

# Additional Proposal Information

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**US Army Corps  
of Engineers®**

## **PERRIS II DESALTER GROUND WATER WELLS**

### **RIVERSIDE COUNTY, CALIFORNIA**

**Prepared by**

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## Table of Contents

1.0	INTRODUCTION .....	1
1.1	LOCATION .....	1
1.2	AUTHORITY .....	1
1.3	PURPOSE AND NEED .....	1
2.0	ALTERNATIVES.....	2
3.0	AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES .....	2
3.1	LAND USE AND AGRICULTURE .....	2
3.2	SOILS AND SUBSTRATE .....	4
3.3	WATER QUALITY .....	4
3.4	AIR QUALITY .....	6
3.5	NOISE .....	9
3.6	BIOLOGICAL RESOURCES .....	10
3.7	CULTURAL RESOURCES .....	11
3.8	SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE .....	12
3.9	RECREATION.....	14
3.10	AESTHETICS .....	14
3.11	TRAFFIC .....	15
3.12	HAZARDOUS AND TOXIC SUBSTANCES .....	16
4.0	CUMULATIVE IMPACTS.....	17
5.0	APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS.....	18
6.0	LIST OF PREPARERS.....	19

## **1.0 INTRODUCTION**

This Environmental Assessment (EA) has been prepared by the U.S. Army Corps of Engineers (Corps) for the repair of storm-damaged subdrains within the Verdugo Wash Channel, Los Angeles County, California in compliance with the National Environmental Policy Act (NEPA) (42 USC 4321 et seq.), the Council on Environmental Quality (CEQ) regulations published at 40 CFR Part 1500 et seq., and the Corps' NEPA regulations published at 33 CFR Part 230.

### **1.1 LOCATION**

The project is located near the intersection of Nuevo Road and Meniffee Road in the city of Perris, Riverside County. In particular:

- Well 93 is located on Nuevo Road at intersection of Chase Avenue.
- Well 94 is located on 12<sup>th</sup> Street between Chase Avenue and Reservoir Avenue.
- Well 95 is located on 13<sup>th</sup> Street between Chase Avenue and Reservoir Avenue.
- Well 96 is located on Santa Rosa Road between Antelope Road and Pico Avenue.

### **1.2 AUTHORITY**

This Corps is authorized to design and construction water-related environmental infrastructure and resource protection and development projects, including wastewater treatment and related facilities and water supply, storage, treatment, and distribution facilities, pursuant to Section 219 (f)(52) of the Water Resources Development Act 1992 as amended.

### **1.3 PURPOSE AND NEED**

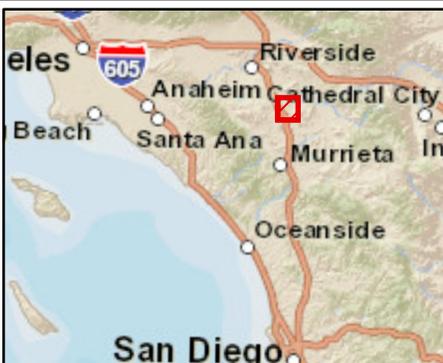
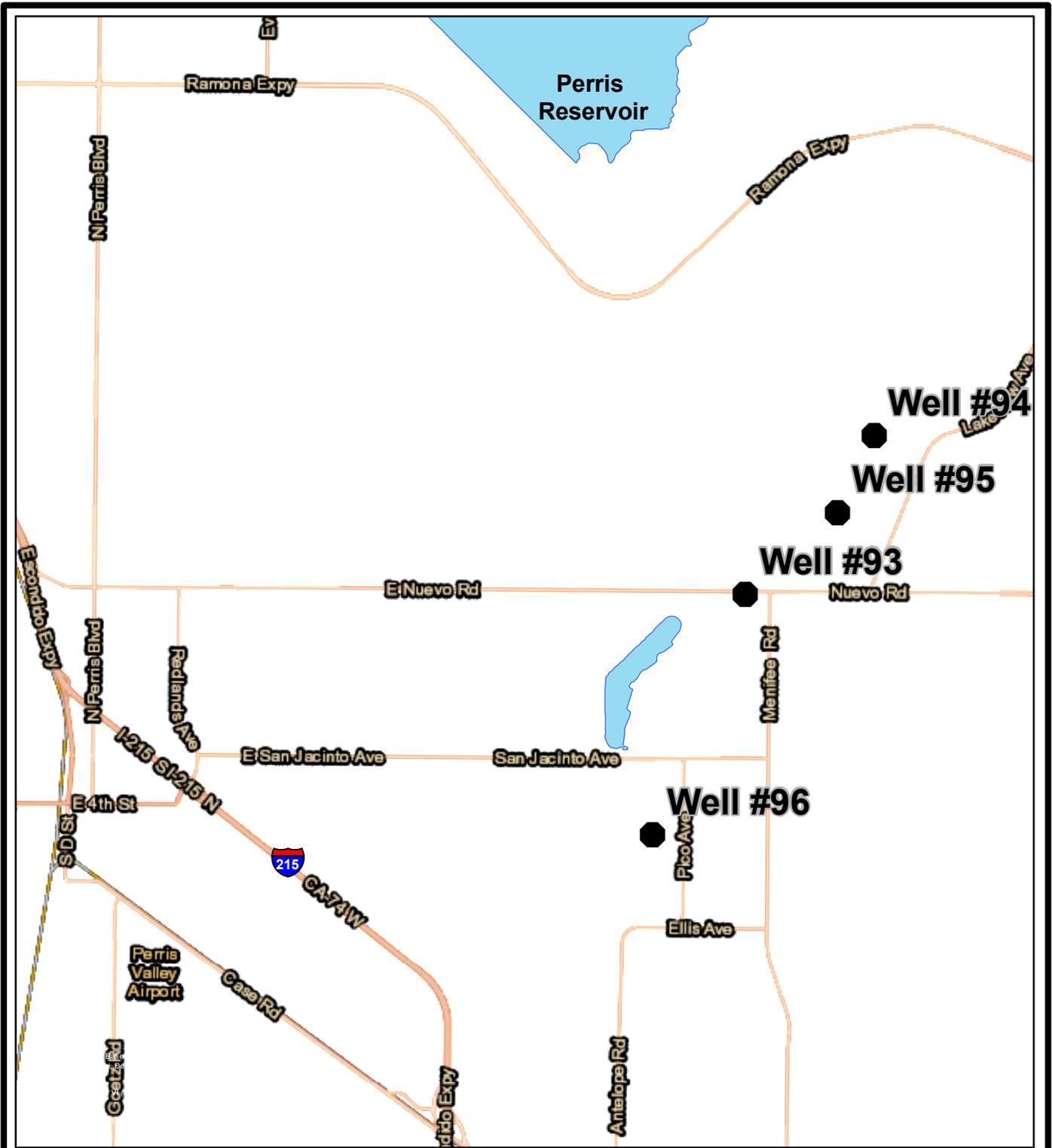
#### **Statement of Need**

EMWD services an approximately 555 square mile region of western Riverside County encompassing a number of rapidly growing cities including but not limited to Moreno Valley, Perris, Menifee, Hemet, and Murrieta. EMWD retails water to more than 82,000 homes and businesses, including 200 agricultural customers. The number of customers is expected to increase from approximately 630,000 to approximately 1 million by 2020.

EMWD relies on a mixture of ground water and water imported from Colorado River and from northern California via the Metropolitan Water District. However, with the persisting drought conditions throughout California and increasingly limited supplies from the Colorado River and from northern California, there is a need to further augment water supply through continued use of ground water.

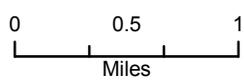
#### **Statement of Purpose**

The purpose of the project is to construct an array of four ground water wells that would supply water to EMWD's Perris II desalination plant.



**Legend**

-  Wells
-  Water Boundaries



1 in = 1 miles



**PERRIS II  
DESALINATION PROJECT**

**GROUNDWATER WELL  
COMPLEXES**



U.S. ARMY CORPS OF ENGINEERS  
LOS ANGELES DISTRICT

## 2.0 ALTERNATIVES

### No Federal Action Alternative

Under the No Federal Action alternative, the Corps would not construct the four ground water wells. In the absence of federal assistance, EMWD would likely continue with construction since the need to further utilize ground water to supplement water supplies would remain unchanged.

### Proposed Alternative

Under the Proposed Alternative, the Corps would construct an array of four well complexes: Well 93, 94, 95, and 96. Each complex includes the well and appurtenant infrastructure such as blowoff ponds, pump house, and an access road. The footprint of each complex would range from 0.9 to 1.3 acres in size. Blowoff ponds capacity would range from 0.57 to 0.77 million gallons. An approximately 24 foot by 36 foot (864 square feet) cinderblock pump house would be constructed to house a process room, brine tank room, and an electrical room. A chain-link fence would circumscribe each complex.

	Complex Footprint (acres)	Blowoff Pond Capacity (million gallons)	Access Road Length (feet)	Road Alignment (feet)
Well 94	1.3	0.68	340	Circular
Well 95	0.9	0.61	300	T-intersection
Well 93	1.2	0.57	360	Circular
Well 96	1.2	0.77	280	T-intersection

## 3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

### 3.1 LAND USE AND AGRICULTURE

#### Affected Environment

All four well complexes are located within or near the unincorporated community of Nuevo. Well Complexes 93, 94, and 95 are located on agricultural land adjacent to existing roads. Well Complex 94 and 95 are located on agricultural lands designated by the state of California as Prime Farmland.<sup>1</sup> Well Complex 96 is located adjacent to rural residences.

<sup>1</sup> [ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/riv10\\_west.pdf](ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/riv10_west.pdf)

<b>Table 2: Land Use Comparison</b>		
	Designated Land Use	Designated State Prime Farmland?
Well 93	Agricultural	No
Well 94	Agricultural	Yes
Well 95	Agricultural	Yes
Well 96	Rural Residential	n/a

## **Significance Threshold**

Impacts would be considered significant if the alternative results in:

- Substantial changes to the existing land uses.
- Substantial conversion of agricultural uses to non-agricultural uses.

## **Environmental Consequences**

### **No Federal Action Alternative**

Under the No Federal Action alternative, the Corps would not construct the four ground water wells. In the absence of federal assistance, EMWD would likely continue with construction since the need to utilize ground water to supplement water supplies would remain unchanged. Impacts would be similar to those characterized under the Proposed Alternative.

### **Proposed Alternative**

Under the Proposed Alternative, three 1-acre well complexes be constructed on agricultural lands, and one 1-acre well complex would be constructed on land designated as rural residential. The well complexes represent industrial uses. Thus, construction on lands designated for agricultural or rural residential uses would require zoning variances from the County of Riverside. However, locating small utility complexes within areas zoned for other uses is not uncommon. Since the well complexes are limited in size, self contained, and operations would not result in nuisances (e.g., noise, odors, etc.), construction and operations would not be incompatible with existing land uses.

Construction of Well Complexes 93, 94, and 95 would permanently convert approximately three acres of farmlands to non-agricultural uses. Riverside County has approximately 397,123 acres of farmlands. Therefore, permanent conversion of three acres of farmland to non-agricultural uses represents a de minimis decrease. Furthermore, Well Complexes 94 and 95 are located on farmlands designated as California State Prime Farm Lands. Riverside County has approximately 119,635 acres of designated Prime Farmlands. Construction of Well Complexes 94 and 95 would result permanent conversion of two acres of State Prime Farmlands. The decrease would be de minimis. Last, Well Complexes 93, 94, and 95 would be located on adjacent to existing roads. As a result, the sites would be located at the outer edges of agricultural fields. Since the outer edges are typically used for access roads, the likelihood of losing productive agricultural lands is minimal. Based on the above, impacts would be less than significant.

## **3.2 SOILS AND SUBSTRATE**

### **Affected Environment**

The primary soil type encompassing the area for all well complex sites is the Hanford-Tujunga-Greenfield association. The association consists of very deep, well drained to excessively drained, nearly level to moderately steep soil that has a surface layer of sand to sandy loam, and is located on alluvial fans and flood plains. Soil stability is considered poor to fair with significant erosion potential.

### **Significance Threshold**

Impacts would be considered significant if the alternative results in:

- Long term loss of substrate from well complex sites due to erosion.

### **Environmental Consequences**

#### **No Federal Action Alternative**

Under the No Federal Action alternative, the Corps would not construct the four ground water wells. In the absence of federal assistance, EMWD would likely continue with construction since the need to utilize ground water to supplement water supplies would remain unchanged. Impacts would be similar to those characterized under the Proposed Alternative.

#### **Proposed Alternative**

Construction of each well would require export of approximately 2,000 cubic yards of fill associated with the excavation of blowoff ponds. Each well complex would have minimal surface area of bare soils exposed upon completion of construction due to access roads and concrete lining. Well complexes would also be designed to drain storm water from the site and convey flows into existing storm drains. There would be no long term loss of substrate from well complex sites. Based on the above, impacts would be less than significant.

## **3.3 WATER QUALITY**

### **Affected Environment**

All well complexes 93, 94, and 95 are located agricultural lands approximately 300 to 3,000 feet away from the San Jacinto River, a water of the United States. Well complex 96 is located within a rural residential area approximately 6,300 feet away from the San Jacinto River.

The well complex array would extract water from the San Jacinto Groundwater Basin. The basin underlies San Jacinto, Perris, Moreno, and Menifee Valleys in western Riverside County. Basin capacity is approximately 3 million acre feet (CDWR 2006).

During the 1960s, groundwater levels in the western and central parts of the basin declined; whereas, in the south-central part of the basin, they were moderately stable. During the 1970s through the 1990s, groundwater levels declined about 20 to 40 feet in the northern and southeastern parts of the basin and were relatively stable in the southern part of the basin. During the 1970s through the 1980s, groundwater levels rose 80 to 200 feet in the western part of the basin because of infiltration from Lake Perris. During 2001 and 2002, groundwater levels generally rose in the central part of the basin and declined in the northeastern and southern parts of the basin (CDWR 2006).

Natural recharge to the basin is primarily from percolation of flow in the San Jacinto River and its tributary streams; less recharge is from infiltration of rainfall on the valley floor (CDWR 2006). Natural recharge is augmented by spreading of State Water Project and reclaimed water through infiltration ponds in the upper reaches of the San Jacinto River (EMWD 2002). Percolation of water stored in Lake Perris has been an additional source of recharge since construction of the lake in the 1970s, and reclaimed water percolates through several storage ponds distributed throughout the valley. Artificial recharge can exceed natural recharge, particularly in years with low precipitation (EMWD 2003).

Groundwater in the basin has historically had high salt content. The high salt content rises during periods of high groundwater extraction, indicating a strong correlation between groundwater levels and salt content. The high salinity, measured as Total Dissolved Solids (TDS) is attributed to high salt content in the water-bearing sediments. In 2002, TDS content ranged from 230 to 12,580 mg/L; maximum TDS content exceeded 1,000 mg/L in most parts of the basin (EMWD 2003). The range of TDS and nitrate values for management zones sampled in 2013 are shown in Table XXX. The upper ranges of sampled values for both parameters exceed Santa Ana Regional Water Quality Control Board’s water quality objectives.

<b>Table 3: Ground Water Quality</b>				
Management Zones	Total Dissolved Solids		Nitrates	
	Range of 2013 Samples (mg/L) <sup>1</sup>	SARWQCB Water Quality Objectives (mg/L) <sup>2</sup>	Range of 2013 Samples (mg/L) <sup>1</sup>	SARWQCB Water Quality Objectives (mg/L) <sup>2</sup>
Perris North	220-1,800	570	21 - 0.2	5.2
Perris South	230-9,600	1260	22 – 0.2	2.5
Menifee	830-2,900	1020	9.8 – 0.2	2.8

<sup>1</sup>Eastern Municipal Water District (2013). West San Jacinto Groundwater Management Area 2013 Annual Report.

<sup>2</sup>Santa Ana Regional Water Quality Control Board (2011). Santa Ana Region Basin Plan. p. 4-41.

### **Significance Threshold**

Impacts would be considered significant if the alternative:

- Creates long-term violations of Regional Water Quality Control Board (RWQCB) water quality standards or objectives, or causes impairments of beneficial uses of water.

## **Environmental Consequences**

### **No Federal Action Alternative**

Under the No Federal Action alternative, the Corps would not construct the four ground water wells. In the absence of federal assistance, EMWD would likely continue with construction since the need to utilize ground water to supplement water supplies would remain unchanged. Impacts would be similar to those characterized under the Proposed Alternative.

### **Proposed Alternative**

Construction of Well Complexes 93 thru 96 would not result in impacts to surface waters since they are located approximately 300 to 6,300 feet away from the San Jacinto River. There would be no discharge of fill into waters of the United States. Surface water quality during construction would remain unaffected. Establishment of wells would result in minimal impacts to groundwater quality. An auger would contact groundwater and sediment during the drilling process. Mechanical disruption of the substrate would grind sediment and suspend fines, temporarily increasing turbidity during construction. However, the turbidity would be localized to water within the excavated areas. Dispersion would be limited by the substrate surrounding the well.

## **3.4 AIR QUALITY**

### **Affected Environment**

#### **Climate**

The climate of the project area is typical of the Mediterranean climate of coastal California, which is characterized by cool, dry summers and mild, wet winters. The hottest month is August with an average maximum temperature of 74°F and December is the coldest month with an average minimum temperature of 64°F. Precipitation averages 10.69 inches annually, with February as the wettest month.

#### **Air Quality**

The project area is within the South Coast Air Basin which includes Los Angeles, Orange, and portions of Riverside, and San Bernardino Counties. Air quality within the project area is governed by the South Coast Air Quality Management District (AQMD). To protect the public health and welfare, the Federal and state governments have identified five criteria air pollutants and a list of air toxics and have established ambient air quality standards through the Federal Clean Air Act and the California Clean Air Act. The air pollutants for which Federal and state standards have been promulgated and that are most relevant to air quality planning and regulation in the air basins include ozone (O<sub>3</sub>), carbon monoxide (CO), suspended particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), Reactive Organic Gasses (ROG), Volatile Organic Compounds (VOC), and lead (Pb). PM comes in a range of sizes. PM emissions are regulated in two size classes: Particulates up to 10 microns in diameter (PM<sub>10</sub>) and particulates up to 2.5 microns in diameter (PM<sub>2.5</sub>).

A state or region is given the status of “attainment” or “unclassified” if ambient air quality standards have not been exceeded. A status of "nonattainment" for particular criteria pollutants is assigned if the ambient air quality standard for that pollutant has been exceeded. Once designated as nonattainment, attainment status may be achieved after three years of data showing non-exceedance of the standard. When an area is reclassified from nonattainment to attainment, it is designated as a “maintenance area,” indicating the requirement to establish and enforce a plan to maintain attainment of the standard.

California classifies areas of the state as attainment, nonattainment, nonattainment-transitional, extreme or unclassified with respect to the state air quality standards.

The attainment status of the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) are shown below:

<b>Table 4: South Coast Air Basin Attainment Status</b>		
<b>Pollutant</b>	<b>National AAQS</b>	<b>California AAQS</b>
Carbon Monoxide (CO)	Attainment/Maintenance	Unclassified
Ozone (O3) (1-hour standard)		Extreme
Ozone (O3) (8-hour standard)	Nonattainment-Extreme	Nonattainment
Nitrogen Dioxide (NO2)	Attainment/Maintenance	Attainment
Sulfur Dioxide (SO2)	Attainment	Attainment
Particulate Matter (PM10)	Attainment/Maintenance	Nonattainment
Particulate (PM2.5)	Nonattainment	Nonattainment
Lead	Nonattainment	Nonattainment
Source: <a href="http://www.arb.ca.gov/desig/adm/adm.htm">http://www.arb.ca.gov/desig/adm/adm.htm</a>		

### **Significance Threshold**

Impacts would be considered significant if the alternative:

- Exceeds any SCAQMD daily construction significance thresholds.
- Exceeds General Conformity Rule de minimis thresholds.

### **Environmental Consequences**

#### **No Federal Action Alternative**

Under the No Federal Action alternative, the Corps would not construct the four ground water wells. In the absence of federal assistance, EMWD would likely continue with construction since the need to utilize ground water to supplement water supplies would remain unchanged. Impacts would be similar to those characterized under the Proposed Alternative.

## Proposed Alternative

Emissions were estimated using CALEEMOD Version 2013.2.2. Construction of Well Complexes 93 thru 96 would require grading of four 1-acre plots of land on which the well complexes would be sited. For each well, clearing and grading operations would require the use of graders, loaders, and dozers for approximately 4 days. Construction of the well complex would require a drill rig, an excavator, cranes, forklifts, generators, and loaders for approximately 45 days. Approximately 2,000 cubic yards of fill would need to be exported resulting in approximately 100 truck trips. Number of construction workers would range from 5 to 13. Approximately 5 vendor trips per day would be required.

During Fiscal Year 2014, the Corps would fund construction of Well Complex 96. Construction of the remaining three well complexes would be funded upon receipt of additional funds. The number of wells constructed per year would be funding dependent. Table XX and XX shows estimated emissions associated with construction of one, two, and three wells.

Constructing up to two well complexes per year would not exceed daily AQMD emission thresholds. Constructing three well complexes per year would exceed AQMD NO<sub>x</sub> daily emission threshold. Emission attenuation measures would entail the use of Tier 4 engines for commonly used construction equipment. With implementation of emission attenuation measures, emissions associated with the construction of three wells would be below ADMD thresholds.

Pollutant	One Well (lb/day)	Two Wells (lb/day)	Three Wells (lb/day)	Three Wells w/ emission attenuation measures (lb/day)	AQMD Threshold (lb/day)
CO	16.2	32.4	48.6	47.1	550
NO <sub>x</sub>	25.6	51.2	76.8	44.1	55
ROG	10.4	20.8	31.2	31.2	55
SO <sub>x</sub>	0.0338	0.0676	0.1014	0.1014	150
PM10	6.47	12.94	19.41	17.7	150
PM2.5	3.5	7	10.5	8.7	55

Annual emission estimates are shown in Table X. Estimated emissions are below General Conformity de minimis Thresholds.

Pollutant	One Well (tons/year)	Two Wells (tons/year)	Three Wells (tons/year)	CAA de minimis Thresholds (tons/year)
VOC	0.32	0.64	0.96	10
NO <sub>2</sub>	0.53	1.06	1.59	10
PM10	0.078	0.156	0.234	70
PM2.5	0	0	0	100
Pb	0.04	0.08	0.12	25
CO	0.03	0.06	0.09	100

Based on the above, construction of up to two wells per year or three wells per year with implementation of emission attenuation measures would result in less than significant impacts. Furthermore, annual emissions for all construction scenarios are below General Conformity de minimis Thresholds. Therefore, a General Conformity analysis is not required.

### **Environmental Commitments**

- AQ-1: Utilize Tier 4 engines for earthmoving equipment when three wells are constructed within one year.

### **3.5 NOISE**

#### **Affected Environment**

All four well complexes are located within or near the unincorporated community of Nuevo. Well Complexes 93, 95, and 96 are located on agricultural land adjacent to existing roads. Well Complex 96 is located adjacent to rural residences. Acceptable noise levels for each type of land use is shown below:

<b>Table 7: Noise</b>			
Well Complex	Location	Designated Land Use	Acceptable Noise Levels <sup>1</sup>
93	Community of Nuevo - Unincorporated Riverside County	Agricultural	Up to 75 dBA
94	Community of Nuevo - Unincorporated Riverside County	Agricultural	Up to 75 dBA
95	Community of Nuevo - Unincorporated Riverside County	Agricultural	Up to 75 dBA
96	Unincorporated Riverside County	Rural Residential	Up to 60 dBA

<sup>1</sup> County of Riverside. (2014). General Plan - Noise Element. Table N-1: Land Use Compatibility for Community Noise Exposure.

#### **Significance Threshold**

Impacts would be considered significant if the alternative:

- Long term elevation of noise above acceptable noise levels.

#### **Environmental Consequences**

Construction would utilize a number of earthmoving equipment: excavators, loaders, dozers, compactors, rollers, and drill rigs. As shown in Table 7.2-1, noise associated with construction

equipment at 50 feet ranges from 80 dBA to 90 dBA (USEPA, 1972). Furthermore, noise levels are atmospherically attenuated by a factor of 6 dB per doubling of the distance.

<b>Table 8 Potential Noise Levels At Various Distances</b>	
<b>Distance from Construction Activities (ft)</b>	<b>Noise Levels (dBA)</b>
50	80 - 90
100	74 - 84
200	68 - 78
400	66 - 72
800	60 - 66
1,600	54 - 60
3,200	48 - 54

<sup>1</sup> USEPA (1971). Noise from Construction Equipment And Operations, Building Equipment, and Home Appliances.

Use of construction equipment at sites for Well Complexes 93, 94, and 95 would result in varying noise levels for the duration of construction depending on the receptor distance.

Well 93 is located on agricultural land, approximately 3,000 feet from rural residential structures. As a result, noise levels during construction would range from 48 to 54 dBA. The noise level would be within the range of Acceptable Noise Level for agricultural land use. However, since 50 dBA is approximately the noise level associated with indoor dwellings, construction litter noise would be indistinguishable from ambient noise levels at this range.

Well 94 is located on agricultural land, approximately 400 feet from a rural residential structure. As a result, noise levels during construction would range from 66 to 72 dBA. The noise level would be within the range of Acceptable Noise Level for agricultural land use.

Well 95 is located on agricultural land, approximately 900 feet from a rural residential structure. As a result, noise levels during construction would range from 60-66 dBA. The noise level would be within the range of Acceptable Noise Level for agricultural land use.

Well 96 is located on a rural residential area, approximately 200 feet from rural residential structures. As a result, noise levels during construction would range from 68-78 dBA during construction. The noise level would not be within the range of Acceptable Noise Level for rural residential land use. However, the elevated noise level would be temporary and will last for the duration of construction.

### **3.6 BIOLOGICAL RESOURCES**

#### **Affected Environment**

Well Complexes 93, 94, and 95 are located within active agricultural lands. Well Complex 96 is located on an undeveloped rural residential lot. The approximately 1-acre sites are devoid of undisturbed vegetation and surface waters. As a result, the sites do not contain suitable habitat for or support federal or state endangered or threatened species, or species of special concern.

Common mammals (i.e., raccoons, opossums, rats, skunks, and feral cats) are likely present within the vicinity of the sites. Birds associated with a developed environment such as house sparrows, doves, and pigeons are also expected to be present within the vicinity.

### **Significance Threshold**

Impacts would be considered significant if the alternative results in:

- A substantial diminishment of biological resources at any of well complex sites.

### **Environmental Consequences**

#### **No Federal Action Alternative**

Under the No Federal Action alternative, the Corps would not construct the four ground water wells. In the absence of federal assistance, EMWD would likely continue with construction since the need to utilize ground water to supplement water supplies would remain unchanged. Impacts would be similar to those characterized under the Proposed Alternative.

#### **Proposed Alternative**

Well complex construction would entail clearing and grading operations on highly disturbed agricultural lands and a rural residential lot. Since the sites are devoid of undisturbed vegetation and surface waters, construction would not result in disturbance of habitat components used by federally or state listed threatened and endangered species, or species of special concern. No threatened, endangered, or species of special concern are anticipated in the project area. Therefore, there would be no impacts to these species. Critical habitat for federally threatened or endangered species does not occur in the project area. Therefore, there would be no impact to designated critical habitat. Mammals and birds associated with developed lands maybe present within the vicinity of the project area during construction. Construction noise may startle such animals and cause temporary abandonment of the area adjacent to the construction site during construction. However, the animals are mobile and highly adapted to the urban environment. As a result, they are expected to quickly reoccupy the abandoned areas upon completion of construction. Based on the above, the Preferred Alternative would not impact biological resources.

## **3.7 CULTURAL RESOURCES**

### **Affected Environment:**

Well Complexes 93, 94, and 95 are located within active agricultural lands. Well Complex 96 is located an undeveloped rural residential lot. The approximately 1-acre sites are highly disturbed. No cultural resources listed on or eligible for the National Register of Historic Places are present within the well complex footprints. The area of potential effects (APE) encompasses the approximately 1-acre footprints where soil would be disturbed.

## **Significance Threshold**

Impacts would be considered significant if the alternative results in:

- The removal or destruction of buried cultural resources.

## **Environmental Consequences**

### **No Federal Action Alternative**

Under the No Federal Action alternative, the Corps would not construct the four ground water wells. In the absence of federal assistance, EMWD would likely continue with construction since the need to utilize ground water to supplement water supplies would remain unchanged. Impacts would be similar to those characterized under the Proposed Alternative.

### **Proposed Alternative**

Well complex construction would entail clearing and grading operations on highly disturbed agricultural lands and a rural residential lot. There would be no impacts to historic properties. Excavation of the blowoff ponds could unearth buried cultural resources. With the implementation of the Environmental Commitment CUL-1, impacts would be less than significant.

## **Environmental Commitments**

- CUL-1: Initial excavation for construction will be monitored by the Corps archaeologist or by an archaeologist selected by the Corps archaeologist. The monitor must meet the Standards of the Secretary of the Interior.
- CUL2: In the event that previously unknown cultural resources are encountered during construction of the proposed project, all activities will cease until the provisions of 36 CFR 800.11 are met.
- CUL-3: In the event of accidental discovery of human remains, the Corps archaeologist and the Riverside County Coroner must be notified and construction activities will be halted immediately. If the remains are identified as Native American, the Native American Heritage Commission (NAHC) must be notified within 24 hours. NAHC guidelines will then be followed.

## **3.8 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE**

### **Affected Environment**

Well Complexes 93, 94, and 95 are located in Nuevo, an unincorporated community within western Riverside County. Well Complex 96 is located in the vicinity of Nuevo. The socioeconomic demographics for Nuevo and Riverside County are shown below.

In general, the socioeconomic demographics for Nuevo are similar to those for Riverside County. Nuevo’s median household income is slightly higher than Riverside County, and percentage of persons below poverty is slightly higher. The percentage of Blacks in Nuevo is notably.

Parameters	Community of Nuevo	County of Riverside
Total population	6,447	2,189,641
White	40.3%	38.0%
Black	1.8%	7%
Hispanic/Latino	54.5%	46.9%
Asian	1.3%	1.9%
Median Household Income	\$60,132	\$57,096
Persons below poverty	16.6%	15.6%

### Significance Threshold

Impacts would be considered significant if the alternative results in:

- A substantial shift in population, housing, and employment.
- Disproportionate adverse environmental impacts to minority or low-income populations.

### Environmental Consequences

#### No Federal Action Alternative

Under the No Federal Action alternative, the Corps would not construct the four ground water wells. In the absence of federal assistance, EMWD would likely continue with construction since the need to utilize ground water to supplement water supplies would remain unchanged. Impacts would be similar to those characterized under the Proposed Alternative.

#### Proposed Alternative

The construction work at each well complex is limited in scope and would last approximately one year in duration with multiple elements occurring concurrently. Clearing, grading, and excavation operations would likely be completed within one month. Approximately six months would be required to drill the well. Construction of each well complex would temporarily provide approximately 5 to 15 construction jobs depending on the construction element. The scope of construction would not alter regional socioeconomic trends.

The community of Nuevo has less low income and minority populations than Riverside County. Though environmental impacts associated with construction of well complexes are expected to be minor, the impacts would not be disproportionately borne by low income or minority populations. As a result, there would be less than significant impacts on socioeconomics and environmental justice.

### **3.9 RECREATION**

#### **Affected Environment**

Well Complexes 93, 94, and 95 are located within active agricultural lands. Well Complex 96 is located on an undeveloped rural residential lot. There are no recreation facilities within the immediate vicinity of all four well complex sites.

#### **Significance Threshold**

Impacts would be considered significant if the alternative:

- Permanently limits the use of and access of a recreational area or facility.

#### **Environmental Consequences**

##### **No Federal Action Alternative**

Under the No Federal Action alternative, the Corps would not construct the four ground water wells. In the absence of federal assistance, EMWD would likely continue with construction since the need to utilize ground water to supplement water supplies would remain unchanged. Construction of the well complexes under the No Federal Action Alternative would not affect recreation since there are no recreation facilities within the immediate vicinity of all four well complex sites.

##### **Proposed Alternative**

Construction of the well complexes would not affect recreation since there are no recreation facilities within the immediate vicinity of all four well complex sites.

### **3.10 AESTHETICS**

#### **Affected Environment**

Well Complexes 93, 94, and 95 would be located on existing agricultural lands, both active and fallow. The foreground is composed of open agricultural lands. The middle ground encompasses houses, barns, and hay sheds that form distinct elements within the viewing area. Background views to the north include open vistas towards the mountains.

Well Complex 96 is located within a rural residential neighborhood. The foreground consists of residential houses. The middle ground encompasses open agricultural lands. Background views to the north include open vistas towards the mountains.

#### **Significance Threshold**

Impacts would be considered significant if the alternative results in:

- A substantial modification of the scenic vista.

## **Environmental Consequences**

### **No Federal Action Alternative**

Under the No Federal Action alternative, the Corps would not construct the four ground water wells. In the absence of federal assistance, EMWD would likely continue with construction since the need to utilize ground water to supplement water supplies would remain unchanged. Impacts would be similar to those characterized under the Proposed Alternative.

### **Proposed Alternative**

Under the Proposed Alternative, the Corps would construct an array of four well complexes: Well 93, 94, 95, and 96. Each complex includes the well and appurtenant infrastructure such as blowoff ponds, pump house, and an access road. The footprint of each complex would range from 0.9 to 1.3 acres in size. An approximately twenty foot tall, 24 foot by 36 foot (864 square feet) cinderblock pump house would be constructed to house a process room, brine tank room, and an electrical room. A chain-link fence would circumscribe each complex. Well Complexes 93, 94, and 95 would entail distinct protrusions within the immediate vicinity of the sites.

However, when viewed from a distance, the structures would be easily resolved into the middle ground which is composed of houses, barns, and hay sheds. Furthermore, background views to the north in the far distance would remain unchanged. Due to the limited size of each well complex, the structures would not substantially modify the existing vista.

Well Complex 96 would resolve into the foreground since it is immediately adjacent to large rural residential homes. However, its industrial exterior would be visually distinct from the rural residential structures. When viewed from a distance, the structure would add to the existing line composed of residential structures when juxtaposed against the nearby open fields. Background views to the north in the far distance would remain unchanged. Due to the limited size of the well complex, the structure would not substantially modify the existing vista.

## **3.11 TRAFFIC**

### **Affected Environment**

The project area would likely be accessed using Interstate 215, Nuevo Road, Menifee Road, and Reservoir Avenue. The average daily trips (ADTs) for the primary arteries are indicated below.

### **Significance Threshold**

Impacts would be considered significant if the alternative results in:

- A substantial increase in ADTs of primary arteries used to access the site.

## Environmental Consequences

### No Federal Action Alternative

Under the No Federal Action alternative, the Corps would not construct the four ground water wells. In the absence of federal assistance, EMWD would likely continue with construction since the need to utilize ground water to supplement water supplies would remain unchanged. Impacts would be similar to those characterized under the Proposed Alternative.

### Proposed Alternative

In general, each well complex would require export of approximately 2,000 cubic yards of fill during the clearing, grading, and excavation phases. Fill export would require approximately 100 truck trips using 20 cubic yard trucks. Earthwork would likely be completed within 30 days resulting in approximately 3 truck trips per day. Approximately 5 vendor trips per day would be required throughout the construction period. Last, the number of construction workers would range from 5 to 13. At peak construction there could be approximately 21 additional trips per day. Increases in AADTs associated with peak traffic estimates are shown below.

Artery	Average Annual Daily Trips	Additional Trips at Peak Construction	Percent Increase in Average Annual Daily Trips
Interstate 215	109,371	21	0.02%
Nuevo Road	11,898	21	0.17%
Menifee Road	5,542	21	0.37%
Reservoir Avenue	905	21	2.3%

The increase in construction related traffic represents an approximately 0.02% to 2.3% increase over the existing AADTs. The increase would be temporary. AADTs would return to pre-project levels upon completion of construction. Therefore, traffic impacts would be less than significant.

## 3.12 HAZARDOUS AND TOXIC SUBSTANCES

### Affected Environment

Per the Department of Toxic Substance Control (DTSC) EnviroStor database, there are no cleanup sites within a five mile radius of the well complex sites. Wells Complexes 93, 94, and 95 would be located on agricultural lands. As a result, presence of agricultural chemicals (e.g., chemical fertilizers, pesticides, and herbicides) within the soils is likely.

### Significance Threshold

Impacts would be considered significant if the alternative results in:

- Long-term exposure of humans, wildlife, wildlife habitat, and the general environment to hazardous materials.

## **Environmental Consequences**

### **No Federal Action Alternative**

Under the No Federal Action alternative, the Corps would not construct the four ground water wells. In the absence of federal assistance, EMWD would likely continue with construction since the need to utilize ground water to supplement water supplies would remain unchanged. Impacts would be similar to those characterized under the Proposed Alternative.

### **Proposed Alternative**

Construction of each well complex use of standard construction materials such as concrete, asphalt, cinderblock, rebar, construction adhesives, architectural coatings, sealants, and metal pipes. Electrical motors and appurtenant electrical equipment such as transformers would also be utilized. Security fencing would circumscribe each well complex.

Clearing, grading, and excavation operations at Well Complexes 93, 94, and 95 could temporarily suspend particulate matter containing trace amounts of agricultural chemicals. However, use of watering trucks would minimize suspension of such dust.

During operation, water will be treated onsite with sodium chloride. The sodium chloride would be stored as solid salt. Chlorine from the salt would be procured on an as needed basis through an electrolytic process, resulting in a brine solution. Liquid or gaseous forms of chlorine which could result in acute health impacts upon accidental releases of chlorine would not be utilized. Treated raw water would be pumped to the Perris II desalter plant. No manufacturing byproducts would be generated by the on-site water treatment process.

Based on the above, construction and operation of the wells would not result in long-term exposure of humans, wildlife, wildlife habitat, and the general environment to hazardous materials. Impacts would be less than significant.

## **4.0 CUMULATIVE IMPACTS**

EMWD services an approximately 555 square mile region of western Riverside County encompassing a number of rapidly growing cities including but not limited to Moreno Valley, Perris, Menifee, Hemet, and Murrieta. EMWD retails water to more than 82,000 homes and businesses, including 200 agricultural customers. The number of customers is expected to increase from approximately 630,000 to approximately 1 million by 2020.

EMWD relies on a mixture of ground water and imported water. Approximately 75% of EMWD's potable water is imported from the Colorado River Aqueduct and from State Water Project via the Metropolitan Water District.<sup>2</sup> The remaining 25% is supplied by EMWD water

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<sup>2</sup> <http://www.emwd.org/services/drinking-water-service/water-supply#ground>

wells located throughout its service area. EMWD ground water wells pump both potable and raw groundwater. The majority of the groundwater produced by EMWD comes from its wells in the Hemet and San Jacinto area. EMWD also has wells in the Moreno Valley, Perris Valley, and Murrieta areas which are a part of EMWD's West San Jacinto Groundwater Management Area.

With the persisting drought conditions throughout California and increasingly limited supplies from the Colorado River and from northern California, there is a need to further augment water supply through continued use of ground water. With the West San Jacinto Groundwater Management Area where the four proposed well complexes are located there are approximately over 500 wells. EMWD currently operates 11 raw ground water well complexes. In addition to the four proposed wells that would be constructed in conjunction with the Corps, EMWD plan to construct three additional groundwater wells in the West San Jacinto Groundwater Management Area. EMWD has no plans to add additional ground water wells in the foreseeable future. However, given the substantial role of agriculture in the regional economy of Riverside and the continuing need to utilize groundwater, the number of private wells could increase in the foreseeable future. As a result, the addition of four new wells to the approximately over 500 wells in the West San Jacinto Groundwater Management Area would result in less than significant cumulative impacts.

## **5.0 APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS**

- **Clean Air Act of 1972, as amended, 42 U.S.C. 7401, et seq.** *Full compliance.* The project is not expected to violate any Federal air quality standards, exceed the U.S. EPA's general conformity de minimis threshold, or hinder the attainment of air quality objectives in the local air basin.
- **Endangered Species Act of 1973, as amended, 16 U.S.C. 1531, et seq.** *Full compliance.* The project would not affect any federally listed species or designated critical habitat. As such, Endangered Species Act section 7 consultation with the US Fish and Wildlife Service is not required.
- **National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321, et seq.** *Full compliance.* This EA has evaluated alternatives and associated environmental impacts.
- **National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470 et seq.** *Full Compliance.* No cultural resources listed on or eligible for the National Register of Historic Places are present within the project area. The undertaking would not affect historic properties.
- **Executive Order 12898, Environmental Justice Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994.** *Full Compliance.* Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority and Low-Income Populations) was signed on

February 11, 1994. This order directs Federal agencies to make achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the U.S. Based on the evaluation above, the project would not result in disproportionate environmental impacts on low income and minority populations.

## **6.0 LIST OF PREPARERS**

Deborah Lamb  
Environmental Coordinator, Regional Planning Section  
Planning Division

Kenneth Wong  
Chief, Regional Planning Section  
Planning Division

# Additional Proposal Information

(This is as uploaded, a blank page will show if nothing was submitted)

**Att 5 Press Release 2018-07-09.pdf**

## EMWD...What's New?

**This is the place to find the latest news and information from EMWD!**

### **EMWD Receives \$2.78M in U.S. Army Corps of Engineers Workplan**

**Post Date:** 07/09/2018 1:30 PM

Perris, CA (July 9, 2018) — Eastern Municipal Water District (EMWD) has received a funding appropriation of \$2.78 million from the United States Army Corps of Engineers through its 2018 workplan, furthering a long-term partnership that has greatly improved water supply reliability within EMWD's service area.

The funding from the Army Corps is part of its ongoing commitment to the South Perris Desalter Program, which will further expand EMWD's groundwater desalination program through the construction of wells, pipelines and a new desalination facility.

EMWD currently operates two groundwater desalination facilities, and will be breaking ground in 2019 to further expand capacity. The groundwater desalination program makes use of a water supply that would not otherwise be usable because of high salt levels, provides additional local supplies for EMWD customers, and also protects groundwater quality by exporting more than 25,000 tons of salt each year from the basin.

EMWD has previously received \$14 million in federal funding from the Army Corps. Congress provided a total of \$25 million for the South Perris Water Supply Desalination Program through legislation called the Water Resources Development Act (WRDA). WRDA measures grant authorization to the Army Corps of Engineers to undertake flood control, navigation, and several other types of water infrastructure projects.

"The Army Corps has been a fantastic partner with our desalination program and their financial commitment to water supply reliability has been a major factor in our water supply development programs," EMWD President David Slawson said. "We are grateful for their continued support and the long-term partnership we have formed that has directly benefited our customers."

The \$2.78 million in funding will support the completion of Well 94 in Nuevo, a well siting evaluation for future groundwater wells, and provide more than \$1.5 million to fund pipelines in Perris to convey extracted brackish groundwater to the treatment facilities.

EMWD's South Perris Desalter will add an additional 5.4 million gallons capacity per day. At build-out, EMWD's desalination program will provide enough water for 35,000 households annually and export 50,000 tons of salt each year from the basin.

"The Army Corps of Engineers is proud to partner with local agencies, including EMWD," said Col. Kirk Gibbs, commander of the Los Angeles District. "Projects such as the South Perris Desalter help improve local water supply reliability and reduce dependence on imported water supplies. The experiences gained in designing and constructing public works projects such as this can be applied all over the country and around the world."

# # #

*Eastern Municipal Water District is the water, wastewater service and recycled water provider to approximately 816,000 people living and working within a 555-square mile service area in western Riverside County. It is California's sixth-largest retail water agency and its mission is "To deliver value to our customers and the communities we serve by providing safe, reliable, economical and environmentally sustainable water, wastewater and recycled water services." More information can be found at [www.emwd.org](http://www.emwd.org).*

[Return to full list >>](#)

HOME FACEBOOK FEED WIDGET



Aug 12

Water Bottle Fill Station Back to School



Aug 09

Savvy the Water Drop EMWD Education



Aug 09

Savvy the Water Drop EMWD Education

### HOME TWITTER FEED WIDGET



Aug 12

Eastern Municipal Water District@EasternMuni

Start the school year with all the right gear. Don't forget to pack your reusable water bottle and fill up at one o...  
<https://t.co/zlsFLGmax5>

# Additional Proposal Information

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**Att 6 USACE Summary 08-10-18.pdf**

# USACE Collaboration and Support

- South Perris Water Supply Desalination Program
  - WRDA Section 219 Authorization \$25M
- Previous Appropriations
  - FY13 (Planning and Design) \$3.1M
  - FY14 and FY15 \$6.1M
  - FY16 Appropriation \$750K
  - FY17 Appropriation \$4.0M
  - FY18 Appropriation \$2.8M
  - Total Federal Appropriations: \$16.8M
- Phase I Components
  - Perris II Desalter
  - 4 brackish water wells (93, 94, 95, 96)
  - Ancillary pipelines
- Incrementally advance project
  - Well 93 **completed**
  - Wells 95 and 96 **completed**
  - Well 94 **under construction**
  - Treatment facilities' **final design underway**



Well 96



Well 95 – Ribbon Cutting Ceremony with USACE  
Col. Kirk E. Gibbs

# Additional Proposal Information

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**Att 8 EN-44 Cost Estimate Final Design\_v6\_P2D Base.pdf**



## **PERRIS II DESALTER- PHASE 1 PROJECT COST ESTIMATE**

		<b>ESTIMATED COST</b>
<b>PRELIMINARY DESIGN PHASE</b>		<b>\$417,300</b>
Preliminary Survey (Michael Baker)	\$5,200	
Geotechnical (Kleinfelder)	\$18,400	
Engineering Consultant (CH2M)	\$355,200	
Eng. Branch Labor	\$38,500	
<b>FINAL DESIGN PHASE</b>		<b>\$2,724,100</b>
Engineering Consultant (Black & Veatch)	\$2,293,000	
Engineering Consultant- Value Engineering (VMS)	\$68,100	
Fees (Permits, Etc.)	\$33,000	
Engineering Branch Labor	\$202,000	
Bid Document Preparation	\$42,700	
Contingency	\$85,300	
<b>BID/AWARD PHASE</b>		<b>\$2,343,600</b>
Engineering Consultant- Bid Phase Services (Black & Veatch)	\$40,600	
Engineering Consultant- CMS/IS Services (Parsons)	\$2,180,900	
Eng. Branch Labor, Advertisement, and Materials	\$81,400	
Contractor/Supplier Prequalification	\$40,700	
<b>CONSTRUCTION PHASE</b>		<b>\$54,248,300</b>
Survey- Staking	\$27,500	
Geotechnical- Soils	\$275,000	
Engineering Services During Construction (Perris II Desalter)	\$1,100,000	
Specialty Services- (Maxim)	\$203,500	
Specialty Services- (Schneider)	\$88,000	
Construction Contract	\$48,808,000	
Inspection Labor	\$1,254,500	
Engineering Branch Labor	\$1,117,700	
(Construction Admin, Engineering Support, Grant Admin, etc.)		
Labor Compliance	\$275,000	
Contingency	\$1,099,100	
<b>ADMINISTRATIVE CLOSE OUT PHASE</b>		<b>\$42,800</b>
Eng Branch Labor	\$42,800	
<b>TOTAL ESTIMATED PROJECT COST</b>		<b>\$59,776,100</b>

**Notes:**

- 1) Cost reflects inclusion of Phase 1B Expansion to 5.4 MGD
- 2) Estimated construction costs are based upon preliminary design (90% completion level) design documents
- 3) Estimated construction costs for the Perris II Desalter include 10% contingency and mid-point escalation
- 4) OCS&D Treatment Capacity Fees are not included in this estimate

# Additional Proposal Information

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**Att 9 SupportLetters.pdf**

# County of Riverside



## SUPERVISOR MARION ASHLEY FIFTH DISTRICT

July 19, 2018

The Honorable R.D. James  
Assistant Secretary of the Army for Civil Works  
Department of the Army  
108 Army Pentagon  
Washington, D.C. 20310-0108

Subject: Supervisor Marion Ashley Supports Funding for EMWD South Perris  
Desalination Program

Dear Assistant Secretary James:

As Supervisor of the Fifth District of Riverside County, I formally declare my support for Eastern Municipal Water District's (EMWD) funding request for its proposed South Perris Desalination Program.

As Supervisor, I understand, first-hand, the infrastructure needs of our community. As our population and businesses continue to expand, access to a safe and reliable water supply is paramount to ensure we can meet the long-term needs of our residents.

EMWD's proposed South Perris Desalination Program would significantly increase its ability to provide a local water supply resource for our community while decreasing the our reliance on imported water, as well as provide long-term water quality benefits to our local groundwater basins. This project will allow our County to continue to accommodate additional housing and business demands for future generations and help ensure that we have the reliable water supply necessary to promote economic vitality.

Funding for the South Perris Desalination Program is critical to providing an affordable and reliable water supply to our community. On behalf of our County, I whole-heartedly reaffirm our support for EMWD's application for funding for this program.

Should you have any questions, please contact me at 951.955.1050.

Thank you for your time and consideration.

Sincerely,

A handwritten signature in blue ink that reads "Marion Ashley".

Marion Ashley  
Fifth District Supervisor  
County of Riverside

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August 1<sup>st</sup>, 2018

The Honorable R.D. James  
Assistant Secretary of the Army for Civil Works  
Department of the Army  
108 Army Pentagon  
Washington DC 20310-0108

**Subject: City of Menifee Supports Funding for EMWD South Perris Desalination Program**

Dear Assistant Secretary James:

The City of Menifee formally declares its support for Eastern Municipal Water District's (EMWD) funding request for its proposed South Perris Desalination Program.

As the Mayor of the City of Menifee I understand, first-hand, the infrastructure needs of our community. As our population and businesses continue to expand, access to a safe and reliable water supply is paramount to ensure we can meet the long-term needs of our residents.

EMWD's proposed South Perris Desalination Program would significantly increase its ability to provide a local water supply resource for our community while decreasing our reliance on imported water, as well as provide long-term water quality benefits to our local groundwater basins. This project will allow our city to continue to accommodate additional housing and business demands for future generations and help ensure that we have the reliable water supply necessary to promote economic vitality.

Funding for the South Perris Desalination Program is critical to providing an affordable and reliable water supply to our community. On behalf of our City, I whole-heartedly reaffirm our support for EMWD's application for funding for this program

Should you have any questions, please contact me at [bzimmerman@cityofmenifee.us](mailto:bzimmerman@cityofmenifee.us).

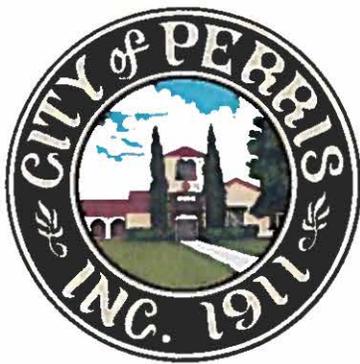
Thank you for your time and consideration.

Sincerely,



Bill Zimmerman  
Mayor

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# CITY OF PERRIS

OFFICE OF THE MAYOR  
Michael M. Vargas

101 NORTH "D" STREET  
PERRIS, CALIFORNIA 92570  
TEL: (951) 943-6100

July 17, 2018

The Honorable R.D. James  
Assistant Secretary of the Army for Civil Works  
Department of the Army  
108 Army Pentagon  
Washington DC 20310-0108

Subject: City of Perris Supports Funding for EMWD South Perris Desalination Program

Dear Assistant Secretary James:

City of Perris formally declares its support for Eastern Municipal Water District's (EMWD) funding request for its proposed South Perris Desalination Program.

As the Mayor, of the City of Perris I understand, first-hand, the infrastructure needs of our community. As our population and businesses continue to expand, access to a safe and reliable water supply is paramount to ensure we can meet the long-term needs of our residents.

EMWD's proposed South Perris Desalination Program would significantly increase its ability to provide a local water supply resource for our community while decreasing the our reliance on imported water, as well as provide long-term water quality benefits to our local groundwater basins. This project will allow our city to continue to accommodate additional housing and business demands for future generations and help ensure that we have the reliable water supply necessary to promote economic vitality.

Funding for the South Perris Desalination Program is critical to providing an affordable and reliable water supply to our community. On behalf of our City I whole-heartedly reaffirm our support for EMWD's application for funding for this program

Should you have any questions, please contact me at [mvargas@cityofperris.org](mailto:mvargas@cityofperris.org).

Thank you for your time and consideration.

Sincerely,

Michael M. Vargas  
Mayor  
City of Perris

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# Primary Sponsor Letter of Support

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**Att 1 South Perris Desalination Program Board Letter O&M  
Committee 07172018.pdf**

**ACTION****Board Operations and Engineering Committee  
July 17, 2018****SUBJECT:**

Approve and Authorize Advancement of 5.4 MGD Perris II Desalter and Payment of Funds (\$927,333) to the United States Army Corps of Engineers for the Construction of Well 94 Pipeline and Related Studies, and Additional Appropriation in the Amount of \$927,333

**BACKGROUND:**

The South Perris Water Supply Desalination Program was authorized by Section 219 of the Water Resources Development Act in the amount of \$25,000,000 for federal funding participation. Prior Federal appropriation for this Program has totaled approximately \$14 Million.

Eastern Municipal Water District (EMWD) was recently notified by the United States Army Corps of Engineers (USACE) that \$2,782,000 was appropriated as part of the Fiscal Year (FY) 2018 Federal Work Plan (Exhibit A) in support of the South Perris Water Supply Desalination Program Construction (Exhibit B).

Phase 1 of the Program will produce 6,000 acre-feet per year of potable water supplies from brackish groundwater. The Phase 1 Program components include the Perris II Desalter Treatment Facility, four brackish groundwater wells (Well Nos. 93, 94, 95, and 96), brine disposal, brackish water conveyance pipelines, treated water pipelines, and related facilities.

The USACE and EMWD have agreed to incrementally advance construction of Phase 1 Program components, which have included construction of brackish groundwater wells 95 and 96, drilling and equipping of brackish well 94, and related sections of brackish conveyance pipelines. The USACE FY 2018 appropriation is planned to be used for construction of the remaining well 94 transmission pipeline and related studies.

An amendment to the Project Partnership Agreement (PPA) incorporating the additional funding and scope modification is being prepared by USACE. Staff is requesting Board authorization to execute the PPA amendment and to transfer funds to the USACE in the amount of \$927,333, which represents EMWD's required non-federal matching share (25 percent) associated with the FY 2018 Federal appropriation.

Also, staff has evaluated the accelerated expansion of the proposed Perris II Desalter Facility from 3.6 MGD to 5.4 MGD. The results indicate that water production from recently constructed wells provide sufficient supply to accommodate an expanded Desalter Facility. Benefits include maximizing the Local Resources Program funding with an additional \$425,700

annual subsidy, design and construction savings resulting from economies of scale, and limited additional incremental cost to advance the expanded treatment facility.

**FINANCIAL IMPACT:**

This project will be financed from the General District Restricted Water System Expansion Fund subject to reimbursement from State Water Resources Control Board grant funding agreement (\$22.5 Million).

**STRATEGIC PLANNING GOAL/OBJECTIVE:**

External Funding Opportunities: Aggressively pursue outside funding to reduce financial burden to the District's customers.

**ENVIRONMENTAL IMPACT:**

This project is subject to the California Environmental Quality Act (CEQA) and in conformance of California Code of Regulations Title 14, Chapter 3, Article 6, Section 15070, et seq., a Notice of Intent to adopt a Mitigated Negative Declaration was filed with the County of Riverside on December 4, 2013. Pursuant to State Guideline §15073, the IS/MND was made available for public review for a period of 30-days beginning December 4, 2013, and concluded January 6, 2014. The Mitigated Negative Declaration was adopted by the EMWD Board of Directors on February 19, 2014.

**RECOMMENDATION:**

Approve and authorize the following:

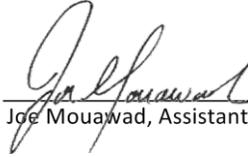
1. The General Manager, or his designee, to execute payment of funds to the United States Army Corps of Engineers for the South Perris Water Supply Desalination Program in an amount not to exceed \$927,333, which represents required non-federal matching share (25 percent) associated with the USACE 2018 Work Plan;
2. The General Manager, or his designee, to execute an Amendment to the Project Partnership Agreement with the United States Army Corps of Engineers for the South Perris Water Supply Desalination Program;
3. Advancement of a 5.4 MGD Perris II Desalter Facility; and
4. An additional appropriation of \$927,333.

**SUBMITTED BY:**



Paul D. Jones II, P.E., General Manager

7/13/2018



Joe Mouawad, Assistant General Manager

7/12/2018

**Attachment(s):**

*Exhibit A - FY2018 USACE Work Plan*

*Exhibit B - Location Map*

*Presentation*

08/01/18 Board Meeting

Staff Contact: Greg Kowalski



ARMY CIVIL WORKS PROGRAM  
FY 2018 WORK PLAN - CONSTRUCTION

2.B.a

STATE	DIVISION	BUSINESS PROGRAM	PROGRAM NAME	FY 2018 EXPLANATORY STATEMENT AMOUNT	ADDITIONAL WORK PLAN AMOUNT	TOTAL FY 2018 ALLOCATION	LINE ITEM OF ADDITIONAL FUNDING	FY 2018 BUDGETED AMOUNT JUSTIFICATION	FY 2018 ADDITIONAL FUNDING JUSTIFICATION
AZ	SPD	FDRR	RIO DE FLAG, FLAGSTAFF, AZ		\$1,300,000	\$1,300,000	1		Complete 100% design of project, including review of the ADot Route 66/B40 Bridge design.
AZ	SPD	FDRR	TUCSON DRAINAGE AREA, AZ		\$1,100,000	\$1,100,000	1		Continue design revisions and initiate new Environmental Assessment (EA) for design revisions.
CA	SPD	FDRR	AMERICAN RIVER COMMON FEATURES, NATOMAS BASIN, CA	\$20,550,000	\$10,450,000	\$31,000,000	2	Complete construction Reach D; Reach 1 Contract 1 supervision and administration; Continue design Reach A&B; Complete Bidability, Constructability and Environmental (BCOE), prepare solicitation Reach 1 Contract 2 award; Real Estate Acquisitions Reaches A&B; Real Estate Acquisitions Reach E; Continue design Reach E; Award Construction Contract Reach H.	Fully fund Reach D construction, supervision and administration
CA	SPD	FDRR	AMERICAN RIVER WATERSHED (FOLSOM DAM MODIFICATIONS), CA		\$26,000,000	\$26,000,000	2		Complete Construction Control Structure and corresponding Environmental Compliance requirements; Recoating Hydraulic Cylinder Rods; Complete and fiscally close out project
CA	SPD	FDRR	AMERICAN RIVER WATERSHED (FOLSOM DAM RAISE), CA	\$5,775,000		\$5,775,000		Emergency gates contract award, engineering and design, supervision and administration; Design left wing dam, right wing dam, dikes 7&8, Mormom Island Auxiliary Dam MIAD; Construction dikes 4,5,6	
CA	SPD	EI	DESERT HOT SPRINGS, CA		\$1,200,000	\$1,200,000	8		Construction of wastewater collection system in Area D3
CA	SPD	ENR	HAMILTON AIRFIELD WETLANDS RESTORATION, CA		\$1,445,000	\$1,445,000	6		Adaptive management and monitoring
CA	SPD	ENR	HAMILTON CITY, CA	\$8,325,000	\$8,100,000	\$16,425,000	7	Phase 2A Levee Contract supervision and administration prior award; Award Phase 2A Option including supervision and administration; Award Phase 1 Revegetation Plant Establishment 1st year; Award Phase 2B Orchard Removal Contract; Award Phase 1 Modifications/Requests for Equitable Adjustments	Complete Phase 2B Levee Construction; Tree Mitigation; Cost increases on budgeted work
CA	SPD	FDRR	ISABELLA LAKE, CA (DAM SAFETY)	\$58,000,000		\$58,000,000		Borel easement acquisition; Phase II Dams and Spillway Construction; Phase II engineering during construction, construction management; Vegetation mitigation	
CA	SPD	FDRR	KAWEAH RIVER, CA		\$1,450,000	\$1,450,000	1		Project Closeout

Attachment: Exhibit A - FY2018 USACE Work Plan (3422 : USACE FY 2018 Local Share)

ARMY CIVIL WORKS PROGRAM  
FY 2018 WORK PLAN - CONSTRUCTION

2.B.a

CA	SPD	FDRR	MURRIETA CREEK, CA		\$9,900,000	\$9,900,000	1		Remove Vegetation and Sediment from Phase 1 project component and complete Phase 2A project component; Notify non-Federal sponsor of completion of Phases 1 and 2A for future Operation and Maintenance.
CA	SPD	FDRR	SACRAMENTO RIVER BANK PROTECTION PROJECT, CA	\$150,000		\$150,000		O&M Manual Updates and Notices of Completion	
CA	SPD	FDRR	SAN LORENZO RIVER, CA		\$2,500,000	\$2,500,000	1		Project Completion and Closeout
CA	SPD	FDRR	SAN LUIS REY RIVER, CA		\$600,000	\$600,000	1		Water quality monitoring; population monitoring for four Federally listed species; and non-native species removal
CA	SPD	FDRR	SANTA ANA RIVER MAINSTEM, CA	\$40,000,000	\$21,314,000	\$98,000,000	2	Award Alcoa Dike contract; Construction Management, Supervision & Administration, Engineering & Design and complete mitigation efforts for the ongoing Reach 9 contracts and ongoing planning & design efforts for remaining construction features; Award Aux Dike Tie-In construction contract; Award environmental contracts & modifications for surveys of threaten/endangered species, restoration of temporary/permanent impact areas from construction and mitigation areas for Alcoa Dike, Reach 9 phase 4/5A/5B/BNSF; Award contract modifications of ongoing construction contracts for Reach 9 Phase 4/5A/5B/BNSF	Award small contracts such as aerial mapping, value engineering, surveys, GIS and CAD engineering support; Facility site maintenance and utility services; Fully fund Norco Bluff contract; Cost increases on budgeted work.
CA	SPD	FDRR	SANTA ANA RIVER MAINSTEM, CA		\$36,686,000		1		
CA	SPD	EI	SOUTH PERRIS, CA		\$2,782,000	\$2,782,000	8		Brackish Water Well Siting analysis; Program Management for well construction; Sherman Road pipeline
CA	SPD	FDRR	STOCKTON METROPOLITAN FLOOD CONTROL REIMBURSEMENT, CA		\$10,249,000	\$10,249,000	1		Reimburse Sponsor for locally constructed improvements performed and fiscally close out project
CA	SPD	FDRR	SUTTER BASIN, CA 1/		\$50,000,000	\$50,000,000	2		(New Start) Complete Design and Award Construction Contract
CA	SPD	FDRR	YUBA RIVER BASIN, CA	\$12,400,000		\$12,400,000		Continue design Phases 2B, 3, 4B; Award Phase 2A South construction contract including Supervision and Administration; Award Phase 2C construction contract including Supervision and Administration	
FL	SAD	FDRR	BREVARD COUNTY MIDREACH, FL		\$14,938,000	\$28,375,000	3		Complete plans and specifications. Complete initial fill contract and construction management for midreach segment of Brevard County project.
FL	SAD	FDRR	BREVARD COUNTY MIDREACH, FL		\$13,437,000		1		

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Packet Pg. 9

ARMY CIVIL WORKS PROGRAM  
FY 2018 WORK PLAN - CONSTRUCTION

2.B.a

FL	SAD	FDRR	CENTRAL AND SOUTHERN FLORIDA (UPPER ST JOHN LEVEE), FL		\$4,000,000	\$4,000,000	1		Complete and fiscally closeout Upper St. John Levee project
FL	SAD	EI	FLORIDA KEYS WATER QUALITY IMPROVEMENTS, FL		\$4,000,000	\$4,000,000	8		Reimbursement for municipalities work in Key Largo, Islamorada and Marathon
FL	SAD	FDRR	HERBERT HOOVER DIKE, FL (SEEPAGE CONTROL)	\$82,000,000		\$82,000,000		Continue design; Continue Engineering during Construction; Continue Construction Management; Continue Construction of culverts/modification; Continue Construction of Reach 1 cutoff wall/modification	
FL	SAD	NHD	JACKSONVILLE HARBOR DEEPENING, FL		\$32,389,000	\$32,389,000	4		Design (\$420,000); S&A (\$7.24 million); Dredging (\$24.73 million)
FL	SAD	FDRC	SARASOTA, LIDO KEY, FL		\$13,462,000	\$13,462,000	3		(New Start) Plans and specifications and Initial nourishment of a 80 foot design berm over 1.56 miles of shoreline
FL	SAD	ENR	SOUTH FLORIDA ECOSYSTEM RESTORATION, FL	\$76,500,000	\$26,900,000	\$105,426,730	7	Non-CERP; C-111 South Dade (\$3.4M) Complete Physical Construction; C-51 West Palm Beach Canal (\$200K); Fiscally close out project; CERP Picayune Strand (\$5M); Complete Miller Pump Station to Operational Testing & Monitoring Plan Phase; Indian River Lagoon South (\$48.7M) C-44 continue reservoir construction & oversight of pump station; Caloosahatchee C-43 WBSR (\$1.5M) construction oversight; Loxahatchee River Watershed PIR (\$514.6K) complete study; Lake Okeechobee Watershed PIR (\$1.4M) continue study; Western Everglades Project (\$2.4M) continue PIR; Central Everglades Planning Project (CEPP) (\$1M) initiate LRR for PPA South; CERP; Design Adaptive Assessment and Monitoring, (\$4M) & Interagency Modeling Center (\$750K); Public outreach (\$25K), Information/Data Management (\$400K), RECOVER (\$1.4M), program management (\$3M); Kissimmee Complete construction & fiscally close out Reach 2, S-69 Weir, 2B1 embankment, Bronson/Sparks Levee contracts (\$2.8M)	Lake Okeechobee Study Continue study (\$1,380,000); Western Everglades Study Continue study (\$712,000); Indian River Lagoon South continue construction on C-44 (\$8,316,841) and initiate and complete PED for C-23/C-24 North Reservoir (\$3,500,000); Kissimmee River repair damages to lower basin Reach 3 (\$7,000,000); Broward County Water Preserve Area award contract for C-11 Mitigation Area A Berm (\$3,017,886); Picayune Strand Remove road north of the Tie Back Levee (\$5,000,000)
FL	SAD	ENR	SOUTH FLORIDA ECOSYSTEM RESTORATION, FL		\$2,026,730		6		
GA	SAD	NHD	SAVANNAH HARBOR EXPANSION, GA	\$50,060,000	\$34,700,000	\$84,760,000	4	Construct McCoys Cut Area Work (\$22.56 million); Continue Entrance Channel Dredging (\$21.5 million); Continue Environmental Monitoring (\$4 million); Dissolved Oxygen Verification Testing (\$2 million)	Continue Inner Harbor Dredging (\$34.7 million)

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ARMY CIVIL WORKS PROGRAM  
FY 2018 WORK PLAN - CONSTRUCTION

2.B.a

IA	NWD	ENR	MISSOURI RIVER FISH AND WILDLIFE RECOVERY, IA, KS, MO, MT, NE, ND & SD	\$30,000,000		\$30,000,000		Program Management Activities (\$5 million); Integrated Science Program (\$10 million); Missouri River Recovery Implementation Committee (\$2 million); Yellowstone Intake (\$3.644 million); Shallow Water Habitat (\$5.806 million) and Emergent Sandbar Habitat (\$3.55 million)	
ID	NWD	EI	RURAL NEVADA, MONTANA, IDAHO, NEW MEXICO, UTAH, AND WYOMING, NV, MT, ID, NM, UT & WY		\$4,500,000	\$4,500,000	8		Multiple Environmental Infrastructure projects in Idaho
IL	LRD	EI	COOK COUNTY INFRASTRUCTURE, IL		\$1,200,000	\$1,200,000	8		Glen Oak Acres-Glenview; Country Club Hills
IL	MVD	NIH	ILLINOIS WATERWAY, LAGRANGE LOCK & DAM (MAJOR REHABILITATION), IL		\$5,000,000	\$10,000,000	4		<b>(New Start)</b> Initiate construction of the major rehabilitation at LaGrange Lock
IL	MVD	NIH	ILLINOIS WATERWAY, LAGRANGE LOCK & DAM (MAJOR REHABILITATION), IL		\$5,000,000		5		
IL	MVD	EI	MADISON AND ST. CLAIR COUNTIES, IL		\$100,000	\$100,000	8		Initiate/complete letter report for potential work in authorized areas
IL	LRD	FDRR	MCCOOK AND THORNTON RESERVOIRS, IL 1/		\$44,352,000	\$44,352,000	1		Stage 1 Claims Settlement and Construction Completion; Initiate and Complete Stage 2
IL	LRD	NIH	OLMSTED LOCKS AND DAM, OHIO RIVER, IL & KY	\$175,000,000		\$175,000,000		Continue Dam Construction Contract (\$110 million); Mussel Monitoring (\$500,000); Planning, Engineering, and Design (\$5 million); Construction Management (\$8 million); Lock O&M during Construction (Hired Labor) (\$4 million); River Dikes (\$40 million); Operation Buildings (\$7.5 million)	
IL	MVD	ENR	UPPER MISSISSIPPI RIVER RESTORATION, IL, IA, MN, MO & WI	\$33,170,000		\$33,170,000		Initiate, continue, and/or complete design, construction and or O&M manuals for multiple projects (\$23.265 million); Monitoring (\$4.245 million); Science in Support of Restoration/Management (\$3.175 million); Habitat Evaluation/Monitoring (\$975,000); Program management (\$885,000); Regional project sequencing (\$300,000); Adaptive Management (\$150,000); Model Certification/Regional HREP (\$100,000); Public Outreach (\$75,000)	
IN	LRD	EI	CALUMET REGION, IN		\$3,500,000	\$3,500,000	8		Valparaiso Pumps; County Line Road Gary, IN; Wicker Meadows Cedar Lake, IN
IN	LRD	FDRR	INDIANA SHORELINE EROSION, IN		\$2,500,000	\$2,500,000	3		Sand Placement at Indiana Dunes National Lakeshore, Supervision and Administration
IN	LRD	FDRR	INDIANAPOLIS, WHITE RIVER (NORTH), IN		\$3,172,000	\$3,172,000	1		Complete remaining Contract Levee work and fiscally close out project

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ARMY CIVIL WORKS PROGRAM  
FY 2018 WORK PLAN - CONSTRUCTION

2.B.a

KY	LRD	NIH	KENTUCKY LOCK AND DAM, TENNESSEE RIVER, KY		\$19,750,000	\$39,500,000	4		Downstream Lock Excavation, including engineering and design and supervision and administration of on-going contracts (\$39.5 million)
KY	LRD	NIH	KENTUCKY LOCK AND DAM, TENNESSEE RIVER, KY		\$19,750,000		5		
KY	LRD	FDRR	ROUGH RIVER, KY (MAJOR REHAB)	\$25,000,000		\$25,000,000		Initiate cutoff wall contract; Engineering during Construction, Project Management, Construction Management	
KY	LRD	EI	SOUTHERN AND EASTERN KENTUCKY ENVIRONMENTAL INFRASTRUCTURE, KY (SECTION 531)		\$3,000,000	\$3,000,000	8		Environmental Infrastructure projects in several counties in KY
LA	MVD	EI	ASCENSION PARISH ENVIRONMENTAL INFRASTRUCTURE		\$1,000,000	\$1,000,000	8		Supervision and Administration Hillaryville Construction of Effluent Discharge System
LA	MVD	FDRR	COMITE RIVER, LA		\$14,000,000	\$14,000,000	1		Hwy 61 & Kansas City Railroad (KCRR) Bridge Construction Contract Phase 2 & 3
LA	MVD	EI	EAST BATON ROUGE PARISH ENVIRONMENTAL INFRASTRUCTURE, LA		\$1,500,000	\$1,500,000	8		Pump Station Construction
LA	MVD	EI	IBERIA PARISH, LA ENVIRONMENTAL INFRASTRUCTURE		\$250,000	\$250,000	8		Water and wastewater Infrastructure Master Plan
LA	MVD	EI	LIVINGSTON PARISH ENVIRONMENTAL INFRASTRUCTURE		\$750,000	\$750,000	8		Water and wastewater Infrastructure Master Plan
LA	MVD	NIL	RED RIVER WATERWAY MISSISSIPPI RIVER (J BENNETT JOHNSTON WATERWAY), LA		\$900,000	\$900,000	6		Design and construct Teague Trails Extension South Recreation Feature in Bossier Parish, LA
MA	NAD	NHD	BOSTON HARBOR DEEP DRAFT IMPROVEMENTS , MA	\$58,000,000		\$58,000,000		Continue dredging (\$56.175 million); Construction management (\$1.2 million); Planning, Engineering, and Design (\$625,000)	
MD	NAD	ENR	POPLAR ISLAND, MD	\$36,250,000	\$30,975,000	\$67,225,000	6	Original Work: Construction management, monitoring, and stakeholder coordination (\$3.4 million); Inflow of dredged material and island cell development (\$11.3 million) Expansion Work: Continue construction of lateral expansion (\$21.55 million)	Initiate and complete construction of containment dikes and armor stone for the future upland area (259 acres) of the expansion (\$30.975 million)
MI	LRD	EI	OAKLAND COUNTY, MI		\$600,000	\$600,000	8		Oakland County 219 Sewer Rehabilitation
MI	LRD	NHD	ST MARYS RIVER, SOO LOCKS (MAJOR REHABILITATION), MI		\$57,580,000	\$57,580,000	4		(New Start) Initiate and physically and fiscally complete construction of the major rehabilitation at Sault Ste. Marie Lock and Dam.
MN	LRD	EI	NORTHEASTERN MINNESOTA ENVIRONMENTAL INFRASTRUCTURE, MN		\$2,442,000	\$2,442,000	8		Program Coordination; Pease Water Infrastructure Improvement
MO	MVD	EI	ST. LOUIS, MO (COMBINED SEWER OVERFLOW)		\$1,750,000	\$1,750,000	8		Harlem-Baden Increment 1 of Phase 3
MO	MVD	FDRR	SWOPE PARK INDUSTRIAL AREA, KANSAS CITY, MO		\$14,482,000	\$14,482,000	2		Complete Construction and turn project over to Sponsor
MS	MVD	EI	DESOTO COUNTY WASTEWATER TREATMENT, MS		\$3,627,000	\$3,627,000	8		Short Fork Effluent Pump Station Clarifier

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ARMY CIVIL WORKS PROGRAM  
FY 2018 WORK PLAN - CONSTRUCTION

2.B.a

MS	MVD	EI	MISSISSIPPI ENVIRONMENTAL INFRASTRUCTURE, MS		\$2,400,000	\$2,400,000	8		Water Supply System Improvements Flowood; Sanitary System Improvements Starkville
MT	NWD	EI	RURAL NEVADA, MONTANA, IDAHO, NEW MEXICO, UTAH, AND WYOMING, NV, MT, ID, NM, UT & WY		\$2,500,000	\$2,500,000	8		Multiple Environmental Infrastructure projects in Montana
NC	SAD	NHD	WILMINGTON HARBOR, NC		\$9,575,000	\$9,575,000	4		Construct dike raises at Eagle Island Disposal Area (\$7.075 million); Complete associated environmental mitigation (\$2.5 million)
ND	MVD	FDRR	FARGO, ND - MOORHEAD, MN METRO		\$35,000,000	\$35,000,000	2		Complete Diversion Inlet Structure; Design Wild Rice Control Structure; Initiate and Complete Technical, Cultural and Environmental requirements Southern Embankment
ND	NWD	EI	NORTH DAKOTA ENVIRONMENTAL INFRASTRUCTURE, ND (SECTION 594)		\$3,500,000	\$3,500,000	8		Execute and complete Environmental Infrastructure project in Medina, North Dakota
NJ	NAD	NHD	DELAWARE RIVER MAIN CHANNEL, NJ, PA & DE		\$14,000,000	\$14,000,000	4		Dredging of Upper Reach B and Upper Reach E
NJ	NAD	FOTH	MOLLY ANN'S BROOK AT HALEDON, PROSPECT PARK AND PATERSON, NJ		\$79,637	\$79,637	1		Complete Fiscal Closeout
NJ	NAD	FDRR	RARITAN RIVER BASIN, GREEN BROOK SUB-BASIN, NJ	\$20,000,000		\$20,000,000		Award Element 1b, Segment C1, Contract 1; Award Nonstructural Flood Proofing Piscataway Township Structures; Engineering and Design, Construction Management	
NM	SPD	EI	CENTRAL NEW MEXICO, NM		\$3,581,000	\$3,581,000	8		Reimbursement Albuquerque West Levee, Black Mesa, South Valley, Rio Rancho Water Upgrade II, Bernalillo Arsenic Treatment Facility
NM	SPD	EI	RURAL NEVADA, MONTANA, IDAHO, NEW MEXICO, UTAH, AND WYOMING, NV, MT, ID, NM, UT & WY		\$220,000	\$220,000	8		Design and construction of water treatment system Miami, NM
NV	SPD	EI	RURAL NEVADA, MONTANA, IDAHO, NEW MEXICO, UTAH, AND WYOMING, NV, MT, ID, NM, UT & WY		\$1,000,000	\$1,000,000	8		Complete pipelines Searchlight project
NV	SPD	EI	TAHOE BASIN RESTORATION 108		\$215,000	\$215,000	8		Reimbursement Aquatic Invasive Species (AIS) Phase 2
NY	NAD	FDRC	FIRE ISLAND INLET TO MONTAUK POINT (WESTHAMPTON), NY		\$15,000,000	\$15,000,000	1		Funds will be used for S&A/E&D for nourishment contract to be awarded and to award contract to complete 4th nourishment effort.
NY	NAD	EI	NEW YORK CITY WATERSHED, NY		\$500,000	\$500,000	8		Environmental Infrastructure projects within the watershed
OH	LRD	FDRR	MOHAWK DAM, OH SEEPAGE CORRECTION MAJOR REHAB		\$7,113,000	\$7,113,000	2		Dam Safety PED and Initiate and Complete Construction Mohawk Dam
OH	LRD	EI	OHIO & NORTH DAKOTA ENVIRONMENTAL INFRASTRUCTURE, OH & ND (SECTION 594)		\$7,000,000	\$7,000,000	8		Execute and complete multiple Environmental Infrastructure projects in the State of Ohio
OH	LRD	FDRR	ZOAR LEVEE AT DOVER DAM, OH (SEEPAGE CORRECTION - REHABILITATION)		\$10,216,000	\$10,216,000	2		Dam Safety PED and Initiate and Complete Construction Zoar Levee, Dover Dam
OR	NWD	NHD	COLUMBIA RIVER AT THE MOUTH, OR & WA	\$11,000,000		\$11,000,000		Complete and close out North Jetty continuing contract	
PA	LRD	EI	ALLEGHENY COUNTY, PA		\$1,008,000	\$1,008,000	8		West View Water Authority Warrendale Bayne Road/Brush Creek Road

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ARMY CIVIL WORKS PROGRAM  
FY 2018 WORK PLAN - CONSTRUCTION

2.B.a

PA	LRD	FDRR	EAST BRANCH CLARION RIVER LAKE, PA	\$50,100,000		\$50,100,000		Continue cutoff wall contract, Engineering, Design and Construction, Supervision and Administration	
PA	LRD	NIL	LOCKS AND DAMS 2, 3 AND 4, MONONGAHELA RIVER, PA		\$49,000,000	\$98,000,000	4		Award Option 3 of 5 on River Chamber Contract (\$34.8 million); Award Option 1 of 3 on the Dredging Contract to accommodate new pool (\$20 million); River Chamber Contract: Option 3 - Shafts, coffer boxes and complete wall section M17-M21 (\$17.4 million); Stilling Basin Contract (\$14 million); Engineering and design and supervision and administration of on-going contracts (\$9.8 million); Batch Plant NPDES Permit (\$1 million); Re-acquisition of real estate easements set to expire December 31, 2019 (\$1 million)
PA	LRD	NIL	LOCKS AND DAMS 2, 3 AND 4, MONONGAHELA RIVER, PA		\$49,000,000		5		
PA	NAD	EI	NORTHEAST COUNTIES ENVIRONMENTAL INFRASTRUCTURE		\$1,160,000	\$1,160,000	8		Design and construction sanitary sewer in Moscow; Program Coordination
PA	LRD	FDRC	PRESQUE ISLE PENINSULA, PA (PERMANENT)		\$1,500,000	\$1,500,000	3		Erosion Control Contract, Engineering During Construction, Supervision and Administration
PA	LRD	EI	SOUTH CENTRAL PA ENVIRONMENTAL IMPROVEMENT PROGRAM, PA		\$1,482,000	\$1,482,000	8		City of Johnston Sewer Line; Blacklick Valley Wastewater System
SC	SAD	NHD	CHARLESTON HARBOR, DEEP DRAFT NAVIGATION IMPROVEMENT, SC		\$49,000,000	\$49,000,000	4		Dredging of new work material in the Lower Harbor in accordance with the Recommended Plan.
SC	SAD	EI	LAKES MARION AND MOULTRIE, SC		\$4,945,000	\$4,945,000	8		Construct Water Transmission Line Dorchester Reach; Extension Dorchester Reach; Design and Construction Providence and Orangeburg-Berkley Reaches; Construct Water Transmission Line Providence Reach
TN	LRD	FDRR	CENTER HILL LAKE, TN	\$28,930,000		\$28,930,000		Complete construction of the Saddle Dam Seepage Rehab as currently scoped; complete Supplemental Dam Safety Modification Study for Gate Operability; complete site restoration contracts; construction management	
TN	LRD	NIH	CHICKAMAUGA LOCK, TENNESSEE RIVER, TN		\$38,250,000	\$76,500,000	4		Award options on Lock Chamber Contract, including engineering and design and supervision and administration of on-going contracts.
TN	LRD	NIH	CHICKAMAUGA LOCK, TENNESSEE RIVER, TN		\$38,250,000		5		
TX	SWD	FDRR	BRAYS BAYOU, HOUSTON, TX		\$14,774,363	\$14,774,363	1		Federal Oversight, Audits and Inspections; Reimburse non-Federal sponsor for the Federal share of completed project construction

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ARMY CIVIL WORKS PROGRAM  
FY 2018 WORK PLAN - CONSTRUCTION

2.B.a

TX	SWD	FDRR	BUFFALO BAYOU AND TRIBUTARIES, TX	\$16,500,000	\$2,000,000	\$18,500,000	1	Continue Construction of New Outlet Work Structure at Addicks and Barker Dams	Addicks & Barker Dams Request Equitable Adjustment
TX	SWD	NHD	CORPUS CHRISTI SHIP CHANNEL, TX (MAIN CHANNEL AND BARGE LANES)		\$22,886,000	\$22,886,000	4		Construction Entrance Channel (Contract 1) and partially fund the Federal share of Lower Bay part 1 of 2 (Contract 2)
TX	SPD	EI	EL PASO COUNTY, TX		\$938,000	\$938,000	8		Award and Complete Construction Strahan Road Water Transmission Main
TX	SWD	FDRR	GREENS BAYOU, TX		\$4,125,000	\$4,125,000	2		Complete and fiscally close out project
TX	SWD	ENR	SAN ANTONIO CHANNEL IMPROVEMENT PROJECT		\$14,653,270	\$14,653,270	6		Funds will be used to reimburse the non-Federal sponsor for funds advanced to complete project construction for the Mission Reach separable element.
UT	SPD	EI	RURAL NEVADA, MONTANA, IDAHO, NEW MEXICO, UTAH, AND WYOMING, NV, MT, ID, NM, UT & WY		\$2,000,000	\$2,000,000	8		Reimbursement Whiterocks UT
VA	LRD	EI	EASTERN SHORE AND SOUTHWEST VIRGINIA, VA		\$200,000	\$200,000	8		Complete design of wastewater infrastructure in Lee County VA
VA	LRD	FDRR	LEVISA AND TUG FORKS AND UPPER CUMBERLAND RIVER, VA, WV & KY		\$5,400,000	\$5,400,000	1		Update Mitigation Plan, Continue Design and Real Estate Town of Martin, KY
VA	NAD	ENR	LYNNHAVEN RIVER BASIN, VA		\$10,000,000	\$10,000,000	6		(New Start) Execute Project Partnership Agreement, Complete Plans and Specifications River Basin Package 1 and begin Construction
VA	NAD	NOTH	NORFOLK HARBOR AND CHANNELS, CRANEY ISLAND, VA		\$5,000,000	\$5,000,000	4		Design and Construction Management Dredge Main Dike footprint
VA	NAD	FDRR	VIRGINIA BEACH, VA (HURRICANE PROTECTION)		\$17,600,000	\$17,600,000	3		Dredging and Beach Renourishment
VT	NAD	EI	LAKE CHAMPLAIN WATERSHED INITIATE, VT		\$500,000	\$500,000	8		Continue analysis Waterbury Dam Spillway
WA	NWD	ENR	COLUMBIA RIVER FISH MITIGATION, WA, OR & ID	\$70,000,000		\$70,000,000		Address the highest priority actions to comply with the 2014 FCRPS Supplemental BiOp requirements, the NOAA Fisheries and USFWS 2008 Biopsy for Willamette River Basin 2008 Columbia Basin Fish Accords	
WA	NWD	ENR	MUD MOUNTAIN DAM, WA	\$33,600,000	\$10,000,000	\$43,600,000	6	Complete Design, Real Estate acquisition, Initiate construction, Construction Management	Continue Construction Barrier Structure and Fish Passage Facility
WI	LRD	EI	NORTHERN WISCONSIN ENVIRONMENTAL ASSISTANCE, WI		\$650,000	\$650,000	8		Program Coordination, Red Cliff Reservation Inflow and Infiltration Remediation
WV	LRD	FDRR	BLUESTONE LAKE, WV	\$4,425,000	\$1,300,000	\$5,725,000	2	Complete Phase 3 fiscal closeout, Continue Phase 4, Engineering and Design, Construction Management	Phase 5 Planning Engineering and Design (PED)
WV	LRD	EI	CENTRAL WEST VIRGINIA ENVIRONMENTAL INFRASTRUCTURE, WV (SECTION 571)		\$2,000,000	\$2,000,000	8		Construction for Environmental Infrastructure work in WV
WV	LRD	EI	SOUTHERN WEST VIRGINIA ENVIRONMENTAL INFRASTRUCTURE, WV (SECTION 340)		\$2,000,000	\$2,000,000	8		Construction for Environmental Infrastructure work in WV

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ARMY CIVIL WORKS PROGRAM  
FY 2018 WORK PLAN - CONSTRUCTION

2.B.a

XX	IWR	FDRR	DAM SAFETY & SEEPAGE/STABILITY CORRECTION PROGRAM (HQ MASTER AMSCO)	\$34,300,000		\$34,300,000		Conduct Issue Evaluation Studies (\$22.3 million); Preconstruction engineering and design (\$4 million); Dam Safety Modification Studies/Report (\$8 million)	
XX	HQ	N/A	EMPLOYEE COMPENSATION FUND	\$17,000,000		\$17,000,000		Reimburse Department of Labor for Compensation of Employees for [on account of] injury or death of employees or persons under the agency's jurisdiction	
XX	IWR	NIH	INLAND WATERWAYS USERS BOARD - BOARD EXPENSE	\$60,000		\$60,000		Conduct Board Meeting s and Related Activities, Including Meeting and Committee Member Travel Costs	
XX	IWR	NIH	INLAND WATERWAYS USERS BOARD - CORPS EXPENSE	\$275,000		\$275,000		Perform analyses of project delivery, participate and coordinate ongoing Transportation Research Board efforts and support Users Board committee meetings and related activities	
XX	SPD	ENR	RESTORATION OF ABANDONED MINE SITES	\$2,000,000		\$2,000,000		Study and construct navigation improvement projects whose total cost does not exceed \$10 million	
XX	ERDC	ENR	AQUATIC PLANT CONTROL PROGRAM	\$11,000,000		\$11,000,000		Develop biological controls, chemical technologies, environmental management strategies and evaluate herbicide efficacy	
XX	HQ	FDRR	EMERGENCY STREAMBANK AND SHORELINE PROTECTION (CAP - SEC 14)	\$8,000,000		\$8,000,000		Construct bank stabilization projects whose total federal cost does not exceed \$5 million	
XX	HQ	FDRC	SHORE PROTECTION (CAP - SEC 103)	\$3,000,000		\$3,000,000		Construct projects whose total federal cost does not exceed \$5 million to reduce flood damages from coastal storms	
XX	HQ	NHS/NHD	NAVIGATION PROGRAM (CAP - SEC 107)	\$7,500,000		\$7,500,000		Study and construct navigation improvement projects whose total cost does not exceed \$10 million	
XX	HQ	NHS/NHD	MITIGATION OF SHORE DAMAGES (CAP - SEC 111)	\$500,000		\$500,000		Study and construct small projects whose cost does not exceed \$10 million to mitigate the littoral impacts of navigation structures and operations	
XX	HQ	ENR	BENEFICIAL USES DREDGED MATERIAL (CAP - SEC 204)	\$1,500,000		\$1,500,000		Construct projects for the beneficial use of dredged material whose total cost does not exceed \$10 million	
XX	HQ	FDRR	FLOOD CONTROL PROJECTS (CAP - SEC 205)	\$8,000,000		\$8,000,000		Construct projects for flood risk management whose total federal cost does not exceed \$10 million	
XX	HQ	ENR	AQUATIC ECOSYSTEM RESTORATION (CAP - SEC 206)	\$8,000,000		\$8,000,000		Construct aquatic ecosystem restoration projects whose total cost does not exceed \$10 million	
XX	HQ	ENR	PROJECT MODIFICATIONS FOR IMPROVEMENT OF THE ENVIRONMENT (CAP - SEC 1135)	\$4,000,000		\$4,000,000		Construct environmental modifications to operating Civil Works projects whose total cost does not exceed \$10 million	

Attachment: Exhibit A - FY2018 USACE Work Plan (3422 : USACE FY 2018 Local Share)

ARMY CIVIL WORKS PROGRAM  
 FY 2018 WORK PLAN - CONSTRUCTION

2.B.a

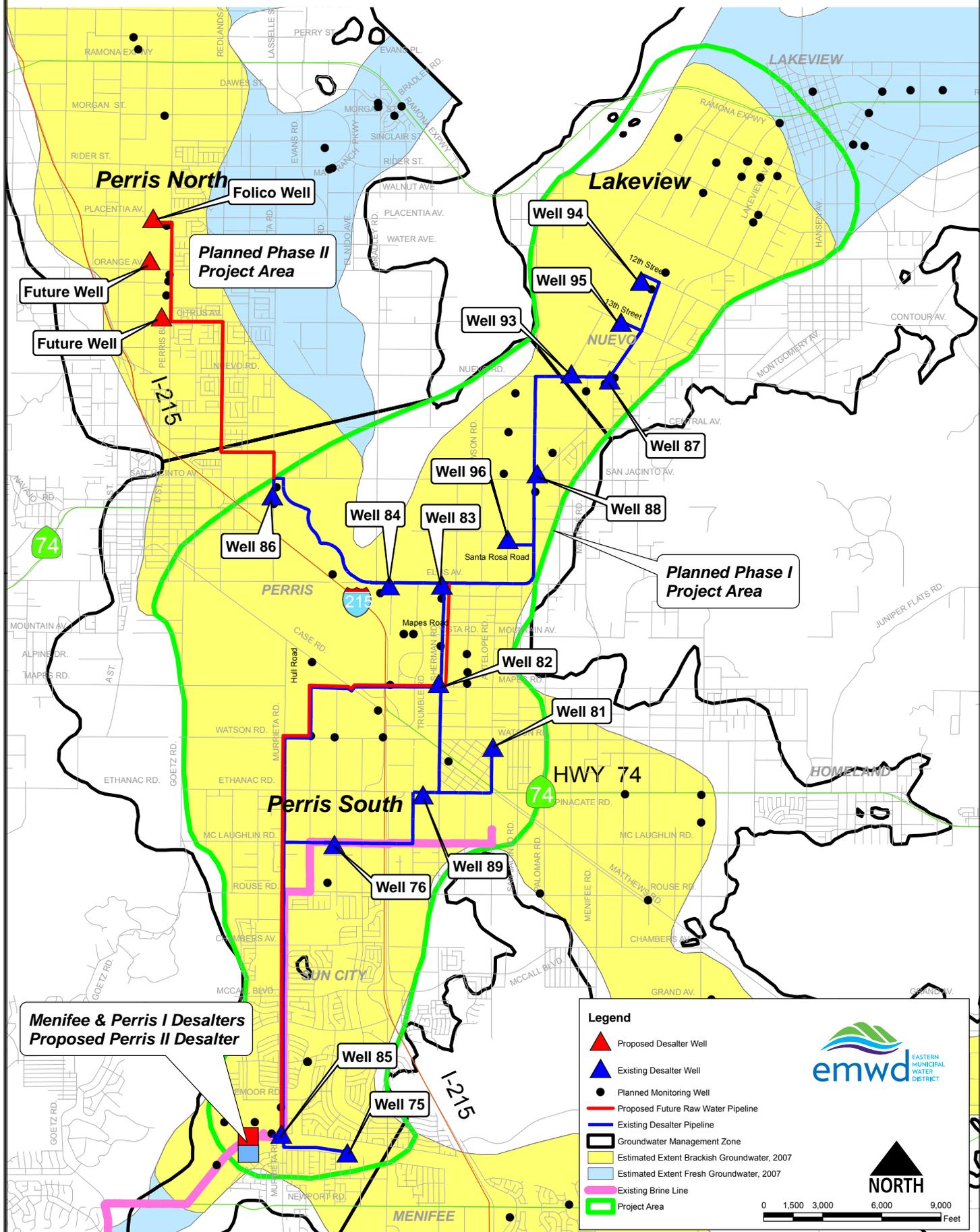
1/ Under the authority of Section 1043 of the Water Resources Reform and Development Act of 2014, the Corps will work with the non-Federal sponsor to consider entering into an agreement for the non-Federal sponsor to assume responsibility for carrying out construction of this project. Subject to the conditions of the agreement and to the extent allowable under current law, the amount provided here is intended to cover the remaining Federal share of this project's construction cost.

KEY	DESCRIPTION OF ADDITIONAL FUNDING	ADDITIONAL FUNDING AMOUNT	FDRC	FLOOD DAMAGE REDUCTION COASTAL
1	FLOOD AND STORM DAMAGE REDUCTION	180,000,000	FDRR	FLOOD DAMAGE REDUCTION RIVERINE
2	FLOOD AND STORM DAMAGE REDUCTION (FLOOD CONTROL)	180,000,000	FOTH	FRM OTHER
3	FLOOD AND STORM DAMAGE REDUCTION (SHORE PROTECTION)	50,000,000	NHS	NAVIGATION HARBOR SHALLOW DRAFT (COASTAL)
4	NAVIGATION	337,130,000	NHD	NAVIGATION HARBOR DEEP DRAFT (COASTAL)
5	INLAND WATERWAYS TRUST FUND (IWTF)	112,000,000	NIH	INLAND NAVIGATION (HIGH USE)
6	OTHER AUTHORIZED PROJECT PURPOSES	70,000,000	NIL	INLAND NAVIGATION (LOW USE)
7	ENVIRONMENTAL RESTORATION OR COMPLIANCE	35,000,000	NOTH	NAV OTHER
8	ENVIRONMENTAL INFRASTRUCTURE	70,000,000	ENR	ECOSYSTEM RESTORATION
			EI	ENVIRONMENTAL INFRASTRUCTURE

Attachment: Exhibit A - FY2018 USACE Work Plan (3422 : USACE FY 2018 Local Share)

# EASTERN MUNICIPAL WATER DISTRICT DESALINATION PROGRAM

## Existing & Proposed Facilities



T:\Backish\_GW\Cad\Gis\mxd\Existing\_& Conceptually\_Proposed\_Facilities\_Fig\_2\_20180606.mxd

Attachment: Exhibit B - Location Map (3422 : USACE FY 2018 Local Share)



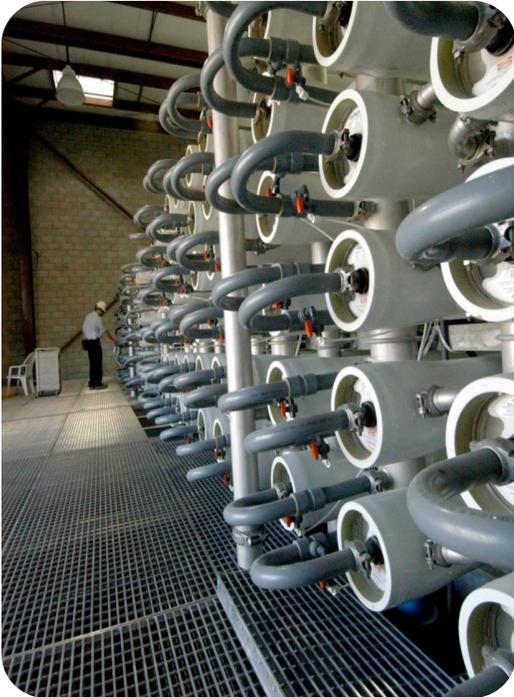
# Groundwater Desalination Program Update

Joe Mouawad, P.E.  
July 17, 2018

Attachment: Presentation (3422 : USACE FY 2018 Local Share)

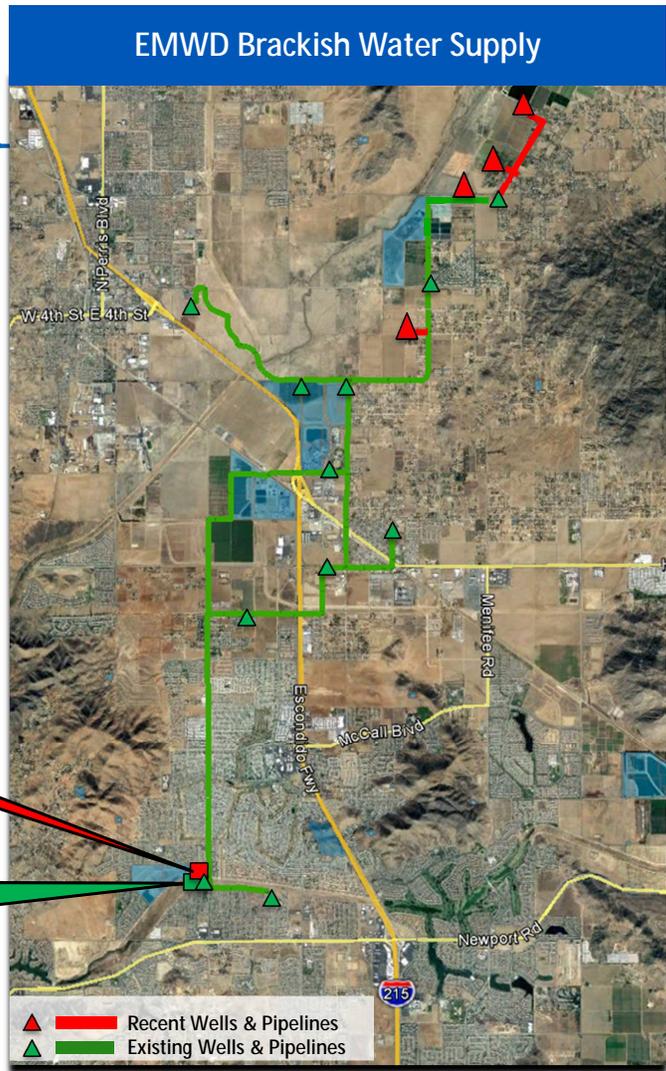
# Agenda

- Desalination Program Overview
- Proposed Perris II Desalter Status
- Program Phasing and Accelerated Desalter Expansion
- Continued USACE Funding Support
- Next Steps

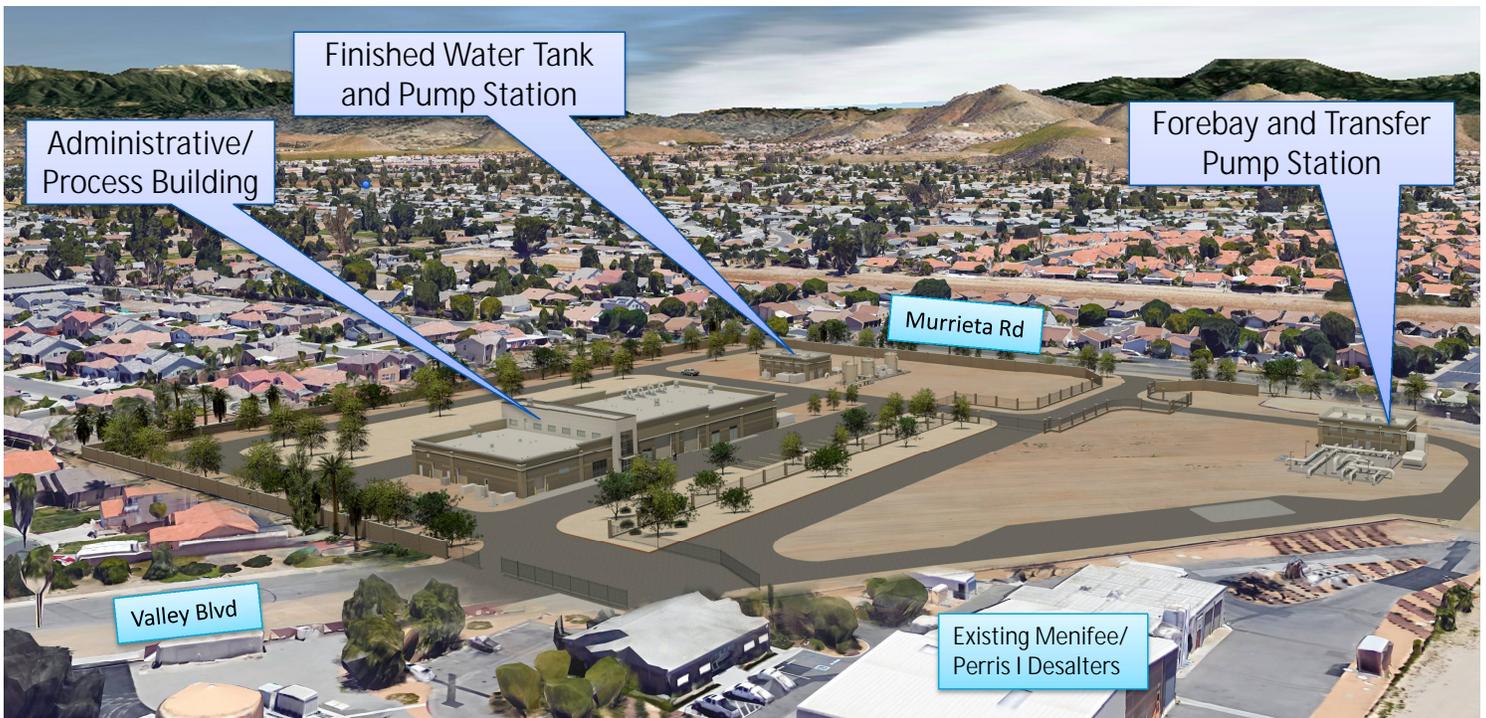


Attachment: Presentation (3422 : USACE FY 2018 Local Share)

# Groundwater Desalination Program



# Proposed Perris II Desalter Site

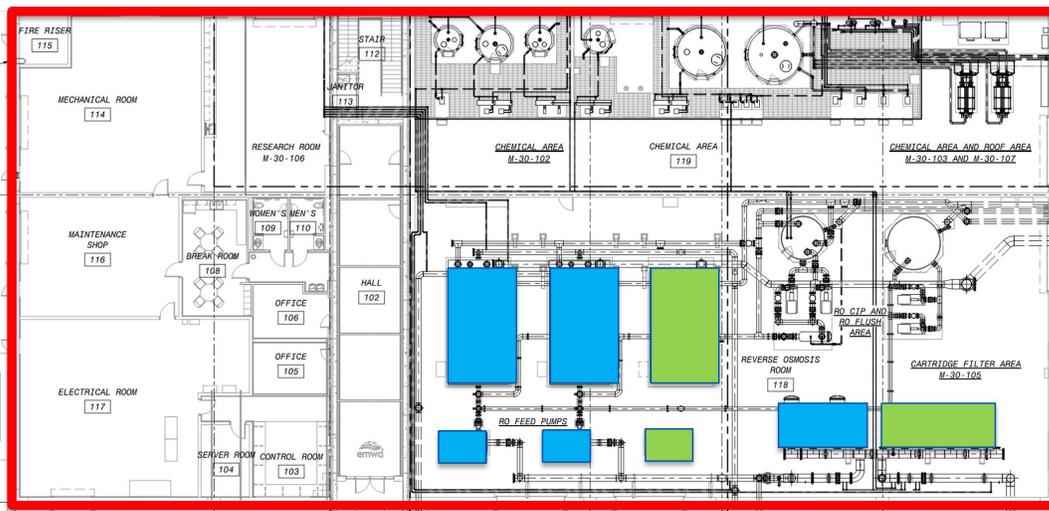


Attachment: Presentation (3422 : USACE FY 2018 Local Share)

*View of Facility from Valley Blvd- Looking Northeast*

# Perris II Desalter Phasing

- 90% Design Completion Achieved
  - Expandable Design Concept
    - Phase 1A Capacity @ 3.6 MGD (Current Implementation)
    - Phase 1B Production @ 5.4 MGD (Future Implementation- Estimated 5 yrs.)

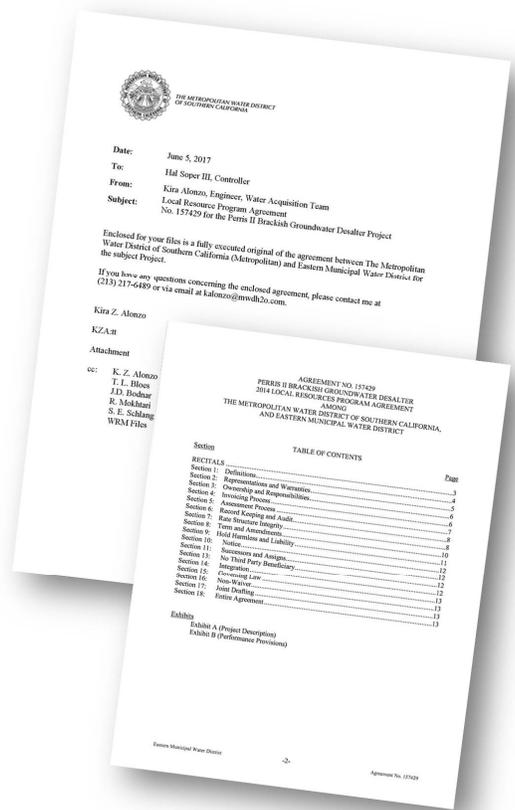


Admin/Process Building Plan

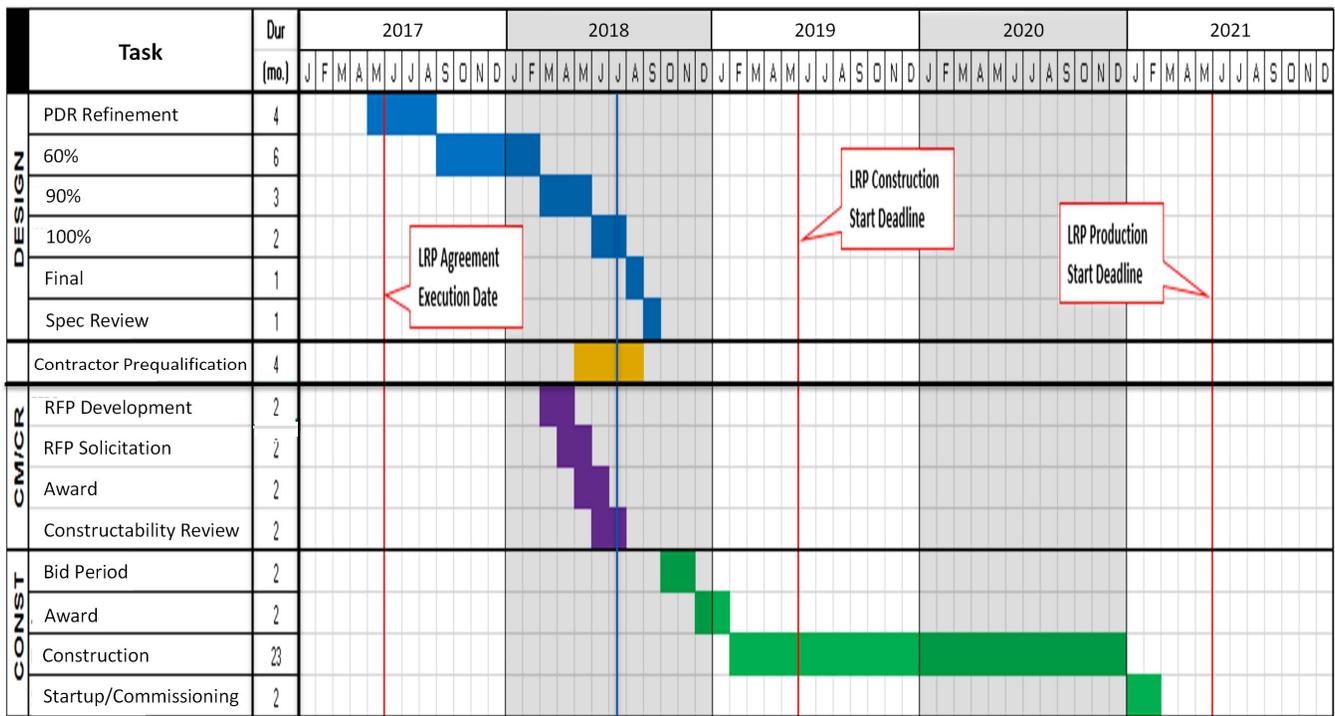


# Considerations for Accelerated Facility Expansion to 5.4 MGD

- Sufficient Water Supply
  - Wells 93, 95 and 96 producing more than anticipated
- Estimated incremental current cost for expanding Perris II Desalter from 3.6 to 5.4 MGD (1.8 MGD increase): **\$4.0 million**
- Local Resources Program (LRP) Funding Agreement (\$215/AF for 25 years for produced water)
  - 1.8 MGD incremental production equates to **\$2.1M over 5-years (\$425,700 per year)**
- Value Opportunities
  - Engineering/Design Economies - **Savings of \$150,000 to \$300,000**
  - Facility Construction Economies - **Savings of \$1.5 to \$2.0M**



# Desalination Program Schedule



Attachment: Presentation (3422 : USACE FY 2018 Local Share)



# USACE Collaboration and Support

- South Perris Water Supply Desalination Program
  - WRDA Section 219 Authorization    \$25M
- Previous Appropriations
  - FY13 (Planning and Design)        \$3.1M
  - FY14 and FY15                        \$6.1M
  - FY16 Appropriation                  \$750K
  - FY17 Appropriation                  \$4.0M
  - FY18 Appropriation                  \$2.8M
  - Total Federal Appropriations:    \$16.8M
- Phase I Components
  - Perris II Desalter
  - 4 brackish water wells (93, 94, 95, 96)
  - Ancillary pipelines
- Incrementally advance project
  - Well 93 **completed**
  - Wells 95 and 96 **completed**
  - Well 94 **under construction**
  - Treatment facilities' **final design underway**



Well 96

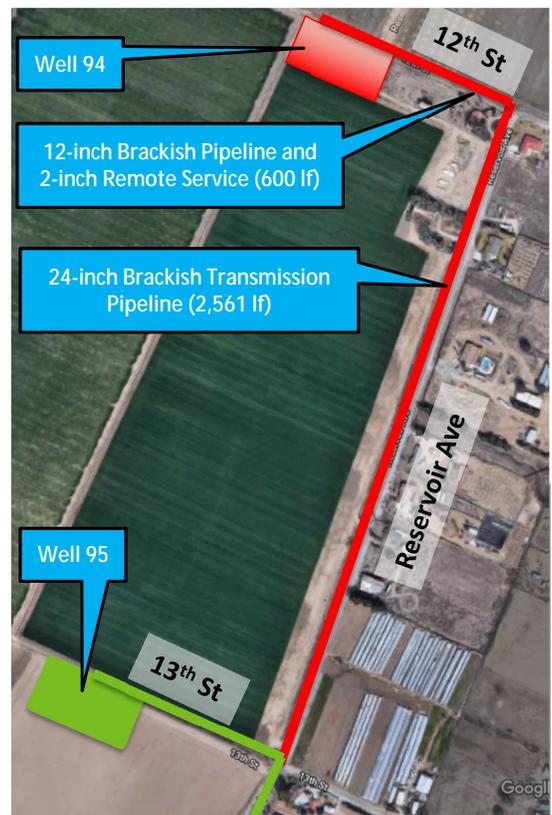


Well 95 – Ribbon Cutting Ceremony with USACE  
Col. Kirk E. Gibbs



# USACE FY 2018 Approved Funding

- Funding:
  - USACE (75 percent) \$2.782M
  - EMWD (25 percent) \$0.927M
  - Total \$3.71M
- Proposed project increments:
  - Support construction of Well 94 Pipeline
  - Confirm Long-term Sustainable Yield via Modeling
  - Advance Future Brackish Well Siting Study
  - Monitoring Wells and Site Acquisition
  - Transmission Pipelines
- ü Change order to current USACE qualified and approved contractor **in process**
- ü Project partnership agreement amendment **in process**



Attachment: Presentation (3422 : USACE FY 2018 Local Share)

## Next Steps

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### USACE Coordination

- Complete Change Order for Well 94 Pipeline (\$1.0M)
- Advance local match for FY18 Funds
- Discuss priority increments with USACE staff for remainder of funds (\$2.8M)
  - Well Siting Study
  - Brackish Groundwater Sustainability Evaluation and Model
  - Monitoring Wells
  - Site Acquisition
- Complete PPA Agreement Amendment

### Perris II Desalter

- Complete amendment for engineering/design of Phase 1B facility expansion
- Advance constructability review by third party Construction Management (CM) firm
- Complete final design efforts and construction contract document preparation
- Complete prequalification of Contractors
- Solicit bids for construction



## Recommendations

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- Approve and authorize the General Manager, or his designee, to execute payment of funds to the United States Army Corps of Engineers for the South Perris Water Supply Desalination Program in an amount not to exceed \$927,333, which represents required non-federal matching share (25 percent) associated with the USACE 2018 Work Plan;
- Approve and authorize the General Manager, or his designee, to execute an Amendment to the Project Partnership Agreement with the United States Army Corps of Engineers for the South Perris Water Supply Desalination Program;
- Approve and authorize advancement of a 5.4 MGD Perris II Desalter Facility; and
- Approve an additional appropriation of \$927,333.





# Contact Information

Joe Mouawad, P.E.  
Assistant General Manager  
Planning, Engineering, Construction  
(951) 928-3777 Ext. 4463

Email: [mouawadj@emwd.org](mailto:mouawadj@emwd.org)



# Additional Proposal Information

(This is as uploaded, a blank page will show if nothing was submitted)

**Att 2 2018-08-01 Board of Directors - Public Minutes-1295.pdf**



## MINUTES

### EASTERN MUNICIPAL WATER DISTRICT BOARD OF DIRECTORS

*(REGULAR MEETINGS HELD THE FIRST AND THIRD WEDNESDAY OF EACH MONTH)*

#### REGULAR MEETING

**AUGUST 1, 2018**

**9:00 AM**

#### PLEDGE OF ALLEGIANCE

*The Pledge of Allegiance was led by Director Record.*

#### CALL TO ORDER

9:00 AM

Training Room, 2270 Trumble Road, Perris, CA 92570

<i>David J. Slawson</i>	<i>President</i>
<i>Ronald W. Sullivan</i>	<i>Vice President (Absent)</i>
<i>Joseph J. Kuebler</i>	<i>Board Member (Absent)</i>
<i>Philip E. Paule</i>	<i>Board Member</i>
<i>Randy A. Record</i>	<i>Board Member</i>
<i>Paul D. Jones II P.E.</i>	<i>General Manager</i>
<i>Debby Cherney</i>	<i>Deputy General Manager</i>
<i>Nick Kanetis</i>	<i>Deputy General Manager</i>
<i>Joe Mouawad</i>	<i>Assistant General Manager</i>
<i>Jeff D. Wall P.E.</i>	<i>Assistant General Manager</i>
<i>Sheila Zelaya</i>	<i>Board Secretary</i>
<i>Jolene Walsh</i>	<i>Sr. Director, Public &amp; Gov't Affairs</i>
<i>Erik Jorgensen</i>	<i>Sr. Civil Engineer</i>
<i>Nicole Perkins</i>	<i>Deputy Board Secretary</i>
<i>Manuel Serpa</i>	<i>Legal Counsel</i>

#### INTRODUCTION OF GUESTS - PUBLIC AFFAIRS OFFICER

*Ms. Walsh introduced the following guests:*

*Andrew Wiesner, Corollo Engineers; Ryan Huston, Kennedy/Jenks Engineering*

#### I. PUBLIC COMMENTS

Any subject within the jurisdiction of EMWD. Speakers are required to limit comments to 3 minutes.

None

## II. RECOGNITIONS

- A. A Proclamation of the Board of Directors of Eastern Municipal Water District in Recognition of Deborah S. Cherney for her Exemplary Service and Accomplishments During her Tenure as Deputy General Manager of Eastern Municipal Water District (Jones)

*General Manager Jones presented Deputy General Manager Cherney with a proclamation recognizing her for her service and accomplishments during her tenure*

## III. EXECUTIVE REPORTS

- A. General Manager's Report (Jones)
- B. DGMs / AGMs Reports (Cherney, Kanetis, Mouawad, Wall)

*AGM Mouawad noted that the solar facilities project continues to advance. A pre-proposal meeting was held on July 31, 2018, with proposals due on September 12, 2018. The proposals will be evaluated with legal counsel and brought back to the Board of Directors for further consideration. He also noted that at the Temecula RWRf, the new Edison service was energized last week. This is a major milestone that will allow the District to continue advancement of the project with testing of the facilities scheduled for early next year and completion of the overall project by June 2019.*

## IV. CONSENT CALENDAR

**RESULT:** APPROVED [3 TO 0]  
**MOVER:** Randy A. Record, Board Member  
**SECONDER:** Philip E. Paule, Board Member  
**YES:** Slawson, Paule, Record  
**ABSENT:** Sullivan, Kuebler

- A. Approve Board Meeting Minutes
1. Board of Directors - Regular Meeting - Jul 18, 2018 9:00 AM
- B. June Meeting Summary and Expense Reports of the Board of Directors; Expense Report of the General Manager (Cherney)
- C. Approve and Authorize a One-Year Agreement, and up to Four, One-Year Renewals with California Water Technologies, Limited Liability Corporation, for the supply of Ferric Chloride in the Full-Term, Not-to-Exceed Total of \$2,350,000 (Wall/Howell)
- D. Approve and Authorize Additional \$150,000 to the As-Needed Electrical Engineering Design Category of Professional Service Agreements for a Revised, Not-to-Exceed Total Amount of \$350,000 (Kanetis/Mouawad)

**V. ACTION CALENDAR**

- A. Approve and Authorize an Agreement with Carollo Engineers (\$296,362) for Final Design of the Moreno Valley Regional Water Reclamation Facility Tertiary Effluent Equalization Project and Appropriation of \$368,962 (Mouawad/Serna)

*Mr. Jorgensen provided a presentation on this item*

**RESULT:**           **APPROVED [3 TO 0]**  
**MOVER:**           Randy A. Record, Board Member  
**SECONDER:**       Philip E. Paule, Board Member  
**YES:**               Slawson, Paule, Record  
**ABSENT:**          Sullivan, Kuebler

- B. Approve and Authorize an Agreement with Kennedy/Jenks Consultants (\$219,096) for the San Jacinto Valley Regional Water Reclamation Facilities Centrate Equalization Project Preliminary and Final Design, and Appropriation of \$309,296 (Mouawad/Serna)

*Mr. Jorgensen provided a presentation on this item*

**RESULT:**           **APPROVED [3 TO 0]**  
**MOVER:**           Randy A. Record, Board Member  
**SECONDER:**       Philip E. Paule, Board Member  
**YES:**               Slawson, Paule, Record  
**ABSENT:**          Sullivan, Kuebler

- C. Approve and Authorize Advancement of 5.4 MGD Perris II Desalter and Payment of Funds (\$927,333) to the United States Army Corps of Engineers for the Construction of Well 94 Pipeline and Related Studies, and Additional Appropriation in the Amount of \$927,333 (Mouawad/Kowalski)

*AGM Mouawad provided a presentation on this item*

**RESULT:**           **APPROVED [3 TO 0]**  
**MOVER:**           Randy A. Record, Board Member  
**SECONDER:**       Philip E. Paule, Board Member  
**YES:**               Slawson, Paule, Record  
**ABSENT:**          Sullivan, Kuebler

**VI. INFORMATION ITEMS / PRESENTATIONS**

None

**VII. RECEIVE AND FILE**

**RESULT:**           **APPROVED [3 TO 0]**  
**MOVER:**           Philip E. Paule, Board Member  
**SECONDER:**       Randy A. Record, Board Member

**YES:** Slawson, Paule, Record

**ABSENT:** Sullivan, Kuebler

A. Reports

1. Change Orders to Specifications (Mouawad)

B. Committee Meeting Notes

1. Board Executive Committee - Regular Meeting - Jul 16, 2018 3:30 PM
2. Board Operations and Engineering Committee - Regular Meeting - Jul 17, 2018 3:30 PM

**VIII. CALENDAR REVIEW / DIRECTOR ATTENDANCE REPORTS**

*The respective Board members reported on their District activities for the period of July 18 through July 30, 2018.*

A. Board Calendar Review (Perkins)

*Ms. Perkins reviewed the Board's EMWD calendar and special events for August through October 2018.*

B. MWD Meetings (Record)

1. Delta Conveyance Finance Authority Board Meeting - July 19
2. Meeting with Santa Clara Valley Water District Board - July 19
3. Standing Committee Meetings - July 24

C. Meetings (Slawson)

1. Riverside County Water Task Force Speaker Series - July 20
2. Update with General Manager - July 23
3. Moreno Valley Chamber of Commerce Meeting - July 25

D. Meetings (Paule)

1. Riverside County Water Task Force Speaker Series - July 20
2. Domenigoni Basin Group Meeting - July 24

**IX. DIRECTOR'S COMMENTS / FUTURE AGENDA ITEMS**

*None*

**X. CLOSED SESSION**

- A. Information Systems Security Assessment  
Consultation with Michael Malone, Senior Director of Information Systems  
Government Code Section 54957(a)

*Discussion was held, no formal action taken*

**XI. ADJOURNMENT**

*There being no further business to come before the Board, President Slawson adjourned the meeting at 10:23 a.m., to be reconvened on Wednesday, August 15, 2018, at 9:00 a.m.*