



MEMO

TO: BOARD OF DIRECTORS

FROM: GENERAL MANAGER

SUBJECT: REVISED SWRCB EMERGENCY REGULATIONS – SELF CERTIFICATION OF ADEQUACY OF WATER SUPPLIES 2016-2018

DATE: June 16, 2016

BACKGROUND

On May 18, 2016, the State Water Resources Control Board (State Board) adopted an emergency water conservation regulation that replaces the February 2nd emergency regulation (wherein they reduced our mandatory conservation from 36% to 29%). The May 18th regulation requires locally developed conservation standards be developed that are based upon each agency's specific water reliability circumstances after being subjected to a "stress test."¹ Agencies also have the option of keeping their February 2nd mandatory conservation levels if they so desire or are unable to meet the stress test requirements.

Under this stress test, each water supplier must evaluate its supply portfolio (in our case, wholesale water supply information provided by either OCWD or MWDOC/MET) and determine if they have enough water to make it through the next three years (demand versus supply). They must then self-certify the accuracy/veracity of the information used to make the reliability determination, and assign themselves a conservation standard. Once submitted to the State Board, the agency would be required to live within that conservation standard. These new conservation standards take effect on June 1st and remain in effect until January 31, 2017.

Specific Requirements:

The new regulation specifies the parameters that must be used to determine reliability, and there is no provision for deviation in this formula. After running through the calculation, suppliers that would face a shortage in all or any of the years are required to set a conservation standard equal to the amount of that shortage. Therefore, if an agency were to certify that they had a 15% shortfall, then that would be the new conservation standard the State Board would assign to them. If an agency certifies that they had a 0% shortfall, then that would be the standard that the State Board would assign.

Under this regulation, water supply reliability is calculated as follows:

1. The water agency projects their supply needs for the next three years (2016/17, 2017/18 and 2018/19) based on current supply conditions plus an assumed three-year hydrology mirroring the 2012-13, 2013-14, and 2014-15 water years. (A water year runs from October 1 through September 30).
2. Demand over that same period is based on the agency's average total potable water production for calendar years 2013 and 2014.

¹ The "stress test" has very specific requirements over specific two- year and three-year periods that must be considered by the agency, but those requirements do not necessarily reflect how an agency might actually operate their system, or how a wholesale water supplier would look at their supplies in a shorter term, and then take actions to limit water use.

3. An agency then factors into their calculations all of their water sources that are realistically capable of being treated to potable standards during the three-year projected period.
4. Suppliers self-certify the accuracy of their conclusions and provide their analysis and supporting data to the State Board and at their publicly available website.
5. The State Board posts information provided by suppliers on its website and assigns each supplier, as a mandatory conservation standard, reductions equal to the supplier's projected percentage deficiency in supply at the end of the third dry year.
6. Wholesale water suppliers are required to make projections about how much water they would deliver to retail water suppliers under the three-dry-years scenario. Wholesale agencies are not required to certify their supply availability.
7. Suppliers that do not submit a water reliability certification and supporting information retain their current conservation standard in almost all cases (in the case of the Retail Zone, this would be 29%).

An online worksheet (see attached) that is provided by the State Board, along with a certification form and any supporting data and analysis, must be submitted to the State Board and posted on the District's website by June 22, 2016. Please note that the regulations require that in certifying, "the data and underlying analysis relied upon by the supplier to determine the conservation standard reported pursuant to this subdivision **including but not limited to** [emphasis added], identification of each source of supply the supplier intends to rely on and the quantity of water available under that source of supply given the assumptions of this section." It is staff's understanding that this clause requires the retail agency to conduct their review inclusive of – but also to verify the accuracy of - the information supplied by the wholesale agencies' and their assumptions and climate constraints. Ultimately, compliance rests with the retail water agency, not the wholesale agency.

Certification Analysis

At the time of this memo, of the two wholesale water suppliers that serve the Retail Zone, only the Orange County Water District (OCWD) had provided information regarding their ability to meet the projected water demands required under this analysis. The Municipal Water District of Orange County/Metropolitan Water District of Southern California (MWDOC/MET) indicated that they will be providing us with this information prior to or on June 15th. Additionally, the District's Wholesale Zone will be providing the Retail Zone (and the other Retail Agencies) with our own water supply reliability projection prior to June 15th; but the Wholesale Zone's reliability is dependent upon MWDOC/MET's reliability. Again, we have been verbally advised that both MET and MWDOC will certify that we have sufficient water supplies for the next three years under the SWRCB's calculation methodology.

However, when the MWDOC/MET supplies are examined in the light of other known constraints that aren't considered to as part of the SWRCB's calculation methodology ("**including but not limited to**"), there are other considerations, such as sustainable operations, worse-than-modeled weather, anticipated reductions in Colorado River allocations, quagga mussel-caused problems, the uncertainty of State Water Project allocations year-to-year, overdrafts in the Central Valley, the relatively high overdraft status of the OCWD groundwater basin, the availability of recharge water, the condition of the Sierra forests, and the long-term imbalance between supply and demand between urban and agricultural interests that staff will discuss further in the tables below. All of these add up to a local, regional and state-wide water supply system that is at the minimum, very stressed and at the maximum, subject to mandatory cutbacks every year depending upon how much rain/snow we receive and how much we are allowed to obtain after other

interested parties obtain theirs.

Groundwater Supplies

Currently, the Retail Zone obtains 75% of its supply of water (about 500 AFY) from OCWD via the Orange County Groundwater Basin.

Southern California has experienced four winters with the lowest consecutive total rainfall since recordkeeping began in 1949.² Combined with the upper Santa Ana River Watershed agencies' recovering more and more flow from the river, managed recharge to the OCWD basin has fallen precipitously. Where we once averaged 200,000 AFY, OCWD now estimates that less than 100,000 AF will be recharged in 2 out of the 3 years examined if we have the same hydrology; if the drought continues, it could be worse. OCWD supplied the following table to support the finding that they can meet all demands for the basin:

Examination of Other Groundwater Issues

<u>Groundwater Basin Recharge Sources</u>	<u>FY16-17 (AFY)</u>	<u>FY17-18 (AFY)</u>	<u>FY18-19 (AFY)</u>
Santa Ana River Base Flows	64,048	64,048	64,048
Santa Ana River Storm Flows	48,317	23,380	37,742
Incidental Recharge	19,698	31,777	49,936
Groundwater Replenishment System	103,000	103,000	103,000
Untreated Metropolitan Water District Water Received	49,748	49,748	49,748
Water Taken out of storage from Ground Water Basin	38,000	51,000	20,500
Alamitos Seawater Barrier - Injection Well recharge	<u>2,000</u>	<u>2,000</u>	<u>2,000</u>
Total Recharge & Allowable Groundwater Pumping	324,811	324,953	326,974
BEA Exempt WQ Pumping Projects above the BPP	<u>21,602</u>	<u>21,604</u>	<u>23,603</u>
Net remaining allowable Groundwater Pumping	303,209	303,349	303,371
Total Average Water Demands in CYS 2013 & 2014	453,729	453,729	453,729
Reclaimed water (purple pipe) reclamation	<u>20,390</u>	<u>20,390</u>	<u>20,390</u>
Net total average water demands	433,339	433,339	433,339
Basin Production Percentage (BPP)	70%	70%	70%

We note that to meet the three year supply requirement, OCWD will take water out of storage by 109,000 AF over the three year period, increasing the overdraft. Additionally, they must assume incidental recharge and River recharge at the same levels that occurred in 2012/13, 2013/14 and 2015/16; further, the calculation doesn't consider climate conditions that could be worse than the prior four years.

The discussion below addresses some of the policy issues posed by this situation that indicate that OCWD would manage the basin differently, and in fact, would not estimate over a three-year period but rather annually adjust for recharge and overdraft considerations that might lower the Basin Production Percentage (effectively indicating that the supply of water isn't available):

² Orange County Watersheds Historic Rainfall Data 1949-2014

Factors Influencing Groundwater Availability

Issue	Comment										
<p>OCWD Groundwater Basin Overdraft</p>	<p>The accumulated overdraft of the Groundwater Basin was 375,364 AF as of May, 2016.³ In order to meet the water demands for the 3-year period, OCSD anticipates that they may be required to increase the overdraft by another 109,000 AF to 485,000AF.</p> <p>OCWD’s 2015 Groundwater Management Plan Update includes the following provisions regarding the management of the groundwater basin:</p> <p><i>“The groundwater basin’s storage levels would be managed to support the 75% BPP policy. As long as the storage levels remained between 100,000 and 300,000 acre-feet from full, there would be a presumption that the BPP would not be decreased. Table 10-3 shows the management actions to be used to guide the District in setting the BPP. As the BPP is annually set in April for the following fiscal year, the change in basin storage would be estimated for the end of that current fiscal year (as of June 30)..”</i></p> <p>Table 10-3: Management Actions based on Change in Groundwater Storage</p> <table border="1" data-bbox="565 940 1425 1564"> <thead> <tr> <th data-bbox="570 940 971 1123">Available Storage Space (amount below full basin condition)</th> <th data-bbox="971 940 1421 1123">Basin Management Actions to Consider</th> </tr> </thead> <tbody> <tr> <td data-bbox="570 1123 971 1213">Less than 100,000 acre-feet</td> <td data-bbox="971 1123 1421 1213">Raise BPP</td> </tr> <tr> <td data-bbox="570 1213 971 1318">100,000 to 300,000 acre-feet</td> <td data-bbox="971 1213 1421 1318">Maintain and/or raise BPP towards 75% Goal</td> </tr> <tr> <td data-bbox="570 1318 971 1430">300,000 to 350,000 acre-feet</td> <td data-bbox="971 1318 1421 1430">Seek additional supplies to refill basin and/or lower the BPP</td> </tr> <tr> <td data-bbox="570 1430 971 1564">Greater than 350,000 acre-feet</td> <td data-bbox="971 1430 1421 1564">Seek additional supplies to refill basin & lower the BPP</td> </tr> </tbody> </table> <p>The GWMP also indicates that because there is no single, official definition of the time period associated with a drought, having sufficient water in storage and having a funded reserve account are important:</p> <p><i>“During a drought, flexibility to manage pumping from the basin becomes increasingly important. The District typically experiences a decline in the supply of recharge water (local supply of Santa Ana River water and net incidental recharge) of up to 55,000 afy or more during drought.”</i></p>	Available Storage Space (amount below full basin condition)	Basin Management Actions to Consider	Less than 100,000 acre-feet	Raise BPP	100,000 to 300,000 acre-feet	Maintain and/or raise BPP towards 75% Goal	300,000 to 350,000 acre-feet	Seek additional supplies to refill basin and/or lower the BPP	Greater than 350,000 acre-feet	Seek additional supplies to refill basin & lower the BPP
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³Water Resources Report, May 2016

	<p>Because of the overdraft and the need to purchase large amounts of recharge water from MET over the past three years, OCWD’s water purchase reserve is depleted and OCWD just implemented a 25% rate increase for 2016 to fund ongoing imported water purchases. Going forward there is no guarantee that there will be recharge water available in equal amounts to offset the loss of managed recharge.</p> <p>Incidental Recharge levels, which are an important addition to the basin, are much more difficult to measure (than managed recharge) and may be overstated or understated in the estimate. The March 2004 Groundwater Management Plan indicates:</p> <p><i>“Because unmeasured recharge is one of the least understood components of the basin’s water budget, the error margin for any given year is probably in the range of 10,000 to 20,000 acre-feet.”</i></p>																				
<p>OCWD Long-Term Facilities Plan/Desalination</p>	<p>Because of uncertainties associated with natural recharge of the Basin, OCWD has developed a Long-Term Facilities Plan that identifies facilities to protect water quality and enhance recharge. Among these is ocean desalination. Working with Poseidon (which built and operates the Carlsbad Desalination Plant) OCWD has been studying the feasibility of obtaining this source of supply – which is independent of the Colorado River and the State’s rivers/Delta – over the past year. There significant barriers to the development of this source however, most notably price and institutional and operational barriers to the distribution of the product water.</p>																				
<p>EOCWD Well Issues</p>	<p>The Retail Zone has obtained between 70-75% of its water supply from the groundwater basin over the past two years. Reduced pumping due to the mandatory 36% demand reduction has had a beneficial effect on our well levels despite significant increases in the basin overdraft.</p> <p>The graph below shows a rising level trend in the East Well beginning in early 2015 despite a lack of rainfall and the increasing Basin overdraft, but coinciding with reduced pumping due to conservation. This trend continues today although it is probably enhanced by the limited rainfall received during the winter.</p> <div data-bbox="516 1331 1406 1787"> <table border="1"> <caption>East Well Pumping Levels Data (Estimated)</caption> <thead> <tr> <th>Date</th> <th>Well Level (Feet Below Ground Surface)</th> </tr> </thead> <tbody> <tr> <td>April 2013</td> <td>230</td> </tr> <tr> <td>07/14/14</td> <td>280</td> </tr> <tr> <td>09/02/14</td> <td>290</td> </tr> <tr> <td>12/01/14</td> <td>295</td> </tr> <tr> <td>05/15/15</td> <td>285</td> </tr> <tr> <td>06/26/15</td> <td>275</td> </tr> <tr> <td>10/10/15</td> <td>270</td> </tr> <tr> <td>01/18/16</td> <td>265</td> </tr> <tr> <td>04/28/16</td> <td>250</td> </tr> </tbody> </table> </div>	Date	Well Level (Feet Below Ground Surface)	April 2013	230	07/14/14	280	09/02/14	290	12/01/14	295	05/15/15	285	06/26/15	275	10/10/15	270	01/18/16	265	04/28/16	250
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	<p>Continued conservation is expected to continue to maintain acceptable localized groundwater levels, which would be protective of our wells if the basin overdraft increases.</p> <p>The 2004 OCWD Groundwater Management Plan also notes a unique geological feature that may keep the “saved” water in our area:</p> <p><i>“Potential unmapped faults immediately downgradient from the Santiago Basins appear to restrict groundwater flow in the Principal Aquifer, as evidenced by observed steep gradients in that area, which were reproduced by the model. As with the Peralta Hills Fault, an approximate order-of-magnitude reduction in hydraulic conductivity along these suspected faults achieved the desired effect of reproducing observed water levels with the model.”</i></p>
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Imported Supplies

The District’s Wholesale Zone is the source, for purposes of this self-certification, for the Retail Zone’s imported water supplies; currently this is 25% of our demand or about 200 AFY. These supplies are ultimately passed-through from the Municipal Water District and ultimately, MWDOC/MET. As noted previously, at the time of the publication of this memo, MWDOC nor MET had completed their water supply availability analysis. The analysis that follows was prepared by EOCWD staff.

As stated in MET’s draft 2015 Urban Water Management Plan (UWMP), MET’s historic apportionment of 1.2 MAF (Million Acre Feet) from the Colorado River (through the Colorado River Aqueduct (CRA)) was reduced to 550 TAF in 2006 when the US Supreme Court affirmed the 1964 *Arizona v. California* court decision. Over the past several years, MET has developed, through water transfers, land purchases, farming conservation and intentionally created storage in Lake Mead, 625 TAF to 840 TAF of supply to augment the reduction. This 1.2 - 1.4 MAF, combined with non-MET supplies such as the San Diego County Water Authority’s IID Transfer and lining the Coachella & All American Canals has increased MET’s annual water supplies to a maximum of 1.7 MAF – it is this supply that MET largely lived off of during the past two years when the State Water Project yielded little to no water.

MET is one of 29 State Water Project (SWP) contractors and the largest single contractor by far. As shown in the table below, with contractual rights⁴ totaling 1.9 MAFY in the State Water Project (SWP), during the period 2001-2007, MET averaged deliveries of 1.4 MAF. For the period 2008-2015, MET has averaged about 750 TAFY from the SWP due to a series of Endangered Species Act (ESA) legal challenges (which were subsequently upheld by the Ninth Circuit Court).

The instantaneous loss of an average of 650 TAF per year for the past 8 years has been a grave blow to Southern California’s water supply. From an operational and reliability standpoint, we lost 5.2 MAF that could have been placed into storage, been available during this drought and relieved pressure on the Colorado River system. As importantly, SWP deliveries prior to 2007 were relatively consistent, with perhaps 1 out of 10 years being reduced below 50% of the maximum amount. For the last 8 out of 10 years, SWP deliveries have been less than 50% of maximum and 3 of those have been less than 30%.

⁴ The 1960’s SWP contract included a schedule of the amount of water a contractor could expect to receive annually and was designed to increase until the designated maximum for the contractor was reached. MET pays SWP costs as if it receives 1.9 MAFY, which is the contractual maximum that was expected to be delivered. The total maximum annual SWP delivery for all contractors is 4.7 MAFY; MET’s annual maximum represents 40% of the total.

SWP Deliveries to MET 2001 - 2015

Year	Amount (AF) (a)	% of Maximum Allocation	Water Year Type	Average Delivery Before 2007/After 2007 (AF)
2001	904,909	47%	Dry	
2002	1,395,104	73%	Dry	
2003	1,719,743	90%	Above Normal	
2004	1,512,631	79%	Below Normal	1,417,585
2005	1,550,153	81%	Above Normal	
2006	1,490,078	78%	Wet	
2007	1,350,477	71%	Dry	
2008	655,993	34%	Critical	
2009	556,067	29%	Dry	
2010	891,470	47%	Below Normal	
2011	1,519,470	79%	Not Stated	
2012	1,164,348	61%	Not Stated	741,781
2013	669,025	35%	Not Stated	
2014	95,575	5%	Not Stated	
2015	382,300	20%	Not Stated	

(a) Source for Years 2001-2010 - The State Water Project Final Delivery Reliability Report 2001-2010, Department of Water Resources
 Source for Years 2001-2010 - The State Water Project Final Delivery Reliability Report 2003-2012, Department of Water Resources
 Source for Years 2011-2016 - Table A Allocations, Bulletin 132, Department of Water Resources

In an attempt to reduce the environmental pressures on the Delta and restore the lost SWP deliveries, MET has diligently pursued a “Delta Fix” (now called the California Water Fix) and has spent over \$240M funding environmental studies in an effort to obtain a 50-year permit (called EcoRestore) to meet the requirements of the 2009 Delta Reform Act.⁵ The success of these endeavors is unclear. Further legal challenges combined with political resistance and regulatory uncertainty may tie up opportunities to institute the Water Fix/EcoRestore for decades. The permanent loss of these water supplies may be looming.

What does this mean in the long term? By 2020, MET projects demands of 2.0 MAFY and notes that while they have the “capability” of supplying 2.6 MAFY. However, the MWDOC Reliability Study estimates that by 2030, there is a 40% probability that a 400,000 AF shortfall (30% of demand) could occur if no new water supply projects (including local projects, some water transfers and the California Water Fix/EcoRestore) aren’t completed). Conversely, if the California Water Fix/EcoRestore is completed by 2025, there is virtually no possibility of a shortage by 2030. The California Water Fix and EcoRestore are vital to MET’s reliability.

For North Orange County, MET’s reliability has a less drastic, but still significant impact – by 2030, there is an almost 45% probability of a 50 TAF shortage which would be about 10% of demand.⁶ It is conceivable

⁵ Under the 2009 Delta Reform Act, “Co-Equal Goals” were defined as meaning that a reliable water supply is as important as protecting and enhancing the California Delta’s environment; unless a project meets both goals, it can’t be instituted.

⁶ Our extensive local groundwater supplies – now augmented by GWRS – make us less dependent upon MET than some other MET members ...but our reliability still rests with MET.

that with additional conservation, we could weather this shortfall every four years or so, but by 2040 it becomes a 70 TAF shortfall that will occur every 1.7 years. The California Fix/EcoRestore also totally removes this risk for Orange County.

MET's 2015 UWMP's conclusion that they are 100% reliable on all three hydrologic scenarios is based on assuming that savings from conservation will offset total demand and with this offset, they will be able to meet that their portion of the regional demand (i.e., MET's expected firm demand = total demand - conservation - local supplies).

MET's 2015 UWMP also relies on its 2015 Integrated Resources Plan (IRP). The first key finding of the 2015 IRP is "Action is needed—without investment in conservation, local supplies, and California WaterFix,...the MET service area would experience unacceptable level of shortage allocation frequency in the future." MET has increased targets for additional local supplies and conservation in its 2015 IRP. For the MWDOC service area, MET is assuming that conservation will help offset 14% of the "total demand." Because of this, continued conservation at an average level of at least 14% will be necessary for MET to achieve their UWMP and IRP goals.

Conclusions

Regardless of the drought, there is a systemic, long-term level of water supply shortage in both the District's local and imported water supplies and there are no short-term solutions, besides conservation, that can address the shortages that will occur with increasing frequency, based upon the experience of the last 8 years..

The regional foresight in funding and building the Groundwater Replenishment System has provided us with access to a reliable new water supply; however it doesn't totally replace the Santa Ana River recharge that has been lost, and the cost of this supply is substantially higher than the River flows we lost. GWRS water is still less expensive than imported water, so that has mitigated the some of the financial effects for the District, but the aggressive conservation required last year reveals a fundamental weakness in our pricing structure in that we can't totally cover our fixed costs with our fixed fees. Our proposed rate increase anticipates a continued 15% reduction in water demand from our customers and has been priced into the rate. This will help us avoid large rate increases that are unanticipated by our ratepayers, especially those on fixed incomes.

Our customers lost hundreds of thousands of dollars' worth of landscaping. Removing conservation goals may send the wrong message: that the structural water supply shortages are over and they can reinvest in water intensive landscaping. Every time we have a dry winter, there is the potential that the state will require mandatory cutbacks again, our customers would be rightfully upset that they weren't advised of this potential and that investments in California –friendly landscaping would be prudent.

Additionally, rapidly increasing water costs and periodic shortages may have far-reaching economic and food supply impacts for the state, and may pit urban and agricultural interests against each other. Some businesses may relocate due to water/energy⁷ uncertainties and farmers are unable to produce crop yields that financially sustain them through years when they must fallow their land.

Transition out of Mandatory Program

Our Retail Zone customers achieved 36% cumulative conservation over their 2013 usage – an extraordinary achievement. Because average rainfall/snow has occurred in Northern California and MET's

⁷ Approximately 20-30% of the state's energy demands are met annually through hydro-power generated from snowmelt. In years of low runoff, energy supplies can be seriously affected if alternative energy isn't available to offset the loss.

SWP allotment has increased, it is time to transition out of the emergency mode, provide an increased allocation of water to our customers and achieve sustainable operations

In order to support a long-term, sustainable local groundwater supply, as well as to support a long-term sustainable imported water supply and a sustainable financial plan, staff recommends that the Board consider the following:

1. Under the provisions of the Conservation Ordinance, reduce the conservation stage from the current Level II Water Supply Warning to a Level I Water Alert and set the conservation level to 15% which is consistent with MET's UWMP and IRP goals for Orange County.
2. Level I contains the permanent prohibitions including no washing down sidewalks, but lifts limitations on pool refilling and car washing.
3. Under Level I, if a customer exceeds their water budget, they are subject to the notification provisions of the Section XIII Non-Compliance, but the penalties will not apply – they only apply to Level II or III, not Level I (per Section VIII(5)).

Effective Date:

The State Water Board will review the data and supporting documentation reported by the District; this information is due by June 22, 2016. The self-certified conservation standard becomes effective on June 1, 2016. (June potable water production reports are due by July 15, 2016 and this allows an effective date to occur prior to the submittal date.)

FINANCIAL IMPACT

Reducing the 36% reduction to 15% is consistent with the demand estimates that staff used for the Retail Zone Financial Plan.

RECOMMENDATION

The Board approve Resolution No. ____rescinding the 36% Level II Water Supply Warning and authorizing a Level I Water Alert, inclusive of a 15% reduction of from a customer's normal 100% indoor and outdoor water budget allocation, and direct staff to provide notice and outreach education to assist customers with compliance.

Worksheet 1 : Total available water supply for individual water supplier

Step 2 of Water Supply Reliability Certification and Data Submission Form

Select supplier << Enter name of urban water supplier

User Input Instructions

- (1) Please select units of measure from the dropdown menu.
- (2) Enter information on available water supplies and supplies committed to other uses.

LEGEND:

User Input or Selection	
Linked from User Input	

Select units from menu << Select units of measure

Available Water Supplies

Sources of Supply	Name of Provider(s) or Description	Source used in prior years?	Water Available in			Wholesaler information Direct Web Link	Wholesaler Water System Number**
			WY 2017 *	WY 2018 *	WY 2019		
WHOLESALER SUPPLIED >> Provide direct web link(s) to information on the volume of water the wholesaler expects to deliver to the retailer water supplier in each year.							
Wholesaler 1		Select Y/N					
Wholesaler 2		Select Y/N					
Wholesaler 3		Select Y/N					
Wholesaler 4		Select Y/N					
Wholesaler 5		Select Y/N					
SELF-SUPPLIED							
Water Recycling (potable)		Select Y/N					
Surface water: SWP		Select Y/N					
Surface water: CVP		Select Y/N					
Surface water: Colorado River		Select Y/N					
Surface water: other (describe)		Select Y/N					
Surface water: other (describe)		Select Y/N					
Local Groundwater		Select Y/N					
Seawater Desalination		Select Y/N					
Transfers		Select Y/N					
Exchanges		Select Y/N					
Other (describe):		Select Y/N					
SUBTOTAL of available supplies (in units selected)			-	-	-		

<< To add more self-supplied sources, insert as many rows

* Any carryover from one year is incorporated in the supply of the following year, as legally allowed.

** Look up Water system number at this link: <https://sdwis.waterboards.ca.gov/PDWW/>

Rows can be inserted to account for other sources of supply (e.g., desalination of brackish water, banked water)

If a source has not been used in prior years, e.g., a new treatment facility will be constructed, supporting documentation must document when the new source will be fully implemented.

Water Supplies Committed to Other Uses (Not Available)

Other Uses	Describe	Quantity in WY 2017	Quantity in WY 2018	Quantity in WY 2019
Agriculture				
Commercial, industrial or institutional				
New residential customers				

Transfers				
Other:				
Other:				
SUBTOTAL of supplies not available (in units selected)		-	-	-

TOTAL available water supply (in units selected)	-	-	-
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(Subtotal of available supplies minus subtotal of supplies committed to other uses)

>>> Please enter values calculated below in Step 2 of the online form

TOTAL available water supply converted to acre feet	FALSE	FALSE	FALSE
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>> If error, verify you have selected units of measure



East Orange County Water District

Supply Availability - Calendar Years 2016/2017/2018

EOCWD WHOLESAL ZONE Member Agency	Water Year (afy) (a)					
	CY 2013 Demand	CY 2014 Demand	CY 13 & 14 Average	Requested Demand for CY 2016	Requested Demand for CY 2017	Requested Demand for CY 2018
EOCWD Retail Zone	310	310	310	310	310	310
Golden State WC	2,047	2,148	2,097	1,863	1,863	1,863
Irvine Ranch WD (b)	-	-	-	200	200	200
Orange	213	230	222	100	100	100
Tustin	4,436	3,548	3,992	1,656	1,656	1,656
Total (c)	7,005	6,237	6,621	4,129	4,129	4,129

a) Based on calendar year data

b) Data based upon settlement agreement; IRWD has not submitted a formal request

c) Rounded

Note: EOCWD provides imported water (purchased from the Municipal Water District of Orange County (MWDOC)/ Metropolitan Water District of Southern California (MET)) to the four retail water agencies listed above, as well as its own retail zone. The primary source of water for these agencies is groundwater purchased through the Orange County Water District (OCWD); the imported water supplements the groundwater and provides supply reliability.

Each agency was asked to provide their imported water demands - for the area within EOCWD's boundaries - for the next three years. An agency's demands can vary significantly from year to year depending upon the mix of groundwater and imported water available, the ability of to access all of the groundwater they are entitled to (e.g., a well may be out of service so imported water is used to supplement the lost production), or because they have the need to take imported water through a direct connection to the MWDOC/MET. Golden State, City of Orange and IRWD have other imported water connections to MWDOC; the City of Tustin and EOCWD's Retail Zone do not, they only have connections through EOCWD's Wholesale Zone.

EOCWD has determined that the supply of water requested is available, due to the representation by MWDOC and MET that they can supply the requested water, however we note that the SWRCB methodology may not reflect the MWDOC/MET. Water Supply Allocation Policy (WSAP); and that MET could call for mandatory allocations despite meeting the SWRCB supply criteria. EOCWD does not have access to any other supply of water independent of MET/MWDOC at this time.