

**SACRAMENTO MUNICIPAL UTILITY DISTRICT'S
UPPER AMERICAN RIVER PROJECT
(FERC NO. 2101)**

**SUPPLEMENTAL
PRELIMINARY DRAFT
ENVIRONMENTAL ASSESSMENT**

SECTION 3.0 AGENCY ALTERNATIVE

Sacramento Municipal Utility District
Sacramento, California

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3.0 AGENCY ALTERNATIVE

The following section summarizes the Agency Alternative's measures evaluated in this SPDEA by resource area. Although some of the measures pertain to more than one resource area, to avoid redundancy the summary lists each measure under only the most relevant resource area. Because this summary incorporates the specific language set forth in the Agency Alternative where possible, the summary includes terms not used elsewhere in this SPDEA.

3.1 Agency Alternative Measures

Water Resources

1. Appendix C, Section 5 (Iowa Hill), Water Quality and Water Pollution – Requires the Licensee to consult with FS, SWRCB, RWQCB, CDFG, FWS, the Corps, BLM, and other resource agencies with authority over public trust resources within the area of potential effects from construction and operation of Iowa Hill facilities. Requires submission of detailed design plans and a proposed timeline for construction to appropriate agencies, and obtainment of all necessary permits. Requires the Licensee to file a FS, SWRCB, and CDFG approved Storm Water Pollution Prevention Plan. Provides set-back requirement for equipment staging and requires removal of any material used within the river bed after construction activities are completed.
2. Appendix C, Section 6 (Iowa Hill), Groundwater – Requires the Iowa Hill water tunnel to be constructed in a manner that allows for no seepage of groundwater into or out of the tunnel once construction is completed, and requires the Licensee to file a FS approved plan for managing groundwater inflows. Requires consultation with the RWQCB and the SWRCB.
3. Appendix C, Section 10 (Iowa Hill), Spoils Disposal – Requires the Licensee to consult with FS, SWRCB, and RWQCB to obtain Waste Discharge Requirements for discharge of spoils to land and prohibits deposition of spoils on National Forest System lands without prior review and approval by the FS.

Aquatic Resources

4. Appendix A, Section 1 (UARP), Minimum Streamflows – Requires the Licensee to maintain minimum flows, by month and water year type, pursuant to minimum streamflow schedules set forth for specified stream reaches. Sets forth deadlines for meeting the minimum streamflow requirements, including deadlines that apply where facility modification is required to maintain the specified minimum streamflows.
5. Appendix A, Section 3 (UARP), Ramping Rates – Sets forth ramping rates, deadlines for meeting ramping rates, requirements to provide streamflow records, and limited exceptions when the ramping rates will not apply.

6. Appendix A, Section 4, Coordinated Operations (UARP) – Requires the Licensee to coordinate project operations with the licensee of the Chili Bar Hydroelectric Project, FERC No. 2155.
7. Appendix A, Section 5 (UARP) Monitoring Program – Requires the Licensee to implement a monitoring program regarding fish populations, aquatic macroinvertebrates, amphibians and reptiles, riparian vegetation, algae species, geomorphology, water temperature, water quality, recreation, Robbs Peak Powerhouse entrainment, terrestrial wildlife, heritage resource, recreation developments, and reservoir levels.
8. Appendix A, Section 6 (UARP), Adaptive Management – Requires the Licensee to implement an adaptive management program for ecological resources.
9. Appendix A, Section 7 (UARP), Gerle Creek Channel Stabilization – Requires the Licensee to develop a stabilization plan for the Gerle Creek channel below Loon Lake Reservoir Dam.
10. Appendix A, Section 8 (UARP), Fish Passage at Gerle Creek – Sets forth a minimum elevation for Gerle Creek Reservoir for the months of August through October.
11. Appendix A, Section 9 (UARP), Large Woody Debris – Sets forth requirements regarding mobile instream large woody debris.
12. Appendix A, Section 10 (UARP), Streamflow and Reservoir Elevation Gaging – Requires the Licensee to file with FERC a FS and SWRCB approved Streamflow and Reservoir Elevation Gaging Plan that meets United States Geological Survey standards.
13. Appendix A, Section 11 (UARP), Canal and Penstock Emergency and Maintenance Release Points – Requires the Licensee to file with FERC a FS and SWRCB approved plan to evaluate canal and penstock emergency and maintenance release points to determine if improvements can be made to minimize potential adverse water quality impacts when the release points are used.
14. Appendix C, Section 3 (Iowa Hill), Aquatic Resources – Requires the Licensee to monitor hardhead, demonstrate that temperatures in shallow water areas of the Slab Creek Reservoir are not affecting hardhead distribution, maintain minimum temperature, and ensure flow fluctuations do not occur. Reserves the right for FS, CDFG, FWS, and SWRCB to establish appropriate mitigation measures if entrainment is occurring.

Botanical and Wildlife Resources

15. Appendix A, Section 12 (UARP), Wildlife and Plant Protection Measures – Requires the Licensee to maintain and operate in working condition all devices and measures for wildlife along Project canals that are deemed necessary by the FS and CDFG, report

annual wildlife mortality, and if necessary develop a Wildlife Exclusion Plan, and complete a biological evaluation prior to any new construction or maintenance. Requires the Licensee to notify the FS and FWS if occurrences of FS sensitive plant or wildlife species are detected prior to or during ongoing construction, consult with BLM, FWS, and CDFG prior to undertaking maintenance under transmission lines within the Pine Hill Rare Plant Reserve, and to retrofit all transmission lines to meet the design and sighting standards established by the Avian Power Line Interaction Committee or develop a FWS Avian Protection Plan.

16. Appendix A, Section 13 (UARP), Noxious Weeds – Requires the Licensee to file with FERC a FS approved plan for the prevention and control of Project-related noxious weeds, and limits the materials the Licensee may use for construction or restoration.
17. Appendix A, Section 14 (UARP), Annual Review of Ecological Conditions – Requires the Licensee to schedule and facilitate a meeting with agencies to review and discuss the results of implementing conditions, as well as to discuss other issues related to preserving and protecting ecological values affected by the Project, and requires the Licensee to make available an operations and maintenance plan for the year in which the meeting occurs.
18. Appendix A, Section 36 (UARP), Vegetation Management Plan – Requires the Licensee to file with FERC a FS approved Vegetation Management Plan.
19. Appendix C, Section 4 (Iowa Hill), Terrestrial Resources – Requires the Licensee, prior to initiating construction of the Iowa Hill development, to purchase an equivalent acreage of land, or a conservation easement for an equivalent acreage of land for habitat mitigation.

Cultural Resources

20. Appendix A, Section 31 (UARP), Heritage Resources – Requires the Licensee to complete a Heritage Properties Management Plan for FS approval.
21. Appendix A, Section 32 (UARP), Heritage Resource Discovery – Provides protocols to be followed if items of potential cultural, historical, archeological, or paleontological value are reported or discovered, or a known deposit of such items is disturbed on National Forest System lands and Licensee adjoining property.
22. Appendix C, Section 8 (Iowa Hill), Heritage Resources Protection – Requires compliance with Section 106 requirements of the National Historic Preservation Act and provides protocols to be followed if items of potential cultural, historical, archeological, or paleontological value are reported or discovered, or a known deposit of such items is disturbed.

Recreational Resources

23. Appendix A, Section 15 (UARP), Recreation Implementation Plan – Requires the Licensee to develop a recreation implementation plan in coordination with the FS.
24. Appendix A, Section 16 (UARP), Recreation Survey – Requires the Licensee to conduct a Recreational Survey and prepare a FS approved recreation report every six years during the new license term.
25. Appendix A, Section 2 (UARP), Pulse Flows – Requires the Licensee to provide annual pulse flow events in three specified stream reaches pursuant to a pulse flow schedule. Sets forth deadlines for meeting the pulse flow schedules, including deadlines for completing facility modifications, as may be required to provide the annual pulse flow events.
26. Appendix A, Section 17 (UARP), Forest Service Liaison – Requires the FS and Licensee each to provide a liaison for the planning and construction of recreation facilities, and provides that the Licensee liaison agrees to cooperate with the FS through contract review and work inspection.
27. Appendix A, Section 18 (UARP), Review of Recreation Developments – Requires the FS and Licensee to meet to review all recreational facilities and areas associated with the Project and agree upon necessary maintenance, rehabilitation, construction, and reconstruction work and its timing. Provides criteria for project selection and requires the Licensee to develop a FS approved schedule for maintenance, rehabilitation, and reconstruction, and identifies the recreation facilities inside the Project boundary. Provides that the Licensee shall be responsible for funding all items, and if facilities are not currently within the license project boundary, requires that the boundary be adjusted to include such facilities. Requires the project boundary to be adjusted as necessary, such that recreation facilities constructed or reconstructed by the Licensee in the future shall be included within the project boundary.
28. Appendix A, Section 19 (UARP), Specific Recreation Measures – Requires the Licensee to construct, reconstruct, and restore specifically identified “initial” recreation projects. Requires that the Licensee be responsible for funding all such projects, and that the project boundary be adjusted as necessary to include all such projects within in the project boundary.
29. Appendix A, Section 20 (UARP), Heavy Maintenance – Provides that the Licensee is responsible for the cost of the necessary maintenance, rehabilitation, and reconstruction necessary to keep existing recreation facilities in serviceable condition, as determined through the Review of Recreation Developments, including water systems, traffic control barriers, roads, spurs, and associated drainage structures, grills and fire rings, picnic tables, toilets, and sign boards.

30. Appendix A, Section 21 (UARP), Recreation Operation, Maintenance, and Administration – Requires the Licensee to annually pay \$741,805 (year 2005 cost basis, escalated annually based on the U.S. Gross Domestic Product-Implicit Price Deflator) for the FS to provide for operation, maintenance, and administration of those developed recreation sites adjacent to or in the vicinity of reservoirs and facilities identified in the Review of Recreation Developments.
31. Appendix A, Section 22 (UARP), Recreational Streamflow Operation, Maintenance, and Administration – Requires the Licensee to annually pay \$48,000 (year 2005 cost basis, escalated annually based on the U.S. Gross Domestic Product-Implicit Price Deflator) for the FS to provide for river rangers during the whitewater boating season, or for El Dorado County to provide some or all of this service through agreement.
32. Appendix A, Section 23 (UARP), High Country Patrol (Desolation Wilderness Area) – Requires the Licensee to annually pay \$53,000 (year 2005 cost basis, escalated annually based on the U.S. Gross Domestic Product-Implicit Price Deflator) to provide for High Country patrol and management of recreation use within the high country area around reservoirs.
33. Appendix A, Section 24 (UARP), Dispersed Area Patrol (Zone 3) – Requires the Licensee to annually pay \$88,000 (year 2005 cost basis, escalated annually based on the U.S. Gross Domestic Product-Implicit Price Deflator) for the FS to provide patrol and management of dispersed recreation areas and uses, as well as trails and other locations utilized by visitors within the area affected by the project designated as Zone 3.
34. Appendix A, Section 25 (UARP), Carrying Capacity on Lands Affected by the Project – Requires the Licensee to gather and provide data to support the FS's determination of the recreational carrying capacity for the project area. Provides that the FS reserves the right to make changes to the list of specific recreation measures under Appendix A, Section 19 once the Licensee provides the data.
35. Appendix A, Section 26 (UARP), Reservoir Levels – Requires the Licensee to operate eight UARP reservoirs pursuant to a reservoir-by-reservoir schedule prescribing a monthly average surface water elevation, according to month and water year type.
36. Appendix A, Section 27 (UARP), Recreation Streamflows – Requires the Licensee to provide recreation streamflows in the South Fork American River below Slab Creek Reservoir Dam and in the South Fork Silver Creek below Ice House Reservoir Dam, pursuant to minimum streamflow schedules based upon month and water year type.
37. Appendix A, Section 28 (UARP), Public Information Services – Requires the Licensee to annually pay \$114,288 (year 2005 cost basis, escalated annually based on the U.S. Gross Domestic Product-Implicit Price Deflator) to provide information services to visitors.

Requires the Licensee to make recreation streamflow and reservoir level information publicly available via a toll-free telephone number and the Internet, to publish brochures and maps that describe recreational opportunities and facilities in the project area, and to implement an interpretive, education, and public information plan.

38. Appendix A, Section 29 (UARP), Fish Stocking – Requires the Licensee to provide 50,000 pounds of fish per year to be distributed among Loon Lake, Union Valley, and Ice House Reservoirs.
39. Appendix A, Section 34 (UARP), Trails System Management – Requires the Licensee to file with FERC a Trails System Management Plan approved by the FS, and incorporates by reference specific trail system needs set forth in Appendix A, Section 19.
40. Appendix A, Section 37 (UARP), Fire Prevention Plan – Requires the Licensee to file with FERC a Fire Prevention Plan approved by the FS in consultation with appropriate State and local fire agencies.
41. Appendix A, Section 38 (UARP), Law Enforcement – Requires the Licensee to annually pay \$147,746 (year 2005 cost basis, escalated annually based on the U.S. Gross Domestic Product-Implicit Price Deflator) for the FS to provide for law enforcement officers.

Transportation

42. Appendix C, Section 9 (Iowa Hill), Road Use Permit – Requires the Licensee to file with FERC a FS approved road use permit for all National Forest System roads that will be used for project construction activities. Limits Licensee's vehicle use to roads or specifically designed access roads, and reserves to FS the right to close such routes and to require reconstruction/construction by the Licensee to the extent needed to accommodate the Licensee's use or repair of damage from project activities.
43. Appendix A, Section 33 (UARP), Transportation System Management – Requires the Licensee to file with FERC a Transportation System Management Plan approved by the FS for roads on or affecting National Forest System lands; sets forth specific transportation infrastructure projects for the Licensee to complete; and requires the Licensee to annually provide to the FS a snow plowing plan.

Visual Resources

44. Appendix A, Section 30 (UARP), Visual Resource Protection – Requires the FS and Licensee to meet every 5 years to review opportunities to improve how well the Project facilities blend with the surrounding landscape. Requires the Licensee, prior to any new construction or maintenance of facilities that have the potential to affect visual resources of National Forest System lands, to file with FERC a FS approved plan for the protection and rehabilitation of National Forest System visual resources affected by the Project. Sets forth specific mitigation measures to improve visual quality at project facilities.

45. Appendix C, Section 7 (Iowa Hill), Compliance with Visual Quality Standards – Requires the Licensee to develop an alternative design for the Iowa Hill Pumped Storage Project that meets the visual quality standards of the Eldorado National Forest Land and Resources Management Plan, and requires the Licensee to provide the FS plan specifications and simulated views of the new alternative so the FS may determine whether it meets Eldorado National Forest Land and Resource Management Plan standards.

Land-Use and Socioeconomic

46. Appendix C, Section 1 (Iowa Hill), Requirement to Obtain a Forest Service Special-Use Authorization for Additional National Forest System Lands and for Certain Activities on National Forest System Lands – Requires the Licensee to obtain a FS special-use authorization for occupancy and use of National Forest System lands added to the license for the development of the Iowa Hill Pumped Storage Project for certain other activities on National Forest System Lands. Provides that in the event there is a conflict between any provisions of the FERC license and the FS special-use authorization, the special-use authorization shall prevail on matters which the FS deems to affect National Forest System Resources.
47. Appendix C, Section 11 (Iowa Hill), Construction Noise – Requires the Licensee to implement measures to address construction noise during the development of the Iowa Hill Pumped Storage Project, including engine idling time, homeowner notification regarding construction activities, monthly monitoring of noise reduction measures, and maintenance of a “Noise Hot Line.” Requires the Licensee to immediately stop construction if such measures are not implemented.
48. Appendix A, Section 35 (UARP), Facility Management – Requires the Licensee to file with FERC a FS approved Facility Management Plan that identifies project facilities on National Forest System or BLM lands, their season of use, the condition of each facility, and planned maintenance or removal of each facility. Requires the Licensee to file with FERC FS approved 5-year plans regarding maintenance, reconstruction, and removal needs for Project facilities. Prohibits the removal of transmission lines from the FERC license until the Licensee has obtained appropriate rights of way or permits for transmission lines that affect National Forest System or BLM lands.

Other

49. Appendix A, Section 39 (UARP), License Term – Provides that the license term should be 30 years unless the Licensee constructs the Iowa Hill Pumped Storage Project.
50. Appendix C, Section 2 (Iowa Hill), Compliance with Agency Alternative Appendices A, B, D, and E – Provides that the Licensee shall ensure that all Sections of Agency

Alternative Appendices A, B, D, and E are met if the Iowa Hill Pumped Storage Project is constructed.

51. Appendix C, Section 12 (Iowa Hill), Bonds, Performance – Requires the Licensee to obtain and maintain a surety bond to guarantee the protection of National Forest System resources related to the Iowa Hill Pumped Storage Project. Sets forth procedures for collection, penalties, and terms for the amount due.