CRESCENTA VALLEY WATER DISTRICT

2700 Foothill Boulevard
La Crescenta, California

Agenda for the
Regular Meeting of the Board of Directors
of the Crescenta Valley Water District
to be held on June 6, 2017 at 7:00 p.m.

Posted: June 2, 2017 at 3:00 p.m.

Any written materials distributed to the Board in connection with this agenda will be made available at the same time for public inspection at the District office located at the above address.

Call to Order and Determination of Quorum

Pledge of Allegiance

Adoption of Agenda

Public Comments

At this time the public shall have an opportunity to comment on any non-agenda item relevant to the subject matter jurisdiction of the Board. This opportunity is non-transferable and speakers are limited to one three (3) minute comment.

Foothill Municipal Water District Report

1. Report on activities at Foothill Municipal Water District.

Consent Calendar

1. Consideration and approval of the Minutes of the Adjourned Regular Meeting on May 16, 2017.

Action Calendar

The public shall have an opportunity to comment on any action item as each item is considered by the Board prior to action being taken. This opportunity is non-transferable and speakers are limited to one two (2) minute comment.

1. **Crescenta Valley County Park Stormwater Recharge Facility Study** – Presentation by Mr. Greg Hamer from AMEC Foster Wheeler on the Crescenta Valley County Park Stormwater Recharge Facility Study.
2. **Water & Wastewater Budgets for FY 2017/18** – Discussion of draft water and wastewater budgets for FY 2017/18.

Information Items

Written Communications to District/Board of Directors

Staff Reports

- **Secretary-Treasurer**
- **General Manager**
- **District Engineer**
- **Program Specialist**
- **Information Technology**

Attorney Report

Reports of Committees

- **Engineering Committee**
- **Finance Committee**
- **Employee Relations Committee**
- **Policy Committee**
- **Community Relations/Water Conservation Committee**
- **Emergency Planning Committee**

Director's Oral Reports

Report on issues, meetings, or activities attended by Directors.

Board Members' Request for Future Agenda Items

Adjournment

CRESCENTA VALLEY WATER DISTRICT
ADJOURNED REGULAR MEETING, BOARD OF DIRECTORS
May 16, 2017

Pursuant to the order of the Board of Directors of the Crescenta Valley Water District, made at the Regular Meeting of May 2, 2017, an Adjourned Regular Meeting was held on May 16, 2017, at 7:00 p.m. at the District office at 2700 Foothill Blvd., La Crescenta, California, with President James D. Bodnar presiding.

At roll call, the following Directors and staff members were present:

Directors:	**James D. Bodnar** **Michael L. Claessens** **Kerry D. Erickson (Absent)** **Kenneth R. Putnam** **Judy L. Tejeda**
Attorney:	**Thomas S. Bunn**
General Manager:	**Thomas A. Love (Absent)**
Secretary-Treasurer:	**Ron L. Mitchell**
District Engineer:	**David S. Gould**
Others Present:	**Christy Scott, Program Specialist** **Wendy Holloway, Customer Accounts Supervisor** **James Lee, Accountant** **Kathy Ross, FMWD Director** **Gary Cline, Nicolay Consulting**

PLEDGE OF ALLEGIANCE
President Bodnar opened the meeting by asking Director Putnam to lead the Board and staff in reciting the Pledge of Allegiance.

ADOPTION OF AGENDA
It was moved by Director Tejeda, seconded by Director Claessens and carried by a 4-0 vote that the Agenda for the Adjourned Regular Meeting of May 16, 2017, be amended to have Action Item #4 be moved to Action Item #1.

PUBLIC COMMENT – None.

FOOTHILL MUNICIPAL WATER DISTRICT REPORT – Kathy Ross reported FMWD announced the winners of the art contest whose work will be on the 2018 calendar. She also said the operations team reported on the CIP and maintenance projects. The April water demands are up due to the relaxed status of conservation, and on June 1, 2017 they will be holding budget workshop.

CONSENT CALENDAR

It was moved by Director Putnam, seconded by Director Claessens and carried by a 4-0 vote to approve the Minutes of the Regular Board Meeting held on May 2, 2017, and to ratify the disbursements for April 2017 which consisted of:

Payment of demands against the Crescenta Valley Water District on or before April 30, 2017 the same having been approved by the General Manager, Thomas A. Love, and heretofore paid, be ratified and approved subject to audit, in the aggregate sum of Five Hundred Ninety Two Thousand Seven Hundred Fifty One Dollars and Eighty cents (592,751.80), which is composed of the individual items set forth herein.

ACTION CALENDAR

Amendment to Resolution No. 681 – Water Conservation Alert System – Ms. Scott reported on the changes to be made on Resolution No. 681, Appendix G that will modify the alert status. The Board discussed the modifications and amendments to be made.

It was moved by Director Tejeda, seconded by Director Claessens and carried to amend Resolution No. 681 and Appendix G of the Rules and Regulations with respect to the District's Water Conservation Alert System with modifications to the wording by the following roll call:

AYES:	**Director Bodnar**
AYES:	**Director Claessens**
AYES:	**Director Putnam**
AYES:	**Director Tejeda**
NOES:	**None**
ABSENT:	**Director Erickson**

Discussion Regarding the District's OPEB Liability – Mr. Mitchell stated that at the April 18th Board meeting, Mr. Gary Cline of Nicolay Consulting led a discussion regarding the District's OPEB liability. Tonight, Mr. Cline presented a new power point to help the Board and staff understand the magnitude of the unfunded liability that we will need to be show on the financial statement beginning with FY 2018, and he mentioned that any prefunding that is chosen would need to be in place by June 30, 2017.

It was moved by Director Tejeda, seconded by Director Claessens and carried by a 4-0 vote that we use the prefunding medium CalPERS 115 Trust and have this done before June 30, 2017.

It was moved by Director Claessens, seconded by Director Tejeda and carried by a 4-0 vote to prefund at $100,000 before June 30, 2017.

It was moved by Director Tejeda, seconded by Director Claessens and carried by a 4-0 vote to use investment Strategy 1.

It was moved by Director Claessens, seconded by Director Tejeda and carried by a 4-0 vote to authorize the General Manager to sign and take all steps necessary to establish the trust.

CVWD's Well 2 and Related Facilities at Ordunio Reservoir, Project E-956 – Mr. Gould reported that we would like to pre-order the motor control center and electrical switch board equipment. Staff received an RFQ from Royal Wholesale Electric in the amount of $98,547 which was 35% lower than the Engineer's cost estimate of $152,000. This item has been discussed at the Engineering Committee meeting on March 16, 2017.

It was moved by Director Claessens, seconded by Director Tejeda and carried by a 4-0 vote to authorize the General Manager to award a contract to Royal Wholesale Electric for manufacturing and delivery of a new electrical motor control center and electrical switchboard for Well 2 at a cost of $98,547 and establish a contingency amount of $9,855 (10% of contract) to cover the cost of unforeseen or additional work.

Drinking Water Source Assessment and Protection Study, Project M-980- Mr. Gould reported that the District completed the drinking water source assessment and protection (DWSAP) as required by Division of Drinking Water (DDW) in May 2003, with a requirement to be reviewed and updated every 5 years. However, since the business area has not changed over the last 10 years, DDW has not required it. Since the District has added Well 16, and will be adding Well 2, DDW is requesting to update the study. AMEC Foster Wheeler has provided a proposal to complete the study at a cost of $35,900.

It was moved by Director Putnam, seconded by Director Claessens and carried by a 4-0 to authorize the General Manager to enter into an agreement with AMEC Foster Wheeler to provide professional hydrogeologic services to prepare a drinking water source assessment and protection study for CVWD's groundwater source for a cost of $35,900 and establish a contingency amount of $3,590 (10% of contract) to cover the cost of unforeseen or additional work.

Water & Wastewater Budgets for FY 17/18 – Mr. Gould provided a summary of changes that have taken place in the budget since the March 3, 2017 Preliminary Budget FY 2016-17 year-end projections.

INFORMATION ITEMS – None

WRITTEN COMMUNICATIONS TO DISTRICT – None

REPORTS OF PERSONNEL

SECRETARY-TREASURER – Mr. Mitchell stated that we have received four (4) protest letters regarding the rate increase.

GENERAL MANAGER – No Report

DISTRICT ENGINEER – Mr. Gould reported that the Lowers Pickens Canyon Slope Repair project has been completed and the main is back in service, the Pennsylvania Pipeline Project has begun, and at the next Board meeting, Amec Foster Wheeler will give a presentation on the Stormwater Recharge Project.

PROGRAM SPECIALIST – No Report

INFORMATION TECHNOLOGY – No Report

ATTORNEY – No Report

REPORTS OF COMMITTEES

Engineering Committee – Director Claessens reported that the Committee will meet on May 17, 2016 at 9:00 a.m.

Finance Committee – Director Tejeda reported that the Committee had not met; however a meeting will be scheduled as needed.

Employee Relations Committee – Director Putnam reported that the Committee had not met; however a meeting will be scheduled as needed.

Policy Committee – Director Bodnar reported that the Committee had not met; however a meeting will be scheduled as needed.

Community Relations/Water Conservation Committee – Director Claessens reported that the Committee had not met; however a meeting will be scheduled as needed.

Emergency Planning Committee – Director Bodnar reported that the Committee had not met; however a meeting will be scheduled as needed.

DIRECTORS ORAL REPORTS

Director Bodnar – No Report

Director Claessens – No Report

Director Putnam – No report

Director Tejeda reported she attended the ACWA/JPIA conference in Monterey, CA. She said it was a well-organized meeting. At the JPIA morning session they discussed the use of drones and how they could be used more widespread in smaller agencies. In the afternoon session, they discussed high deductible health plans.

ADJOURNMENT

There being no other business to come before the Board, at 9:15 p.m.it was moved by Director Tejeda, seconded by Director Claessens and carried by a 4-0 vote that the meeting be adjourned to June 6, 2017 at 7:00 p.m.

APPROVED

_____ _____

James D. Bodnar
President

Ron L. Mitchell
Secretary-Treasurer

CRESCENTA VALLEY WATER DISTRICT
BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 1

To: Honorable President and Members of the Board of Directors June 6, 2017

From: David S. Gould. P.E. – District Engineer

Subject: **Presentation - Crescenta Valley County Park Storm Water Recharge Facility Study**

ACTION ITEM:

Crescenta Valley County Park Stormwater Recharge Facility Study, Project M-903– Presentation by Mr. Greg Hamer from AMEC Foster Wheeler on the Crescenta Valley County Park Stormwater Recharge Facility Study.

BACKGROUND:

In March 2014, CVWD received a Local Groundwater Assistance grant from DWR of $158,450 for the Crescenta Valley County Park (CVC Park) Stormwater Recharge Facility Study (Study).

The Study, which was conducted by AMEC Foster Wheeler, was to provide important hydrologic and geologic data that would be used to determine if a portion of CVC Park could capture stormwater in an underground recharge facility. The Study would also determine if the additional groundwater recharge from the stormwater would reduce the fluctuation in groundwater levels during dry and wet rainfall years within the Verdugo Basin. The Study also investigated the installation of facilities to divert stormwater flow and dry weather runoff within the Verdugo Wash to underground infiltration galleries. Additional benefits of stormwater capture include improving groundwater quality, increasing local water-supply reliability, and improving surface water quality in downstream receiving waters such as the LA River.

DISCUSSION:

Mr. Greg Hamer from AMEC Foster Wheeler will make a PowerPoint presentation regarding the scope of work for the study, results of the data, analysis and recommendations. The information that will be presented by Mr. Hamer showed it is possible to divert stormwater flow and dry weather runoff to infiltration basins for groundwater recharge within CVC Park.

The results of the Study were shared with the Engineering Committee on May 18, 2017. Staff discussed the next steps with respect to possible grant funding under Proposition 1 for the project. This will include working with AMEC on preparing a conceptual plan that can be used to meet with stakeholders such as Los Angeles County Public Works, Park and Recreation and the City of Glendale.

Staff is anticipating that the next round of Prop. 1 Grant application will be due in March 2018. Staff is starting preparation for the grant application that includes preliminary plans and CEQA documentation. Staff has put together a project schedule to meet the grant application due date. The Engineering Committee recommended that staff provide additional information on consultant and construction costs for review as part of the project schedule.

RECOMMENDATION:

Staff will provide an update on the project with consultant and construction costs for discussion at the next Engineering Committee meeting tentatively scheduled for June 15, 2017.

ENVIRONMENTAL REVIEW:

N/A

FUNDING AVAILABILITY:

N/A

Prepared by:

David S. Gould, P.E.
District Engineer

Submitted by:

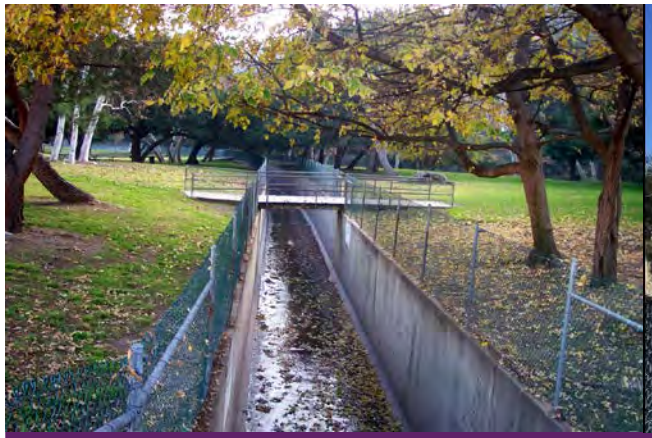
_____

Thomas A. Love
General Manager

Attachments:

g:\management\board meeting staff reports\2017\06-06-17 board memo - cvc park stormwater presentation.docx

CVC Park Stormwater Recharge Study
Project Update: January 18, 2017



Project Purpose & Work to Date

Purpose: Further develop technical basis for design of groundwater recharge system at Crescenta Valley County Park

Work Completed:

1. CVWD installed two flow monitoring stations
2. Park and trees surveyed
3. Wells installed and monitored
4. Infiltration tests completed
5. Flows monitored and sampled
6. Data analyzed
7. Groundwater flow model updated
8. Draft report completed

Two New Monitoring Wells Installed

- Additional groundwater data
- Water quality data
- Geologic data

Soil Infiltration Tests Performed

- 3 test locations
- Very good infiltration capacity

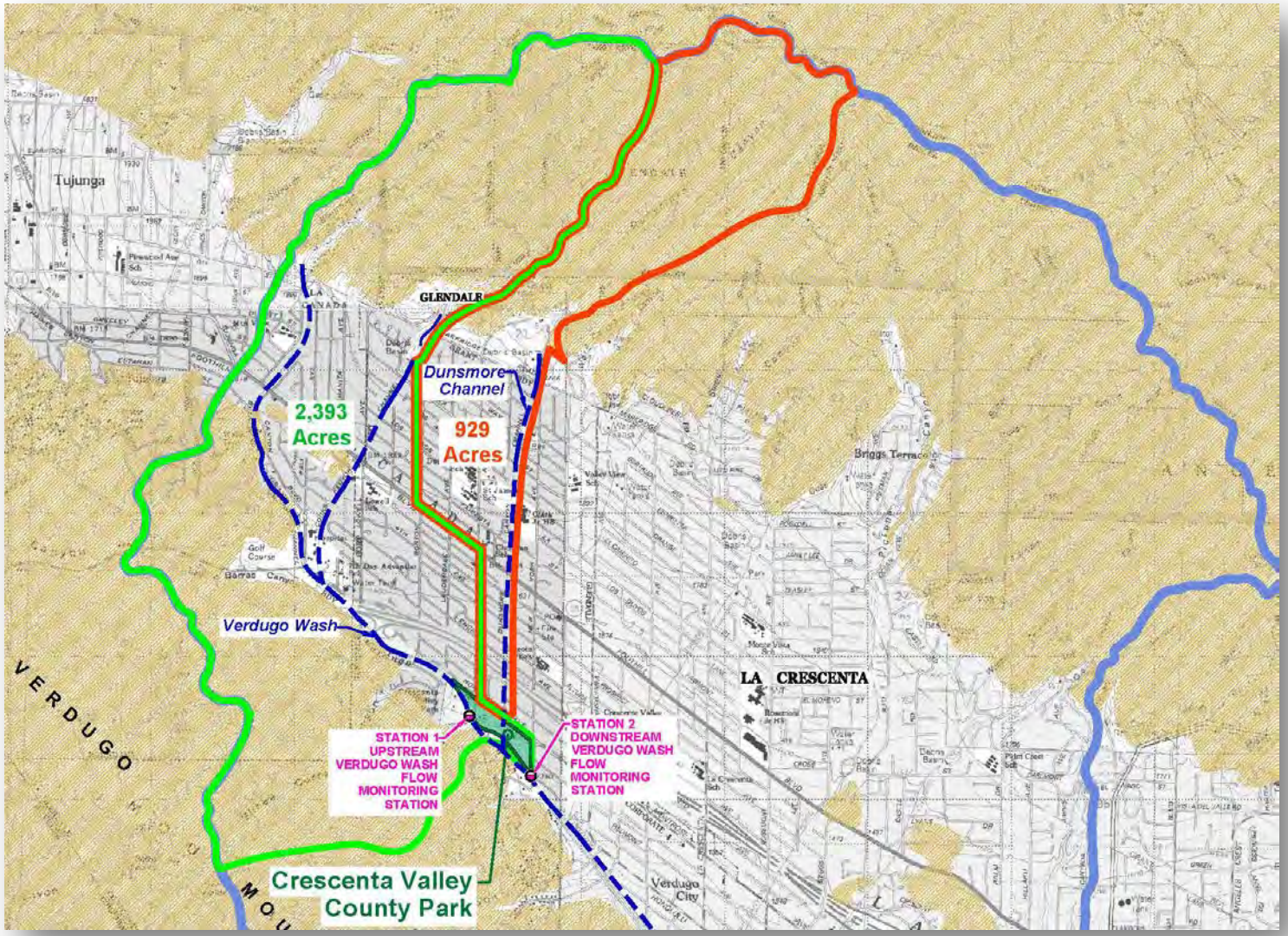
Flow Monitoring Work/Results

- Two stations on Verdugo Wash:
  - One upstream of Dunsmore Channel and one downstream
- Monitored November 2014 through May 2016 (19 months) with a ~2-month gap: September-November 2015
- Flow readings recorded every 15 minutes

Flow Monitoring Work/Results

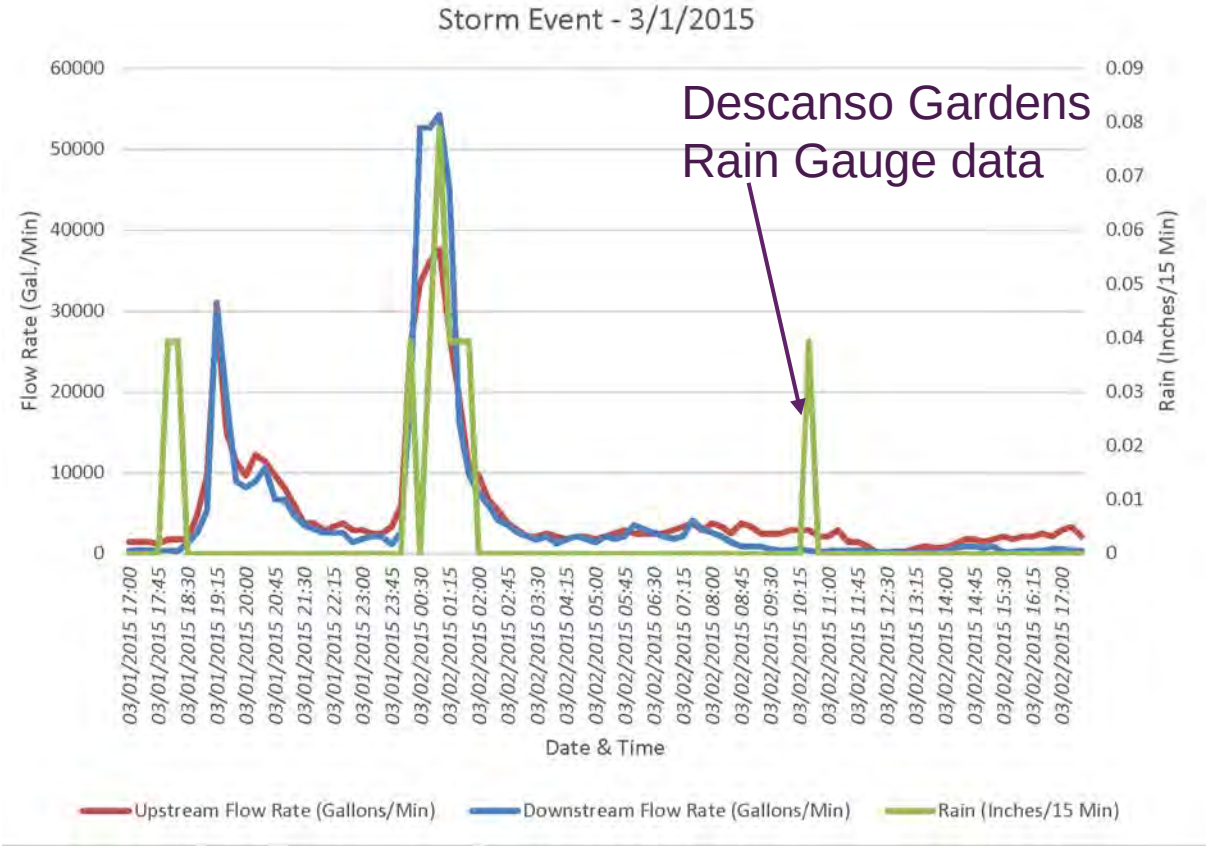
- Quality control: comparing visual observations & recorded data
- Monitoring period was very dry- not typical of long-term conditions
- Local precipitation station data used in flow evaluations

Areas Tributary to Flow Monitoring Stations



Observations From the Flow Data

- Wet-weather flows: peak flows well-represented with peaks corresponding closely to peak rainfall in watershed
- 18 precipitation events evaluated
- Regression period following events is typically ~6 hours



Observations From the Flow Data

- Precipitation during monitoring period only 36% of normal
- Dry weather flows observed:
  - Dunsmore Channel estimated to be < 60 gpm (<8 AF/month)
  - Verdugo Wash upstream of Dunsmore Channel essentially dry
  - Lower flows than expected: probably drought/water conservation related
- Long-term dry weather flows expected to be slightly greater, but water conservation has likely reduced these flows

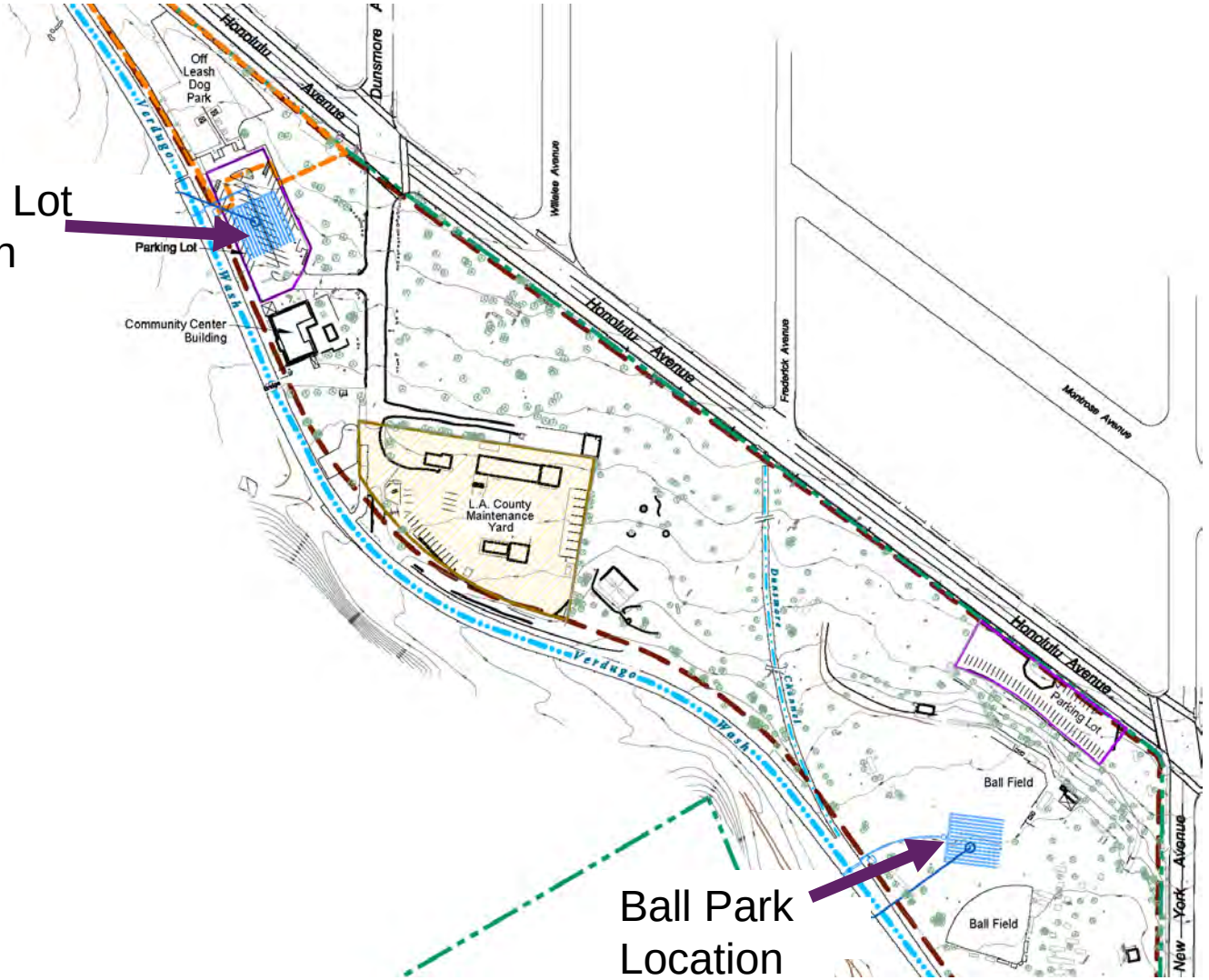
L.A. County Runoff Model

- Model uses data from 1996 through 2012 (calendar year data)
- Flows calculated at 2 selected locations in the watershed
- Model may over-estimate flows
- Model data indicate that year 2000 had near long-term median average precipitation
- Used year 2000 model results to look at long-term median conditions for flow and water available for recharge

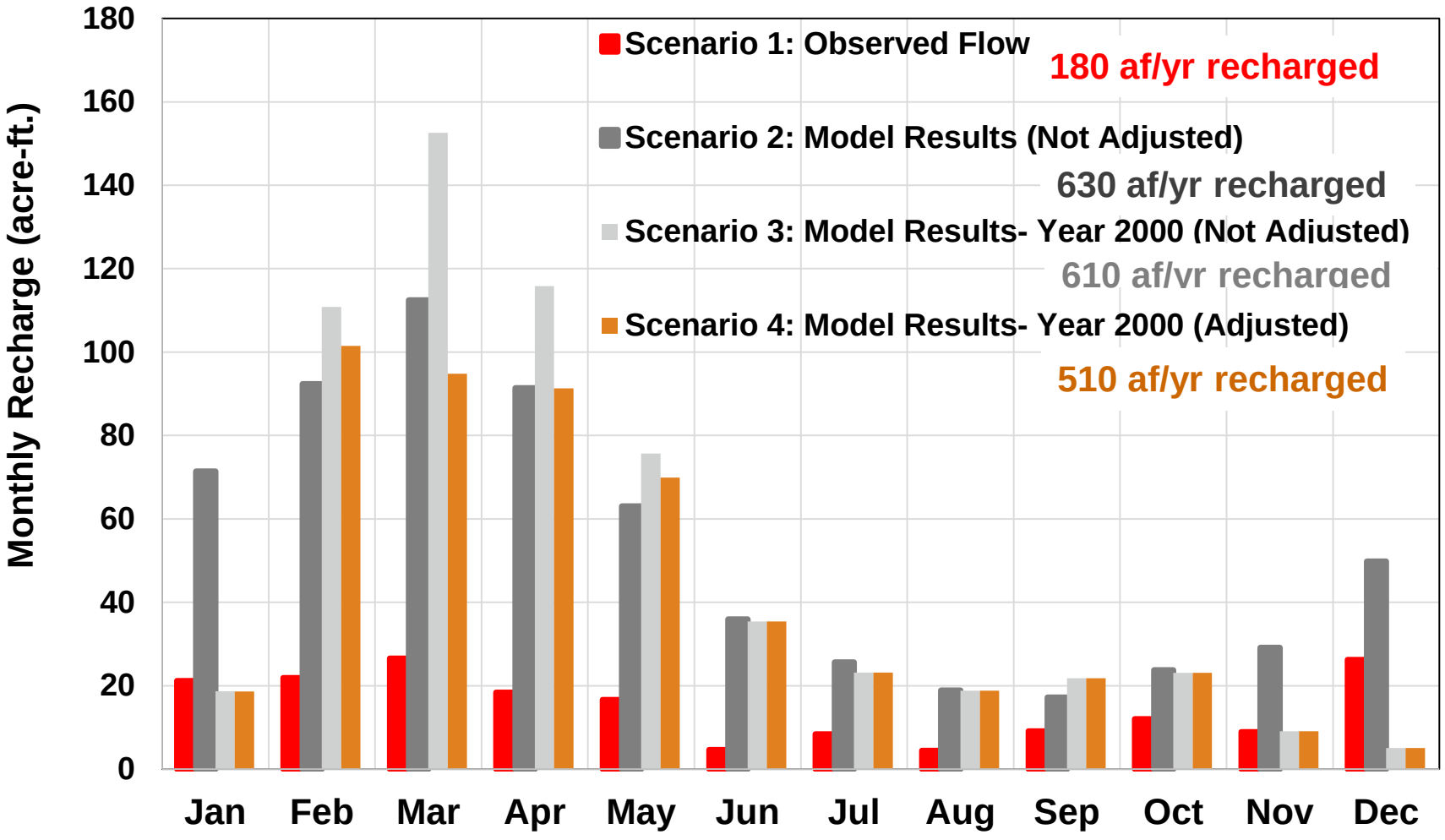
Estimating Water Available for Recharge

- Assumed two recharge galleries:
  - Parking lot area and Ball Park area
  - Inlets on Verdugo Channel: one inlet above Dunsmore Channel and one below it
  - Each 80 ft. x 80 ft. area and infiltration rate of 20 feet/day
  - Together recharge 5.4 acre-foot/day maximum (~1,200 gpm or 3cfs)
- Four recharge scenarios developed using model and our observed flows

Infiltration Gallery Locations



Recharge Scenarios



Estimating Water Available for Recharge

- Scenarios a combination of LACFCD model outputs and observed and estimated flows
- Estimated recharge ranged from 180 AF/year (monitored period) to 630 AF/year (model output without adjustment)
- **Long-term recharge from a water-availability standpoint could be about 500 acre-feet/year using two recharge galleries (as assumed)**

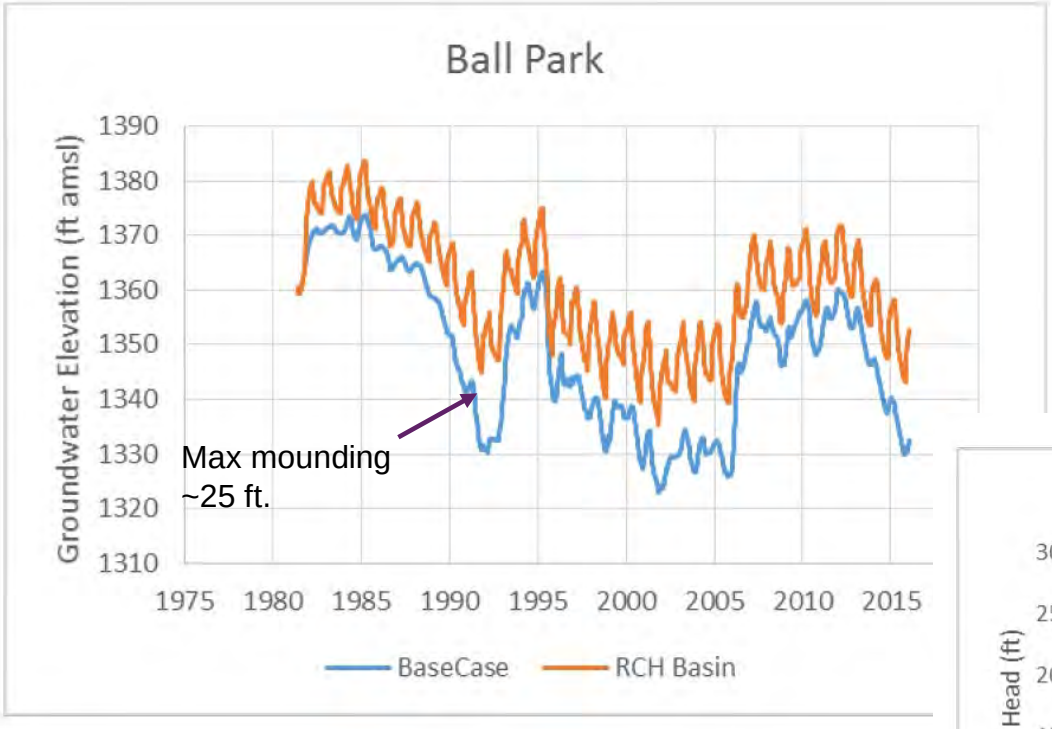
Groundwater Model Update

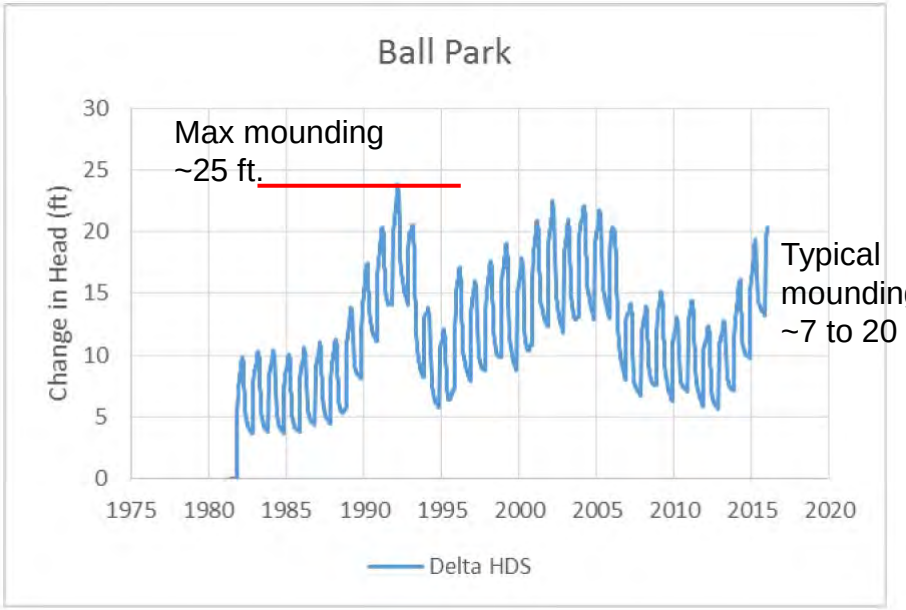
- Last model update was in 2006
- Model uses monthly time steps and model cell size is 100 x 100 feet
- Updated groundwater model using more-recent data:
  - Wells and water level data from environmental studies Geophysical studies in the vicinity of CVC Park
  - New wells: MW16 and MW17 data and water levels
  - Updated CVWD pumping and water level data
- Ran two recharge scenarios

Groundwater Model Scenario

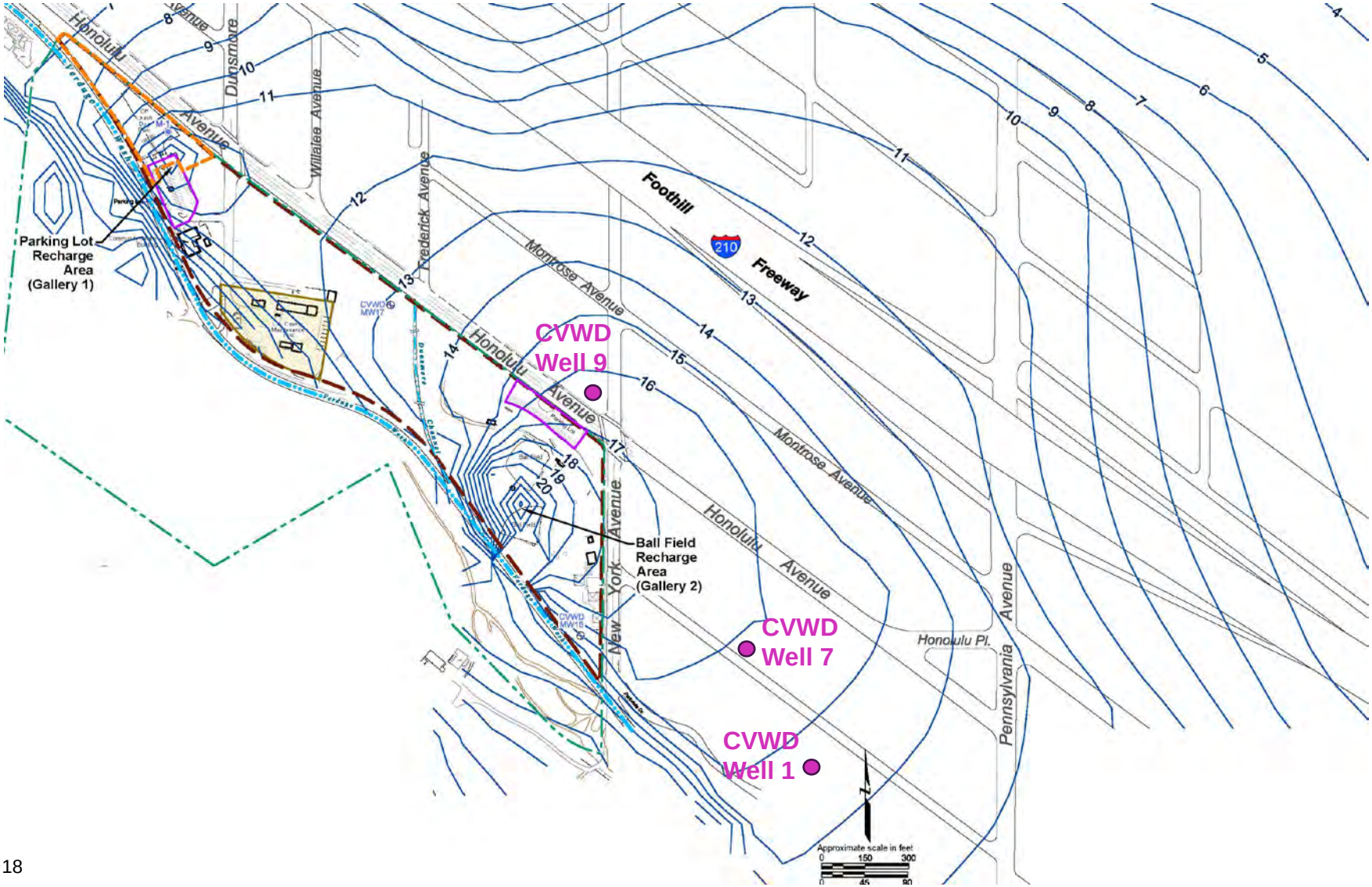
- Took historical period that was modelled (1981 through 2015: 35 years), and added recharge to the historical conditions
- Recharge that was added was 300 acre-feet/year
- Recharged equal amounts at the two recharge galleries:
  - 150 acre-feet for the parking lot gallery
  - 150 feet for the ball park gallery

Groundwater Mounding Beneath Galleries





Mounding of Groundwater With Recharge



Modeled Recharge

- At 300 acre-feet/year model results indicate:
  - Maximum mounding in 1992: a time when Basin water levels were relatively low
  - Water level fluctuation during a given year is on the order of 5 to 10 feet or less for both gallery locations.
  - In general, slightly greater mounding when Basin water levels are low
  - At locations of nearest homes: Just beyond park boundary: mounding generally less than 10 feet but can be as much as ~ 18 feet

Capture of Recharged Water

Vast majority of recharged water is extracted by CVWD wells:

- Simulated water particle tracking
- More than 88% recovered

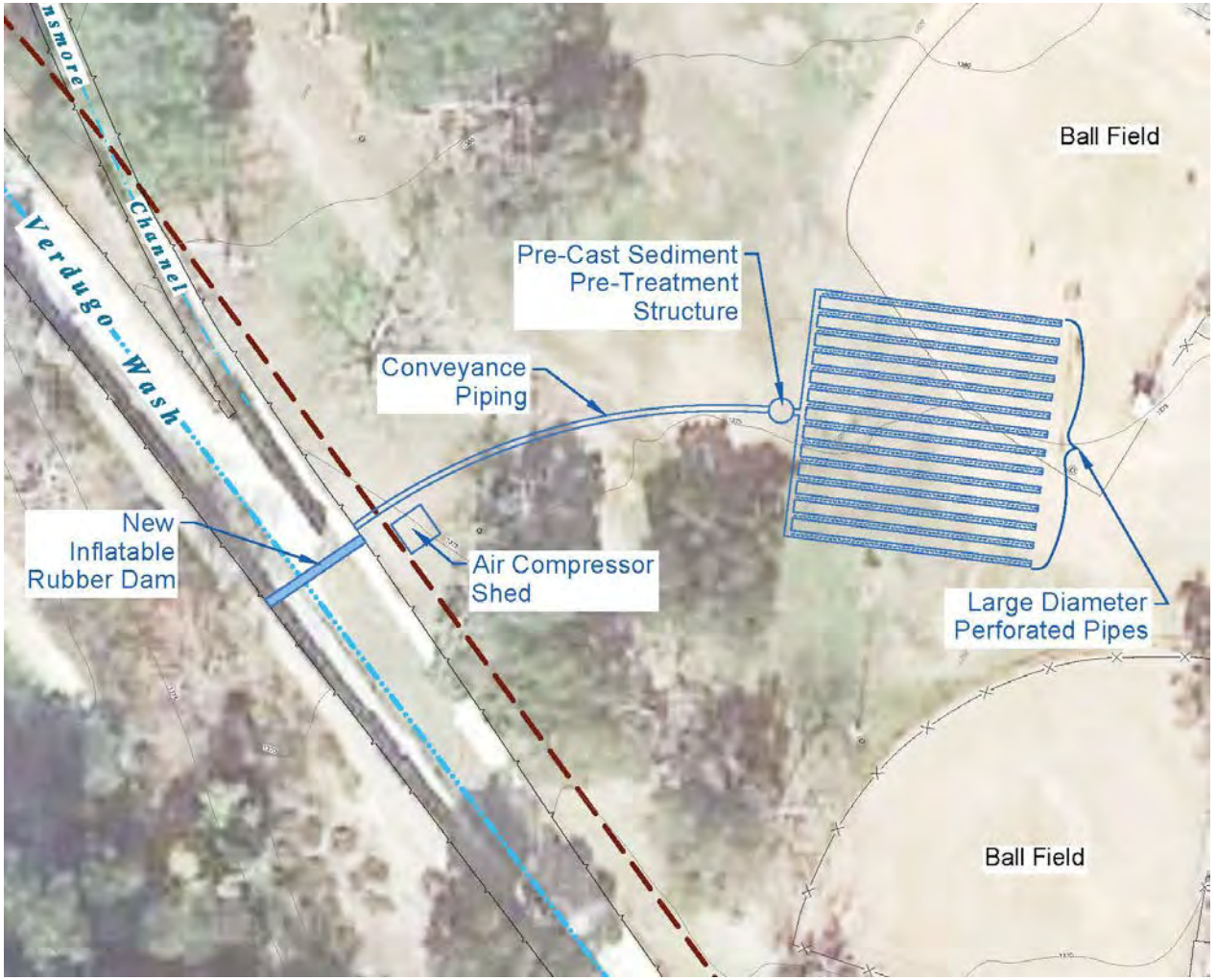
Water Quality Considerations

- CVWD sampled surface water flows and dry-weather flows
- Surface water quality is good
- Surface water recharge will improve groundwater quality
- Surface water recharge will reduce salt-loading to downstream parts of the watershed

Preliminary Design of Recharge Galleries

Components include:

- Diversion structure
- Piping
- Sediment removal vault
- Gallery pipes

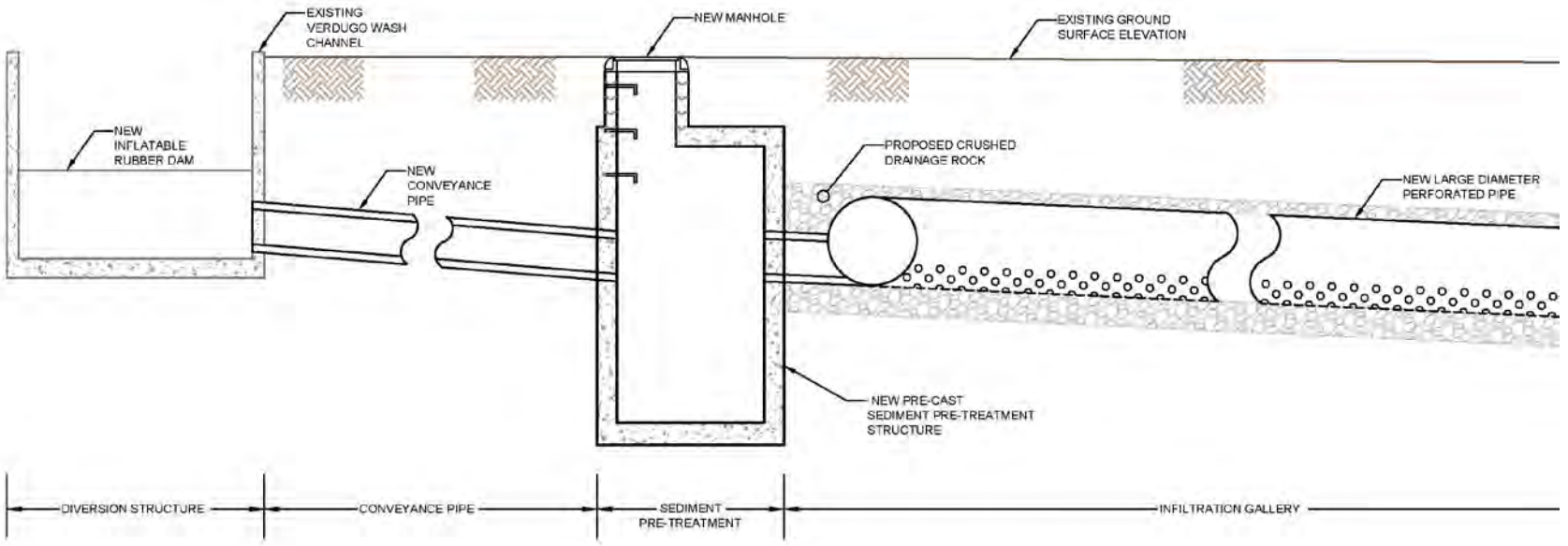


Recharge Gallery Preliminary Design

Diversion Structure

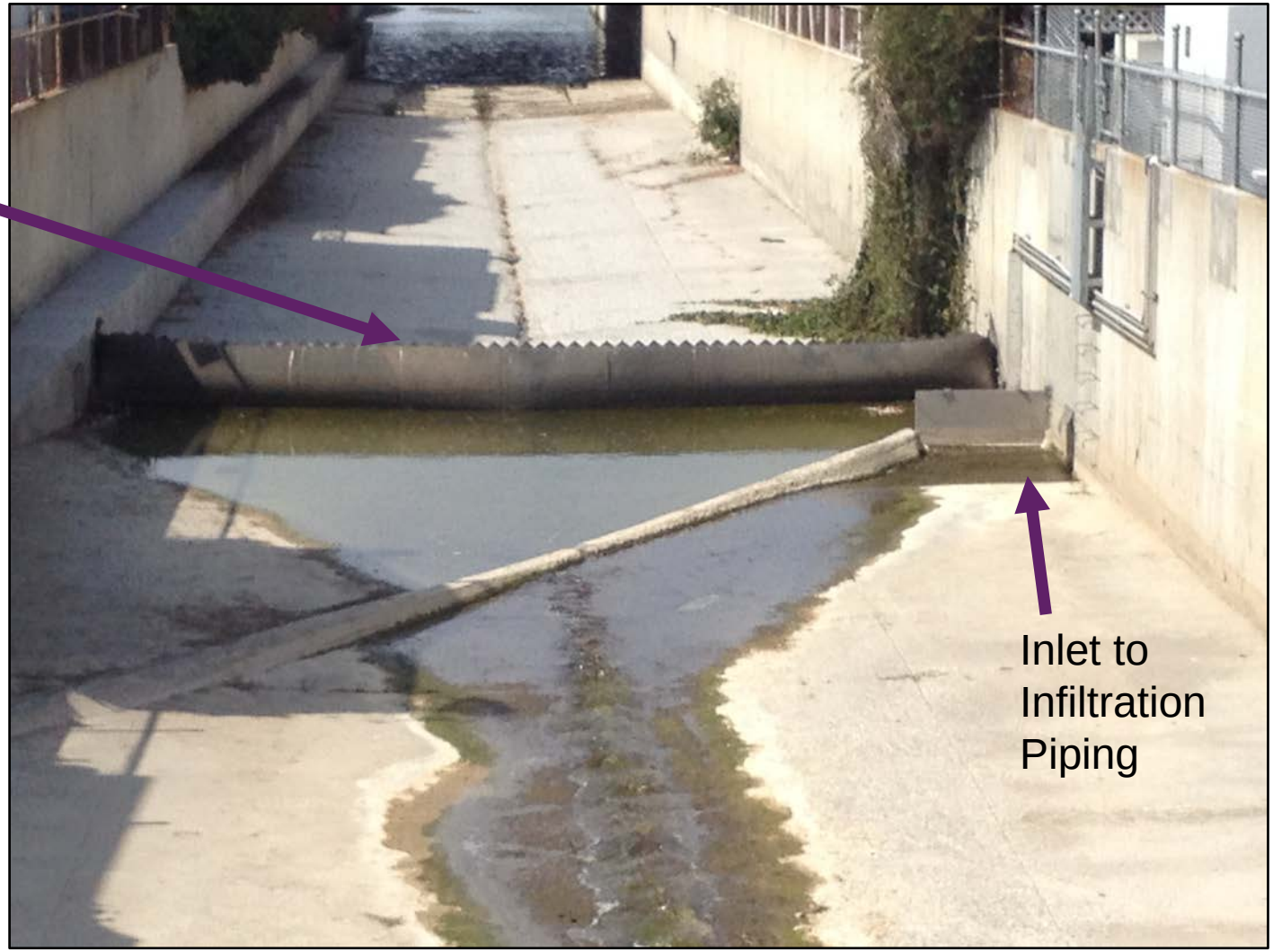
Sediment Removal Vault

Water Infiltration Piping



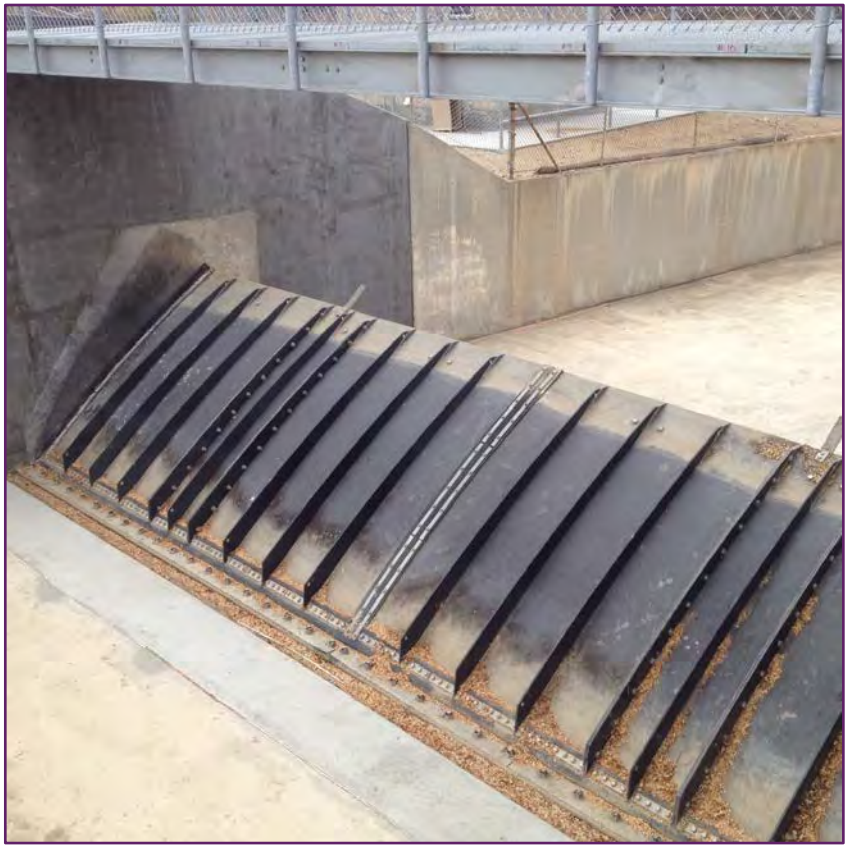
CHANNEL DIVERSION AND INFILTRATION SYSTEM

Diversion Structure Examples



Diversion Structure Examples

Steel Plates with Inflation Bladders



Example Infiltration Gallery Pipes

Study Conclusions

- **Surface water diversion and recharge system is viable**
  - Potential to recharge 500+ acre-feet/year
- **No adverse impacts to trees**
- **Benefits to surface water and groundwater**
- **Adds to available groundwater supplies**
- **Helps improve water system reliability:**
  - More local groundwater
  - Less reliance on imported water

Study Recommendations

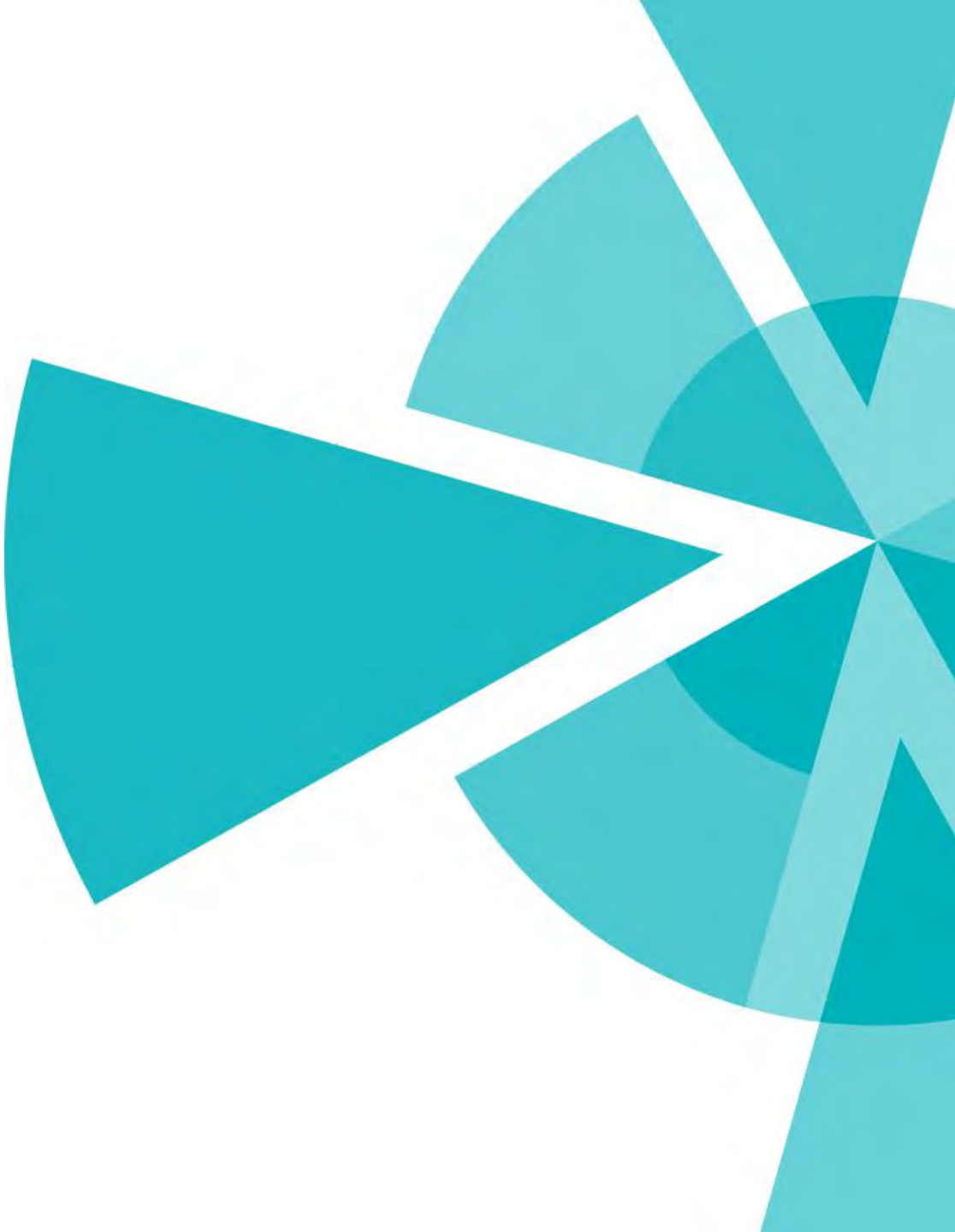
Additional data collection/evaluation

- Continue surface water flow monitoring
- Continue groundwater level monitoring
- Additional evaluation of groundwater mounding

Additional Design and Permitting

- Complete final design of infiltration system
- Meet with LA County Public Works re: design requirements
- Environmental permitting
- Develop cost estimate

Questions?



CRESCENTA VALLEY WATER DISTRICT
BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 2

To: Honorable President and Members of the Board of Directors June 6, 2017

From: Thomas A. Love, General Manager

Subject: **FY 2017/18 Preliminary Water Budget – Year End Projections**

ACTION ITEM:

FY 2017/18 Water and Wastewater Budget – Discussion of Preliminary FY 2017/18 Water and Wastewater Budgets

BACKGROUND:

- March 3, 2017 -Preliminary Water Budget for FY 2017/18 was presented at the Board meeting.
- May 2, 2017 - Third Quarter budget variance report was presented to the Board. Based on the Third Quarter budget variance report, staff has updated the FY 2016/17 Water Fund Budget year-end projections, which are shown in the attached exhibit 'Cash Flow - Table WB-9'.
- May 16, 2017 - Cash Flow - Table WB-9 presented that compared the Projected FY 16/17 numbers after 7 months and after 9 months *(Example – 7 months of actual costs PLUS 5 months of projected costs).* The rows highlighted in yellow show the largest differences between FY 16/17 budget and FY 16/17 year-end projections.

DISCUSSION:

The following is a summary of changes that have taken place in the budget based on actual costs from the previous 10 months and projections of costs for the next 2 months. The information was updated in the attached Budget FY 2016/17 year-end Projections and highlighted below:

1. Projected water sales revenue is $320,000 less than budgeted. Although total water use is higher by 3.5% than budgeted, the proportion of the number of customers within Tier 2 and Tier 3 are lower, which results in overall reduced water sales revenue.
2. Projected water service connection fees are $157,500 above budget.
3. Labor, benefits and operating expenses are projected to be $284,600 under budget.
4. Purchased water costs from FMWD are projected to be $946,600 over budget due to increased water use and low groundwater production.
5. Grant Revenue is projected to be $590,000 less than budget due to the timing difference between a grant request for reimbursement and the actual reimbursement from DWR.
6. FY 2016/17 capital improvement costs are $464,600 less than budget, which is primarily due to the Oak Creek Reservoir Rehabilitation project deferred to FY 2017/18.
7. In summary, there is a net decrease to reserves of $97,000 vs. a net increase to reserves of $593,000 that was budgeted for FY 16/17.

Submitted by:

_____

Thomas A. Love
General Manager

Attachments:

1. Updated Cash Flow - Table WB-9 dated 6/2/17

Water Budget Table WB-9 - Total Sources - FY 17/18 - Draft V.06 (Preliminary as of 6/2/17)

	Recorded FY 2015-16	Budget FY 2016-17	Projected (based on 7 months) FY 2016-17	Projected (based on 9 months) FY 2016-17	Projected (based on 10 months) FY 2016-17	Budget FY 2017-18	Forecast FY 2018-19	Forecast FY 2019-20	Forecast FY 2020-21	Forecast FY 2021-22
REVENUE										
Service Readiness Charge Revenue	$ 1,949,220	$ 2,247,000	$ 2,283,849	$ 2,247,967	$ 2,246,625	$ 2,433,000	$ 2,618,000	$ 2,817,000	$ 3,017,000	$ 3,020,000
Metered sales of water (CVWD Costs)	$ 5,952,066	$ 6,953,000	$ 6,998,600	$ 6,583,084	$ 6,632,864	$ 8,157,000	$ 9,121,000	$ 10,303,000	$ 11,580,000	$ 12,190,000
Required metered sales of water (FMWD Costs)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest Income - Water Reserves	$ 188,668	$ 163,000	$ 167,609	$ 178,421	$ 180,134	$ 165,000	$ 138,000	$ 134,000	$ 145,000	$ 162,000
Interest Income - MTBE Reserves	$ -	$ 77,000	$ 115,000	$ 115,000	$ 115,000	$ 76,000	$ 78,000	$ 80,000	$ 82,000	$ 84,000
Source of Funds - Other Sources	$ 258,763	$ 146,000	$ 242,990	$ 235,613	$ 236,342	$ 142,374	$ 148,374	$ 155,374	$ 161,374	$ 168,374
Sources of Funds - CIP Sources	$ 872,193	$ 1,225,450	$ 1,133,345	$ 915,769	$ 807,081	$ 1,102,281	$ 730,475	$ 410,300	$ 390,000	$ 400,000
TOTAL REVENUE	$ 9,220,909	$ 10,811,450	$ 10,941,393	$ 10,275,855	$ 10,218,047	$ 12,075,655	$ 12,833,849	$ 13,899,674	$ 15,375,374	$ 16,024,374
OPERATIONS & MAINTENANCE (O & M) EXPENSE										
Labor & Benefits	$ 2,708,472	$ 2,957,000	$ 2,914,473	$ 2,949,396	$ 2,969,077	$ 3,048,300	$ 3,035,700	$ 3,099,200	$ 3,152,200	$ 3,233,200
Purchased Water (FMWD)	$ 2,454,591	$ 2,099,000	$ 2,963,900	$ 2,994,892	$ 3,045,567	$ 3,084,000	$ 3,217,000	$ 3,183,000	$ 3,395,000	$ 3,658,000
Purchased Water (GWP)	$ -	$ 231,000	$ 153,873	$ 152,737	$ 151,100	$ 207,000	$ 232,000	$ 277,000	$ 269,000	$ 285,000
Power	$ 673,699	$ 695,000	$ 692,316	$ 693,648	$ 695,400	$ 697,000	$ 718,000	$ 739,000	$ 762,000	$ 781,000
Operating expenses	$ 1,972,016	$ 2,063,100	$ 1,826,309	$ 1,734,925	$ 1,766,416	$ 2,173,826	$ 2,265,800	$ 2,170,500	$ 2,285,700	$ 2,289,600
Total O & M Expense	$ 7,808,777	$ 8,045,100	$ 8,550,871	$ 8,525,598	$ 8,627,560	$ 9,210,126	$ 9,468,500	$ 9,468,700	$ 9,863,900	$ 10,246,800
Debt Service (principal & interest)	$ 613,022	$ 614,000	$ 614,038	$ 614,038	$ 614,038	$ 613,838	$ 613,238	$ 612,238	$ 615,481	$ 613,106
Total O & M Expense + Debt Service	$ 8,421,799	$ 8,659,100	$ 9,164,908	$ 9,139,635	$ 9,241,597	$ 9,823,964	$ 10,081,738	$ 10,080,938	$ 10,479,381	$ 10,859,906
Cash Available for Capital - [Revenue - (Total O & M Expense + Debt Service)]	$ 799,110	$ 2,152,350	$ 1,776,485	$ 1,136,219	$ 976,450	$ 2,251,691	$ 2,752,111	$ 3,818,736	$ 4,895,992	$ 5,164,467
CAPITAL OUTLAY, LIABILITIES and CAPITAL PROJECTS										
Capital Outlay & Equipment	$ 26,180	$ 110,000	$ 42,338	$ 45,177	$ 45,177	$ 120,000	$ 130,000	$ 136,000	$ 140,000	$ 130,000
Re-Payment to MTBE Fund	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 750,000	$ 750,000
Future Liability (OPEB)	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000
Capital Improvements (pay-as-you-go)	$ 2,941,000	$ 2,800,000	$ 2,158,200	$ 2,497,300	$ 2,335,400	$ 3,275,000	$ 2,625,000	$ 2,570,000	$ 2,900,000	$ 3,180,000
Total - Capital Outlay, CIP, CIP Fund & Future Liability	$ 3,127,547	$ 3,010,000	$ 2,300,538	$ 2,642,477	$ 2,480,577	$ 3,495,000	$ 2,855,000	$ 2,806,000	$ 3,890,000	$ 4,160,000
INCREASE (DECREASE) TO CASH	$ (2,328,437)	$ (857,650)	$ (524,053)	$ (1,506,258)	$ (1,504,127)	$ (1,243,309)	$ (102,889)	$ 1,012,736	$ 1,005,992	$ 1,004,467
FY begin available Water Reserves	$ 4,048,384	$ 3,719,947	$ 3,719,947	$ 3,719,947	$ 3,719,947	$ 3,215,820	$ 1,972,511	$ 1,869,622	$ 2,882,358	$ 3,888,350
Transfer In from MTBE Reserves	$ 2,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000					
FY End Water Reserves	$ 3,719,947	$ 3,862,298	$ 4,195,894	$ 3,213,690	$ 3,215,820	$ 1,972,511	$ 1,869,622	$ 2,882,358	$ 3,888,350	$ 4,892,818
Reconciliation		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
FY End Water Reserves	$ 3,719,947	$ 3,862,298	$ 4,195,894	$ 3,213,690	$ 3,215,820	$ 1,972,511	$ 1,869,622	$ 2,882,358	$ 3,888,350	$ 4,892,818
TOTAL TARGET WATER CASH RESERVES	$ 3,130,000	$ 3,269,000	$ 3,406,000	$ 3,292,000	$ 3,313,000	$ 3,776,000	$ 4,033,000	$ 4,327,000	$ 4,678,000	$ 4,849,000
Above or (below) Target Reserves	$ 589,947	$ 593,298	$ 789,894	$ (78,310)	$ (97,180)	$ (1,803,489)	$ (2,163,378)	$ (1,444,642)	$ (789,650)	$ 43,818
Effective date of water rates	7/1/15	7/1/16	7/1/16	7/1/16	7/1/16	7/1/17	7/1/18	7/1/19	7/1/20	7/1/21
Projected Rate Increase for Service Charge	5.7%	7.5%	7.5%	7.5%	7.5%	7.2%	7.4%	7.5%	7.0%	0.0%
Service rates ($/month for 3/4" meter)	$19.10	$20.53	$20.53	$20.53	$20.53	$22.00	$23.60	$25.40	$27.20	$27.20
Projected Rate Increase for Quantity Charge	5.7%	5.2%	5.2%	5.2%	5.2%	7.2%	7.4%	7.5%	7.0%	0.0%
Quantity Charge: ($/kgal)	$5.96	$6.27	$6.27	$6.27	$6.27	$6.72	$7.22	$7.76	$8.30	$8.30
CVWD Quantity Charge: ($/kgal)	$5.96	$ 6.27	$ 6.27	$ 6.27	$ 6.27	$6.72	$7.22	$7.76	$8.30	$8.30

CRESCENTA VALLEY WATER DISTRICT
INVESTMENT PORTFOLIO SUMMARY
June 2, 2017

INVESTMENT TYPE	ACCT/CUSIP I.D. NO.	PURCHASE DATE	*FACE VALUE	INVESTMENT COST	% OF TOTAL	**MARKET VALUE	MATURITY DATE	DATE CALLABLE	EARNED TO DATE	YIELD TO MATURITY	
GENERAL FUNDS											
GENERAL FUND-SWEEP ACCOUNT	0631-525246		$ 82,044	$ 82,044	0.54%	$ 82,044	none	n/a	$ 268	0.29%	
GREAT PACIFIC SECURITIES	GPC-804452		$ -	$ -	0.00%	$ -	none	n/a	$ 50	0.41%	
BOND DEBT SERVICE FUND	6948-331525		$ 67,747	$ 67,747	0.44%	$ 67,747	none	n/a	$ 139	0.06%	
LOCAL AGENCY INVESTMENT FUND	90-19-007		$ 2,102,739	$ 2,102,739	13.73%	$ 2,102,739	none	n/a	$ 20,066	0.78%	Mar 2017
FEDERAL FARM CREDIT (83)	3133EAY28	10/9/2012	$ 500,000	$ 502,885	3.28%	$ 499,805	9/21/2017	n/a	$ 3,456	0.71%	
FEDERAL FARM CREDIT (101)	31331VY26	6/14/2016	$ 1,000,000	$ 1,211,530	7.91%	$ 1,146,700	8/16/2021	n/a	$ 45,808	1.26%	
FEDERAL FARM CREDIT (103)	31331VQG4	8/2/2016	$ 1,000,000	$ 1,287,830	8.41%	$ 1,195,980	2/6/2026	n/a	$ 38,608	1.88%	
US TREASURY (105)	912828U24	4/21/2017	$ 500,000	$ 491,420	3.21%	$ 487,850	11/15/2026	n/a	$ 247	2.20%	
			$ 5,252,530	**$ 5,746,195**		**$ 5,582,865**			**$ 108,642**		
CONSTRUCTION FUNDS											
COPS RESERVE FUND	108614000		$ 617,211	$ 617,211	4.03%	$ 617,211	none	n/a	$ 701	0.06%	
			$ 617,211	**$ 617,211**		**$ 617,211**			**$ 701**		
MTBE CONTINGENCY FUNDS											
LOCAL AGENCY INVESTMENT FUND	90-19-007		$ 250,000	$ 250,000	1.63%	$ 250,000	none	n/a	$ -	0.78%	Mar 2017
GREAT PACIFIC SECURITIES	GPC-003670		$ 626,796	$ 626,796	4.09%	$ 626,796	none	n/a	$ -	0.41%	
FEDERAL FARM CREDIT (M-48)	3133ED4U3	5/11/2016	$ 500,000	$ 518,915	3.39%	$ 507,195	10/11/2019	n/a	$ 8,849	0.99%	
FEDERAL FARM CREDIT (M-49)	3133EA5N4	5/11/2016	$ 1,250,000	$ 1,260,763	8.24%	$ 1,245,625	10/22/2019	n/a	$ 13,014	0.99%	
US TREASURY (M-53)	912828R36	7/12/2016	$ 1,000,000	$ 1,013,212	6.63%	$ 947,500	5/15/2026	n/a	$ 13,000	1.48%	
US TREASURY (M-54)	912828S76	8/5/2016	$ 1,000,000	$ 1,002,175	6.54%	$ 975,080	7/31/2021	n/a	$ 8,260	1.08%	
US TREASURY (M-55)	912828R36	8/25/2016	$ 1,000,000	$ 1,004,930	6.56%	$ 947,500	5/15/2026	n/a	$ 11,041	1.57%	
US TREASURY (M-56)	912828R36	10/4/2016	$ 1,000,000	$ 997,540	6.51%	$ 947,500	5/15/2026	n/a	$ 9,403	1.65%	
FEDERAL FARM CREDIT (M-57)	3133EGWX9	10/5/2016	$ 1,000,000	$ 987,148	6.44%	$ 929,100	4/6/2026	n/a	$ 10,322	1.96%	
FEDERAL FARM CREDIT (M-58)	31331VWN2	11/9/2016	$ 1,000,000	$ 1,266,700	8.27%	$ 1,217,810	4/13/2026	n/a	$ 25,447	2.24%	
			$ 8,626,796	**$ 8,928,178**		**$ 8,594,106**			**$ 99,335**		
TOTAL INVESTMENTS			$ 14,496,537	$ 15,291,584		$ 14,794,182			$ 208,678		
CASH- PAYROLL ACCOUNT	0948-024724		$ 28,373	$ 28,373	0.19%	$ 28,373					
TOTAL CASH AND INVESTMENTS			**$ 14,524,910**	**$ 15,319,958**	**100%**	**$ 14,822,555**			**$ 208,678**	**1.09%**	
						$ (497,402)	***Unrealized Gain/(Loss) on Investments				

Yield on investments including LAIF but not cash accounts	1.40%
Yield on investments not including LAIF or cash accounts	1.50%

I certify that this report accurately reflects all pooled investments and is in compliance with California Government Code Sections 5922 & 53601 as amended on 1/1/97; are currently in conformity with the investment policy as stated in Resolution No. 734 adopted on December 6, 2016.
As Treasurer of the Crescenta Valley Water District, I, Ron L. Mitchell hereby certify that sufficient investment liquidity and anticipated revenues are available to meet one year of estimated expenditures for the operations of Crescenta Valley Water District.

*Value at investment maturity date.

***Reported in compliance with GASB Standard No. 31, effective July 1, 1997, the "fair value" adjustment necessary between cost and market value.

	March 31, 2017	February 28, 2017	January 31, 2017
Water	$ 10,228,076.88	$ 10,608,056.95	$ 10,258,903.69
Wastewater	$ 5,037,485.89	$ 5,055,176.61	$ 4,666,726.45
	$ 15,265,562.77	$ 15,663,233.56	$ 14,925,630.14

Ron L. Mitchell, Secretary-Treasurer, CVWD

June 2, 2017
Date

Crescenta Valley Water District
Recap of Investments in Bonds (Does not include LAIF or bank accounts)
Fiscal Year 2016-17

As of
Apr. 30, 2017

Investment Number	Date Purchased	Original Principal Cost	Yield to Maturity at Purchase	Adjustment Amortized Principal	Adjusted Balance	Date Sold	Principal Value at Sale	Yield to Maturity at Sale	Gain (Loss) on Investment	Reason for Transaction	Interest Earned in Current FY	Total FY Return on Investments
83	Oct 9, 2012	$502,885.00	0.710%	$0.00					$0.00		$ 3,456.48	$ 3,456.48
87	Nov 19, 2012	$500,000.00	0.930%	$0.00	$500,000.00	2/3/2017	$500,000.00	93.000%	$0.00	Investment was called	$ 2,561.82	$ 2,561.82
101	6/14/2016	$1,211,530.00	1.260%	$0.00					$0.00	Put money back to work	$ 45,808.21	$ 45,808.21
M-48	5/11/2016	$518,915.00	0.990%	$0.00					$0.00	Put money back to work	$ 8,849.34	$ 8,849.34
M-49	5/11/2016	$1,260,762.50	0.990%	$0.00					$0.00	Put money back to work	$ 13,013.68	$ 13,013.68
M-52	6/28/2016	$1,016,970.00	1.440%	$0.00	$1,016,970.00	7/5/2016	$1,021,280.00	1.390%	$4,310.00	Took advantage of turn in market	$ 220.07	$ 4,530.07
M-53	7/12/2016	$1,013,212.34	1.480%	$0.00						Put money back to work at higher yield than previous investment	$ 13,000.03	$ 13,000.03
102	7/12/2016	$1,002,651.42	1.125%	$0.00	$1,002,651.42	8/4/2016	$1,004,150.00	1.030%	$1,498.58	Took advantage of turn in market	$ 703.12	$ 2,201.70
In/Out	7/20/2016	$1,004,970.00	1.570%	$0.00	$1,004,970.00	7/27/2016	$1,006,770.00	1.550%	$1,800.00	Made additional $1,800 plus interest in 7 days	$ 309.10	$ 2,109.10
In/Out	7/25/2016	$1,000,720.00	1.090%	$0.00	$1,000,720.00	7/29/2016	$1,002,720.00	1.125%	$2,000.00	Made additional $2,000 in 2 days	$ -	$ 2,000.00
103	8/2/2016	$1,287,830.00	1.880%	$0.00	$1,287,830.00					Put money back to work at higher yield than previous investment	$ 38,608.22	$ 38,608.22
M-54	8/5/2016	$1,002,174.72	1.080%	$0.00	$1,002,174.72					Put money back to work at same yield as previously sold investment	$ 8,260.28	$ 8,260.28
In/Out	8/5/2016	$1,004,952.73	1.570%	$0.00	$1,004,952.73	8/9/2016	$1,006,550.00	1.550%	$1,597.27	Made additional $1,600 in 4 days	$ -	$ 1,597.27
In/Out	8/11/2016	$1,004,940.00	1.570%	$0.00	$1,004,940.00	8/12/2016	$1,009,440.00	1.520%	$4,500.00	Made additional $4,500 in 1 days	$ -	$ 4,500.00
In/Out	8/16/2016	$1,004,940.00	1.570%	$0.00	$1,004,940.00	8/18/2016	$1,006,340.00	1.550%	$1,400.00	Made additional $1,400 in 2 days	$ 88.31	$ 1,488.31
In/Out	8/19/2016	$1,004,940.00	1.570%	$0.00	$1,004,940.00	8/22/2016	$1,006,340.00	1.550%	$1,400.00	Made additional $1,400 in 3 days	$ 44.16	$ 1,444.16
M-55	8/25/2016	$1,004,930.00	1.570%	$0.00	$1,004,930.00					Put money back to work at same yield as previously sold investment	$ 11,041.12	$ 11,041.12
In/Out	9/8/2016	$1,001,450.00	1.600%	$0.00	$1,001,450.00	9/27/2016	$1,004,218.75	1.570%	$2,768.75	Made additional $2,769 plus interest of $618.20 in 3 weeks	$ 618.20	$ 3,386.95
In/Out	9/13/2016	$1,298,000.00	1.970%	$0.00	$1,298,000.00	9/22/2016	$1,301,000.00	1.930%	$3,000.00	Made additional $3,000 plus $1,050 in interest in 9 days	$ 1,050.00	$ 4,050.00
M-56	10/4/2016	$997,540.00	1.650%	$0.00	$997,540.00					Put money back to work at higher yield than previous investment	$ 9,402.73	$ 9,402.73
M-57	10/5/2016	$987,147.50	1.960%	$0.00	$987,147.50					Put money back to work at same yield as previous investment	$ 10,321.63	$ 10,321.63
M-58	11/10/2016	$1,266,700.00	2.240%	$0.00	$1,266,700.00					Reinvest money from 9/13/16 trade & increase yield from 1.97% to 2.24% on same bond	$ 25,446.58	$ 25,446.58
M-59	12/20/2016	$502,797.89	2.930%	$0.00	$502,797.89	1/5/2017	$505,000.00	2.880%	$2,202.11	Made additional $2,200 in 16 days	$ 541.66	$ 2,743.77
M-60	1/25/2017	$497,985.19	1.960%	$0.00	$497,985.19	2/3/2017	$498,985.19	1.910%	$1,000.00	Made additional $1,000 plus interest of $155.39 in 8 days	$ 155.39	$ 1,155.39
In/Out	3/1/2017	$497,804.39	1.960%	$0.00	$497,804.39	3/22/2017	$498,518.33	1.930%	$713.94	Free up money in anticipation of higher interest rates	$ 543.86	$ 1,257.80
In/Out	3/14/2017	$494,825.07	2.090%	$0.00	$494,825.07	3/15/2017	$495,825.05	2.050%	$999.98	Made additional $1,000 in 1 days; free money anticipating rates	$ 25.90	$ 1,025.88
104	3/28/2017	$519,813.95	2.220%	$0.00	$519,813.95	4/12/2017	$521,352.52	2.700%	$1,538.57	Made additional $1,539 plus interest of $467.93 in 15 days	$ 467.93	$ 2,006.50
105	4/21/2017	$491,419.52	2.200%	$0.00	$491,419.52				$0.00	Put money back to work at same yield as previous investment	$ 246.58	$ 246.58
									$30,729.20		$194,784.40	$ 225,513.60

FY Cumulative Totals

Month	Total Gain (Loss) on Investment	Total Interest Earned in Current FY	Total FY Return on Investments
July	8,110.00	9,608.76	17,718.76
August	18,505.85	24,086.95	42,592.80
September	24,274.60	41,026.40	65,301.00
October	24,274.60	59,323.67	83,598.27
November	24,274.60	80,553.82	104,828.42
December	24,274.60	104,319.57	128,594.17
January	26,476.71	127,876.99	154,353.70
February	27,476.71	148,401.89	175,878.60
March	29,190.63	171,989.32	201,179.95
April	30,729.20	194,784.40	225,513.60
May			-
June			-

CRESCENTA VALLEY WATER DISTRICT
BOARD OF DIRECTORS - STAFF REPORT

GM Report
June 6, 2017

To: Honorable President and Members of the Board of Directors

From: Thomas A. Love, General Manager

Subject: **General Manager Report**

Staffing and Safety

On May 9th the District staff will achieve an important safety milestone, three years without a lost time accident. The efforts and diligence of all the staff to focus on safety is to be commended. A quarterly safety lunch will be held later this month to thank the District's employees for their efforts.

At the May conference ACWA/JPIA also recognized four District employees for their suggestions on safety improvements. Roy Spalding, Dennis Maxwell and Alex Sandoval each received an award and Bryan Jones received two awards.

Two employees have work anniversaries in June. Jacob Whittaker has been with the District 2 years and David Gould will complete his 20th year with the District.

Community Outreach Activities

- Interviewed for CV Weekly Article regarding water rate public hearing.
- CVTC Presentation – May 18th - Water supply update, Prop 218 Notice and Public Hearing, Pennsylvania Pipeline Project.

General Manager Correspondence to the Board (Attached)

Prepared & Submitted by:

_____

Thomas A. Love, P.E.
General Manager

From:	Thomas Love
Bcc:	James B; Michael Claessens; Judy Tejeda; kerry erickson; Ken Putnam; Tom Bunn
Subject:	LA Times - Southland to get a supply boost
Date:	Saturday, April 15, 2017 6:06:12 AM

To: Directors, Legal Counsel.

FYI

http://enewspaper.latimes.com/infinity/article_popover_share.aspx?guid=3a540b33-fe46-4255-9613-6610987bf2c2

Southland to get a supply boost

By Bettina Boxall

The post-drought good news continued Friday as the State Water Project announced that it was boosting deliveries to the highest levels in 11 years.

Most agencies, including the Metropolitan Water District of Southern California, will get 85% of the amount they request. Water districts north of the Sacramento-San Joaquin Delta will get 100%.

Earlier this week, the federal Central Valley Project, which provides irrigation water to valley growers, said all of its contractors will get their full contract supply for the first time since 2006.

The increases came the same week that Northern California broke its 1983 precipitation record. And the April 1 state snowpack, a key water supply index, was the seventh heaviest on record.

The 85% allocation may not be the last word. “We’re hopeful we’ll be able to increase deliveries even more as we monitor conditions,” said Bill Croyle, acting director of the Department of Water Resources, which operates the state project.

Damage to the spillways at the state project’s primary reservoir, Lake Oroville, figures into the allocation because officials have to carefully manage lake levels and releases as they embark on repairs.

Earlier this week Croyle said his department probably would not make a final allocation call until late May or early June.

The San Luis Reservoir, where the federal and state projects park supplies destined for Southern California and San Joaquin growers, filled earlier this spring for the first time in years.

That is allowing Metropolitan, the state project’s biggest customer, to rapidly rebuild its depleted regional reserves with deliveries from Northern California.

“This could end up being the highest increase in regional storage we’ve ever seen,” Deven Upadhyay, the agency’s water resource manager, said last month.

bettina.boxall@latimes.com

Twitter: @boxall

From:	Thomas Love
Bcc:	GRP_CVWD_Managers; J Bodnar; James Bodnar; Judy Tejeda; K Erickson; Ken Putnam; Kerry Erickson; Michael Claessens; Tom Bunn
Subject:	FW: California Today: Use Less Water, Pay Higher Bills - The New York Times
Date:	Tuesday, May 02, 2017 11:38:55 AM

To: Directors, Legal Counsel.

Director Claessens shared this relevant article.

https://www.nytimes.com/2017/05/02/us/california-today-water-bills.html?hp&action=click&pgtype=Homepage&clickSource=story-heading&module=second-column-region®ion=top-news&WT.nav=top-news

Thomas A. Love, P.E.
General Manager
Crescenta Valley Water District
818-248-3925 (office)
626-825-3678 (cell)

The New York Times | https://nyti.ms/2prYquF

U.S.

California Today: Use Less Water, Pay Higher Bills

Mike McPhate

CALIFORNIA TODAY MAY 2, 2017

Good morning.

(Want to get California Today by email? Here's the sign-up.)

Today's introduction comes from Vindu Goel, a technology writer.

OAKLAND — During California's long drought, public officials urged residents to cut back on water usage and imposed temporary bill surcharges to discourage consumption.

Consumers and businesses responded by reducing water consumption an average of 22 percent statewide from June 2015 to January 2017.

Now their reward will be higher water rates.

Although California's governor, Jerry Brown, officially declared an end to the state's drought a month ago, local water agencies are planning major rate

increases to make up for the fact that they are selling a lot less water than they used to.

The East Bay Municipal Utility District, which serves 1.4 million people on the east side of San Francisco Bay, told customers last week that it planned to raise water rates 9.25 percent on July 1 and another 9 percent the next year. The water agency in Marin County, just north of San Francisco, is proposing to raise rates 7 percent per year for the next two years.

Call it the paradox of conservation.

About 80 percent of the costs of delivering water to urban customers are fixed — pipes, treatment plants, reservoirs. But water bills are set up to recover most of those costs by charging customers a per-gallon fee, said David Mitchell, who studies water policy at M.Cubed, a public policy consulting firm.

So when usage drops sharply, as it did during the drought, rates have to go up. "The fixed costs have to spread over fewer gallons," Mr. Mitchell said. He predicted that water utilities statewide will be raising rates in the next few years to make up for the revenue shortfalls caused by the drought.

For the East Bay Municipal Utility District, revenue is down 12 percent this fiscal year, as a drought surcharge ended and the average user cut back from 250 gallons a day to 200.

"We really do appreciate what our customers have done to conserve. They've pulled out their lawns. They take shorter showers," said Jenesse Miller, an agency spokeswoman. "But whether we deliver one gallon or 130 million gallons, the infrastructure is the same."

Ms. Miller said that the two rate increases, which will ultimately raise the average bill $9 a month by mid-2018, will largely pay for infrastructure improvements and maintenance. "Many parts of the East Bay have pipes that are 90 or 100 years old," she said.

(Please note: We regularly highlight articles on news sites that have limited access for nonsubscribers.)

• Shortly after talks stretched beyond a strike deadline, Hollywood writers reached a tentative contract deal with the studios. [The New York Times]

• "Nancy — you're the best," President Trump once told Representative Nancy Pelosi. Can they deal again? [The New York Times]

• Representative Maxine Waters's slashing commentary on Mr. Trump has brought her fame and a nickname: Auntie Maxine. [Los Angeles Times]

• Protesters took to the streets for May Day in numerous cities, including Los Angeles and San Francisco. [The New York Times]

• Sacramento may start paying legal defense costs of unauthorized immigrants. [Sacramento Bee]

• San Jose had the highest-paid city manager and police chief in a survey of 200 cities. [The Mercury News]

• Cetys University, just south of the border, is making an ambitious bid to become the first Mexican member of the N.C.A.A. [The New York Times]

• Napa's audacious "living river" project didn't just fix a flood problem, wrote the urban design critic John King. It improved quality of life. [San Francisco Chronicle]

• "There are a lot of folks gaming the system." Airbnb agreed to give San Francisco more information about its hosts. [The New York Times]

• The actress Gabourey Sidibe was sick of talking about her weight. So she wrote a memoir. [The New York Times]

And Finally ...

In 1931, a dispute erupted over plans to segregate the grammar school in Lemon Grove, near San Diego.

At the time, anti-immigrant sentiment was rampant in California, with nonwhites commonly barred from parks, pools and other places.

When Lemon Grove created a separate building for Mexican-American students, their parents called it "La Caballeriza" — the stable.

They organized a lawsuit and, against all odds, won. Historians recognize the case as the country's first successful school desegregation case.

Years later in largely segregated Orange County, five Mexican-American families opened a federal lawsuit, Mendez v. Westminster School District, that accused the district of discriminating against their children.

Again, the court agreed. In 1946, Judge Paul J. McCormick ruled that segregation violated the Constitution by suggesting "inferiority" among the children "where none exists."

The decision ultimately inspired the passage of a bill to desegregate California. It was signed by Gov. Earl Warren, who later joined the Supreme Court and presided over the Brown v. Board of Education case that overturned the "separate but equal" doctrine.

For uncertain reasons, neither Westminster nor Lemon Grove ever created a memorial to their civil rights legacies.

A council member, Sergio Contreras, is trying to change that in Westminster. He's proposed a "freedom trail" that would include a monument honoring the Mendez case.

In Lemon Grove, the middle school named its auditorium after Roberto Ricardo Alvarez, the 12-year-old lead plaintiff in the desegregation lawsuit.

roots.

California Today goes live at 6 a.m. Pacific time weekdays. Tell us what you want to see: CAtoday@nytimes.com.

The California Today columnist, Mike McPhate, is a third-generation Californian — born outside Sacramento and raised in San Juan Capistrano. He lives in Davis.

California Today is edited by Julie Bloom, who grew up in Los Angeles and graduated from U.C. Berkeley.

From:	Thomas Love
Bcc:	GRP_CVWD_Managers; J Bodnar; James Bodnar; Judy Tejeda; K Erickson; Ken Putnam; Kerry Erickson; Michael Claessens; Tom Bunn
Subject:	Public Option on Water Issues
Date:	Wednesday, May 03, 2017 9:38:25 AM

To: Directors, Legal Counsel.

Interesting observations on how public feels about water issues. 7th item is on water infrastructure spending.

https://www.newsdeeply.com/water/articles/2017/05/01/7-things-i-learned-studying-public-opinion-on-water

Thomas A. Love, P.E.
General Manager
Crescenta Valley Water District
818-248-3925 (office)
626-825-3678 (cell)

Water Polls

7 Things I Learned Studying Public Opinion on Water

Do people only care about water during extreme drought, like California's recent one? It turns out most Americans care a lot about water and have strong feelings on infrastructure spending and other water-related issues.

WRITTEN BY
Mitch Tobin

PUBLISHED ON
May. 1, 2017

READ TIME
Approx. 8 minutes

STORIES IN THIS SERIES

Protesters stand in solidarity with the "Native Nations Rise" march on Washington, D.C. on March 10, 2017. A 2017 Gallup poll found that 63 percent of Americans worry a "great deal" about pollution of drinking water. Alex Milan Tracy via AP images

WHAT DO AMERICANS think about their water?

Over the past few months, I've been poring over a variety of public opinion surveys that try to illuminate our attitudes toward water.

Recent events, such as the lead poisoning in Flint and an epic drought in California, have repeatedly thrust water into the news cycle. Long before those headlines, however, Americans were telling pollsters they were worried about their water. Climate change's impact on the hydrological cycle has only amplified the concerns.

Every poll I've examined has its own focus and limitations (you can take a deeper dive into the data on WaterPolls.org). Looking across a variety of

Water Polls

In partnership with Mitch Tobin at WaterPolls.org, we provide insight and analysis about the latest public opinion polls related to water.

7 Things I Learned Studying Public Opinion on Water
May. 1, 2017

Public Opinion Expert Reveals What Americans Think About Water
Jun. 1, 2017

Related Articles

Public Opinion Expert Reveals What Americans Think About Water
Jun. 1, 2017

Seven Experts to Watch on California's Groundwater
Jul. 21, 2016

Five Important Facts on World Water Day
Mar. 22, 2016

Drought Truthers the New Climate Change Deniers?
Jun. 13, 2016

New California Dam Proposed to Combat Climate Change Concerns
Jan. 9, 2017

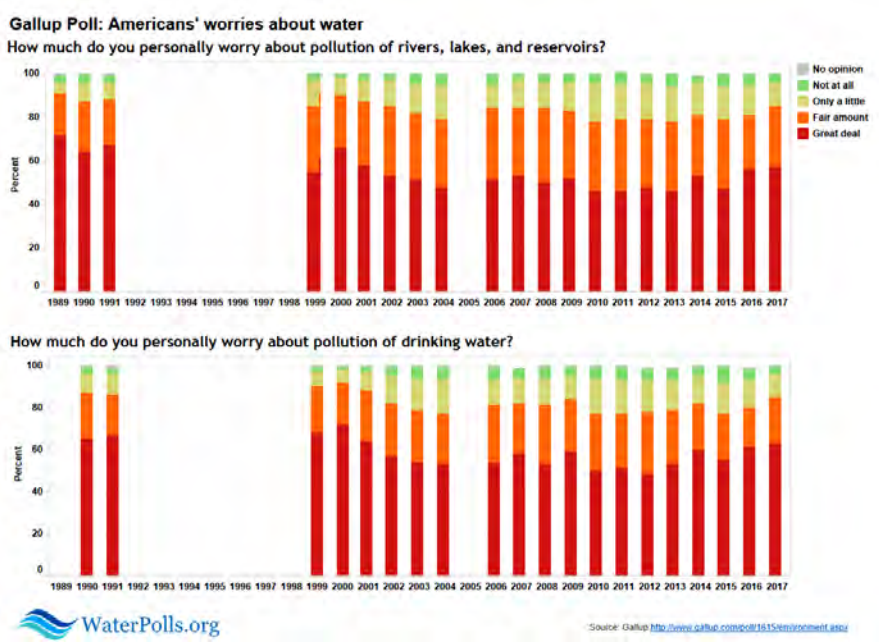
Critical Index Finds Smelt Nearly Extinct in Delta
Jun. 7, 2016

water-related surveys, I've distilled seven takeaways from the research:

1. Americans are concerned about their water

For decades, Gallup has asked Americans about a variety of environmental problems, and water always winds up as the most troubling issue. "Polluted drinking water and the pollution of rivers, lakes and reservoirs have consistently topped Americans' concerns throughout Gallup's 27-year trend measuring these environmental issues," the organization reported in April 2016.

In its 2017 survey, Gallup found that 63 percent of Americans worry a "great deal" about pollution of drinking water, and another 22 percent worry a "fair amount," as shown in the figure below. Those were the highest levels of worry recorded since 2001.



As Rain Falls, Tensions Rise Over Who Gets Water
Mar. 15, 2016

The Seven Key Things That Happened in California Water in 2016
Dec. 28, 2016

Cynthia Barnett: There's No 'Big Fix' For Drought
Feb. 2, 2016

New Water Laws Ahead. And Still Much More To Do
Jan. 5, 2016

Most Popular

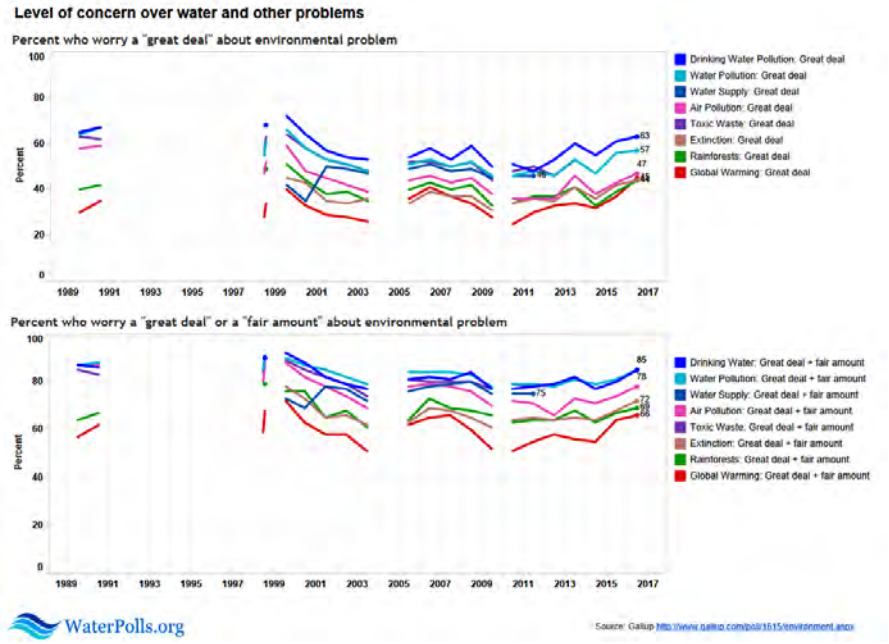
1

Calls to Rethink the Colorado River's Iconic Dams Grow Louder
With two major reservoirs on the Colorado River, Lake Powell and Lake Mead, sitting half empty, will a new hydrologic reality be enough to push for big management changes? One conservation group hopes so. May. 15, 2017

2

Oroville Dam in Miniature: Scale Model Helps Repair Damaged Spillway
May. 29, 2017

Gallup asks about water in a poll covering environmental problems, and that framing surely influences the responses. But at least in the realm of green issues, water has always been more worrisome to Americans than problems such as climate change and the loss of biodiversity, as shown in the chart below. Like air pollution, water is far more proximate and real to people than invisible, odorless greenhouse gases or imperiled critters living in some faraway rainforest.



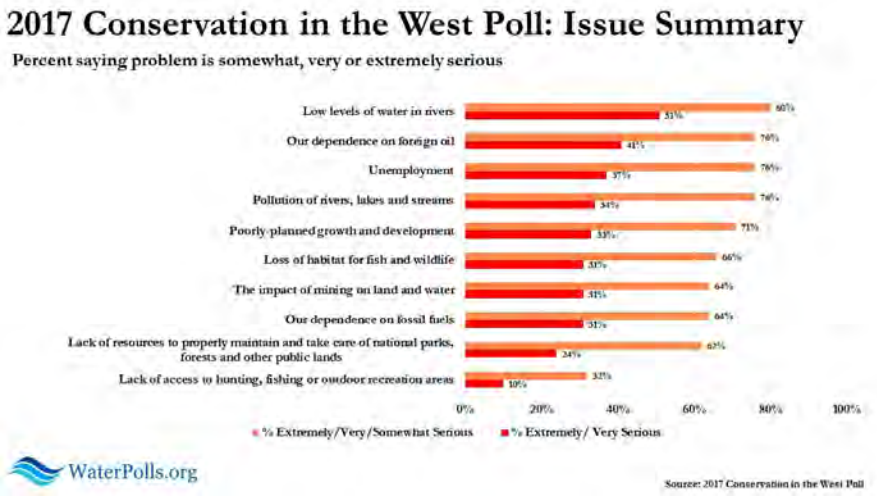
In the American West, where a limited and capricious water supply poses perennial challenges, concern about water is probably greater than in wetter parts of the country. In both 2016 and 2017, the Conservation in the West Poll from Colorado College's State of the Rockies Project has found that 51 percent of people in seven Mountain West states believe "low levels of water in rivers" is a very or extremely serious problem. In both years, voters

3 **Newly Identified Climate Pattern May Have Caused California's Drought**
May. 4, 2017

4 **Why California Can't Go Back to 'Normal' After Drought**
May. 10, 2017

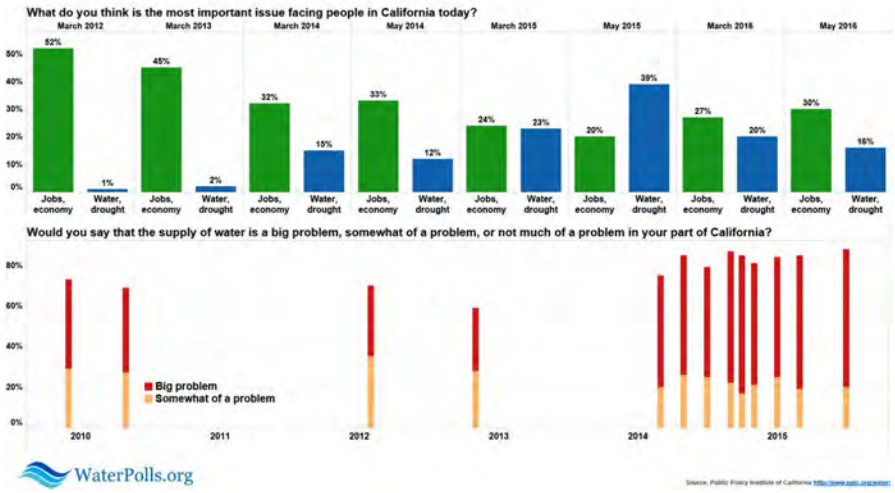
5 **How Wet Weather Impacted California's Groundwater Deficit**
May. 8, 2017

rated depleted rivers as a more serious issue than unemployment. The graphic below, based on data from 2017, also shows that three-quarters of voters rated the "pollution of rivers, lakes and streams" as an extremely, very, or somewhat serious problem.

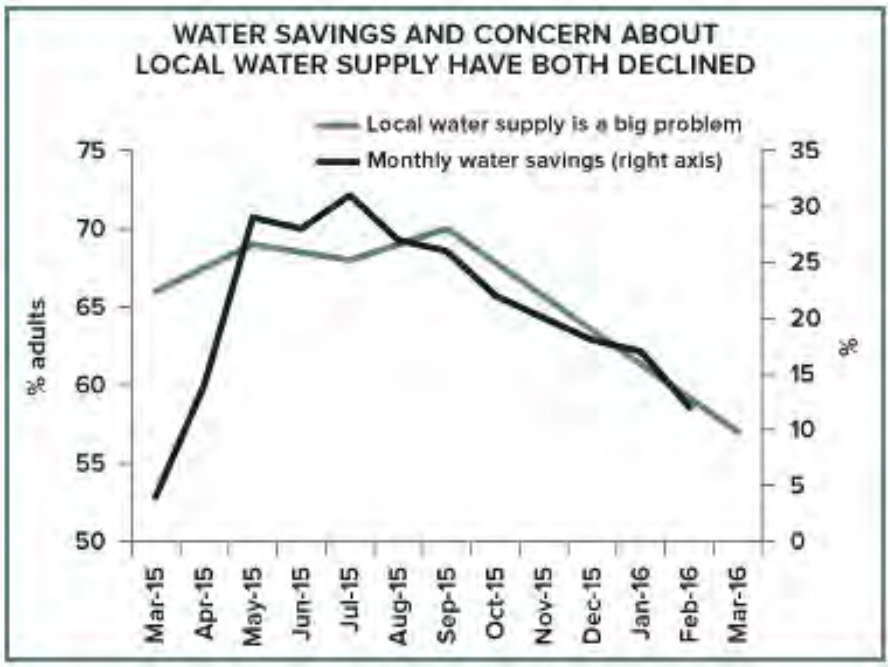


2. Weather plays major role in shaping public opinion on water

While worries over water are chronic, they do ebb and flow with the weather. In 2015, the brutal drought in California generated an unprecedented finding: For the first time since The Public Policy Institute of California started polling in 1998, water issues were the state's top issue of concern, eclipsing the economy, jobs and other matters. As shown in the figure below, 39 percent of state residents cited water/drought as the most pressing issue in May 2015, ahead of jobs and the economy at 20 percent.



After the parched winter of 2014-2015, one of the driest in centuries, some wetter weather returned to California. By May 2016, 30 percent of Californians cited jobs and the economy as the top issue, while only 16 percent said water/drought. The graphic below from PPIC shows that as concern fell, so did water conservation.

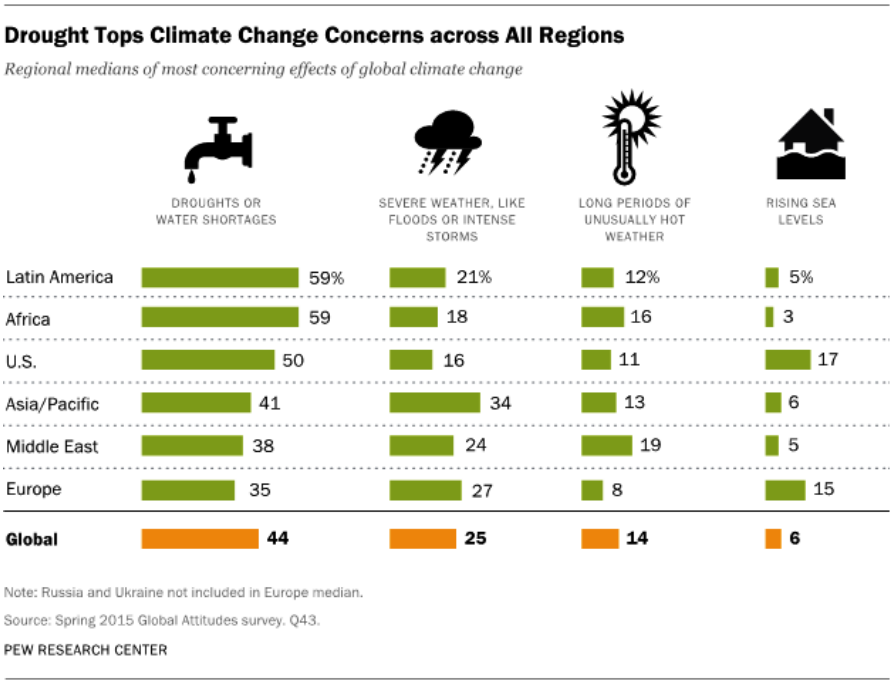


Weather is something to watch out for when analyzing public opinion on water. During dry spells, pollsters tend to ask more questions about

drought and the water supply. Spikes in concern can evaporate once the rain and snow returns. But in California and elsewhere, it appears that many Americans maintain a base level of worry about water regardless of recent precipitation trends.

3. Water-related problems top climate change concerns

Climate change is already manifesting through an amped-up hydrological cycle that is delivering deeper droughts and more extreme floods. In the United States and around the world, people are noticing. When the Pew Research Center asked citizens in 40 countries about their greatest worries related to climate change, drought and water shortages topped the list. The 2015 Pew poll also found high levels of concern over severe weather, such as floods and intense storms. But in all regions there was greater worry about the lack of freshwater, as shown in the figure below.

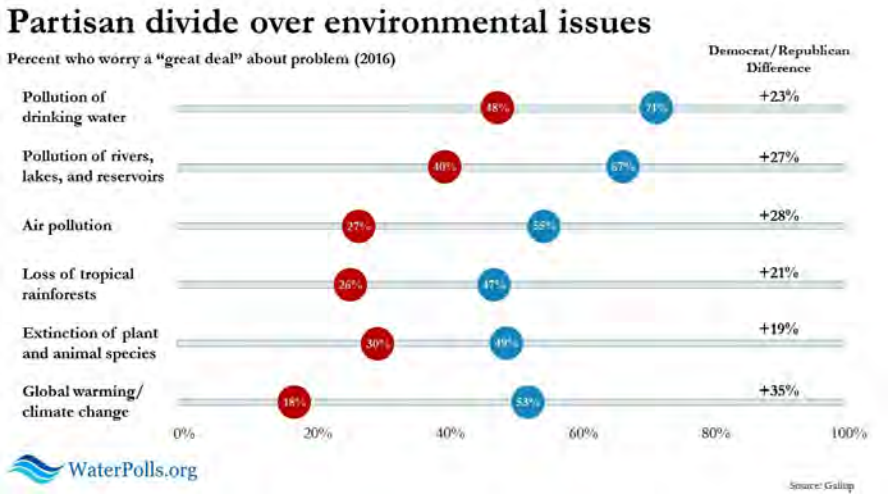


In the United States, there were some regional differences in concerns about climate change. Nationally, 50 percent of Americans said drought was their top worry. But that rate ranged from 63 percent in the drier West to 39 percent in the wetter East, as one might expect.

4. Water is less partisan than some other environmental issues

Most political issues exhibit partisan divisions in public opinion. Water is no exception, but the gap appears to be smaller than for other environmental issues, such as climate change. The figure below, based on 2016 data, shows water pollution is the top environmental concern among both Democrats and Republicans. The 23 percent partisan gap for "pollution of drinking water" is narrower than the

35 percent divide on climate change and comparable to the gap on air pollution.



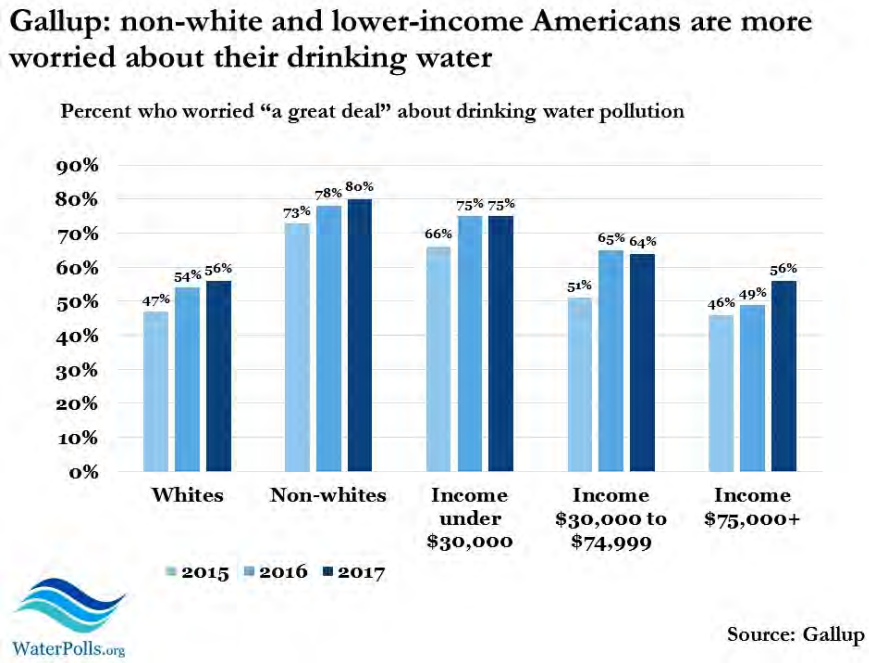
Polling related to two recent state-based efforts show there is broad support for addressing our water woes with sustainable solutions. In July 2014, the Water Foundation asked a bipartisan team of pollsters to analyze Californians' views on groundwater. Among both Republicans and Democrats, about 80 percent of those surveyed supported "giving local communities increased ability to manage their local groundwater." Four-fifths of Republican and Democrats also agreed that allowing "anyone to take water from wells without considering impacts on others" was a cause of California's declining groundwater levels.

Colorado also forged a recent bipartisan success in water. A 2014 survey supported by environmental nonprofits but run by a bipartisan polling team found that large majorities of voters in the swing state supported increasing water conservation in

cities and modernizing the state's water policies. When asked if they supported a statewide goal of reducing water use by 10 percent by 2020, 99 percent of Democrats, 87 percent of unaffiliated voters and 79 percent of Republicans said yes. Nine in 10 Coloradans think it's extremely or very important to keep Colorado's rivers and streams healthy and flowing.

5. Non-white and lower-income Americans are especially worried about water

Worries about water pollution are widespread in the United States, but surveys show that non-white and lower-income Americans are particularly concerned. The graphic below, based on Gallup's March 2017 national poll, shows that 80 percent of non-whites express a great deal of worry about drinking water pollution, compared to 56 percent of whites. Three-quarters of Americans with annual incomes less than $30,000 say they worry a great deal about water pollution; for those making more than $75,000, the figure is 56 percent.



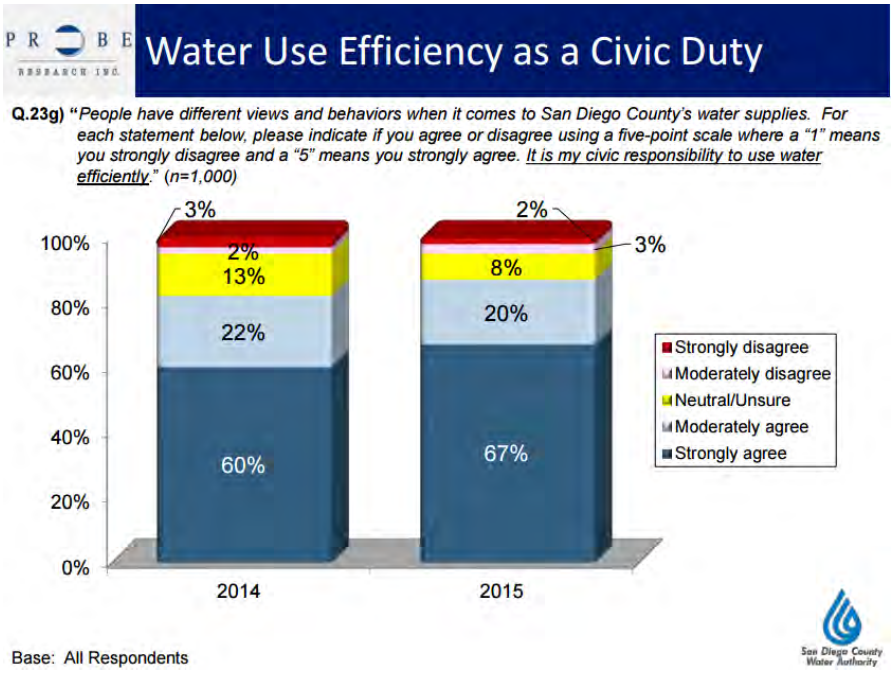
"The Flint crisis exemplifies the higher concern lower-income and nonwhite Americans feel about water pollution issues," writes Gallup's Justin McCarthy. But Flint is just one example of a lower-income, non-white community being hit by disastrous contamination. Researchers, journalists and environmental justice advocates can point to plenty of other examples of minorities and the disadvantaged bearing the brunt of water and other pollution, such as predominantly Latino farm communities in California not only facing tainted water supplies but also dry wells during the drought.

6. Many favor water conservation and see it as a civic duty

Becoming more efficient with our water use is one of the keys to achieving sustainability and greater resilience in the face of climate change. Ask

Americans about water conservation, and you're likely to get a thumbs up. According to the annual Conservation in the West Poll, the vast majority of Westerners surveyed are willing to take actions in their own lives to reduce their household's water use by 20 percent. The 2016 poll also found that Westerners overwhelming prefer improving water efficiency over building new dams and diversions in order to meet increasing demands.

According to the San Diego County Water Authority's polling, many residents see saving water as a civic duty. The chart below shows that in 2014 and 2015, more than four-fifths of respondents strongly or moderately agreed that "it is my civic responsibility to use water efficiently."



It's one thing to say you'll conserve water, and another thing to actually change your lifestyle or landscaping to achieve those savings. But at least in

principle, many Americans think it's their duty to be water-wise, especially during a drought.

7. Americans say they're willing to spend more to fix their waterworks

The American Water Works Association estimates the cost of repairing and expanding the nation's drinking-water systems will exceed $1 trillion over the next quarter century. A majority of Americans worry about their water infrastructure and say they're willing to pay more in order to upgrade waterworks, according to an April 2016 MWH Global survey. Compared to a similar 2015 survey, respondents expressed higher levels of concern and more willingness to pay for upgrades. When asked if their community should be spending more on water infrastructure, 68 percent of those surveyed in 2016 said yes. That's up from 61 percent the year before.

A January 2016 Value of Water Coalition poll also found that Americans are willing to pay more on their water bills if they're informed about infrastructure issues.

Looking Ahead

A wet winter in California and other parts of the West have led to a dramatic reduction in drought conditions, so as new polls are released, it'll be interesting to see whether public opinion on water west of the 100th Meridian shifts in response. Less news coverage of water issues and fewer drought

restrictions might reduce public concern and willingness to tackle problems, but given Westerners' longstanding worries about water, I wouldn't expect a sea change. Moreover, this wet winter could easily be followed by another dry spell that once again elevates water in the public's consciousness.

Nationally, the Trump administration's approach to environmental regulations, many of them connected to water, is already generating headlines. But whether those debates and policy changes will influence broader public attitudes toward water remains to be seen. In an era of political polarization, water is less partisan than some other natural resource issues, and there is broad-based support for infrastructure spending, so one could imagine progress on that front.

A version of this story first appeared on WaterPolls.org.

The views expressed in this article belong to the author and do not necessarily reflect the editorial policy of Water Deeply.

***Never miss an update.** Sign up here for our Water Deeply newsletter to receive weekly updates, special reports and featured insights on one of the most critical issues of our time.*

■

About the Author

Mitch Tobin

Mitch Tobin is editor of WaterPolls.org and a Denver-based communications consultant. You can interact with data and download free visualizations at WaterPolls.org. Contact Mitch at mitch@seatosnow.com or via Twitter at @mitchtobin.

RELATED

Public Opinion Expert Reveals What Americans Think About Water

Jun. 1, 2017

RELATED

Seven Experts to Watch on California's Groundwater

Jul. 21, 2016

RELATED

Five Important Facts on World Water Day

Mar. 22, 2016

Most Popular Stories

1. **Calls to Rethink the Colorado River's Iconic Dams Grow Louder**
   May. 15, 2017
2. **Oroville Dam in Miniature: Scale Model Helps Repair Damaged Spillway**
   May. 29, 2017
3. **Newly Identified Climate Pattern May Have Caused California's Drought**
   May. 4, 2017
4. **Why California Can't Go Back to 'Normal' After Drought**
   May. 10, 2017
5. **How Wet Weather Impacted California's Groundwater Deficit**
   May. 8, 2017

UP NEXT

Lessons from Abu Dhabi on Using Renewables to Power Desalination

From:	Thomas Love
Bcc:	GRP_CVWD_Managers; J Bodnar; James Bodnar; Judy Tejeda; K Erickson; Ken Putnam; Kerry Erickson; Michael Claessens; Tom Bunn
Subject:	Glendale Relaxes Water Conservation Alert
Date:	Wednesday, May 17, 2017 2:32:19 PM

To: Directors, Legal Counsel.

For your information.

http://www.latimes.com/socal/glendale-news-press/news/tn-gnp-me-water-20170516-story.html

Thomas A. Love, P.E.
General Manager
Crescenta Valley Water District
818-248-3925 (office)
626-825-3678 (cell)

Glendale eases state-mandated water restrictions but urges continued conservation

While water-use restrictions have been eased in Glendale, the city's utility is still requiring customers to follow its water-conservation policies. (File photo)

By Jeff Landa

MAY 16, 2017, 3:50 PM

Following the formal end of California's drought state of emergency in April, the Glendale City Council eased water-use restrictions during a meeting last week, although Glendale Water & Power customers must still adhere to the city's own water-conservation policies.

In 2015, Gov. Jerry Brown issued mandatory water-use restrictions across the state. The Glendale City Council quickly adopted an ordinance that limited watering to just two days a week, known as phase three of conservation.

ıg the number of exterior irrigation days to

Throughout the roughly three years of conservation efforts, Glendale Water & Power customers have saved more than 3.6 billions gallons of water, according to city documents.

Brown's April executive order ending the drought state of emergency has allowed Glendale to move back from phase two to phase one — a council-mandated conservation phase that the city maintains at all times.

"We met every objective and goal that was put down by the state for us," said Steve Zurn, general manager of Glendale Water & Power. "We've actually exceeded those, and I think we've done a very good job in doing our part to contributing toward [lessening] the impacts of the drought."

Now, there are no watering restrictions in terms of days of the week or duration. However, Glendale Water & Power customers must still follow Glendale's local water-conservation efforts, known as the No Water Waste Policy. For residents, watering is still not allowed between 9 a.m. and 6 p.m., and that rule is accompanied by other measures in place to prevent waste.

Those include: No use of potable water for hose washing of hardscapes such as driveways; leaks must be fixed on-site within 72 hours; vehicle washing can only be done with a hand-held bucket and intermittent hose rinses; and fountains must use recirculation systems.

Although the drought emergency has ended, Councilwoman Paula Devine urged residents to continue their water-conserving practices.

"I hope that our residents don't go overboard with the use of water," Devine said. "We never know when there's going to be another drought, so to go to excess or extreme use of water I think would be counterintuitive."

For more information about the remaining restrictions, visit glendaleca.gov/nowaterwastepolicy.

jeff.landa@latimes.com

Twitter: @JeffLanda

This article is related to: Droughts and Heat Waves, California Drought

CRESCENTA VALLEY WATER DISTRICT
BOARD OF DIRECTORS - STAFF REPORT

June 6, 2017
Staff Report

To: Honorable President and Members of the Board of Directors

From: David S. Gould. P.E. – District Engineer

Subject: **District Engineer – Staff Report**

---

1. Water Production Report

- May 1 – 31 – Water production – 37%/63% split – 112.9 MG for the time period
- Average use – 13.2% more than 2016 and 4.3% less than 5-yr average
- Overall Estimated Water Production for FY 16/17 – 3,829 ac-ft, 3.5% higher than projected 3,700 ac-ft

2. Rainfall Update

- 0.00" for May 2017
- Rainfall total for Rainfall Year 2016/17 – 24.76”

3. Report on Engineering

- **CIP Projects**
  - Ocean View Chloramination Project
    - Agreements – Working with FMWD & LADWP
  - Pipeline Projects
    - 4200 – 4400 Blocks of Penn. - Started - 5/15/17; Anticipated Completion date 7/14/17
  - Pickens Canyon Pipeline Replacement and Slope Repair - Complete
    - Re-Landscaping Slope – Oct. 2017
  - Seismic Sensors & Valve Actuators at Dunsmore & Pickens Reservoir
    - Pickens Reservoir – to be completed by end of June 2017
- **Nitrate Removal Treatment Facility at Well 2 Project**
  - 100% design plans and specifications - Complete
  - Glendale Building & Safety for Permits to be complete by June 9, 2017
  - Advertising for Bids – June 20, 2017 Board Meeting
- **Crescenta Valley County Park Stormwater Recharge Facility Study**
  - See Staff Report
  - Met with GWP regarding partnership and cost sharing
- **ULARA**
  - No Report
- **Water Meter Replacement Program**
  - Field crews continuing working on Zone 6; to be complete by July 11, 2017
  - Replaced 594 meters in FY 16/17

4. Report on Administrative and Field Operations

- **Wells - Status**
  - Well production capacity - averaging 1.45 MGD for May 2017
  - Well 8 out of service – Anticipated to be back in service by June 5, 2017

5. Field Maintenance & Operations

- **Water Lateral Leaks & Repairs**

4809 Briggs	2743 Franklin	2645 Orange
2526 Foothill	2623 Pontiac	4924 Pennsylvania
2963 Fairway	3316 Montrose	3319 Montrose

- **Fire Hydrant Repair**
  - 2653 Orange – Replace FH
- **Developer Job**
  - No Report
- **Water Main Leaks**
  - 2953 Los Olivos
  - 4923 El Sereno
- **Booster Pump Maintenance**
  - No Report
- **Reservoir Maintenance**
  - Ordunio and Dunsmore Reservoirs cleaned – May 8 & 9, 2017
- **Sewer Maintenance**

2700 Block of Brookhill	2700 Block of Orange	4800 Block of LA Crescenta
2600 & 2700 Blocks of Cecilville	2600 & 2700 Blocks of Vicwood	2600 & 2700 Blocks of El Caminito

CRESCENTA VALLEY WATER DISTRICT

WATER PRODUCTION REPORT

May 1 - May 31, 2017

Well Production:	31,036,200	Gals		
GWP Production:	9,372,000	Gals		
Gravity Production:	1,358,000	Gals	% GW	37%
Purchased Water:				
FMWD:	71,121,000	Gals		
City of Glendale:	0	Gals	% Import	63%
TOTAL:	112,887,200	Gals		
	346.44	ac-ft		
Glenwood Nitrate Water Reclamation Plant:*	9,954,000	*Included in Well Production		

WATER DEMAND COMPARISON

Time Period	Average Daily Usage (gals)	Current Period Change
May 1, 2017 - May 31, 2017	3,665,811	
May 1, 2016 - May 31, 2016	3,238,957	13.2%
5-yr Average - May 2012 - 2016	3,830,834	-4.3%

RAINFALL: May 1 - May 31, 2017 0.00"

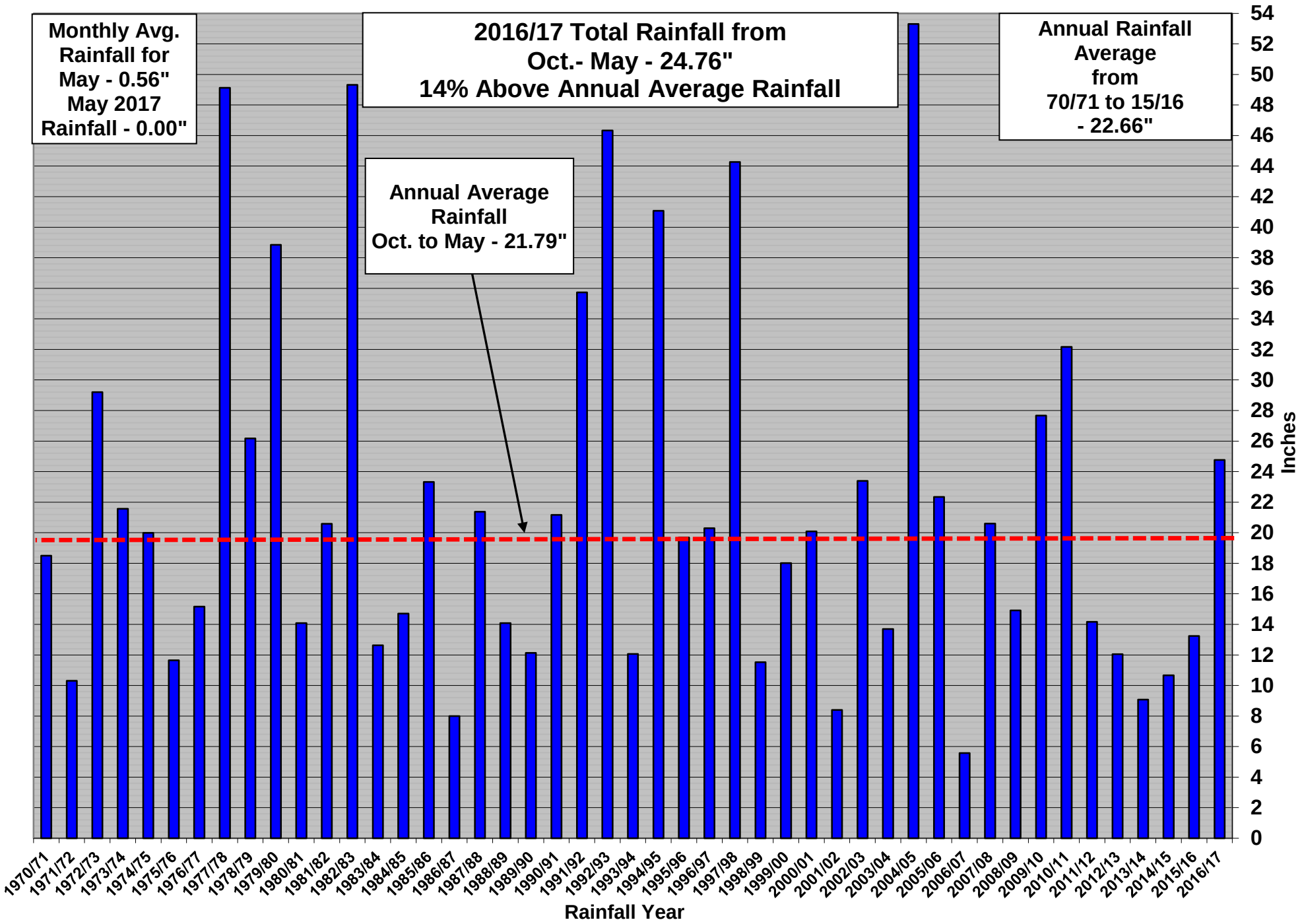
Season-To-Date: 24.76"

2016/17 Fiscal Year Water Production			Groundwater Production Water Rights		GWP (Well 16) Water Production		Purchased Water Production Tier 2 Allocation	
Month	**Actual Total Water Production (ac-ft)**	**Projected Total Water Production (ac-ft)**	**Month**	**Month**	**Month**	**Well Production (ac-ft)**	**Month**	**Imported Water Production (ac-ft)**
July	**379**	**315**	**October**	**123**	**January**	**31**	**January**	**102**
August	**383**	**345**	**November**	**120**	**February**	**27**	**February**	**82**
September	**376**	**325**	**December**	**100**	**March**	**29**	**March**	**141**
October	**354**	**315**	**January**	**112**	**April**	**28**	**April**	**195**
November	**319**	**290**	**February**	**95**	**May**	**29**	**May**	**218**
December	**277**	**250**	**March**	**108**	**June**		**June**	
January	**245**	**260**	**April**	**107**	**July**		**July**	
February	**205**	**285**	**May**	**100**	**August**		**August**	
March	**278**	**330**	**June**		**September**		**September**	
April	**331**	**325**	**July**		**October**		**October**	
May	**347**	**325**	**August**		**November**		**November**	
June		**335**	**September**		**December**		**December**	
Total to Date	3,494	3,365	Total to Date	866	Total to Date	145	Total to Date	739
Projected	3,829	3,700	Water Rights	3,294			Tier 2	2,154
% of Projected	94.4%	90.9%	% of Rights	26%			% of Allocation	34%
Remaining	206	335	Remaining	2,428			Remaining	1,415

NOTE:

1) Blue Numbers = Estimated Water Production

Monthly Rainfall - 1970/71 - 2016/17 (Oct.- May)



Revised Date: 6/2/2017

CRESCENTA VALLEY WATER DISTRICT

M E M O R A N D U M

DATE: May 18, 2017

TO: Engineering Committee

FROM: David S. Gould, District Engineer

SUBJECT: CVWD Engineering Committee Meeting No. 302

Following is a summary of Engineering Committee Meeting No. 302, held at 9:00 AM on May 17, 2017, at the CVWD main office, and was attended by the following:

Director Michael Claessens - Committee Chairperson	CVWD
Director Ken Putnam	CVWD
Tom Love – General Manager	CVWD
David S. Gould – District Engineer	CVWD
Brook Yared – Associate Engineer	CVWD

1. Status of Groundwater Wells and Well Capacity

Mr. Yared presented an updated Water Production Chart showing the status of the daily water production and the breakdown between groundwater and FMWD production. Director Claessens requested that the chart be shown on CVWD's website.

2. Update on Crescenta Valley County Park – Stormwater Project

Mr. Gould discussed the status of the Crescenta Valley County Park Storm Water Recharge Facility Study. Mr. Gould indicated that the study was completed and the results showed it was possible to divert stormwater flow and dry weather runoff from the Verdugo Wash to infiltration basins for groundwater recharge within CVC Park.

Mr. Gould discussed the next step which included applying for Proposition 1 Grant funding for the construction of the project. Mr. Gould presented a project schedule showing the tasks need to be completed before the anticipated grant application due date of March 2018. Mr. Gould discussed that the project schedule showed that a conceptual plan would need to done by the end of September 2017 before the CEQA process could get started. Mr. Gould requested input from both Directors regarding the overall stormwater recharge project and the proposed timeline. Both Directors requested that costs associated for consultants and contractors be included for each of the tasks for further discussion. Also, Director Claessens indicated that staff should maintain the proposed FY 17/18 CIP projects and not let this project take a higher priority.

3. Award of Contract – Water Distribution Leak Detection Survey

Mr. Gould discussed that staff will be entering into a contract with Utility Services Associates to perform a water leak detection survey on existing pipelines and water service laterals to determine if there are undetected water leaks that are unknown in the water system. Staff requested a quote from four (4) firms to perform the survey on half of the water system or 44 miles of pipe. The Engineering Committee recommended approval of the contract. Director Putnam requested that staff talk to Utility Services Associates about completing the remainder of the system during FY 17/18.

4. Design – New emergency Electrical Generator at the La Granada Wastewater Lift Station, Project S-962

Mr. Gould discussed staff has been working on the design of the new emergency electrical generator at the lift station with an automatic transfer switch. This project was originally planned to be designed in-house by District staff. A majority of the design was completed; however, with staff's current workload, they need assistance from a consultant to complete the design since the project is a necessary upgrade to the lift station. Staff sent a request for proposal to Cannon Corporation to provide engineering and surveying services. Cannon provided a proposal for a cost of $19,822 to complete the design and prepare contract documents.

Then Engineering Committee recommended awarding the contract to Cannon to assist with complete the project.

5. Discussion of FY 16/17 Capital Improvement Project Program

Mr. Gould provided an update on the FY 2016/17 CIP program including the project schedule and project costs updates. Mr. Gould discussed which projects are to be complete by the end of FY 16/17 and which projects will be deferred to FY 17/18.

Adjournment - The Engineering Committee meeting was adjourned at 10:17 am on May 17, 2017

See CVWD Website www.cvwd.com for the Engineering Committee Packet

CRESCENTA VALLEY WATER DISTRICT

2700 FOOTHILL BOULEVARD
LA CRESCENTA, CALIFORNIA

Agenda for the Meeting of the Engineering Committee
of the Crescenta Valley Water District

To be held on

May 17, 2017 at 9:00 AM

Posted May 15, 2017 at 10:00 am

Call to Order

Adoption of Agenda

Information Items

1. Status of Groundwater Wells and Well Capacity
2. Update on Crescenta Valley County Park – Stormwater Project
3. Award of Contract - Water Distribution Leak Detection Survey
4. Design – New Emergency Electrical Generator at the La Granada Wastewater Lift Station, Project S-962
5. Discussion of FY 16/17 Capital Improvement Project Program

Public Comments

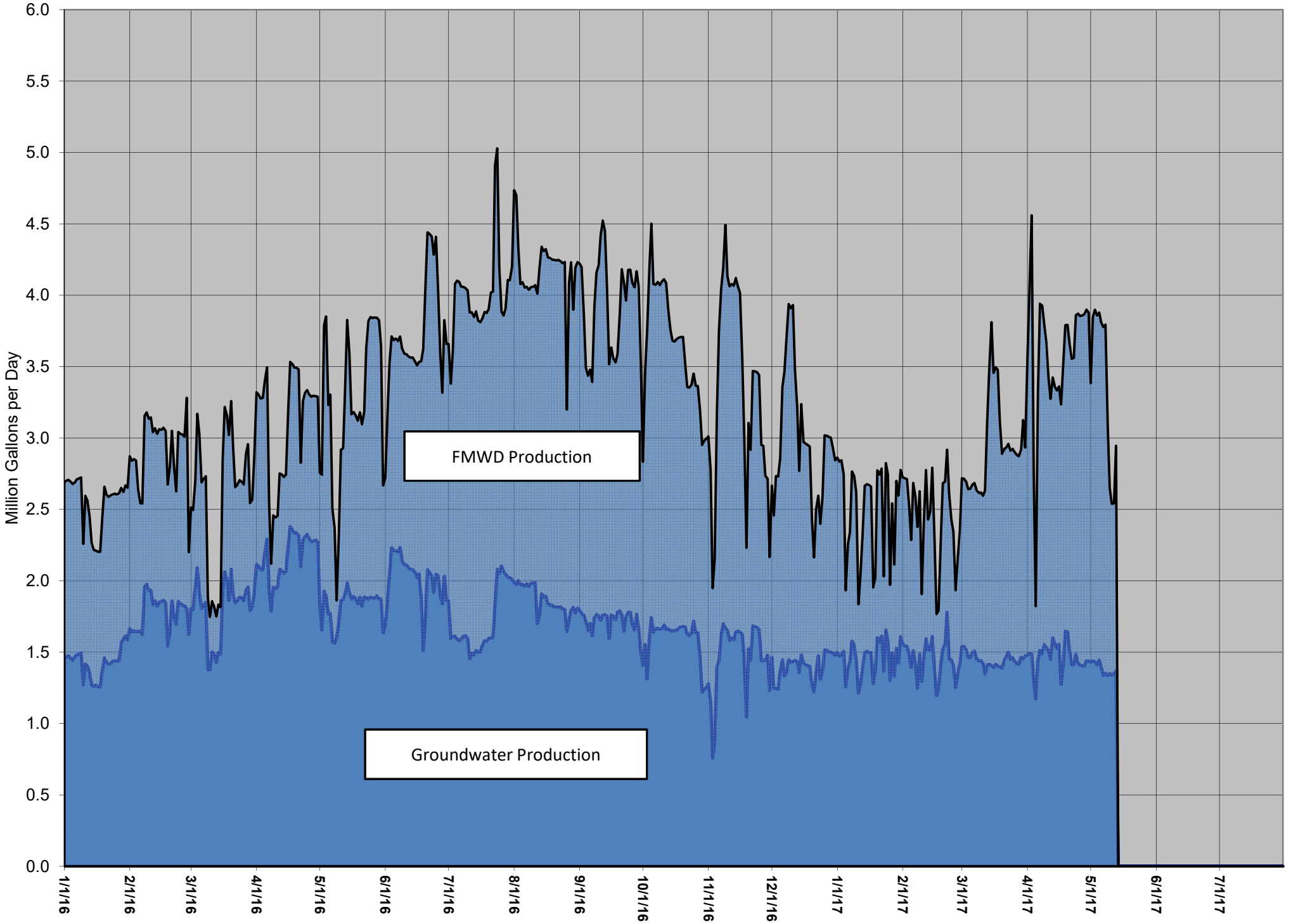
At this time, members of the public shall have an opportunity to address the Committee on items of interest that are within the subject matter jurisdiction of this Committee. This opportunity is non-transferable and speakers are limited to three (3) minutes each.

Committee Member's Request for Future Agenda Items

Next Engineering Committee Meeting – June 15, 2017

Adjournment

Water Production Chart



CRESCENTA VALLEY WATER DISTRICT
STAFF REPORT

Information Item No. 2

To: Engineering Committee May 17, 2017

From: David S. Gould. P.E. – District Engineer

Subject: Project Update - Crescenta Valley County Park Storm Water Recharge Facility Study

---

INFORMATION ITEM:

Project Update - Crescenta Valley County Park Storm Water Recharge Facility Study

BACKGROUND:

The Crescenta Valley County Park (CVC Park) Stormwater Recharge Project Facility Study (Study) was conducted to provide important data and geologic information to determine if portions of Crescenta Valley County Park in the La Crescenta area of Los Angeles County can be utilized for storm water capture for groundwater recharge. The Study is a feasibility study which will be called Phase 1 of a two-phase project to create storm water capture for groundwater recharge to maintain water levels, so there is not a wide fluctuation in groundwater levels during dry and wet rainfall years.

The Study investigated CVWD's ability to construct facilities to divert stormwater flow and dry weather runoff to infiltration basins for groundwater recharge within the Verdugo Basin, and reduce surface water runoff from the existing parking areas. Recharge of stormwater runoff will help improve groundwater quality, increase water-supply reliability, and improve surface water quality in downstream receiving waters.

DISCUSSION:

The results of the Study showed it was possible to divert stormwater flow and dry weather runoff to infiltration basins for groundwater recharge within CVC Park. The next step will be to prepare a preliminary plan that can be used for further grant funding under Proposition 84. The next round of grant application is anticipated to be due in March 2018. Staff is starting preparation for the grant application that includes a preliminary plan, CEQA documentation and involvement from Los Angeles County Public Works and Park and Recreation and the City of Glendale.

Staff has put together a project schedule to meet the grant application date (see attached) which shows that planning for this project should start within the next month.

Staff is planning to present the project and the project schedule at the June 6, 2017 Board meeting. Also, AMEC and staff will be making a presentation on the findings from the recently complete Study.

The key element to proceeding with this project is the Board's approval of the next project which includes installation of infiltration galleries to capture the stormwater underneath CVC Park.

RECOMMENDATION:

It is staff's recommendation that the Engineering Committee provide comments on the project for staff to use during the upcoming presentation

Prepared & Submitted by:

David S. Gould, P.E.
District Engineer

Attachments:

1. CVC Park Project Schedule

g:\engineering committee\2017 ec memo\05-17-17 ecm memo - cvc park update.docx

Crescenta Valley Water District
CVC Park Stormwater Infiltration Project
Updated Project Schedule - 5/16/17

Task No.	Task Force Meeting	Responsible Party	Start Date	End Date	Days	Comments
	Conceptual Meeting #1	**CVWD/JRC/AMEC**	**5/10/17**	**5/10/17**	**0**	**Layout Project & Tasks**
	Request Letter to LADWP - Water Rights					
	Meeting with GWP		5/23/17	5/23/17	0	
	Preliminary Conceptual Design with Cost Estimate		5/10/17	6/9/17	30	Design & Cost for Stormwater Recharge Only
						Need to add in other multi-benefits
	Task Force Mtg #1 - LACPR,LACDPW,GWP		6/9/17	6/23/17	14	
	Task Force Mtg #2 - LACPR,LACDPW,GWP		7/23/17	7/30/17	7	
	Task Force Mtg #3 - LACPR,LACDPW,GWP		8/29/17	9/5/17	7	Finalize Preliminary Design to be used for CEQA
	CEQA Plus - RFP/Contract Award		9/5/17	9/12/17	7	
	CEQA - Complete		**9/12/17**	**1/9/18**	**119**	
	Board Meeting - Authorize CEQA		1/9/18	1/9/18	0	
	Start 30-day Comment Period - Send Out		1/10/18	2/16/18	37	
	CEQA Comments Back		2/16/18	2/16/18	0	
	Board Meeting- Public Hearing		**2/20/18**	**2/20/18**	**0**	**Complete by Final Submittal to LACFCD**
	Submittal to ULAR - Sub-Committee		**12/30/17**	**1/29/18**	**30**	**Assume 1 month**
	Submittal to LACFCD		**1/29/18**	**2/28/18**	**30**	**Assume 1 month**
	Submittal to IRWM by LACFCD - Early 2018		**2/28/18**	**3/15/18**	**15**	**Assume Submittal Date to DWR - 3/15/18**
	DWR Review		**3/15/18**	**9/11/18**	**180**	**Assume 6 months**
	Preliminary Award		9/11/18	9/16/18	5	
	Final Award		**9/16/18**	**10/16/18**	**30**	**Assume 1 month**
	Design		10/16/18	7/13/19	270	Assume 9 months including RFP & Design
	Bidding		7/13/19	9/11/19	60	Assume 2 months
	Construction		9/11/19	7/7/20	300	Assume 10 months
	Complete Project		7/7/20	8/6/20	30	Assume 1 month
	Total Project Time		**5/10/17**	**8/6/20**	**3.24**	**Years**

CRESCENTA VALLEY WATER DISTRICT
STAFF REPORT

Information Item No. 3

To: Engineering Committee May 17, 2017

From: David S. Gould. P.E. – District Engineer

Subject: **Award of Contract** for Water Leak Detection Survey for the District's Water Distribution.

INFORMATION ITEM:

Water Distribution Leak Detection Survey – Award of Contract to Utility Services Associates for Water Leak Detection Survey for the District's Water Distribution.

BACKGROUND:

Staff has been looking into ways of reducing the District's unaccounted-for-water or lost water, which is the difference between the amount of water produced (from groundwater and imported water) and the amount of water sold each year.

Unaccounted-for-water is a misleading term long used by the water industry. Unaccounted-for-water includes unmeasured water put to beneficial use as well as water losses from the system. Better terms distinguish between authorized unmetered uses and water losses. Authorized unmetered uses include firefighting, main flushing, process water for water treatment plants, landscaping of public areas, etc. Water losses include all water that is not identified as authorized metered water use or authorized unmetered use. Where water is lost from the distribution system, it does not produce revenue, and are unavailable for other beneficial uses. Examples of water losses are: illegal connections, accounting procedure errors, reservoir seepage and leakage, reservoir overflow, leaks, theft, evaporation, and malfunctioning distribution system controls.

From 2010 to 2013, the District saw an average of 11.8% per year of water lost through inaccurate meters and pipeline leaks. Starting in 2014 with the water meter replacement program, the District showed a reduction of water lost to 7.5%, and thereby increased CVWD's water use efficiency. Staff looked into other ways to reduce the amount of unaccounted-for-water and another method would be to perform a water leak detection survey on the existing pipelines and water service laterals to determine if there are undetected water leaks that go straight under the ground.

CVWD last performed this type of survey in 2008 and from staff's research there are a number of companies that perform leak detection services in Southern California. These companies use leak detection equipment that can range from the simple and inexpensive to the complex and include the following:

- Leak Noise Survey Tools
- Acoustic Leak Noise Detectors (ground microphones)
- Leak Noise Correlators
- Leak Noise Logging Systems
- Pipe and Cable Locators

DISCUSSION:

The FY 16/17 water expense budget included funding for a water leak detection survey on half of the water distribution system located above Foothill Blvd of $25,000. The goal of the leak detection survey was to see if there was any unknown leaks and thereby reducing the amount of unaccounted for water loss to a level below 7% of the total system water production.

Staff requested quotes from four (4) firms that provide leak detection survey services for

approximately 48 miles of pipeline and water service laterals.

On March 14, 2017, following quotes for this project were received by the District:

	Bidder	**Total Bid Amount**
Low	Utility Services Associates	$15,000
2	M.E. Simpson, Inc	$17,900
3	Underground Service Company	$29,750
4	Cable Pipe & Leak Detection	$76,000

Utility Services Associates (Utility Services) provided the lowest quote of $15,000 and the low bid was 40% lower than the engineer's estimate of $25,000.

Staff has met with Utility Services and they can proceed with the work starting June 25, 2017 and should be completed by July 30, 2017. Utility Services will provide a detailed report showing location of possible water main leaks and the amount of water that is being lost through leaky pipelines.

RECOMMENDATION:

Staff recommends the Engineering Committee approve the quote from Utility Services Associates for $15,000 and to direct staff to proceed with the project. The results of this leak detection survey, the unaccounted for water leakage found can be attributed to the detectable and repairable water leaks in the system.

Prepared & Submitted by:

David S. Gould, P.E.
District Engineer

Attachments:
1. Bid Summary
2. Utility Services Associated Proposal dated 3/14/17

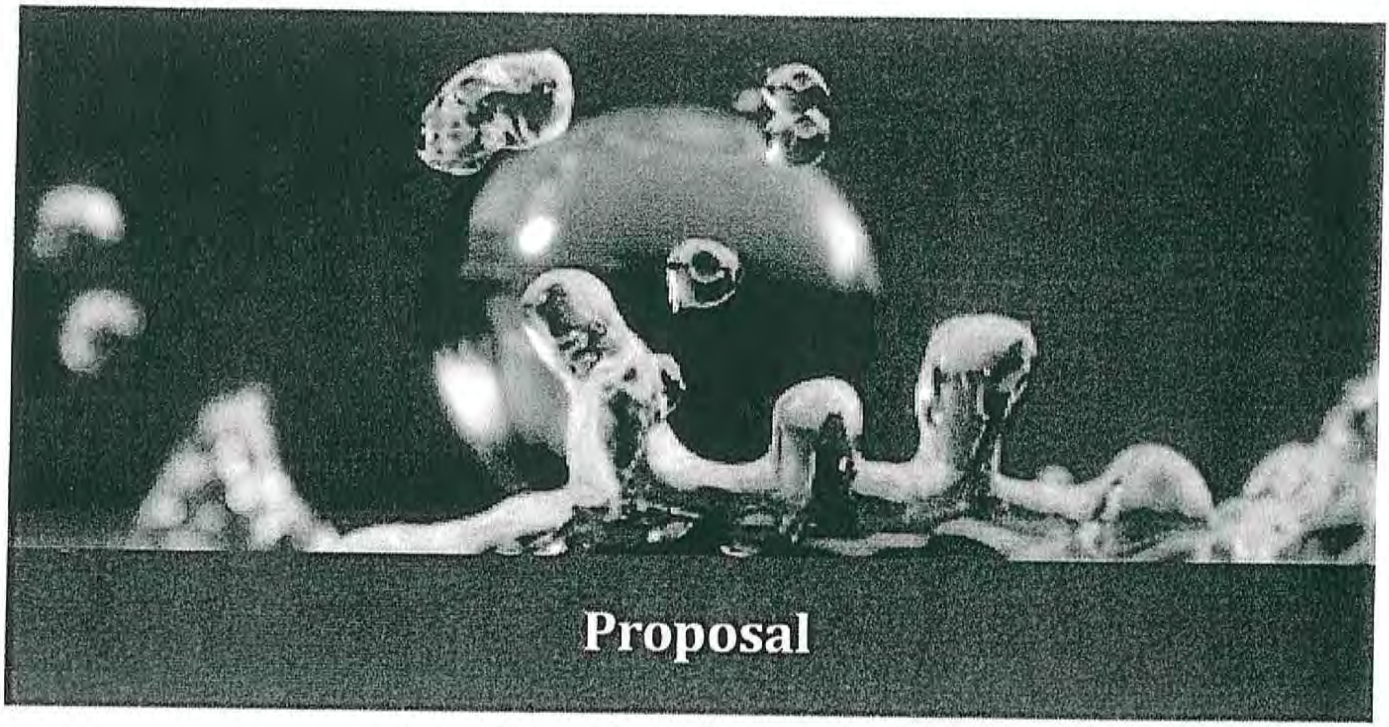
g:\engineering committee\2017 ec memo\05-17-17 ecm memo - leak detection survey.docx

CRESCENTA VALLEY WATER DISTRICT

Title: Leak Detection 2017
Water Loss Detection Survey
Job No: Water Loss Report
Engineer's Estimate: 48.09 miles of water main
Project Manager: Christina Olmedo

TIME: 2:00 PM
DATE: 3/31/17
BY: CO CHECKED: DSG DATE: 4/6/17

		Utility Services Associates		ME Simpson Inc.		Underground Service Company		Cable Pipe & Leak Detection	
ITEM	DESCRIPTION	UNIT	AMOUNT	UNIT	AMOUNT	UNIT	AMOUNT	UNIT	AMOUNT
1	Leak Detection	$311.91	$14,999.75	$372.22	$17,900.00	$618.63	$29,750.00	$1,580.37	$76,000.00
		$2,000.00		$2,500.00		$5,000.00		$3,000.00	
		Low	$14,999.75	2ND	$17,900.00	3RD	$29,750.00	4TH	$76,000.00



Proposal

Water Distribution Leak Detection Survey

Submitted to:
Crescenta Valley Water District
2700 Foothill Blvd.
La Crescenta, CA 91214

Submitted by:
Utility Services Associates
19655 1st Ave. South, Suite 101
Seattle, WA 98148

PROPOSAL

Contents

UTILITY SERVICES
ASSOCIATES
Leak Detection & Solutions

March 9, 2017

Crescenta Valley Water District
Attn: Ms. Christina Olmedo
2700 Foothill Blvd.
La Crescenta, CA 91214

Ref. **Water Distribution Leak Detection Survey**

Dear Ms. Olmedo,

We would like to thank you for this opportunity to submit this proposal for your consideration of a Water Distribution Leak Detection Survey for the Crescenta Valley Water District (CVWD) as outlined in the above referenced Request for Quotation (RFQ).

Utility Services Associates (USA) fully understands the scope of project as set forth in the RFP and in most *cases*, exceeds those requirements as set forth in the RFQ. The work is to include a leak survey on approximately 48.09 miles of the water system.

USA has one of the nation's longest histories in leak detection and asset management programs with our roots dating back to the early 1980's. We believe that our unique qualifications and the services that we provide make us the best candidate for completing this work in the most efficient, effective and cost beneficial way possible.

We advocate furnishing a comprehensive, thorough and complete project through every facet. We constantly upgrade to the latest technology and methods to provide the most cost-effective service available.

Jeff Benjamin will be assigned as Project Manager for USA. Mr. Benjamin works out of our Seattle, WA office and he can be reached at 877-585-LEAK (5325) or via email at jbenjamin@leakdetectionservice.com .

We look forward to assisting the Crescenta Valley Water District with this important project. If you or your staff has any questions, please don't hesitate to contact us at the numbers above.

Sincerely,

Rob Meston
President

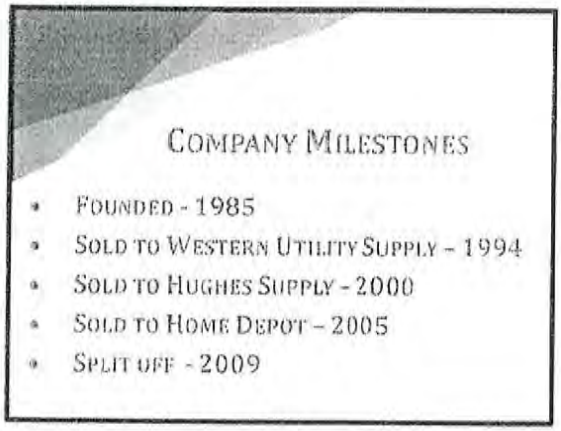
Company Qualifications

COMPANY PROFILE

USA is a group of professionals working with other professionals and manufacturers, creating new technology as well as developing new procedures and methods to better serve the water industry.

The professionals at USA have an understanding for the business few companies can match. As leaders in the industry, USA is at the heart of today's demand for cost-effective solutions for water line leak detection and meeting conservation mandates.

We have a reputation for using the latest water leak detection technologies including everything from correlator systems to thermal/multi-spectral imaging. We employ a highly trained staff with decades of individual experience and take pride in providing the highest level of service in the industry.



Our primary service is to provide Water System Leak Detection using state of the art digital correlation technology. We are equipped for worldwide mobilization. We provide our services to all types and sizes of water systems, on a preventative (pro-active) or emergency basis (earthquake recovery).

USA travels the globe to bring water loss control services and technology to clients interested in preserving one of our most precious resources. We work with clients in a variety of roles in water distribution and transmission. Our clients come from the following sectors:

Water System Management	Government Entities	Residential Commercial
Municipalities	Military Bases	Homeowners/HOA's
Engineering Firms	Bureau of Indian Affairs	Contractors
Public Utility Districts	Federal and State agencies	Builders

USA RECORD OF SUCCESSES

The following is a list of projects successfully completed between 2009 and 2015:

- 2010 - 308 leak detection projects
- 2011 - 277 leak detection projects
- 2012 - 312 leak detection projects
- 2013 - 288 leak detection projects
- 2014 - 294 leak detection projects
- 2015 - 264 leak detection projects
- 2016 - 314 leak detection projects

USA holds associate memberships and involvement in professional organizations and committees such as; American Water Works Association (AWWA), National Rural Water Association (NRWA). In addition, our involvement with the AWWA Water Accountability Committee helps us stay abreast of changing trends in the industry, allowing us to better meet the ever-changing needs and requirements of our clients.

INSURANCE COVERAGE

USA maintains the amounts of insurance coverage listed below. We will provide a certificate showing evidence of coverage as required in the RFQ upon notice of award:

Type	Company	Limitation
General Liability	American Casualty Co.	2,000,000
Automobile	Mutual of Enumclaw	1,000,000
Excess Liability	Continental Casualty Co.	1,000,000
Professional Liability	Landmark American Insurance	1,000,000
Worker's Compensation	Washington State Labor & Industries Valley Forge Insurance Co.	No Limit 1,000,000

COST CONTROL

Each project that we propose is carefully calculated and based on information provided by the client (i.e. number of miles, amount of loss, etc.). If, during the course of a project, the amount of line to be surveyed (which is the foundation on which all proposals are built) is determined to be significantly different than proposed, the field staff communicates this to the Project

Manager as soon as it becomes apparent. The Project Manager then works closely with the client to resolve the problem, therefore limiting any cost over-runs before they are realized. Any additional work that was not part of the original proposed schedule will be approved by the client in writing.

QUALITY ASSURANCE PROGRAM

USA has established a carefully planned and controlled Quality Assurance Program, which is broken down into three (3) main areas:

1. Client Contact

When the very first contact is made with the client, our Project Managers begin to work closely with the client representative to establish a project scope. This includes:

- Preparing a detailed Proposal
- Precision Scheduling
- Liaison between client and field personnel

2. Project Work

Once the project has started, our field staff meet with the client representative(s) and establish a routine schedule. Most projects are modeled after the following steps:

- Survey Phase - this is the cursory sounding "sweep" and is done at pre-established listening distances (refer to the Description of Services section of this proposal for more information).
- Pinpointing Phase - during this phase, leaks are pinpointed using various sophisticated equipment. Daily copies of leak reports are provided to the client so that repairs can be scheduled in a timely manner.

3. Project Follow-up

Project follow-up starts in the field with a debriefing meeting between our Water Loss Consultant and the client contact. A review of project specifics is provided at this time.

- Final Report preparation and submission

- Ensuring the client understands the data collected
- Continued post project client support

TEAM QUALIFICATIONS

The team at USA is fully qualified to perform all tasks outlined in the RFQ. Each member, including subcontractors, has specific skills, experience and training for meeting the needs of our clients. Combined, our team has over 125 years of experience in the water industry. The short biographical paragraphs below illustrate the wide range of expertise that each key member of our team brings to the project:

Rob Meston, President. Mr. Meston has over 26 years of experience in water conservation. He started as a Water Loss Consultant with USA in 1990. Rob is one of the most senior leak detection experts in the country. In 1994 the company was sold and under the new company Rob was promoted to Consultant/Technical Support where he was responsible for the day-to-day activities of the field crews. In 2009 Rob partnered with Bruce Rubin and Tom Ruppenthal to reform Utility Services Associates, LLC.

Jeff Benjamin, Project Manager. Mr. Benjamin attended Lewis Clark State College and completed his Degree in Business Technology at Moses Lake, Idaho. After serving in the Navy and then creating and operating several businesses over 25 years, Jeff joined Utility Services Associates in 2008. He works out of our Northwest Branch, where he leads the company's sales and marketing initiatives. Jeff's areas of expertise include Leak Detection, Water Audits, and Tank Inspection, as well as developing new procedures, methods, and products to keep USA on the cutting edge. Jeff also helps coordinate scheduling and is available in an advisory capacity.

Suzie Freeman, Office Manager. Ms. Freeman has over 6 years of experience, having joined USA in June of 2008. She coordinates and maintains all client files including pre-project correspondence and Final Report preparation and submission. She acts as liaison between senior management and field staff and provides office support for all aspects of the Leak Detection system.

Eric Kelsay, Senior Water Loss Consultant. Mr. Kelsay attended Olympic College in Bremerton, WA studying electronics, engineering and welding. In March 2005, Mr. Kelsay joined USA as a Field Leak Consultant. Mr. Kelsay is a highly trained, experienced Leak Consultant whose hard

work and dedication have earned him praise from many of the clients he has worked with. Mr. Kelsay works out of our Seattle, WA office and is available for travel anywhere. He recently completed a 71-mile project for the Pine Bluff Arsenal, AR.

Rick Cabral – Senior Water Loss Consultant. Mr. Cabral attended De Anza Jr. College in Cupertino, CA graduating with a degree in Industrial Arts. Rick has been with USA since 1998 and operates out of our Montana branch in Kalispell and is available for travel worldwide. Rick's attention to detail and extensive mechanical background allows him to solve even the most difficult problems. His in-depth knowledge of the instrumentation has made him a very accurate Water Loss Consultant. His most recent projects include a 6-month leak detection pinpointing and repair project in Saipan, MP.

Thomas Olson – Water Loss Consultant. Mr. Olson works out of our Seattle office as a Water Loss Consultant and is available to travel anywhere in the US. His most recent projects included 124-mile project in Cape Canaveral, FL.

Jerry Thomas – Water Loss Consultant. Mr. Thomas works out of our Seattle office as a Water Loss Consultant and is available to travel anywhere in the US. His most recent projects included 100-mile project in Williamsport, PA.

End of Section

Description of Services

PROJECT UNDERSTANDING

After reviewing information in the RFQ, we are certain we can identify areas of leakage in water distribution system, which when repaired, will reduce non-revenue loss.

BACKGROUND

CVWD desires to conduct a water system leak survey of its mains, service lines, hydrants, valves and laterals using the most sophisticated leak detection equipment, procedures and methods available.

PROJECT DETAILS

The water system consists of approximately **48.09** miles of water main lines. Water mains in the system consists of **STL (CL&W, CML&CMC, STD, OD) and AC (less than 900')** pipe material, varying in sizes from **4"** through **12"**. Contact points (valves, hydrants or services, etc.) are within **300 feet** in most cases. The pressure varies from **40** PSI to **220** PSI.

PROJECT TASKS

USA surveys for water leaks using the latest in leak detection technology available. We use a sonic leak detection sound amplification instrument in conjunction with a sensitive transducer to conduct system surveys. We use various sophisticated equipment from correlators to ground microphones to pinpoint system leakage. Trained, experienced professionals operate our equipment. Our Water Loss Consultants undergo an annual audiogram (hearing test). A detailed report of leak locations, estimated gallon per minute (GPM) loss, and area covered is supplied daily. A Final Report will be provided within ten (10) calendar days of the completion of the field work.

Task 1. Meetings

Overview: To ensure that the project is performed effectively we will meet on a regular basis with CVWD representatives. These meetings will include:

A. **Kick-off Meeting** – USA field staff will meet with designated CVWD representatives to obtain and review system maps, outline project goals and determine project action plan.

B. **Close-out Meeting** – USA field staff will meet with designated CVWD representatives to discuss the results of the project. Any maps provided to USA staff will be returned.

Task 2. Survey Phase

Overview: The Survey Phase will be accomplished using state of the art acoustic equipment, making direct contact with system appurtenances such as valves, services and fire hydrants. This will be done using the following steps:

A. The first step in our survey is to review the distribution maps of the CVWD's system for familiarization of the pipe network and the appurtenances to be checked. This initial review is helpful in developing the most efficient survey possible.

B. As the leak survey progresses, USA will sound appurtenances at varying distances depending on pipe type, size and pressure. Generally, access points will not exceed 250' where available. However, areas with limited access may require the distance to be exceeded.

C. If noise is detected, we will record the noise for re-investigation during the Pinpointing Phase.

D. The equipment utilized does not normally require appurtenances to be operated during surveying. However, on occasion, appurtenances may need to be operated to eliminate service draw noise or to change velocity noise. Operation of appurtenances will only be done by CVWD crews unless approved and directed otherwise. If we are directed to operate appurtenances, we will not be liable for any broken appurtenances or damage.

Task 3. Pinpointing Phase

Overview: All noises detected during the Survey Phase will be re-investigated during the Pinpointing Phase. The pinpointing of leaks will be accomplished using computer correlation equipment whenever/wherever possible as well as ground microphones and probes. This will be done using the following steps:

A. Pinpointing leak locations through interpretation of sound intensity, either by ear, decibel metering or other like methods is not used when contact points are available for use with the correlator.

B. As with the Survey Phase, the equipment utilized does not normally require valves to be operated during surveying and pinpointing. However, on occasion, services or valves may need to be operated to eliminate service draw noise or to change velocity noise. The CVWD representatives will operate appurtenances if required, unless we have prior approval to operate appurtenances. If so, USA will not be liable for any damage.

C. The correlator equipment used will have the capability to prompt the operator to input the variables when different pipe sizes and/or pipe materials are encountered in the same span to be investigated. This is necessary to ensure accuracy of results based on the automatic computation of the correct leak sound velocity in leak pinpointing operations. Our correlator has the capability of correlating up to seven different pipe materials or diameters within the selected span. To insure effective performance in all field environments encountered in your distribution system (i.e. traffic noise, draw, pump operation, industrial noise, etc.) the correlator equipment provides 12 multi-range High and Low Pass filters. (FCS TriCorr). A correlator will be on site at all times during leak detection projects.

D. Each leak will be classified according to size in gallons per minute (GPM) and hazard in order to aid in scheduling repairs. It should be noted that leak classification is not an exact science. In spite of the use of the most modern instrumentation, as well as complete training and experience by our Water Loss Consultant, it is impossible to determine the exact condition of underground piping without actually exposing the line. In view of this limitation, our classification (including estimated GPM loss) is intended as an aid in scheduling repairs based upon the information available, the Water Loss Consultant's judgment and site conditions at the time the leak report is being prepared. Variable factors beyond our control may alter this classification at any time. Once the leak is exposed for repair, CVWD may wish to revise the estimated GPM loss in order to establish a more accurate estimate of actual water loss for reporting purposes.

Leak Classifications are outlined in the Leak Classification and Estimation section of this proposal.

E. Leak location may be marked in the field with environmentally friendly paint (depending on the surface/ground conditions and leak).

F. Whenever CVWD repairs any leak detected by USA prior to completion of the field work, USA will re-survey that section of the system to be sure no extremely quiet leaks were missed due to an over-powering noisy leak sound or another variable.

G. It is important to note that not all leaks create noise levels that can be detected using even the most sophisticated leak detection instrumentation. USA will perform all work at the highest level of professional workmanship in its industry; however, we cannot guarantee the detection of any leak.

H. We will request that CVWD will provide a helper whenever possible and if one is not available, they will offer a point of contact for questions or assistance, particularly during the pinpointing phase.

Task 3. **Reporting Phase**

Overview: All data collected during the Surveying Phase and Pinpointing Phase will be complied into reports for CVWD. An individual Leak Report will be submitted whenever leaks are pinpointed, in addition we will submit a Final Report and the end of the project.

A. USA will provide a detailed Leak Report whenever leaks are pinpointed so that the CVWD may begin to prioritize for repairs. This detailed Leak Report will contain:

1. Leak Number, type and classification for repair priority.
2. Estimated Leak rate and correlation data (if applicable).
3. Detailed Diagram showing leak location as well as a physical address.
4. Approximate time spent pinpointing, cover type, if the leak was marked and notes regarding the nature of the leak and recommendations for repair.

B. USA will furnish a Final Report within 10 calendar days from end of the project. You will be provided with one printed, bound copy and one pdf copy. The Final Report includes:

1. Executive Summary showing individually recorded time for correlating, surveying and other time spent on the project. This summary also includes footage covered, approximated gallons per minute (GPD) loss, types of leaks found, quantity of leaks found and remarks recommending improvements that may be made to the distribution system and ways for approaching future leak detection projects.

2. Survey and Pinpointing Review explaining the procedures and methods used during this study.

3. Leak Reports each with a detailed drawing showing the leak location, the type of leak pinpointed, the leak classification, approximate time spent pinpointing, an estimate of the GPM lost, the cover type and whether the leak location was marked. In addition, whenever possible we will add the correlation justification and related correlation graphs if the leak was pinpointed using a correlator (the field drawing of the same Leak Report shall be supplied daily to CVWD whenever leaks are pinpointed).

C. If required, USA can modify or design any form to fit the CVWD requirements.

Note: A monthly progress report will be provided at the end of each calendar month if the project lasts longer than one month.

Leak Rate Estimation and Classification

In spite of the use of the most modern instrumentation, plus complete training and experience by our crews, it is impossible to determine the exact condition of underground piping without actually exposing the line. In view of this limitation, our estimates and classifications are intended as an aid in scheduling repairs based upon the information available, the Water Loss Consultants judgment and site conditions at the time the leak report is being prepared.

1. Leak Estimating

Certain equipment variables are also considered when estimating GPM (type of pipe, size of pipe, system pressure, history of leakage, etc.). Variable factors beyond our control may alter this estimate at any time. Once the leak is exposed for repair, the system maintenance crew may wish to revise the estimated GPM loss in order to establish a more accurate estimate of actual water loss for reporting purposes.

2. Leak Classification

Each leak will be classified according to size in gallons per minute (GPM) and hazard in order to aid CVWD in scheduling repairs. Leak Classifications are as follows:

Class I. Any leak which is hazardous in terms of potential undermining, possibly resulting in surface collapse, encroachment and/or damage to nearby utilities, commercial or private properties or leaks severe enough to warrant immediate repair.

Class II. All leaks that display water losses significant enough to be monitored on a regular repair schedule.

Class III. Relatively small leaks that should be repaired as workload permits.

Safety

USA is committed to the highest standards of ethical and safe work practices. We consider the safety of our employees and customers to be of primary importance. We have set forth specific safety policies and procedures which meet with state and federal regulations. Our field personnel have completed OSHA certified training programs. Copies of certificates will be provided upon request.

Our company health and safety program includes topics ranging from roles and responsibilities to critical work procedures. Job hazard analysis for each job USA performs has been documented. Our vehicles are equipped with caution lights and traffic cones. All federal, state and local traffic safety regulations shall be observed.

Equipment

USA utilizes state of the art leak detection equipment. A comprehensive leak survey requires the use of many different technologies. No two water systems are alike. The professional use of various technologies has made USA the leader in developing efficient procedures and methods designed to meet each utility's individual needs.

The current generation of leak detection equipment (newer than 2009) does not require annual calibration. Since this equipment is mostly sealed, regular calibration is only recommended by the manufacturer when repairs are required. Trained, experienced professionals operate our equipment. The list below will be used during Task 2 – Leak Detection Surveying and Task 3 – Leak Pinpointing.

A **leak noise surveyor** allows the operator to listen for leak noise by placing an acoustic sensor in contact with any access point (valve, hydrant, etc.) in the distribution system.

Sound from the pipeline is transmitted through aviator-quality headphones to allow the operator to determine if leak type noise is present. We use the follow models of leak noise surveyor:

- **FCS S-30 Leak Surveyor**
- **Subsurface LD-15**

A **leak noise correlator** is an electronic device used for Leak Detection to pinpoint leaks in pressurized water lines. Typically, correlation systems use acoustic sensors that placed in contact with the pipe, at two or more points, to detect the sound emitted by a leak. The sound data is processed through a mathematical algorithm which determines the difference in the time it takes noise to travel from each of the sensors. These are complex and sophisticated pieces of equipment that should be used only by experienced highly trained technicians. We use the follow models of correlation devices:

- **FCS TriCorr Touch Leak Locator**
- **SubSurface Leak Detection LC-2500**

A **ground microphone** is a device used for validating correlation results or for as a survey tool in areas where there are few or no access points. We use the follow models of ground microphones:

- **SubSurface LD-12**
- **Geophones**

A **line (metal) locator** is used when system maps are incomplete to assist the leak detection technician in following the path of a line for surveying as well as pinpointing. We use the follow models of line (metal) locators:

- **Goldak Model 5600 Line Locator**
- **Schonstedt model GA-52 Metal Locator**
- **Subsurface Instruments PL2000**

In addition, we use other pieces of equipment which are vital in providing our clients with a complete and successful survey of their system.

1) **FCS Hydro-phone**

This unit can be attached to a fire hydrant, service line or other contact point where the water can make direct contact with the transducer. We use this unit to pinpoint quieter leak noises or when sound will not travel acceptable distances for standard correlation procedures (such as with PVC lines).

2) **Mark Helium Detector**

This unit is used for pinpointing water leaks that do not create enough sound for acoustical type systems to be used.

3) **Fisher XLG-80 Ultrasonic Leak Detection Unit**

This unit is used when normal listening devices cannot pick up sound. This is accomplished by adding air to the water line. It is mainly used for leakage in walls, etc.

4) **Sensor Mounting Kits**

These kits are a series of detachable aluminum or steel probe rods used for contacting deep appurtenances or appurtenances full of dirt.

5) **Mobile Leak Detection Vans**

Our vans are fully equipped late model vehicles designed to carry safety equipment, working desk, file cabinets and storage for all the above mentioned equipment. These units carry fully equipped tool sets, hydrant wrenches, pry bars, etc. for all situations. Each van is equipped with backup survey tools as well as spare transducers and/or transducer cables in various lengths. This reduces or eliminates down time due to equipment failure. Our vehicles are also outfitted with OSHA approved safety gear.

We will select the appropriate equipment to provide the most comprehensive leak detection survey available.

End of Section

References

Citrus Heights Water Dist.
PO Box 286
Citrus Heights, CA 95611-0286
John Townsel
916-725-6873 ext. 122

Carmichael Water District
PO Box 929
Carmichael, CA 95609-0929
Scott Bair
916-483-2452

City of Eureka
531 K St.
Eureka, CA 95501
Frank Mathes
707-441-4253

LA County Dept. of Public Works
900 S. Fremont Ave.
Alahambra, CA 91803
Rea Joseph-Gonzales
626-300-3338

Paradise Irrigation District
PO Box 2409
Paradise, CA 95967
John Price
530-876-1910

Yucaipa Valley Water Dist.
12770 2nd St
Yucaipa, CA 92399
John Hull
909-797-5117

Lake County Special District
"A" Main St
Lakeport, CA 95453
Mark Dellinger
707-263-0119

City of Corona
730 Corporation Yard Way
Corona, CA 92880
Richard Betencourt
951-903-9072

End of Section

PROPOSAL

Price, Schedule & Terms

PRICING INFORMATION

Description	Rate
Leak Detection Survey (48.09 miles)	$311.91 / mile
Mobilization Fee	$000.00
Totals	**$14,999.75**

SCHEDULE INFORMATION

We will work closely with CVWD to ensure our work is completed before the end of the budget year.

Our crews will be scheduled for 8 hours per day, Monday through Friday.

STANDARD TERMS

In the event a project extension is desired while we are on this project the additional charge will be at the same ratio as the above schedule. This project may be extended only if our schedule permits and upon approval of the CVWD. In the event a reduction or extension of days or footage is desired, prior to our arrival please contact us for a review of the above pricing.

To expedite this project and to make sure you get the most effective water line survey for your investment, it will be necessary for you to supply a helper at all times who can assist our Water Loss Consultant with information regarding the water system. A helper will also ensure that no areas are missed during the survey and all possible methods are utilized and to locate all lines accurately.

CONTRACT TIME - Proposal price shall be held for 90 days from proposal date.

Prices do not include any applicable taxes.

PAYMENT – USA standard terms are net 30. A service charge will be assessed on past due or delinquent accounts at the rate of 1 1/2% per month.

End of Document

CRESCENTA VALLEY WATER DISTRICT
STAFF REPORT

Information Item No. 4

To: Engineering Committee May 17, 2017

From: David S. Gould. P.E. – District Engineer

Subject: Design Services for New Emergency Electrical Generator at the La Granada Wastewater Lift Station, Project S-962

INFORMATION ITEM:

New Emergency Electrical Generator at the La Granada Wastewater Lift Station, Project S-962 – Award of Contract for Engineering and Surveying Services

BACKGROUND:

CVWD has an existing wastewater lift station located at 1901 La Granada Way which provides sewer collection service for about 30 homes. The wastewater lift station has a capacity of 3,000 gallons and the pumps typically run about an hour a day to push wastewater into the collection system.

In case of an emergency, when electrical power is lost, the lift station can hold wastewater for about 2 – 5 hours, depending on the time of day or night, before the wet-well will overflow. To prevent a sewer overflow, alarms have been set to alert the wastewater supervisor via text and phone of the potential overflow. However, there could be a time lag between when personnel are first alerted of the power outage to the time the portable emergency electrical generator is brought to the site, which could result in a sewer overflow.

Staff has been planning to install a permanent emergency electrical generator at the lift station with an automatic transfer switch as part of CVWD's continuing effort for emergency planning and prevention of sewer overflows. This project was included in the FY 16/17 Wastewater Capital Improvement Project budget. The new system will be able to switch to emergency power automatically during a power outage so that the wastewater pumps will remain in service. The system will include alarms which will alert staff of the problem and when the emergency electrical generator goes into service.

The project will also include the installation of a concrete pad for the emergency electrical generator, fencing around the generator, and electrical work to connect the existing electrical panels. In addition, CVWD will purchase the 20kW emergency electrical generator at a cost of about $20,000 which will be installed by the contractor.

The project is located within the Glenhaven Park owned by the City of La Canada Flintridge (LCF) and staff has been working with LCF on the project.

Crescenta Valley Water District

2700 Foothill Boulevard, La Crescenta, California 91214
Phone (818) 248-3925 Fax (818) 248-1659

March 31, 2017

Mr. Gary Roepke
Cannon Corporation
11900 Olympic Blvd, Suite 530
Los Angeles, CA 90064

Subject: **Request for Proposal - Professional Engineering Services for Installation of New Emergency Electrical Generator at the LA Granada Wastewater Lift Station, Project S-962**

Dear Mr. Roepke:

The District is requesting a "Not-to-Exceed" proposal from your firm to provide surveying and engineering services for the installation of a new emergency electrical generator at the LA Granada Wastewater Lift Station (Lift Station) located within the Glenhaven Park located within the City of La Canada Flintridge (LCF).

CVWD has an existing wastewater lift station, which provides sewer collection service for about 30 homes. The wastewater lift station has a capacity of 3,000 gallons and the pumps typically run about an hour a day to push wastewater into the collection system.

In case of an emergency, when electrical power is lost, the lift station can hold wastewater for about 2 – 5 hours, depending on the time of day or night, before the wet-well will overflow. To prevent a sewer overflow, alarms have been set to alert the superintendent via text, e-mail, and phone of the potential overflow. However, there could be a time lag between when personnel are first alerted of the power outage to the time the portable emergency electrical generator is brought to the site, which could result in a sewer overflow.

CVWD would like to install a permanent emergency electrical generator at the lift station with an automatic transfer switch as part of CVWD's continuing effort for emergency planning and prevention of sewer overflows. The new system will be able to switch to emergency power automatically during a power outage so that the wastewater pumps will remain in service. The system will include alarms which will alert staff of the problem and when the emergency electrical generator goes into service.

The project will also include the installation of a concrete pad for the emergency electrical generator, fencing around the generator, and electrical work to connect the existing electrical panels as shown on the attached plan. CVWD will purchase the 20kW emergency electrical generator at a cost of about $20,000 which will be installed by a contractor.

The scope of work will include the following:

1. Provide a topographical survey of the project site including centerlines, right-of-way, property lines, building, inverts of sewer manholes, and other appurtenances to create a proper As-Built drawing of the Lift Station
2. Create a base map from the topographical survey and include all existing utilities
3. Provide a preliminary study to determine if a new gravity sewer line can be installed from the lift station to an existing sewer manhole on Waltonia Avenue utilizing information from the topographic survey
4. Provide construction plans (See attached preliminary design plans) for the installation of the new emergency electrical generator and a chain-link fence enclosure.
5. Provide an "As-built" drawing of the electrical system including from the existing SCE meter cabinet to the existing power panel (See attached preliminary ATS wiring diagram).
6. Provide an electrical design for the installation of an automatic transfer switch including wiring diagram , conduit sizes and grounding system
7. Provide recommendation for size of electrical generator for CVWD to purchase
8. Prepare technical specifications that will be included in CVWD's bid documents
9. Prepare an engineering cost estimate for the project

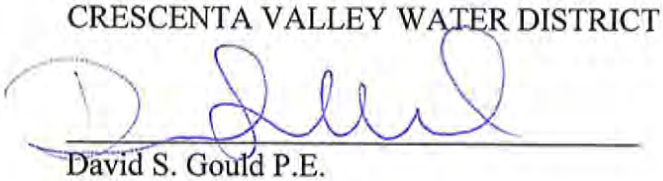
CVWD will provide as-built drawings and any reports for the consultants use. CVWD will obtain permits from LCF and AQMD (if necessary) for the new emergency electrical generator.

One (1) copy of the proposal should be submitted as a PDF file via e-mail no later than 12:00 pm on Wednesday, April 12, 2017. The original proposal should be mailed to my attention at: Crescenta Valley Water District, 2700 Foothill Boulevard, La Crescenta, CA 91214.

If you have any questions or comments, please contact me at (818) 236-4119 or e-mail me at dgould@cvwd.com.

Very truly yours,

CRESCENTA VALLEY WATER DISTRICT



David S. Gould P.E.
District Engineer

DSG:sdi

Enclosures:

cc: Raymond Dodge – CVWD
Dennis Maxwell- CVWD

DISCUSSION:

This project was originally planned to be designed in-house by District staff and a majority of the design was completed. However, with staff's current workload; they need assistance from a consultant to complete the design since the project was a necessary upgrade to the lift station.

Staff sent a request for proposal to Cannon Corporation to provide engineering and surveying services to complete the design on March 31, 2017. Cannon provided a proposal for a cost of $19,822 to complete the design and prepare contract documents.

RECOMMENDATION:

It is staff's recommendation to award the contract to Cannon to provide design and surveying services and to complete this necessary project. This will be included in the Wastewater Capital Project Budget for FY 17/18.

Prepared & Submitted by:

David S. Gould, P.E.
District Engineer

Attachments:

1. CVWD- RFP letter
2. Cannon Proposal dated 4/28/17

g:\engineering committee\2017 ec memo\05-17-17 ecm memo - lift station design.docx

Cannon

April 27, 2017

Mr. David S. Gould, P.E.
District Engineer
Crescenta Valley Water District
2700 Foothill Boulevard,
La Crescenta, Ca 91214

PROJECT: LA GRANADA LIFT STATION – EMERGENCY ELECTRICAL GENERATOR, PROJECT S-962 REVISED

Dear Mr. Gould:

This proposal is in response to Crescenta Valley Water District's (CVWD) request to provide surveying and engineering services for the installation of a new emergency electrical generator at the La Granada Wastewater Lift Station at Glenhaven Park in the City of La Canada Flintridge. It is our understanding that during an emergency when power is lost, the superintendent is alerted and a portable emergency generator is brought onsite to keep the lift station in operation. In the time that it takes to get the portable emergency generator onsite, the wet well at the lift station could reach capacity, causing the sewer to overflow.

The installation of the new permanent electrical generator at the lift station is part of CVWD's continued effort for emergency planning and potential sewer overflow prevention. This new system will be able to automatically switch to emergency power during a power outage so that the wastewater pumps remain in service.

For this project, Cannon has a team of survey and electrical experts to complete the scope of services outlined in the RFP, dated March 31, 2017.

We are excited to work with you on this project. I will call you next week to further discuss this proposal. The fees quoted in this proposal are valid for 60 days from this date and are based upon current California Prevailing Wages.

Sincerely,

Gary D. Roepke

Gary D. Roepke, PE
Senior Principal Engineer, Public Infrastructure Division
C 48693

PROJECT UNDERSTANDING AND APPROACH

The La Granada Wastewater Lift Station serves 30 homes and has a capacity of 3,000 gallons. The lift station operates for approximately one hour per day to pump the wastewater into the collection system. In the event of an emergency when power is lost, an alert is sent to the superintendent indicating the potential overflow of the wet well. The wet well at the lift station is capable of holding two to five hours of wastewater before it overflows. A portable emergency generator is brought onsite to bring the lift station back in operation. In the time that it takes to get the portable emergency generator onsite, the wet well could reach capacity, causing the sewer to overflow.

This project involves a topographic survey of the project site, an as-built survey of the interior of the lift station, design of a new permanent emergency generator, an automatic transfer switch (ATS), concrete pad for the emergency electrical generator, a fence around the generator, and electrical work to connect the existing electrical panels to the new backup power system. During a power outage, the new system will be able to automatically switch to the emergency power so that the lift station remains operational, eliminating the potential for sewer overflow. The system will also include alarms that will alert staff of any problems and when the emergency electrical generator goes into service.

Our approach to the successful completion of this project consists of providing professional services in two progressive phases: Topographic Survey and As-Built Survey, and Design and Construction Documents. The phases have been carefully sequenced to provide an efficient schedule while still remaining realistic and achievable. Our schedule for this work is to complete it as soon as possible. We will keep CVWD informed of our progress. We estimate that we will have the design completed in 60 days, including CVWD reviews.

SCOPE OF WORK

This scope of work was developed based on the Request for Proposal dated March 31, 2017.

Phase 1. Topographic Survey and As-Built Survey

Task 1 – Project Kick-off

- Task 1.1 Kick-off Meeting

  We will organize and attend a Project Kick-Off Meeting and site visit with CVWD staff. A site visit will be to gather pertinent data regarding the existing electrical system.

  Deliverables: Kick Off Meeting Agenda and Minutes

- Task 1.2 Project Management and Meetings

  The project will require project setup, scheduling, controlling, and correspondence with CVWD. Correspondence includes telephone conversations, emails, status reports, and project memorandums. Additionally, project management will include monthly meetings and detailed invoices.

Deliverables: Meeting Agenda and Minutes, Progress Reports, Miscellaneous Correspondence

Task 2 – Topographic Survey

- Task 2.1 Topographic Survey

  We will provide a topographic survey for the site including centerlines, right-of-way, property lines, building, inverts of sewer manholes, and other appurtenances to create a proper as-built drawing of the lift station. The survey will be provided in AutoCAD format of 2011 or earlier.

  Deliverables: AutoCAD Base Map

Phase 2. Design and Construction Documents

Task 1 – Prepare and Submit Construction Design Documents (90%)

Based on the findings and results of the previous tasks, we will prepare and submit design plan packages at the 90% approximate completion level for the emergency electrical generator, concrete pad, and chain-link fence/slump stone wall enclosure. The as-built drawing of the electrical system will include from the existing SCE meter cabinet to the existing power panel. The electrical design for the installation of the automatic transfer switch will include a single line diagram, electrical plans indicating conduit and wire sizes and a grounding system. In addition, a size of the electrical generator will be recommended for the CVWD to purchase. The technical specifications will be provided by Cannon to go along with CVWD's front end specifications.

The anticipated list of the drawings in the plan set includes the following:

Title Sheet
General Notes and Abbreviations
Civil Plan
Electrical Notes, Abbreviations and Legends
Single Line Diagram
Electrical Plans including Grounding
SCADA Wiring Diagram for Generator and ATS I/O
Electrical Details

Deliverables: 90% Plans (three hard copies and one PDF via email), Specifications (one copy in Word via email), and Opinion of Construction Cost (one copy in Excel via email)

Task 2 – 90 % Design Review Meeting

We will meet with CVWD staff to review the comments and revisions for the 50% plans.

Deliverables: Meeting Agenda and Minutes

Task 3 – Final Design

Based on the finalized project design issues resolved during the preceding tasks, we will prepare and submit a Final Construction Documents Bid package for the emergency electrical generator, concrete pad, and chain-link fence enclosure. This submittal package will contain complete construction plans, technical specifications, and an Opinion of Construction Cost. Final plans will incorporate comments from CVWD's review of the 100% design plan package. Bid documents will be prepared in CVWD's standard format. We will provide electronic copies and three hard copy sets of the complete bid package to CVWD..

Deliverables: Final plans (one signed bond and one PDF via email), Specifications (one copy in Word via email), and Opinion of Construction Cost (one copy in Excel via email)

DELIVERABLES

- 90% CD Package
- Final Construction Documents

ASSUMPTIONS

The following assumptions apply to this proposal:

- Cannon is not responsible and cannot be held accountable for the accuracy of as-builts or record drawings provided by Agencies or utility providers. Cannon has no means of determining whether subsurface features were constructed per the construction/improvement drawings and does not claim to do so. Potholing of utilities should be performed by others, if there are concerns or uncertainties regarding the subsurface utilities.
- All data prepared by others and provided to Cannon will be made available in a digital format, compatible with our systems. It is also understood that the information and technical data provided and prepared by others, on CVWD's behalf, may be used by Cannon in performing its services and is entitled to rely upon the accuracy and completeness thereof.
- A geotechnical report prepared by a licensed Geotechnical engineer will be provided to Cannon. Lateral design parameters and foundation recommendations will be necessary to complete our design. If no geotechnical report is provided, we will design the structures per the minimum design criteria listed in the applicable design code where acceptable by the building official.
- Mapping will be based on available local agency vertical datum and an assumed horizontal datum, unless specifically requested otherwise.
- Boundary corners for the site have been established and monumented by others. Cannon will use record data for establishing the project boundary.
- Cannon must be informed of any additional requirements to be placed on this survey prior to your authorization to commence work, as said requirements may affect the items above.
- If information depicted on the proposed survey should lead to further investigation by Cannon staff, additional fees may be incurred, and are not included within this scope of services. Cannon will handle requests of this nature under separate written authorization.
- We assume California Prevailing Wage Rates apply to this project.

- CVWD will provide as-built drawings of the SCADA panel. Cannon's responsibilities will only include I/O between the existing SCADA panel and the generator and automatic transfer switch.
- During the site visit to gather electrical data, panels may need to be opened. It is assumed CVWD staff will open these panels for Cannon employees to obtain the necessary information.

EXCLUSIONS

The following exclusions apply to this proposal:

- CVWD will obtain permits from the City of La Canada Flintridge and AQMD, if necessary, for the new emergency electrical generator.
- Soils Engineering
- SCE coordination. We assume that since the generator connection will be on the load side of the main disconnect, SCE will not need to be involved in this project.

FEES

Fees are based on the rates per the enclosed fee schedule and do not include Agency checking or recording fees, or title company fees. It is our understanding that this project does not qualify for California Prevailing Wages.

Phase 1.	*Topographic Survey and As-Built Survey*	*$ 6,340*
Phase 2.	*Design and Construction Documents*	*$13,482*
Total Time and Materials Not to Exceed:		$19,822

Cannon

2017 Fee Schedule
Bill Rate Ranges
Subject to change.

Accounting Specialist	$	45	- $	65
Administrative Assistant I - IV	$	50	- $	70
Assistant Resident Engineer	$	130	- $	143
Associate Construction Engineer	$	110	- $	120
Associate Engineer	$	140	- $	175
Associate Landscape Architect	$	135	- $	145
Associate Planner	$	140	- $	150
Automation Analyst	$	100	- $	110
Automation Design Engineer	$	110	- $	120
Automation Specialist	$	135	- $	145
Automation Technician	$	95	- $	105
Business Development Associate	$	120	- $	130
CADD Tech	$	85	- $	95
CADD Manager	$	100	- $	110
Chief Planner	$	155	- $	165
Chief Surveyor	$	175	- $	195
Clerical Assistant	$	50	- $	65
Construction Admin Assistant	$	85	- $	90
Construction Coordinator	$	90	- $	110
Construction Engineer	$	165	- $	175
Construction Inspector	$	90	- $	125
Construction Manager	$	135	- $	165
Controller	$	70	- $	110
Design Engineer	$	110	- $	125
Electrical Design Engineer	$	120	- $	130
Engineer Tech	$	90	- $	100
Engineering Assistant I - II	$	70	- $	90
Expert Testimony (Deposition/Trial)	$	250	- $	450
Forensics Engineer I - III	$	230	- $	280
Forensics Office Administrator	$	150	- $	175
Forensics Research & Investigation	$	300	- $	350
Forensics Survey Tech I - III	$	230	- $	280
Forensics 2-Man Survey Crew	$	350	- $	375
GIS Specialist	$	140	- $	150
GIS Tech	$	115	- $	125
Grant Funding Manager	$	125	- $	140
I&E Construction Coordinator I - II	$	90	- $	110
I&E Services Coordinator	$	80	- $	90
Information Systems Admin I - II	$	70	- $	100
Land Surveyor I - V	$	140	- $	180
Landscape Architect	$	105	- $	115
Landscape Architect CADD Tech I - II	$	55	- $	65
Landscape Designer I	$	70	- $	80
Lead Automation Analyst	$	116	- $	126
Lead Automation Specialist	$	147	- $	157
Lead Automation Technician	$	105	- $	115
Lead Designer	$	100	- $	118
Marketing Coordinator	$	60	- $	120
Marketing Director	$	140	- $	180
Office Engineer	$	120	- $	130
Planner I - IV	$	80	- $	115
Planning Assistant I - II	$	55	- $	70
Principal Construction Engineer	$	185	- $	195
Principal Designer	$	105	- $	129
Principal Engineer	$	160	- $	195
Programmer I - II	$	140	- $	165
Project Coordinator I - IV	$	85	- $	125
Project Designer I - IV	$	80	- $	120
Project Engineer	$	120	- $	145
Project Manager / Sr. Principal	$	210	- $	220
Receptionist	$	50	- $	65
Resident Engineer	$	155	- $	165
Sr. Associate Engineer	$	150	- $	175
Sr. Automation Analyst	$	126	- $	136
Sr. Automation Specialist	$	163	- $	170
Sr. Automation Technician	$	126	- $	136
Sr. CADD Tech	$	90	- $	110
Sr. Construction Engineer	$	175	- $	195
Sr. Construction Manager	$	175	- $	200
Sr. Consultant/Director	$	163	- $	250
Sr. Consultant, Public Admin/Finance	$	155	- $	165
Sr. Environmental Planner	$	153	- $	165
Sr. Land Surveyor	$	180	- $	190
Sr. Landscape Architect	$	153	- $	163
Sr. Planner	$	153	- $	163
Sr. Principal Designer	$	110	- $	139
Sr. Principal Engineer	$	175	- $	230
Sr. Project Designer	$	105	- $	130
Sr. Project Engineer	$	130	- $	150
Sr. Resident Engineer	$	165	- $	175
Structures Representative	$	145	- $	155
Survey Engineering Assistant I	$	85	- $	95
Survey Manager	$	180	- $	190
Survey Technician I - VI	$	90	- $	150
Technician	$	115	- $	125
Technical Writer	$	80	- $	120
3D HDS Data Modeling I - III	$	95	- $	125
Survey Crew Rates - Regular				
One-Man Field	$	130	- $	205
Two-Man Field	$	185	- $	285
Three-Man Field	$	245	- $	360
One-Man UMO - HDS	$	155	- $	220
Two-Man UMO - HDS	$	238	- $	285
Three-Man UMO - HDS	$	350	- $	375
Survey Crew Rates - Prevailing Wage				
One-Man Field	$	155	- $	220
Two-Man Field	$	238	- $	325
Three-Man Field	$	285	- $	425
Electrical - Prevailing Wage				
Electrician	$	110	- $	165

All of the above hourly rates include all direct labor costs and labor overhead, general and administrative expenses and profit. If the client requests, or the client's schedule requires work to be done on an overtime basis, a multiplier of 1.5 will be applied to the above rates for weekdays and 2.0 for weekends and holidays.

Other Direct Charges

In-House Reproduction			
Printing/Copies 8 ½ x 11	$0.05 per page	Black Line Plots	$2.00 per page
Printing/Copies 11 x 17	$1.00 per page	Color Plots	$5.00 per page

Outside Reproduction	Cost + 15%
Travel and Related Subsistence	Cost + 15%
Truck or Field Vehicle	$80.00 per day
Mileage Reimbursement	IRS Rate per mile
CAD and Simulation Software	$15.00 per day
Automation & Electrical Materials	Cost + 25% (+tax)
Subconsultant Fees	Cost + 10%

All direct expenses, such as special equipment, shipping costs, travel other than by automobile, parking expenses, and permit fees will be billed at the actual cost plus 15%.

If the client requests, or the client's schedule requires work to be done on an overtime basis, a multiplier of 1.5 will be applied to the stated rates for weekdays for daily hours in excess of 8 as well as weekends and a multiplier of 2.0 for daily hours in excess of 12 and holidays.

If the client requests field services to be provided outside of normal working hours (between 6:00 p.m. and 6:00 a.m.), a multiplier of 1.5 will be applied to the stated rates.

Survey Crews and Automation Field staff are billed portal to portal, and mileage charges are included in the hourly rate. A minimum charge of 4 hours will be charged for any Automation Field Service calls outside of normal working hours (between 6:00 p.m. and 6:00 a.m.).

The stated rates are subject to change, typically on an annual basis.

CRESCENTA VALLEY WATER DISTRICT
STAFF REPORT

Information Item No. 5

To: Engineering Committee May 17, 2017

From: David S. Gould, P.E. – District Engineer

Subject: **Project Status - FY 16/17 - Capital Improvement Project Program**

FY 16/17 – CIP Project Schedule & Cost Estimate - The FY 16/17 Capital Improvement Project (CIP) program includes the following projects which are summarized below:

1. **Rehabilitation of Well 7** – Well 7 was planned to be rehabilitated in FY 14/15, yet, Well 7 maintained its well capacity during the year and taking Well 7 out of service would have meant the loss of water production during the rehabilitation period. Therefore, this project was deferred until FY 16/17.

   The pump in Well 8 failed in February 2017 and this project replace the Well 7 project for FY 16/17.

   Project Schedule: Well 8 to be completed by May 23, 2017

   Cost Estimate: $42,000

2. **Nitrate Removal Treatment Plant at Well 2** – CVWD received a grant under Proposition 84 2015 IRWM Implementation Grant with the Department of Water Resources (DWR) to install a new nitrate removal treatment plant and re-activation of Well 2. Staff has been working with SA Associates on the design of the project and APTwater on the design of the new nitrate removal treatment plant.

   The re-activation of Well 2 and the new nitrate removal treatment facility will allow CVWD to utilize a local water resource, increase CVWD's ability to use its adjudicated rights within the Verdugo Basin, reduce CVWD's dependence on imported water from MWD, and reduce nitrates levels within the Verdugo Basin.

   5/17/17 Project Update:

   - 50% Technical Design Memorandum – complete
   - SA Associates and APT Water working on 100% design submittal
   - Plans has been submitted to City of Glendale for plan comments and approvals
   - Permits should be completed by May 26, 2017
   - Plans has been submitted to Water and Power regarding upgrading electrical connection; Cost estimate of $31,342
   - Request for Quotes (RFQ) for the purchase of the electrical motor control center (MCC); Award Contract at May 16, 2017 Board Meeting
   - RFQ for Pre-fabricated buildings; staff is reviewing the design and will be discussed at the June 2017 Engineering Committee Meeting
   - Final design and specifications should be completed by early June 2017, the project advertised for bids at the June 20, 2017 Board meeting, and the construction contract will be awarded at the August 2017 Board Meeting
   - Construction should begin October 2017 and completed by the end of April 2018
   - Well 2 should be in service by May 2018

   Cost Estimate: - FY 16/17 - $290,000 and remainder to be included in FY 17/18 CIP Budget

3. **Proposition 50 - Emergency Water Supply Interconnection Between LADWP, CVWD, and FMWD** - The new interconnection will allow CVWD to receive an emergency water supply from LADWP water and the water transferred to the FMWD's System via existing piping, reservoirs, and upgrades to existing FMWD interconnections.

   The project will give CVWD and FMWD the capability to offset the impact of a shutdown of the Metropolitan Water District's (MWD) Weymouth Plant, located in La Verne, which is the only source of water to FMWD during a planned or unplanned emergency.

The overall project is near completion with the construction at Ordunio Reservoir completed and the Chloramination Station at Ocean View Reservoir nearly complete. The next step is testing of the interconnection system between the three agencies and obtaining final approval from the State Water Resources Control Board.

5/17/17 Project Update:

- Chloramination Building including electrical work and treatment equipment – complete
- Additional piping for FMWD connection should be completed by May 23, 2017
- Water transfer from FMWD to CVWD including "break point" chlorination operations have been successfully tested
- Quotes have been requested for SCADA upgrades from TESCO Controls for the Ocean View Reservoir including the additional information for the Chloramination Station
- Staff is finalizing Claim No. 3 for grant reimbursement from DDW and should be submitted by June 2017
- DDW has preliminary granted a time extension for project completion to August 2017

Cost Estimate: - Carry over from FY 15/16 - $125,000

4. **Crescenta Valley County Park Storm Water Recharge Facility Study** - The Crescenta Valley County Park Stormwater Recharge Project Facility Study (Study) was conducted to provide important data and geologic information to determine if portions of Crescenta Valley County Park in the La Crescenta area of Los Angeles County can be utilized for storm water capture for groundwater recharge. The Study is a feasibility study which will be called Phase 1 of a two-phase project to create storm water capture for groundwater recharge to maintain water levels, so there is not a wide fluctuation in groundwater levels during dry and wet rainfall years. The Study will investigate CVWD's ability to construct facilities to divert stormwater flow and dry weather runoff to infiltration basins for groundwater recharge within the Verdugo Basin, and reduce surface water runoff from the existing parking areas. Recharge of stormwater runoff will help improve groundwater quality, increase water-supply reliability, and improve surface water quality in downstream receiving waters.

   5/17/17 Project Update:

   - DWR approved the Crescenta Valley County Park Stormwater Recharge Project Facility Study

   Cost Estimate: - Carry over from FY 15/16 - $28,270

5. **Crescenta Valley County Park Storm Water Recharge Facility Preliminary Design** – Staff will be utilizing the information from the Study to create preliminary design plans and cost estimate which will be used for submittal of a DWR – Proposition 1 Stormwater Recharge implementation Grant. Staff will be utilizing consultants to assist in preparing the preliminary design plans and the Grant Application.

   5/17/17 Project Update:

   - The latest communication from DWR was that the Proposition 1 Stormwater Recharge Implementation Grant Application would be due in early 2018

   Cost Estimate: - $60,000

6. **Steel Reservoir Rehabilitation at Oak Creek Reservoir #2** - The District has two (2) 1.6 MG steel tanks at its Oak Creek Reservoir site which were built in 1958 and 1961. The Oak Creek Reservoirs were re-coated and seismic structural upgrades in 2001. In 2005, the reservoirs were inspected and the report indicated random general corrosion on the roof and rafters. In 2011, the reservoirs were again inspected and the report stated that there was increased corrosion on the roof and rafters above the water line. The report recommended sand blasting, removing the coat, and re-coating the interior roof and shell. In addition, the report stated that structural members damaged by the corrosion should also be replaced.

   5/17/17 Project Update:

   - Project deferred to FY 17/18 and will include Oak Creek Reservoir #1

   Cost Estimate: - $900,000 – Deferred to FY 17/18 CIP

7. **Pipeline Replacement - Mills Plant Pumpline Replacement** – The District's goal is to replace a minimum of 2,000 liner feet of pipeline, 50 years or older, per year as shown in the FY 16/17 Budget. Staff's original plan was to replace the water mains on the 2700, 3000, & 3100 Blocks of Brookhill Avenue. Staff recommended at the last Engineering Committee meeting to substitute the original project with replacement of the 8-inch transmission main on the east side of Pennsylvania Ave which delivers water from the Mills Plant to the Paschall Booster station, which has recently had three (3) major main breaks.

   5/17/17 Project Update:
   - Design and specification - complete
   - Construction starting May 15, 2017 and completed by the beginning of July 2017

   Cost Estimate: - $600,000 Budget; Revised cost estimate - $441,500

8. **Lower Pickens Canyon Pipeline and Slope Replacement Project** – In May 2015, the 8-inch Lower Pickens Canyon Pipeline located within the easterly slope of Pickens Canyon, near the 5800 Block of Ocean View had a water main break which caused damage to the existing slope. An interim slope repair project was completed in February 2016 to stabilize the exposed pipeline and the exposed slope.

   5/17/17 Project Update:
   - Design plans and specifications - complete
   - Construction started March 28, 2017 and completed May 19, 2017

   Cost Estimate: - $500,000 Budget; Total Cost Estimate - $625,000

9. **Annual Booster Pump Replacement** – Staff plans on replacing one or two booster pumps per year as part of the annual budget. For FY 16/17, Booster 12 at Markridge will be replaced. Booster 12 is a 600 gpm pump which was taken out of service in June due to a pump failure. Booster 12 was installed in 1998 and has had over 17,000 hours of use. Booster 12 and Booster 25 deliver water from Zone 5 at the Markridge Reservoir to Zone 8 and the Cresta Heights Reservoirs.

   General Pump Company provided an inspection report stating that the pump assembly should be replaced and the motor should be refurbished. Staff has reviewed the recommendations and is proceeding with the pump replacement.

   5/17/17 Project Update:
   - General Pump Company completed the work in September 2016

   Cost Estimate: - $50,000 Budget; Final Cost - $32,327

10. **Paschall Booster Station Piping Upgrades and New Motor Control Center** – The Paschall Booster Station located on Briggs Avenue was constructed in 1955 and is one of three CVWD connections to FMWD. The existing valves on the inlet side of the two booster pumps are broken in the open position and the main valve to the inlet to the booster pumps is in poor condition, which needs to be replaced. Also, the existing electrical motor control center (MCC) needs to be replaced as part of CVWD's ongoing MCC replacement program.

    Staff's goal is to re-design the station to replace the valves and create easier access to the valves in the future, re-design the storm drain constructed over the valve area, take this opportunity to re-evaluate the layout of the Station for ease of use and future maintenance, and investigate possible hydraulic surges at the station.

    The project will be a two-year project with the design being completed in FY 16/17 and construction in FY 17/18.

    5/17/17 Project Update:
    - Design of the Project deferred to FY 17/18
    - Construction deferred to FY 18/19

    Cost Estimate: - Deferred

11. **Rehabilitation Surge Tanks at Glenwood** - CVWD has an existing surge tank for three (3) booster pumps located at the Glenwood Plant. The purpose of the surge tank is to defuse a water surge wave during an outage event and protect the booster pumps. The surge tank was installed in 1955 and needs to be rehabilitated with an air-surge system. Staff has been working with GEI Consultants on the design of this project. The recommendations included resizing the piping and replacing the surge tank equipment. This project was deferred from FY 15/16 CIP to the FY 16/17.

    5/17/17 Project Update:

    - Project deferred to FY 17/18

    Cost Estimate: - $65,000 for construction.

12. **Seismic Sensors & Valve Actuators at Dunsmore and Pickens Reservoirs** – The District has been working on installing seismic sensors and valve actuators on the outlet valves for each reservoir to prevent water loss during an earthquake event. The seismic sensor detects ground movement and the valve actuators will automatically close the valve and thereby containing the water for public health. The District has ten (10) of these systems installed on the 17 tanks and the program is to install 2 seismic sensors each year for the next three years.

    CVWD will order the equipment from AES, Inc, who will assist with the installation and staff will install the concrete pads and electrical conduits for the system.

    5/17/17 Project Update:

    - Dunsmore Reservoir - completed
    - Pickens Reservoir – Field works are installing a new access vault for the inlet/outlet, installation should be completed by the end of June 2017
    - SCADA/Telemetry controls provided by Tesco Controls should be completed by the end of March 2017

    Cost Estimate: - $75,000

The attached project schedule shows the schedule for FY 16/17 and the carry-over projects from FY 15/16 for discussion with the Engineering Committee.

Prepared & Submitted by:

David S. Gould, P.E.
District Engineer

Attachments:

1. FY 16/17 CIP Cost and Project Schedule

g:\engineering committee\2017 ec memo\05-17-17 ecm memo - fy 16-17 cip summary.docx

Crescenta Valley Water District

Design and Construction Schedule for FY 16/17

Project	July				August					September				October					November				December				January				February				March				April				May					June			
	4	11	18	25	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	6	13	20	27	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26
FY 15/16 - Carryover Projects																																																			
OV Chlorination Station - Install Treatment & Electrical Equipment	Complete																																																	
OV Meter Testing - FMWD to CVWD																			Complete																																	
OV Chlorination Station - SCADA Equipment																																											RFP				Design - TESCO							
Interconnection Piping - CVWD to FMWD (Phase 5)																																		Design -CVWD				Construction - CVWD/Contractor											
Interconnection - Project Testing																																														Construction - CVWD						
CVC Park Stormwater Recharge Project - Report	Complete																																																	
Ordunio - Wall							Complete																																													
8" Pipeline - Harmony, Park Pl, & Brookhill; Prospect & Glenwood	Complete																																																		
FY 16/17 - Projects																																																		
Well 7 Rehabilitation (under evaluation)																																																		
Well 8 Rehabilitation																																				Construction- Contractor															
Re-Activate Well 2 - Design/Construction	Design - SA Associates & APTwater																										Meet with Glendale - Permit Requirements					RFQ - MCC & Pre-Fab Bldg				Finalize Project Documents								Ad for Bids			
CVC Stormwater Recharge Project - Grant Application & Preliminary Design	Pre-App				Grant Application Moved to Early 2018																																														
Oak Creek #1 - Roof/Air Vents/Recoat	RFP	AC	Design - Harper & Assoc.																						Advertise for Bids				Project on hold - Combined with Oak Creek #2																		Design - Harper & Assoc.			
4200 - 4300 Blocks of Pennsylvania (Mills Pumpline) - 1400 LF	Design - CVWD																										Advertise for Bids				AC	Shop Draw Review														Construction- Contractor			
Lower Pickens Canyon Crossing & Slope	RFP				AC	Design - DMc Engineering & AMEC																					Advertise for Bids				AC	Construction- Contractor																			
Seismic Sensors & Valve Actuators - Duns/Pickens														RFQ					AC	Shop Draw Review			Construction - CVWD & AES																															
Booster Pump Replacement	Complete																																																	
Paschall Booster Station inlet piping & valves MCC - Design																																																		
Rehabilitation Surge Tank at Glenwood																																																		