**MONTEREY COUNTY WATER RESOURCES AGENCY**
**BOARD OF DIRECTORS**
**BASIN MANAGEMENT ADVISORY COMMITTEE**

**COMMITTEE MEMBERS**

Richard Ortiz, Chair
Deidre Sullivan
John Baillie
David Bunn
Dennis Sites

Kevin Piearcy
Bill Lipe
Amy White
Harold Wolgamott
*Vacant,* Public Member

**TIME:** 8:30 a.m.
**DATE:** Wednesday, August 7, 2019
**PLACE:** 1441 Schilling Place
Saffron Room, 1st Floor
Salinas, CA 93901
(831) 755-4860

**AGENDA**

1. **Call to Order**

2. **Public Comment**
*(Limited to three (3) minutes per speaker on matters within the jurisdiction of the Agency not listed on this agenda. The public will have the opportunity to ask questions and make statements on agenda items as the Committee considers them.)*

3. **Approve Minutes of the Meeting held on June 5, 2019.**
The Committee will consider approval of the Minutes of the above-mentioned meeting.

4. **Receive an update on well permit application activities.**

5. **Receive an update on groundwater sustainability agency activities in the Salinas Valley Basin.**

6. **Receive an update on the Salinas Valley Integrated Hydrologic Model.**

7. **Receive an update on committee member status and vacancies of the Basin Management Advisory Committee.**

8. **Receive a report on an overview of the Agency's Quarterly Water Conditions Report.**

9. **Set next meeting date and discuss future agenda items.**
The Committee will determine details for its next meeting. The first Wednesday of September falls on the 4th.

10. **Adjournment**

**MONTEREY COUNTY WATER RESOURCES AGENCY**
**BOARD OF DIRECTORS**
**BASIN MANAGEMENT ADVISORY COMMITTEE**

**COMMITTEE MEMBERS**

Richard Ortiz, Chair
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*Vacant*, Public Member

**TIME:** 8:30 a.m.
**DATE:** Wednesday, June 5, 2019
**PLACE:** 1441 Schilling Place, Saffron Room
Salinas, CA 93901

**MINUTES**

1. **Call to Order @ 8:35 a.m.**

   **Members Present: Ortiz, Baillie, Bunn, Sites, Lipe, White, Wolgamott**
   **Members Absent: Sullivan, Piearcy**

2. **Public Comment:** None

3. **Approve Minutes of the Meeting held on April 3, 2019.**

   **Committee Action: On Motion by Baillie and Second by Sites, the Committee approved the Minutes of the Basin Management Advisory Committee meeting held on April 3, 2019.**

   **Ayes:** **Ortiz, Baillie, Bunn, Sites, Lipe**
   **Noes:**
   **Abstain:** **White, Wolgamott**
   **Absent:** **Sullivan, Piearcy**

4. **Receive an update on well permit application activities.**
   Howard Franklin, Senior Water Resources Hydrologist, and Peter Kwiek, Hydrologist, provided the update.

5. **Receive an update on groundwater sustainability agency activities in the Salinas Valley Basin.**
   Howard Franklin, Senior Water Resources Hydrologist, provided the update.

6. **Receive an update on the Salinas Valley Integrated Hydrologic Model.**
   Howard Franklin, Senior Water Resources Hydrologist, provided the update.

7. **Receive an update on the Integrated Coastal Monitoring Plan for the Monterey Peninsula Water Supply Project.**
   Tam Voss, Associate Water Resources Hydrologist, provided the update.

8. **Receive an update on committee member status and vacancies of the Basin Management Advisory Committee.**
   Howard Franklin, Senior Water Resources Hydrologist, provided the update.

   **Committee Action: On Motion by Baillie and Second by Bunn, the Committee agreed to bring to the Board of Directors a proposed Bi-law change to eliminate the last vacant public seat on the Committee.**

   **Ayes: Ortiz, Baillie, Bunn, Sites, Lipe**
   **Noes: White, Wolgamott**
   **Abstain:**
   **Absent: Sullivan, Piearcy**

9. **Receive a report on long-term groundwater level trends in the Salinas Valley.**
   Peter Kwiek, Hydrologist, provided the report.

10. **Set next meeting date and discuss future agenda items.**
    The next meeting date will be July 3rd.

11. **Adjournment**
    Meeting was adjourned at 10:13 a.m.

Submitted by Misti Muramatsu

**Agenda Item #4**

Receive an update on well permit application activities

RECOMMENDATION:
It is recommended that the Monterey County Water Resources Agency Basin Management Advisory Committee: receive an update on well permit application activities

SUMMARY/DISCUSSION:
The Well Permit Application Process is regulated by the Environmental Health Bureau (EHB) and the Agency provides technical support to EHB. Adoption of the 2010 County General Plan resulted in the addition of well impact assessments to the well permit review process.

The attached table provides a summation of well permit applications evaluated by Agency staff for compliance with 2010 Monterey County General Plan policies PS-3.3 (domestic wells) or PS-3.4 (high capacity wells), categorized by type of well impact assessment and Salinas Valley subbasin. This table is provided to the Board of Directors and Basin Management Advisory Committee on a monthly basis.

In response to requests from the Board of Directors regarding data about construction of wells in the Deep Aquifers, Staff has also included a chart depicting the history of well installation in the Deep Aquifers (Figure). This chart, which includes both production and monitoring wells, indicates that a total of forty-eight (48) wells have been installed in the Deep Aquifers since 1974, with seventeen (17) of those wells being constructed in the last ten years.

Applications have been filed for three (3) additional wells but construction has not been completed as of the date of this report. All three (3) proposed wells in the Deep Aquifers have been applied for as a "replacement wells" under provisions of interim Ordinance No. 5302, which was passed by the Board of Supervisors and adopted on May 22, 2018.

OTHER AGENCY INVOLVEMENT:
None

FINANCING:
None

Prepared by: Nicole Koerth, Water Resources Technician, (831) 755-4860
Peter Kwiek, Hydrologist, (831) 755-4860
Howard Franklin, Senior Hydrologist, (831) 755-4860

Attachments:
Table - Summary of Well Impact Evaluations
Figure - Timeline of Well Installation in the Deep Aquifers

# Summary of Well Impact Evaluations Conducted per 2010 Monterey County General Plan

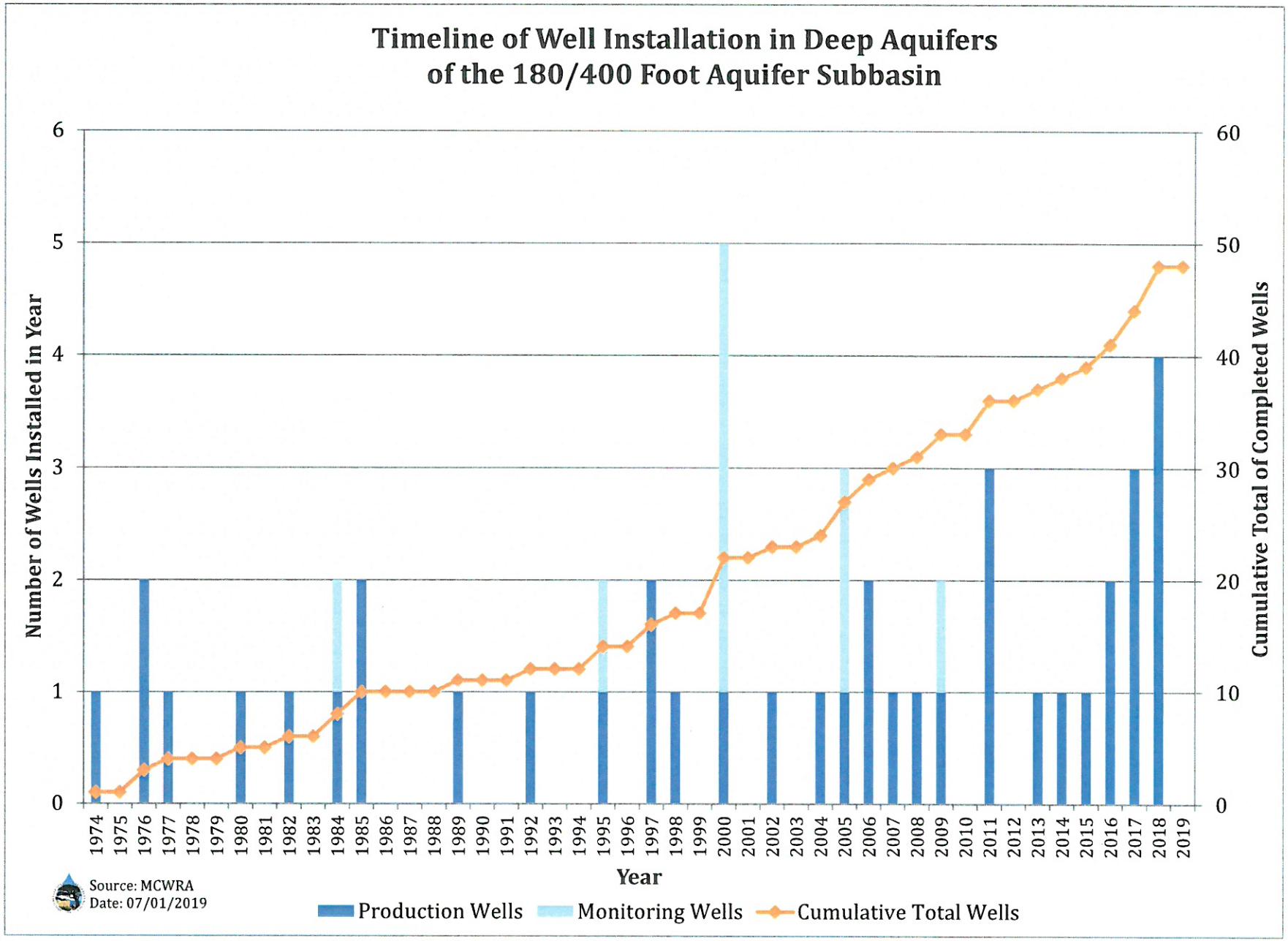
## Domestic Wells

| *Evaluation Outcome* | Pressure | East Side | Forebay | Upper Valley | Outside Zone 2C | **TOTAL** |
|---|---|---|---|---|---|---|
| Coastal Zone or City (General Plan n/a). | 3 | 1 | 1 | 0 | 17 | **22** |
| No potential impact. | 8 | 18 | 14 | 6 | 181 | **227** |
| Potential impact; acceptable mitigation proposed. | 0 | 0 | 0 | 0 | 2 | **2** |
| Repair (exempt). | 0 | 2 | 0 | 0 | 2 | **4** |
| Replacement (exempt). | 3 | 8 | 2 | 2 | 10 | **25** |
| **TOTAL** | **14** | **29** | **17** | **8** | **212** | **280** |
| *Subarea Total as Percentage* | *5%* | *10%* | *6%* | *3%* | *76%* | |

## High Capacity Wells

| *Evaluation Outcome* | Pressure | East Side | Forebay | Upper Valley | Outside Zone 2C | **TOTAL** |
|---|---|---|---|---|---|---|
| Coastal Zone or City (General Plan n/a). | 2 | 0 | 0 | 0 | 2 | **4** |
| No potential impact. | 25 | 38 | 26 | 20 | 14 | **123** |
| Potential impact; acceptable mitigation proposed. | 1 | 1 | 0 | 3 | 0 | **5** |
| Repair (exempt). | 2 | 0 | 1 | 2 | 0 | **5** |
| Replacement (exempt). | 17 | 6 | 6 | 19 | 0 | **48** |
| **TOTAL** | **47** | **45** | **33** | **44** | **16** | **185** |
| *Subarea Total as Percentage* | *25%* | *24%* | *18%* | *24%* | *9%* | |

Total Evaluations: To Date: 465 FY 18/19: 48 Report Date: 7/1/2019 Evaluations initiated November 2011.


Timeline of Well Installation in Deep Aquifers
of the 180/400 Foot Aquifer Subbasin
Number of Wells Installed in Year
Cumulative Total of Completed Wells
Year
Source: MCWRA
Date: 07/01/2019
Production Wells
Monitoring Wells
Cumulative Total Wells

**Agenda Item #8**

Receive a report on an overview of the Agency's Quarterly Water Conditions Report

RECOMMENDATION:
It is recommended that the Monterey County Water Resources Agency Basin Management Advisory Committee: receive a report on an overview of the Agency's Quarterly Water Conditions Report.

SUMMARY/DISCUSSION:
The Agency's Quarterly Water Conditions Report (Quarterly Report) provides a brief summary of water conditions in the Salinas Valley with discussion of precipitation, reservoir storage, and groundwater level trends. Data are collected, processed and analyzed by Agency Data Acquisition staff before the report is compiled, internally reviewed and published as a Board of Directors information item in the months of January, April, July, and October. Originally presented to the Board of Directors in the early 1990s, Quarterly Reports dating back to 2003 are available on the Agency's website. The most recent Quarterly Report is included here as an attachment and covers Salinas Valley Water Conditions for the Third Quarter of Water Year 2018-2019.

OTHER AGENCY INVOLVEMENT:
None

FINANCING:
None

Prepared by: Peter Kwiek, Hydrologist, (831) 755-4860

Attachments:
Report on Salinas Valley Water Conditions for the Third Quarter of Water Year 2018-2019.

**..Title**
Receive Report on Salinas Valley Water Conditions for the Third Quarter of Water Year 2018-2019

**..Report**
RECOMMENDATION:
It is recommended that the Monterey County Water Resources Agency Board of Directors:

Receive report on Salinas Valley water conditions for the third quarter of Water Year 2018-2019.

SUMMARY/DISCUSSION:
This report covers the third quarter of Water Year 2018-2019 (WY19), April through June, 2019. It provides a brief overview of water conditions in the Salinas Valley (Attachment A) with discussion of precipitation, reservoir storage, and groundwater level trends. Data for each of these components are included as graphs and tables in Attachments B through J.

Precipitation – Preliminary National Weather Service rainfall data indicates that the third quarter of WY19 brought above normal rainfall to Salinas and King City. Totals for the quarter were 1.79 inches (131% of normal rainfall of 1.37 inches for the quarter) at the Salinas Airport, and 1.52 inches (133% of normal rainfall of 1.14 inches for the quarter) in King City.

Attachment B contains graphs for both stations showing monthly and cumulative precipitation data for the current and a "normal" water year, based on long-term monthly precipitation averages. Attachment B also includes tables showing values for precipitation totals as well as percent of "normal" precipitation.

Reservoirs - The following table compares third quarter storage at Nacimiento and San Antonio reservoirs for the past two years. Storage in Nacimiento Reservoir is 147,940 acre-feet higher than in June 2018, and storage in San Antonio Reservoir is 45,500 acre-feet higher.

| **Reservoir** | **June 30, 2019 (WY19) Storage in acre-feet** | **June 30, 2018 (WY18) Storage in acre-feet** | **Difference in acre-feet** |
|---|---|---|---|
| Nacimiento | 271,000 | 123,060 | 147,940 |
| San Antonio | 138,600 | 93,100 | 45,500 |

Graphs showing daily reservoir storage for the last five water years along with 30-year average daily storage for comparison are included as Attachments C and D.

Groundwater Levels – More than 90 wells are measured monthly throughout the Salinas Valley to monitor seasonal groundwater level fluctuations. Data from approximately 50 of these wells are used in the preparation of this report. The measurements are categorized by hydrologic subarea, averaged, and graphed to compare current water levels (WY19) with selected past conditions.

Graphs for individual subareas, showing the current year's water level conditions, last year's conditions (WY18) and dry conditions (WY15) are found in Attachments E through I. For comparison to long term conditions, a curve showing monthly water levels averaged over the most recent 30 years (WY1988-WY2018) is included on each graph. Attachment J is a summary of water level changes for all subareas.

Groundwater level measurements indicate that, throughout the third quarter of WY19, water levels declined to varying degrees in all subareas. Over the last month of the quarter, average groundwater levels receded by three feet in the Pressure 180-Foot Aquifer, by four feet in the Pressure 400-Foot Aquifer, by eight feet in the East Side Subarea and by one foot in the Forebay and Upper Valley Subareas.

Compared to June 2018, average groundwater levels in June 2019 were up by four feet in the Pressure 180-Foot Aquifer, by three feet in the Pressure 400-Foot Aquifer and the East Side Subarea, by eight feet in the Forebay Subarea, and by less than one foot in the Upper Valley Subarea.

When compared to 30-year average groundwater conditions, June 2019 water levels were two feet higher in the Pressure 180-Foot Aquifer, seven feet higher in the Pressure 400-Foot Aquifer, five feet lower in the East Side Subarea, four feet higher in the Forebay Subarea and less than one foot higher in the Upper Valley Subarea.

After falling to historic lows during the recent drought (2012-2016), groundwater levels in all subareas except for the East Side continued to recover in WY19, exceeding both WY15 (dry conditions) and WY18 groundwater levels by the end of the third quarter. The East Side is the only subarea in the basin not to recover after the drought to 30-year average groundwater levels.

OTHER AGENCY INVOLVEMENT:
None

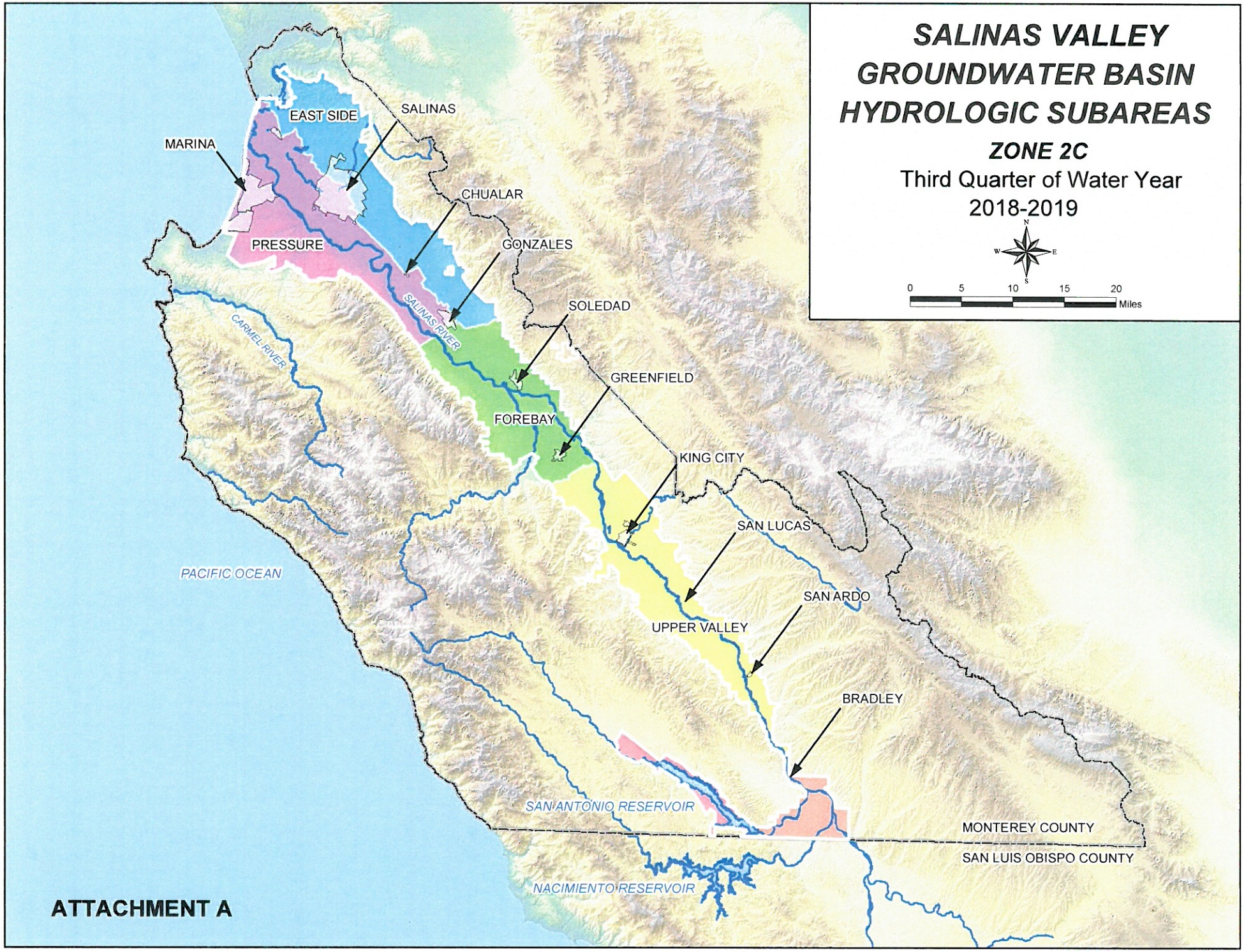
FINANCING:
Funds 113, 114, 115, 116

Prepared by: Howard Franklin, Senior Hydrologist, (831) 755-4860
Tamara Voss, Associate Hydrologist, (831) 755-4860
Peter Kwiek, Hydrologist, (831) 755-4860
Sean Noble, Water Resources Technician, (831) 755-4860

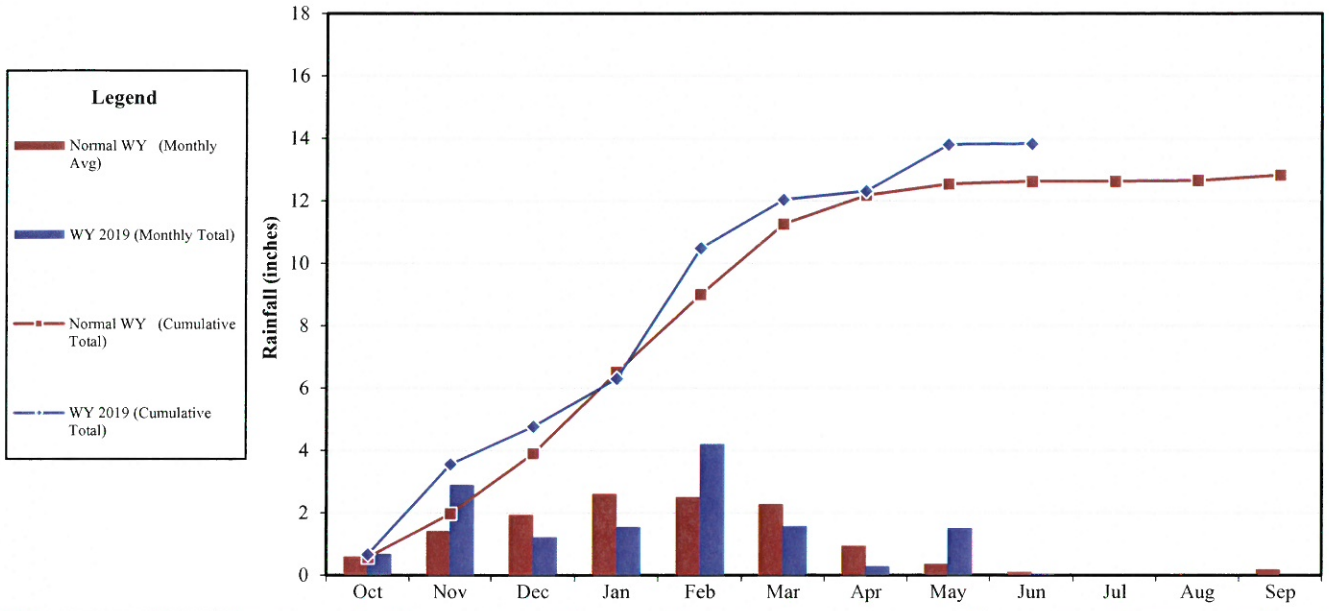
Approved by: _____
Brent Buche, General Manager, (831) 755-4860

Attachments:

1. Attachment A, Salinas Valley Hydrologic Subareas Map
2. Attachment B, Salinas and King City Precipitation Graphs
3. Attachment C, Nacimiento Reservoir Graph
4. Attachment D, San Antonio Reservoir Graph
5. Attachment E, Groundwater Trends Pressure 180-Foot Aquifer
6. Attachment F, Groundwater Trends Pressure 400-Foot Aquifer
7. Attachment G, Groundwater Trends East Side Subarea
8. Attachment H, Groundwater Trends Forebay Subarea
9. Attachment I, Groundwater Trends Upper Valley Subarea
10. Attachment J, Groundwater Trends Summary

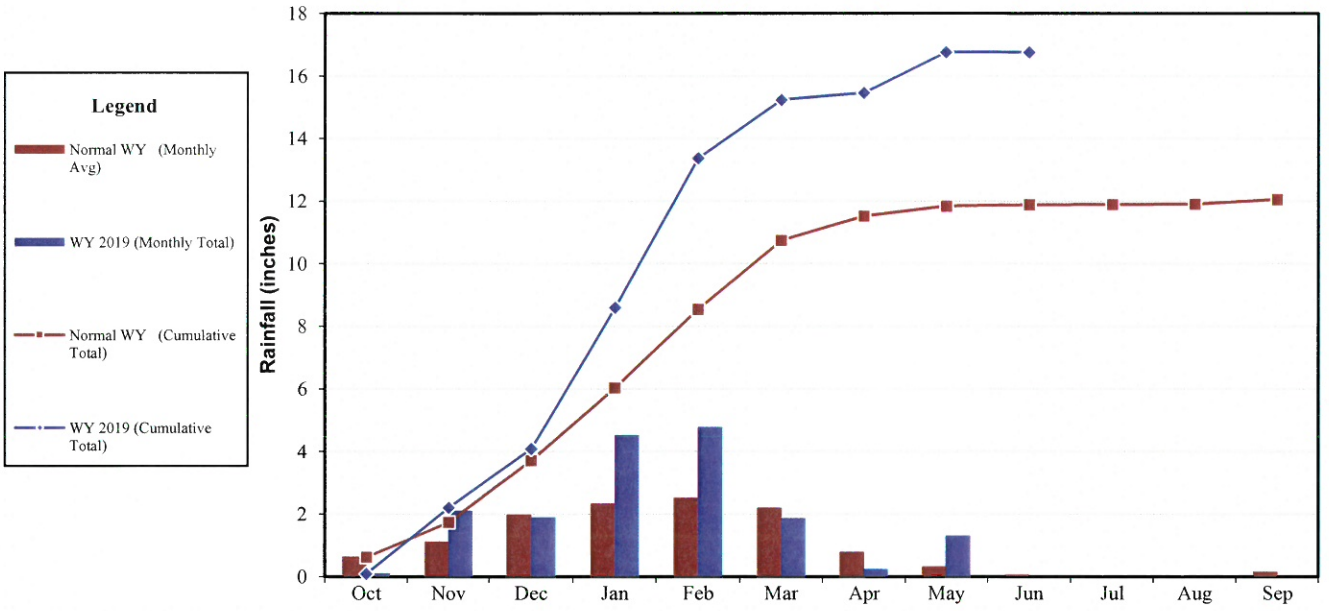

SALINAS VALLEY
GROUNDWATER BASIN
HYDROLOGIC SUBAREAS
ZONE 2C
Third Quarter of Water Year
2018-2019
N
W
E
S
0
5
10
15
20
Miles
EAST SIDE
SALINAS
MARINA
CHUALAR
PRESSURE
GONZALES
SOLEDAD
SALINAS RIVER
CARMEL RIVER
GREENFIELD
FOREBAY
KING CITY
SAN LUCAS
PACIFIC OCEAN
SAN ARDO
UPPER VALLEY
BRADLEY
SAN ANTONIO RESERVOIR
MONTEREY COUNTY
SAN LUIS OBISPO COUNTY
NACIMIENTO RESERVOIR
ATTACHMENT A

# SALINAS AIRPORT RAINFALL
## WATER YEAR 2019




| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Monthly Rainfall (WY 2019) | 0.67 | 2.89 | 1.21 | 1.53 | 4.19 | 1.55 | 0.27 | 1.49 | 0.03 | | | |
| Monthly Rainfall (Normal WY*) | 0.58 | 1.40 | 1.93 | 2.60 | 2.49 | 2.26 | 0.93 | 0.35 | 0.09 | 0.00 | 0.03 | 0.17 |
| Percent of Normal for Month | 116% | 206% | 63% | 59% | 168% | 69% | 29% | 426% | 33% | | | |
| Cumulative Rainfall (WY 2019) | 0.67 | 3.56 | 4.77 | 6.30 | 10.49 | 12.04 | 12.31 | 13.80 | 13.83 | | | |
| Cumulative Rainfall (Normal WY*) | 0.58 | 1.98 | 3.91 | 6.51 | 9.00 | 11.26 | 12.19 | 12.54 | 12.63 | 12.63 | 12.66 | 12.83 |
| Percent of Cumulative Normal | 116% | 180% | 122% | 97% | 117% | 107% | 101% | 110% | 110% | | | |

# KING CITY RAINFALL
## WATER YEAR 2019

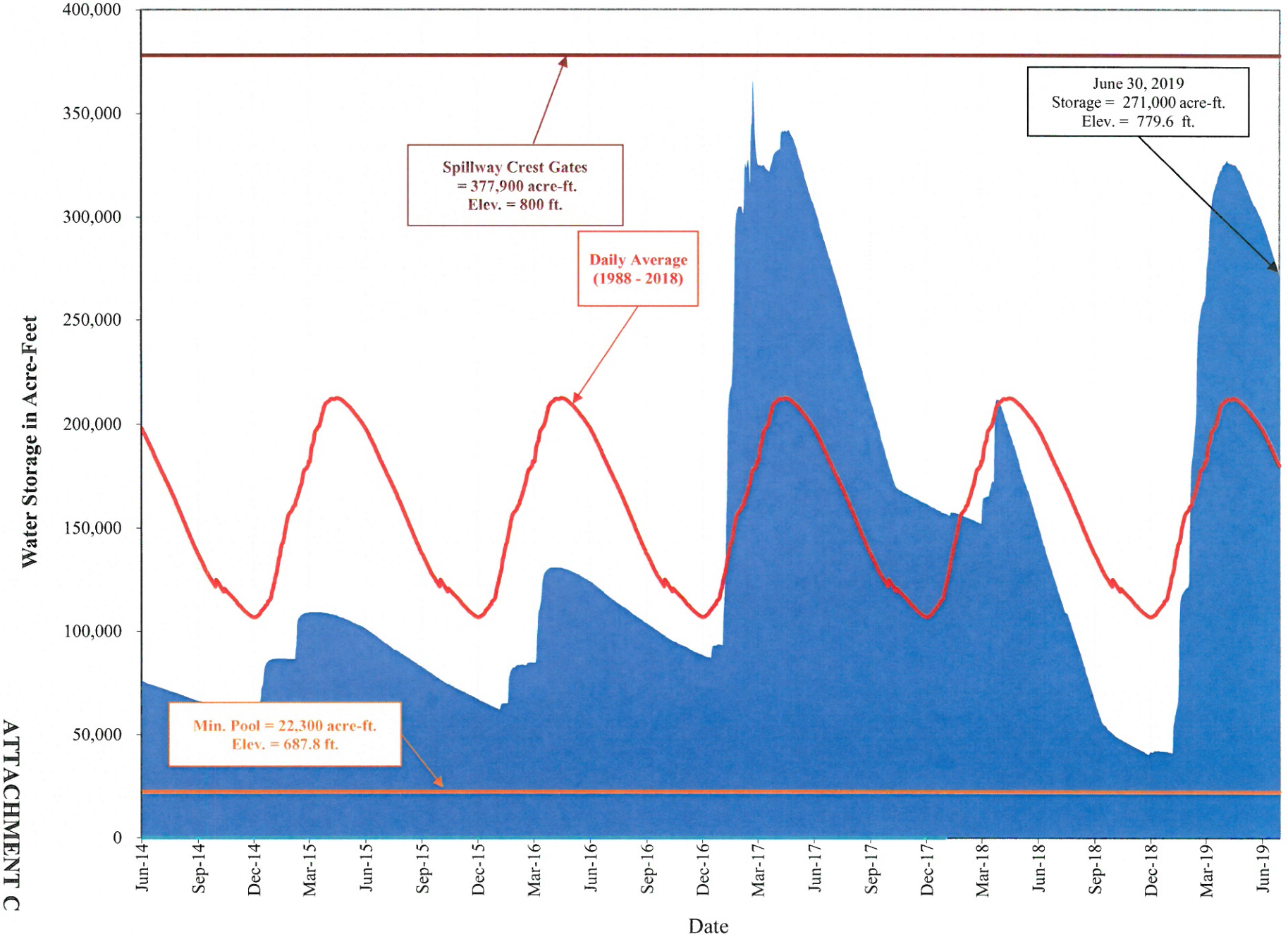



| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Monthly Rainfall (WY 2019) | 0.10 | 2.11 | 1.89 | 4.51 | 4.77 | 1.86 | 0.23 | 1.29 | 0.00 | | | |
| Monthly Rainfall (Normal WY*) | 0.63 | 1.11 | 1.98 | 2.32 | 2.51 | 2.20 | 0.78 | 0.31 | 0.05 | 0.01 | 0.01 | 0.15 |
| Percent of Normal for Month | 16% | 190% | 95% | 194% | 190% | 85% | 29% | 416% | 0% | | | |
| Cumulative Rainfall (WY 2019) | 0.10 | 2.21 | 4.10 | 8.61 | 13.38 | 15.24 | 15.47 | 16.76 | 16.76 | | | |
| Cumulative Rainfall (Normal WY*) | 0.63 | 1.74 | 3.72 | 6.04 | 8.55 | 10.75 | 11.53 | 11.84 | 11.89 | 11.90 | 11.91 | 12.06 |
| Percent of Cumulative Normal | 16% | 127% | 110% | 143% | 156% | 142% | 134% | 142% | 141% | | | |

*Average precipitation over the most recent 30-year period ending in a decade (1981-2010)

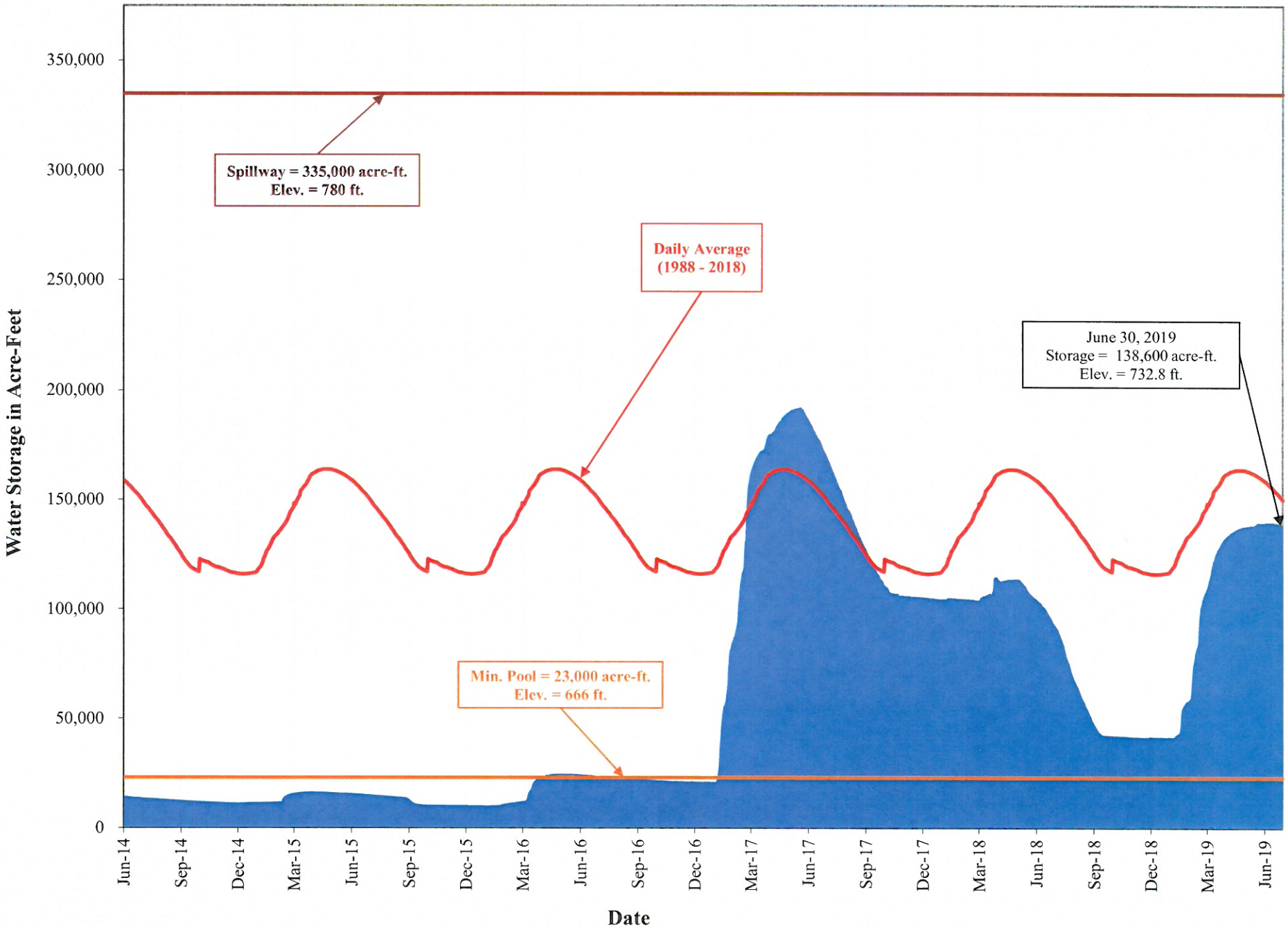
**ATTACHMENT B**

# NACIMIENTO RESERVOIR
## DAILY STORAGE



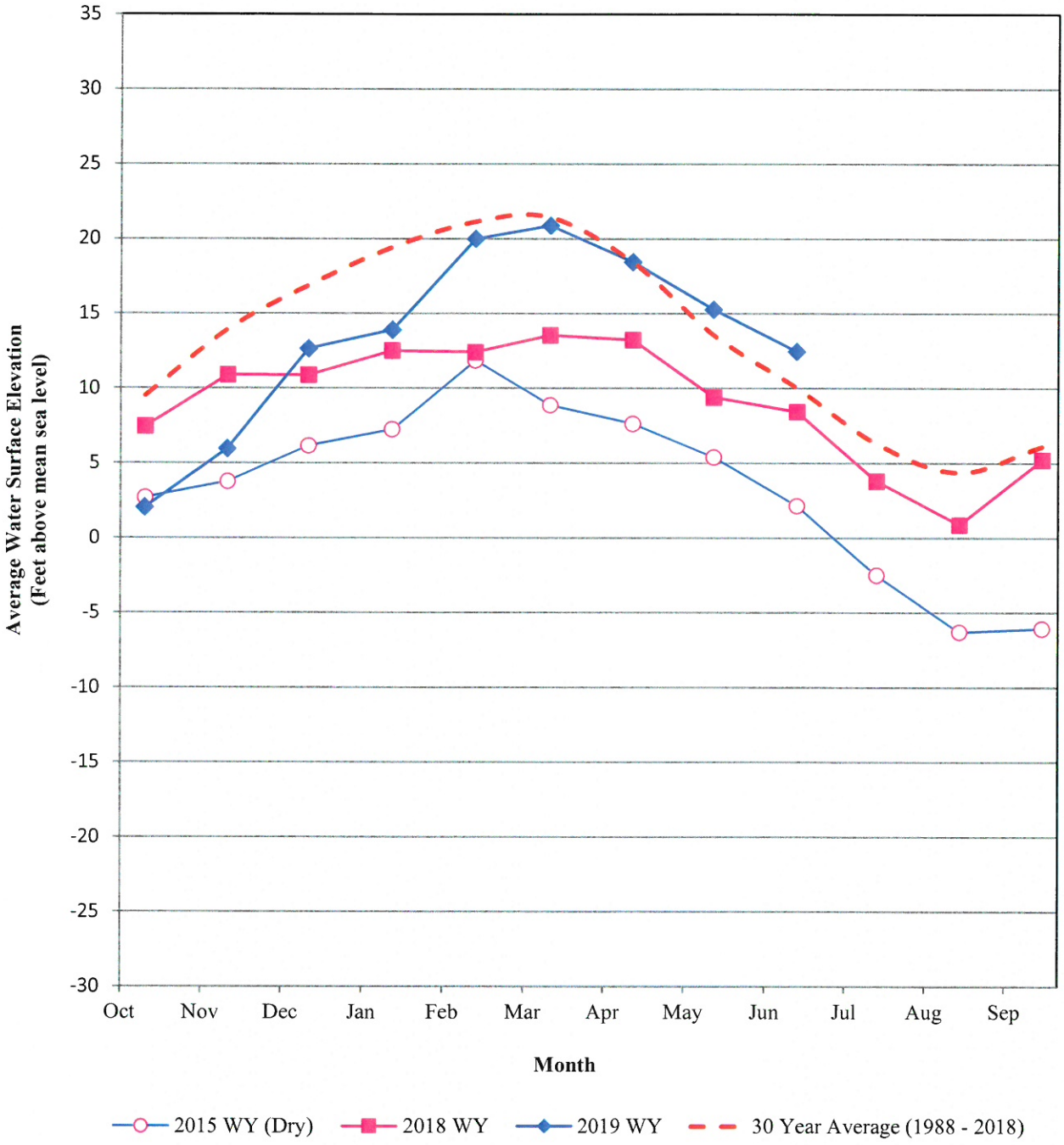

ATTACHMENT C

# SAN ANTONIO RESERVOIR
## DAILY STORAGE



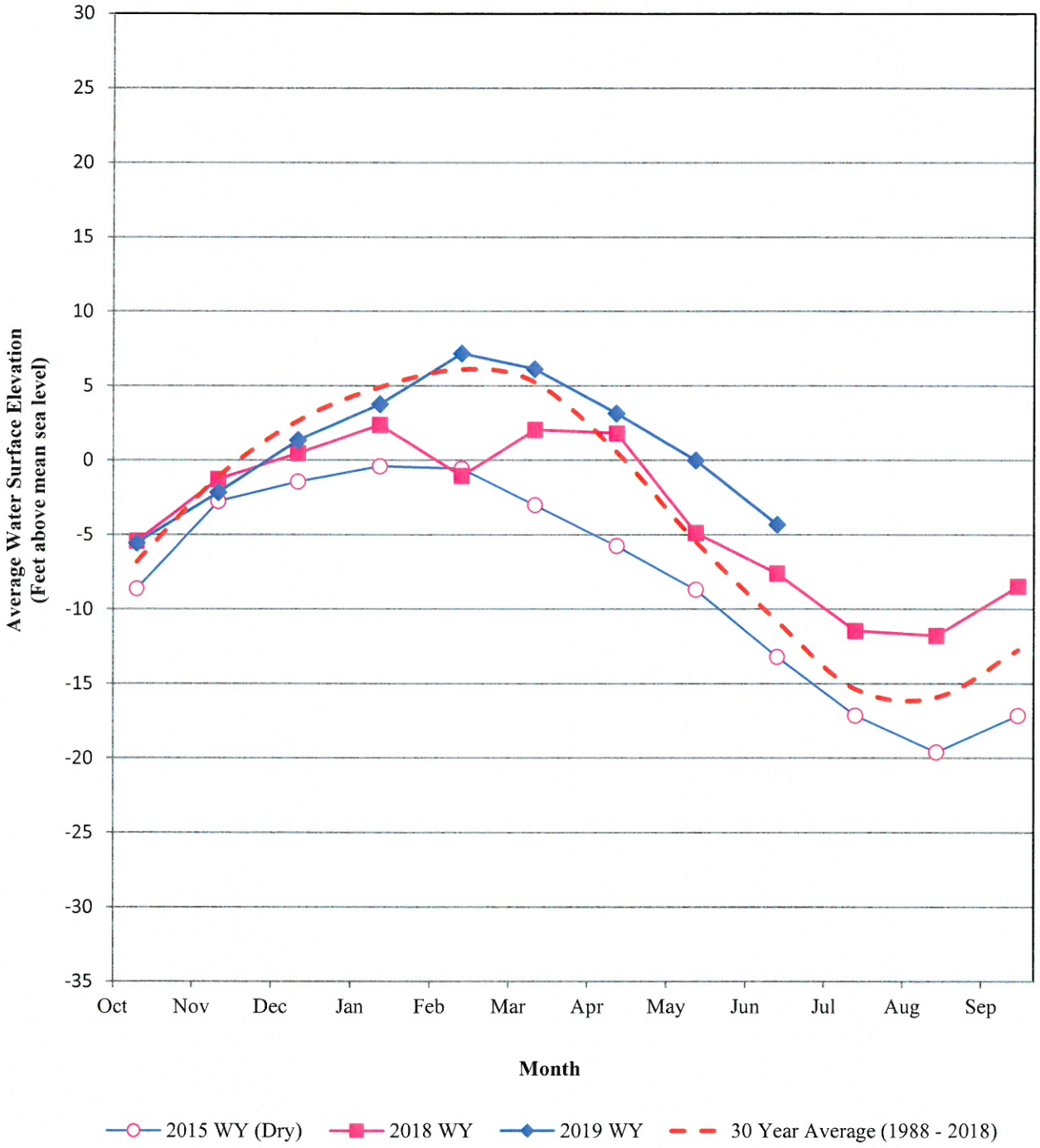

ATTACHMENT D

# GROUNDWATER TRENDS
## PRESSURE 180-FOOT AQUIFER
## 5 Wells



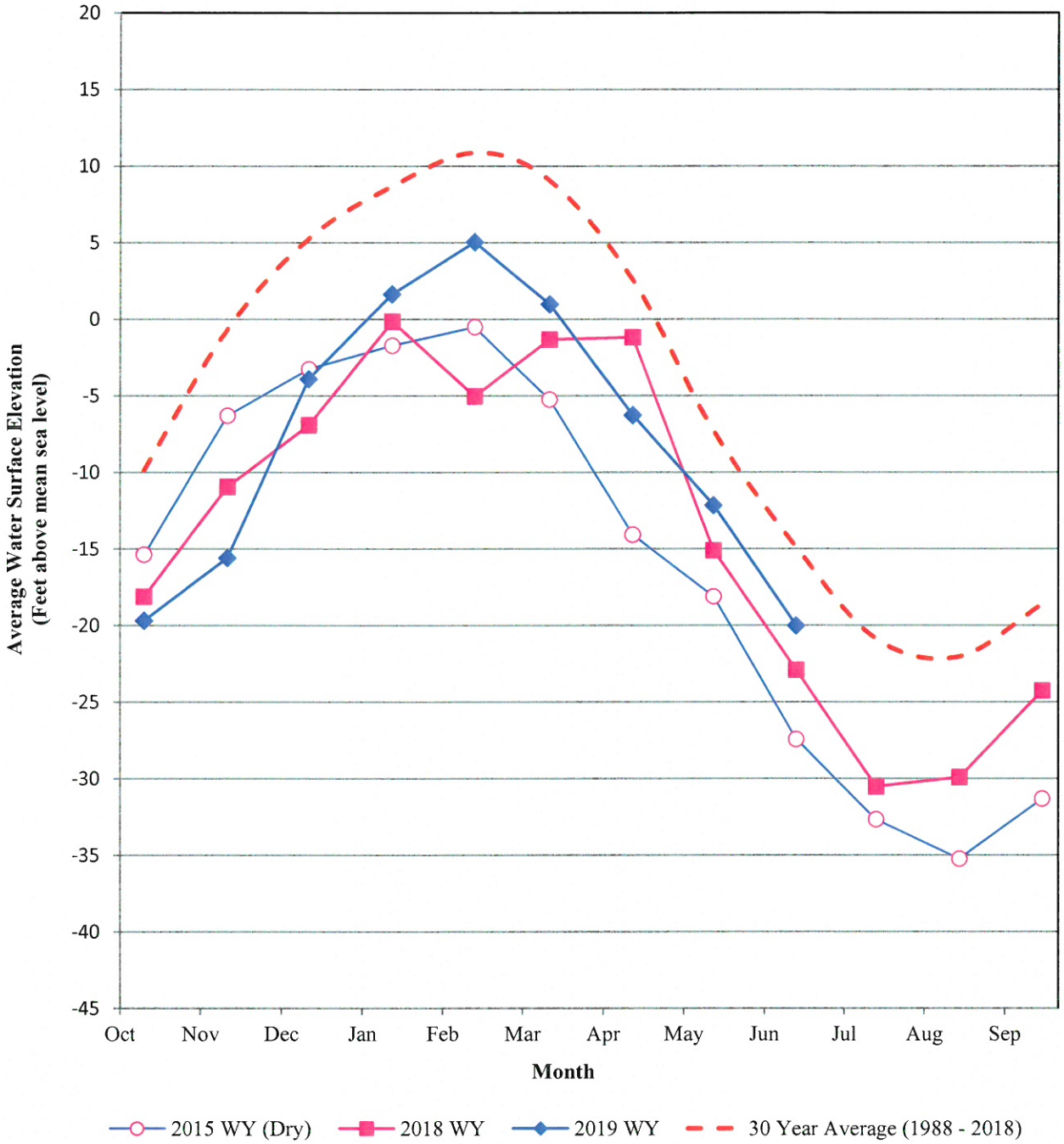

**ATTACHMENT E**

# GROUNDWATER TRENDS
## PRESSURE 400-FOOT AQUIFER
## 11 Wells



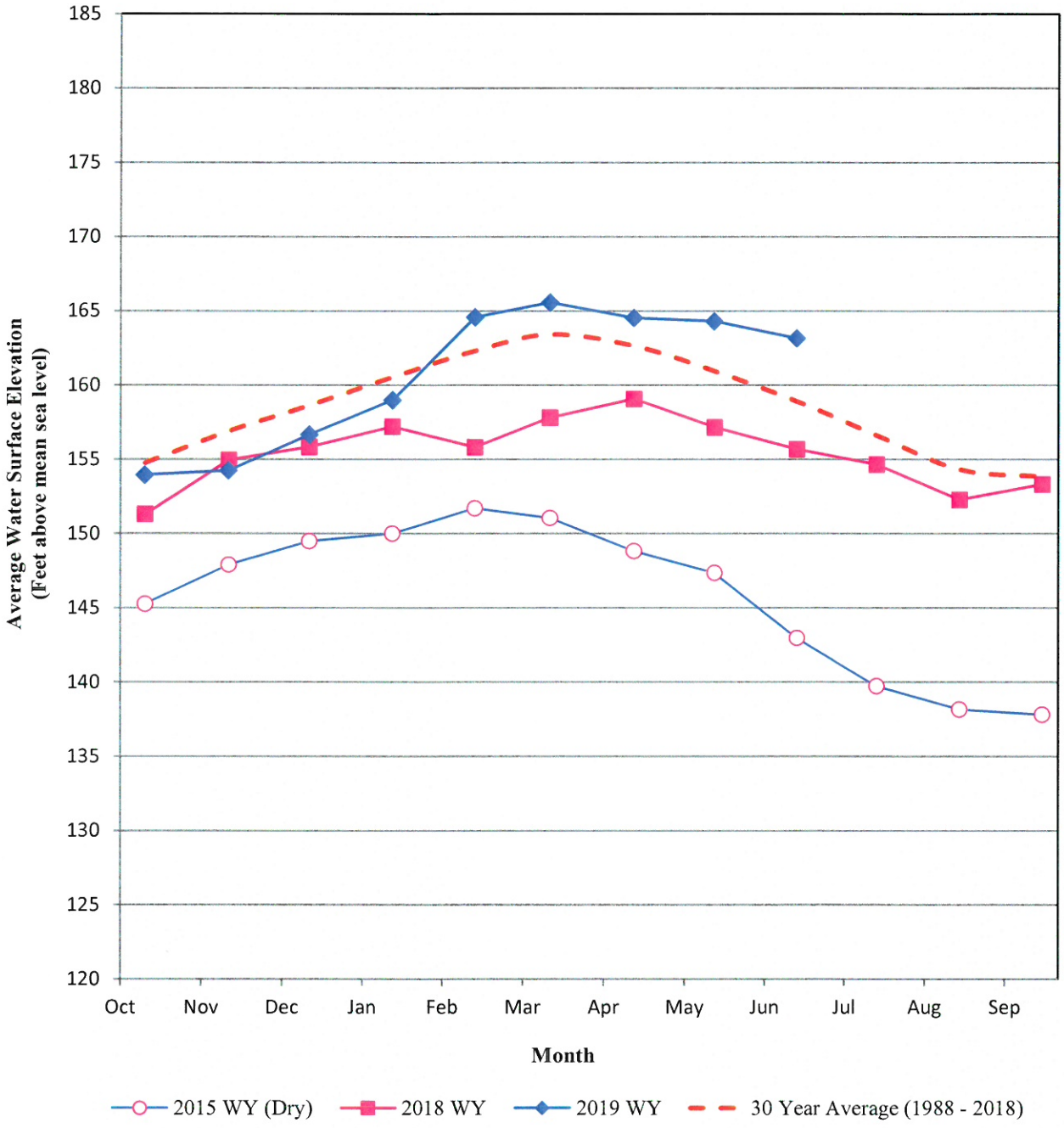

**ATTACHMENT F**

# GROUNDWATER TRENDS
## EAST SIDE SUBAREA
## 11 Wells



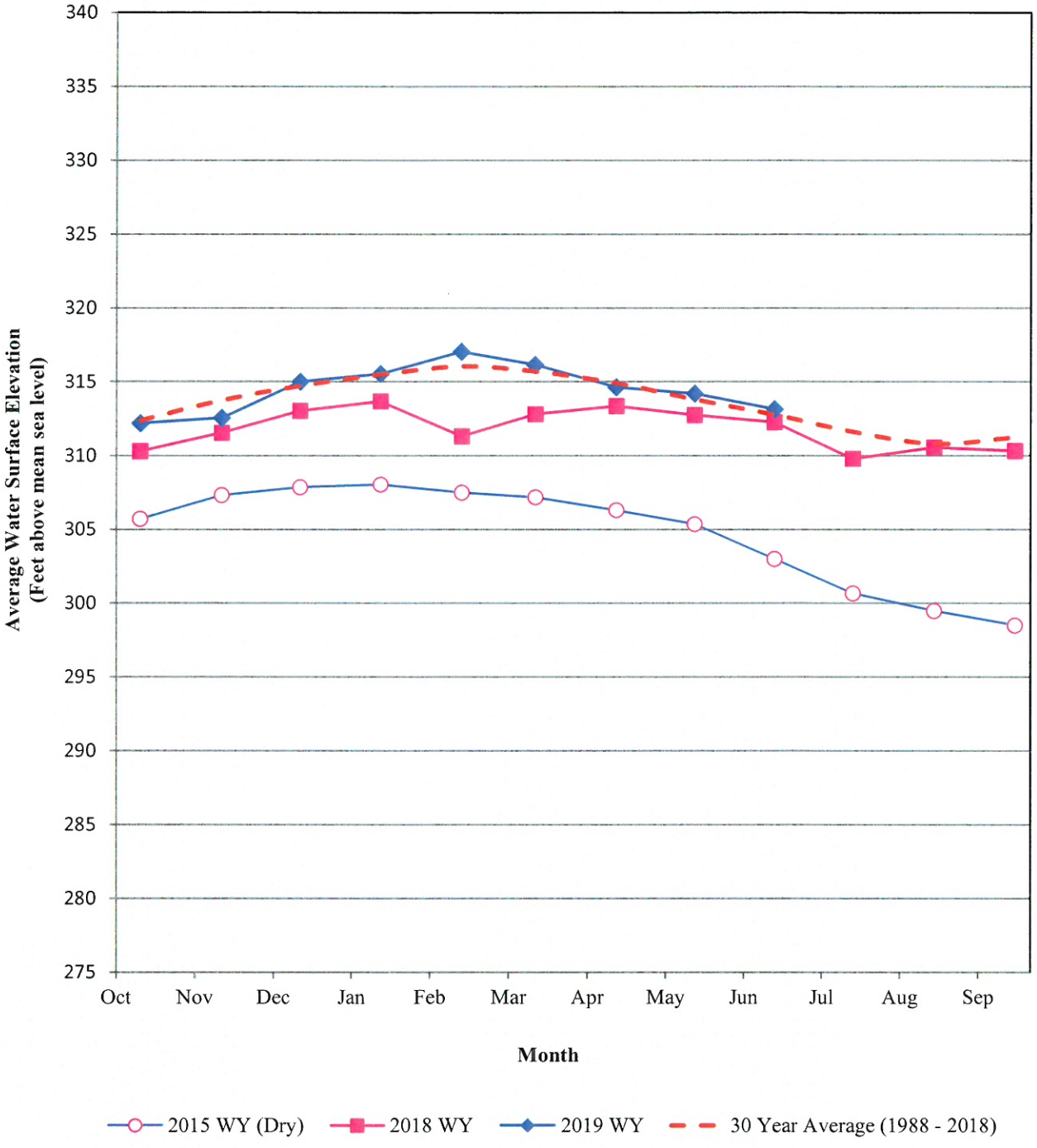

ATTACHMENT G

# GROUNDWATER TRENDS
## FOREBAY SUBAREA
## 10 Wells




**ATTACHMENT H**

# GROUNDWATER TRENDS
## UPPER VALLEY SUBAREA
## 9 Wells




**ATTACHMENT I**

# Groundwater Trends Summary
# June 2019

| Area | June 2019 Groundwater Elevation (ft msl) | 1 Year Change | Difference from 30 year Average Elevation | 1 Month Change |
|---|---|---|---|---|
| Pressure 180-Foot Aquifer | 13 ' | Up 4 ' | Up 2 ' | Down 3 ' |
| Pressure 400-Foot Aquifer | -4 ' | Up 3 ' | Up 7 ' | Down 4 ' |
| East Side Subarea | -20 ' | Up 3 ' | Down 5 ' | Down 8 ' |
| Forebay Subarea | 163 ' | Up 8 ' | Up 4 ' | Down 1 ' |
| Upper Valley Subarea | 313 ' | Up < 1 ' | Up < 1 ' | Down 1 ' |

ATTACHMENT J