



Service, Quality,

**TECHNICAL REVIEW TEAM (TRT) COMMITTEE
MEETING AGENDA
April 10, 2018 – 1:00 PM**

**CITY OF BIG BEAR LAKE,
DEPARTMENT OF WATER AND POWER
41972 GARSTIN DRIVE
BIG BEAR LAKE, CALIFORNIA 92315
WWW.BBLDWP.COM**

TRT COMMITTEE MEMBERS

Don Smith, Board Chair
Craig Hjorth, Board Treasurer
Reggie Lamson, General Manager
Dani McGee, Chief Financial Officer
Steve Wilson, Water Superintendent
Jason Hall, Production Supervisor
Sierra Orr, Water Conservation and Public Information Supervisor
Tom Harder, Thomas Harder & Co. Ground Water Consulting

OPEN SESSION

CALL MEETING TO ORDER

PUBLIC FORUM

1. DISCUSSION/ACTION ITEMS

Groundwater Supply and Current Aquifer Water Level Review

- A. Review Hydrographs
- B. Groundwater Production History

Ground Water Related Management Decisions

- A. Governor's Drought Declaration
- B. Stressing Hydrologic Subunits
- C. Groundwater Sustainability Agency Update

Other Discussion Topics

- A. State Basin Designation
- B. Conservation Policies
- C. Sawmill Well Pumping Plant
- D. Well Repair/Pump Replacement (Big Bear Shores, Division 8, and La Crescenta)
- E. Other Discussion Topics

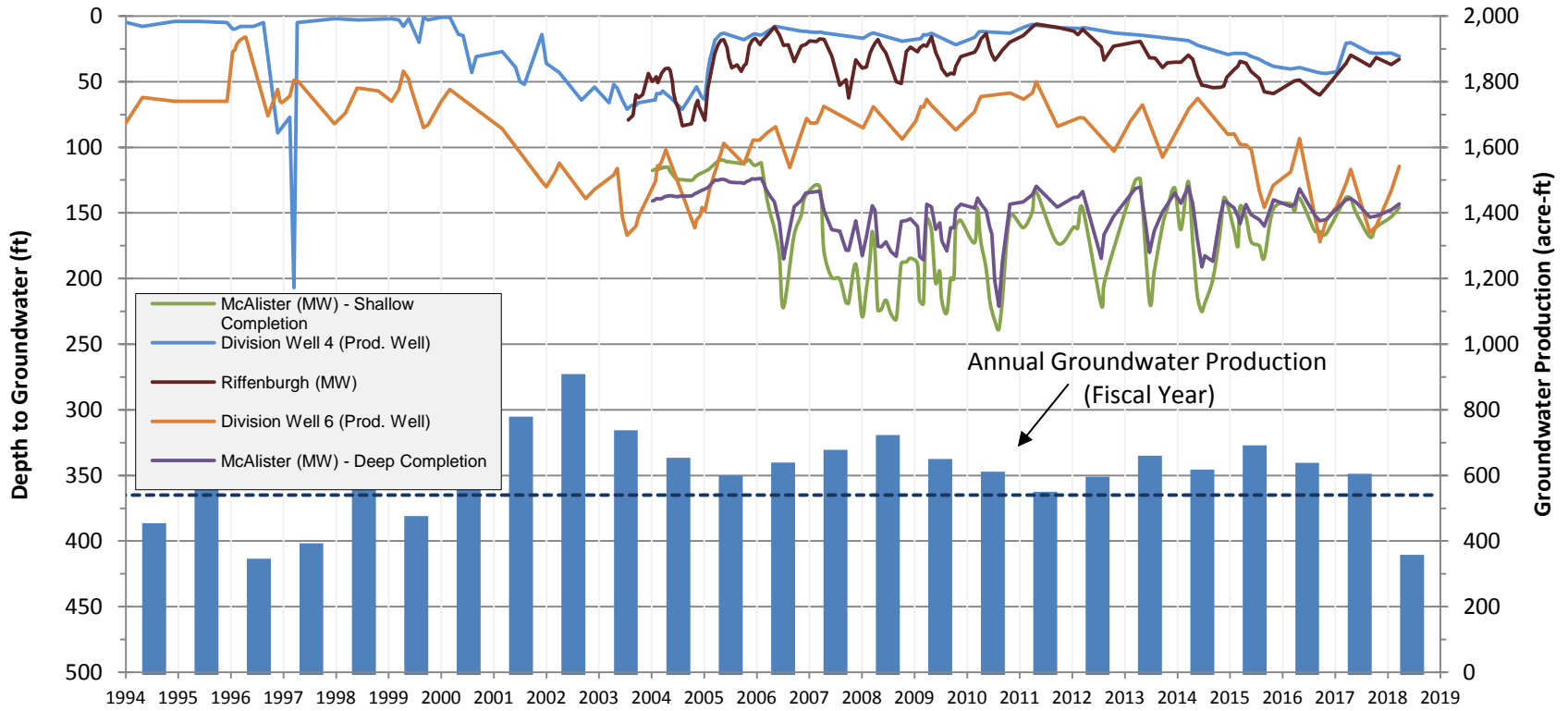
ADJOURNMENT

I hereby certify under penalty of perjury, under the laws of the State of California that the foregoing agenda was posted in accordance with the applicable legal requirements. Dated this 6th day of April, 2018.

A handwritten signature in black ink, appearing to read "J. Roberts", is written over a horizontal line.

Jack Roberts, Secretary
DWP Board of Commissioners

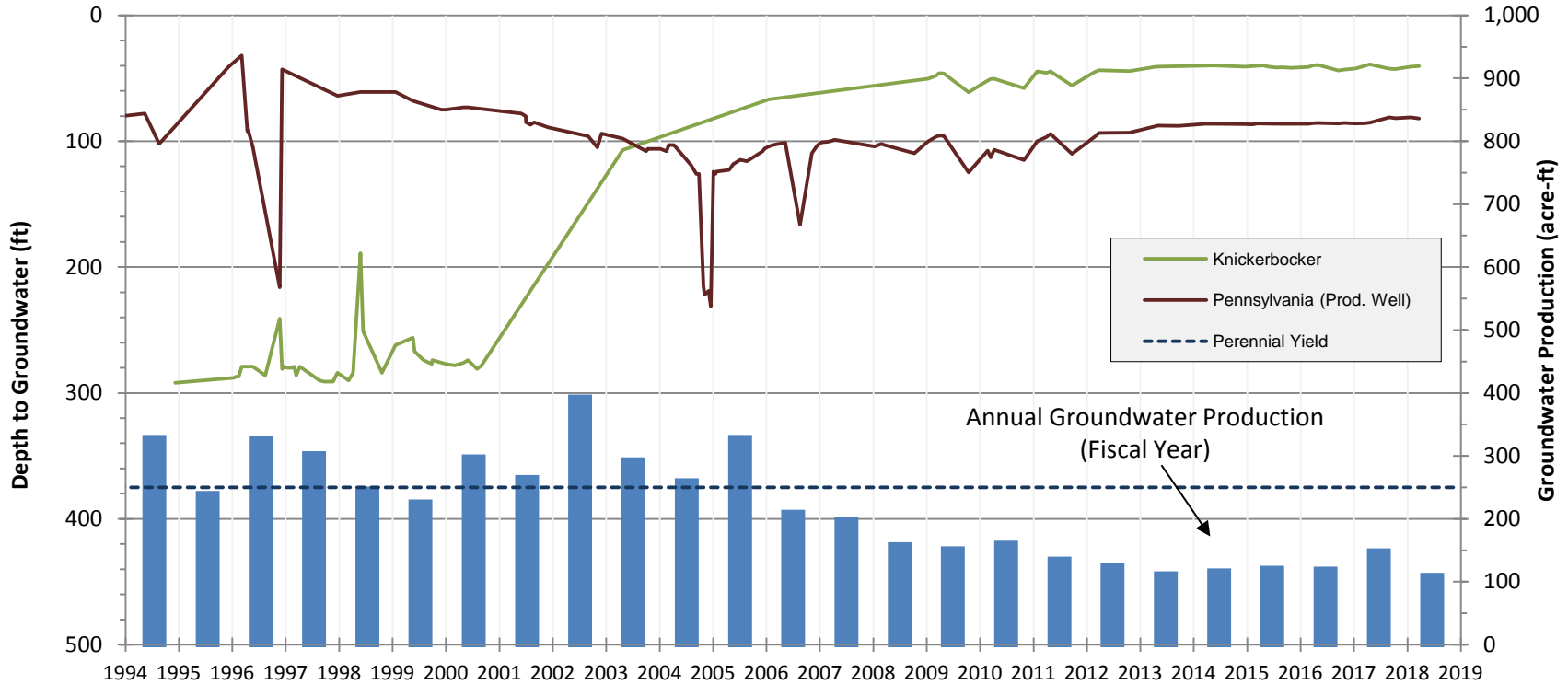
Division / North Shore Hydrologic Subunits
Depth to Groundwater vs. Groundwater Production



2018 -19 Production is through March 31st

Village Hydrologic Subunit

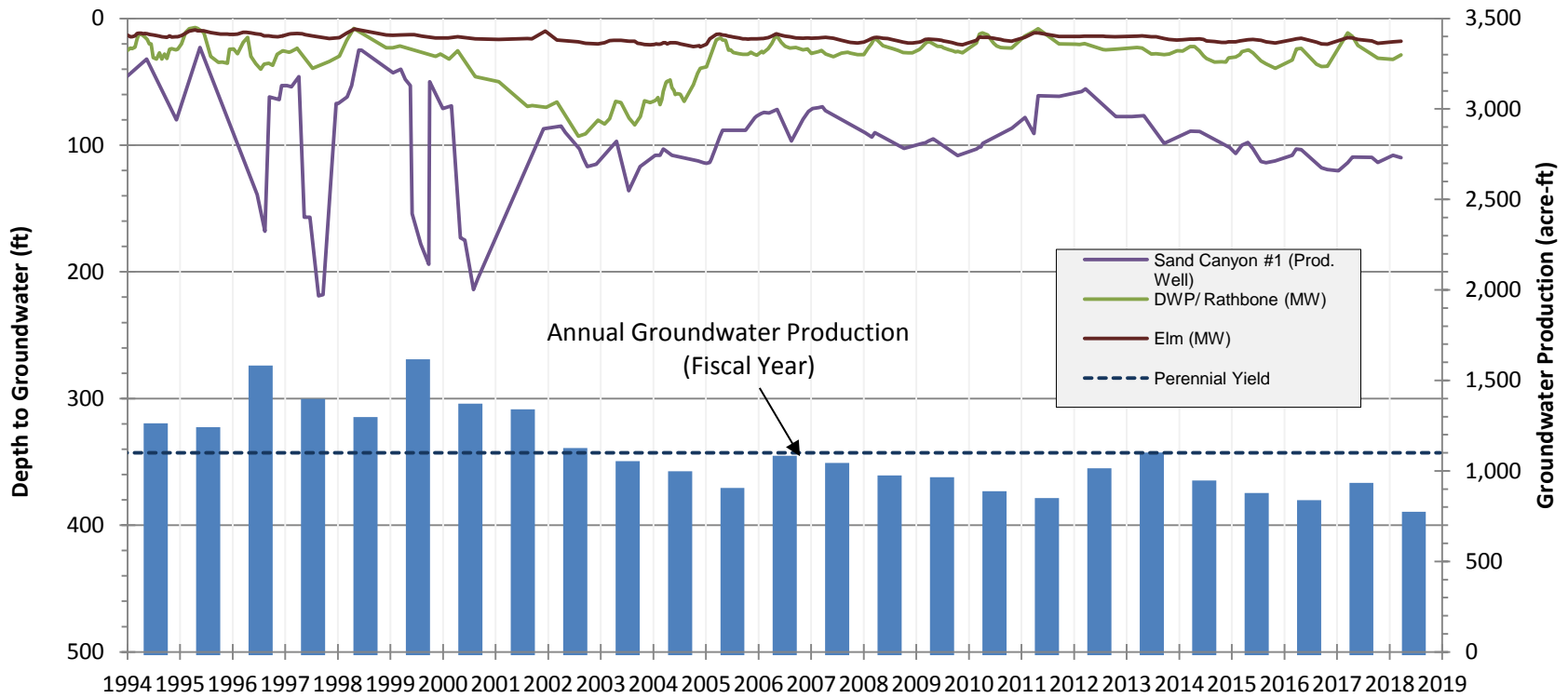
Depth to Groundwater vs. Groundwater Production



2018 -19 Production is through March 31st

Rathbone Hydrologic Subunit

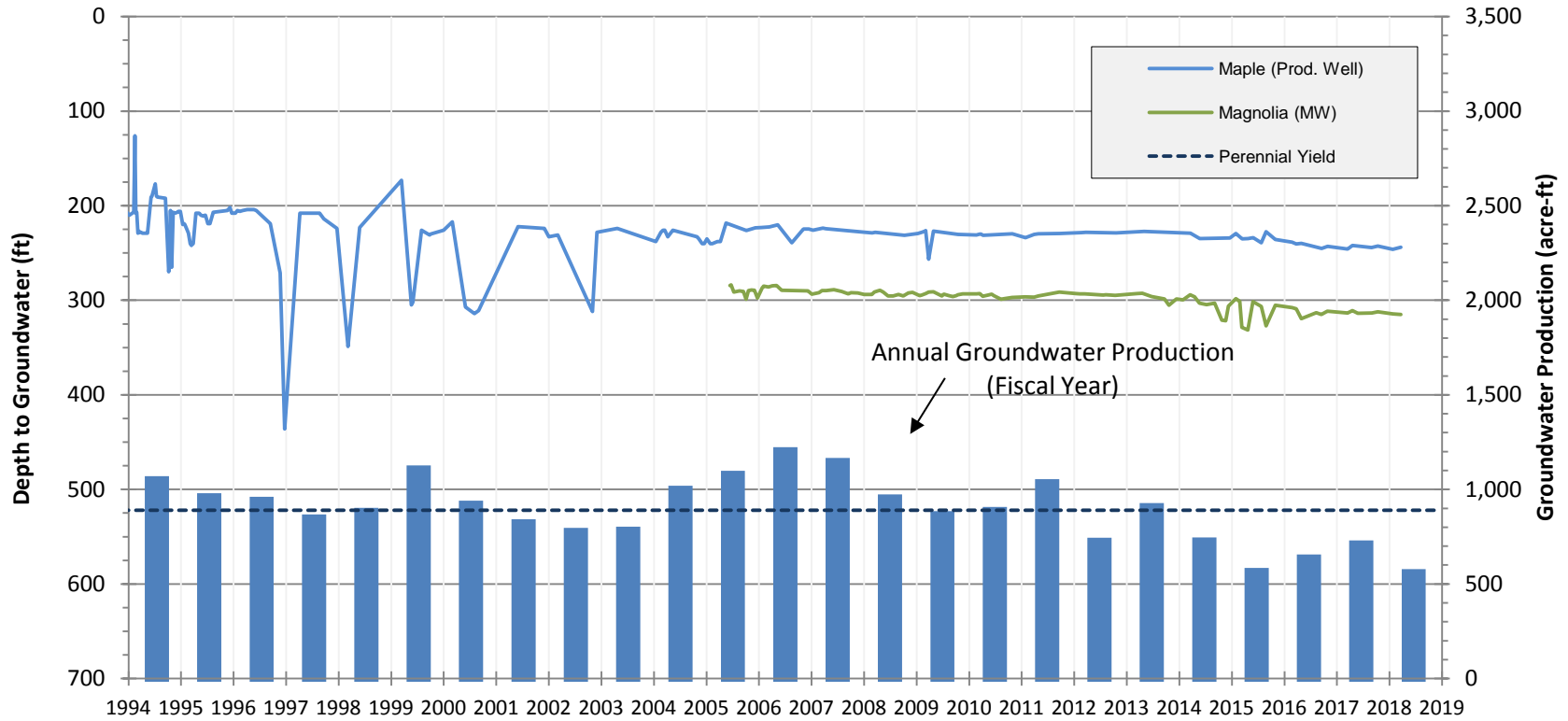
Depth to Groundwater vs. Groundwater Production



2018 -19 Production is through March 31st

Erwin West Hydrologic Subunit

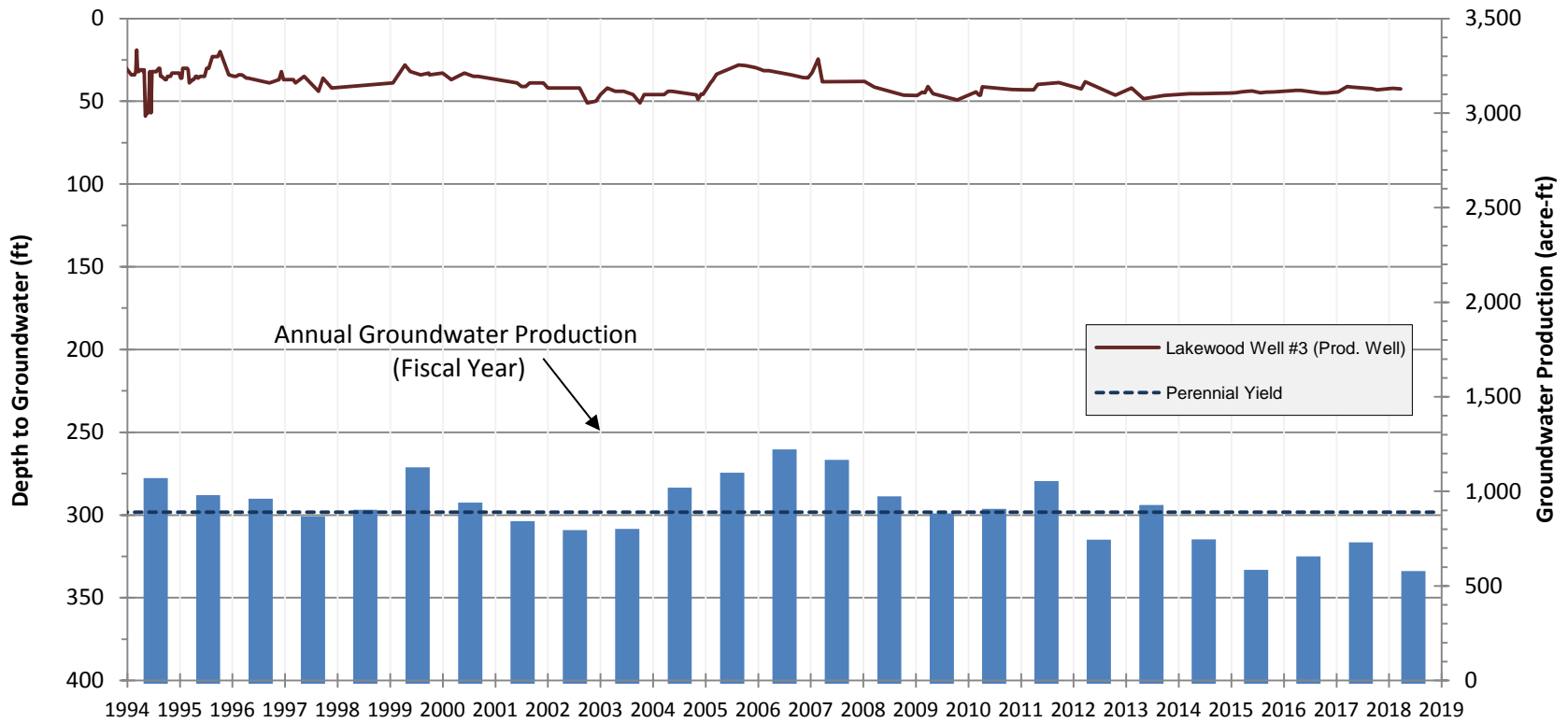
Depth to Groundwater vs. Groundwater Production



2018 -19 Production is through March 31st

Erwin Central Hydrologic Subunit

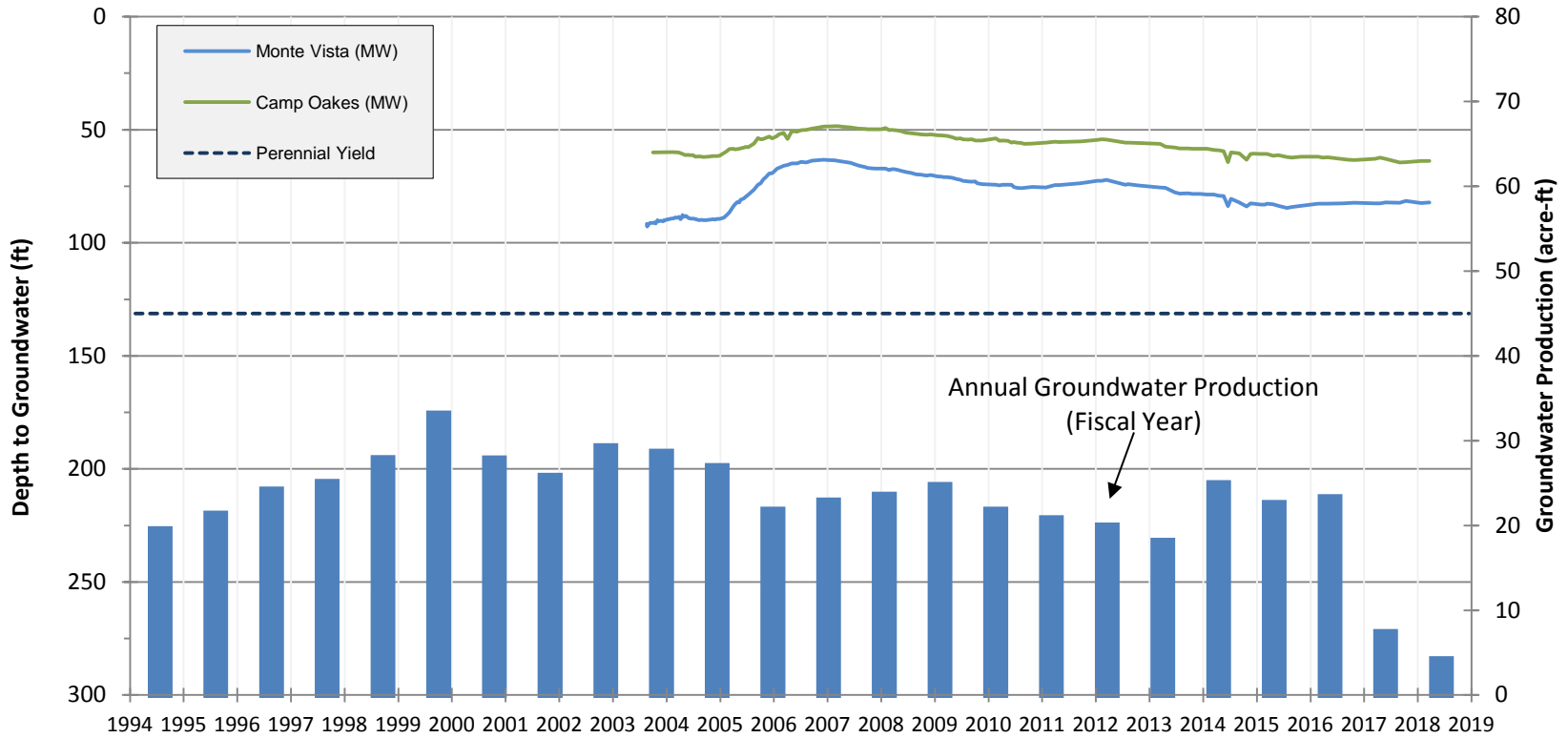
Depth to Groundwater vs. Groundwater Production



2018 -19 Production is through March 31st

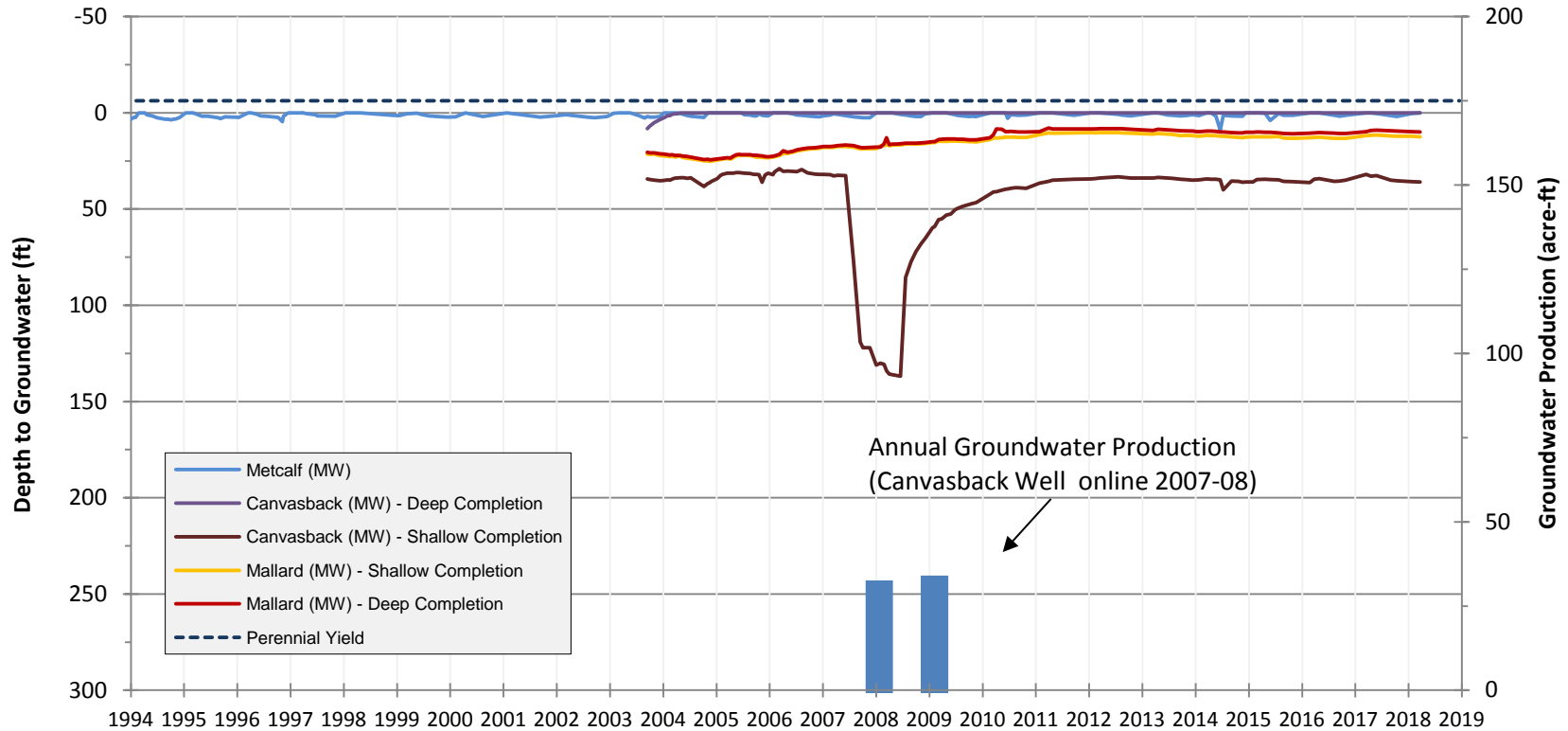
Erwin East - Lake William Hydrologic Subunit

Depth to Groundwater vs. Groundwater Production



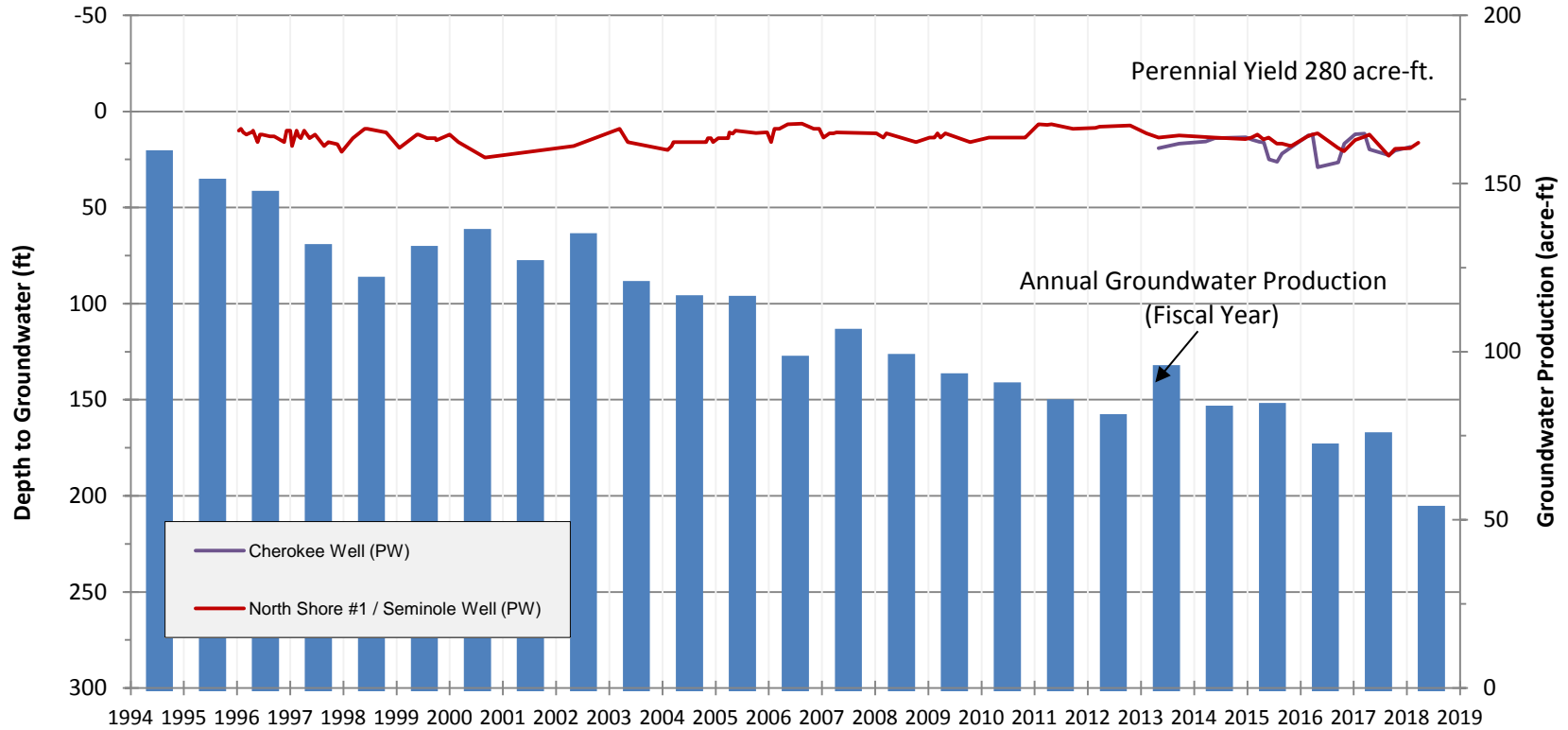
2018 -19 Production is through March 31st

Mill Creek Hydrologic Subunit Depth to Groundwater vs. Groundwater Production



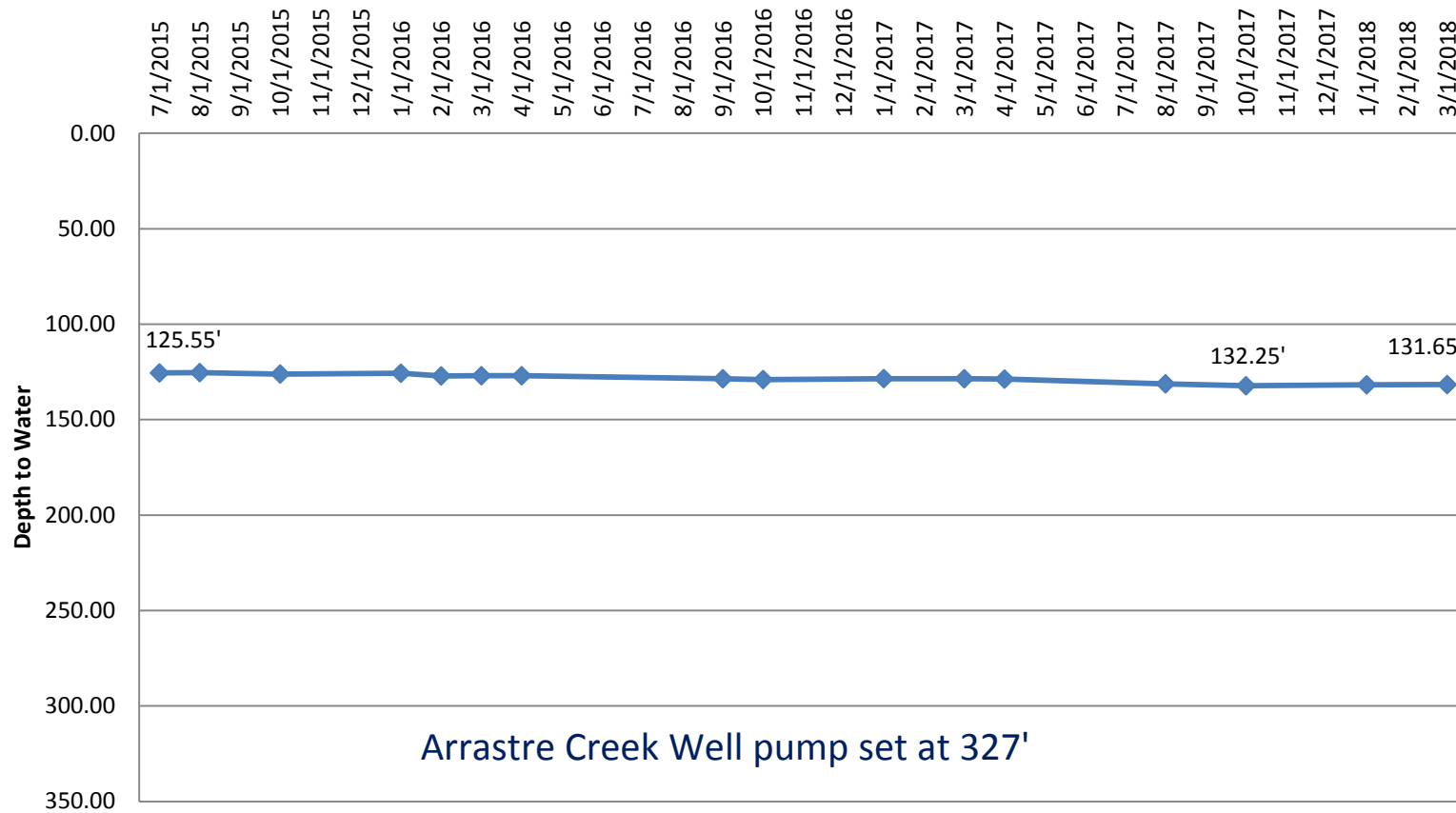
2018 -19 Production is through March 31st

Grout Creek Hydrologic Subunit Depth to Groundwater vs. Groundwater Production



2018 -19 Production is through March 31st

Arrastre Creek Well Static Water Levels



City of Big Bear Lake Department of Water and Power

Maximum Perennial Yield vs. Yearly Production

(maximum perennial yield based on Geoscience 2006 subunit report in acre feet)

Measured in Acre feet - Calendar Year

| SUBUNIT | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------|
| Mill Creek max yield - 175 AF | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 29.2 | 30.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Grout Creek max yield - 280 AF | 126.0 | 124.8 | 116.9 | 104.1 | 108.5 | 95.9 | 106.5 | 93.1 | 88.9 | 84.2 | 78.8 | 81.3 | 92.1 | 79.3 | 81.4 | 70.4 | 72.1 | |
| Village max yield - 250 AF | 285.1 | 354.1 | 252.8 | 273.6 | 268.6 | 187.4 | 167.2 | 134.7 | 152.0 | 142.5 | 111.5 | 78.4 | 57.0 | 110.4 | 108.0 | 128.6 | 134.1 | |
| North Shore max yield - 240 AF | 18.1 | 17.1 | 19.0 | 14.4 | 15.1 | 18.2 | 20.1 | 20.3 | 19.8 | 18.7 | 17.8 | 18.3 | 21.4 | 18.3 | 16.7 | 14.7 | 18.1 | |
| Rathbone max yield - 1100 AF | 1156.7 | 1011.9 | 944.8 | 840.2 | 967.6 | 970.4 | 947.1 | 914.3 | 877.2 | 787.1 | 931.9 | 932.9 | 994.5 | 858.8 | 853.8 | 769.6 | 970.5 | |
| West Baldwin (CSD) max yield - 500-1000 AF | 806.7 | 940.9 | 637.0 | 892.1 | 214.7 | 278.0 | 647.2 | 741.7 | 585.6 | 391.4 | 238.3 | 423.5 | 548.2 | 839.4 | 699.5 | 715.1 | 572.5 | |
| Division / No. Shore max yield - 540 AF | 859.2 | 746.9 | 627.6 | 653.2 | 548.0 | 616.7 | 721.1 | 614.0 | 610.6 | 544.0 | 502.6 | 618.3 | 612.3 | 635.7 | 658.0 | 604.7 | 498.4 | |
| Erwin | CSD | 253.4 | 163.5 | 185.4 | 191.5 | 629.2 | 562.3 | 349.2 | 209.5 | 216.5 | 370.5 | 482.3 | 303.8 | 225.3 | 63.6 | 51.9 | 92.7 | 212.4 |
| | DWP | 529.7 | 615.1 | 614.6 | 716.0 | 542.8 | 584.8 | 648.5 | 617.5 | 567.7 | 576.9 | 519.8 | 486.1 | 535.6 | 367.8 | 474.6 | 575.1 | 452.2 |
| max yield - 890 AF | 783.1 | 778.6 | 800.0 | 907.5 | 1172.0 | 1147.1 | 997.7 | 827.0 | 784.2 | 947.4 | 1002.1 | 789.9 | 760.9 | 431.4 | 526.5 | 667.7 | 664.6 | |
| Annual Totals | 4818.0 | 4752.9 | 4198.1 | 4592.6 | 4466.5 | 4460.8 | 4633.8 | 4202.8 | 3902.5 | 3862.7 | 3885.1 | 3732.5 | 3847.3 | 3404.7 | 3470.4 | 3638.4 | 3594.8 | |

BBLDWP Water Use (Million Gallons)

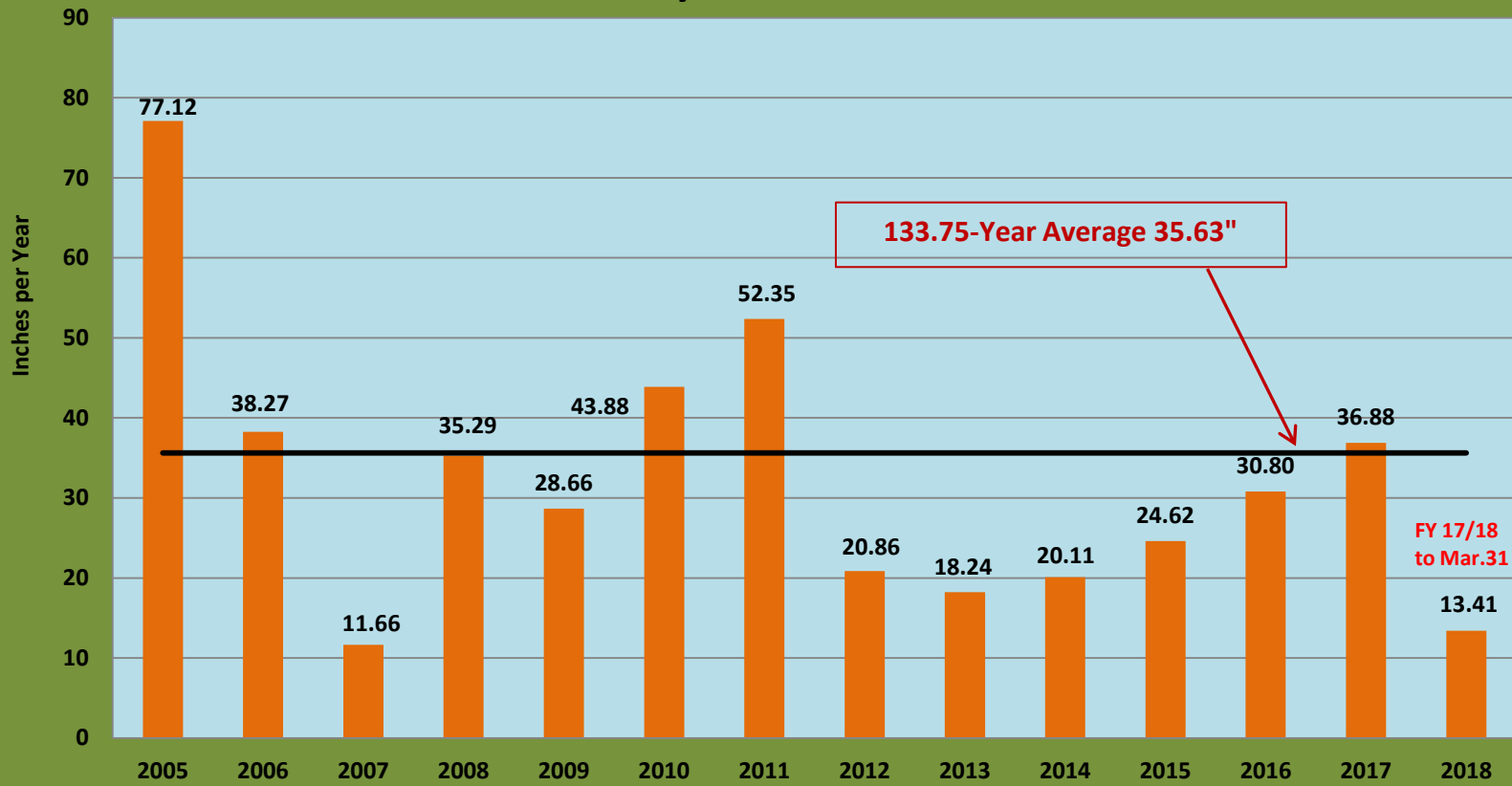
| | January | February | March | April | May | June | July | August | September | October | November | December | CY Prod Total | SWRCB TOTAL |
|-------------|---------|----------|-------|-------|-------|-------|-------|--------|-----------|---------|----------|----------|---------------|-------------|
| 2013 | 72.06 | 51.90 | 44.23 | 51.23 | 76.62 | 88.44 | 93.98 | 87.67 | 74.60 | 50.70 | 38.89 | 59.68 | 790.00 | 790.00 |
| 2014 | 45.48 | 39.80 | 39.89 | 45.69 | 63.69 | 83.60 | 92.33 | 81.17 | 74.36 | 63.56 | 44.02 | 48.26 | 721.85 | 572.58 |
| 2015 | 56.34 | 41.66 | 42.46 | 45.33 | 59.85 | 64.75 | 74.73 | 76.31 | 65.21 | 57.02 | 43.83 | 52.31 | 679.80 | 1138.47 |
| 2016 | 66.4 | 51.63 | 39.74 | 35.48 | 54.75 | 73.38 | 90.11 | 76.59 | 68.56 | 55.8 | 40.85 | 51.02 | 704.31 | 1843.79 |
| 2017 | 58.84 | 48.58 | 42.69 | 45.67 | 62.05 | 76.15 | 86.24 | 75.33 | 63.51 | 57.95 | 41.3 | 47.01 | 705.32 | |
| 2018 | 49.63 | 41.53 | 39.63 | | | | | | | | | | 130.79 | |

| | January | February | March | April | May | June | July | August | September | October | November | December | Calendar Year Average change | SWRCB Total Avg Change |
|---|---------|----------|---------|---------|---------|---------|---------|---------|-----------|---------|----------|----------|------------------------------|------------------------|
| Change from 2013 to 2015 for the same month | -21.82% | -19.73% | -4.00% | -11.52% | -21.89% | -26.79% | -20.48% | -12.96% | -12.59% | 12.47% | 12.70% | -12.35% | -11.58% | -11.93% |
| Change from 2013 to 2016 for the same month | -7.85% | -0.52% | -10.15% | -30.74% | -28.54% | -17.03% | -4.12% | -12.64% | -8.10% | 10.06% | 5.04% | -14.51% | -9.93% | |
| Change from 2013 to 2017 for the same month | -18.35% | -6.40% | -3.48% | -10.85% | -19.02% | -13.90% | -8.24% | -14.08% | -14.87% | 14.30% | 6.20% | -21.23% | -9.16% | |
| Change from 2013 to 2018 for the same month | -31.13% | -19.98% | -10.40% | | | | | | | | | | | |

Residential Gallons Per-Capita Day (RGPCD)

| | January | February | March | April | May | June | July | August | September | October | November | December | Avg (dates shown) |
|-------------|---------|----------|-------|-------|-------|-------|-------|--------|-----------|---------|----------|----------|-------------------|
| 2013 | 63.42 | 58.71 | 45.18 | 52.5 | 65.7 | 81.6 | 87 | 85.9 | 78.6 | 50.6 | 43.8 | 58.23 | 67.10 |
| 2014 | 40.4 | 46.6 | 34.8 | 43.5 | 57.10 | 76.91 | 85.22 | 79.26 | 78.11 | 63.19 | 49.41 | 46.96 | 58.46 |
| 2015 | 49.92 | 48.61 | 36.93 | 43.09 | 53.51 | 59.5 | 68.5 | 73.25 | 65.61 | 57.84 | 46.66 | 49.84 | 54.44 |
| 2016 | 58.45 | 56.5 | 37.75 | 32.71 | 48.18 | 69.77 | 83.2 | 70.05 | 67.32 | 55.42 | 43.25 | 48.38 | 55.92 |
| 2017 | 50.25 | 50.15 | 42.04 | 45.67 | 57.33 | 63.98 | 86.24 | 81.37 | 61.05 | 57.91 | 41.82 | 44.63 | 56.87 |
| 2018 | 43.1 | 42.16 | 37.52 | | | | | | | | | | |

Annual Rainfall at Big Bear Dam July 1 - June 30



Historical Production
2018 Production is 7/1/17 - 3/31/18

