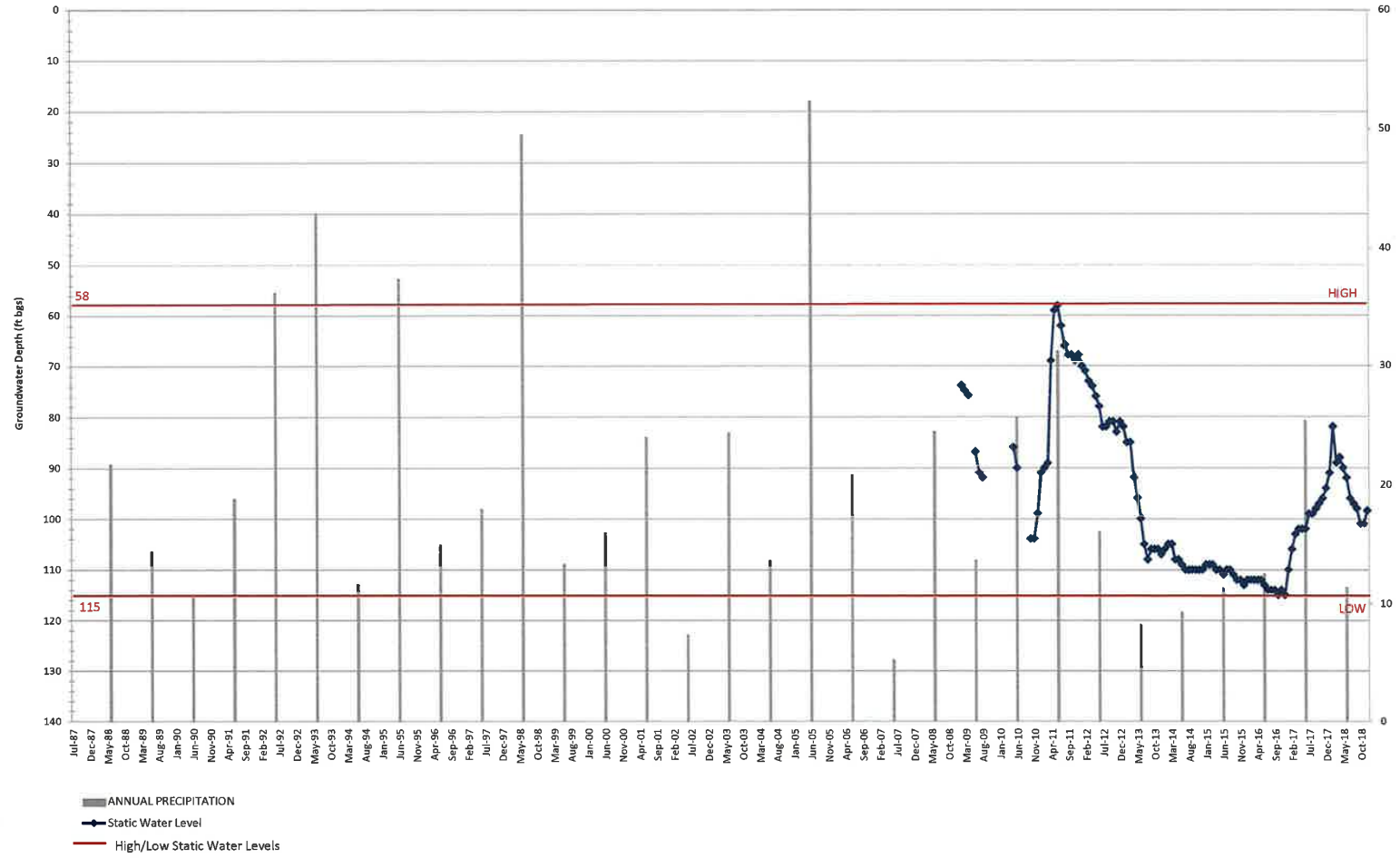
SCV WATER WELL P4
STATIC WATER LEVEL VS PRECIPITATION



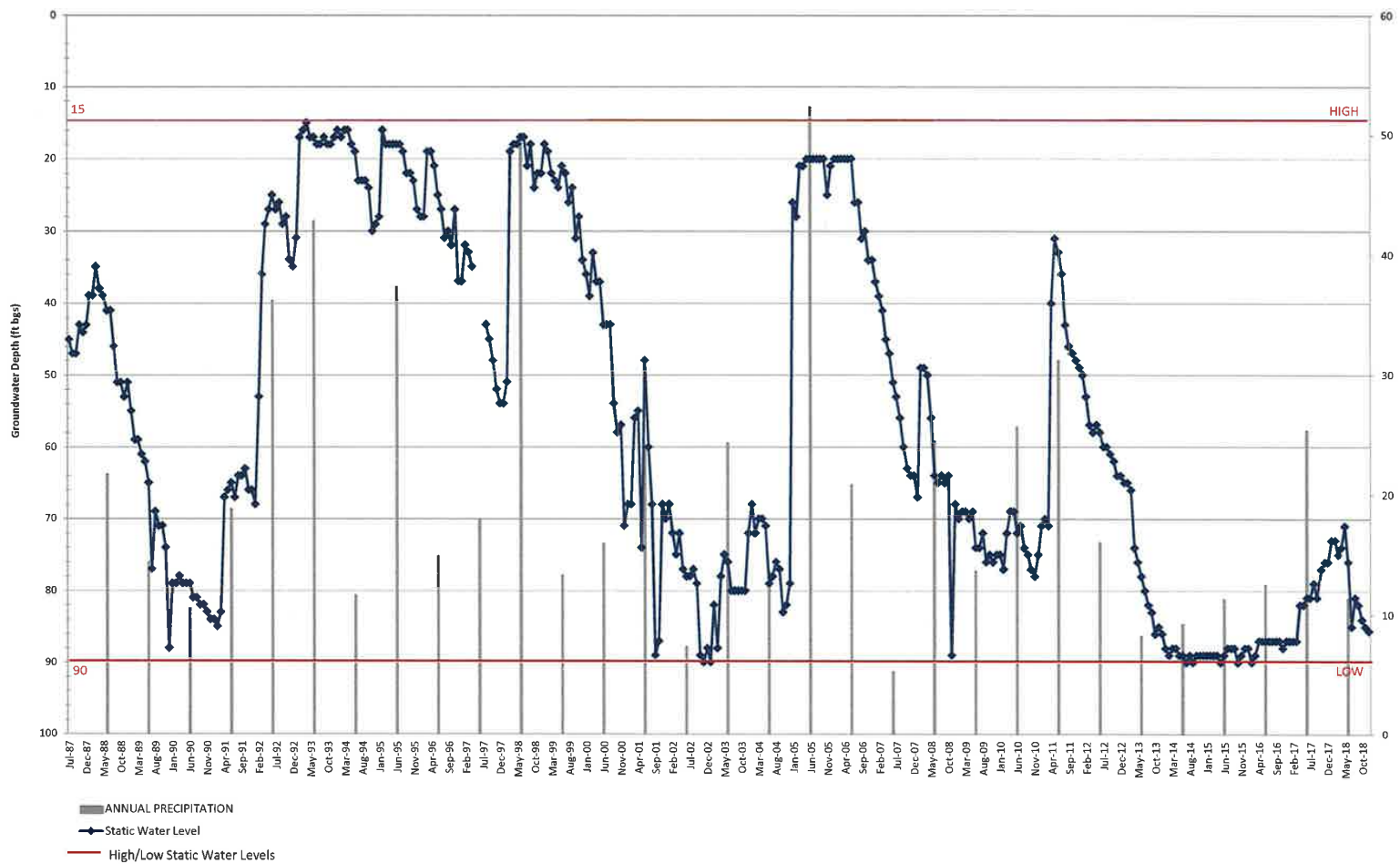
SCV WATER WELL P3
STATIC WATER LEVEL VS PRECIPITATION



SCV WATER WELL P5
STATIC WATER LEVEL VS PRECIPITATION



SCV WATER WELL P1
 STATIC WATER LEVEL VS PRECIPITATION



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Santa Clarita Valley Water Agency
Capital Improvement Projects (CIP) Construction Status Report
As of January 15, 2019

| Project | Contractor | Original Contract Amount | Change Orders to Date | % Change Orders | Current Contract Amount | Scheduled Completion | Estimated % of Work Completed | Status |
|----------------------------------|---|---------------------------------|------------------------------|------------------------|--------------------------------|-----------------------------|--------------------------------------|---|
| Foothill Feeder Turnout | GSE Construction | \$2,691,300 | \$260,459 | 9.7% | \$2,951,759 | March 31, 2019 | 92% | Connections to MWD and SCVWA lines are scheduled for February 2019. |
| Well E-17 and Water Improvements | Staats Construction, Padilla Electric, and General Pump | \$571,734 | \$0 | 0% | \$571,734 | June 30, 2019 | 15% | Contractor is acquiring materials. |
| Magic Mountain Pipeline Phase 4 | FivePoint / Toro Enterprises | \$3,084,725 | \$0 | 0% | \$3,084,725 | July 22, 2019 | 5% | Construction submittals and pipe fabrication are in progress. |
| Magic Mountain Pipeline Phase 5 | FivePoint / Toro Enterprises | \$3,269,978.85 | \$0 | 0% | \$3,269,978.85 | TBD | 1% | Execution of construction contract documents is in progress. |

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**Santa Clarita Valley Water Agency
Engineering Services Section
Third Party Funded Agreements Quarterly Report
As of December 31, 2018**

| |
|----------------------|
| ITEM NO. 7 |
|----------------------|

| Project | Third Party Funding Source | Planning, Design, Construction | Contractor/Consultant | Construction Amount | SCV Water Amount | Status |
|--|--|--------------------------------|------------------------|---------------------|-------------------------|---|
| Active Agreements: | | | | | | |
| Skyline Ranch Tract 60922-01 Backbone Pipelines | Pardee Homes | Construction | Mesa Engineering, Inc. | \$1,417,928 | \$142,000 | Construction 95% complete. |
| Skyline Ranch Tract 60922-01 Planning Areas C & D Pipelines | Pardee Homes | Construction | Staats Construction | \$533,300 | \$53,330 | Construction 95% complete. |
| Skyline Ranch Tract 60922-01 Planning Areas A&B & PA-01 | Pardee Homes | Construction | Mesa Engineering, Inc | \$675,824 | \$67,600 | Construction 95% complete. |
| Skyline Ranch Tract 60922-01 Planning Areas E1 & F | Pardee Homes | Construction | Mesa Engineering, Inc | \$707,700 | \$70,700 | Construction 95% complete. |
| Skyline Ranch Tract 60922-01 Paseo | Pardee Homes | Construction | Mesa Engineering | \$68,159 | Included in PA-01 above | Construction 95% complete. |
| College of the Canyons Valencia Campus Parking Structure – Water Line Improvements | Santa Clarita Community College District | Design & Construction | R.C. Becker & Son | \$370,575 | \$129,000 | Construction 95% complete. |
| Vista Canyon Tract 69164 Phase 1A Potable and Recycled Pipelines | Vista Canyon LLC | Construction | Mesa Engineering, Inc | \$673,532 | \$67,400 | Construction 95% complete. |
| Mission Village – Temporary bypass pipeline (Magic Mountain Parkway) | FivePoint | Construction | FivePoint | N/A | \$41,000 | Construction 95% complete. |
| Mission Village – Well 206/207 Pipeline Relocation | FivePoint | Design | FivePoint | N/A | TBD | SCVWA is preparing a deposit request for plan review. |
| Mission Village – Pipe Connection at Sky View Lane / The Old Road | FivePoint | Construction | FivePoint | N/A | \$73,826 | Construction submittals are in progress. SCVWA is preparing a deposit request for inspection. |
| Demineralization Facility – Fire Hydrant | FivePoint | Design | FivePoint | N/A | \$15,000 | FivePoint is revising the design plans. SCVWA is preparing a deposit request for inspection. |
| Westside Communities Potable Water Infrastructure Plan | FivePoint | Planning | FivePoint | N/A | \$44,000 | FivePoint is revising the Infrastructure Plan. |
| Mission Village DS542 Recycled Water Pipelines | FivePoint | Design | FivePoint | N/A | \$12,000 | SCVWA is preparing a deposit request for inspection. |
| Mission Village DS542 Potable Water Pipelines | FivePoint | Design | FivePoint | N/A | \$122,406 | FivePoint will be sending the deposit funds. SCVWA is preparing a deposit request for inspection. |

| Project | Third Party Funding Source | Planning, Design, Construction | Contractor/Consultant | Construction Amount | SCV Water Amount | Status |
|--|--------------------------------------|---------------------------------------|------------------------------|----------------------------|-------------------------|----------------------------------|
| Active Agreements: | | | | | | |
| Mission Village Recycled Water System Phase 1 | FivePoint | Design | FivePoint | N/A | \$34,000 | SCVWA is reviewing design plans. |
| Mission Village Potable Water System Phase 1 | FivePoint | Design | FivePoint | N/A | \$36,000 | SCVWA is reviewing design plans. |
| Construction of Parcel Map 62646 Water Pipeline Facilities on Railroad Avenue / Oakridge Drive | Saugus Holdings, LLC, and TMC Hollis | Planning & Design | SCWD | \$412,000 | \$41,000 | Third Party Agreement executed. |
| 25333 Railroad Avenue (Storage Facility) – Fire Service | Norris Construction | Construction | Mesa Engineering, Inc. | \$21,000 | \$2,100 | Third Party Agreement executed |

| Project | Third Party Funding Source | Planning, Design, Construction | Contractor/Consultant | Construction Amount | SCV Water Amount | Status |
|--|----------------------------|--------------------------------|---------------------------------|-------------------------|------------------|---|
| Pending Agreements: | | | | | | |
| Vista Canyon Tract 69164 Phase 2 - Potable and Recycled Pipelines | Vista Canyon LLC | Design | Civiltec, Mesa Engineering, Inc | \$962,275 (estimated) | \$96,000 | Design phase 95% complete. |
| 27918 Franklin Parkway - Water Meters | Logix | Construction | Gall Brothers | \$30-,000 | \$3,000 | Third Party Agreement pending. |
| Plum Canyon Tract 46018-11 Pump Station (Civil/Mechanical) | Toll Brothers | Construction | Staats Construction | \$648,597 | \$61,000 | Design completed. Toll Brothers is reviewing Agreement. |
| Plum Canyon Tract 46018-11 Pump Station (Electrical) | Toll Brothers | Construction | TBD | \$570,000 (estimated) | \$57,000 | Design completed. Toll Brothers is reviewing agreement. |
| Skyline Ranch Tract 60922-01 Tanks | Pardee Homes | Construction | TBD | \$3,000,000 (estimated) | TBD | Design is 60% complete. SCVWA reviewing. |
| Concord Development Tract 53425-01 (Two potable water master meters) | Lennar | Design | TBD | \$130,000 (estimated) | \$13,000 | Design is 90% complete |
| Skyline Ranch Plaza Tract 46018-11A, Multiple water services, fire services and public hydrants. | Intertex | Design | TBD | \$227,000 | \$23,000 | Design completed. Developer agreement pending. |

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**Engineering and Operations Committee
Planning Calendar
FY 2018/19**

**ITEM NO.
8**

| Item | PowerPoint Presentation (Y/N/Length) | July 3 Board | July 5 Comm | Aug 2 Comm | Aug 7 Board | Sept 4 Board | Sept 6 Comm | Sept 18 Board | Oct 2 Board | Oct 3 Comm | Nov 1 Comm | Nov 6 Board | Dec 4 Board | Dec 10 Comm | Dec 18 Board | Jan 2 Board | Jan 3 Comm | Feb 5 Board | Feb 7 Comm | March 5 Board | March 7 Comm | April 2 Board | April 4 Comm | May 2 Comm | May 7 Board | June 4 Board | June 6 Comm | July 2 Board |
|------|---|--------------|-------------|------------|-------------|--------------|-------------|---------------|-------------|------------|------------|-------------|-------------|-------------|--------------|-------------|------------|-------------|------------|---------------|--------------|---------------|--------------|------------|-------------|--------------|-------------|--------------|
| | | CANCELLED | CANCELLED | | | | | | | | | CANCELLED | | | | | | CANCELLED | | | | | | | | | | |
| 1 | Monthly Committee Planning Calendar | None | | C | | | C | | | C | | | | C | | | | | P | | P | | P | P | | | P | |
| 2 | CIP Construction Status Report | None | | C | | | C | | | C | | | | C | | | | | P | | P | | P | P | | | P | |
| 3 | Monthly Operations and Production Report | None | | C | | | C | | | C | | | | C | | | | | P | | P | | P | P | | | P | |
| 4 | Third Party Funded Agreements Quarterly Report | None | | C | | | | | | | | | | C | | | | | P | | | | | P | | | | |
| 5 | Quarterly Safety Program Presentation | Yes 15 min | | C | | C | | | | | | | | C | | | | | P | | | | | P | | | | |
| 6 | Recommend Approval of Construction Contract Funding and a Work Authorization for Inspection Services for Magic Mountain Pipeline No. 4 | Yes 10 min | | C | | C | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Approve Community Workforce Agreement | None | | C | | | C | C | | | | | | | | | | | | | | | | | | | | |
| 8 | Recommend Approval of a Change Order to Contract with GSE Construction to Increase Budget for Foothill Feeder Connection Construction | Yes 10 min | | | | | C | C | | | | | | | | | | | | | | | | | | | | |
| 9 | Recommend Approval of a Work Authorization for TBD for final design of the Magic Mountain Pipeline No. 6 | Yes 10 min | | | | | | | | C | | C | | | | | | | | | | | | | | | | |
| 10 | Recommend Approval of a Change Order with GSE Construction, Increase Vali Cooper's budget for Construction Management Services and increase MWDSC's Work Authorization for the Foothill Feeder Connection Project | Yes 10 min | | | | | | | | | | | | C | C | | | | | | | | | | | | | |
| 11 | Recommend Approval of Construction Contract Funding and a Work Authorization for Inspection Services for Magic Mountain Pipeline No. 5 | Yes 10 min | | | | | | | | | | | | C | C | | | | | | | | | | | | | |
| 12 | Update on Recycled Water Program | None | | | | | | | | | | | | | | | | | P | P | | | | | | | | |
| 13 | Update on Perchlorate Related Activities - V201, V205, Replacement Wells, etc. | None | | | | | | | | | | | | | | | | | P | P | | | | | P | P | | |
| 14 | Quarterly Update on VOC Litigation Status - Closed Session | None | | | | | | | | | | | | | | | | | | P | | | | | | P | | |
| 15 | Recommend Approval of Resolution Awarding Construction Contract to TBD to Recoat Roof Interior of Honby Tank #1 | TBD | | | | | | | | | | | | | | | | | | | P | P | | | | | | |
| 16 | Recommend Approval of Resolution Awarding Construction Contract to TBD to Recoat Exterior of Catala No. 4 Tank | TBD | | | | | | | | | | | | | | | | | | | P | P | | | | | | |

C = Completed Item
P = Planned Item

**Engineering and Operations Committee
Planning Calendar
FY 2018/19**

| | Item | PowerPoint Presentation (Y/N/Length) | July 3 Board CANCELLED | July 5 Comm CANCELLED | Aug 2 Comm | Aug 7 Board | Sept 4 Board | Sept 6 Comm | Sept 18 Board | Oct 2 Board | Oct 3 Comm | Nov 1 Comm CANCELLED | Nov 6 Board | Dec 4 Board | Dec 10 Comm | Dec 18 Board | Jan 2 Board | Jan 3 Comm CANCELLED | Feb 5 Board | Feb 7 Comm | March 5 Board | March 7 Comm | April 2 Board | April 4 Comm | May 2 Comm | May 7 Board | June 4 Board | June 6 Comm | July 2 Board | | | | | | |
|----|--|--------------------------------------|---------------------------|---|---|-------------|--------------|-------------|---------------|-------------|------------|---|-------------|---|-------------|--------------|-------------|---|-------------|------------|---|--------------|---------------|--------------|------------|-------------|--------------|-------------|--------------|--|---|---|--|---|---|
| 17 | Recommend Approval of Resolution Authorizing SCVWA to Execute Consolidation and Water Service Agreement, and Financing Agreement for Construction of Pipeline to the Los Angeles Residential Community | TBD | | C A N C E L L E D | | | | | | | | C A N C E L L E D | | | | | | C A N C E L L E D | | | | | | P | | P | | | | | | | | | |
| 18 | Recommend Approval of Resolution Awarding Construction Contract to TBD for Pipeline to the Los Angeles Residential Community | TBD | | | | | | | | | | | | | | | | | | | | | | | | P | | P | | | | | | | |
| 19 | Recommend Approval of Resolution Awarding Construction Contract to TBD for West Ranch Recycled Water Main Extension (Phase 2D) Project | TBD | | | | | | | | | | | | | | | | | | | | | | | | P | | P | | | | | | | |
| 20 | Recommend Approval of Resolution Awarding Construction Contract to TBD for Washwater Return and Sludge Systems Project | TBD | | | | | | | | | | | | | | | | | | | | | | | | P | | P | | | | | | | |
| 21 | Recommend Approval of Resolution Awarding Construction Contract to TBD for Recycled Water Vista Canyon (Phase 2B) Tank | TBD | | | C A N C E L L E D | | | | | | | | | C A N C E L L E D | | | | | | | C A N C E L L E D | | | | | | P | | P | | | | | | |
| 22 | Recommend approval of Resolution Awarding Construction Contract to TBD for Recycled Water Vista Canyon (Phase 2B) Pipelines | TBD | | | | | | | | | | | | | | | | | | | | | | | | | | | P | | P | | | | |
| 23 | Recommend Approval of a Work Authorization for TBD for final design of the Groundwater Treatment Improvements (VOC Treatment) | TBD | | | | | | | | | | | | | | | | | | | | | | | | | | | P | | P | | | | |
| 24 | Recommend Approval of Construction of a New 2.5 MG Deane Tank and Cost Sharing Agreement with Developer | TBD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | P | P |
| 25 | Recommend Approval of Resolution Awarding Construction Contract to TBD for New Intertie and Pressure Regulating Station with Newhall County Water District at Gary Street | TBD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | P | P |
| 26 | Recommend Approval of Resolution Awarding Construction Contract to TBD for Pipeline in Rainbow Glen Drive | TBD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | P | P | | | |
| 27 | Recommend Approval of Construction of a New Deane Zone Pump Station and Cost Sharing Agreement with Developer | TBD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | P | P | | | |
| 28 | Recommend Approval of a Work Authorization for TBD for final design of the Magic Mountain Reservoir | TBD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | P | P | | | |
| 29 | Recommend Approval of Construction Contract Funding and a Work Authorization for Inspection Services for Magic Mountain Pipeline No. 6 | TBD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | P | P | | | |

C = Completed Item
P = Planned Item

**Engineering and Operations Committee
Planning Calendar
FY 2018/19**

| | Item | PowerPoint Presentation (Y/N/Length) | July 3 Board CANCELLED | July 5 Comm CANCELLED | Aug 2 Comm | Aug 7 Board | Sept 4 Board | Sept 6 Comm | Sept 18 Board | Oct 2 Board | Oct 3 Comm | Nov 1 Comm CANCELLED | Nov 6 Board | Dec 4 Board | Dec 10 Comm | Dec 18 Board | Jan 2 Board | Jan 3 Comm CANCELLED | Feb 5 Board | Feb 7 Comm | March 5 Board | March 7 Comm | April 2 Board | April 4 Comm | May 2 Comm | May 7 Board | June 4 Board | June 6 Comm | July 2 Board | |
|----|--|--------------------------------------|---------------------------|--------------------------|------------|-------------|--------------|-------------|---------------|-------------|------------|-------------------------|-------------|-------------|-------------|--------------|-------------|-------------------------|-------------|------------|---------------|--------------|---------------|--------------|------------|-------------|--------------|-------------|--------------|---|
| 30 | Recommend Approval of a Work Authorization for TBD for final design of the Replacement Wells Pipeline/Infrastructure | TBD | | | | | | | | | | | | | | | | | | | | | | | | | | | P | P |