

Executive Office



January 15, 2009

Via E-mail & Regular Mail

Ms. Kimberly D. Bose Secretary Federal Energy Regulatory Commission 888 First Street, N.E., Room 1A Washington, D.C. 20426

Dear Ms. Bose:

Eagle Mountain Pumped Storage Hydroelectric Project, Project No. 13123-000 – California, Comments on Scoping Document 1

The Metropolitan Water District of Southern California (Metropolitan) received a copy of the Scoping Document 1 and Notice of Preparation for a Draft Environmental Impact Report (Draft EIR/EIS) for the Eagle Mountain Pumped Storage Hydroelectric project, Project No. 13123-000 (Project). The California State Water Resources Control Board is acting as the Lead Agency under the California Environmental Quality Act and the Federal Energy Regulatory Commission (FERC) is acting as the Lead Agency under the National Environmental Policy Act for this Project, collectively "Agencies." The Agencies prepared the Draft EIR/EIS to utilize two existing mining pits to pump and store water to generate power during periods of high demand on federal land near the town of Desert Center, within San Bernardino County. This letter contains Metropolitan's response to the public notice as a potentially affected public agency.

Metropolitan is a cooperative of 26 cities and water agencies charged with providing a reliable supply of high quality drinking water to 18 million people in six counties in Southern California. One of Metropolitan's major water supplies is the Colorado River that is delivered through the Colorado River Aqueduct (CRA). The CRA consists of tunnels, open canals, and buried pipelines. CRA-related facilities also include pumping plants, above and below ground reservoirs and aquifers, access and patrol roads, communication facilities, and residential housing sites. The CRA, which can deliver up to 1.2 million acre-feet of water annually, extends 242 miles from the Colorado River, through the Mojave Desert and into the Los Angeles basin. The CRA commenced delivery of Colorado River water in 1941.

Eagle Crest Energy Company (ECEC) has contacted Metropolitan regarding this proposed Project, and we appreciate these efforts and look forward to continued coordination on this Project. Metropolitan previously provided comments to the FERC for ECEC's Licensing Process, Project No. 12509 and No. P-13123, in comment letters dated February 11 and Ms. Kimberly D. Bose Page 2 January 16, 2009

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September 15, 2008, respectively, copies of which are enclosed for reference. Our letters identified Metropolitan's concerns regarding the project's potential impact upon the CRA including water quality, groundwater level, hydrocompaction, and structural impacts. We request that the Agencies evaluate impacts of the proposed Project to Metropolitan's existing facilities that occur within the project's boundaries and propose mitigation measures where appropriate.

Specific comments on potential environmental issues for consideration and incorporation into the Draft EIR/EIS are listed below.

Water Supply Alternative Issue

1. The public notice states that water used to fill the reservoirs may be supplied from and would be transferred through the CRA. As stated in prior comment letters, Metropolitan has reached no agreement whatsoever to enable the project to use CRA facilities for water conveyance.

Water Quality Issues

Due to the Project's close proximity to the CRA, Metropolitan has concerns regarding some of the proposed facilities regards to water quality protection. These facilities include the location(s) of wells for groundwater supply, location of brine pond, and other unlisted appurtenant facilities. Project facilities described in the public notice which may potentially have an adverse impact on the water quality of the CRA (or affect other source water management efforts) include the following:

1. The public notice does not specify the locations of the proposed groundwater supply wells. The Draft EIR/EIS should identify and discuss in further details about the proposed wells and their impacts on groundwater quality. In addition, detailed analyses should be conducted on the impacts of pumping and aquifer water quality.

2. Existing groundwater in the vicinity of the Eagle Mountain Project contains several constituents of concern, including total dissolved solids, nitrates, arsenic, and hexavalent chromium. The Draft EIR/EIS should assess the viability of the reverse osmosis method selected and potential treatment alternatives. Additional analysis also should take place to assess potential leaching of heavy metals from the site and any potential impacts on water supplies traveling through the CRA.

Groundwater Levels, Hydrocompaction, and Structural Impacts to the CRA

1. The Draft EIR/EIS should provide sufficient data to indicate how much groundwater levels may rise from reservoir seepage to evaluate potential structural CRA settlement due to hydrocompaction. This analysis should take into account the extremely low tolerance of the Ms. Kimberly D. Bose Page 3 January 16, 2009

CRA for elevation changes. In addition, the Draft EIR/EIS should also identify potential mitigation measures and evaluate the effectiveness of these measures to the CRA.

2. The Draft EIR/EIS should identify the location of the proposed groundwater supply wells and provide sufficient information to assess the likely potential for subsidence and CRA settlement based on groundwater pumping. A detailed analysis regarding the potential for subsidence should be performed.

3. The Draft EIR/EIS should provide a comprehensive water level analysis. This analysis should include a detailed impacts analysis and hydrographs of projected groundwater levels in the vicinity of the CRA. Metropolitan believes that the water level impacts are greater than indicated and are concerned with potential for land subsidence as a result of groundwater withdrawal.

Land Use Issues

Metropolitan is concerned that locating the reservoirs and related storage/pumping facilities near or across the CRA could have a negative impact on Metropolitan's operations, facilities, and right-of-ways. Metropolitan owns extensive property in fee and easement along the CRA and its related facilities. Metropolitan provides the following specific comments on its concerns regarding potential impacts on its facilities and rights-of-way for the Agencies' consideration and incorporation into the Draft EIR/EIS:

1. Metropolitan's CRA conduit was not designed for AASHTO H-20 loading in this area, and any vehicle crossings should be restricted to the existing paved roadways which have protective slabs in place to distribute this loading away from the pipeline. Any vehicle or equipment which would likely cross the conduit as part of the construction operation of the proposed project will need to be reviewed and approved by Metropolitan prior to traversing the CRA.

2. Metropolitan requests that the Draft EIR/EIS acknowledge that neither private nor public entities currently have any entitlements to build over Metropolitan's fee-owned rights-of-way or properties.

3. Metropolitan's facilities and fee-owned or permanent easement rights-of-way should be considered in planning and in the Draft EIR/EIS, and the Project should avoid potential impacts that may occur due to implementation of the Project.

4. Any new facilities arising out of the Project should not impact accessibility to existing facilities or impede the use of existing facilities, including the CRA system, as shown on the map.

5. Development associated with the proposed Project must not restrict any of Metropolitan's day-to-day operations and/or access to its facilities.

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6. Metropolitan must be allowed to maintain its rights-of-way and requires unobstructed access to our facilities and properties at all times in order to repair and maintain our system.

7. In order to avoid potential conflicts with Metropolitan's rights-of-way, Metropolitan requires that any design plans for any activity in the area of Metropolitan's pipelines or facilities be submitted for our review and written approval. Approval of the Project where it could impact Metropolitan's property should be contingent on Metropolitan's approval of design plans for the Project.

8. 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.

9. To assist in preparing plans that are compatible with Metropolitan's facilities, easements, and properties, we have enclosed a copy of the "Guidelines for Developments in the Area of Facilities, Fee Properties, and/or Easements of The Metropolitan Water District of Southern California."

10. All submitted designs or plans must clearly identify Metropolitan's facilities and rightsof-way.

Other Issues

1. The Draft EIR/EIS need to identify Metropolitan as an agency whose approval is required.

We recommend the Agencies coordinate with Real Property Development and Management Team, Substructures Team, and others, to facilitate your planning process. Other proposed and future facilities and groundwater supply wells identified should involve all Teams to provide the maximum assistance.

We appreciate the opportunity to provide input to your planning process and we look forward to receiving the Draft EIR and EIS on this Project. If we can be of further assistance, please contact Mr. Mathew Hacker at (213) 217-6756.

Very truly yours,

For Montin Mence

Delaine W. Shane Manager, Environmental Planning Team

BSM/bsm (Public Folders/EPU/Letters/12-JAN-09A.doc - Kimberty Bose, FERC, Eagle Mountain Pumped Storage Hydroelectric) •

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Enclosure: February 11, 2008 Letter September 15, 2008 Letter

cc: Mr. Art Lowe Eagle Crest Energy Company P.O. Box 2155 Palm Desert, CA 92261 The Metropolitan Water District of Southern California and Eagle Mountain Pumped Storage Project, Eagle Mountain, CA



UNITED STATES OF AMERICA



FEDERAL ENERGY REGULATORY COMMISSION

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EAGLE CREST ENERGY COMPANY)

PROJECT NO. 12509-000

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA'S COMMENTS REGARDING REQUEST FOR USE OF TRADITIONAL LICENSING PROCESS

The Metropolitan Water District of Southern California ("Metropolitan") respectfully submits the following comments regarding Eagle Crest Energy Company's Request for Use of Traditional Licensing Process for the proposed Eagle Mountain Pumped Hydroelectric Storage Project, FERC Project No. 12509 ("Eagle Mountain Project"). These comments are tendered pursuant to 18 C.F.R. § 5.5.

1. Metropolitan is a public agency created in 1928 by vote of the electorates of several southern California cities. Metropolitan is one of the country's largest wholesale water suppliers, delivering supplemental water for domestic and municipal use to more than 18 million people through its 26 member agencies. Metropolitan's service area encompasses the six county region of southern California (Los Angeles, Orange, Riverside, Ventura, San Diego, and San Bernardino), an area covering nearly 5,200 square miles. Metropolitan supplies an average of 1.7 billion gallons of water per day and more than 2 billion gallons on

a hot day. Over the course of the year, Metropolitan imports on average from 1.5 to 2.1 million acre-feet of water.

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2. Metropolitan's imported water is derived from two primary sources: the Colorado River Aqueduct ("CRA") and the California State Water Project ("SWP"). Metropolitan constructed, owns, and operates the CRA, which brings water from the Colorado River into southern California. The second major water supply for Metropolitan is the SWP, which captures and stores runoff from the Sacramento/San Joaquin Delta watershed in northern California and delivers the water to areas of need in northern, central, and southern California. Metropolitan is the largest of the 29 contractors that purchase water through the SWP.

3. Eagle Crest Energy Company ("Eagle Crest") proposes to develop the Eagle Mountain Project as a 1,300 MW pumped storage hydroelectric project consisting of an upper and lower reservoir, intake and outlet structures, a powerhouse, a 500 kV transmission line, and other appurtenant features. Eagle Crest intends to site the development of the Eagle Mountain Project in the Chuckwalla Valley region of Riverside County, California, on land controlled by the Bureau of Land Management and on private property owned by Kaiser Eagle Mountain, LLC. Eagle Crest proposes to fill and replenish the reservoirs with water obtained from dedicated groundwater wells.

4. The CRA lies immediately east of the proposed location for the Eagle Mountain Project. In the past, Eagle Crest sought to obtain Metropolitan's agreement to use CRA water to fill its reservoirs. Metropolitan opposed that request, as such water is required to meet the water supply demands of its member agencies. Moreover, Section 131 of the Metropolitan Water District Act (Cal. Stat. 1969, Chapter 209) precludes Metropolitan from

selling water outside of its service area, unless such sale is made to the federal government or for the purpose of generating electric power which is used directly or indirectly, through exchange, for pumping, producing, treating or reclaiming water for use within the district. The Eagle Mountain Project is located outside Metropolitan's service area, and Metropolitan has entered into long-term power contracts that provide ample electric power for operation of the CRA.

5. Eagle Crest previously obtained preliminary permits for its Eagle Mountain Project, later applying for a hydroelectric license. The Commission, however, denied the earlier application. In June 2004, Eagle Crest again applied to the Commission for a preliminary permit for the Eagle Mountain Project, FERC Project No. 12509. The Commission granted the preliminary permit in March 2005.

6. On January 10, 2008, Eagle Crest filed the following items with the Commission in pursuit of a hydroelectric license for the Eagle Mountain Project: (1) Notice of Intent to File Application for Original License, (2) Pre-Application Document ("PAD"), and (3) Request for Use of Traditional Licensing Process ("TLP Request"). Notice of these filings was published in the January 9, 2008, issue of the *Riverside Press Enterprise*. The publication invited comments on Eagle Crest's request to use the Traditional Licensing Process ("TLP").

7. Because the Eagle Mountain Project involves complex technical issues involving multiple parties, Metropolitan believes the Integrated Licensing Project is more appropriate than the less rigorous TLP pursuant to the factors set forth in18 C.F.R. § 5.3(c)(1)(ii).

8. <u>Seepage</u>: Eagle Crest proposes to use three feet of fine tailings in the reservoirs to reduce seepage, resulting in an estimated total seepage rate of 600 acre-feet per year. Fine tailings are expected to range from silty sand to clayey silt. Given that the permeability of the tailings proposed may be relatively high even for the proposed sealing material, actual seepage rates likely will require further study. Additionally, analysis of the project will need to address the structural effects of increased seepage on Metropolitan's Colorado River Aqueduct. Increased hydrostatic pressure against the lining of the CRA itself could adversely affect its stability, resulting in potential risks of seepage into the CRA's conveyed water supplies. Hydrostatic pressure is a complex matter that needs further study before approval of the Eagle Mountain Project.

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9. <u>Water Quality</u>: Existing groundwater in the vicinity of the Eagle Mountain Project contains several constituents of concern, including total dissolved solids, nitrates, arsenic, and hexavalent chromium. Although reverse osmosis may be appropriate to treat total dissolved solids and nitrates, it may be ineffective for other constituents. Further study is warranted to assess the viability of Eagle Crest's reverse osmosis method and potential treatment alternatives. Additional analysis also should take place to assess potential leaching of heavy metals from the site and any potential impacts on water supplies traveling through the CRA.

10. <u>Groundwater Impacts</u>: Potential groundwater impacts of the project are complex. Data from monitoring wells adjacent to the CRA suggests that the aquifer underlying the Chuckwalla Valley is more confined than previously understood. Therefore, the projected drawdowns and water level impacts could be more than anticipated in the PAD. Additional evaluations should be performed to address these issues.

11. <u>Brine Disposal</u>: Brine disposal ponds associated with the project could have material impacts on water supplies conveyed through the CRA. Metropolitan is actively involved with efforts throughout the Colorado River Basin to control salinity of Colorado River water supplies. Additional analysis will be necessary to adequately assess the potential seepage impacts of these ponds in light of Metropolitan's operational salinity criteria and other factors.

12. <u>Hydrocompaction</u>: Hydrocompaction occurs when water is added to the land surface, causing subsidence of lands. Desert soils are particularly susceptible to this phenomenon. Acute land subsidence in the vicinity of the CRA would create significant operational problems for Metropolitan. In order to assess the potential impacts of the project, a detailed technical study of hydrocompaction associated with the Eagle Mountain Project will be necessary.

13. For the reasons discussed above, Metropolitan believes that the Eagle Mountain Project should proceed with the more rigorous and comprehensive technical review provided by the Integrated Licensing Project.

Dated: February 11, 2008

Respectfully submitted,

Peter E. von Haam, Senior Deputy General Counsel

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CERTIFICATE OF SERVICE

I hereby certify that I have, this 11th day of February 2008, served a copy of the foregoing document by first class mail, postage prepaid and/or by electronic mail, on each person designated on the service list compiled by the Secretary in this proceeding.

Teresa J. Maropoulos Metropolitan Water District of Southern California P.O. Box 54153 Los Angeles, CA 90054-0153

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UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

EAGLE CREST ENERGY COMPANY)

PROJECT NO. P-13123

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METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA'S COMMENTS REGARDING DRAFT LICENSE APPLICATION

The Metropolitan Water District of Southern California ("Metropolitan") submits the following comments regarding Eagle Crest Energy Company's Draft License Application (DLA) for the proposed Eagle Mountain Pumped Hydroelectric Storage Project, FERC Project No. P-13123 ("Eagle Mountain Project").

1. Metropolitan is a public agency created in 1928 by vote of the electorates of several southern California cities. Metropolitan is one of the country's largest wholesale water suppliers, delivering supplemental water for domestic and municipal use to more than 18 million people through its 26 member agencies. Metropolitan's service area encompasses the six-county region of southern California (Los Angeles, Orange, Riverside, Ventura, San Diego, and San Bernardino), an area covering nearly 5,200 square miles. Metropolitan supplies an average of 1.7 billion gallons of water per day and more than 2 billion gallons on a hot day. Over the course of the year, Metropolitan imports on average from 1.5 to 2.1 million acre-feet of water.

2. Metropolitan's imported water is derived from two primary sources: the Colorado River Aqueduct ("CRA") and the California State Water Project ("SWP"). Metropolitan constructed, owns, and operates the CRA, which brings water from the Colorado River into southern California. The second major water supply for Metropolitan is the SWP, which captures and stores runoff from the Sacramento/San Joaquin Delta watershed in northern California and delivers the water to areas of need in northern, central, and southern California. Metropolitan is the largest of the 29 contractors that purchase water through the SWP. K.

3. Eagle Crest Energy Company ("FCEC") proposes to develop the Eagle Mountain Project as a 1,300 MW pumped storage hydroelectric project consisting of an upper and lower reservoir, intake and outlet structures, a powerhouse, a 500 kV transmission line, and other appurtenant features. ECEC intends to site the development of the Eagle Mountain Project in the Chuckwalla Valley region of Riverside County, California, on land controlled by the Bureau of Land Management and on private property owned by Kaiser Eagle Mountain, LLC. ECEC proposes to fill and replenish the reservoirs with water obtained from dedicated groundwater wells.

4. The CRA lies immediately east of the proposed location for the Eagle Mountain Project. In the past, ECEC sought Metropolitan's consent to use CRA water to fill its reservoirs. Metropolitan declined the request, as such water has been required to meet the water supply demands of its member agencies. Moreover, Section 131 of the Metropolitan Water District Act (Cal. Stat. 1969, Chapter 209) precludes Metropolitan from selling water outside of its service area, unless such sale is made to the federal government or for the purpose of generating electric power which is used directly or indirectly, through exchange,

for pumping, producing, treating or reclaiming water for use within the district. The Eagle Mountain Project is located outside Metropolitan's service area, and Metropolitan has entered into long-term power contracts that provide ample electric power for operation of the CRA.

5. ECEC previously obtained preliminary permits for its Eagle Mountain Project, later applying for a hydroelectric license. The Commission, however, denied the earlier application. In June 2004, ECEC again applied to the Commission for a preliminary permit for the Eagle Mountain Project, FERC Project No. 12509. The Commission granted the preliminary permit in March 2005 and granted the request to use the traditional licensing process March 4, 2008.

Pending now before FERC is ECEC's Draft License Application (DLA).
 Metropolitan submits the following comments regarding the DLA.

Water Supply Alternatives

7. The DLA makes reference to discussions between ECEC representatives and Metropolitan staff regarding potential water exchanges to provide water from the CRA for initial fill of the project reservoirs. (Ex. E, section 10.2.2., p. 10-3.) Metropolitan has made no commitment whatsoever to supply water for the proposed project.

General Comments

8. In general, the DLA recognizes the potential impacts to the CRA and the local groundwater basin and indicates possible mitigation measures. However, this information is presented too generally, and no information is provided that evaluates either the likely occurrence of these impacts or the effectiveness of the mitigation measures presented.

9. ECEC should dedicate a separate specific analysis for the CRA with a complete description of all the potential water quality and structural impacts and proven mitigation measures to be employed. Metropolitan staff will provide any appropriate information to facilitate such necessary technical analyses.

10. ECEC should conduct risk analyses of worst case scenarios. For example, how will a reservoir or lagoon/pond breach be prevented or mitigated? What are the impacts of over-pumping on groundwater levels and subsidence? A much more detailed plan needs to be developed to address these scenarios.

11. The DLA indicates that monitoring will be conducted to determine seepage amounts, water quality impacts, etc. However, once an impact is detected through monitoring, it could be too late to prevent or effectively mitigate those effects. ECEC should propose a detailed plan of how such impacts will be detected, prevented, and mitigated.

Water Quality

12. The DLA does not specify the likely location of proposed project supply wells. Also, limited groundwater quality data and analyses are presented. Identification and further details about the proposed wells will be necessary to conduct a thorough assessment of the project's impacts on groundwater quality. Detailed analyses should be conducted on the impacts of pumping and aquifer water quality.

13. ECEC should investigate in detail the full range of constituents that are contained in the ore bodies. It is not clear that all possible sources of contaminants have been identified. For example, if magnetite-rich sands exist in the east wall of the lower reservoir, would pyrite and possibly gypsum (other constituents of the ore body along with the

magnetite) be proportionally also "rich" in these sands? Would their presence in these more permeable deposits along the east wall of the lower reservoir lead to more acidic leachate and potentially a greater risk of groundwater contamination?

14. The DLA states the potential for acidic leachate seepage water is low due to the low percentage of pyrite in the ore bodies. However, the USGS report that is referenced in ECEC's application (Force, 2001) also notes that 10-50% pyrite occurs locally in the lower ore in the upper reservoir. What bearing would these higher percentages have on the potential for leachate acidity and the groundwater contamination assumptions presented in the ECEC application?

15. The DLA does not adequately analyze the potential for cumulative water quality impacts of the project in conjunction with the future Eagle Mountain Landfill Project. The potential for reservoir seepage next to a municipal landfill exacerbates water quality concerns for local groundwater. Comprehensive geotechnical and hydrogeologic studies are necessary to address this issue, with close coordination with the landfill project to ensure that cumulative impacts are avoided.

Groundwater Levels, Hydrocompaction, and Structural Impacts to CRA

16. The DLA does not provide sufficient data to indicate how much groundwater levels may rise from reservoir seepage to evaluate potential structural CRA settlement due to hydrocompaction. Even if sufficient data is available to predict the rise in groundwater levels, ECEC should analyze these potential hydrocompaction questions. Also, while the DLA identifies potential mitigation measures, it does not provide adequate information to evaluate the effectiveness of these measures.

17. For example, the DLA suggests the use of extensometers to monitor settlement. More information should be provided to address the effectiveness of this instrument at this particular site and how extensometers would be used as part of an overall comprehensive deformation program, considering the depth to bedrock. Also, if settlement is detected, what (if any) mitigation measures would ECEC employ? Other tools should also be identified that will measure subsidence and hydrocompaction for the specific site conditions. The effectiveness of these tools should be clearly identified and analyzed.

18. The DLA indicates that a detailed seepage control investigation will be conducted as well as a mitigation program established. More details and data regarding the hydrogeology in the immediate area of the project will be needed. A geotechnical investigation of the soils underlying and in proximity to the CRA should be conducted, likely including groundwater simulations, soil testing, seepage flow models, etc. This is of particular concern because the east end of the lower reservoir, also closer to the CRA, is in alluvial material with seepage control measures proposed at that location.

19. Much of the discussion is based on the performance of groundwater supply wells not in the vicinity of the Eagle Mountain Mine. Without identification of the location of the proposed supply wells, there would be insufficient information to assess the likely potential for subsidence and CRA settlement based on groundwater pumping. Even if the location of the wells were identified, detailed analysis regarding the potential for subsidence should be performed.

20. Water level and modeling information adjacent to the CRA has not been provided in the DLA. To enable comprehensive impacts analysis, ECEC should provide hydrographs of projected groundwater levels for key wells in the basin, particularly those

adjacent to proposed well sites and adjacent to the CRA, and a contour map projecting water level impacts. As discussed below, Metropolitan believes that the water level impacts are greater than indicated by the project proponents. Metropolitan is particularly concerned with the potential for land subsidence as a result of the groundwater withdrawal. Metropolitan's CRA is an unreinforced cut and cover conduit in this area and <u>its tolerance for lateral or</u> <u>horizontal displacement is on the order of 0.25 inches per 200 feet</u>. Any activity which lowers the groundwater table in this area may cause subsidence depending on the soil characteristics. Subsidence modeling should be performed to address Metropolitan's concerns and verify that the proposed operation would not cause excessive displacement of the CRA. These reports will need to be reviewed by Metropolitan to ensure compliance with Metropolitan's hydrogeologic criteria.

21. Metropolitan disagrees with the statement on page 2-33 (Section 2.6.3) that "[i]nelastic subsidence may occur when groundwater levels are lowered below historic levels." This statement is not correct. Subsidence can occur whenever groundwater levels decline, regardless the relation to historic levels. Further evaluation is needed to address this critical issue to Metropolitan's infrastructure.

22. The DLA does not address the potential for groundwater reaching the surface (i.e., "day-lighting") above the CRA rather than infiltrating into the ground as a result of seepage. It would be helpful to understand if additional seepage would impact the CRA.

23. Metropolitan disagrees with the groundwater characteristics assumptions made by ECE in the DLA. Groundwater impacts of the proposed project are substantially more complex than the DLA suggests. Data from monitoring wells constructed by Metropolitan adjacent to the CRA suggest that the Chuckwalla Valley is more confined and

is less transmissive than previously understood. The transmissivity of 147,000 gpd/ft (hydraulic conductivity of 110 ft/day) assumed by ECEC in the DLA is optimistic for this area. Metropolitan is concerned that the assumptions in Table 2-1 on page 2-5 to Exhibit E are not conservative enough given the uncertainty in the hydrogeology of the area. Previous modeling by Metropolitan suggests that the average hydraulic conductivity in Chuckwalla Valley is approximately 25 ft/day, significantly less than the estimates provided in the DLA.

24. Therefore, Metropolitan believes that the projected drawdowns and water level impacts could be substantially more than assumed in the DLA. Using a hydraulic conductivity of 25 ft/day, estimated drawdowns during the 2-year fill period could exceed 150 feet at the wellhead, assuming a 70 percent efficiency factor. Regional impacts could be as much as 30 feet. In the long-term, regional impacts could be more than 50 feet, which could result in a substantial subsidence risk. It is also important to note that the well capacities proposed would be insufficient to produce the makeup water requirements during the 8-hour off-peak periods even if operating continuously during these periods (after allowing for downtime and maintenance requirements). Additional wells will likely be needed. Additional evaluations should be performed to assess these issues.

25. The DLA proposes to use three feet of fine tailings in the reservoirs to reduce seepage and estimates a total seepage rate of 600 acre-feet per year. Fine tailings are expected to range from silty sand to clayey silt. Given that the permeability of the tailings proposed is relatively high even for the proposed sealing material, seepage rates could be substantially higher than estimated. As such, potential adverse impacts from the seepage are not adequately addressed. These seepage could have impacts upon water quality and structural integrity of the CRA.

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26. The DLA refers to reverse osmosis (RO) treatment of the higher-TDS water that would be generated through evaporative losses within the reservoirs. A brine line would be constructed with the brine stored in lagoons or ponds in close proximity to the CRA. Very few details are provided on the use of these lagoons or ponds for brine storage. What is the potential of failure from these lagoons or ponds? How will failure be prevented and what specific mitigation measures would protect the adjacent CRA?

Construction Impacts

27. Metropo!itan's CRA conduit was not designed for AASHTO H-20 loading in this area, and any vehicle crossings should be restricted to the existing paved roadways which have protective slabs in place to distribute this loading away from the pipeline. Any vehicles or equipment which would likely cross the conduit as part of the construction and operation of the proposed project will need to be reviewed and approved by Metropolitan prior to traversing the CRA.

28. ECEC should identify the specific mitigation measures that will be in place during construction. How could the specific construction operational activities potentially impact the CRA, groundwater quality (i.e., mobility of metals), etc.? Greater detail should be provided regarding these activities along with a detailed mitigation plan.

Respectfully submitted

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CERTIFICATE OF SERVICE

I hereby certify that I have, this 15th day of September 2008, served a copy of

the foregoing document by first class mail, postage prepaid and/or by electronic mail, on

each person designated on the service list compiled by the Secretary in this proceeding.

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