

2.2.4 Local

**TABLE 2-4
LOCAL AGENCIES SUBMITTING COMMENTS**

Commenter	Date of Comment	Signatory and Title
Coachella Valley Water District	02/23/2012	Mark Johnson Director of Engineering
Metropolitan Water District of Southern California Environmental Planning Team	03/12/2012	Deidre West Manager
Mojave Desert Air Quality Management District (2 submissions)	12/16/2011	Tracy Walters Lead Air Quality Planner
	12/20/2012	Alan J. De Salvio Supervising Air Quality Engineer
City of Needles	03/01/2012	Edward T. Paget Mayor
County of San Bernardino (via Downey Brand Attorneys LLP)	03/13/2012	Christian L. Marsh
County of San Bernardino Public Works <i>Environmental Management Division</i>	02/07/2012	John Schatz, AICP Supervising Planner
City of Twentynine Palms (2 submissions)	01/31/2012	John Cole Mayor
	03/08/2012	Daniel L. Mintz, Sr. Councilmember



Established in 1918 as a public agency
Coachella Valley Water District

Directors:
Peter Nelson, President - Div. 4
John P. Powell, Jr., Vice President - Div. 3
Patricia A. Larson - Div. 2
Debi Livesey - Div. 5
Franz W. De Klotz - Div. 1

Officers:
Steven B. Robbins, General Manager-Chief Engineer
Julia Fernandez, Board Secretary
Redwine and Sherrill, Attorneys

February 23, 2012

File No.: 0645.80

Tom Barnes
ESA Associates, Inc.
626 Wilshire Boulevard, Ste. 1100
Los Angeles, CA 90017

Dear Mr. Barnes:

Subject: Draft Environmental Impact Report for the Cadiz Valley
Water Conservation Recovery, and Storage Project

Thank you for affording the Coachella Valley Water District (CVWD) the opportunity to review the Draft Environmental Impact Report (DEIR) for the Cadiz Valley Water Conservation, Recovery, and Storage Project (Project), located in the eastern Mojave Desert portion of San Bernardino County. CVWD provides domestic water, wastewater, recycled water, irrigation/drainage, regional stormwater protection and groundwater management services to a population of 265,000 throughout the Coachella Valley in Southern California.

At this time, CVWD has the following comments regarding the proposed Project:

1. Project Purpose and Objectives: The Project purpose and objectives appear to be conflicting between Phase 1 and Phase 2. Phase 1 proposes to utilize Metropolitan Water District's (MWD) Colorado River Aqueduct (CRA) to convey extracted groundwater to Santa Margarita Water District and other Project participants. Phase 2 proposes to convey water to the Fenner Valley via the CRA or other means for in-ground storage and future removal. The DEIR indicates that Phase 2 is speculative. Therefore, the environmental impacts of Phase 1 should be evaluated as a stand-alone project where creating storage capacity in the groundwater basin is not a consideration.
2. Colorado River Aqueduct Capacity: The DEIR does not address whether or not there is adequate capacity in the CRA to accommodate the Project's needs. CVWD does not have a direct connection to the State Water Project (SWP); however, CVWD has a Delivery and Exchange Agreement with MWD. CVWD exchanges its State Water Project water for an equal amount of Colorado River water (Exchange Water). The Exchange Water is conveyed through the CRA and delivery to the Whitewater River connection north of Palm Springs. Therefore, CVWD's ability to exchange Colorado River water for SWP water cannot be adversely impacted by this Project.



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Tom Barnes
ESA Associates, Inc.

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3. Water Quality: The water quality discussion for the proposed Project fails to adequately address the impacts of mixing groundwater from the Cadiz area with Colorado River delivered from MWD's CRA. CVWD and Desert Water Agency (DWA) import water via the CRA to replenish a groundwater basin used as the primary drinking water supply for the Coachella Valley. The subject DEIR does not evaluate the impact this Project will have on this groundwater basin. A comprehensive water quality study is needed to determine if the Project would adversely impact the beneficial uses of water contained in the CRA, the Coachella Valley groundwater basin and any other facility supplied by the CRA. This study needs to evaluate this Project's compatibility with existing drinking water maximum contaminant levels (MCLs) and aquatic life water quality objectives applicable to beneficial uses applicable to these facilities. The compatibility analysis should consider future MCLs developed based on existing California public health goals. The DEIR will need to identify mitigation measures needed to maintain these beneficial uses and evaluate the potential impacts of implementing these measures.

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If you have any questions, please contact Luke Stowe, Senior Environmental Specialist, at extension 2545.

Yours very truly,

Mark Johnson
Director of Engineering

MJ:ch/eng/mj/12Cadiz Valley Water Project



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

March 12, 2012

Via email and Federal Express
tbarnes@esassoc.com

Environmental Science Associates
c/o Tom Barnes
626 Wilshire Boulevard, Ste. 1100
Los Angeles, CA 90017

Dear Mr. Barnes:

Draft Environmental Impact Report for the
Cadiz Valley Water Conservation, Recovery, and Storage Project

The Metropolitan Water District of Southern California (Metropolitan) has reviewed a copy of the Draft Environmental Impact Report (DEIR) for the Cadiz Valley Water Conservation, Recovery, and Storage Project (Project), located in the eastern Mojave Desert portion of San Bernardino County. The Santa Margarita Water District (SMWD) is acting as the California Environmental Quality Act (CEQA) Lead Agency for this project.

Metropolitan is a public agency and regional water wholesaler, comprising 26 member cities and water agencies charged with providing a reliable source of high quality drinking water to more than 19 million people in six counties (San Diego, Orange, Riverside, Los Angeles, San Bernardino, and Ventura) in Southern California. One of Metropolitan's primary water supplies is the Colorado River. Metropolitan owns and operates the Colorado River Aqueduct (CRA) to bring water from the Colorado River to its service area.

The proposed Project, as described in the DEIR, is designed to actively manage the groundwater basin underlying a portion of the Cadiz and Fenner Valleys, and consists of construction and operation of facilities to support the two components of the Project, which is proposed to be developed in phases. The first phase (Phase 1), the Groundwater Conservation and Recovery Component, proposes to utilize Metropolitan's CRA to convey extracted groundwater to SMWD and other Project Participants. The second phase (Phase 2), the Imported Water Storage Component, proposes to convey water to the Fenner Valley via the CRA or other means for in-ground storage and future withdrawal.

The proposed use of Metropolitan's CRA would entail various approvals by Metropolitan for access to Metropolitan's property, an agreement to use the CRA to convey Project water, procedures to ensure sufficient quality of Project water, and design, construction, and operation of the proposed "tie-in" to the CRA; therefore, Metropolitan is a responsible agency for the purposes of CEQA. (Public Resources Code Section 21069.) This letter contains Metropolitan's

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comments on the DEIR in its capacity as a responsible agency. (Public Resources Code Section 21153, subd. (a).)

Metropolitan previously provided comments on the Notice of Preparation for the Project in March 2011. That letter is attached hereto, and those comments are incorporated by reference.

Aspects of the proposed Project that have potential to affect Metropolitan encompass a variety of issues, including Project Description, Project Purpose and Objectives, Water Quality, Geology and Soil issues as they relate to impacts to the CRA, proposed use of the CRA and operational considerations, and energy requirements. These concerns are discussed below, with more detail provided in the Specific Comments section. Comments on the two phases of the proposed Project are provided separately.

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General Comments:

The following issues are of concern to Metropolitan. Detail regarding these concerns is provided in the Specific Comments section that follows. Additional suggestions for revisions to various statements in the DEIR are also attached for your consideration.

Phase 1. Groundwater Conservation and Recovery Component

1. **Approvals.** As proposed, the Project includes use of Metropolitan property and facilities, physical connection to Metropolitan's water conveyance system, and introduction of groundwater and conveyance of that water through the Metropolitan system. Metropolitan will necessarily be required to both approve and carry out aspects of the Project, and therefore, is a responsible agency for purposes of CEQA. Metropolitan requests that the EIR specifically identify it as a Responsible Agency and describe these necessary approvals.
2. **Project Purpose and Objectives.** The Project description in the DEIR makes it clear that Phase 2, the imported water storage component, is speculative. There are no participants for Phase 2 and the Lead Agency, SMWD, has no rights to the two sources of imported water (Colorado River and State Water Project) identified as providing the water supply for storage. Therefore, the discussion on page 3-14 of the relationship between the two project components should include an analysis of any differences in environmental effects from Phase 1 if Phase 2 is never completed.

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The current text lists three reasons why the storage component is best implemented following initial groundwater extraction (DEIR at page 3-14). The last two reasons are unclear. The second reason is that project participants would have an "opportunity to put conserved water from Phase 1 to beneficial use." But this "opportunity" would exist regardless of whether the storage component of the project is ever implemented. The third reason is that "this approach avoids a practical concern of finding a short-term beneficial use for vast quantities of groundwater simultaneous with the initiation of recharge activity that aims to put imported

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water in the ground.” This reason leads to a question as to whether the purpose and objective of Phase I is not to provide reliable, dry-year water supplies to supplement existing water supplies available to project participants, but rather to allow the creation of storage space within the groundwater basin. The environmental impacts of different operational scenarios for Phase 1, where creation of storage capacity in the groundwater basin is not a factor for implementation of Phase 2, should be considered. As previously noted, the purpose and need for Phase 1 of the project should be analyzed and addressed as a stand-alone project without considering the potential of the speculative Phase 2 storage component.

3. **Project Description.** Aspects of the project are lacking necessary detail to effectively determine potential impacts to Metropolitan and feasibility of the proposed Project. These include hydraulic modeling, specific information on operation of facilities in conjunction with Metropolitan’s operations, and sizing and location of facilities.
4. **CRA Capacity Constraints.** The DEIR fails to consider whether there is sufficient capacity available in the CRA to accommodate the Project’s needs. As discussed in section 3.1 of Metropolitan’s 2010 Regional Urban Water Management Plan, Metropolitan is pursuing programs to maintain a full supply of Colorado River water when needed or in dry years that would make the CRA unavailable to convey water introduced from the Project in those years.
5. **CRA Operations.** Integration of Project operations with CRA operations would be challenging under the presented “tie in” option scenarios described at pages 3-34 to 3-36. Additional detail is requested to more fully understand the ramifications of the proposed Project on Metropolitan’s ability to operate the CRA in a safe and cost-effective manner.
6. **Energy and Greenhouse Gas Issues.** The energy use and GHG emissions discussions require further data and analysis to include the energy required to convey the project water through the CRA. Metropolitan’s comment letter on the Notice of Preparation included the energy required to convey the water through the Aqueduct as information required. The discussion in the DEIR is limited to energy needed to convey water from the well field to the CRA.
7. **Geology and Soils.** The DEIR does not adequately assess potential impacts to the CRA from construction and operation of new facilities. Potential for seepage from the proposed reservoir and forebay is of particular concern.
8. **Hydraulics Issues.** Metropolitan requests appropriate analyses be performed to identify potential impacts to Metropolitan’s facilities, along with measures to ensure these are avoided. Such analyses should include a detailed operating plan, steady-state hydraulic analysis, Hydraulic Plan and Profile, and transient analysis.
9. **Water Quality.** The water quality discussion associated with the proposal to introduce the extracted groundwater into the CRA is inadequate. It should include discussion of the types and levels of contaminants in the groundwater basin along with the potential impacts and

mitigation measures needed to protect Metropolitan’s water supplies against degradation. In addition, Metropolitan’s comment letter on the Notice of Preparation identified the need to analyze impacts from construction and operation of water treatment facilities that could be required to treat either groundwater or imported water being conveyed through the CRA as part of the Project.

Phase 2. Storage of Imported Water

1. **Project Need and Objectives.** The assumption stated in the Draft EIR that additional water storage is needed requires further analysis to support the purpose and need for the imported water storage component of the project. The assertion that additional Southern California storage is needed, if it is intended to apply to Metropolitan, is not correct.
2. **Project Description.** The imported water storage component of the project is not sufficiently defined to support completion of an environmental impact report, even at a programmatic level. For example, the Draft EIR does not identify a source of imported water that any potential participants would utilize to implement the imported water storage component.
3. **CRA Capacity.** The DEIR does not address CRA operational issues or whether excess capacity exists to transfer imported water to the Cadiz spreading grounds.
4. **Hydraulics.** In order to fully evaluate the hydraulic impacts to the CRA, a detailed operating plan, transient analysis, and steady-state hydraulic analysis is required, accompanied by a Hydraulic Plan & Profile of the proposed conveyance pipeline and system when pumping water from the CRA to the Project spreading grounds.
5. **Water Quality.** Metropolitan is concerned about potential impacts of imported water stored in the desert groundwater basins and potential effects on water quality within the CRA. A detailed water quality analysis should be provided to support the conclusion that impacts are less than significant with no mitigation measures required.

Metropolitan’s CRA is a critical water supply facility for southern California. It must be maintained in reliable operating condition and Metropolitan requires unobstructed access to its facilities in order to maintain and repair its system. In order to avoid potential conflicts with Metropolitan’s facilities and rights-of-way, any design plans for any activity in the area of Metropolitan’s pipelines or facilities must be submitted and approved in writing by Metropolitan. Approval of the project will be contingent on Metropolitan’s approval of design plans for portions of the proposed project that would be located on Metropolitan property or could impact Metropolitan facilities.

Detailed prints of drawings of Metropolitan’s pipelines and rights-of-way may be obtained by calling Metropolitan’s Substructures Information Line at (213) 217-6564. To assist the applicant

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in preparing plans that are compatible with Metropolitan's facilities and easements, we have enclosed a copy of the *Guidelines for Developments in the Area of Facilities, Fee Properties, and/or Easement of The Metropolitan Water District of Southern California*. Please note that all submitted designs or plans must clearly identify Metropolitan's facilities and rights-of-way.

We appreciate the opportunity to provide input to your planning process and look forward to receiving future plans and documentation for this project. If we can be of further assistance, please contact me at (213) 217-6696.

Very truly yours,



for
Deirdre West
Manager, Environmental Planning Team

MRM:rdl

(J:\Environmental Planning-Compliance\COMPLETED JOBS\March 2012\Job No. 2012031201)

Attachments:

Specific Comments
Suggested Revisions and Corrections to the DEIR
Metropolitan Water District Letter on NOP
Guidelines for Development in the Area of Facilities

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Specific Comments

Phase I Comments

Issue Page Comment

Project Purpose and Objectives

7-4, 2 nd bullet	This bullet describes a project purpose as reducing dependence on imported water. This description incorrectly assumes that groundwater extracted from the Cadiz Project is not "imported" water. The project description makes clear that the groundwater basin is located outside the service areas of each of the proposed Project Participants, and the water will necessarily have to be conveyed from outside Metropolitan's service area through the Colorado River Aqueduct. The description should be revised to correct the mischaracterization of the Project's water supply.	12
ES-4, 3-2, 3-4, 3-15	Different Project delivery rates are referenced throughout the DEIR. These include 50,000 AFY on average over the 50-year term, and a maximum of 75,000 AFY for the Groundwater Conservation and Recovery Component, and 105,000 AFY upon Implementation of the Imported Water Storage Component. The Project Description chapter of the Final EIR should also identify the operating criteria for delivery of Project water, e.g., how often and for how long would the Project deliver water to the CRA and how many years out of the 50-year term would the Project be expected to deliver water. The Final EIR should identify the potential number of years in which capacity would be available in the CRA to take delivery of Project water.	13
ES-2	The DEIR indicates that the Project could augment current water supplies for Project participants but some of the Project analyses favor the assumption that the Project would be an alternative to existing water supplies so that impacts can be considered less than significant. This may not be accurate where the Project is providing a new or additional water source. For example on page ES-2, the DEIR indicates "Moreover, the conservation and resulting water supply augmentation can be achieved independently from the environmental and regulatory conditions that generally constrain the importation of water to Southern California." On the other hand, on the same page the DEIR indicates "The Project would optimize the reasonable and beneficial use of water within the aquifer system in a sustainable fashion—conserving water that would otherwise be wasted—to create a local water supply alternative for Southern California water providers."	14
4.7-24, Section 4.7.3, last paragraph	With respect to the sentence, "The additional storage provided by the Project would make up for the lack of water supplies during drought periods when other water supplies are unavailable," what volumes were assumed for the lacking water supply, and does the Project have sufficient capacity to convey the supplies necessary to make up for	15

	the “lack of water” during drought periods?	15
6-10, Section, 6.2.1, Paragraph 3	The percentages cited for multi-year wet or dry periods do not correspond to the Department of Water Resources’ 2009 Delivery Reliability Report; please clarify what multi-year wet or dry period is being cited.	16
	The reliability of the State Water Project (SWP) system is shown as ranging from 71 to 93 percent in a 2-year wet period and 36-38 percent in a 2-year dry period according to the 2009 Delivery Reliability Report.	
Project Description		
3-2, paragraph 5	The text indicates the maximum annual volume of water available for export, but does not discuss any potential limitations imposed by CRA capacity availability.	17
3-5, section 3.1.2, paragraph 2	The statement that all Project facilities will be constructed on private land is incorrect. The Project includes facilities located on land owned by Metropolitan, a government agency.	18
3-5, paragraph 4	The proposed intertie with the CRA is upstream of the Freda Siphon, which is about 3/4-mile easterly of the railroad. Thus a portion of the pipeline (and all of the intertie facilities) must be constructed on Metropolitan property. To provide adequate setback from the CRA, the Project may require construction on undisturbed land.	19
3-15, paragraph 1	A pump station at the tie-in with the CRA will require an equalization basin to buffer flows between the Project and the CRA; a direct tie-in between the CRA and the indicated pump station will not be acceptable to Metropolitan's CRA operations.	20
3-15, paragraph 3	The duration of the operation of the first phase to make the second phase viable should be indicated.	21
3-34, paragraph 4	In Option 1, the only pumps indicated to convey water to the CRA are at the well head. Since the conveyance pipeline has an intermediate high point near Chubbuck, which is at a higher elevation than the CRA tie-in point, a pressure-control structure must be built in conjunction with the afterbay to match the hydraulic grade line of the CRA and ensure that the CRA is not overtopped.	22
3-34, paragraph 4	The water conveyance pipeline should not be connected directly to the CRA and discharge directly into the CRA. A stabilization reservoir must separate the CRA from the conveyance pipeline, and include valves/gates which allow complete isolation of the	23
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	equalization reservoir from the CRA.	23
3-34, paragraph 4	In the event of operational failure of any Project facility or Project element, fail-safe mechanisms and constructed safeguards should exist to preclude any impacts to the CRA. Necessary design and operational safeguards to protect the integrity of the CRA should be addressed.	24
	The Project should include operational procedures and facility designs to accommodate water within the conveyance pipeline (storage) if the CRA pumps downstream of the intertie facilities shutdown unexpectedly, such as in a power loss.	
3-34 and 3-36	The description of the two options for connecting the Project to the CRA both state that they will provide for two hours of flow at 250 cubic feet per second (cfs); but one is a 5,000 square foot (sq. ft.) reservoir holding 10.7 million gallons, and the other is a 25 acre reservoir holding 32.8 acre-feet. The document should explain how both can hold the same two hours of flow at 250 cfs given the disparity in size; or provide a correct description of the holding capacity of each facility.	25
	A 5,000 square foot forebay will not hold the indicated 10.7 million gallons, unless the sides of the forebay were in excess of 275 feet high. The much larger forebay indicated in Option 2 would be required.	26
3-47, paragraph 3	The construction of the forebay (equalization basin) will be required and should be described.	
3-54, paragraph 5	Additional Metropolitan approvals would involve planned operation and coordination protocols for the Project as well as emergency and contingency protocols. Metropolitan would also need to review and approve the design of any modifications to the CRA.	27
3-13 and Appendix B-1, page 17	Section 1.5.1, last sentence of the 1st paragraph indicates that Project participants can carryover their annual allocations by storing their water in the basin for later extraction and delivery as part of Phase 1. This feature is not described as part of the Groundwater Conservation and Recovery Component in the Project Components section of the Executive Summary.	28
Appendix B-1, page 28	Table 2-2 includes only select constituents from a single agricultural well on the Cadiz property and Table 2-3 provides data from single samples from four additional wells. A greater characterization of groundwater quality showing multiple well locations and full Title 22 California Code of Regulations constituent list must be provided.	29
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Appendix B-1, Chapter 6	The text notes that some treatment may be required for hexavalent chromium before the groundwater is introduced into the CRA. The Final EIR should identify and discuss the environmental impacts of the construction and operation of treatment facilities that would need to be included to ensure that the Project can be operated.	29
	The Groundwater Management, Monitoring and Mitigation Plan (GMMP) is proposed for monitoring specific criteria that would trigger review of changes in conditions and identify corrective measures that would be implemented to avoid adverse impacts. In addition to total dissolved solids (TDS), the GMMP should include monitoring of multiple constituents that are regulated or potentially regulated for drinking water supplies.	30
CRA Operations		
4.7-20, W-3	In the third paragraph it is stated that the Project will utilize "excess CRA capacity when available." There is no information provided on how likely the "excess capacity" would be or for how long it would occur. It is stated on page 3-13 that pumping would occur 10 months out of the year. It is unclear if any excess capacity would be available for such long periods or how many years during the term of the Project that excess capacity would be available.	31
3-22, paragraph 3	The CRA is not pressurized in the area of the planned intertie with the planned conveyance pipeline. Exported water deliveries into the CRA must be compatible with the hydraulic grade line of CRA. A pressure control structure at the CRA tie-in must be included in the first project phase to ensure that the hydraulic grade line of the CRA is not exceeded since it is expected that the conveyance pipeline will be operated under pressure. An equalization reservoir will also be needed at the CRA intertie for the first phase of the Project.	32
3-22, paragraph 5	A pump station at the tie-in with the CRA will require an equalization basin; a direct tie-in between the CRA and the indicated pump station will not be acceptable for Metropolitan's CRA operations.	33
3-34, paragraph 4	Operational and control facilities needed to ensure coordinated operations between the CRA and the Project conveyance pipeline should be addressed.	34
3-36, paragraph 2	Either Option 2 scenario will require the construction of a pressure-control structure in conjunction with the equalization reservoir to match the hydraulic grade line of the CRA and ensure that the CRA is not overtopped.	35

3-36, paragraph 5	Option 2b requires that the intermediate pump will operate 8 hours a day, 365 days a year. This presumes that the CRA will always be available as source water for the Cadiz Project conveyance pipeline, which may not be consistent with Metropolitan operations.	36
3-50, paragraph 1	It is indicated that construction traffic for the tie-in facilities would cross the CRA over the Frieda Siphon. Analysis of potential impacts to the CRA as a result of this traffic is needed, as is identification of measures to avoid or minimize impacts. Heavy equipment may require additional protections to be constructed to avoid damaging the facility.	37
3-36, Option 2B	Option 2b indicates that water would be pumped from an equalization storage reservoir to the CRA 8 hours per day. This option is not feasible as this would impact Metropolitan's operations and require the pump plants to turn on and off their lift pumps every day to chase the flow changes. The operational analysis should be based on delivery to the CRA on a continuous basis for the time period required to deliver all the Project water in any year.	38
3-14, 3-15, 3-26	Based on the statement on page 3-26 that well pumps are assumed to operate 24 hours a day, 365 days a year, the proposed annual pumping scenario of 50,000 to 75,000 acre-feet would require inflow to the CRA of 83 to 125 cfs for 10 months.	39
3-34, paragraph 2	The proposed operational strategies are not consistent with Metropolitan's current CRA operational practice of maximizing flow at a set number of pumps.	40
3-34, Option 1a	Copper Basin inflow reduction would be difficult to achieve. Canal levels are controlled by operators, rather than automatic SCADA controls. The proposed Project inflow point is approximately 45 miles from the Copper Basin Gates. Operators lack the continuous, daily, precision, quick-start-and-stop water control to be able to compensate for increases and decreases in flow originating 45 miles downstream. The CRA is not designed to control frequent large quantity flow changes.	41
3-34, Option 1b	Pump Discharge Gates Throttle. Pump plant head gates do not have the capacity to throttle such a large input of water as proposed under this scenario. Instead, three downstream pump plants, Iron Mountain, Eagle Mountain and Hinds, would have to start and stop pumps in attempts to synchronize with flow increases and decreases associated with starting and stopping the flow of water from the Project into the CRA. The pumps are not designed for frequent starts. Pump wear and tear would be significant.	42

3-36, Option 2	It is not clear how the proposed small equalization reservoir would be able to consistently equalize flows along the 60 mile length of canal from Copper Basin to Iron Mountain Pump Plant.	43
3-50, paragraph 4	The tie-in to the Project facilities with the CRA will require at least one shutdown of the CRA. Shutdowns for the CRA typically occur in February. The Project construction schedule needs to consider this constraint.	44
Cultural Resources		
4.5-25	As noted in the DEIR, the CRA has been determined to be eligible for inclusion in the National Register of Historic Places (NRHP). As such, Metropolitan is concerned that any work in the vicinity of or on the CRA not materially impact characteristics of the CRA that convey its historical significance. Metropolitan will require that materials and aesthetics of new facilities over which it has approval be consistent with those used in the CRA.	45
Energy Usage and Greenhouse Gas Emissions		
4.7-21, paragraph 1	Greenhouse Gas Emissions are discussed. It is indicated that the Project would have direct emissions of over 28,000 million metric tons of CO ₂ e (MTCO ₂ e)/year. The proposed solution is to purchase carbon offsets to reduce the amount to 10,000 MTCO ₂ e/year. It is unclear from the DEIR whether the Project, as a generator of electricity with direct emissions, would be able to solely use offsets as the emission compliance mechanism. Discussion is needed in the Final EIR whether the Project would have to acquire allowances as other electricity generators are required to do under Cap and Trade (AB 32 of 2006, California Global Warming Solutions Act of 2006).	46
4.7-22, paragraph 1	The Draft EIR states that the energy required for the groundwater recovery project is 3,112 kWh/MG (1,017 kWh/acre-foot), less than half of the energy required for the SWP West Branch (2,500 kWh/AF). This is the amount of energy needed to move the water from the Project wellfield and into the CRA. The water ties into the CRA prior to the Iron Mountain pump plant and therefore must be conveyed through the Iron Mountain, Eagle Mountain, and Hinds pump plants. Considering lifts of each pump station, then the Project water would require an additional 1,270 kWh/AF (63% of the CRA energy requirement) to be conveyed through the CRA. This equates to approximately 2,290 kWh/AF or nearly that of the SWP West Branch.	47

Criterion C Table 4.7-4	The Project is justified as being more energy efficient than the State Water Project (SWP) (7,672 kWh/MG). However, analysis does not consider the CRA pumping that would be required to deliver the Project water to Metropolitan's service area. The value provided, 3,112 kWh/MG, only considers the energy needed to convey the Project water to the CRA. Project water would have to be pumped through three CRA pumping plants for an additional 3,763 kWh/MG to reach Metropolitan's service area to be able to displace SWP water. The total, 6,875 kWh/MG is about 90% of the stated energy requirement for SWP water. This value, 6,875 kWh/MG, is what should be utilized when comparing Project energy efficiency to the SWP. In addition, the SWP supplies about 50% of the SWP energy requirements from large hydro and other renewables. If the Project utilizes natural gas generators for its power, there may be a higher greenhouse gas contribution from the Project than from the SWP, even if the SWP requires 10% more energy for the same amount of water.	48
4.7-20, 4.7-22, 4.13-17	The Draft EIR makes the erroneous assumption that the water could be conveyed without increasing the energy required to operate the CRA. Metropolitan operates its system as efficiently as possible and avoids unused capacity in its system. Regardless of which of the proposed tie-in options (p. 3-34 to 3-36) would be built, the additional water will require additional energy to be conveyed. If Metropolitan reduces flows from Copper Basin to accommodate the Project water, additional energy would be required to convey the displaced Colorado River water at a later time. If the pump discharge gates are throttled, the Draft EIR acknowledges that more energy use would be required. If the Project is designed to provide a single pump flow to be conveyed with any available pump, the energy for that pump is energy that Metropolitan would not otherwise use. The analysis of energy use and GHG emissions also uses the SWP as the only comparison for the impacts of using Project water. Energy use and GHG emissions should be compared to Other Supply Sources identified in Section 7.4.5, and Metropolitan's 2010 Regional Urban Water Management Plan.	49
Geology and Soils		
3-34, paragraph 3	The long-term stability of a large forebay reservoir adjacent to the CRA must be provided; the failure of an adjacent reservoir could undermine and compromise the CRA. It is questionable if an earthen reservoir only lined with hypalon will provide the necessary long-term stability and durability required.	50
3-47, paragraph 2	Since the conveyance pipeline will also be constructed adjacent to the CRA, construction methods for new structures and facilities that do	51

	not impact the CRA will be required and should be addressed. Impacts would include induced loads on CRA facilities, induced ground settlement of CRA facilities, and stability of the CRA due to adjacent excavation. In addition, existing drainage facilities that currently protect the CRA and are removed for construction must be rebuilt and/or reconfigured.	51
3-47, paragraph 5	Although no imported soils are indicated to be required, to ensure proper construction and reliability for the portion of the pipeline built near the CRA, proper bedding and backfill around the conveyance pipeline will be required. To ensure that this occurs, standard pipeline construction practice typically uses processed sandy soils for bedding and backfill. It should be confirmed that suitable soils that can be processed to create these materials exist along the conveyance pipeline alignment.	52
4.6-35, paragraph 6	The impact analysis does not evaluate any potential Geology and Soil impacts for the intertie facilities or the pipeline portion along the CRA; impacts are only discussed for the well field facilities and conveyance along the ARZC right-of-way.	53
4.6-35, paragraph 6	The impact analysis does not evaluate any potential Geology and Soil impacts for potential leakage from the necessary equalization basin adjacent to the CRA. Such impacts from leakage would include induced hydroconsolidation and soil collapse potential, erosion potential, and ground saturation potential.	54
4.9-74, paragraph 6	The impact analysis should include drainages that will be modified in the area of the tie-in facilities between the CRA and conveyance pipeline, including the pumping plant.	55
4.9-78, paragraph 5		
4.13-12, paragraph 2	Since the pipeline and facilities related to the intertie will likely require modification of existing storm flow diversion berms upslope of the CRA, this mitigation measure should be expanded to include the approval of Metropolitan.	56
4.13-16, paragraph 2	Potential impacts to the existing CRA by the construction of the pipeline and intertie facilities should be addressed.	57
4.13-19, paragraph 10	Impacts to Metropolitan's existing drainage berms should be addressed by additional construction at the intertie facility to accommodate the Imported Water Storage Project Component if it is considered in the Final EIR.	58

4.13-21, paragraph 10	Potential impacts to the existing CRA by the construction of additional intertie facilities to accommodate the Imported Water Storage Project Component if it is considered in the Final EIR should be addressed.	59
Groundwater		
ES-24, paragraph 1	Please clarify how impacts to groundwater would be less than significant with mitigation if the Project is drawing down the water table? It is not clear how the proposed measures would mitigate for the identified impacts. Additionally, please include discussion of any effects on Metropolitan's CRA water supplies that might result from implementation of these measures.	60
	The Final EIR should include discussion of the impacts of pumping and artificial recharge on the water quality of the groundwater basin (i.e., leaching of constituents from subsurface deposits, changes in groundwater chemistry) and subsequent water quality effects of pumping into the CRA.	
Hydraulics		
	In order to fully evaluate the hydraulic impacts to the CRA, a detailed operating plan and steady-state hydraulic analysis is required, accompanied with a Hydraulic Plan & Profile for the proposed conveyance pipeline and system when pumping water from the well-field to the CRA.	61
	In order to fully evaluate the hydraulic impacts to the CRA, a detailed operating plan and transient analysis is required for the proposed conveyance pipeline and system when pumping water from the Cadiz well-field to the CRA.	
3-13, paragraph 6	The stated objective is to convey up to a maximum of 75,000 acre-feet/year during a 10-month delivery schedule from the Project well field to the CRA for the 50-year life of the Project. Assuming continuous pumping (24/7) during the 10-month delivery schedule, the calculated flow rate delivered to the CRA from the Project well field will be approximately 125 cfs. The CRA is typically shutdown for approximately one month every year for maintenance and repairs, therefore the aqueduct will need to have sufficient capacity above normal deliveries to accommodate the proposed flow delivery year-round. It is not likely the CRA can accommodate such a pumping scheme.	62
3-26, paragraph 5	The proposed 43-mile pipeline would consist of a single barrel with a nominal design flow capacity of 250 cfs and a pipeline diameter	63

	between 54 and 84 inches. It is not clear during what period of the year a flow rate of 250 cfs would be pumped from the well field to the CRA. For a flow rate of 125 cfs, the flow velocity would be approximately 7.8 feet per second (fps) for a 54-inch diameter and 3.2 fps for a 84-inch diameter pipeline. For a flow rate equal to 250 cfs, the flow velocity would be approximately 15.7 fps for a 54-inch diameter and 6.5 fps for a 84-inch diameter pipeline. The 15.7 fps velocity is too high for normal operation and would not be acceptable.	63
3-34, paragraph 4	CRA Tie-in Option 1 includes a small 5,000 square-foot forebay that would be constructed to stabilize and meter flow into the CRA. The approximate capacity of the forebay would be 10.7 million gallons. To accommodate such a small surface area and such a large volume, the forebay would be required to be approximately 286 feet deep. The proposed design is not feasible. Additionally, the DEIR states the sizing of the forebay is based on storing a flow rate of 250 cfs for up to two hours. This translates into a volume of approximately 13.5 million gallons and not 10.7 million gallons as stated in the DEIR.	64
3-36, paragraph 2	CRA Tie-in Option 2 includes an equalization storage reservoir of approximately 25 acres and a capacity of 32.8 acre-feet that would be constructed to store a flow rate of 250 cfs for up to two hours. The reservoir surface area and capacity would translate to a depth of approximately 1.3 feet. It will not be practical to operate the facility with such a shallow depth. Additionally, the 32.8 acre-foot capacity is equivalent to approximately 10.7 million gallons. A flow rate of 250 cfs for two hours will produce a volume of approximately 13.5 million gallons and not 10.7 million gallons as stated in the DEIR. This option proposes pumping water to the CRA eight hours a day, 365 days a year, at a flow rate between 125 and 220 cfs. The CRA cannot accommodate such a year-round pumping scheme.	65
3-34 to 3-36	Neither Option 1 nor Option 2 of the CRA tie-in Options addresses the possibility of pump trips along the CRA and the need to be able to contain and/or reject the full flow being pumped from the well field to the CRA.	66
3-24 to 3-26	Neither Option 1 nor Option 2 of the CRA tie-in options addresses the fact that because of the elevation difference between the wellfield and the CRA, it is likely that a pressure regulating/control structure(s) may be required to break excess head before discharging water into the proposed forebay or equalization storage reservoir when delivering flow to the CRA.	67

Water Quality

3-53, Last paragraph	Since source water will be impacted by the Project, Metropolitan recommends that the California Department of Public Health (CDPH) be included on the list of agencies whose approval is required for the Project.	68
4.9-40, paragraph 2; fn. 182	The Draft EIR cites the Vallecito Water District as the source of data on the salinity levels in water delivered through Metropolitan's Colorado River Aqueduct. The salinity figure should be 630 mg/L, rather than 650 mg/L. The correct figure is the long-term average stated in Metropolitan's 2010 Regional Urban Water Management Plan at page 4-3.	69
4.9-55, Last paragraph	The Draft EIR calculates potential water quality impacts to Metropolitan's Colorado River water supplies based on the delivery of up to 75,000 af of groundwater being only 6% of the total volume of water that can be carried in the CRA. This is an incorrect calculation of the potential impact in the event that the CRA is not operating at full capacity. For example, in recent years Metropolitan has conveyed less than 750,000 acre-feet, meaning that a full delivery of Project water would equal or exceed 10% of the CRA flows. The maximum percent of Project water would be 50%, when the maximum Project flow and the minimum CRA flow are considered, rather than the maximum Project flow and maximum CRA flow. The Final EIR must consider whether water quality impacts may be significant in years when a full delivery of Project water would be added to lower flows of Colorado River water in the CRA.	70
3-12, Figure 3-3b	Time 4 indicates excess pumping will result in brine near the dry lake moving towards the pumping well. This is a water quality concern for Metropolitan that needs to be addressed in greater detail.	71
4.9-39	Greater water quality characterization is needed beyond just TDS and general minerals. Discuss specific constituents of concern such as inorganic contaminants (i.e. arsenic, hexavalent chromium, etc.) and radionuclides.	72
4.9-40, last paragraph	TDS levels in Colorado River have on occasion exceeded 600 mg/L since 1985 (e.g., see Table 4.9-3 which indicates 2007 values of 647 to 673.8) contrary to the statement that TDS levels have been reduced to below 600 mg/L since 1985.	73
4.9-48, paragraph 1	The environmental impact analysis should include an assessment of the Project's impacts to CRA water quality, which should also be	74

	summarized in Tables ES-1 and ES-2 .	74
4.9-55, paragraph 2 & 4.9-57, Table 4.9-8	This table shows only 8 of the 180 regulated constituents. Water quality for all constituents should be shown. Also, a section should be included to discuss projected Project water quality and potential impacts to CRA water quality.	75
4.9-58	Hydro-3 appears to address only issues that are experienced by local landowners. Impacts to water quality can be difficult to reverse. The mitigation measure should include a comprehensive monitoring program by the Project proponent to ensure no impacts to water quality.	76
Appendix B-1, Table 2.3	Chromium 6 levels are 14-16 µg/L, well above the Office of Environmental Health Hazard Assessment (OEHHA) Public Health Goal (PHG) of 0.02 µg/L. The Project water quality would not be acceptable for pumping directly into the CRA without treatment. The Final EIR must identify and analyze the environmental impacts of constructing and operating the treatment facilities required to introduce the Project water into the CRA.	77
4.9-55	The water quality analysis in part relies on faulty reasoning. The Draft EIR assumes that “all of the water would be further treated at the water purveyor’s treatment facilities,” however, deliveries are made from the CRA to other groundwater basins without treatment (e.g., Metropolitan delivers Colorado River water to Coachella Valley Water District by releasing water for storage in groundwater basins in the Coachella Valley).	78
Additional Analyses		
1-8, Jurupa	The Jurupa Community Services District is not identified as an agency that purchases water from Metropolitan; so it would appear that additional water connection facilities would be required for the Project water to be delivered through Metropolitan’s CRA to JCSD. Those facilities should be described, and the environmental impacts of their construction and operation analyzed in the Final EIR. The JCSD 2010 Urban Water Management Plan cited as the source for the description of this Project participant notes that JCSD is “pursuing an option” to construct a water delivery connection to Western Municipal Water District, a Metropolitan member agency. (JCSD 2010 Urban Water Management Plan, p. 29). If that connection is to serve as the delivery point for Project water deliveries to JCSD, the Final EIR should consider the environmental effects of construction and operation of that connection.	79

3-40, paragraph 6	Additional uses of Project water such as washing railcars and controlling vegetation could result in erosion and runoff impacts to source water. Please provide analyses for these proposed uses.	80
3-48, paragraph 5	The staging area identified within the CRA right of way at the south end of the Project facilities would probably include disturbance of currently undisturbed land.	81
3-49, paragraph 2	The staging area identified adjacent to the CRA at the south end of the Project facilities could include a temporary housing facility. The environmental effects of such a facility must be analyzed.	82
3-51, paragraph 2	The diversion structure for the Imported Water Component will require a large equalization reservoir between the pump house and the tie-in with the CRA. This facility should be included in the construction discussion, including construction grading required.	83
4.13-12, paragraph 4	The forebay/equalization basin at the tie-in location will be required and the air quality analyses should include construction of this facility.	84
4.4-39, paragraph 3	The discussion of impacts, including land disturbance, for the pipeline construction only refers to the portion on the ARZC right-of-way. The text should also describe the anticipated impacts to the pipeline and tie-in portions of the Project that will be constructed within the CRA right-of-way.	85
4.4-40, Table 4.4-2	The table should include impacts that will occur on the CRA right-of-way.	86
PHASE II Comments		
Project Description		
2-10, 3-15	The Draft EIR does not identify a source of imported water that any potential participants would utilize to implement the Imported Water Storage Component. Rather, the Draft EIR notes that the two potential sources of such water (the State Water Project and Colorado River) are facing reductions in deliveries. The purpose and need for the storage component of the Project must include a discussion of whether, and to what extent, water supplies from these two sources would be available for storage and what other alternatives for storage of these supplies are available that may have lesser environmental impacts. The Draft EIR acknowledges the complete lack of information as to “the sources of imported water, the possibility of banking both Colorado River and other water, and the potential quantity and schedule for spreading, storage and extraction.” There is simply insufficient information to consider the storage of imported	87

	water as a component of the Project at this time.	87
3-4, paragraph 3	The Imported Water Storage Component proposes to store up to 1 million acre-feet at any given time, yet the purpose of the Groundwater Conservation and Recovery Component is to capture and export waters that are currently being lost to evaporation and/or mixing with saline waters. Since it must be presumed that sufficient waters will be exported (assuming available CRA capacity) to make room for import and storage, the text should indicate the necessary/intended delay between Project components to make the import phase valid, if the Imported Water Storage Component is considered in the Final EIR.	88
3-41, Paragraph 4	The text indicates that the pump station for the Imported Water Storage Component will pump water directly out of the CRA. An intermediate forebay to buffer withdrawals from the CRA will be required. The Project proponent could consider designing and using the equalization reservoir necessary for the Groundwater Conservation and Recovery Component for this purpose if the Imported Water Storage Component is considered in the Final EIR.	89
3-42, Figure 3-13	The inclusion of the potential to store water imported from the State Water Project is not sufficiently described in the Draft EIR to allow informed decision-making. For example, the existing natural gas pipelines that would be used to convey the water to the Cadiz property are described as extending to Kern County, but the map of the pipeline only extends to Barstow in San Bernardino County (Figure 3-13). In order to determine potential environmental impacts from the use of these existing pipelines, there should be a discussion (as there is for imported water from the Colorado River) of the required pumping facilities and power demands required to convey the water from the SWP to the Cadiz property. It is not clear from the Draft EIR whether any of the existing pipelines are in proximity to any SWP facility, what distance and topography would be crossed to connect to the SWP facility, and what amount of power would be required to convey the water over the intervening distances and heights.	90
4.13-22, Last paragraph	The Imported Water Storage Component is described as returning up to "105,000 150,000 AFY" of previously stored water. Should this be 105,000 AFY?	91
ES-4	The Project proposes to use existing unused natural gas pipelines formerly used for oil and natural gas conveyance. Please describe how the natural gas lines will be cleaned prior to use for drinking water, and the environmental effects associated with doing so.	92

1-3 to 1-4, 2-10, 3-15, 3-22	The description of the Imported Water Storage Component states that no participants for this component of the Project have been identified, but that such participants must have either Colorado River or State Water Project water rights. Santa Margarita Water District has neither. It is inappropriate for the lead agency for this document to assume the role of lead agency for a project in which it may not be a participant. As lead agency, Santa Margarita would be making decisions about the impacts and appropriate mitigation for the facilities (e.g., spreading basins, pump station) that would be constructed solely for the storage component. The proper lead agency for such analysis of the storage component facilities would be the County of San Bernardino, which has stated in its Land Use Services Department comment letter on the Notice of Preparation that it should have the lead agency role for the Project. (App. A, Attach. 5)	93
Project Need and Objectives		
2-10	In the discussion of the purpose of the Imported Water Storage Component, the Draft EIR makes an assumption that there is "needed water storage space for southern California water providers" and "the ability to store up to 1 million AF of water would greatly enhance water supply reliability." There is no citation or discussion to support this assumption. Since the potential environmental impacts of the Project must be weighed against the available alternatives, the Final EIR must include an analysis of the available water storage capacity for southern California water providers. (California Environmental Quality Act [CEQA] Guidelines, sections 15124(b), 15126.6) The Draft EIR fails to include any such data, which is readily available for both Colorado River and State Water Project supplies.	94
	In 2007, Metropolitan published a survey of groundwater storage within its service area (available at: www.mwdh2o.com/mwdh2o/pages/yourwater/supply/groundwater/GWAS.html). This survey showed the available storage capacity was 3.2 million acre-feet in 2005. In November 2011, Metropolitan updated this information with a report presented to the Water Planning and Stewardship Committee of its Board of Directors, showing that available in-service-area groundwater storage capacity had increased to 3.6 million acre-feet. (Available through the Archived Meetings link on the Metropolitan website at: http://www.mwdh2o.com/mwdh2o/pages/board/videostream/ .) In addition to this in-service-area storage, there is out-of-service area storage available as well. For example, in 2007 the Bureau of Reclamation adopted guidelines allowing storage of Colorado River water in Lake Mead by contractors including Metropolitan (called Intentionally Created Surplus), with a cumulative total of 1.5 million	

acre-feet of Extraordinary Conservation Intentionally Created Surplus capacity for California. (73 Fed. Register 19873, 19887 (April 11, 2008).) As of 2010, California had only utilized 179,240 acre-feet of this storage (Extraordinary Conservation Intentionally Created Surplus). (U.S. Bureau of Reclamation, 2010 Colorado River Accounting and Water Use Report, p. 44.) Metropolitan estimates that as of December 31, 2011, California has utilized less than 325,000 acre-feet of this storage for Extraordinary Conservation Intentionally Created Surplus based on preliminary information available at: <http://www.usbr.gov/lc/region/g4000/hourly/forecast11.pdf>. In addition, under an arrangement with Desert Water Agency, and Coachella Valley Water District, Metropolitan can deliver water in advance to those agencies, permitting the storage of 800,000 acre-feet in the Coachella Valley groundwater basin. As of January 1, 2012, 191,000 acre-feet was in storage. These reports show that there is significant unused surface and groundwater storage for imported water supplies that would be available to serve southern California. The assumption stated in the Draft EIR that additional water storage is needed requires further analysis to support the purpose and need for the Imported Water Storage Component of the Project.

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Alternatives

In the absence of identification of actual participants in the Imported Water Storage Component, the Final EIR cannot properly identify and analyze feasible alternatives. The discussion of alternatives makes this clear, as alternative storage sites are rejected for analysis because “it involves identifying other programs to satisfy storage needs” (p. 7-50.) That is the purpose of the CEQA requirement to consider feasible alternatives. As previously noted, Metropolitan has documented the existence of over 3 million acre feet of available storage capacity within its service area. Contrary to the unsupported assumption stated in the Draft EIR, it is not reasonable to conclude that there would be greater impacts from utilizing groundwater storage within Metropolitan’s service area compared to the pumping facilities required to be constructed and operated to convey water from the CRA to the Cadiz property, the basins required to be constructed and maintained to allow that water to be infiltrated into the groundwater basin, and the power and potential water treatment required to return the water to the CRA for pumping into Metropolitan’s service area. The statement that other groundwater storage programs have the potential for greater impacts than Phase 2 of the Project is simply incorrect and unsupportable.

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Energy and Greenhouse Gas Emissions

4.12-22

The energy use and related greenhouse-gas emissions analyses are inadequate for the Imported Water Storage Component. The analysis of

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energy use notes “approximately twice as much energy” as would be required for the groundwater recovery component. This assumes that the elevations of the CRA and the Project wellfield are the same. However, if the CRA is at a lower elevation, more energy will be required to pump the water from the CRA to the Project wellfield. The analysis of energy use must be more thorough than the unsupported assumption used in the Draft EIR.

The Draft EIR also fails to include any calculation of the energy required to convey the Project water through the CRA. Instead, the document assumes that the water would be moved using no more energy than the CRA would use in moving the existing Colorado River water supplies. This assumption is unsupported by any analysis.

The greenhouse gas emissions analysis includes a statement that the storage component would use twice as much energy, but fails to quantify what GHG emissions would result from this energy use. Instead, the analysis makes a comparison of this energy use to that required to deliver water through the SWP or to build new surface storage. These are false comparisons. First, the alternatives to the use of the Project for storage are not delivery of SWP supplies or construction of surface storage. As already noted, the document fails to consider other available water storage options that may use significantly less energy and create significantly less GHG emissions than the Project would.

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To make proper comparisons with other storage options, the energy use and GHG emissions of the storage component should be properly calculated and compared to those options.

Although the delivery of water imported from the SWP is identified as an element of the storage component, there is no data given or analysis of the energy use and greenhouse gas emissions related to conveying the water through the identified abandoned natural gas pipeline. Again, there is so little information provided for this element of the proposed Project that it should not be included in the Project description in the Final EIR.

Geology and Soils

4.6-40,
paragraph 2

The impact analysis does not evaluate any potential Geology and Soil impacts to the CRA due to the construction of the intertie facilities for the Imported Water Storage Component.

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Groundwater

3-15,
paragraph 4

The DEIR states with respect to the Imported Water Storage Component that up to 1 MAF would be stored. Clarify how the volume of pumping

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	for the Groundwater Conservation and Recovery Component (Phase 1) compares to the volume of pumping for the Imported Water Storage Component (Phase 2) and the Conservation and Recovery Component combined and would the Phase 1 and 2 pumping combined affect the groundwater table and whether it induces the migration of brine into the freshwater source?	98
Water Quality		
4.9-76, 2 nd bullet	The 2nd bullet indicates that "CRA or SWP water.... Would have slightly higher TDS concentration (about 500-600 mg/L)". This is true of CRA water but SWP water TDS is lower (~200-350 mg/L).	99
4.9-77	A much more detailed water quality analysis should be provided to support the conclusion that impacts are less than significant with no mitigation measures required.	
	As indicated in the DEIR, the Project will be subject to agreement with Metropolitan and its rules, regulations, and fees. Metropolitan would require that the Project not degrade CRA water quality or put responsibility on downstream treatment to address specific concerns.	100
	The Final EIR should include discussion of the impacts of pumping and artificial recharge on the water quality of the groundwater basin (i.e., leaching of constituents from subsurface deposits, changes in groundwater chemistry) and subsequent water quality effects of pumping into the CRA.	
Additional Analyses		
	The DEIR does not address CRA operational issues or whether capacity exists to release the water for the Project's Imported Water Storage Component. In order to fully evaluate the hydraulic impacts to the CRA, a detailed operating plan and steady-state hydraulic analysis is required, accompanied with a Hydraulic Plan & Profile of the proposed conveyance pipeline and system when pumping water from the CRA to the Project spreading grounds.	101
	In order to fully evaluate the hydraulic impacts to the CRA, a detailed operational plan and transient analysis is required for the proposed conveyance pipeline and system when pumping water from the CRA to the Project spreading grounds.	

Suggested Revisions and Corrections to the DEIR

1.	On page ES-2, paragraph 2, insert a footnote providing a reference to the specific federal regulations (or guidelines) that may "unlock additional complementary storage opportunities, both within the Basin and in Lake Mead".	102
2.	On page 1-6, paragraph 2, the Draft EIR indicates, "In Southern California, Golden State serves customers in cities throughout San Bernardino, Riverside, Los Angeles, Orange and Ventura counties (see Figure 1-3)." However, Figure 1-3 does not show a Golden State service area in Riverside County.	103
3.	On page 1-23, the Area of Use Assessment shown in Figure 1-4 does not encompass the California Water Service Company service area in Ventura County.	104
4.	On page 2-6, paragraph 3, reference is made to the "2010 California Department of Water Resources (DWR) California Water Plan Update"; however, the footnote for that sentence, 14, cites the <i>California Water Plan Update 2009, Integrated Water Management</i> , December 2009.	105
5.	On page 2-6, paragraph 4, the Draft EIR indicates that the Sacramento-San Joaquin River Delta is also known as the Bay Delta. Please note that the State Water Resources Control Board refers to the San Francisco Bay/Sacramento-San Joaquin Delta Estuary as the Bay-Delta at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/ .	106
6.	On page 2-7, Figure 2-1, branches of the California Aqueduct, including the West Branch, are missing from the figure.	107
7.	On page 2-8, paragraph 1, revise the sentence: "Between 1990 and 1994, DWR had greater difficulty meeting demand because several years were very dry." to read: "Between 1990 and 1992 and in 1994, DWR had greater difficulty meeting demand because these years were very dry." Also, revise the sentence: "In recent years, the SWP has been able to deliver full amounts only in wet years;" to read: "Between 2000 and 2011, the SWP has been able to deliver 100 percent of the contractors' allocations only in 2006, a wet year;"	108
8.	On page 2-8, paragraph 1, revise the following sentences: "DWR's most recent reliability estimates indicate the system will have 60 percent reliability for delivering Table A requests, depending on hydrologic and environmental factors" ¹⁵ . DWR currently estimates 60 percent reliability in the future."	109

to read: “DWR estimates the system will have, on average, 60 percent reliability for delivering Table A requests, depending on hydrologic and environmental factors¹⁵. DWR estimates 60 percent reliability, on average, in the future.”

9. On Page 2-8, Section 2.4.2, paragraph 2, revise the sentence: “SWP deliveries began in 1972.”

to read: “SWP deliveries to Metropolitan began in 1972.”

10. On page 2-9, line 1, after the phrase “available surplus water,” insert the phrase, “and any water apportioned to but unused in the states of Arizona and Nevada, made available by the Secretary of the Interior.”

11. On page 2-9, paragraph 1, revise the sentence:

“Since 2003, Metropolitan has developed agreements with other Colorado River water rights holders to convey water through the CRA.”

to read: “Since 1988, Metropolitan has entered into agreements with other Colorado River water rights holders to conserve water to permit the Secretary of the Interior to make such water available to Metropolitan for diversion through the CRA.”

12. On page 2-9, paragraph 1, revise the sentence:

“Metropolitan approved the Quantification Settlement Agreement (QSA) in 2003 that provided for additional transfers from agricultural agencies that use Colorado River Water such as the Imperial Irrigation District (IID) and the Coachella Valley Water District (CVWD) to San Diego.”

to read: “Metropolitan executed the Quantification Settlement Agreement (QSA) in 2003, a key component of California’s Colorado River Water Use Plan, providing for the transfer of water from the Imperial Irrigation District (IID) to the San Diego County Water Authority (SDCWA) and providing a reliable mechanism for additional agricultural to urban water transfers benefiting Metropolitan. Execution of the QSA restored the opportunity for Metropolitan’s access to special surplus water to be provided under the 2001 Interim Surplus Guidelines. The QSA set aside several existing disputes between California’s Colorado River water agencies, allowing for the cooperative development of additional Colorado River water supply programs.”

13. On page 2-9, footnote 19, revise the sentence:

“Twelve of the QSA agreements are currently the subject of an appeal pending in the Third District Court of Appeal for which oral argument will occur on November 21, 2011.”

to read: “On December 7, 2011, the judgments in *Imperial Irrigation District v. All Persons Interested*, *POWER v. Imperial Irrigation District et al.*, and *County of Imperial v. Metropolitan Water District of Southern California et al.* were reversed, and the cases were remanded to the trial court for further proceedings consistent with the Court of Appeal’s opinion”, and insert it after the second sentence of the footnote.

Also, revise the third sentence of the footnote: “The QSA agreements continue to be implemented while the appeal is being decided.”

to read: “The QSA and related agreements continue to be implemented.”

14. On page 2-9, the values shown in Table 2-1 do not represent Metropolitan’s net diversions of Colorado River water from Lake Havasu as amounts stored have been deducted as indicated in note 2 of Table A. 2-1 of the source document. Also, the value shown for 2010 in the source document was a preliminary estimate. Metropolitan’s net diversions as reported by the Bureau of Reclamation at <http://www.usbr.gov/lc/region/g4000/wtracct.html> are the following for the years shown in Table 2-1:

	<u>acre-feet</u>
1980	817,147
1985	1,269,526
1990	1,214,971
1995	994,373
2000	1,300,014
2005	875,252
2010	1,099,061

Also in 2010, Metropolitan created 100,864 acre-feet of Extraordinary Conservation ICS, storing water it otherwise would have diverted in Lake Mead.

15. On page 3-2, a sentence in the last paragraph indicates:

“Water would be distributed to Project Participants via the CRA.”

on page 3-5, a sentence in the third paragraph indicates:

“The water would be conveyed from the Project area to the service areas of the Project Participants shown on Figures 1-2 and 1-3 via the CRA.”

and on page 3-15, a sentence in the second paragraph indicates:

“Whether the imported water comes from the Colorado River or the State Water Project, when needed, previously stored surface water would be withdrawn from storage, conveyed to the CRA and delivered through the CRA delivery system to Project participants.”

As the CRA terminates at Lake Mathews, it would be necessary for arrangements to be made with Metropolitan and its respective member agency serving a Project Participant to allow for an exchange of water from Metropolitan’s distribution system for water discharged into the CRA.

16. On page 3-15, a sentence in the first paragraph indicates:

- “When water is available by direct delivery or exchange, such as surplus water in wet years, a Project Participant could convey water from the CRA to the Project site via the water conveyance pipeline that would be constructed under the first phase of the Project.”
- It should be noted in the Final EIR that the CRA delivers water from the Colorado River and none of the Project Participants hold a contract with the Bureau of Reclamation for delivery of Colorado River water.
17. On page 3-21, paragraph 2, revise the sentence referring to California Water Service Company:
- “Its 24 separate water systems serve 63 communities from Chico in Southern California to the Palos Verdes Peninsula in Southern California.”
- to read: “Its 24 separate water systems serve 63 communities from Chico in Northern California to the Palos Verdes Peninsula in Southern California.”
18. On page 3-34, paragraph 1, revise the sentence:
- “The water conveyance pipeline would terminate at the CRA, a 242-mile water conveyance facility that delivers water from the Colorado River at Parker Dam to water suppliers in Southern California.”
- to read: “The water conveyance pipeline would terminate at the CRA, a 242-mile water conveyance facility that delivers water from the Colorado River at Lake Havasu to Lake Mathews.”
19. On page 3-34, paragraph 5, revise the words “Copper Mountain” to “Copper Basin” in Option 1a:
20. On page 3-53, in the second to last row, right column, revise the sentence:
- “Regulatory authority over Golden State and Suburban, the CPUC has approval authority over Golden State's and Suburban Water's agreements if rates are affected.”
- to read, “Regulatory authority over California Water Service, Golden State and Suburban, the CPUC has approval authority over California Water Service's, Golden State's and Suburban Water's agreements if rates are affected.”
(based on information at http://www.calwater.com/rates/set_rates.php)
21. On page 3-54, in the third to last row, center column, revise the sentence:
- “Agreement to convey water through the CRA”
- To read: “Agreement to exchange water from the distribution system to a Metropolitan member agency for receipt by a Project Participant”
22. On page 3-54, below the third to last row, center column, insert the sentence:

- “Approval of aspects of the Project/CEQA”
- And right column, insert the sentence:
- “CEQA Responsible Agency pursuant to California Public Resources Code section 21069, Metropolitan would evaluate potential environmental impacts within its boundaries and on its facilities”
23. On page 4.1-4, paragraph 2, revise the characterization of Metropolitan lands from “private property” to “water district property.”
24. On page 4.5-13, paragraph 5, revise the text: “to the Los Angeles metropolitan Area” to read “to the Southern California coastal plain.”
25. On page 4.9-10, the last sentence regarding the U.S. Bureau of Reclamation Regional Study on climate change should be revised as it appears that there are words missing from the sentence:
- “However, these trends have many variations and need to consider more at a regional level, as discussed below.”
26. On page 4.9-11, paragraph 1, please clarify the geographical area associated with the variation in precipitation discussed in the sentence:
- “The data shows large annual variations (less than 9 to more than 20 inches).”
- It is not clear whether the area referenced is the Colorado Basin, referenced earlier in the paragraph or another area.
27. On page 4.9-12, revise the sentence:
- “Capture of snowmelt runoff traditionally has occurred during the late spring and early summer seasons.”
- to read: “Capture of snowmelt runoff traditionally has occurred during the late spring and early summer seasons.”
28. On page 4.9-40, paragraph 2, revise the sentence:
- “As a result of the Salinity Management Policy, TDS levels in Colorado River water sampled just below Parker Dam have been reduced to below 600 mg/L since 1985.”
- to read: “With implementation of the Colorado River Basin Salinity Control Program, TDS levels in Colorado River water sampled just below Parker Dam have varied from 620 to 680 since 2005.”
- Also revise the sentence in footnote 183:

“U.S. Bureau of Reclamation, *Quality of Water, Colorado River Basin, Progress Report No. 22*, 2005, Appendix A, page 69.”

to read: “U.S. Bureau of Reclamation, *Quality of Water, Colorado River Basin, Progress Report No. 23*, 2011, Appendix A, page 76.” found at <http://www.usbr.gov/uc/progact/salinity/pdfs/PR23final.pdf>.

29. On page 4.9-44, paragraph 3, revise the sentences:

“Presently, California is receiving waters unused by other states. The 2003 Quantification Settlement Agreements created California’s “soft landing” by reducing California’s Colorado River water usage from 5.2 million AFY to 4.4 million AFY in a normal year over 15 years through the conservation and transfer of water from agricultural to urban uses in San Diego County Water Authority’s, Metropolitan’s, and Coachella Valley Water District’s jurisdictions, through quantifying the agencies’ priority water rights to the River and allocating water in times of shortage. This effort was called the “Interim Surplus Guidelines.” The Interim Surplus Guidelines adopted rules for deciding when there was surplus water in the Colorado River, and how such a surplus could be used, as California wound down its excess use.”

to read: “Presently, California is not receiving waters unused by other states. While the 2003 Quantification Settlement Agreement contemplated a California “soft landing” by reducing California’s Colorado River water usage from 5.2 million AFY to 4.4 million AFY in a normal year over 15 years through the conservation and transfer of water from agricultural to urban uses in San Diego County Water Authority’s, Metropolitan’s, and Coachella Valley Water District’s jurisdictions, the California agencies reduced their use to 4.4 million AFY, less the payback of certain amounts of water used in 2001 and 2002, and inadvertent overruns beginning in 2003. Agreements relating to the Quantification Settlement Agreement quantified Imperial Irrigation District’s, Coachella Valley Water District’s and Metropolitan’s priority water rights to River water and allocate water in times of shortage. In addition, execution of these agreements restored the agencies’ ability to utilize special surplus water, when available in accordance with the 2001 “Interim Surplus Guidelines.” The Interim Surplus Guidelines adopted a methodology for deciding when there was surplus water available from Lake Mead, and for what purposes surplus water could be used”.

30. On page 4.9-77, paragraph 1, should the second reference to “CRA water” be revised to “groundwater” in the sentence: “The CRA water would have higher TDS concentrations than the CRA water, whereas the sodium and chloride (salt) concentrations of the CRA water would be slightly lower than the current concentrations in the groundwater in the alluvium in the Fenner Gap area.”?
31. On page 4.13-7, footnote 20, revise “*Rive*” to “*River*”.
32. On page 5-28, paragraph 2, revise the sentence:

“In contrast, much of the Project infrastructure would be installed underground (43 miles of water conveyance pipelines, possibly power distribution facilities and interconnected wellfield pipelines), on private property (Cadiz Property, ARZC ROW, Metropolitan lands), and in remote areas not generally accessible by the public.”

to read: “In contrast, much of the Project infrastructure would be installed underground (43 miles of water conveyance pipelines, possibly power distribution facilities and interconnected wellfield pipelines), on private and water district property (Cadiz Property, ARZC ROW, Metropolitan lands), and in remote areas not generally accessible by the public.”

33. On page 6-3, last paragraph, revise the sentence: “The facilities proposed for Groundwater Conservation and Recovery Component of the Project include construction of a wellfield and manifold (piping) system to carry pumped groundwater to a new 43-mile conveyance pipeline that would be constructed along the ARZC ROW, and tie into the CRA, which would distribute water to Project Participants.”

to read: “The facilities proposed for Groundwater Conservation and Recovery Component of the Project include construction of a wellfield and manifold (piping) system to carry pumped groundwater to a new 43-mile conveyance pipeline that would be constructed along the ARZC ROW, and tie into the CRA.”

34. On page 6-8, footnote 10, revise the words “Business and Professional Code” to read “Business and Professions Code”
35. On page 6-9, footnote 13, revise the reference to Section 775120 of the California Public Resources Code as there is no Section 775120 of the Code.
36. On page 6-10, paragraph 2, revise the sentence: “Metropolitan imports water from the Colorado River via its CRA and from the Sacramento-San Joaquin Delta via the SWP.

to read: “Metropolitan imports water from the Colorado River via its CRA and receives water from the California Department of Water Resources which imports it from the Sacramento-San Joaquin Delta via the SWP.”

37. On page 6-10, paragraphs 2 and 3, revise the sentences:

“Metropolitan’s water supplies and supply reliability are described in more detail in below but, in summary, Metropolitan is taking several steps to address reliability issues associated with both of its imported supply sources.

“On the Colorado River system a multi-year drought coupled with the need for Metropolitan to permanently reduce its level of imports, along with litigation over the negotiated multi-party settlement agreement intended to reduce California’s reliance on the Colorado River....”

to read: “Metropolitan’s water supplies and supply reliability are described in more detail below but, in summary, Metropolitan is taking several steps to address reliability issues associated with both of its imported supply sources.

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“On the Colorado River system, litigation over the negotiated multi-party Quantification Settlement and related agreements intended to reduce California’s reliance on the Colorado River....”

38. On page 6-10, last paragraph, revise the sentence: “Metropolitan works with local agencies to implement projects to recover and use contaminated groundwater.”

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to read: “Metropolitan works with local agencies to implement projects to recover and treat contaminated groundwater to meet potable use standards prior to use.”

39. On page 6-16, paragraph 3, revise the clause: “(see further discussion o Metropolitan supplies and reliability issues in Section 6.2.7, below)”

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to read: “(see further discussion of Metropolitan supplies and reliability issues in Section 6.2.7, below)”

40. On page 6-19, paragraph 5, with respect to the sentence: “SMWD is pursuing participation in the proposed Project as part their efforts to address the uncertainties arising over the long-term reliability of, and to offset the need for, imported water.”: Project water would be imported water.

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41. On page 6-31, Table 6-14, revise footnote a by inserting: “Valley” to read “Upper San Gabriel Valley Municipal Water District.”

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42. On page 6-42, paragraph 3, revise the sentence: “Metropolitan’s service area covers six counties in Southern California region: Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties.”

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to read: “Metropolitan’s service area covers portions of six counties in the Southern California region: Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties.”

43. On page 6-53, footnote 73, revise the sentence: “The transfer is implemented via Metropolitan infrastructure, whereby Metropolitan receives the IID water and conveys the same amount of CRA water to SDCWA.”

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to read: “The transfer is implemented via Metropolitan infrastructure, whereby Metropolitan receives the IID water and exchanges it for an equal amount of water delivered to SDCWA.”

44. On page 6-53, paragraph 3, insert a footnote providing a reference for the statement “Metropolitan projects that 16 percent of its total water supply in 2035 will come from the Colorado River.”

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Also, revise the sentences: “Of California’s 4.4 MAF apportionment from the Colorado River, 3.8 MAF, or 86 percent, is delivered to the Imperial Valley and, to a much lesser extent, the Palo Verde Irrigation District near Blythe, the Yuma Project, and the Coachella Valley Irrigation District. The water rights held by these irrigation districts are called “present perfected” rights – they predate the 1922 Colorado River Compact and thus entitle them to receive their water allocation in all years – dry or wet – over other lower priority users, including Metropolitan.”

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to read: “Of California’s 4.4 MAF normal year apportionment from the Colorado River, up to 3.85 MAF, less transfers and use of up to 14,500 acre-feet by holders of Indian and miscellaneous present perfected rights holders, is delivered to Imperial Irrigation District and, to a much lesser extent, the Palo Verde Irrigation District near Blythe, the Yuma Project, and the Coachella Valley Water District. A portion of the water rights held by the first three of the entities listed are called “present perfected” rights – they predate the 1928 Boulder Canyon Project Act and thus entitle them to receive their water allocation in order of their priority date over other lower priority users, including Metropolitan.”

45. On page 6-54, paragraph 1, revise the sentences: “California has historically drawn more than its basic apportionment of Colorado River water; its annual use has varied between 4.5 and 5.3 MAF over the last ten years^{77,78} with water supplies above California’s entitlement of 4.4 million acre-feet typically coming from unused portions of Arizona’s apportionment and surplus water on the River in wet years.”

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to read: “California has in the past drawn more than its basic apportionment of Colorado River water; its annual use has varied between 4.32 and 5.37 MAF over the last ten years^{77,78} with water supplies above California’s normal year apportionment of 4.4 million acre-feet typically coming from unused portions of Arizona and Nevada’s apportionment and surplus water.”

46. On page 6-54, footnote 77, revise: “Aquifonia, The Colorado River, <http://aquaforia.com/where-does-californias-water-come-from/the-colorado-river>, accessed October 12, 2011.

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to read: “<http://www.usbr.gov/lc/region/g4000/wtracct.html>.”

47. On page 6-54, paragraph 1, revise the sentence: “However, in recent years, increased use by upstream water users (within their allocated rights) has reduced the amount of surplus Colorado River water formerly available to Metropolitan, a 10-year drought in the Colorado River watershed has decreased storage levels in Lake Mead and Lake Powell below 50 percent, record dry conditions in Southern California have reduced groundwater basins and local reservoirs, and consecutive dry years in northern California reduced Lake Oroville (at the starting point of the SWP) in 2008 and 2009 to its lowest and third lowest operating level since the reservoir was filled.”

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to read: “However, in recent years, increased use by upstream water users (within their allocated rights) has reduced the amount of surplus Colorado River water formerly available to Metropolitan, a 10-year drought in the Colorado River watershed had decreased storage levels in Lake Mead and Lake Powell below 50 percent before their recovery in 2011, record dry

- conditions in Southern California had reduced groundwater levels and local reservoir storage before recovery in 2011, and consecutive dry years in northern California reduced Lake Oroville (an SWP reservoir) in 2008 and 2009 to its lowest and third lowest operating level since the reservoir was filled.”
48. On page 6-54, paragraph 1, revise the phrase: “Thus, while California’s apportionment of water has priority over Arizona and Nevada,”
- to read, “Thus, while California’s apportionment of water has priority over a portion of Arizona and Nevada’s apportionment,”
49. On page 6-54, paragraph 4, revise the sentence: “Metropolitan may receive this additional water from unused apportionments, water supplies unused by agricultural districts, supplies unused by the states of Arizona and Nevada classified as Priority 6, and as Intentionally Created Surplus or supplies stored from previous years’ extraordinary conservation and efficiency improvements to the operations of the Colorado River system, which are classified as Priority 3(a).”
- to read: “Metropolitan may receive this additional water from water supplies unused by agricultural districts, supplies unused by the states of Arizona and Nevada, and as Intentionally Created Surplus-- supplies stored from previous years’ extraordinary conservation and efficiency improvements to the operations of the Colorado River system.”
50. On page 6-55, paragraph 1, revise the sentence: “Although this amount is reasonably expected to be available over the next 20 years, water supply reliability is an increasing concern due to increased water use by other states and persistent drought conditions, which are reducing available supply to lower-priority users such as Metropolitan.”
- to read: “This amount is reasonably expected to be available over the next 20 years.”
51. On page 6-55, paragraph 2, revise the sentences: “The QSA is a set of agreements among IID, CVWD, San Diego County Water Authority (SDCWA), Metropolitan and others intended to reduce California’s reliance on the Colorado River. Essentially, the QSA calls for Imperial Valley farmers to make voluntary efficiency and conservation improvements and transfer the conserved water to San Diego.”
- to read: “The QSA and related agreements are a set of agreements among IID, CVWD, San Diego County Water Authority (SDCWA), Metropolitan and others intended to reduce California’s reliance on the Colorado River. Essentially, the IID-SDCWA transfer agreement calls for Imperial Valley farmers to fallow land and make voluntary efficiency improvements and for IID to make conservation improvements and transfer the conserved water to SDCWA.”
52. On page 6-55, paragraph 2, revise the sentences: “As part of the agreement, the State has agreed to bear responsibility for the restoration of the Salton Sea. Specifically, the QSA committed the parties to implementing eight long-term transfer and supply agreements that will shift up to 36 MAF from agricultural to urban use over the life of the agreement and authorize the All American Canal and Coachella Canal Lining Projects.”

- to read: “As part of the agreement, the State has agreed to bear responsibility for funding mitigation in excess of the \$133 million to be funded by IID, CVWD, and SDCWA, collectively. Specifically, the QSA and related agreements committed the parties to implementing eight long-term transfer and supply agreements that will shift up to 36 MAF from agricultural to urban use over the life of the agreement and allocate the use of conserved water from the All American Canal and Coachella Canal Lining Projects.”
53. On page 6-55, paragraph 2, revise the sentences: “An appeal was filed and a temporary stay immediately granted, which was later made permanent pending outcome of the appeal. The stay allows the QSA water transfers to continue while the QSA parties appeal its invalidation.”
- to read: “On December 7, 2011, the judgments in *Imperial Irrigation District v. All Persons Interested*, *POWER v. Imperial Irrigation District et al.*, and *County of Imperial v. Metropolitan Water District of Southern California et al.* were reversed, and the cases were remanded to the trial court for further proceedings consistent with the Court of Appeal’s opinion.”
54. On page 6-55, paragraph 2, revise the sentence: “The stay allows the QSA water transfers to continue while the QSA parties appeal its invalidation.”
- to read: “The QSA and related agreements continue to be implemented.”
55. On page 6-57, paragraph 2, revise the sentence: “Meanwhile, higher-priority users are beginning to take their full apportionment of Colorado River water, which could eventually reduce the amount of water available to Metropolitan to 550,000 AF, which is its fourth priority right, plus what water can be made available from conservation programs with the IID and other agricultural-to-urban water transfers.”
- to read: “Meanwhile, Arizona and Nevada have in the recent past used more of their apportionment of Colorado River water, and California has reduced its use, with Metropolitan using its basic apportionment, plus the amount of water made available from conservation and land fallowing programs with IID, CVWD, and PVID, the storage program with the Central Arizona Water Conservation District, and delivery of Intentionally Created Surplus, minus the use of water by holders of Indian and miscellaneous present perfected rights in excess of 14,500 acre-feet and the creation of Intentionally Created Surplus.”
56. On page 6-57, paragraph 3, revise the sentence: “The operational constraint is that this water needs to be blended with SWP supplies to meet the target salinity of 500 mg/L of TDS.”
- to read: “While this water is blended with SWP supplies in portions of Metropolitan’s distribution system to meet a target salinity of 500 mg/L of TDS, the salinity of Colorado River water is not a constraint in Metropolitan’s diversion of Colorado River water.”
57. On page 6-58, paragraph 2, revise the sentence: “The guiding principle of the WSDM Plan is to encourage storage of water during periods of surplus and work with its member agencies to minimize impacts of water shortages during periods of shortage.”

to read: "The guiding principle of the WSDM Plan is to encourage storage of water during periods of surplus and for Metropolitan to work with its member agencies to minimize impacts of water shortages during periods of shortage."

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58. On page 7-7, paragraph 1, revise the sentence: "Additionally, Metropolitan in collaboration with Metropolitan Water District of Orange County (MWDOC) and other Metropolitan member agencies is in the process of developing a Long Term Conservation Plan, which seeks an aggressive water use efficiency target in order to achieve a 20 percent reduction in per capita water use by 2020 for the entire Metropolitan service area."

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to read: "Additionally, Metropolitan in collaboration with the Municipal Water District of Orange County (MWDOC) and other Metropolitan member agencies is in the process of developing a Long Term Conservation Plan, which seeks an aggressive water use efficiency target in order to achieve a 20 percent reduction in per capita water use by 2020 for the entire Metropolitan service area."

Guidelines for Developments in the
Area of Facilities, Fee Properties, and/or Easements
of The Metropolitan Water District of Southern California

1. Introduction

a. The following general guidelines should be followed for the design of proposed facilities and developments in the area of Metropolitan's facilities, fee properties, and/or easements.

b. We require that 3 copies of your tentative and final record maps, grading, paving, street improvement, landscape, storm drain, and utility plans be submitted for our review and written approval as they pertain to Metropolitan's facilities, fee properties and/or easements, prior to the commencement of any construction work.

2. Plans, Parcel and Tract Maps

The following are Metropolitan's requirements for the identification of its facilities, fee properties, and/or easements on your plans, parcel maps and tract maps:

a. Metropolitan's fee properties and/or easements and its pipelines and other facilities must be fully shown and identified as Metropolitan's on all applicable plans.

b. Metropolitan's fee properties and/or easements must be shown and identified as Metropolitan's with the official recording data on all applicable parcel and tract maps.

c. Metropolitan's fee properties and/or easements and existing survey monuments must be dimensionally tied to the parcel or tract boundaries.

d. Metropolitan's records of surveys must be referenced on the parcel and tract maps.

3. Maintenance of Access Along Metropolitan's Rights-of-Way

a. Proposed cut or fill slopes exceeding 10 percent are normally not allowed within Metropolitan's fee properties or easements. This is required to facilitate the use of construction and maintenance equipment, and provide access to its aboveground and belowground facilities.

b. We require that 16-foot-wide commercial-type driveway approaches be constructed on both sides of all streets crossing Metropolitan's rights-of-way. Openings are required in any median island. Access ramps, if necessary, must be at least 16-feet-wide. Grades of ramps are normally not allowed to exceed 10 percent. If the slope of an access ramp must exceed 10 percent due to the topography, the ramp must be paved. We require a 40-foot-long level area on the driveway approach to access ramps where the ramp meets the street. At Metropolitan's fee properties, we may require fences and gates.

c. The terms of Metropolitan's permanent easement deeds normally preclude the building or maintenance of structures of any nature or kind within its easements, to ensure safety and avoid interference with operation and maintenance of Metropolitan's pipelines or other facilities. Metropolitan must have vehicular access along the easements at all times for inspection, patrolling, and for maintenance of the pipelines and other facilities on a routine basis. We require a 20-foot-wide clear zone around all above-ground facilities for this routine access. This clear zone should slope away from our facility on a grade not to exceed 2 percent. We must also have access along the easements with construction equipment. An example of this is shown on Figure 1.

d. The footings of any proposed buildings adjacent to Metropolitan's fee properties and/or easements must not encroach into the fee property or easement or impose additional loading on Metropolitan's pipelines or other facilities therein. A typical situation is shown on Figure 2. Prints of the detail plans of the footings for any building or structure adjacent to the fee property or easement must be submitted for our review and written approval as they pertain to the pipeline or other facilities therein. Also, roof eaves of buildings adjacent to the easement or fee property must not overhang into the fee property or easement area.

e. Metropolitan's pipelines and other facilities, e.g. structures, manholes, equipment, survey monuments, etc. within its fee properties and/or easements must be protected from damage by the easement holder on Metropolitan's property or the property owner where Metropolitan has an easement, at no expense to Metropolitan. If the facility is a cathodic protection station it shall be located prior to any grading or excavation. The exact location, description and way of protection shall be shown on the related plans for the easement area.

4. Easements on Metropolitan's Property

a. We encourage the use of Metropolitan's fee rights-of-way by governmental agencies for public street and utility purposes, provided that such use does not interfere with Metropolitan's use of the property, the entire width of the property is accepted into the agency's public street system and fair market value is paid for such use of the right-of-way.

b. Please contact the Director of Metropolitan's Right of Way and Land Division, telephone (213) 250-6302, concerning easements for landscaping, street, storm drain, sewer, water or other public facilities proposed within Metropolitan's fee properties. A map and legal description of the requested easements must be submitted. Also, written evidence must be submitted that shows the city or county will accept the easement for the specific purposes into its public system. The grant of the easement will be subject to Metropolitan's rights to use its land for water pipelines and related purposes to the same extent as if such grant had not been made. There will be a charge for the easement. Please note that, if entry is required on the property prior to issuance of the easement, an entry permit must be obtained. There will also be a charge for the entry permit.

5. Landscaping

Metropolitan's landscape guidelines for its fee properties and/or easements are as follows:

a. A green belt may be allowed within Metropolitan's fee property or easement.

b. All landscape plans shall show the location and size of Metropolitan's fee property and/or easement and the location and size of Metropolitan's pipeline or other facilities therein.

c. Absolutely no trees will be allowed within 15 feet of the centerline of Metropolitan's existing or future pipelines and facilities.

d. Deep-rooted trees are prohibited within Metropolitan's fee properties and/or easements. Shallow-rooted trees are the only trees allowed. The shallow-rooted trees will not be permitted any closer than 15 feet from the centerline of the pipeline, and such trees shall not be taller than 25 feet with a root spread no greater than 20 feet in diameter at maturity. Shrubs, bushes, vines, and ground cover are permitted, but larger shrubs and bushes should not be planted directly over our pipeline. Turf is acceptable. We require submittal of landscape plans for Metropolitan's prior review and written approval. (See Figure 3).

e. The landscape plans must contain provisions for Metropolitan's vehicular access at all times along its rights-of-way to its pipelines or facilities therein. Gates capable of accepting Metropolitan's locks are required in any fences across its rights-of-way. Also, any walks or drainage facilities across its access route must be constructed to AASHTO H-20 loading standards.

f. Rights to landscape any of Metropolitan's fee properties must be acquired from its Right of Way and Land Division. Appropriate entry permits must be obtained prior to any entry on its property. There will be a charge for any entry permit or easements required.

6. Fencing

Metropolitan requires that perimeter fencing of its fee properties and facilities be constructed of universal chain link, 6 feet in height and topped with 3 strands of barbed wire angled upward and outward at a 45 degree angle or an approved equal for a total fence height of 7 feet. Suitable substitute fencing may be considered by Metropolitan. (Please see Figure 5 for details).

7. Utilities in Metropolitan's Fee Properties and/or Easements or Adjacent to its Pipeline in Public Streets

Metropolitan's policy for the alignment of utilities permitted within its fee properties and/or easements and street rights-of-way is as follows:

a. Permanent structures, including catch basins, manholes, power poles, telephone riser boxes, etc., shall not be located within its fee properties and/or easements.

b. We request that permanent utility structures within public streets, in which Metropolitan's facilities are constructed under the Metropolitan Water District Act, be placed as far from our pipeline as possible, but not closer than 5 feet from the outside of our pipeline.

c. The installation of utilities over or under Metropolitan's pipeline(s) must be in accordance with the requirements shown on the enclosed prints of Drawings Nos. C-11632 and C-9547. Whenever possible we request a minimum of one foot clearance between Metropolitan's pipe and your facility. Temporary support of Metropolitan's pipe may also be required at undercrossings of its pipe in an open trench. The temporary support plans must be reviewed and approved by Metropolitan.

d. Lateral utility crossings of Metropolitan's pipelines must be as perpendicular to its pipeline alignment as practical. Prior to any excavation our pipeline shall be located manually and any excavation within two feet of our pipeline must be done by hand. This shall be noted on the appropriate drawings.

e. Utilities constructed longitudinally within Metropolitan's rights-of-way must be located outside the theoretical trench prism for uncovering its pipeline and must be located parallel to and as close to its rights-of-way lines as practical.

f. When piping is jacked or installed in jacked casing or tunnel under Metropolitan's pipe, there must be at least two feet of vertical clearance between the bottom of Metropolitan's pipe and the top of the jacked pipe, jacked casing or tunnel. We also require that detail drawings of the shoring for the jacking or tunneling pits be submitted for our review and approval. Provisions must be made to grout any voids around the exterior of the jacked pipe, jacked casing or tunnel. If the piping is installed in a jacked casing or tunnel the annular space between the piping and the jacked casing or tunnel must be filled with grout.

g. Overhead electrical and telephone line requirements:

1) Conductor clearances are to conform to the California State Public Utilities Commission, General Order 95, for Overhead Electrical Line Construction or at a greater clearance if required by Metropolitan. Under no circumstances shall clearance be less than 35 feet.

2) A marker must be attached to the power pole showing the ground clearance and line voltage, to help prevent damage to your facilities during maintenance or other work being done in the area.

3) Line clearance over Metropolitan's fee properties and/or easements shall be shown on the drawing to indicate the lowest point of the line under the most adverse conditions including consideration of sag, wind load, temperature change, and support type. We require that overhead lines be located at least 30 feet laterally away from all above-ground structures on the pipelines.

4) When underground electrical conduits, 120 volts or greater, are installed within Metropolitan's fee property and/or easement, the conduits must be incased in a minimum of three inches of red concrete. Where possible, above ground warning signs must also be placed at the right-of-way lines where the conduits enter and exit the right-of-way.

h. The construction of sewerlines in Metropolitan's fee properties and/or easements must conform to the California Department of Health Services Criteria for the Separation of Water Mains and Sanitary Services and the local City or County Health Code Ordinance as it relates to installation of sewers in the vicinity of pressure waterlines. The construction of sewerlines should also conform to these standards in street rights-of-way.

i. Cross sections shall be provided for all pipeline crossings showing Metropolitan's fee property and/or easement limits and the location of our pipeline(s). The exact locations of the crossing pipelines and their elevations shall be marked on as-built drawings for our information.

j. Potholing of Metropolitan's pipeline is required if the vertical clearance between a utility and Metropolitan's pipeline is indicated on the plan to be one foot or less. If the indicated clearance is between one and two feet, potholing is suggested. Metropolitan will provide a representative to assist others in locating and identifying its pipeline. Two-working days notice is requested.

k. Adequate shoring and bracing is required for the full depth of the trench when the excavation encroaches within the zone shown on Figure 4.

1. The location of utilities within Metropolitan's fee property and/or easement shall be plainly marked to help prevent damage during maintenance or other work done in the area. Detectable tape over buried utilities should be placed a minimum of 12 inches above the utility and shall conform to the following requirements:

1) Water pipeline: A two-inch blue warning tape shall be imprinted with:

"CAUTION BURIED WATER PIPELINE"

2) Gas, oil, or chemical pipeline: A two-inch yellow warning tape shall be imprinted with:

"CAUTION BURIED _____ PIPELINE"

3) Sewer or storm drain pipeline: A two-inch green warning tape shall be imprinted with:

"CAUTION BURIED _____ PIPELINE"

4) Electric, street lighting, or traffic signals conduit: A two-inch red warning tape shall be imprinted with:

"CAUTION BURIED _____ CONDUIT"

5) Telephone, or television conduit: A two-inch orange warning tape shall be imprinted with:

"CAUTION BURIED _____ CONDUIT"

m. Cathodic Protection requirements:

1) If there is a cathodic protection station for Metropolitan's pipeline in the area of the proposed work, it shall be located prior to any grading or excavation. The exact location, description and manner of protection shall be shown on all applicable plans. Please contact Metropolitan's Corrosion Engineering Section, located at Metropolitan's F. E. Weymouth Softening and Filtration Plant, 700 North Moreno Avenue, La Verne, California 91750, telephone (714) 593-7474, for the locations of Metropolitan's cathodic protection stations.

2) If an induced-current cathodic protection system is to be installed on any pipeline crossing Metropolitan's pipeline, please contact Mr. Wayne E. Risner at (714) 593-7474 or (213) 250-5085. He will review the proposed system and determine if any conflicts will arise with the existing cathodic protection systems installed by Metropolitan.

3) Within Metropolitan's rights-of-way, pipelines and carrier pipes (casings) shall be coated with an approved protective coating to conform to Metropolitan's requirements, and shall be maintained in a neat and orderly condition as directed by Metropolitan. The application and monitoring of cathodic protection on the pipeline and casing shall conform to Title 49 of the Code of Federal Regulations, Part 195.

4) If a steel carrier pipe (casing) is used:

(a) Cathodic protection shall be provided by use of a sacrificial magnesium anode (a sketch showing the cathodic protection details can be provided for the designers information).

(b) The steel carrier pipe shall be protected with a coal tar enamel coating inside and out in accordance with AWWA C203 specification.

n. All trenches shall be excavated to comply with the CAL/OSHA Construction Safety Orders, Article 6, beginning with Sections 1539 through 1547. Trench backfill shall be placed in 8-inch lifts and shall be compacted to 95 percent relative compaction (ASTM D698) across roadways and through protective dikes. Trench backfill elsewhere will be compacted to 90 percent relative compaction (ASTM D698).

o. Control cables connected with the operation of Metropolitan's system are buried within streets, its fee properties and/or easements. The locations and elevations of these cables shall be shown on the drawings. The drawings shall note that prior to any excavation in the area, the control cables shall be located and measures shall be taken by the contractor to protect the cables in place.

p. Metropolitan is a member of Underground Service Alert (USA). The contractor (excavator) shall contact USA at 1-800-422-4133 (Southern California) at least 48 hours prior to starting any excavation work. The contractor will be liable for any damage to Metropolitan's facilities as a result of the construction.

8. Paramount Right

Facilities constructed within Metropolitan's fee properties and/or easements shall be subject to the paramount right of Metropolitan to use its fee properties and/or easements for the purpose for which they were acquired. If at any time Metropolitan or its assigns should, in the exercise of their rights, find it necessary to remove any of the facilities from the fee properties and/or easements, such removal and replacement shall be at the expense of the owner of the facility.

9. Modification of Metropolitan's Facilities

When a manhole or other of Metropolitan's facilities must be modified to accommodate your construction or reconstruction, Metropolitan will modify the facilities with its forces. This should be noted on the construction plans. The estimated cost to perform this modification will be given to you and we will require a deposit for this amount before the work is performed. Once the deposit is received, we will schedule the work. Our forces will coordinate the work with your contractor. Our final billing will be based on actual cost incurred, and will include materials, construction, engineering plan review, inspection, and administrative overhead charges calculated in accordance with Metropolitan's standard accounting practices. If the cost is less than the deposit, a refund will be made; however, if the cost exceeds the deposit, an invoice will be forwarded for payment of the additional amount.

10. Drainage

a. Residential or commercial development typically increases and concentrates the peak storm water runoff as well as the total yearly storm runoff from an area, thereby increasing the requirements for storm drain facilities downstream of the development. Also, throughout the year water from landscape irrigation, car washing, and other outdoor domestic water uses flows into the storm drainage system resulting in weed abatement, insect infestation, obstructed access and other problems. Therefore, it is Metropolitan's usual practice not to approve plans that show discharge of drainage from developments onto its fee properties and/or easements.

b. If water must be carried across or discharged onto Metropolitan's fee properties and/or easements, Metropolitan will insist that plans for development provide that it be carried by closed conduit or lined open channel approved in writing by Metropolitan. Also the drainage facilities must be maintained by others, e.g., city, county, homeowners association, etc. If the development proposes changes to existing drainage features, then the developer shall make provisions to provide for replacement and these changes must be approved by Metropolitan in writing.

11. Construction Coordination

During construction, Metropolitan's field representative will make periodic inspections. We request that a stipulation be added to the plans or specifications for notification of Mr. _____ of Metropolitan's Operations Services Branch, telephone (213) 250-_____, at least two working days prior to any work in the vicinity of our facilities.

12. Pipeline Loading Restrictions

a. Metropolitan's pipelines and conduits vary in structural strength, and some are not adequate for AASHTO H-20 loading. Therefore, specific loads over the specific sections of pipe or conduit must be reviewed and approved by Metropolitan. However, Metropolitan's pipelines are typically adequate for AASHTO H-20 loading provided that the cover over the pipeline is not less than four feet or the cover is not substantially increased. If the temporary cover over the pipeline during construction is between three and four feet, equipment must be restricted to that which

imposes loads no greater than AASHTO H-10. If the cover is between two and three feet, equipment must be restricted to that of a Caterpillar D-4 tract-type tractor. If the cover is less than two feet, only hand equipment may be used. Also, if the contractor plans to use any equipment over Metropolitan's pipeline which will impose loads greater than AASHTO H-20, it will be necessary to submit the specifications of such equipment for our review and approval at least one week prior to its use. More restrictive requirements may apply to the loading guideline over the San Diego Pipelines 1 and 2, portions of the Orange County Feeder, and the Colorado River Aqueduct. Please contact us for loading restrictions on all of Metropolitan's pipelines and conduits.

b. The existing cover over the pipeline shall be maintained unless Metropolitan determines that proposed changes do not pose a hazard to the integrity of the pipeline or an impediment to its maintenance.

13. Blasting

a. At least 20 days prior to the start of any drilling for rock excavation blasting, or any blasting, in the vicinity of Metropolitan's facilities, a two-part preliminary conceptual plan shall be submitted to Metropolitan as follows:

b. Part 1 of the conceptual plan shall include a complete summary of proposed transportation, handling, storage, and use of explosions.

c. Part 2 shall include the proposed general concept for blasting, including controlled blasting techniques and controls of noise, fly rock, airblast, and ground vibration.

14. CEQA Requirementsa. When Environmental Documents Have Not Been Prepared

1) Regulations implementing the California Environmental Quality Act (CEQA) require that Metropolitan have an opportunity to consult with the agency or consultants preparing any environmental documentation. We are required to review and consider the environmental effects of the project as shown in the Negative Declaration or Environmental Impact Report (EIR) prepared for your project before committing Metropolitan to approve your request.

- 12 -

2) In order to ensure compliance with the regulations implementing CEQA where Metropolitan is not the Lead Agency, the following minimum procedures to ensure compliance with the Act have been established:

a) Metropolitan shall be timely advised of any determination that a Categorical Exemption applies to the project. The Lead Agency is to advise Metropolitan that it and other agencies participating in the project have complied with the requirements of CEQA prior to Metropolitan's participation.

b) Metropolitan is to be consulted during the preparation of the Negative Declaration or EIR.

c) Metropolitan is to review and submit any necessary comments on the Negative Declaration or draft EIR.

d) Metropolitan is to be indemnified for any costs or liability arising out of any violation of any laws or regulations including but not limited to the California Environmental Quality Act and its implementing regulations.

b. When Environmental Documents Have Been Prepared

If environmental documents have been prepared for your project, please furnish us a copy for our review and files in a timely manner so that we may have sufficient time to review and comment. The following steps must also be accomplished:

1) The Lead Agency is to advise Metropolitan that it and other agencies participating in the project have complied with the requirements of CEQA prior to Metropolitan's participation.

2) You must agree to indemnify Metropolitan, its officers, engineers, and agents for any costs or liability arising out of any violation of any laws or regulations including but not limited to the California Environmental Quality Act and its implementing regulations.

15. Metropolitan's Plan-Review Cost

a. An engineering review of your proposed facilities and developments and the preparation of a letter response

- 13 -

giving Metropolitan's comments, requirements and/or approval that will require 8 man-hours or less of effort is typically performed at no cost to the developer, unless a facility must be modified where Metropolitan has superior rights. If an engineering review and letter response requires more than 8 man-hours of effort by Metropolitan to determine if the proposed facility or development is compatible with its facilities, or if modifications to Metropolitan's manhole(s) or other facilities will be required, then all of Metropolitan's costs associated with the project must be paid by the developer, unless the developer has superior rights.

b. A deposit of funds will be required from the developer before Metropolitan can begin its detailed engineering plan review that will exceed 8 hours. The amount of the required deposit will be determined after a cursory review of the plans for the proposed development.

c. Metropolitan's final billing will be based on actual cost incurred, and will include engineering plan review, inspection, materials, construction, and administrative overhead charges calculated in accordance with Metropolitan's standard accounting practices. If the cost is less than the deposit, a refund will be made; however, if the cost exceeds the deposit, an invoice will be forwarded for payment of the additional amount. Additional deposits may be required if the cost of Metropolitan's review exceeds the amount of the initial deposit.

16. Caution

We advise you that Metropolitan's plan reviews and responses are based upon information available to Metropolitan which was prepared by or on behalf of Metropolitan for general record purposes only. Such information may not be sufficiently detailed or accurate for your purposes. No warranty of any kind, either express or implied, is attached to the information therein conveyed as to its accuracy, and no inference should be drawn from Metropolitan's failure to comment on any aspect of your project. You are therefore cautioned to make such surveys and other field investigations as you may deem prudent to assure yourself that any plans for your project are correct.

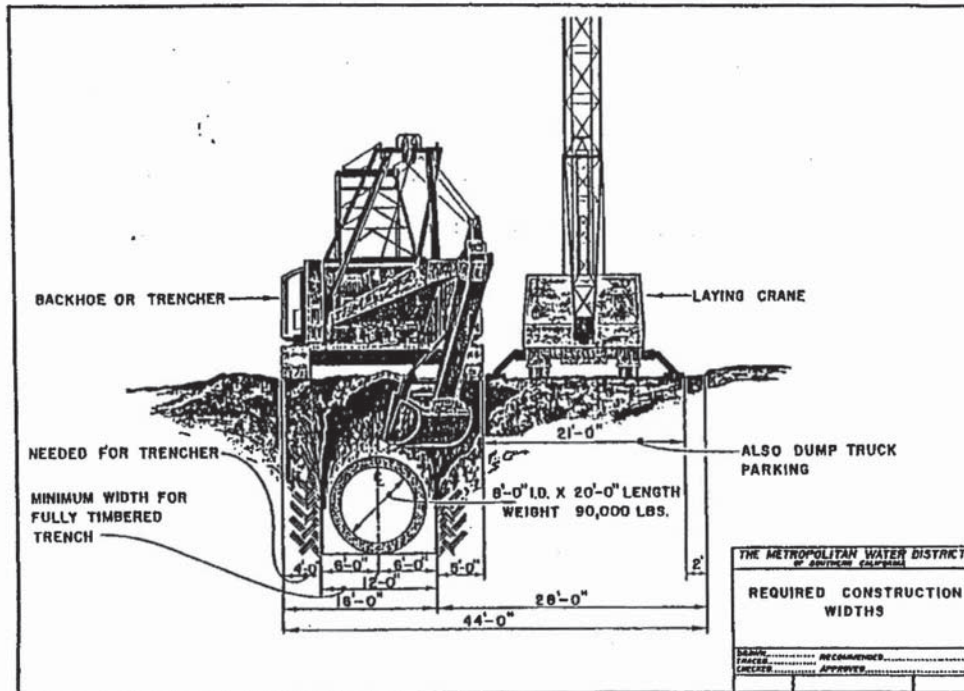


FIGURE 1

A_MWD

- 14 -

17. Additional Information

Should you require additional information, please contact:

Civil Engineering Substructures Section
 Metropolitan Water District
 of Southern California
 P.O. Box 54153
 Los Angeles, California 90054-0153
 (213) 217-6000

JEH/MRW/lk

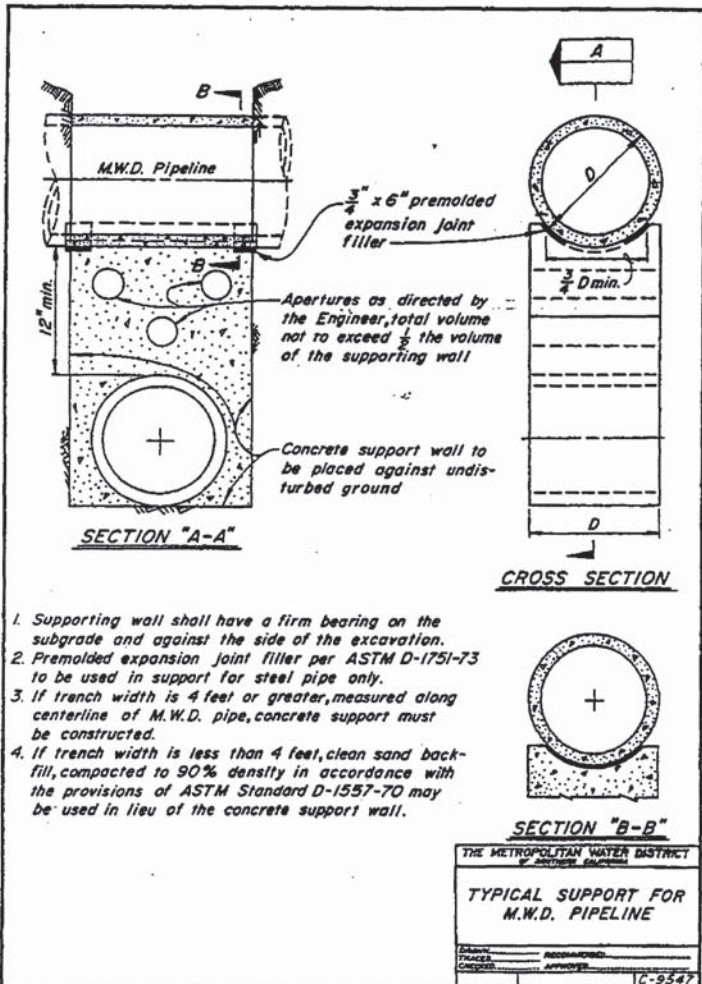
Rev. January 22, 1989

Encl.

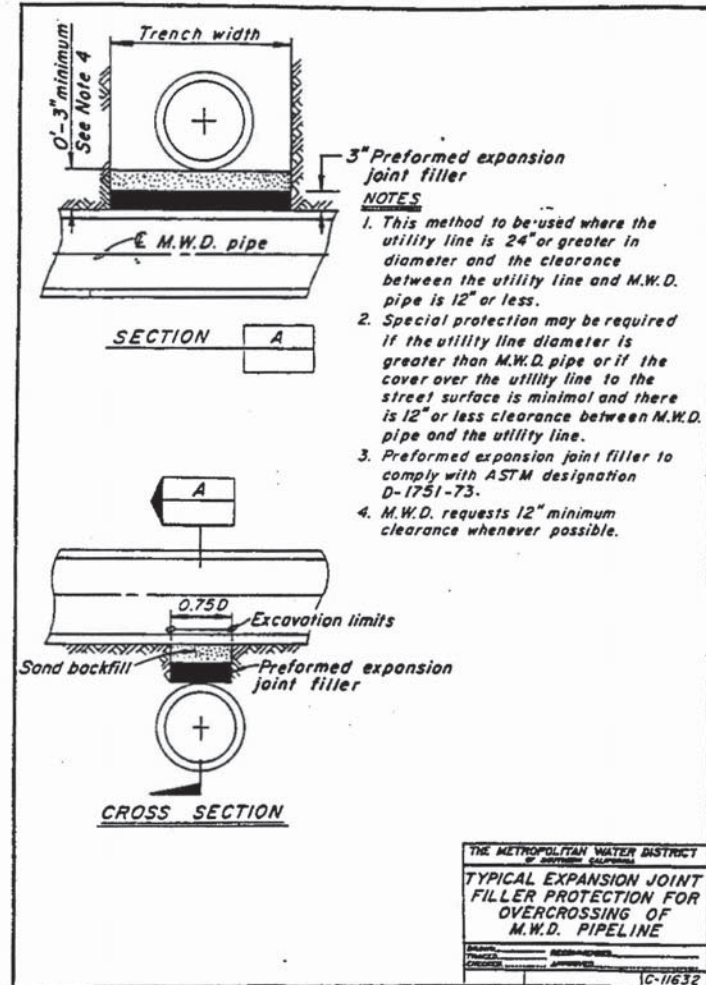


NOTE: M.W.D. PIPELINE SIZE, DEPTH, LOCATION AND WIDTH OF PERMANENT RIGHT OF WAY VARIES.





1. Supporting wall shall have a firm bearing on the subgrade and against the side of the excavation.
2. Premolded expansion joint filler per ASTM D-1751-73 to be used in support for steel pipe only.
3. If trench width is 4 feet or greater, measured along centerline of M.W.D. pipe, concrete support must be constructed.
4. If trench width is less than 4 feet, clean sand backfill, compacted to 90% density in accordance with the provisions of ASTM Standard D-1557-70 may be used in lieu of the concrete support wall.





MWD

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Executive Office

A_MWD

March 30, 2011

Tom Barnes, ESA
626 Wilshire Boulevard, Ste 1100
Los Angeles, CA 90017

Via Electronic and Federal Express
cadizproject@esassoc.com

Dear Mr. Barnes:

Cadiz Valley Water Conservation, Recovery, and Storage Project, Notice of Preparation

The Metropolitan Water District of Southern California (Metropolitan) received the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Cadiz Valley Water Conservation, Recovery, and Storage Project (Project). The Santa Margarita Water District (SMWD) is acting as the Lead Agency under the California Environmental Quality Act (CEQA) for this proposed Project.

Metropolitan is a public agency and regional water wholesaler, comprising 26 member cities and water agencies charged with providing a reliable supply of high quality drinking water to more than 19 million people in six counties (San Diego, Orange, Riverside, Los Angeles, San Bernardino, and Ventura) in Southern California. One of Metropolitan's primary water supplies is the Colorado River. Metropolitan owns and operates the Colorado River Aqueduct (CRA) to bring water from the Colorado River to its service area.

The NOP describes the proposed Project as including use of "the CRA delivery system owned and operated by the Metropolitan Water District of Southern California (Metropolitan)." (NOP, p. 4.) The NOP notes that Metropolitan's approval is required for the construction and operation of any modifications to the CRA, and for the use of Metropolitan facilities to deliver water for the proposed Project. (NOP, p. 6.) As a public agency that must approve aspects of the Project, Metropolitan is a responsible agency for purposes of CEQA. (Public Resources Code § 21069.) This letter provides Metropolitan's comments on the scope and content of the environmental information that is germane to Metropolitan's role as a responsible agency in the CEQA process. (Public Resources Code § 21080.4.)

On the basis of the Project description in the NOP, the environmental information pertinent to Metropolitan's role in the proposed Project includes:

A_MWD

Mr. Tom Barnes, ESA
Page 2
March 30, 2011

- Identification and description of the environmental impacts from construction and operation of any Project facilities (e.g., turn-out structure, pipeline) that would be constructed on Metropolitan property,
- Environmental effects of construction and operation of any water treatment facilities that may be required to introduce the water supply into Metropolitan's conveyance system, and
- Environmental effects of the construction and operation of any electric power generating or transmission facilities that may be required to deliver the water supply through Metropolitan's conveyance system.

We appreciate the opportunity to provide input to your planning process and we look forward to receiving the Draft EIR for the proposed Project. Please direct all further communications related to the proposed Project to Dr. Marty Meisler at (213) 217-6364.

Very truly yours,

John Shamma
Manager, Environmental Planning Team

MM:rdl

(J:\Environmental-Planning&Compliance\COMPLETED JOBS\March 2011\Job No. 2011032433)

A_MDAQMD 1

From: Tracy Walters [twalters@mdaqmd.ca.gov]
Sent: Friday, December 16, 2011 9:38 AM
To: Cadiz Project
Subject: DEIR Cadiz Valley Water Conservation, Recovery, and Storage Project

Good Afternoon,

We would like to request an electronic copy of the "Groundwater Management, Monitoring, and Mitigation Plan," referenced in Air Quality Mitigation Measure AQ-5 and Table 4.3-7 of the DEIR to assist in the District review of the proposed project.

Thank You,

Tracy Walters
Mojave Desert AQMD
Lead Air Quality Planner
(760) 245-1661 extension 6122



A_MDAQMD 2

Mojave Desert Air Quality Management District
14306 Park Avenue, Victorville, CA 92392-2310
760.245.1661 • fax 760.245.2699
Visit our web site: <http://www.mdaqmd.ca.gov>
Eldon Heaston, Executive Director

December 20, 2011

c/o Tom Barnes, ESA
626 Wilshire Boulevard, Ste. 1100
Los Angeles, CA 90017

Project: Draft Environmental Impact Report (DEIR) – Cadiz Valley Water Conservation, Recovery, and Storage Project

Dear Mr. Barnes:

The Mojave Desert Air Quality Management District (District) has received the DEIR for the proposed Cadiz Valley Water Conservation, Recovery, and Storage Project. The purpose of the project is to develop a new, reliable water supply and storage facility for Santa Margarita Water District and other participating water providers. The proposed project is designed to actively manage the groundwater basin underlying a portion of the Cadiz and Fenner Valleys. The project would be developed in two phases, the first being the Conservation and Recovery Component and the second phase being the Imported Water Storage Component.

The District concurs that the proposed mitigation measures for Air Quality (AQ-1 through AQ-5) represent feasible mitigation.

Thank you for the opportunity to review this planning document. If you have any questions regarding this letter, please contact me at (760) 245-1661, extension 6726, or Tracy Walters at extension 6122.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan J. De Salvio".

Alan J. De Salvio
Supervising Air Quality Engineer

AJD/tw

Cadiz Project.doc

A_Needles City



CITY OF NEEDLES

817 Third Street • Needles, California 92363
(760) 326-2113 • FAX (760) 326-2789

Mayor Edward Paget
Vice Mayor Pat March
Councilmember Tony Frazier
Councilmember Jim Lopez
Councilmember Shawn Gudmundson
Councilmember Linda J Kidd
Councilmember Terry Campbell
City Manager David G. Brownlee

March 1, 2012

Mr. Tom Barnes, ESA
626 Wilshire Blvd, Suite 1100
Los Angeles, CA 90017

RE: City of Needles Comments on the Cadiz Valley Water Conservation, Recovery, and Storage Project ("Cadiz")

Dear Mr. Barnes,

At the regularly scheduled City Council meeting held on Tuesday February 28, 2012, the City Council unanimously voted to decline support for the referenced project.

Water is the rarest of commodities in the desert. The City of Needles has Present Perfected Rights to 1,223 acre-feet of consumptive use from the Colorado River. As such, the 4,844 residents of Needles have a keen awareness of the evanescence of water.

What is particularly troubling about Cadiz project plan is the lack of specificity on Phase II: "A second phase of the water project would make available up to one million acre-feet of groundwater storage space in the aquifer system for water imported to the project area". "Under the imported water storage component, water from the Colorado River or potentially the State Water Project could be conveyed to recharge basins on our property in wet years to percolate into the aquifer system, where it would be held in storage. In dry years, previously stored water would be returned to the Colorado River Aqueduct via the conveyance pipeline"

Question: When was the last wet or "surplus" water year on the Lower Colorado River?

The City of Needles cannot endorse a project that will take 50,000 acre-feet of ground water annually from an extremely fragile ecosystem with no concrete plan for the replenishment of the aquifer. Natural recharge is estimated to be 14,000 acre-feet per annum. Taking the other 36,000 acre-feet from the Colorado River, the most over subscribed waterway in America is unacceptable.

Very truly yours,

Edward T. Paget.
Mayor

March 13, 2012

Via U.S. Mail & Email

Tom Barnes, ESA
626 Wilshire Boulevard, Suite 1100
Los Angeles, California 90017
cadizproject@esassoc.com

Re: Responsible Agency Comments on the Draft EIR for the Cadiz Valley Water Conservation, Recovery, and Storage Project

Dear Mr. Barnes:

I am writing on behalf of the County of San Bernardino on the Draft Environmental Impact Report for the Cadiz Valley Water Conservation, Recovery, and Storage Project. The County, as you know, has adopted a Desert Groundwater Management Ordinance for the protection of groundwater resources in the County, which is intended to ensure that extraction of groundwater does not exceed the safe yield of affected aquifers or otherwise adversely affect the health or continued ability of those aquifers to store and maintain groundwater. Because the Cadiz Project proposes to extract groundwater from aquifers within the County, the Project must obtain a permit or otherwise qualify for an exclusion under the Ordinance (Ord. §§ 33.06552, 33.06554), which will be subject to review by the County Board of Supervisors.

Through a memorandum of understanding approved by the Board of Supervisors on June 28, 2011, Cadiz and the Santa Margarita Water District ("SMWD") have agreed and acknowledged that in this process, the County is serving as a responsible agency under CEQA. As a responsible agency, the County must consider the project EIR but may "reach[] its own conclusions on whether and how to approve the project involved." (*CEQA Guidelines* § 15096(a).) The County must also make its own findings for each significant effect of the project, including the finding that significant impacts of the project have been mitigated. (*CEQA Guidelines* § 15096(h).) Consequently, the County will need to ensure independently that the Cadiz Project avoids or mitigates any adverse effects that may arise, including effects on aquifer health, overdraft, long-term groundwater supplies, surface vegetation, dust emissions, and subsidence.

Further, as referenced above, the County must evaluate the Cadiz Project as conforming to the County Desert Groundwater Management Ordinance. Before issuing a permit for extraction of groundwater, the County must find, "based upon the available data, that the well(s) constructed

and operated as proposed, would not result in exceeding the groundwater safe yield of the relevant aquifers." (*Id.*) The County must deny the application for a permit "where the well operations proposed in the application would result in exceeding the groundwater safe yield of the relevant aquifers considered individually or in conjunction with other existing wells." (*Id.*, § 33.06554(f).) The County may include in the permit "conditions and requirements" found to be "reasonably necessary to accomplish the purposes of [the Groundwater Ordinance], including . . . conditions requiring groundwater management, mitigation and monitoring by the applicant." (*Id.*)

Apart from the permitting process described above, applicants such as Cadiz may seek an "exclusion" from the County's Ordinance. To be excluded from the County's Groundwater Ordinance, a well operator must satisfy two requirements:

- (1) The operator must adopt a "groundwater management plan pursuant to Water Code §§ 10750 et seq. ('AB 3030 Plan') which adheres to 'groundwater safe yield' and 'aquifer health' limitations as those terms are defined in [the County's Ordinance] or has otherwise developed and instituted a County-approved groundwater management, monitoring and mitigation plan . . . that is consistent with guidelines developed by the County"; and
- (2) The operator must execute a "Memorandum of Understanding ('MOU') or other binding agreement with the County. . . ."

(*Id.*, § 33.06552(b); see also County of San Bernardino, *Guidelines for Preparation of a Groundwater Monitoring Plan* (rev. June 2000).) The MOU or other agreement, in turn, must include provisions requiring the parties to share "groundwater monitoring information," coordinate efforts to "monitor groundwater resources in the County," and ensure that the "measures" identified in the groundwater management plan are "fully implemented and enforced." (*Id.*, § 33.06552(b)(2)(A)-(2)(B).) Important to the County, the MOU "must remain enforceable" in order to provide for an exclusion from [the Ordinance]." (*Id.*, § 33.06552(b)(2)(B) [emphasis added].)

In sum, to qualify for an exclusion from the permitting process under the County's groundwater ordinance, the groundwater management plan is subject to discretionary review and approval by the County and it must adhere to the Ordinance's "safe yield" and "aquifer health" limitations. (Ord. § 33.06552(b)(1).)¹

Cadiz and SMWD are continuing to refine the draft Groundwater Management, Monitoring, and Mitigation Plan and are negotiating with the County on the contents of an MOU intended to satisfy the Ordinance's exclusion provisions. While we continue to have reservations about the

¹ The county's *Guidelines for Preparation of a Groundwater Monitoring Plan* (rev. June 2000) likewise call on the County to measure adverse groundwater impacts via "[s]ignificance criteria" to be developed on a case-by-case basis and which would include and prohibit "significant groundwater level declines."

A_SBCounty

Tom Barnes, ESA

March 13, 2012

Page 3

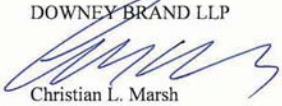
scope of the proposed project, we are working with Cadiz and SMWD to develop and institute safeguards to ensure that the requirements imposed by CEQA and the County's Ordinance are met. The Project, in the meantime, remains subject to the County's full exercise of discretion as a responsible agency to approve or disapprove the Project and to require the Project to undertake mitigation measures or alternatives as may be set forth in the EIR or under the County's Ordinance. If we cannot resolve these issues in the context of the MOU and GMMMP, the County reserves all rights to submit its full breadth of technical comments on the Project EIR and to file a petition for writ of mandate in superior court if the County believes the GMMMP and Project EIR do not conform to CEQA or the County's Ordinance.

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We welcome an ongoing dialogue with Cadiz and SMWD, and encourage you to contact us if you have any questions about the process ahead.

Very truly yours,

DOWNEY BRAND LLP



Christian L. Marsh

cc: John Schatz, Santa Margarita Water District
Scott Slater, Brownstein Hyatt Farber Schreck LLP
Greg Devereaux, County of San Bernardino
Christine Kelly, County of San Bernardino
Kevin O'Brien, Downey Brand LLP
Joseph Scalmanini, Luhdorff & Scalmanini

DEPARTMENT OF PUBLIC WORKS

FLOOD CONTROL • LAND DEVELOPMENT & CONSTRUCTION • OPERATIONS
SOLID WASTE MANAGEMENT • SURVEYOR • TRANSPORTATION

COUNTY OF SAN BERNARDINO

825 East Third Street • San Bernardino, CA 92415-0835 • (909) 387-8104
Fax (909) 387-8130GRANVILLE M. "BOW" BOWMAN, P.E., P.L.S.
Director of Public Works

February 7, 2012

File: 10(ENV)-4.01

Tom Barnes, ESA
626 Wilshire Blvd., Ste. 1100
Los Angeles, CA. 90017**RE: NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) FOR
THE CADIZ VALLEY WATER CONSERVATION, RECOVERY, AND STORAGE PROJECT**

Dear Mr. Barnes:

Thank you for giving the San Bernardino County Department of Public Works (Department) the opportunity to comment on the above-referenced project. The environmental document was circulated to other Divisions within our Department and the following are their comments:

Environmental Management Division (Kim Romich, Ecologist, (909) 387-8109):

1. Page 206 states that Jimson weed is non-native, but it is a native plant.

Traffic Division (Ed Petre, PWE III, (909) 387-8239):

1. Page 4.15-6, County: The County of San Bernardino only maintains 4.44 miles of Cadiz Road from the AT&SF tracks to National Trails Highway.
2. Page 4.15-8: If a lane closures, placing construction signs or flagmen are required to manage traffic on County Maintained Roadways, a permit needs to be obtained from the County of San Bernardino Department of Public Works.
3. Page 4.15-9, Mitigation Measures, TR-1: Submit the Traffic Control Plan to the County of San Bernardino Department of Public Works for comments and approval.
4. Page J-17, Mitigation Measures: Strive to achieve LOS C, not D on roadways within the jurisdiction.

Transportation Planning (Omar Gonzalez, PE, (909) 387-8164):

1. Section 4.15 .1 Environmental Setting

National Trails Highway (US 66): Should be described as National Trails Highway (former US 66). Has been a county route in this project area since Circa 1976 when it was relinquished by the state to the county.

National Trails Highway does NOT "originate" at an interchange with I-15 and "terminate" at Lenwood Road. If the section is to address regional roadways, the scope should address former US 66 within the county of San Bernardino from Upland in the valley portion of the county via the Cajon Pass, Hesperia and Victorville, through Barstow and Daggett the Desert communities of Ludlow, Danby Mountain Springs and Goffs etc.

Cadiz Valley Water
February 7, 2012
Page 2 of 2

Then the statement the National Trails Highway runs east and west through the project area approximately 4 miles to the north of the Project site makes sense.

2. Section (page) 4.15-6, Under County San Bernardino County Department of Public Works

From the footnote citation (which is at least five years old) Updated information should be incorporated on more recent data.
Agenda Item 48 (June 14, 2011) The certified center-line miles of County Maintained Roads is 2,769.36 miles.

The citation of the draft 2006 General Plan PEIR as to the assertion that the Cadiz-Rice road that follows the ARCZ railroad is a county road is likely a mis-interpretation of the information in the circulation element which shows the alignment as part of proposed circulation.

The road is NOT in the County Maintained Road system, and is therefore NOT a county road. The county does maintain a short section of this road of just over 4 miles from National Trails Highway south easterly to the rail tracks.

The section between the rail tracks south easterly to Rice at State Highway 62 is a public road, but has not been in the CMRS since it was removed by Board of Supervisor action in 1980.

3. Section (page) 4.15-7, Congestion Management Program

The CMP is by COUNTY. The area is obviously not part of the CMP as it is not in an urbanized area. However, the nearest community with a population at or above 50,000 which is the criterion for an urbanized area needs to be cited in the document within San Bernardino County, not Riverside County.

If you have any questions or require additional information, please contact the specific individuals that have provided that specific comment, as listed above.

Sincerely,

JOHN SCHATZ, AICP
Supervising Planner
Environmental Management Division

JS:PE:mb/CEQA Comments to DEIR_Santa Margarita Water District_Cadiz Valley Water.doc

GREGORY C. DEVEREAUX
Chief Executive Officer

Board of Supervisors
BRAD MITZELFELT First District NEIL DERRY Third District
JANICE RUTHERFORD Second District GARY C. OWITT Fourth District
JOSIE GONZALES Fifth District

CITY OFFICES:
6136 ADOBE ROAD
TWENTYNINE PALMS, CA 92277
(760) 367-6799
fax (760) 367-4890
www.29palms.org



A_29 Palms City1

COUNCIL MEMBERS
John E. Cole, Mayor
Joel Klink, Mayor Pro Tem
Jay Corbin
Jim Harris
Daniel L. Mintz Sr.

CITY MANAGER
Richard N. Warne

January 31, 2012

Mr. Tom Barnes
ESA Southern California Water Group
626 Wilshire Blvd, Suite 1100
Los Angeles, CA 90017

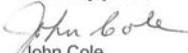
Dear Mr. Barnes:

I am writing to support the Cadiz Valley Water Conservation, Recovery and Storage Project. While the water itself will not benefit the City of Twentynine Palms, the economic impacts of the construction project will.

As the longest private land owner in the area, Cadiz has shown themselves to be responsible citizens while running their very large organic farms. Building on a proven record of taking care of the land, this project design shows to be sustainable and environmentally responsible.

Cadiz, Inc through its local personnel have become active participants in this City. As they continue to do so, they hope that there will be even more economic input throughout the implementation of the project. It appears to be a good project with significant benefit for the company as well as its neighbors.

Sincerely yours,


John Cole
Mayor

CITY OFFICES:
6136 ADOBE ROAD
TWENTYNINE PALMS, CA 92277
(760) 367-6799
fax (760) 367-4890
www.29palms.org



A_29PalmsCity 2

COUNCIL MEMBERS
John E. Cole, Mayor
Joel Klink, Mayor Pro Tem
Jay Corbin
Jim Harris
Daniel L. Mintz Sr.

CITY MANAGER
Richard N. Warne

March 8, 2012

Tom Barnes
ESA
626 Wilshire Blvd Suite 1100
Los Angeles, CA 90017

Dear Mr. Barnes:

As a Councilmember for the City of Twentynine Palms, and longtime owner of a family business in the area, I am writing to comment on the Cadiz Valley Water Conservation, Recovery and Storage Project. This innovative project will capture and put to good use water that is otherwise going to evaporate and be lost.

The desert environment is sensitive and must be preserved and protected. I believe the draft Environmental Impact Report represents a significant and extensive analysis of all possible effects of the project, and I am pleased that the only local impacts of the project are short term construction emissions due to the use of heavy machinery while the pipeline is built.

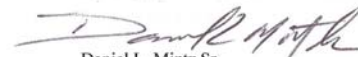
The project's Draft Environmental Impact Report makes clear that every possible effect of the project on the desert has been considered. Everything from the amount of water held under the ground, to where mountains springs are fed, and where wildlife are found, the many needs of the desert environment have been studied in this report.

I also support the project's commitment to monitoring throughout the project life to ensure that no unforeseen impacts arise. This monitoring should put to rest any concerns that the project could cause a problem many years from now.

For the Twentynine Palms area, the project will create local jobs and generally stimulate the local economy during construction. The job creation and economic impact included in the report by Dr. John Husing are very impressive and will be most welcome in our community.

The Cadiz project has been developed with concern for the local community and is designed with extensive technical analysis. I support the project and its local economic benefits. I would like to see the project approved and fully support it.

Sincerely,


Daniel L. Mintz Sr.
Councilmember