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GRACE ROBINSON CHAN Chief Engineer and General Manager

July 26, 2012

Mr. Oscar Biondi State Water Resources Control Board Division of Water Rights P.O. Box 2000 Sacramento, CA 95812-2000

Dear Mr. Biondi:

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Comments on the Draft Water Quality Certification for **Eagle Mountain Pumped Storage Project, FERC Project No. 13123**

County Sanitation District No. 2 of Los Angeles County (District) has previously commented upon the State Board's draft environmental impact report (DEIR) for the Eagle Crest Energy Project (Project) and has identified many shortcomings with that document. The draft Section 401 Water Quality Certification (DWOC) for the Project has not fundamentally addressed most of these problems, and continues to defer substantive environmental analysis of the Project until after certification and licensing when interested parties and the public will be unable to provide meaningful comments. The DWQC and the documents incorporated within it fail to properly consider the Project's impact upon the proposed Eagle Mountain Landfill Project (Landfill), which is being sold to the District. In addition, the DWQC fails to provide significant information required pursuant to 23 CCR §3856. The missing information includes:

- 1. A full, technically-accurate description, including the purpose and final goal, of the entire activity (23 CCR §3856 (a)(2)(b)). The DWQC proposes that the State Board certify the Project while deferring analysis of significant aspects of the proposed Project until after site investigations are completed. The DWQC does not provide any specific description of the particulars of the "site investigation" and "final design" that will purportedly be completed after certification but before the start of construction.
- The names and types of receiving water bodies that may receive discharges from the Project (23 CCR §3856 (h)(1) and (2)). The DWQC provides no information regarding navigable waters of the United States and for the state waters described the draft does not fully characterize the receiving water bodies or analyze where groundwater and surface water may be impacted by the Project.
- The DWOC fails to estimate, for each water body, the quantity of waters of the United States that may be adversely impacted by a discharge as required by 23 CCR §3856 (h)(2). There do not appear to be any waters of the United States described or quantified in the DWOC. As for the state waters described, the quality and quantity of impacts to groundwater that may be caused by reservoir seepage are not characterized, and the DWOC also fails to analyze the potential extent

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of surface water or ground water contamination that may be caused by the crosion of streambeds and landfill covers along designated stormwater flow channels.

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The District has reviewed the DWQC and has the following general comments:

The DWQC, like the DEIR before it, provides what is essentially a project approval while deferring the collection of data about and analysis of significant environmental issues until after licensing. The DWQC asserts that its conditions are intended to address the range of possible environmental impacts that may result from the Project. However, the DWQC recognizes that, due to limited site access and the use of previous studies for environmental review, more specific and detailed site information must be developed and analyzed. Furthermore, the DWQC requires that any conditions discovered during the additional data collection phases that were not adequately analyzed in the DEIR will be analyzed in accordance with CEQA prior to completion of final design and construction of the project. The DWQC provides for approval of post-licensing reports to ensure that the applicant will meet the conditions contained in the certification.

Although the required additional studies are supposed to refine measures intended to protect water quality and beneficial uses as well as to avoid or mitigate environmental impacts identified in the DEIR, the conditions do not provide for future public review or comment on the later-developed mitigation measures or project modifications. In fact, the public has not been provided with access to any of the responses by the State Board to comments on the DEIR or proposed mitigation measures or to the final EIR. The DWQC requires the applicant to provide a letter agreeing to implement all mitigation measures identified in the Final EIR before the final water quality certification is issued, but it is not yet known what these measures will be, whether they will be further modified in the applicant's letter, or whether the public will have any opportunity to review any of these measures. The public is entitled to a reasonable opportunity to review these documents in order to formulate full and informed comments upon the DWQC, which purports to be partially based upon the final EIR.

The failure of the DWQC to provide more specific information about the Project it certifies makes its certification much too general. For instance, although the DWQC repeatedly states that the environmental documentation for the Project may need to be modified if the proposed Phase I and II site investigations discover new potential environmental impacts, none of the conditions in the DWOC specifically requires such a modification. In fact, although the DWQC purports to include measures to protect beneficial uses of water resources in its conditions, the lack of any project-specific field investigations makes it likely that these investigations will substantially modify the Project. These potential modifications may include changes to the type, location, and number of the environmental control systems, the Project's assumptions about its water demand as a result of water loss through seepage and evaporation, and assumptions regarding drawdown of the limited groundwater resources in the area.

It is also unclear what mitigation measures will be included in the Final EIR, much less what measures may eventually be required, or not be required, based upon future site investigations and other analysis. Although the DWQC states that all mitigation measures identified in Section 6 of the DEIR are part of the Project for the certification, it ignores inconsistencies between Section 6, the Mitigation Monitoring and Reporting Program (MMRP) from the yet-to-be-released Final EIR, and the conditions in the DWQC. The DWQC does not describe how these inconsistencies will be resolved or how the final mitigation measures will be enforced. As stated in the District's extensive comments on the DEIR, that document failed to consider many of the Project's impacts upon the Landfill. Without access to the Final EIR or the final MMRP, the District cannot determine whether the DWQC will condition the certification upon adequate mitigation of the Project's actual impacts upon the Landfill Project. Maps attached to the DWQC do not, but should, show the outline of the Landfill to illustrate the readily apparent physical and potential geologic conflicts between the proposed project and the Landfill. The location of the "Central

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Project Area," where the Project is most likely to interfere with the Landfill, is neither described nor shown on any of the five figures that are part of the DWQC. The area must be shown on all the relevant project figures.

The certification itself may be invalid because the premise on which it is offered appears faulty. Section 6 of the DWQC purports that the certification is given pursuant to the Clean Water Act and that it relates to a license "which may result in a discharge into navigable waters." The waters discussed in the DWQC, including groundwater and a non-navigable creek that is only intermittently filled with water, would not appear to meet this criteria. These appear instead to be waters of California that are not "navigable" and not subject to the certification requirement. The DWQC provides no evidence, other than its implied assertion, that it relates to any navigable waters of the United States.

Contrary to the requirements of 27 CCR, the DWQC fails to properly include conditions necessary to avoid or mitigate the impact of seepage from the Project upon the Landfill. Condition 7 describes a seepage management performance standard that simply states that groundwater must be prevented from coming in contact with the Landfill's liner. This standard is insufficient under 27 CCR § 20240, subdivision (c), which requires that no less than five feet of separation must exist between the bottom of a solid waste landfill and the highest anticipated elevation of groundwater. The DWQC's conditions allow seepage levels from both the upper and lower reservoir which could contact the Landfill's liners.

The District has also evaluated the specific and general conditions proposed for the Project in the DWOC. This evaluation is presented below.

Condition 1, Site Investigation

Without project-specific field data, the DWQC cannot assume that the potential impacts of this Project will be as described or that the proposed mitigation measures will reduce those impacts to levels that are less than significant. As a result, it cannot be assumed that potential impacts of the Project have been considered or that the proposed mitigation measures will effectively reduce those impacts to be less than significant.

A. The Phase I Pre-Design Investigation Described in the DEIR and incorporated into the DWQC is

Condition 1 requires the Applicant to follow procedures outlined in the Phase I Pre-Design Site Investigation Plan in the DEIR. However, this site investigation plan is inadequate because it fails to include sufficient information about the geology of the Project site and those portions of that site that are located beneath the Landfill. For example, the DEIR Phase I geotechnical investigation plan assumes that only five borings will be performed along a 9,000-foot tunnel alignment located below the Landfillapproximately one boring for each 1,800 feet of the tunnel. At a minimum, Condition 1 should require the proposed site investigation plan to explain the number, type, and location of borings necessary to provide sufficient geologic and geotechnical information to support the design and construction of the Project and avoid impacts on the Landfill located above and adjacent to the Project.

The site investigation must also provide for borings at the bottom of the upper and lower reservoirs to assess the permeability of the subgrade. These borings will document the composition of the subgrade to determine whether water from the Project will seep into the Landfill and, if so, whether or how such impacts can be mitigated. Also, the site investigation must collect adequate data to create a sound groundwater model for the area of the Project. This model is necessary to development a groundwater monitoring program and proper methods for seepage control, including identifying the

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spacing of recovery wells. The site investigation also must include a dam failure analysis, an analysis of the use of a synthetic liner, and an analysis of natural liner materials to be used in the reservoirs.

The Phase I program must investigate the Project's impacts upon the static and seismic stability of the Landfill's slopes, along with further analysis of the reservoirs' slopes. This will require more than the planned mapping to be performed under PDF Geo-2. Instead, this analysis must identify which slopes in the reservoirs will be unstable under the saturated conditions that will exist during operations. The planned field investigation and removal of loose and unstable rock will not prevent potentially significant slope failures during operation—failures which could significantly increase seepage from the reservoirs.

The Phase I site investigation must also include a four-year ground water monitoring and field testing program. The results of this program should be integrated into the Groundwater Quality Monitoring Plan (GWQMP), Groundwater Level Monitoring Plan (GWLMP) and Seepage Management Plan (SMP). This information will permit the creation of measures necessary to mitigate all potential impacts to groundwater resources and to the Landfill for inclusion in the Final Project Design to be approved by the Deputy Director before being implemented at the Project site.

B. Condition I Must Require Additional CEQA Analysis to be Performed Based Upon the Results of the Investigations Required by that Condition

Condition 1 of the Final WQC should require that conditions discovered during the additional data collection phases that were not adequately analyzed in the DEIR will be analyzed in accordance with CEQA prior to completion of final design and construction of the project. For example, Condition 1 should require that the Phase II investigation plan identify and consider all of the additional potential impacts uncovered by the Phase I site investigation but not described in the DEIR or Final EIR. The report containing the results of the Phase II site investigation and the basis for the final design must include the CEQA analysis of additional potential impacts identified as well as all necessary mitigation measures before the report is submitted to the Deputy Director for approval, and before implementation of the Project's final design. Construction of the Project, including groundwater pumping and the filling of the reservoirs, should be preceded by the Deputy Director's approval of the final design of the Project.

C. Condition 1 Must Clearly Describe the Scope and Sequence of Site Investigations for the Final Design and Construction

Section 4.3 of the DWQC, "Environmental Mitigation," implies that the Project will commence before the results from the Phase I and Phase II site investigation reports are evaluated. That section states that, if additional impacts not addressed in the DEIR are identified, Project activities will cease until appropriate implementation methods are identified. The Project description must clearly identify what activities are planned to take place on site before the approval of the final design and before construction begins. Any newly-identified impacts arising from these investigations must be analyzed as required by CEQA before completion of the Project's final design and before the start of construction. Also, in view of the potentially-significant impacts of the Project upon the Landfill, the applicant must review the final design with the Landfill's operator prior to submission of the final design to the Deputy Director for approval.

D. Specific Analyses Need to be Included in the Scope of Work Identified for the Phase 1 and Phase Π Site Investigations.

Condition 1 needs to include more specific descriptions of the analyses necessary to be undertaken in the Phase I and II site investigations. The following details need to be included in the work plans for these investigations.

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The site investigation for the upper reservoir will require extensive analyses to determine how the central project area is connected to the local groundwater and to develop a seepage management plan for what is described as a complex fractured bedrock environment. At a minimum, Condition 1 needs to require the applicant to implement a pumping test using a series of observation wells to identify these connections.

The DWQC does not discuss or require consideration of all relevant groundwater issues relating to the Project. The DWQC identifies only two groundwater-related issues: the effects of groundwater extraction to fill the reservoirs; and the effects of seepage from the reservoirs upon the groundwater, the Landfill, and other areas. Other relevant issues that require further investigation at the site include: 1) mass wasting, landsliding, and slope stability problems related to rapid pore-pressure changes during loading and unloading of the project reservoirs; 2) permanent ground subsidence and aquifer collapse; and 3) seismicity induced by reservoir loading. In addition, the site investigations need to provide analysis of the seismic site response of reservoirs, intake structures, dams, access tunnels, pumping powerhouses, pipelines, and other structures to near- and far-field earthquake events. This will permit the permanent seismic deformations to be calculated and incorporated into the Project's civil design. These analyses are especially complex, and necessary, because of the presence of a large municipal solid waste management unit located in very close lateral and vertical proximity to the Project. Condition 1 should require the applicant to address these issues with analyses that use the project-specific field data acquired through the Phase I and II site investigations.

The inclusion of composite geosynthetic liners for both reservoirs is technically feasible and must be considered as a mitigation measure for seepage impacts. The site investigations will therefore need to collect all field data necessary to support the installation and maintenance of these liner options.

The scope of work for the site investigations must also include sufficient data collection to permit the final design to minimize the risk of dam failure in the upper reservoir during a design level earthquake. The design will need to conform to a dam safety standard sufficient to ensure protection of the Laudfill's refuse slopes located downstream of the upper reservoir. The means that need to be considered to minimize the potential of failure include excavating keyways and back cuts, constructing armored engineered embankments and tie-ins, and installing anchors as necessary.

The Phase I site investigation should include field data collection to support the stabilization of Eagle Creek from the point it is to receive overflow from the upper reservoir, along the footprint of entire length of the Landfill, to the point where it discharges into the lower reservoir. This analysis needs to consider: the possibility of erosion along Eagle Creek; the anticipated velocity of overflow and discharges from the upper reservoir to the creek; and the adequacy of local materials to be used to armor, dissipate energy from and otherwise mitigate the erosion, realignment and flooding of Eagle Creek. The measures considered should include the use of roller compacted concrete (RCC) and poured concrete. Also, Condition 1 must require that any engineering surveys regarding modifications of the Eagle Creek channel to increase its capacity be included in the Phase I site investigation and their results be considered prior to finalizing the scope of the Phase II site investigation.

Condition 1 should require the applicant to collect project-specific field data to determine whether the Project's demand for groundwater during start-up and operation may collapse the aquifer's mineral skeleton and cause the groundwater basin to permanently lose storativity. This collapse could lead to ground subsidence and permanent loss of groundwater resources for all users, including the Landfill during its 100-year service life. The applicant should undertake large-scale pumping tests at points of groundwater extraction to determine whether the target aquifer is confined or unconfined. If the aquifer is found to be confined, the applicant must be required to quantify the basin's anticipated loss of storativity and compare that loss with long-term groundwater-use projections for the Landfill and other users in the region.

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The WQC must provide more specific discussion of the SMP and any necessary scepage interceptor wells. These topics are discussed in the DWQC in a rudimentary, non-specific fashion that lacks significant detail. Specifically, Condition 1's requirements for the Phase I site investigation need to be revised to require the applicant to collect and report data supporting the design elements of the seepage interceptor wells. The necessary information includes: the locations of wells and their relationship to critical landfill structures, well diameters; casing materials; casing lengths; slotted casing lengths and slot intervals; installation depths; filter materials; extraction pumps; the number of wells; and the spatial frequency of the well installations and well seals. Other pertinent information necessary to be provided through the site investigation includes the radii of influence around the seepage interceptor wells, well yield and efficiency calculations, and a discussion of operational strategies aimed at seepage control when potential electrical power failures render the seepage interceptor wells inoperable.

It is unclear which aspects of the development of the SMP are incorporated in the Phase I and Phase II site investigations. As defined by TM 12.1 or Appendix 12.1 of the DEIR, there is no field work associated with developing the SMP. Section 6 of the DEIR says that there will be tests on one (I) well and based on the field data from one (I) well the entire SMP for the lower reservoir will be developed. This is not standard practice. For the alluvial aspects of the lower reservoir, an adequate number of monitoring wells need to be installed and monitored to establish a representative ground water model before a 'representative' well or wells are chosen. For the fractured bedrock aspects of the upper reservoir, an extensive field testing protocol is needed to determine flow paths. Even with the limited data considered in this conceptual project design indicates a lack of uniformity in the hydrogeology on site.

Seepage and evaporation estimates are based on a preliminary analysis that will be supplemented with complete data and additional analyses that must be submitted to and approved by the Deputy Director along with the Final Project Design prior to construction. The resulting modifications to Table 1, Amount of Reservoir Losses, needs to be incorporated the SMP and GMP and associated mitigation measures. In addition, the WQC needs to make clear that these modified targets supersede the targets listed the DEIR.

The DWQC statement that the potential impact of subsidence beneath the CRA is at less than significant levels because there was no documented subsidence during historic pumping needs to include substantiation in the Final WQC including, but not limited to ,the resources reviewed. Furthermore, the condition needs to include potential mitigation measures if the site investigation reveals this as a potential impact.

Condition 3, Construction and Erosion Control

A. Condition 3 Must be Expanded to Include the Results of the Condition 1 Site Investigations

Condition 3 incorporates the erosion and sediment control measures from the DEIR, including management practices in the Erosion and Sedimentation Control Plan and the Revegetation Plan, into the DWQC. However, the final Condition 3 must also require the applicant to perform all construction, geological and design mitigation measures, management practices and monitoring as modified after the Phase I and II site investigations, any additional CEQA analysis undertaken in connection with those investigations, and the measures described in the Final MMRP.

B. The Erosion Control Plan Must Include Permanent Erosion Protection for Receiving Facilities

Condition 3 should require the applicant to design, install and maintain drainage facilities downgradient of the upper reservoir that provide a continuous, non-erodible surface from the dam spill

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way along the length of Eagle Creek until the discharge facilities at the eastern property boundary sufficient to manage the runoff from a 1,000-year reoccurrence storm without run-on to the Landfill.

C. The Erosion Control Plan Must Incorporate Site Biological and Environmental Conditions

Condition 3 should require the applicant to hire a qualified botanist and to implement their recommendations to redesign the BMPs proposed in the DEIR Section 6, Appendix 12.2. This redesign would include the removal of all materials that would allow the growth of invasive weeds or plants that could contaminate or hinder surface water flow within the areas described as Type 1, 2 and 3.

D. The Erosion Control Plan Must Clearly Identify Sediment Control Measures to be Taken During Operation of the Project

Condition 3 should require the applicant to monitor, maintain and report the results of sediment control measures at the site during the Project's full operational life. The majority of mitigation measures identified in the DEIR and incorporated into the DWQC address sediment control during construction only. The plan must include an adaptive management strategy to manage and minimize unforeseen impacts, and it must be reviewed with the Landfill's operator prior to submission of the Final Design Plans to the Deputy Director for review and approval.

Condition 5, Groundwater Supply

The DWQC requires the applicant to submit a GW LMP within six months after the license is issued but does not condition the preparation or submission of the GLMP upon completion of the site investigations specified in Condition 1. This is inconsistent with the DWQC, which claims that the site investigation will be used to confirm and refine the Project's design. That design should be required to consider the Project's demand upon local groundwater supplies.

The mitigation measures included in Condition 5 are described only at a conceptual level. Final mitigation measures must incorporate the results of the Condition 1 site investigations, the Final Design Plans, any additional CEQA analysis, and all the resulting mitigation, monitoring and reporting measures, in the GLMP.

A. This Condition Must Include Detailed and Enforceable Requirements

Condition 5 omits the Landfill as a nearby use that requires protection, monitoring or mitigation by the applicant. This condition does not even discuss the monitoring of groundwater levels and water quality around the Landfill. Instead, Condition 5 should require the applicant to specify: 1) how extensometers will measure subsidence; 2) how many extensometers will be installed; and 3) the locations of the extensometer installations with respect to the locations of the Landfill and other critical structures.

The reference in this condition to the applicant reducing or even ceasing groundwater pumping from project supply wells implies that the applicant might be willing to halt its operations should adverse water quality and/or subsidence result from pumping. Because groundwater extraction is so critical to the Project's operation, there appears to be little to support the suggestion that the applicant would cease or even reduce the pumping of groundwater while operating the Project.

B. Condition 5 Needs to Incorporate the Results of Condition 1 Site Investigations

As described in the DWQC, the assumptions regarding groundwater drawdown in the DEIR were based mostly upon analytical estimates regarding groundwater levels around the proposed project supply wells rather than actual groundwater level data. The estimates and models presented regarding aquifer

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characteristics were compiled from unspecified well logs and pump tests. The storativity, hydraulic conductivity, and aquifer thickness data obtained from the pumping tests are reported as being significantly greater than those compiled from well logs. Therefore, the calculated drawdown and cones of depression data would likely also be larger. The model used input parameters that were substantially lower than the pumping test results. As a result, it is expected that the field investigation results may significantly increase the anticipated impact of the Project on groundwater resources and will require the applicant to implement additional and more substantial mitigation measures than those already discussed.

Condition 5 should require the applicant to incorporate the results of the Phase I site investigation pumping tests, identify the sources for its assumptions about the aquifer characteristics in Chuckwalla Valley Groundwater Basin, and create models based upon project-specific pump testing data. The use of actual pump testing data for groundwater monitoring is consistent with industry practice, which provides that pumping test data governs the use of the storativity, hydraulic conductivity, and transmissivity and aquifer thickness data within the analytical model. In addition, the applicant should also explain the rationale for the values used in its groundwater modeling.

The DWQC suggests that the cumulative groundwater use by the Project, the Landfill and other users combined will exceed the historic groundwater use in the Chuckwalla Valley Groundwater Basin. This cumulative use will also exceed the maximum historic groundwater drawdown for the basin. The given estimate of maximum depletion--approximately 95,000 AF or one percent--must be reconsidered based upon project-specific site investigations, and compared with a detailed and realistic analysis future cumulative use by all potential users, including the Landfill and evaluated against the safe yield of the Basin.

C. Condition 5 Must Also Provide Protection for Other Groundwater Supply Users

This condition must require the applicant to perform, for the life of the Project, monthly monitoring at key wells for neighboring properties, including the Landfill, whose water production may be impaired by the Project's pumping. Monthly, rather than quarterly, monitoring is necessary to ensure that neighboring groundwater users do not lose their current water supply due to the start-up or operation of the Project. If the Project's pumping lowers water levels in those wells by five feet or more, the applicant should be required to cease pumping groundwater either until levels in key wells are restored or the applicant provides a sufficient amount of supplemental water to the impacted users. If, during the Project's 50-year operation period, five consecutive years of monitoring data demonstrate that the Project is not impacting the groundwater levels in key wells, monitoring may revert to quarterly intervals unless impacts are measured or the Project is completed and decommissioned.

The GLMP should include an adaptive management strategy to manage and minimize unforeseen impacts. The plan should also be reviewed with the Landfill's operator prior to its submission to the Deputy Director for review and approval before he reviews the Final Design Plans.

Condition 6, Surface Water Quality

The Surface Water Monitoring and Reporting Plan (SWMRP) required as part of Condition 6 must include a site-specific determination of local groundwater and surface water quality standards as a part of the revised site investigations to be required by Condition 1. The plan must also include a procedure that contains both performance criteria and implementation schedules to remedy water quality results that do not meet the established standards. Among the specific measures that must be addressed in the SWMRP are those necessary to prevent and remedy surface water contamination caused by an overflow of the upper reservoir that damages the Landfill and discharges waste into Eagle Creek and the lower reservoir.

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Although the DWQC includes a long list of potential treatment measures the applicant may use, it does not require the applicant to implement any of them. The DWQC also fails to provide any treatment-specific rationale or engineering analyses that support any of the recommended, but not required, measures. Condition 6 must specifically state what means the applicant must use to meet the water quality standards developed under the SWMPR as well as those used to implement the Erosion Control Plan required under Condition 3.

The DWQC allows consideration of alternative waste management strategies that may include disposing of brine solids from the evaporation, concentration and the storage ponds on-site. This condition must protect surface waters, groundwater and local wildlife by requiring that all of he collected solids are properly disposed of at a licensed off-site waste facility.

If the applicant's design of the spillways or overflow improvements to Eagle Creek is inadequate and results in refuse washing out into the creek and the lower reservoir, the quality of the surface water will be substantially decreased. The SWMRP should include an adaptive management strategy to manage and minimize unforeseen impacts. This strategy must be reviewed with the Landfill's operator prior to its submission to the Deputy Director for review and approval prior to his review of the Final Design Plans.

In addition, Condition 6 should require the applicant to ensure that its installation and maintenance of any underground, surface or above-ground utilities needed for the Project will maintain the minimum set-back and/or clearances from refuse containers conveyed on the Eagle Mountain Railroad as specified by the American Railway Engineering and Maintenance-of-Way Association for a Class 1 railway. This condition will assure that any utilities placed for the Project will not cause derailment of cars or spillage of refuse on the Eagle Mountain Railroad.

Condition 7, Groundwater Quality Monitoring and Seepage Management

A. Information from the Groundwater Quality Monitoring and Seepage Management Plans Must be Considered and Included in the Final Design Plans

Condition 7 appears to assume that interceptor wells will constitute a sufficient seepage management mitigation measure, and also that the GWQMP and SMP need not be submitted until just prior to the filling of the reservoirs. This means that these documents would not be a part of the Final Design Plans. Potential impacts of the Project upon groundwater quality, quantity and elevation cannot be effectively mitigated without being considered concurrently with other project modifications driven by the results of the site investigations, and subject to appropriate environmental analysis. These steps must be taken prior to the submission of the Final Design Plan. These other modifications include alternative reservoir liners, seepage monitoring devices and water treatment methods. Condition 7 must integrate the results of the Condition 1 site investigations in these groundwater plans and incorporate them into of the Final Design Plans for the Project.

Condition 7 in the DWQC requires these plans to be based upon a four-year field investigation. As described in our comments on Condition 1, this investigation should commence at the same time as the Phase I field investigation. At minimum, the GWQMP and SMP project should include the required four years of data, and the data should be used in the development of the Final Design Plans to assure the adequacy of the proposed monitoring and mitigation before water is introduced into the lined reservoirs.

The SMP should itself include the results of the Phase I and II site investigations specified in a revised Condition I. The site investigations should include the identification of zones where seepage can be anticipated and a field testing protocol for both reservoirs. In addition, based upon the results of the field investigations, the SMP should set forth criteria to evaluate seepage management strategies and procedures to meet these criteria and to minimize seepage as much as is feasible. The SMP should

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include an adaptive management strategy to implement any additional measures necessary to control seepage if monitoring indicates that further seepage controls are necessary. Criteria for seepage and groundwater elevations should be based upon information from the site investigations described in our comments to Condition 1 and included in the final project design. The initial seepage maximums of 689 AFY for the upper reservoir and 713 AFY for the lower reservoir should be "place holders" until the extensive field investigations develop maximum levels based on observed conditions.

The DWQC fails to properly include conditions necessary to avoid or mitigate the impact of seepage from the Project upon the Landfill. Condition 7 describes a seepage management performance standard that simply states that groundwater must be prevented from coming in contact with the Landfill's liner. This standard is insufficient under 27 CCR § 20240, subdivision (c), which requires that no less than five feet of separation must exist between the bottom of a solid waste landfill and the highest anticipated elevation of groundwater. The DWQC's conditions allow seepage levels from both the upper and lower reservoir which could contact the Landfill's liners. This would prevent the Regional Water Quality Control Board and the State Board from issuing a landfill permit based upon their standard seismic stability review criteria. In addition, reservoir seepage would likely provide unacceptably high uplift pressures against the Landfill's composite liner system.

Without project-specific field investigations, the DWQC cannot create criteria to assess seepage impacts from either reservoir on the foundation conditions of the Landfill, particularly since these conditions cannot mitigate unanalyzed risks to the Landfill. Also, because no geologic assessment of the major faulting pattern in the area is presented in the DWQC, fault and fracture patterns cannot be verified or considered in the SMP.

Condition 7 needs to specifically identify the measures the applicant will be required to take to adequately protect the Landfill composite liner system from the adverse effects of groundwater pumping or seepage. The DEIR's Section 6 mitigation measures, which are incorporated by reference into the DWQC, provide that FERC is to approve the SMP. Instead, Condition 7 must also require approval of both the GWQMP and the SMP by the State Board. In addition, because of the lack of information presented as to the Project's impacts upon groundwater levels, Condition 7 should prohibit any construction until after the Deputy Director approves the GWQMP and SMP, which would have to be done prior to approval of the Final Design Plans.

B. Condition 7 Must Contain More Specific Information Regarding Requirements for Managing Reservoir Leakage

Condition 7 should require the applicant to consider and analyze the use of a geosynthetic liner with a leak detection system for each reservoir. This measure will minimize the likelihood and severity of leaks from the reservoirs. The construction of stable and unyielding liners will require that the reservoir slopes be graded to comply with static and pseudo-static stability factors and adequate surface smoothness. The liner must also cover the maximum anticipated wetted surface and the free board of the upper reservoir. This condition should also require that the applicant construct all reservoir lining under the observation and supervision of a third-party construction quality assurance firm, and that the quality assurance firm prepare a report to be filled with FERC and noticed for public comment by interested parties such as the District. This will permit a complete evaluation of whether the installation has been performed in accordance with industry standards and best practices.

Should the detailed geotechnical investigations of Phase I or Phase II, as described in our comments regarding Condition 1, identify ready conduits for water migration toward the Landfill, Condition 7 should require the applicant to install electronic moisture sensors in those areas, equipped with battery power back-up, and surge protection that will alert the Landfill's operator of any alarm conditions. These early warning systems must be tested, and this condition should require that the test

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results be reported, on a quarterly basis, to the appropriate Regional Water Quality Control Board and to the Landfill's operator.

Once the revised Condition 1 site investigations are completed, Condition 7 should require that the applicant provide the minimum mitigation measures necessary to prevent leakage from the reservoirs that would harm the Landfill's liner or stability and to provide early warning of any system compromise. The applicant's compliance with this condition will require that it submit detailed plans and specifications for such measures, including a detailed cost estimate, and that the applicant assume financial responsibility for any corrective action necessary to remedy an unforeseen release from the reservoirs. This information should be made available for public comment and should be subject to approval by the State Board along with the final design for the Project. This condition should also require the applicant to establish an escrow fund before operating the Project in the estimated amount necessary to pay for corrective action.

Prior to submission of the proposed adaptive management strategy to the Deputy Director for approval, the GWQMP and S MP should be reviewed with the Landfill's operator. This approval must precede submission of the Final Design Plans for the Deputy Director's approval.

Condition 8, General Conditions

The following general conditions, included in Condition 8, must be modified as follows:

- 1. Item H. This should specifically include violations of landfill liner and waste containment requirements among the events triggering penalties, including surface water infiltration into the Landfill and erosion of municipal solid waste.
- Item J. This item should require submission of any additional required CEQA analysis associated with the changes mentioned in the item.
- 3. Item U. This item should add the occurrence of seepage and stormwater impacts to the Landfill's integrity and the potential discharge of disturbed waste into surface waters and groundwater as among the activities subject to further review by the State Board or the appropriate Regional Water Quality Control Board.
- 4. Item X. This item should also require that, when the final MMRP and other mitigation measures are available, the WQC will be recirculated for further public review and comment.

We appreciate this opportunity to comment on the DWQC. The District is concerned about the inadequate discussion and analysis of the Project's design and operation, the failure of the DWQC to address certain changes in the environmental conditions once field investigations commence, as well as the inadequate evaluation of the Project's potential significant impacts on the environment and the Landfill. Should you have any questions regarding this letter, please contact Theresa Dodge at (562) 908-4288, extension 2599.

Very truly yours,

Grace Robinson Chan

Thomas J. LeBrun

Departmental Engineer

Facilities Planning Department