

**MEETING OF THE WATER RESOURCES COMMITTEE  
OF THE BOARD OF DIRECTORS  
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA  
4040 PARAMOUNT BOULEVARD, LAKEWOOD, CALIFORNIA 90712  
8:30 A.M., TUESDAY, APRIL 18, 2017**

**AGENDA**

EACH ITEM ON THE AGENDA, NO MATTER HOW DESCRIBED, SHALL BE DEEMED TO INCLUDE ANY APPROPRIATE MOTION, WHETHER TO ADOPT A MINUTE MOTION, RESOLUTION, PAYMENT OF ANY BILL, APPROVAL OF ANY MATTER OR ACTION, OR ANY OTHER ACTION. ITEMS LISTED AS "FOR INFORMATION" MAY ALSO BE THE SUBJECT OF ANY "ACTION" TAKEN BY THE BOARD OR A COMMITTEE AT THE SAME MEETING.

- 1. DETERMINATION OF A QUORUM**
- 2. PUBLIC COMMENT**  
*Pursuant to Government Code Section 54954.3*
- 3. APPROVE MINUTES OF MARCH 21, 2017**  
Staff Recommendation: The Water Resources Committee approve the minutes as submitted.
- 4. OPERATIONS UPDATE**  
Staff Recommendation: For information.
- 5. APPROVE PURCHASE OF REPLACEMENT FIELD SUPPORT VEHICLE**  
Staff Recommendation: The Water Resources Committee recommends the Board of Directors approve the purchase of a replacement field support vehicle from Worthington Ford of Long Beach for a price not to exceed \$24,000 (rounded). This item is included in the current year's budget.
- 6. GROUNDWATER BASIN UPDATE**  
Staff Recommendation: For information.
- 7. DIRECTORS REPORTS, INQUIRIES, AND FOLLOW-UP OF DIRECTIONS TO STAFF**
- 8. ADJOURNMENT**  
The Water Resources Committee will adjourn to the next regular meeting currently scheduled for May 16, 2017, at 8:30 A.M.

Agenda posted by Sherri Brown, Senior Administrative Specialist on April 14, 2017. In compliance with ADA requirements, this document can be made available in alternative formats upon request.

In compliance with the Americans with Disabilities Act (ADA), if special assistance is needed to participate in the Board meeting, please contact Senior Administrative Specialist Sherri Brown at (562) 921-5521 for assistance to enable the District to make reasonable accommodations.

All public records relating to an agenda item on this agenda are available for public inspection at the time the record is distributed to all, or a majority of all, members of the Board. Such records shall be available at the District office located at 4040 Paramount Boulevard, Lakewood, California 90712.

Agendas and minutes are available at the District's website.

EXHAUSTION OF ADMINISTRATIVE REMEDIES – If you challenge a District action in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the District office at, or prior to, the public hearing. Any written correspondence delivered to the District office before the District's final action on a matter will become a part of the administrative record.



## MEMORANDUM

ITEM NO. 3

**DATE:** APRIL 18, 2017  
**TO:** WATER RESOURCES COMMITTEE  
**FROM:** ROBB WHITAKER, GENERAL MANAGER  
**SUBJECT:** MINUTES OF MARCH 21, 2017

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**MINUTES OF TUESDAY, MARCH 21, 2017  
MEETING OF THE WATER RESOURCES COMMITTEE  
OF THE BOARD OF DIRECTORS  
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA**

A meeting of the Water Resources Committee of the Board of Directors of the Water Replenishment District of Southern California was held on Tuesday, March 21, 2017 at 8:41 a.m., at the District Office, 4040 Paramount Boulevard, Lakewood, California 90712. Committee Chair Robert Katherman called the meeting to order and presided thereafter. Senior Administrative Specialist Sherri Brown recorded the minutes.

**1. DETERMINATION OF A QUORUM**

A quorum was present which included:

Committee: President Robert Katherman; Director John D.S. Allen

Staff: Robb Whitaker, Ted Johnson; Paul Fu; Josi Jenneskens

Public: U. S. Army Corp of Engineers – Eduardo T. De Mesa, Kathy Anderson, Rene Vermeeren and Megan Whalen; Marcela Benavides – Los Angeles County Flood Control District (LACFCD)

**2. PUBLIC COMMENT**

*Pursuant to Government Code Section 54954.3*

General Manager Robb Whitaker introduced the guests from the U. S. Army Corp of Engineers (USACE) and the Los Angeles County Flood Control District (LACFCD). The guests were in attendance to discuss the matter of an additional \$1.7M to complete the Whittier Narrows Conservation Pool Feasibility Study with the Water Resources Committee. Mr. De Mesa provided an update of the project of raising the conservation pool elevation from 201.6 feet to 205 feet and the Dam Safety Study. Discussion followed.

Mr. De Mesa reported that the USACE proposes requesting a 5-year major deviation (anticipated in October 2017) that only needs approval up to the Division level, instead of the annual minor deviation requests. Discussion followed.

Chief Hydrogeologist Ted Johnson stated that if requested by the USACE, the District will draft a narrative to describe how the groundwater basins are still in drought even if the Governor makes the declaration that the surface water drought is over. Discussion followed.

**3. APPROVAL OF MINUTES OF JANUARY 17 AND FEBRUARY 21, 2017**

The Water Resources Committee unanimously approved the minutes as submitted.

**5. AUTHORIZE THE GENERAL MANAGER TO ENTER INTO AN AGREEMENT TO PARTICIPATE IN THE LOS ANGELES REGION IMAGERY ACQUISITION CONSORTIUM 5 (LARIAC5) PROGRAM**

This item was taken out of order.

Upon a motion duly made by Director Allen, seconded by President Katherman and unanimously approved, it was

RESOLVED: The Water Resources Committee recommends the Board of Directors authorize the General Manager to enter into an agreement with the County of Los Angeles to participate in the Los Angeles Region Imagery Acquisition Consortium 5 (LARIAC5), subject to approval by District Counsel, for an amount not to exceed \$40,000.

This item will be placed on the Consent Calendar of the next Board meeting.

**6. GROUNDWATER BASIN UPDATE**

Mr. Johnson presented this item. No action was taken. Discussion followed.

**2. PUBLIC COMMENT**

This item was taken out of order.

The Water Resources Committee returned to this item to discuss the previously held conversation with the guests from the USACE and LACFCD. Discussion followed.

The Committee requested that a report be taken to the Capital Improvement Projects Committee for a recommendation to pay the \$400,000 to the USACE for the Whittier Narrows Conservation Pool Feasibility Study. No action was taken by the Committee.

**4. OPERATIONS UPDATE**

This item was taken out of order.

Senior Engineer Paul Fu provided the operations update, and referred to the written report for additional information. No action was taken. Discussion followed.

**7. DIRECTORS REPORTS, INQUIRIES, AND FOLLOW-UP OF DIRECTIONS TO STAFF**

None.

**8. ADJOURNMENT**

There being no further business to come before the Committee, the meeting was adjourned at 10:43 A.M. to the next meeting scheduled for April 18, 2017 at 8:30 A.M.

\_\_\_\_\_  
Chair

ATTEST:

\_\_\_\_\_  
Member

Approved in minutes of:  
\_\_\_\_\_



**MEMORANDUM**

**ITEM NO. 4**

**DATE: APRIL 18, 2017**  
**TO: WATER RESOURCES COMMITTEE**  
**FROM: ROBB WHITAKER, GENERAL MANAGER**  
**SUBJECT: OPERATIONS UPDATE**

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**SUMMARY**

The intent of the Operations Update staff report/agenda item is to inform and update members of the Water Resources Committee on a regular and reoccurring basis about operational matters, technical issues, engineering plans, and various multi-agency strategies in regards to all of the District’s current and planned operational facilities.

**Montebello Forebay Operations/Turnout Structure Update**

Project Implementation Summary:

- 8/3/2015 through 10/31/16 – Project Duration
- Full use of both structures by the County was initiated in June 2016

Recycled water delivery summary:

<b>Event</b>	<b>Spreading Grounds (Basin 2)</b>	<b>San Gabriel River (001B)</b>	<b>Spreading Total</b>	<b>Wasted to the Ocean (Firestone)</b>
FY 2016-17	11,312 AF	11,833 AF	23,571 AF	5,982 AF
Monthly Avg. FY 16-17	1,257 AF	1,315 AF	2,571 AF	665 AF
WY 2016-17	8,713 AF	5,982 AF	23,754 AF	5,982 AF
Monthly Avg. WY 16-17	1,452 AF	997 AF	3,959 AF	665 AF

Staff is working with Los Angeles County Department of Public Works (LACDPW) and Los Angeles County Sanitation District (LACSD) staff to validate and incorporate the District’s new Turnout Structure flow meters into the monthly and annual data reporting.

**Terminal Island Water Reclamation Plant (TIWRP)**

The Los Angeles Department of Water and Power (LADWP) TIWRP expansion revised schedule estimates the final completion by July 2017. Currently the TIWRP is doing some on site electrical work. Upcoming TIWRP expansion schedule:

- April 2017– complete software migration. Completed offsite work (Torrance), next step is the onsite work. Wet testing activities for the next 3-4 weeks.

- July/August 2017 – after a few setbacks, performance testing and system startup will happen this summer; Regional Water Quality Control Board (RWQCB) and Department of Drinking Water (DDW) have granted approval to continue delivering water to the barrier during the performance testing.

### **Robert W. Goldsworthy Desalter Update**

The Desalter was offline in March 2017 to facilitate various expansion related construction activities. The MTBE treatability study report was completed in March and expected to be submitted to the State Water Resources Control Board, Division of Drinking Water in April.

### **Leo J. Vander Lans Facility (LVL) Update**

LVL Operations. LVL operated continuously in March except for a two-day interruption mid-month due to a possible chemical feed leak. LVL has also been offline since March 30<sup>th</sup> for various repairs ahead of LACSD's planned 48-hour shutdown of LBWRP during the first week of April. The Barrier injection quantity in March was approximately 469 AF, including 224 AF of recycled water and 245 AF of imported water.

### Conduct an Engineering Study to Optimize Barrier/LVL Operations.

Based on the recommendations from the draft study report, District staff is developing an action plan to improve LVL operations and production on short-to-long term bases. District staff recently met with the design consultants to discuss the action plan. A verbal report will be presented to the Committee during the meeting.

### **STAFF RECOMMENDATION**

For information.



## **MEMORANDUM**

### **ITEM NO. 5**

**DATE:** APRIL 18, 2017

**TO:** WATER RESOURCES COMMITTEE

**FROM:** ROBB WHITAKER, GENERAL MANAGER

**SUBJECT:** APPROVE PURCHASE OF REPLACEMENT FIELD SUPPORT VEHICLE

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### **SUMMARY**

A new field support vehicle has been budgeted in the current Fiscal Year for use by WRD on efforts related to groundwater sampling, groundwater monitoring, data logger downloading and deployment services, well maintenance, research activities, and other field tasks. The new field support vehicle will replace the existing field support vehicle currently in use, a 2001 Chevrolet S-10 Mini-Truck. The Chevy S-10 is the oldest vehicle in WRD's fleet (16 years old), and it is not operating well. It requires frequent maintenance, and is becoming more and more unreliable. Therefore staff has planned for, and recommends replacing it with a new field support vehicle.

Considering the advantages and disadvantages of our current support vehicle, Staff is recommending the purchase of a 2017 Ford Transit Connect XL (see picture). Useful features of the Transit include a secure and private cargo area with ample room for tool and equipment storage. Its small size and agile design will allow easy access to monitoring well sites that are sometimes in tight parking spots or along roadways, and will allow us to occupy a safe and relatively small footprint while performing field activities.



Staff received quotations from four Ford Dealerships in Los Angeles County for a basic model including Worthington Ford of Long Beach (\$23,688.11), Ken Grody Ford (\$24,866.75), and Caruso Ford of Long Beach (\$25,547.81) and Norm Reeves Ford (\$23,333). The lowest price was received from Norm Reeves.

### **FISCAL IMPACT**

This purchase of the replacement field support vehicle will cost less than \$25,000, which was the budgeted amount in the current year FY2016-17 budget.

**STAFF RECOMMENDATION**

The Water Resources Committee recommends the Board of Directors approve the purchase of a replacement field support vehicle from Norm Reeves Ford of Cerritos for a price not to exceed \$25,000 (rounded). This item was included in the approved budget for the current fiscal year.





**MEMORANDUM**

**ITEM NO. 6**

**DATE: APRIL 18, 2017**  
**TO: WATER RESOURCES COMMITTEE**  
**FROM: ROBB WHITAKER, GENERAL MANAGER**  
**SUBJECT: GROUNDWATER BASIN UPDATE**

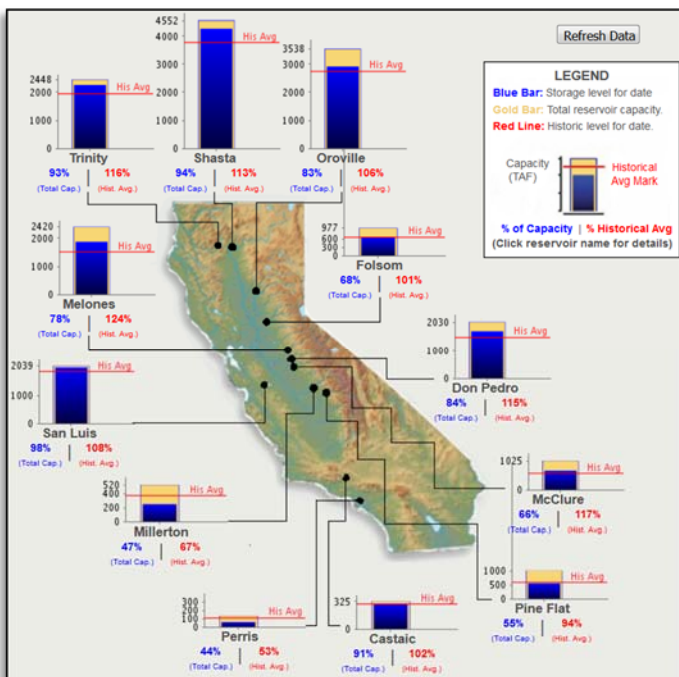
**SUMMARY**

Staff monitors groundwater conditions in its service area throughout the year. A summary of the latest information is presented below.

**Precipitation**

The WRD precipitation index reports that as of April 10, 2017, there had been 18.10 inches of rainfall since the start of the Water Year on October 1, 2016. Normal for this time of year is 14.36 inches, so the District is 126% of normal. The wet year continues to help the State considerably, and only approximately 1% remains under severe drought conditions as reported by the U.S. Drought Monitor (as of April 4, 2017). Currently 0% of the state is under extreme or exceptional drought.

**Reservoirs (as of April 10, 2017)**



**CA DWR Reservoirs (SWP)**

Reservoir	Capacity	Storage	% Full	Change
Trinity Lake	2.45	2.27	93%	0.30
Lake Shasta	4.55	4.27	94%	0.83
Lake Oroville	3.54	2.92	83%	-0.05
Folsom Lake	0.98	0.67	68%	0.25
New Melones	2.40	1.88	78%	0.20
Don Pedro	2.03	1.71	84%	-0.17
Lake McClure	1.02	0.68	66%	-0.12
San Luis	2.04	1.99	98%	-0.04
Millerton Lake	0.52	0.25	47%	-0.04
Pine Flat	1.00	0.55	55%	-0.15
Castaic Lake	0.33	0.30	91%	0.00
Lake Perris	0.13	0.06	44%	0.00
Silverwood	0.08	0.07	87%	0.00

**MWD Reservoirs (CRA)**  
Storage in Million Acre Feet

Reservoir	Capacity	Storage	% Full	Change
Powell	24.30	11.59	48%	0.41
Mead	26.12	10.61	41%	-0.18
DVL	0.81	0.68	84%	0.03

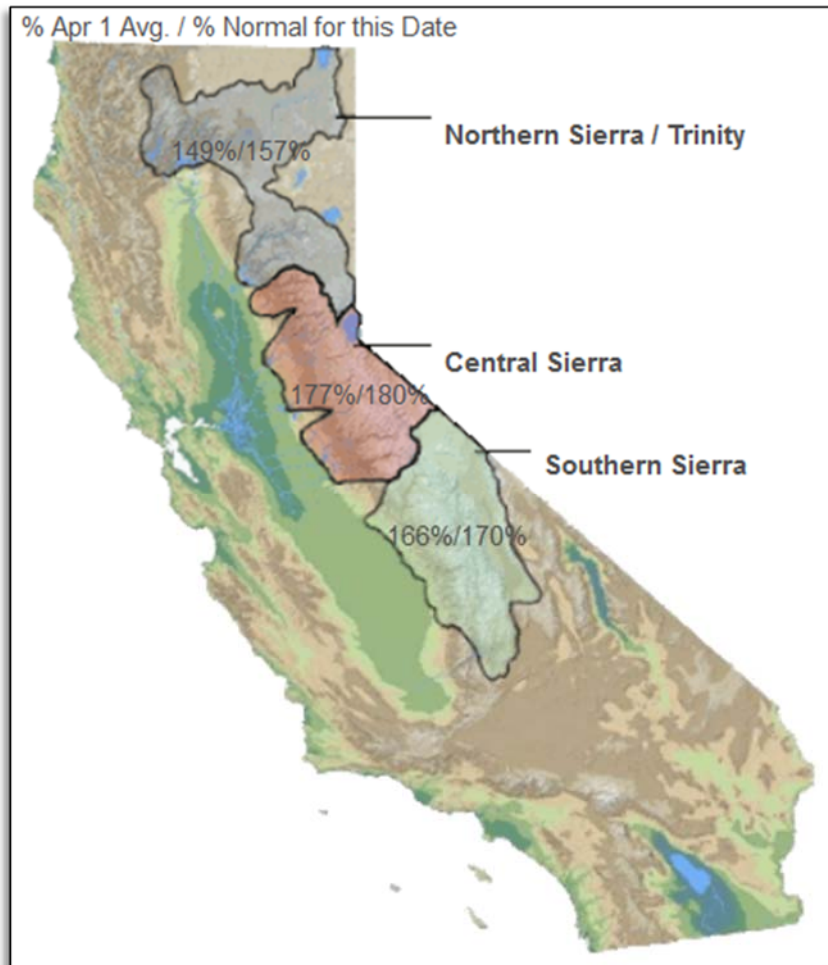
Black Text - Decrease or no change in storage since the last report.  
 Green Text - Increase in storage since the last report.

Snowpack (Snow Water Content [SWE] as of April 10, 2017)

In 1929, the State established the California Cooperative Snow Surveys Program with the California Department of Water Resources as the coordinator. Today, over 50 state, national, and private agencies collaborate in collecting snow data from over 300 snow courses with more than 60 of the course being the original courses established in the early 1900's. The average snow course is 1,000 feet long and consist of about 10 sample points. Anywhere from two to six courses are measured per day depending on weather and access method.

The snow survey is completed using a snow sampling tube equipped with a cutter on the end that is driven through the snow measuring the depth and obtaining a snow core. The snow core is then weighed and the snow water content (or snow water equivalent) calculated. The surveys are completed throughout the winter by returning to the same sample points throughout the season to observe the changing conditions. From February through May the data is used by the State to forecast snow melt runoff. Many snow courses are only measured on or around April 1<sup>st</sup>, and since it is presumed that the snow accumulates up to April 1<sup>st</sup> and melts thereafter, April 1<sup>st</sup> is the benchmark for historic data comparisons.

**Northern Sierra Nevada** – 42.0 inches, 157% of normal to date and 149% of April 1<sup>st</sup> average  
**Central Sierra Nevada** – 51.1 inches, 180% of normal to date and 177% of April 1<sup>st</sup> average  
**Southern Sierra Nevada** – 43.7inches, 170% of normal to date and 166% of April 1<sup>st</sup> average  
**Statewide** – 46.4 inches, 171% of normal to date and 166% of April 1<sup>st</sup> average



NORTH	
Data For: 10-Apr-2017	
Number of Stations Reporting	27
Average snow water equivalent	42.0"
Percent of April 1 Average	149%
Percent of normal for this date	157%

CENTRAL	
Data For: 10-Apr-2017	
Number of Stations Reporting	41
Average snow water equivalent	51.1"
Percent of April 1 Average	177%
Percent of normal for this date	180%

SOUTH	
Data For: 10-Apr-2017	
Number of Stations Reporting	25
Average snow water equivalent	43.7"
Percent of April 1 Average	166%
Percent of normal for this date	170%

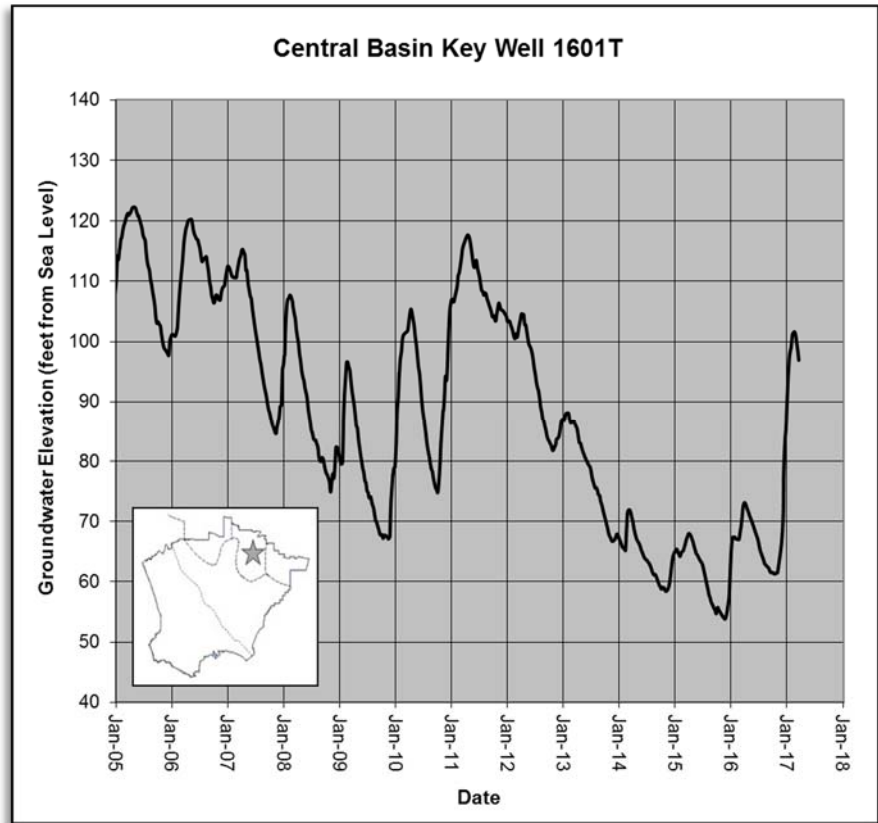
STATEWIDE SUMMARY	
Data For: 10-Apr-2017	
Number of Stations Reporting	93
Average snow water equivalent	46.4"
Percent of April 1 Average	166%
Percent of normal for this date	171%

## Groundwater Levels

Groundwater levels in key monitoring wells are shown in the hydrographs below.

Central Basin Key Well 1601T is between the two spreading grounds and rises rapidly with rainfall and replenishment but falls sharply during dry spells and lack of replenishment.

On April 6, 2017, the groundwater level in the well decreased 4.7 feet since the previous report and was 24.3 feet higher than the same time the previous year.



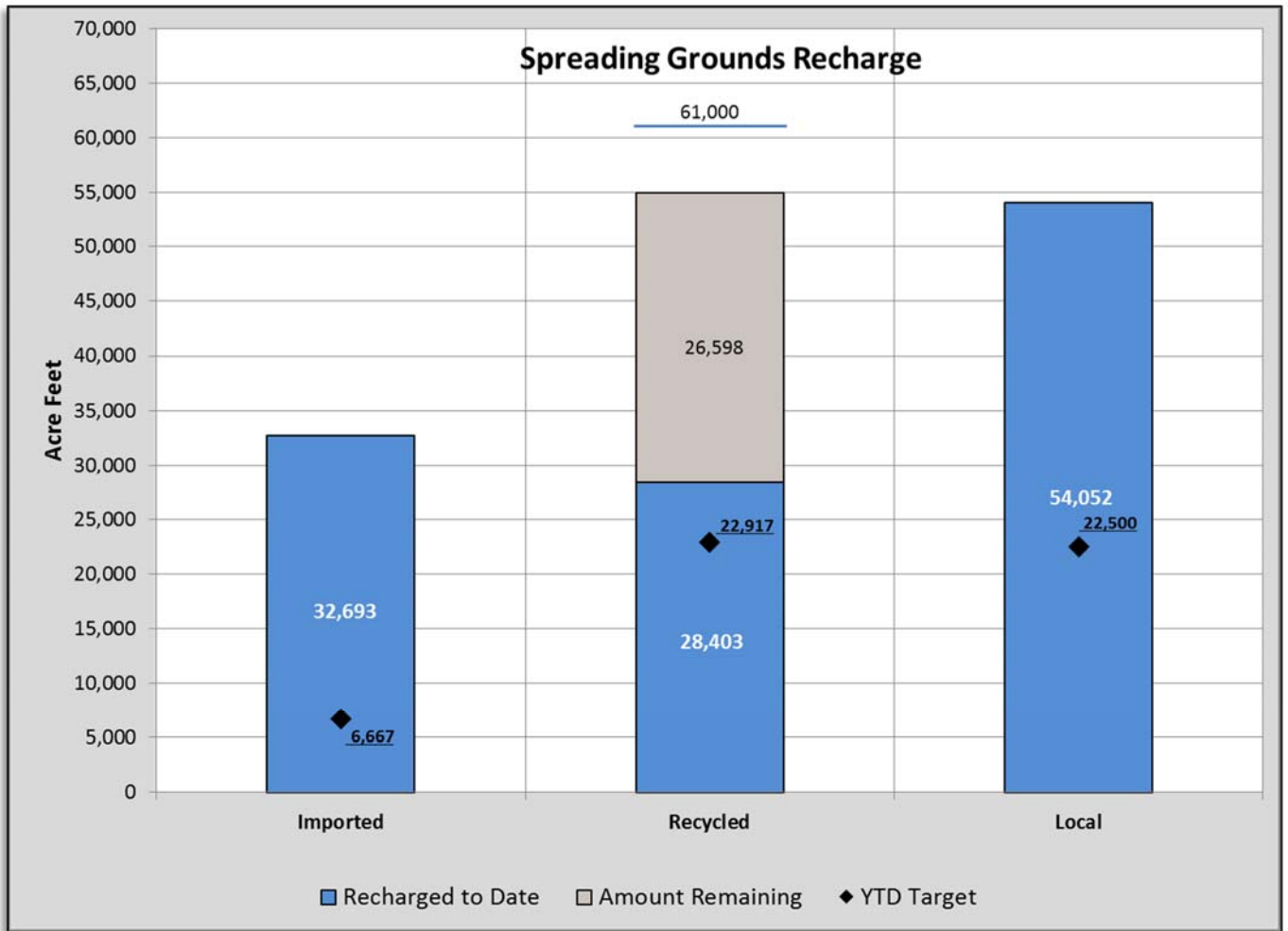
West Coast Basin Key Well Carson #1 is in the confined aquifers and does not respond readily to rainfall but instead to changes in pumping patterns and barrier recharge.

On April 5, 2017, the groundwater level increased 1.7 feet since the previous report and was 5.3 feet higher than the same time the previous year.



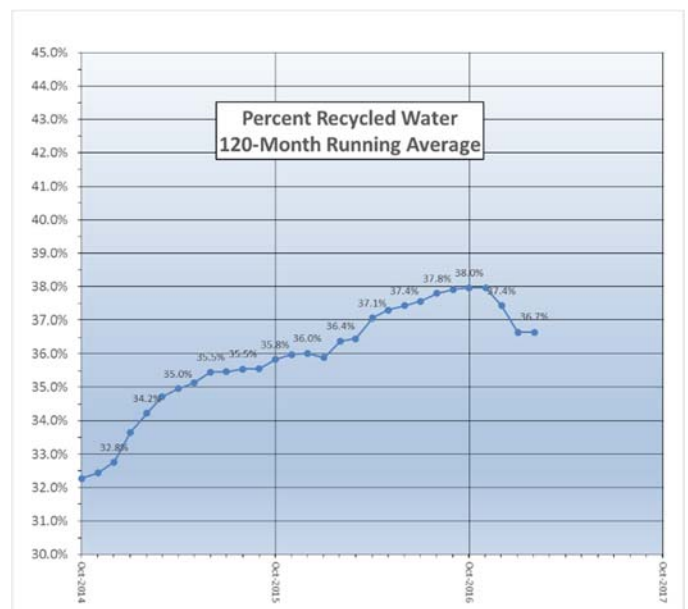
Montebello Forebay Spreading Grounds (October 1, 2016 – February 28, 2017)

The following Chart shows the preliminary spreading grounds replenishment water to date:



The District purchased 32,693 acre-feet of imported water for replenishment in October, November, December, and February combined as part of the 38,000 acre-feet order for the 2016-17 Water Year. It is unclear if the remaining order, or the additional 5,000 acre-feet ordered, will be received in time by the April 30<sup>th</sup> cutoff due to the County's concerns over potential Quagga Mussel infestations.

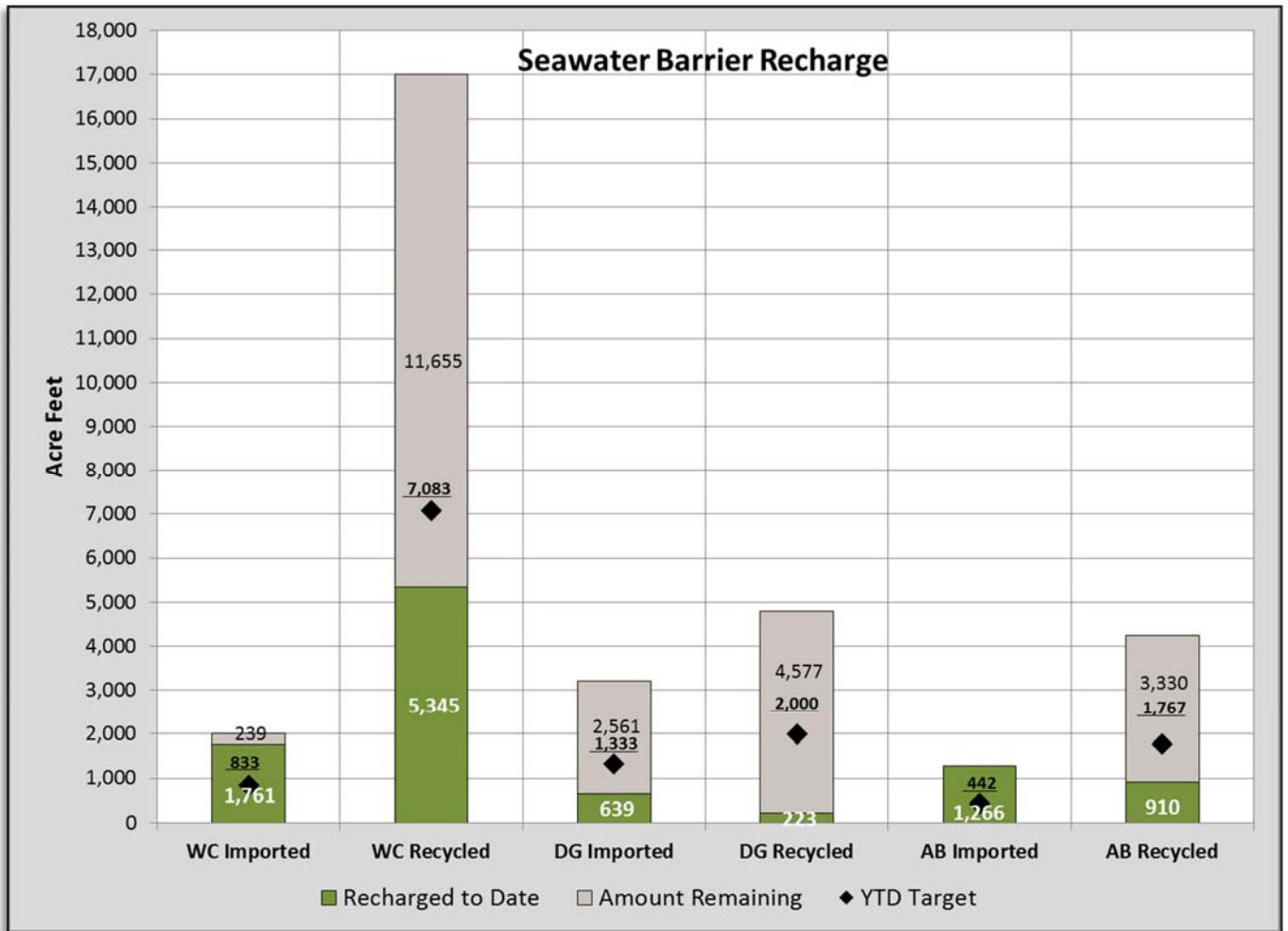
Preliminary numbers for the first five months of the 2016-17 Water Year show that 28,403 acre-feet of recycled water has been recharged, which is above the YTD target amount of 22,917 acre-feet. The 120-month running average of recycled water contribution in the Montebello Forebay is 36.7% and the regulatory maximum is 45%.



Local water (stormwater plus dry weather urban runoff) is captured by the Los Angeles County Department of Public Works (DPW) at the spreading grounds for recharge. Local water amounts are determined as the sum of the total waters conserved at the spreading grounds less the imported and recycled water deliveries. Through the end of February, the DPW reported 54,052 acre-feet of local water was captured and spread.

Seawater Barrier Well Injection and Replenishment (October 1, 2016 – February 28, 2017)

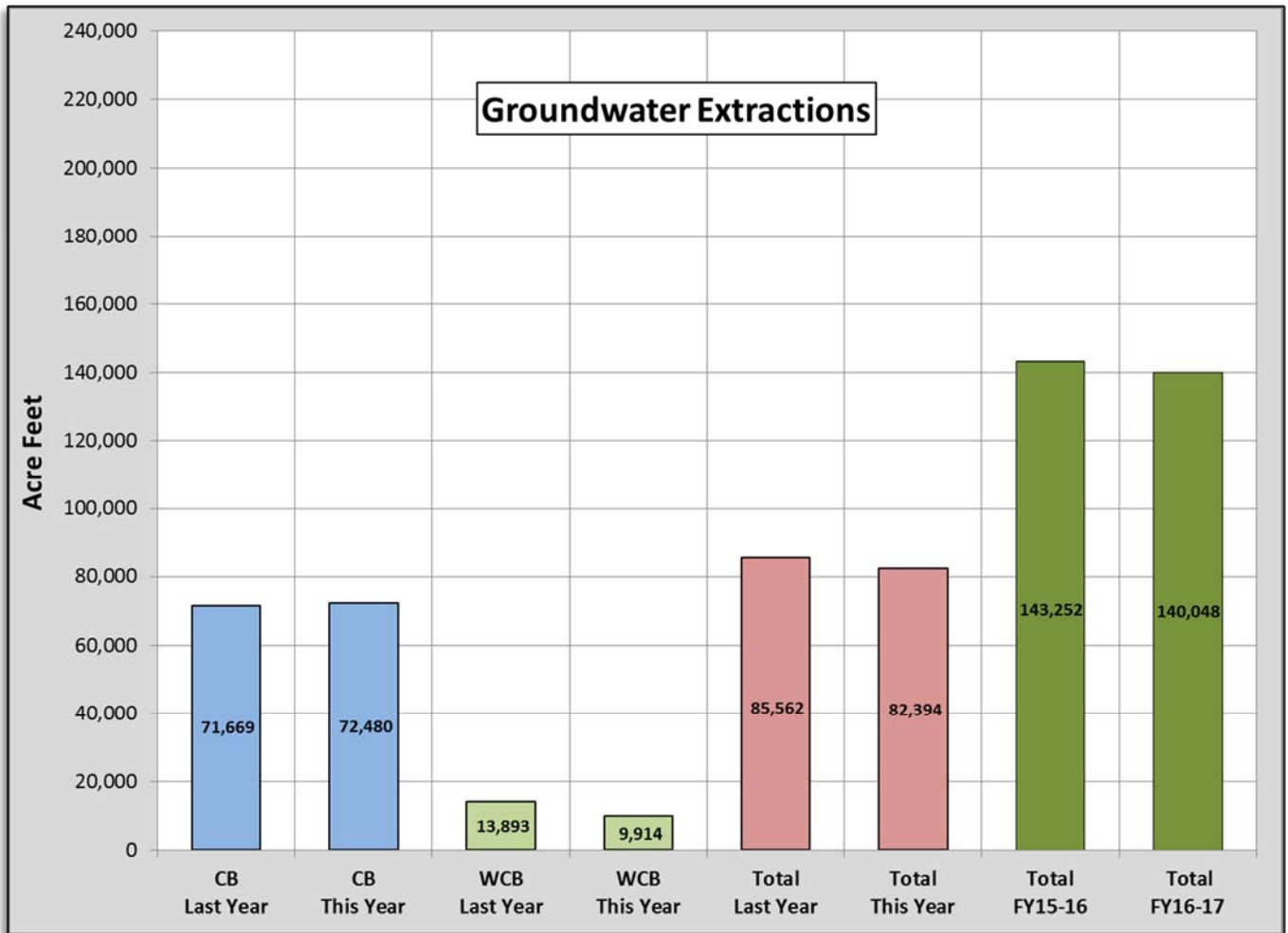
The following Chart shows the barrier water injection to date:



Preliminary numbers for the first five months of the 2016-17 Water Year show that the West Coast Barrier used 1,761 acre-feet of imported water and 5,345 acre-feet of recycled water, or 75% recycled water. The Dominguez Gap Barrier has put in less water than planned, due to some barrier outages in November and December, using 639 acre-feet of imported water and 223 acre-feet of recycled water, or 26% recycled water. The Alamitos Barrier on the WRD side used an estimated 1,266 acre-feet of imported water and 910 acre-feet of recycled water, or 42% recycled water.

Pumping (October 2016 - February 2017\*)

Preliminary numbers for groundwater production in the District for the first five months of the 2016-17 Water Year indicate that 82,394 acre-feet were pumped compared to 85,562 acre-feet the year previous, or a decrease of 3,168 acre-feet (-3.7%). In the Central Basin, pumping was 811 acre-feet higher than the previous water year (1.1%) and the West Coast Basin was down 3,979 acre-feet from the previous water year (-28.6%). The Chart below shows the 2016-17 Water Year pumping versus the 2015-16 Water Year. For the Fiscal Year, from July 1 through February 28, the total pumping is 140,048 acre-feet compared to 143,252 acre-feet during the same time the previous year for a decrease of 3,204 acre-feet, or -2.2%.



\*- February data do not yet include nine small pumpers in the Central & West Coast Basins.

**FISCAL IMPACT**

For information.

**STAFF RECOMMENDATION**

For information.