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Public

April 3, 2018

The Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

RE: Lake Elsinore Advanced Pumped Storage Project
Docket P-14227
Response to January 3, 2018 Deficiency and Information Request

FEDERAL ENERGY REGULATORY COMMISSION
 2018 APR -3 A 10:44
 SECRETARY OF THE COMMISSION

Dear Secretary Bose,

The Nevada Hydro Company ("Nevada Hydro" or the "Applicant") herein provides its response to the January 3, 2018 letter from the Federal Energy Regulatory Commission's ("Commission") in which the Commission identified certain deficiencies and requested additional information pertaining to Nevada Hydro's Lake Elsinore Advanced Pumped Storage facility (the "Project").

Each deficiency or request from the Commission is quoted in *italics* below, in the order in which each appeared in the Commission's January letter. Nevada Hydro's response appears indented below each deficiency or request in this different font and in blue. Referenced Attachments are included electronically arranged on the three Disks identified by the Commission as follows:

- Attachments A-1 and part of A-2 may be found in the "CEII" disk.
- Attachment A-6 may be found in the "Privileged" disk.
- All other attachments appear in the "Public" disk.
- Nevada Hydro is also including an additional disk containing Word and AutoCAD versions of some of the documents filed.

A. SCHEDULE A Deficiencies

Section 4.41(g) of the Commission's regulation requires an application to include an Exhibit F with design drawings of principal project works conforming to the specifications in Section

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4.39. The application lacks any drawings of principal project works other than those of the proposed transmission lines. Therefore, you must resubmit an Exhibit F that includes drawings of all principal project works defined in Exhibit A of your license application.

Please see Attachment A-1 in the EII disk for a revised Exhibit F that includes drawings of all principal project works defined in Exhibit A of the license application.

Section 4.41(g) of the Commission's regulations requires an application to include an Exhibit F that contains a supporting design report that demonstrates that existing and proposed structures are safe and adequate to fulfill their stated functions. The information provided in the application is inadequate for our review of the safety of the project's dam and water retaining structures. Therefore, you must include additional information in the supporting design report. The supporting design report should include the proposed design, an assessment of the site, a geotechnical evaluation, and a stability analysis for all probable loading conditions of all water retaining structures, including seismic loading. The stability analyses must be performed by a qualified professional engineer and be prepared in accordance with the Commission's Engineering Guidelines, which can be found at <http://fercnet/newfercnet/oep/dam-safety/resources/guidelines/engguidelines.asp>.

Please see Attachment A-2 in the CEII disk for a copy of the supporting design report prepared in response to this deficiency.

Nevada Hydro has included both clean and redline versions of Exhibits A and B in Attachment A-2 in the Public disk. Each Exhibit has been revised to reflect the design clarifications identified in this supporting design report.

B. Additional Information Requests

Exhibit A

- 1. Section 1.1 (Page A-2) states that the upper reservoir would be connected to the powerhouse via a single 25-foot-diameter penstock. This section then goes on to say the "pipeline alignments will seek to follow the most direct route..." and "A manifold will interconnect both penstocks..." Section 1.3 indicates a single 21-foot-diameter penstock will be used to connect the upper reservoir to the powerhouse. Similarly, Table A-1 indicates that a single 21-foot-diameter intake shaft and a single power tunnel of the same diameter would be constructed. Please clarify the number and diameter of the penstocks and reconcile these apparent inconsistencies.**

The Commission has identified some typographical errors in Exhibit A. The "25-foot-diameter penstock", referenced above in Section 1.1 (Page A-2) describes the finished penstock diameter. All references to the 21-foot-diameter penstock have been modified to refer to a 25-foot-diameter penstock. Nevada Hydro has included both clean and redline versions of Exhibits A and B in Attachment A-2 of the Public disk.

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Each Exhibit has been revised to correct this discrepancy and a few other typographical errors identified in the previously filed version of Exhibit A.

- 2. Section 6.0 states that the project boundary encompasses 845 acres of lands of the United State[s] and approximates the total number of acres per township, range, and section number. Please identify the land management agency(s) with jurisdiction over these lands and the total number of acres within the project boundary under their jurisdiction.***

Please see Attachment B-2 for the corrected map and revised acreage calculation. All federal lands to be occupied by the proposed project are administered by the U.S. Department of Agriculture, Forest Service. The difference between the amount of federal lands shown in Section 6.0 of the FLA (845 acres) and what we have now calculated in response to the Commission's January letter (3,432 acres) is that the calculation now includes the corridors occupied by the combined length of the two primary transmission lines.

- 3. In Exhibit B, your operational spreadsheets attachment is labelled as being for Morrell Canyon Reservoir instead of the proposed Decker Canyon and does not show how Lake Elsinore's volume and elevation varies during refill and drawdown. We need this information for our environmental and economic analysis of the project effects. Please resubmit your operational spreadsheets attachment for Decker Canyon Reservoir showing how refill and drawdown affects Lake Elsinore's volume and elevation. Please provide this information in electronic format (Excel), and include all formulas.***

Please see Attachment B-3 for Excel spreadsheets with intact formulas responsive to this request. Two spreadsheets are included:

- 1) STATIC_Draining_Reservoir_Study_Data Decker Head Lakes (Weekly Cycle complete).xls
- 2) DYNAMIC_Draining_Reservoir_Study_Data Decker Head Lakes (Weekly Cycle complete).xls

In the Static spreadsheet, the results of the simulation are shown, but it isn't possible to change the input values for a new simulation (no special Excel add-ins are needed for this spreadsheet).

In the Dynamic spreadsheet, the formula functions exist to interpolate based on new input parameters in order to calculate new simulation results.

The available inputs are shown in an aqua color and give the ability to change the number of units in operation on the typical day, and to vary the Lake Elsinore starting elevation within the usable range (1240.0 ft. to 1245.0 ft.). The weekend parameters are set to show how quickly Decker Canyon can be filled from Lake Elsinore.

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Note that in order to use the calculation functions in the Dynamic spreadsheet, an Excel add-in is required. This add-in is also included in this Attachment. The steps needed to use this add in are also included in this attachment.

Water Quality and Aquatics

4. *Section 2.6.1 Potential Impacts of LEAPS Generation Facilities indicates that about 5,500 acre-feet of water would be needed to fill the upper reservoir. However, Exhibit A, Table A-3: Upper Reservoir Characteristics indicates that 5,750 acre-feet would be the total gross storage capacity of the upper reservoir; and therefore, likely needed to fill the upper reservoir. Please clarify and reconcile this apparent discrepancy*

The total usable capacity of the upper reservoir that would be available for regular use by the facility is 5,500 acre-feet. The additional capacity is considered dead storage. Note that the configuration of the upper reservoir has been slightly modified as a result of conclusions from the supporting design report. Please also see the revised Table A-3 in the revised Exhibit A found in Exhibit A-2 in the Public disk. A copy of this table is included in [Attachment B-4](#).

5. *Section 3.1.1.2.1 Construction Impacts discusses potential fish mortality caused by entrainment and/or impingement and states that these effects would be mitigated to "less-than-significant" with the implementation of proposed PM&E measure BR-5b. However, PM&E measure BR-5b does not appear in Table E.3-2: FERC Environmental Measures – Fisheries and Aquatic Resources Impacts Relating to the LEAPS Pumped Storage Project, which includes a list of PM&E measures previously recommended by FERC staff and now proposed by Nevada Power. BR-5b does, however, appear in section 3.3.4.2.2 Project Operational Impact to Botanical and Vegetation Resources, Table E.3-12: Biological Resource PMEs and is identified as "Conduct biological monitoring" and includes measures to protect terrestrial vegetation and botanical resources. As a result, it is unclear how PM&E measure BR-5b would mitigate for fish mortality at the project. Please clarify.*

The Commission has identified a typographical error in reference to BR-5b in Table E.3-2. As indicated in in this request, BR-5b is described in Section 3.3.4.2.2 (Operational Impacts), Table E.3-12 as biological monitoring, so this reference in Section 3.1.1.2.1 is incorrect.

Analysis¹ has demonstrated that the Gunderboom Marine Life Exclusion System (MLESTM) filtering curtain could reduce operational impacts and annual

¹ / Anderson, M.A. 2006a. *Analysis of the Potential Water Quality Impacts of the LEAPS Project on Lake Elsinore*. Report submitted to the Santa Ana Regional Water Quality Control Board. 30 pp.

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ichthyoplankton loss to less than 10% based upon the model of Prince and Mengel² when operating near maximum lake level. A carrying-capacity model that included mortality of zooplankton resulting from entrainment predicted less than 4% zooplankton loss with MLES under similar conditions.³ The text/table within Section 3.3.4.2.2 Operational Impacts section should have been corrected as necessary to refer to the MLES to minimize operational impacts on fish (and zooplankton).

6. *In Exhibit E's Hydrology and Water Quality section, you conclude that identifying a reliable source of water to maintain stable operating conditions for Lake Elsinore during periods of drought is critical for the success of the project. Simulation results in the section show several years where the use of both Elsinore Valley Municipal Water District's (EVMWD) reclaimed water and Island Wells groundwater do not keep the reservoir at or above 1,240 feet, which would require you to obtain additional water to operate the project during those periods.*

In your final license application (FLA), you say to maintain stable operating conditions, Nevada Hydro will execute a long-term agreement with EVMWD and/or other unidentified water providers, which will also include the initial water to fill the upper reservoir and water needed during construction. However, your application does not include either a draft or final version of a contract with EVMWD or other water provider.

Therefore, for us to identify the sources and yearly amounts of water you plan to use to maintain Lake Elsinore above 1,240 feet, please provide the following:

The specific source(s) of water you plan to use to maintain the operational level of Lake Elsinore above 1,240 feet.

Consult with the sources of water you identify above to provide an assessment of the availability of the water and how that availability varies during average, dry and extremely dry water years.

An agreement in principle with the water users you identify that describes the respective roles of each party and includes each parties concerns relative to entering into a long term water supply contract with Nevada Hydro.

² Prince, E.D. and L.J. Mengel. 1980. Entrainment of ichthyoplankton at Jocassee Reservoir, South Carolina. In (J.P. Clugston, ed.) *Proceedings of the Clemson Workshop on Environmental Impacts of Pumped Storage Hydroelectric Operations*. Fish and Wildlife Service, U.S. Dept. of the Interior. FWS/OBS-80/28. pp.26-39.

³ See Note 1.

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Any measures you propose to mitigate Decker Canyon reservoir's projected evaporation loss of 350 acre-feet-per-year.

Please see response in Attachment B-6 on the "Privileged" disk.

7. ***Under a Commission license, Nevada Hydro, as licensee would be responsible for operating and maintaining all project facilities including Lake Elsinore. Currently, EVMWD and the City of Elsinore share cost to try and maintain the lake at an elevation at or above 1,240 feet as part of the Lake Elsinore Stabilization and Enhancement Project. Though, Nevada Hydro could contract with EVMWD and the City of Elsinore to continue their current lake management, Nevada Hydro would still be the responsible party and would need to retain enough control over the operation of Lake Elsinore to ensure that it can meet any Commission license requirement without EVMWD's or the City of Elsinore's prior approval. Your FLA does not include a draft of final reservoir operation plan that specifies how Nevada Hydro would operate Lake Elsinore under a Commission license.***

Therefore, please coordinate with the City of Elsinore and EVMWD to develop a reservoir operation plan. If Nevada Hydro plans to contract with the City of Elsinore and EVMWD to provide management, you must include an agreement in principle that identifies the respective roles of each party and each parties concerns relative to entering into a long term operation and maintenance contract with Nevada Hydro.

As described in response to Request B-6 above, Nevada Hydro is currently engaged in negotiations with EVMWD to obtain, convey, and store water in Lake Elsinore, and to ensure that Nevada Hydro has the necessary rights with respect to Lake Elsinore to construct, operate, and maintain the LEAPS project consistent with a Commission license. Nevada Hydro anticipates that EVMWD and the City would continue their current management of Lake Elsinore during the LEAPS project license term. Under the terms of the proposed agreement in principle with EVMWD, Nevada Hydro would have full authority to maintain Lake Elsinore at levels necessary for the operation of the project by purchasing water in lieu of water from EVMWD, if that were to become necessary, and to take any other actions required by the Commission. Nevada Hydro has begun outreach to the City and fully anticipates a successful arrangement whereby Nevada Hydro can obtain the necessary rights from the City to construct, operate, and maintain the LEAPS project. Nevada Hydro understands that the agreements with the City and EVMWD must include a Linweave clause to ensure that Nevada Hydro retains enough control over the operation of Lake Elsinore to ensure that it can meet any Commission license requirement without EVMWD's or the City's prior approval.

8. ***Section 3.1.1.1. Existing Resources states that rainbow trout stocking is not included in the Fisheries Management Plan for Lake Elsinore. However, no reference or citation for the Fisheries Management Plan for Lake Elsinore is provided. So that Commission staff may evaluate proposed and recommended measures in context with the Fisheries Management***

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Plan for Lake Elsinore please file the current version of the plan with your response to this Additional Information Request.

The Fisheries Management Plan for Lake Elsinore was published in September 2005 and may be found in Section 5 of Volume 10 of the FLA. It has also been included in Attachment B-8. The Applicant understands that elements of the plan may be updated in conjunction with the ongoing work of the TMDL (Total Maximum Daily Load) Task Force, described in Section 3.3.2 of Volume 14 of the FLA.

9. ***Section 3.1.1.1. Existing Resources, Table E.3-1: Fish Species Reported to Occur in Lake Elsinore provides information on fish species reported or documented in 1984, 1993, and 2000 through 2003. In the species specific text of this section some of the information provided is dated as late at 2005. However, it unclear if the information provided is the most relevant, up-to-date information available for Commission staff to conduct its environmental analysis. If the information provided is the best available please confirm and provide copies of your consultation verifying the confirmation. Otherwise, please revise section 3.1.1.1 to augment the information provided with most relevant, up-to-date information on fish species reported or documented to occur in Lake Elsinore.***

Nevada Hydro requested that Dr. Michael Anderson of the University of California, Riverside assist with helping to respond to this information request. He noted that a comprehensive seine and mark-recapture fish survey at Lake Elsinore was conducted in 2003 that found common carp, channel catfish, threadfin shad, black crappie, bluegill and largemouth bass.⁴ A single red-ear sunfish, green sunfish and rainbow trout were also found (total individuals=9,491). Several hydroacoustic and electrofishing surveys have been conducted since that time.^{5,6,7} For example, the electrofishing survey conducted by California Department of Fish and Game (DFG) on April 29, 2008 in shallow near-shore regions near the north and south ends of the lake found common carp, bluegill, largemouth bass, black crappie and channel catfish. These results are shown in the following table.

⁴ / EIP Associates, 2004. *Fisheries Management Plan for Lake Elsinore, Riverside County, California*. Prepared for the Lake Elsinore-San Jacinto Watersheds Authority. A copy of this report may be found in Attachment B-9.

⁵ / Ewing, B. 2008. *Lake Elsinore General Fish Survey*. California Department of Fish and Game, Eastern Sierra and Inland Deserts Region. 14 pp. A copy of this report may be found in Attachment B-9.

⁶ / Anderson, M.A. 2008. *Hydroacoustic Fisheries Survey for Lake Elsinore: Spring, 2008*. Draft Final Report to the Lake Elsinore-San Jacinto Watersheds Authority. 15 pp. A copy of this report may be found in Attachment B-9.

⁷ / Anderson, M.A., M. Tobin and J. Tobin. 2011. *Biological Monitoring of Lake Elsinore*. Draft Final Report to the Lake Elsinore-San Jacinto Watersheds Authority. 55 pp. A copy of this report may be found in Attachment B-9.

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Species	Number	Percent (%)	Mean Length (mm)	Length Range (mm)
Common Carp	51	43.2	506	418 - 650
Bluegill	44	37.3	116	50 - 170
Largemouth Bass	13	11.0	363	271 - 424
Black Crappie	8	6.8	312	279 - 335
Channel Catfish	2	1.7	442	419 - 465

In addition, a highly successful beach-seining carp removal program was operated from 2003-2008 following the fishery management plan, with carp populations reduced from an estimated 1,600,000 pounds in 2003 to 200,000 pounds in 2008. Carp condition factors also decreased, from 1.71 in 2003 to 1.49 in 2008. Beach seine results from 2008 corroborated the electrofishing survey by DFG and earlier 2003 survey that also found common carp, black crappie, channel catfish, bluegill, and largemouth bass present in the lake (Santa Cruz, City of Lake Elsinore, unpubl. Data, available upon request). In addition, seining also captured hybrid striped bass that were previously stocked to control zooplanktivorous threadfin shad populations as recommended by the fisheries management plan.⁸ Hydroacoustic surveys routinely found large number of low target strength (-50 to -55 dB, corresponding to approximately 2-4 cm length) fish in the open water reflecting threadfin shad populations.⁹ Threadfin shad have also been observed during periodic fish kills, and in a multi-panel gill net deployment near the center of the lake in 2010.¹⁰ While the species composition in Lake Elsinore has remained unchanged over time, it is clear that the populations can vary dramatically at the lake. For example, total fish populations decreased from approximately 18,000 fish/acre in April 2008 to 2,900 fish/acre in March 2010 that was attributed to extensive fish kills observed in the summer of 2009.¹¹ Natural variations in water quality thus have a profound effect on the fishery and other components of the aquatic ecosystem in the lake.

As a reference, please see Michael A. Anderson, Michelle Tobin and Jennifer Tobin "Biological Monitoring of Lake Elsinore", Draft Final Report to Lake Elsinore-San Jacinto Watershed Authority, June 2011 included in Attachment B-9.

⁸ / See Note 4.

⁹ / See Note 6.

¹⁰ / See Note 7.

¹¹ / Id.

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10. *Section 3.1.1.2.1. Construction Impacts discusses potential fish mortality caused by entrainment and/or impingement and states that these effects would be mitigated to “less-than-significant” with the implementation of proposed PM&E measure BR-5b. However, PM&E measure BR-5b does not appear in Table E.3-2: FERC Environmental Measures – Fisheries and Aquatic Resources Impacts Relating to the LEAPS Pumped Storage Project which includes a list of PM&E measures previously recommended by FERC staff and now proposed by Nevada Power. BR-5b does, however, appear in section 3.3.4.2.2 Project Operational Impact to Botanical and Vegetation Resources, Table E.3-12: Biological Resource PMEs and is identified as “Conduct biological monitoring” and includes measures to protect terrestrial vegetation and botanical resources. As a result, it is unclear how PM&E measure BR-5b would mitigate for fish mortality at the project. Please clarify.*

Please see response to Information Request #5.

Terrestrial Resources

11. *The project would be located within or in close proximity to designated or proposed critical habitats (Munz’s onion, Riverside fairy shrimp, arroyo toad, thread-leaved brodiaea, coastal California gnatcatcher, and Stephen’s kangaroo rat). Although Exhibit E, Section 3, Fish, Wildlife, and Botanical Resources (figures E.3-1 to E.3-5) shows the location of critical habitat in relation to the project area outline, it does not adequately show the relationship between critical habitat and specific project components. Therefore, provide revised maps that clearly show the location of project components (roads, transmission lines, other facilities, disposal and laydown areas, etc.) in relation to proposed or designated critical habitats for the above-listed species. You should also include a table showing the amount of different vegetation types within the critical habitats that would be disturbed and whether effects would be temporary or permanent.*

You describe the primary constituent elements (PCE) developed for each species but do not provide any analysis of how construction, operation, and maintenance of the project could affect the PCEs. The discussion of critical habitats should be revised to include such an analysis.

An updated analysis of how construction, operation, and maintenance of the project could affect the PCEs may be found in [Attachment B-11](#).

12. *Table E.3-6, LEAPS—Impacts to Vegetation Communities, should be revised to quantify how much of the impacts would be permanent as opposed to temporary.*

Table E.3-6 has been updated to quantify those impacts which would be permanent as opposed to temporary. Please see this updated table in [Attachment B-12](#).

13. *Table E.3-11, Primary Transmission Line Impacts to Vegetation Communities, should be revised to include the Santa Rosa substation and Fallbrook and Fern Creek Ranch substation*

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alternatives. The table should also include, as appropriate, underground segment trenching and permanent maintenance roads, helicopter fly yards, pulling and tensioning stations outside the right-of-way, and staging areas.

References to the Fallbrook and Fern Creek Ranch substation alternatives were included in error in the FLA. The Applicant is not proposing these locations as alternatives in this application. Information on Impacts to Vegetation Communities affected by the Santa Rosa Substation is provided in Attachment B-16, referenced in response to #16 below.

- 14. *Exhibit E, Section 3, Fish, Wildlife, and Botanical Resources, does not address the Fallbrook and Fern Creek Ranch substation alternatives. In order to understand potential impacts of these facilities, provide a description of the existing environment at these sites along with a discussion of potential impacts to wildlife and botanical resources, including sensitive species.***

References to the Fallbrook and Fern Creek Ranch substation alternatives were included in error in the FLA. The Applicant is not proposing these locations as alternatives in this application.

- 15. *Attachment 3 to the Applicant-prepared Environmental Impact Report, Tower Sites Environmental and Engineering Assessments, provides summary information on each tower location and associated roads and work areas. The numbering (particularly tower nos. 1A-14B), however, does not match the Exhibit G maps nor does it include all 138 towers. Please update the table accordingly.***

Please see the revised tower Structure Summary Table in [Attachment B-15](#).

- 16. *In order for staff to better understand the potential impacts of each construction activity, provide a table showing the vegetation types that would be temporarily or permanently affected by each tower location and associated roads, pull sites, and staging areas.***

Please see [Attachment B-16](#) for a new table that shows the vegetation types that would be temporarily or permanently affected by each tower location and associated roads, pull sites, and staging areas. This table also provides the same information for the Lake Switchyard, the outfall pipe area, the Santa Rosa Powerhouse, the Santa Rosa Substation, and Case Springs Substation, the Upper Reservoir, Upper Gatehouse, Upper Dam, staging areas, and construction work areas.

- 17. *You do not describe whether herbicides would be used to control invasive plant species or manage vegetation around project facilities. The use of herbicides can potentially affect sensitive plant and animal species. Therefore, provide details on the use of herbicides, including best management practices that would be used to minimize effects.***

The Applicant is only planning on using herbicides to the extent and at the direction of the U.S. Forest Service on Forest property. Without such guidance, and on non-Forest

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land, herbicides will not be used to control invasive plant species or manage vegetation around project facilities. Invasive plants will be removed by hand with hand tools. Hand tools may include shovels, hoes, rakes, weed whackers. Invasive vegetation will be removed off-site to a suitable landfill. Invasive species will be removed prior to setting seed.

18. *You indicate in Exhibit E, Section 3, Fish, Wildlife, and Botanical Resources, that mitigation for many habitat losses (native trees, habitat for listed wildlife species, sensitive natural communities, including riparian habitat, etc.) might not be able to be fully mitigated because replacement habitat may not be available in the project area. In order for staff to be able to analyze the potential for unavoidable impacts to important resources, provide an assessment of the availability of replacement habitats to potentially offset habitat impacts associated with the proposed project.*

An assessment of adequate suitable mitigation lands has not been completed, but there are several previously conserved areas along the project site and disturbed sites within or near the project area that could potentially be used for mitigation of any project-specific effects. If necessary, new habitat could be created by rehabilitating previously-disturbed areas within the project boundary or adjacent to the project boundary. Such rehabilitation would result in such impacts being reduced to a less-than-significant level and would provide project-related benefits.

19. *In Exhibit E, Section 11, Literature Cited, many of the references do not include the complete citation but only author and year. Please provide the complete citations for those references.*

Exhibit E, Section 11, Literature Cited has been modified and updated to correct the errors noted and may be found in Attachment B-19.

20. *Provide a copy of Dudek (2002) that describes the vegetation and wildlife along the proposed 69-kilovolt rebuilt line from the Pala and Lilac substations.*

A copy of this report is in Volume 4, following Tab 3 of the FLA and is also provided in Attachment A-20. It is titled, "Attachment 3, California Public Utilities Commission Valley Rainbow Alternatives Report".

Recreation, Land Use, and Aesthetics

21. *In Exhibit E you provide several maps from a variety of sources. Few, if any, of the maps depict proposed project facilities. In order to review your application, it is necessary to understand how proposed project features relate to other relevant features of the landscape. Please modify all included maps, regardless of the original source, to include detailed, spatially accurate depictions of proposed project features.*

Revised maps for Exhibit E may be found in Attachment B-21.

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The base layer for the maps in Exhibit G consists of aerial photo images from 2009. New residential or commercial development may have occurred in the area since 2009, therefore you should update the base layer for the maps in Exhibit G with current aerial photo images.

Revised base layer (Facilities) maps may also be found in Attachment B-21.

22. *Construction of the proposed upper reservoir would permanently remove approximately 100 acres of land from public use. Furthermore, Exhibit G indicates the upper reservoir would require the removal or relocation of forest roads. However, Exhibit E contains no information about these roads or any other existing roads, trails, or recreation use that would be impacted by the permanent removal of the upper reservoir site from public use. So that we can evaluate your application, please provide information on the current recreation use that occurs in that area, including formal or informal use. Provide information on the number and type of all roads, trails, and recreation sites (both formal and informal), and observational data about the amount and type of current recreation use of the area. Provide an estimate of the amount of recreation use this area receives, so that we may understand the impacts of the proposed project. If this information is not readily available, then submit your proposed plan to obtain it for Commission approval.*

The LEAPS project includes the removal of approximately 70 acres¹² from public land use for the purposes of creating the upper reservoir in Decker Canyon. Information regarding amount of recreation use this area receives is not readily available. Subject to Commission approval, the proposed plan to obtain the information is as follows.

Since most activity in this area occurs in the spring and summer months, a recreational use study will be completed to document the estimated use of the area. Periodic spot checks will be conducted twice a month from March to August to identify the active use of the 100-acre area. Visual observations will be made regarding the number of people that utilize the site, what kind of recreational activity is being conducted, and the general area of usage.

Also, motion-detecting cameras can be set up at periodic locations within the reservoir footprint to document use when the biologists are not present. The data collected from the investigation will provide information on the number and type of all roads, trails, and recreation sites (both formal and informal), and observational data about the amount and type of current recreation use of the area.

23. *In its November 30, 2017, comment letter, the Cleveland National Forest (Forest Service) says that your proposed location for the Decker Canyon upper reservoir (and the previously proposed Morrell Canyon site) are within an Inventoried Roadless Area (IRA) that is subject*

¹²/Note that the revised configuration of this reservoir, based on the analysis conducted for the Supporting Design Report found in Attachment A-2, has reduced the footprint of this reservoir by 30%.

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to the Roadless Area Conservation Rule (RACR). The Forest Service says the RACR, which went into effect in 2012, generally prohibits any road construction in an IRA. Because of this, the Forest Service is requiring Nevada Hydro to develop alternatives that are consistent with the RACR before the Forest Service can accept an application for a special use permit.

Therefore, within 90 days, consult with the Forest Service to develop alternatives to your proposal consistent with the RACR that would allow the Forest Service to accept your special use permit application, and provide the Commission with a record of this consultation. If this consultation would modify your proposal, and result in any part of your license application to be inaccurate, then make all relevant changes and submit an updated application along with the record of your consultation.

Please see the response to Request #24

24. *In its November 30, 2017, comment letter, the Forest Service says that it will decide whether to become a cooperating agency under NEPA after you file an application for a Special Use Permit for the project. Your license application includes a Special Use Permit application for the previous proposal but not the current one. Please file a copy of a Special Use Application filed with the Forest Service for the current proposal or documentation from the Forest Service showing that they will use the previous application in the current proceeding.*

Nevada Hydro has consulted with the U.S. Forest Service (“Forest Service”) by engaging in several lengthy in-person meetings and exchanging numerous correspondence since issuance of the Commission’s January 3, 2018 letter. This section responds to both additional information request numbers 23 and 24 because all outstanding issues associated with the Forest Service were included in these consultation efforts.

Nevada Hydro and personnel of the Forest Service met on February 28, 2018 to discuss (i) the issues raised in the Forest Service’s November 30, 2017 letter, (ii) a letter received by Nevada Hydro from the Forest Service dated January 23, 2018 (a copy of each letter is included in Attachment B-24) and (iii) the issues raised in the Commission’s January letter. Prior to the meeting, Nevada Hydro provided additional information to the Forest Service in a February 15, 2018 letter, to which the Forest Service responded on February 23, 2018 (a copy of each letter is included in Attachment B-24). These correspondences provided some clarification to Nevada Hydro regarding the Forest Service’s concerns with respect to the roadless rule and the necessary content of a new special-use permit application.

February 28, 2018 meeting

At the February 28, 2018 meeting, the Forest Service had present the following personnel:

- Darrell Vance, District Ranger

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- Jake Rodriguez, District Recreation and Lands Officer
- Jeff Heys, Forest Planner
- Brad Aughinbaugh, Forest Utility Coordinator
- Amy Reid, Natural Resources Specialist (Special Uses) – by phone
- Joe Raffaele, Forest Recreation Program Manager – by phone
- Tristan Leong, R5 Hydroelectric Coordinator – by phone
- Kim Villa, Resources Assistant – by phone

In attendance on behalf of Nevada Hydro were:

- Rexford Wait, President, Nevada Hydro
- David Kates, Project Manager, Nevada Hydro
- Greg Kahlen, consultant to Nevada Hydro

At the meeting, Nevada Hydro provided a number of documents for the Forest Service to use to assess the roadless area issue and the special-use application. These included:

- Copies of letters exchanged to date
- Copies of the Forest Service's 2001 Inventoried Roadless Area rule and rules and guidelines relating to the processing Special use application
- A detailed description of the project, including maps and a description of the need it fills
- A map showing the location of the upper reservoir described in the FLA, overlaid onto the roadless area
- A new SF299 Special Use application

Each of the above documents may be found in Attachment B-24. Nevada Hydro's meeting notes are also included in this Attachment.

Follow-up to February 28, 2018 meeting

As a result of the discussions at the February 28 meeting, On March 8, 2018, Nevada Hydro provided the Forest Service with additional requested materials. These materials included:

- A revised SF299 Application
- Nevada Hydro suggested responses to issues raised in the Forest Service's "Special Use Screening Checklist".
- A copy of Nevada Hydro's July 31, 2017 letter to Commission Director Vince Yearick, describing the nature of the grid connection
- Specific responses to the issues raised in the Forest Service's November 30, 2017 letter

Complete copies of these materials are included in Attachment B-24.

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March 26, 2018 Meeting

On March 26, 2018, the Forest Service sent Nevada Hydro a letter denying the special-use application (form SF-299) submitted on March 8 because it did not meet the Forest Service's initial screening criteria. A copy of the letter is included in Attachment B-24. Two hours following receipt of this letter, Nevada Hydro and the Forest Service held their second meeting on March 26, 2018. Forest Service personnel present at the meeting included the following:

- Darrell Vance, District Ranger
- Jake Rodriguez, District Recreation and Lands Officer
- Jeff Heys, Forest Planner
- Amy Reid, Natural Resources Specialist (Special Uses)
- Brad Aughinbaugh, Forest Utility Coordinator
- Joe Raffaele, Forest Recreation Program Manager – by phone
- Tristan Leong, R5 Hydroelectric Coordinator – by phone

In attendance on behalf of Nevada Hydro were Mr. Kates and Mr. Kahlen. During this meeting, Nevada Hydro and Forest Service personnel closely reviewed the issues identified in the March 26 letter to Nevada Hydro, relating to the requirements to be provided as part of a complete special-use application (form SF-299). Nevada Hydro also provided an updated overlay showing the revised Decker Canyon reservoir configuration (as provided in this response to the Commission). A copy of Nevada Hydro's meeting notes from this meeting are included in Attachment B-24.

During this three-hour long March meeting, Forest personnel provided detailed guidance on the additional information it would need to process the special use application.

Also based on discussions during both meetings, it is Nevada Hydro's understanding that no modification of Nevada Hydro's proposed project is necessary to resolve the roadless issue raised by the Forest Service. At the meetings, Nevada Hydro described to the Forest Service that there is ample area where equipment can access the reservoir site from outside of the roadless area. As mentioned, the maps showing this was provided to the Forest Service are included in Attachment B-24. However, in the Forest Service's March 26, 2018 letter, the Forest Service stated that "[i]t is unclear from the proposal how these facilities would be constructed without the use of roads." See Forest Service March 26, 2018 letter at pg. 5. As indicated in the March meeting notes, Nevada Hydro explained that the upper reservoir site could be accessed by existing roads and personnel and material involved in the construction of the upper reservoir could access the site from those roads. Nevada Hydro also explained that, if it were to become necessary, it could utilize helicopter support to construct the upper reservoir.

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Nevada Hydro is in the process of revising the special-use permit application in accordance with the direction received from the Forest Service at the March 26, 2018 meeting. Nevada Hydro anticipates that it will be able to re-submit the revised special-use permit application by April 13, 2018, a copy of which will be filed with the Commission.

With this additional information provided, as described in the March meeting, it is Nevada Hydro's understanding that the Forest Service will be able accept the application and also expects that in so doing, it will be able to acknowledge to the Commission its satisfaction with the Applicant's proposed resolution to the roadless area issue.

Engineering and Economic

25. *For us to better understand how you have estimated the cost of your proposed LEAPS project, which you summarize in Figure D.1, please provide us with more detail on your estimate that includes quantities, unit costs, and total costs for major project features (such as reservoir excavation, foundation preparation, dam construction, tunneling excavation, powerhouse construction, underground segment of the 500-kV transmission line).*

Please see Attachment B-25 for the requested detail estimated capital cost for the proposed Project. The costs shown in this attachment are current as of the filing date of this response and differ slightly from those shown in Exhibit D filed with the Final License Application.

With regard to the specifics of the underground works, the previous penstock design includes building upstream power tunnels at a slope of 25 degrees, which is equal to a gradient of 50 percent. If your current design includes tunnels of this steepness, please include with your detailed cost estimate details of how either drill and blast excavation or a tunnel boring machine could be used at this steep of gradient.

In reviewing its filings presented to the Commission, Nevada Hydro noticed a number of typographical errors which may have led the Commission to conclude that Nevada Hydro was proposing "building upstream power tunnels at a slope of 25 degrees, which is equal to a gradient of 50 percent." This is not correct.

Nevada Hydro has therefore, corrected a number of the figures in Table A-1: Summary of Principal Characteristics of Exhibit A. This revised table may be found in Attachment B-25. Please also see the revised Figure F-1: Project Elevation View which shows the correct slope of the power tunnel. Updated versions of both the Table and Figure are included in this Attachment B-25. As noted both have been updated to reflect the conclusions in the supporting design report prepared in response to the request from the Commission, found in Attachment A-2 on the CEII disk.

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Historical and Archaeological Resources

26. *In Exhibit, E, section 4, you say that field surveys by your cultural resources contractor were conducted in 1996 and 1997, and it appears that you have not since reconsidered the conditions and circumstances involving the existing, or any newly recorded cultural resources within the proposed project's area of potential effects. We also note that since the filing of your historic properties management plan for your original LEAPS proposal in 2005, and upon our recommendations in our 2007 final environmental impact statement, you have not revised the historic properties management plan.*

Several FLA comments express concern about the effects of the LEAPS Project on cultural resources, including the Pechanga Band of Luiseño Indians Tribes who say that they and others have gathered additional information pertinent to the protection of tribal cultural resources and an important Traditional Cultural Property.

Given the lack of existing consultation on your current proposal, you will need to consult with the Indian tribes and other consulting parties that were included in our programmatic agreement issued on February 12, 2007. Please provide your correspondences and related comments from the involved parties.

Nevada Hydro has engaged Chambers Group, Inc. ("Chambers") to support reviewing and updating the record search results and to coordinate other historical and cultural resource-related issues.

Initial cultural resources surveys were originally conducted 1996 and 1997, and subsequent surveys for this project were conducted by Chambers Group in 2005, as noted in the 2007 HPMP (page 2-5), where it discusses the approach and results of surveys conducted in January 2005 of accessible areas not previously surveyed within the Area of Potential Effect (APE). In response to the Commission's January letter, NHC began the necessary steps to update and revise the Historic Properties Management Plan ("HPMP"). This included sending letters to reinstate consultation with parties listed in the Programmatic Agreement ("PA"), dated February 12, 2007. Because the points of contact for the applicable agencies and tribes had changed, a thorough review and update of the points of contact for each agency and tribe was conducted. This update also included submitting an updated Sacred Lands File Search with the Native American Heritage Commission ("NAHC"). A response received on December 7, 2018, indicates the area is sensitive for tribal cultural resources and traditional cultural properties. Tribal contact information was revised based on the information provided by NAHC.

The NHC is aware that a new inventory of the APE may be warranted and is engaging in the preliminary steps to consult with tribes and update all relevant background research related to the current APE, prior to conducting additional surveys. The

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results of this consultation and background research is necessary prior to conducting field surveys, which will be scheduled accordingly once these tasks have occurred. Once the inventory has been completed in consultation with the tribes, a revised draft HPMP will be provided and will include an inventory of known cultural resources and historic properties, and will provide conditions to avoid, minimize or resolve adverse effects to historic properties.

As of January 31, 2018, certified letters were sent to all Native American Tribes and consulting parties listed in the PA (refer to Correspondences in [Attachment B-26](#)). Additionally, at the request of NHC, Soboba Band of Luiseno Indians was added to the list of consulting parties and received a project notification/consultation letter as well. The points of contact listed in the 2007 PA have changed and were updated prior to sending the letters.

On February 12, 2018, NHC and Chambers met with the Pechanga Band of Luiseño Indians (the Pechanga Band). At this meeting, the Pechanga Band discussed additional data they have available regarding resources in the area. Work is ongoing to coordinate with the Pechanga Band to identify areas of sensitivity (refer to Meeting Notes in Attachment B-26).

NHC has been actively engaged in coordinating with the Pechanga Band since filing the final license application (October 2017) to reinitiate consultation on this project, regarding additional information the Pechanga Band has on file, including information pertaining to Lake Elsinore Traditional Cultural Property (TCP). A meeting was held with the Pechanga Band, NHC, and Chambers Group (NHC consultant) on February 12, 2018. The outcome of the meeting included an introduction of key individuals on the NHC team as well as the Pechanga Band's Cultural Resources Department. The Pechanga Band also provided an overview of known resources within and adjacent to the APE. It was determined that the Pechanga Band did not have the most current project layout to overlay within their data set. As such, the Pechanga Band requested that Chambers Group (Rachael Nixon) provide these files for review as soon as possible. The shape files (in the requested KMZ format) were provided to the Pechanga Band on February 16, 2018. Minutes from the meeting are included in Attachment B-26, which were also provided to the Pechanga Band for review and comment on February 16, 2018. A follow-up email was sent to the Pechanga Band on March 14, 2018, to seek updates and to offer to address concerns or other questions regarding the project. The Pechanga Band responded via email that they were still reviewing the data provided by NHC and will get in touch with NHC once they have had time to assess the current layout against their in-house cultural GIS database. Consultation with the Pechanga Band is ongoing.

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On February 28, 2018 the State Historic Preservation Office (SHPO) responded to the consultation letter with the following comments and indicated that it believed that, due to project changes, it appears to be a new undertaking for the purposes of Section 106 consultation. SHPO requested documentation that FERC had delegated its authority to engage in Section 106 consultation to NHC and requested documentation from the Cleveland National Forest that it was designating FERC as the lead agency. Finally, SHPO requested NHC to review the Section 106 submission checklist available on the Office Historic Preservation's website for documentation required for consultation on this undertaking.

A follow up email was sent to SHPO on March 1, 2018, which included a copy of the FERC tendering notice authorizing NHC to conduct Section 106 consultation on FERC's behalf for this project. SHPO was also informed that additional record searches and consultation with tribes regarding the proposed APE is ongoing. SHPO responded confirming receipt of the letter and email. Consultation with SHPO is ongoing.

Rincon Band of Luiseno Indians (Rincon Band) responded via email on March 6, 2018, requesting consultation, including a request that a record search and a cultural resources assessment be completed. A follow-up response was sent to the Rincon Band informing them that the record search is underway and that a previous report could be sent if they would like to review and/or a meet to discuss the project. Rincon Band responded March 7, 2018 requesting copies of reports and requesting to set up a meeting for the week of March 26, 2018. Copies of all previous documents were transmitted to the Rincon Band electronically via an ftp site. A meeting was scheduled on March 27, 2018; however, the Rincon Band needed to reschedule due to another obligation. As such, a new meeting is currently in the process of being scheduled. Consultation with the Rincon Band is ongoing.

On March 14, 2018, Soboba Band of Luiseño Indians (Soboba Band) responded to the consultation letter indicating that, although the project is outside of the reservation boundaries, the APE is within their traditional use area and is sensitive for tribal cultural resources. As such the Soboba Band would like to be engaged and consulted regarding the project in conjunction with the Lead Agency. FERC's October 11, 2017 tendering notice was provided to Soboba Band, which notice indicated that NHC has been authorized to conduct Section 106 consultation on behalf of FERC for this project. Additional outreach via email was sent on March 24, 2018 to offer the Soboba Band additional information and/or a meeting to discuss the project. A response has not yet been received; outreach with the Soboba Band to discuss sensitive areas is ongoing. Consultation and outreach with the Soboba Band is ongoing.

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The California Historic Resources Information Center conducts searches with South Central Coastal Information Center, Eastern Information Center, and South Coastal Information Center are in progress. These centers are currently extremely busy and turnaround times and in-person appointments require 2-4 weeks advance notice. The NHC is also in the process of setting up meetings with Soboba Band and Rincon Band regarding information they may have related to tribal cultural resources sensitivity; as well as follow-up meetings with Pechanga Band to assess the current APE with regard to their in-house cultural resources GIS data. Following these meetings and a review of the updated record search results, the proposed APE will be subject to an inventory for historic properties which will then be integrated into a revised Historic Properties Management Plan for this project.

At this time no other responses have been received by consulting parties listed in the PA. As these responses are received, additional consultation will occur and incorporated into the revised HPMP.

C. Conclusion

Nevada Hydro trusts that the Commission finds this letter to be responsive to its January 3, 2018 request, but as always, would be pleased to clarify any element of this response or its license application.

Sincerely,

Rexford Wait
For The Nevada Hydro Company

Attachments

Document Content(s)

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