

PMC-EF2a

(2.04.02)

**U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION**



RECIPIENT: Sacramento Municipal Utility District

STATE: CA

PROJECT TITLE : Geotechnical Investigation and Value Stream Analysis for the Iowa Hill Pumped-storage Project.

Funding Opportunity Announcement Number DOE-FOA-0000486	Procurement Instrument Number DE-EE0005414	NEPA Control Number GFO-0005414-001	CID Number
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Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

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| A9 Information gathering, analysis, and dissemination | Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.) |
| B3.1 Site characterization and environmental monitoring | Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7. |
| B3.6 Small-scale research and development, laboratory operations, and pilot projects | Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment. |

Rational for determination:

DOE is proposing to provide federal funding to the Sacramento Municipal Utility District (SMUD) to complete a geotechnical investigation and value stream modeling of the Iowa Hill Storage Project using rock coring, laboratory testing, computer modeling, simulation, technical advice, and field-validation in El Dorado County, California. These activities would allow SMUD to reduce geotechnical uncertainty and to include all energy and services value streams in the project financial analysis of the Iowa Hill Storage Project.

The U.S. Forest Service (USFS) and Federal Energy Regulatory Commission (FERC) completed a Final Environmental Impact Statement (FEIS) March 2008 titled Upper American River Hydroelectric Project FERC Project No. 2101-084, California Chili Bar Hydroelectric Project FERC Project No. 2155-024, California, which included the Iowa Hill Pumped-storage Project. However, the geotechnical investigation was not included even though it does fall

within the footprint of the FEIS

No habitat for any Threatened or Endangered (T&E) species would be removed, and no disturbance would occur to T&E species according to the surveys completed for the FEIS. No cultural resources or historic properties would be affected according to the surveys completed for the FEIS. Furthermore, the FEIS has determined that there are no surface, wetlands, and floodplains onsite.

SMUD would complete a geotechnical investigation (~10 rock coring up to 3000' deep; rock analysis) within the proposed Iowa Hill Storage Project footprint analyzed in the EIS mentioned above and value stream modeling using computers for the Iowa Hill Storage Project and report the results at a workshop. There should be no generation of wastes associated with this project. This project comprises information gathering, site characterization, and laboratory operations; therefore Categorical Exclusions A9, B3.1 and B3.6 apply.

Budget: \$4,961,138 (DOE); \$ 7,845,177 (cost share)

Condition of Approval: Sacramento Municipal Utility District (SMUD) and their contractors will cooperate with the US Forest Service (USFS) when carrying out activities; SMUD and their contractors will acquire any necessary permissions from private land owners prior to engaging in activities; Where applicable, SMUD and their contractors will meet other Federal Agency rules and regulations, such as the USFS, FERC, and Bureau of Land Management.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Insert the following language in the award:

You are required to:

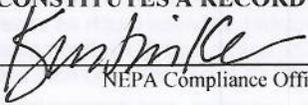
Sacramento Municipal Utility District (SMUD) and their contractors will cooperate with the US Forest Service (USFS) when carrying out activities; SMUD and their contractors will acquire any necessary permissions from private land owners prior to engaging in activities; Where applicable, SMUD and their contractors will meet other Federal Agency rules and regulations, such as the USFS, FERC, and Bureau of Land Management.

Note to Specialist :

EF2A by Christopher Carsuona

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



NEPA Compliance Officer

Date: _____

3/13/2012

FIELD OFFICE MANAGER DETERMINATION

Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

- Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____

Field Office Manager

Date: _____