



SOUTH FEATHER WATER & POWER AGENCY

TO: Board of Directors

FROM: Kathy Zancanella, Power Division Manager

DATE: October 20, 2009

RE: Contract for Facilitation Services – Sly Creek Dam Crest Modification
Agenda Item for 10/27/09 Board of Directors Meeting

One of the new requirements that FERC has for major construction projects affecting dams is that a project-specific Potential Failure Modes Analysis (PFMA) be conducted that considers the changes made to the dam. Included within this requirement is the development of a temporary construction-specific emergency action plan (EAP). This usually requires a one-day session that is attended by a facilitator, the independent consultant, FERC, DSOD and representatives of the project owner, the engineering consultant, and the construction contractor. The session is held after the project construction contract has been awarded and at least 60 days before start of construction.

A facilitator needs to be retained for the EAP that will have to be developed for SFWPA's Sly Creek Dam crest modification project.

Wayne Edwards, SFWPA's independent consultant (who acted in the facilitator role during the Agency's 2007 PFMA sessions) was asked who else in the area could serve as an independent facilitator for a construction project of this nature, and he recommended Bill Rettberg with GEI Consultants. As the attached proposal and resume documents, Mr. Rettberg has recently done a number of construction PFMA's for PG&E and El Dorado Irrigation District.

A copy is attached of the proposed Consulting Services Agreement by which Mr. Rettberg would be retained as this project's EAP facilitator. This contract is for a not-to-exceed amount of \$4,000.

The recommended form of action is:

"I move approval of, and authorize the General Manager to execute, the consulting services agreement with GEI Consultants to provide independent facilitation services related to the temporary construction-specific emergency action plan for the Sly Creek Dam crest modification project."



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Oakland, California 94612
510-350-2900
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October 19, 2009

Mrs. Kathy Zancanella
Power Division Manager
South Feather Water and Power
2310 Oro-Quincy Highway
Oroville, CA 95965

Dear Kathy:

**Re: Sly Creek Dam Crest Raise Project
Potential Failure Mode Analysis (PFMA)
Proposal for Independent Facilitator**

The purpose of this letter is to present our proposal to perform potential failure mode analysis for the proposed dam crest raise and spillway modifications at Sly Creek Dam.

Approach:

As part of the updated FERC Chapter 14 process, a PFMA is required on all proposed modifications to a licensed dam. The Sly Creek Dam is being modified to pass the spillway design flood (PMF). Prior to issuing a construction approval, the FERC requires the project owner to conduct a one-day PMFA workshop to consider:

- A temporary construction emergency action plan (TCEAP), and
- A PFMA analysis of the project to include the proposed modifications

The TCEAP is directed towards the proposed construction of the modifications and should include representatives of the contractor, design engineer, licensee, FERC, DSOD (optional, but advised), and Part 12D Independent Consultant. The objective of the TCEAP is to identify any potential failure modes that could result from temporary measures to control and divert water during construction, dealing with floods, and any other safety related issues. The TCEAP is not an EAP in the classic sense, but rather an exercise to assess the proposed construction and the need for temporary risk reduction measures.

The PFMA of the modified project considers the following load cases:

- Normal loads (static)
- Unusual loads (floods)
- Extreme loads (earthquake)
- Operational loads (additional loads on the structure that could result from non-operation of a gate or valve, for example).

The attendees for the PFMA should include the same representatives as above, except the contractor would not need to attend.

The Independent Facilitator (IF) will lead the TCEAP and PFMA sessions. Working with the core team of representatives, the IF will work with the group to define the facts and conditions for the project, identify TCEAP and PFMA postulated failure modes, and work through a discussion of whether the postulated failure mode is credible or not. Supporting tables for facts and conditions; adverse and positive conditions to the postulated failure mode; potential risk mitigation measures; and a classification of the PMF as highlighted (Cat. I), non-highlighted (Cat. II), additional information is needed (Cat. III), or ruled out (Cat. IV) will be prepared.

The IF will lead discussion, inviting participation from all attendees, and guide discussion and classification of the PFMs.

Scope of Services

Provide IF services as described above. This will generally include:

- Review of project documents describing the proposed crest and spillway modification, including environmental reports
- Facilitate one-day workshop
- Edit TCEAP and PFMA reports prepared by others

Assumptions:

- One-day workshop held at South Feather Water and Power's office in Oroville
- A workshop recorder will document the session
- Documents for the TCEAP and PFMA will be prepared by others
- One-night lodging will be necessary to get the workshop started early
- A computer and projector will be available

Independent Facilitator:

Bill Rettberg, P.E. will be the Independent Facilitator. He has been an IF for numerous PFMA and has recently completed both TCEAPs and PFMA for modification to projects such as Sly Creek Dam. In addition, Bill has served as an FERC Independent Consultant

for over 15 years and has completed hundreds of Part 12D, PFMA, STID, and other FERC compliance reports. Currently, he is an IC for the DWR Oroville-Thermalito Complex. Bill's resume with FERC assignments is attached.

Estimated Budget:

We propose to perform the services on a time and materials basis with a recommend budget of \$4,000. Our estimated budget and man hours are provided on the attached labor and direct cost estimate table. The budget will not be exceeded without written authorization from South Feather Water and Power.

Schedule:

The workshop will be held after a contractor has been selected at a mutually agreed date in January or February of 2010.

Closing:

We appreciate the opportunity to work with you on this interesting project. Please let me know if you have any questions and comments.

Sincerely,
GEI Consultants, Inc

A handwritten signature in black ink, appearing to read 'William Rettberg', with a long horizontal flourish extending to the right.

William Rettberg, P.E.
Vice President

Attachments: A-Labor and Direct Costs Estimate
FERC Resume

ATTACHMENT A

Engineering Services Labor and Direct Cost Estimate

Sly Creek Dam Modifications		Labor Estimates				Totals	
Task No.	Description	Rettberg		Clerical			
		Hrs	\$218	Hrs	\$64	Hrs	Labor
1	Review documentation	4	\$872	1	\$64	5	\$936
2	Workshop	8	\$1,744	0	\$0	8	\$1,744
3	Review/edit documentation	4	\$872	1	\$64	5	\$936
Total Tasks 1 to 8		16	\$3,488	2	\$128	18	\$3,616

Misc. Expenses (hotel, travel, meals) \$250: \$250
 Total: \$3,866
 Total Estimate Rounded: \$4,000

William Rettberg, P.E., Vice President



Education

M.E., Civil Engineering/Business Administration, University of Colorado, 1984
B.S., Civil Engineering, University of Illinois, 1971

Registrations

California and Hawaii

Background

William Rettberg has performed complete engineering and project management services from planning and investigation through design and construction management on numerous projects throughout the United States and overseas.

Mr. Rettberg is a Vice President with GEI. His over 30 years of engineering and management experience includes a wide range of water resources and environmental projects, including pipelines and penstocks, FERC Part 12 Dam Safety Inspections, dam rehabilitation, hydroelectric projects, water supply, flood control levees, tunnels, tailing dams, waste impoundments, permitting and licensing, and special projects.

Relevant Experience

Has recently prepared, conducted, or facilitated temporary construction emergency action plans (TCEAPs) and mini-potential failure mode analyses (PFMAs) at 5 FERC licensed dams in CA including Silver Lake, Caples Lake, Pit 3, Pit 4, and Pit 5 dams. All these projects were being modified for dam safety and operational improvements.

Currently serving as the co-Independent Consultant for the Part 12D 5 yr Safety Inspections of the Oroville-Thermalito Complex. As part of the process, participated in a mini-PFMA review of the potential failure modes presented in the previous P12D report in 2004.

FERC Part 12 and Seed Dam Safety Inspections

During the past 10 years, Mr. Rettberg has inspected over 100 significant and high hazard dams throughout the U.S. for power companies, water districts, and other dam owners (see attached list). He has served as the lead inspector and as a FERC approved Independent Consultant (IC) on over 75 hydroelectric dams in California and Colorado. Has served as a FERC-approved Independent Facilitator for Potential Failure Mode Analysis (PMFA) workshops for 10 dams. In addition, he has inspected over 20 dams in Illinois, South Dakota, California, Oregon, and Nevada under the Safety Evaluation of Existing Dams (SEED) program for the U.S. Fish and Wildlife Service. Types of dams inspected include earthfill, rockfill, concrete gravity, concrete arch, concrete faced rockfill, and masonry. Recently inspected and authored Phase I dam safety inspection reports for over 20 dams in Maui and Molokai for the State of Hawaii, Dept. of Natural Resources and Conservation.

FERC Part 12 Dam Safety Inspections, Sacramento Municipal Utility District (SMUD), Northern CA. Independent Consultant for FERC Part 12 Dam Safety Inspections of SMUD's Upper American River Project, involving Loon Lake Main and Auxiliary Dam, Union Valley Dam, Junction Dam, Ice House Main and Auxiliary Dam, Brush Creek Dam, and Slab Creek Dam. The structures consist of embankment and concrete arch dams.

Pardee and Camanche Dams, FERC Part 12 Safety Inspections, East Bay Municipal Utility District, Northern CA. Independent Consultant for 5-year safety inspection, including PFMA for the Lower Mokelumne River Project, FERC Project No. 2916-CA developed by EBMUD. The project consists of Pardee Dam and Reservoir and Camanche Dam and Reservoir. The Pardee Main Dam is a 1337-foot-long concrete gravity structure that rises 345 feet above the Mokelumne riverbed. A 23.6 megawatt (MW) hydroelectric power plant at the base of Pardee Main Dam generates approximately 110 million kilowatt-hours (kW) of electric energy annually. The downstream Camanche Dam and Reservoir includes the Main Dam and six dikes. These structures are all zoned, compacted, earthfill embankments.

Pacific Gas and Electric Company FERC Part 12 Safety Inspections, CA. Independent Consultant services to the Pacific Gas and Electric Company (PG&E) to conduct FERC Part 12D inspections on 60 hydroelectric power facilities in California. These hydropower facilities include a wide variety of dam types including concrete arch, rockfill and earthfill embankments, rubble/masonry, roller compacted concrete, and concrete gravity dams, with heights ranging from 12 to 315 feet. Inspections of powerhouses, spillways and ancillary facilities were also conducted.

Anderson Dam FERC Part 12 Safety Inspection, Santa Clara Valley Water District Independent Consultant for 5-year safety inspection and report for this critical dam and reservoir located on Coyote Creek near Morgan Hill, CA.

Matthews Dam FERC Part 12 Safety Inspection, Humboldt Bay Municipal Water District. Independent Consultant for 5-year safety inspection and report for critical dam and reservoir located on the Mad River in Trinity County, CA.

Nacimiento Dam FERC Part 12 Safety Inspection, CA. Project Manager and Independent Consultant for FERC Part 12 Safety Inspection of dam and appurtenant structures associated with a hydroelectric project owned by Monterey County Water Resources Agency located in San Luis Obispo County.

U.S. Fish and Wildlife Service Dam and Operation Safety Training. Served as a lead trainer for significant and high hazard dams in 12 states for U.S. Fish and Wildlife Service owner-operators. Training emphasized embankment dams, outlet, spillways, and other features.

Taylor Draw Dam FERC Part 12 Inspection, CO Project Manager and Independent Consultant for FERC Part 12 Safety Inspection of dam, powerhouse, and appurtenant structures. Taylor Draw Dam has a unique reinforced-earth spillway section. The project is owned by the Rio Blanco Water Conservation District.

Krumbo Dam (OR), Dorris Dam (CA), Jacobs Dam (OR), Swan Lake Dam (NV), and Catnip Dam (NV) Performed dam inspection and prepared Safety of Existing Dams (SEED) reports for these dams owned by the U.S. Fish and Wildlife Service.

Perch Lake Dam (SD), Columbia Road Dam (SD), Little White River Dam (SD), Crab Orchard Dam (IL), Little Grassy Dam (IL), and Devil's Kitchen Dam (IL). Performed detailed dam safety inspections and prepared formal Safety of Existing Dams (SEED) reports for dams in South Dakota and Illinois including four significant high hazard dams, owned by U.S. Fish and Wildlife Service. Devil's Kitchen Dam is a 120-ft. high concrete gravity dam and is located near Carbondale, Illinois.

Strontia Springs Dam Hydroelectric Project, Cabin Creek Pumped Storage Hydroelectric Project and New Don Pedro Dam Hydroelectric Project. Assisted the Independent Consultant on four FERC Part 12 Safety Inspections including the Strontia Springs Dam Hydroelectric Projects in Colorado (initial and second reports), the Cabin Creek Pumped Storage Hydroelectric project in Colorado (fifth report), and the New Don Pedro Dam Hydroelectric Project in California.

Dam Safety and Rehabilitation

Dam Instrumentation Program for 10 Santa Clara Valley Water District Dams, CA. Project manager for review and improvements study for new automated geotechnical instrumentation project at 10 dams located in a highly seismic region.

Fellows Dike at Calero Reservoir, Santa Clara Valley Water District, CA Project Manager for investigation, analysis and preliminary design for improvements to resolve potential seismic liquefaction, erosion, and maintenance deficiencies at a levee that protects a public park.

Raw Water System Improvement Projects, Contra Loma and Mallard Reservoirs, CA Project Manager for investigation, testing, and geotechnical aspects for four separate projects to improve the water supply reliability during seismic events for Contra Costa Water District. Projects included improvements at Contra Loma Reservoir including the East abutment erosion protection project; the Contra Loma Swimming Lagoon dike, and the Contra Loma Saddle Dam. Also prepared plans and specs for the erosion repairs at the District's Mallard Reservoir for erosion repairs adjoining the pumping station to Bollman WTP. The district serves over 400,000 people east of San Francisco.

Butt Valley Dam Seismic Upgrade, Plumas County, CA Project Manager during construction phase to improve stability of a PG&E embankment dam located at the headwaters of the North Fork Feather River. The project included oversight and management of resident field construction engineer.

Silver Lake Spillway Study, CA Project Manager for feasibility study for alternatives to permit the project to safely pass the probable maximum flood (PMF). Investigated a new radial gate, raising the dam, and other operational changes. Designed remotely operated, solar-powered gate operator and prepared designs, plans, and specifications.

Milton Lake Dam, Farmers Reservoir and Irrigation Company, Weld County, CO Project Manager for the rehabilitation of an 85 year old, concrete-faced embankment dam. The design included 30,000 square yards of innovative, slip-formed, fiber-reinforced, concrete lining for the dam replacement of deteriorated lining, and over 1200-feet of new steel sheet piling to replace deteriorated wooden piling. Services included design and quality assurance during construction.

Scott Dam Rehabilitation Project, CA Project Manager for feasibility study addressing increasing stability of a 120-foot-high concrete gravity dam owned by PG& E. Alternatives to improve the stability included large drilled piers, roller compacted concrete (RCC) buttress, and post tensioned anchors (PTAs).

Lake Fordyce Dam Face Improvement Project, Emigrant Gap, CA Project Manager/Project Engineer for PG&E's Lake Fordyce Dam Face Improvement Project. Project services included detailed inspection of a 140-foot-high, concrete faced, rockfill dam built in stages over a 100-year period. Preparation of detailed designs, plans, and specifications were included.

Devil's Gate Dam, Pasadena, CA Project Coordinator for the rehabilitation during the pre-feasibility and pre-design phases of the work. Devil's Gate is a debris control and flood control facility operated by the Los Angeles County Public Works Department near Pasadena, California. Project involved a seismic and hydrologic upgrade to meet current (DSOD) earthquake and flood criteria.

**William Rettberg, California FERC Part 12 Dam Safety Inspections
under FERC Performance Monitoring Program (2004 – 2009)**

PROJECT		FERC Part 12	FERC PFMA ¹	Year	Dam Type
McKay's Point	Northern California Power Agency	■		2009	Concrete arch
New Spicer Meadows	Northern California Power Agency	■		2009	Concrete faced rockfill
Oroville Dam	CA Department of Water Resources	■		2009	Embankment
Thermalito Forebay	CA Department of Water Resources	■		2009	Concrete gravity & embankment
Thermalito Afterbay	CA Department of Water Resources	■		2009	Embankment
Thermalito Diversion	CA Department of Water Resources	■		2009	Concrete gravity
Fish Barrier Dam	CA Department of Water Resources	■		2009	Concrete gravity
Wishon Dam	Pacific Gas & Electric (Helms PS)	■		2009	Concrete faced rockfill
Courtwright	Pacific Gas & Electric (Helms PS)	■		2009	Concrete faced rockfill
Merced Falls	Pacific Gas & Electric	■		2009	Concrete gravity & earthfill
Drum Forebay	Pacific Gas & Electric	■	■	2008	Embankment
Drum Afterbay	Pacific Gas & Electric	■	■	2008	Concrete arch
Halsey Forebay	Pacific Gas & Electric	■	■	2008	Embankment
Halsey Afterbay	Pacific Gas & Electric	■	■	2008	Embankment
Rock Creek	Pacific Gas & Electric	■	■	2008	Multiple buttress/arch
Wise Forebay	Pacific Gas & Electric	■	■	2008	Embankment
Loon Lake Main Dam	Sacramento Municipal Utility District	■		2008	Embankment
Loon Lake Auxiliary	Sacramento Municipal Utility District	■		2008	Embankment
Union Valley Dam	Sacramento Municipal Utility District	■		2008	Embankment
Junction Dam	Sacramento Municipal Utility District	■		2008	Concrete arch
Ice House Main Dam	Sacramento Municipal Utility District	■		2008	Embankment
Ice House Auxiliary	Sacramento Municipal Utility District	■		2008	Embankment
Brush Creek Dam	Sacramento Municipal Utility District	■		2008	Concrete arch
Slab Creek Dam	Sacramento Municipal Utility District	■		2008	Concrete arch
Pardee Dam	East Bay Municipal Utility District	■	■	2007	Concrete gravity
Camanche Dam	East Bay Municipal Utility District	■	■	2007	Earthfill
Anderson Dam	Santa Clara Valley Water District	■	■	2007	Earth and rockfill
Nacimiento	Monterey County Water Res. Auth.	■	■	2007	Earth and rockfill
Upper Blue	Pacific Gas & Electric	■	■	2007	Earth and rockfill
Upper Bear	Pacific Gas & Electric	■	■	2007	Concrete-faced rockfill
Lower Bear	Pacific Gas & Electric	■	■	2007	Concrete-faced rockfill
Tiger Cr. Afterbay	Pacific Gas & Electric	■	■	2007	Concrete arch
Lake Tabeaud	Pacific Gas & Electric	■	■	2007	Earthfill
Lyons	Pacific Gas & Electric		■ ²	2007	Concrete arch
Relief	Pacific Gas & Electric		■ ²	2007	Concrete-faced rockfill
Main Strawberry	Pacific Gas & Electric		■ ²	2007	Concrete-faced rockfill
Saddlebag	Southern CA Edison	■	■	2007	Wood-faced rockfill
Tioga	Southern CA Edison	■	■	2007	Wood-faced rockfill

¹ FERC New Potential Failure Mode Analysis (PFMA) Independent Consultant

² Served as Independent Facilitator for PFMA Workshop

³ Beta Test Reports of FERC PMP process

**William Rettberg, California FERC Part 12 Dam Safety Inspections
under FERC Performance Monitoring Program (2004 – 2009)**

PROJECT		FERC Part 12	FERC PFMA ¹	Year	Dam Type
Lundy	Southern CA Edison	■	■	2007	Earth/rockfill/concrete corewall
Rhinedollar	Southern CA Edison	■	■	2007	Concrete-faced rockfill
Pit 1	Pacific Gas & Electric	■	■	2006	Compacted earth and rockfill
Pit 3	Pacific Gas & Electric	■	■	2006	Concrete gravity
Pit 4	Pacific Gas & Electric	■	■	2006	Concrete gravity & slab/buttress
Pit 5 Open Conduit	Pacific Gas & Electric	■	■	2006	Embankment
Pit 6	Pacific Gas & Electric	■	■	2006	Concrete gravity
Pit 7	Pacific Gas & Electric	■	■	2006	Concrete gravity
R. W. Matthews Dam	Humboldt Municipal Water District	■	■	2006	Earthfill
McCumber	Pacific Gas & Electric		■ ²	2006	Earth/rock/masonry fill
North Battle Creek	Pacific Gas & Electric		■ ²	2006	Embankment
Manzanita	Pacific Gas & Electric		■ ²	2006	Compacted arch dam
Sutherland	Nebraska Power and Light	■ ³	■	2006	Earthfill
Lake Almanor	Pacific Gas & Electric	■	■	2005	Hydraulic fill
Butt Valley	Pacific Gas & Electric	■	■	2005	Embankment/Hydraulic
Belden Forebay	Pacific Gas & Electric	■	■	2005	Rockfill
Bucks Storage	Pacific Gas & Electric	■	■	2005	Rockfill
Bucks Diversion	Pacific Gas & Electric	■	■	2005	Concrete arch
Grizzly Forebay	Pacific Gas & Electric	■	■	2005	Concrete arch
Caples Lake Dams	Eldorado Irrigation District	■	■	2005	Earthfill embankment/concrete arch
Echo Lake Dam	Eldorado Irrigation District	■	■	2005	Roller compacted concrete
El Dorado Forebay	Eldorado Irrigation District	■	■	2005	Earthfill
Lake Aloha Dam	Eldorado Irrigation District	■	■	2005	Mortared masonry
Silver Lake Dam	Eldorado Irrigation District	■	■	2005	Earth and rockfill embankment
Elderberry Forebay	CA Department of Water Resources	■	■	2005	Zoned earthfill
Quail Lake Dam	CA Department of Water Resources	■	■	2005	Earthfill
Pyramid Dam	CA Department of Water Resources	■	■	2005	Zoned earth and rockfill
Cedar Springs Dam	CA Department of Water Resources	■	■	2005	Zoned earthfill
Devil Canyon Afterbay	CA Department of Water Resources	■	■	2005	Earthfill and asphalt-lined
Merced Falls Dam	Pacific Gas & Electric		■ ²	2004	Concrete gravity & earthfill
Wishon Dam	Pacific Gas & Electric		■ ²	2004	Concrete-faced rockfill
Courtright Dam	Pacific Gas & Electric		■ ²	2004	Concrete-faced rockfill
Balch Afterbay Dam	Pacific Gas & Electric	■	■	2004	Concrete arch
Balch Diversion Dam	Pacific Gas & Electric	■	■	2004	Concrete arch
Chili Bar Dam	Pacific Gas & Electric	■	■	2004	Concrete gravity
Crane Valley Dam	Pacific Gas & Electric	■	■	2004	Earth & rockfill
Kerckhoff Dam	Pacific Gas & Electric	■	■	2004	Concrete gravity

CONSULTING SERVICES AGREEMENT

THIS AGREEMENT is entered into effective as of October __, 2009 by *GEI Consultants* ("Consultant") and South Feather Water and Power Agency ("Agency").

ARTICLE 1 SCOPE

Consultant shall perform the services (the "Services") described generally in the Consultant's Proposal dated October 19, 2009, attached hereto as Appendix A. This Agreement shall become effective as of the date shown above and shall remain in effect unless amended in writing or terminated pursuant to Article 8 herein. Agency may engage other consultants as Agency deems necessary to timely and efficiently carry out tasks required, and this Agreement shall not be considered an exclusive engagement by Agency of Consultant for Agency's requirements.

ARTICLE 2 COMPENSATION

For performance of the Services, Agency shall pay Consultant a not to exceed price of \$4,000.00. This compensation shall be paid to Consultant upon completion of *review and editing of the TCEAP and PFMA reports prepared by others* as described in said Proposal.

ARTICLE 3 REPRESENTATIVES

Consultant will function in cooperation with and subject always to the direction and control of Agency's authorized officers or designated representatives. Consultant shall also designate a representative for the execution of the Services. Consultant's and Agency's representatives are:

Consultant:
William Rettberg, P.E., Vice President
GEI Consultants
180 Grand Avenue, Suite 1410
Oakland, CA 94612
Telephone: (510) 350-2900
wrettberg@geiconsultants.com

Agency:
South Feather Water and Power Agency
Kathy Zancanella, Power Division Manager
2310 Oro-Quincy Hwy.
Oroville, CA 95965
Telephone: (530) 534-1221, ext. 202
kzancanella@southfeather.com

Additional contact information can be found under Article 15.

ARTICLE 4 PERSONNEL

All Consultant's staff, and its subcontractors' staff, assigned to these Services shall be approved by the Agency prior to their assignment to task activities. Consultant shall confirm that the technical qualifications of all personnel assigned to these tasks meet the applicable industry standards. In the event that the individuals who are initially assigned by Consultant to perform Services under this Agreement are removed, replaced or reassigned by Consultant, such removal, replacement or reassignment may result in harm and costs to Agency. Consultant agrees not to remove, replace or reassign any such individuals without the approval of Agency. Such approval shall not be unreasonably withheld or delayed. Consultant shall make reasonable efforts to maintain continuity in its staffing and

will provide Agency ample notification if any such changes are made. Notwithstanding the foregoing, it is agreed by Consultant that Agency is relying on the expertise and experience of Consultant as well as Consultant's subcontractors, and therefore Consultant shall not terminate the services of a subcontractor employed for the benefit of Agency without the prior approval of Agency, which approval shall not be unreasonably withheld. Agency may, in its discretion, direct Consultant to replace subcontractors that Agency reasonably believes are not performing in a satisfactory manner. Consultant shall ensure that subcontracts contain express acknowledgement by subcontractors of Agency's right to replace them and shall require the subcontractors to waive any claims or damages in connection therewith, save and except for costs and fees incurred to the date of said termination, plus reasonable costs incurred as a result of said termination.

ARTICLE 5 RECORDS

To the extent Agency does not otherwise specifically request delivery of records or results, Consultant agrees to retain all records and results of Services performed under this Agreement for a period of not less than two years after completion of the Services. At Agency's request Consultant will deliver a copy of any or all original field notes, investigative notes, tests, photographs, records, calculations, details, drawings, specifications, summaries and reports produced and collected in the course of Services performed under this Agreement.

ARTICLE 6 OWNERSHIP OF DOCUMENTS

Agency shall own all data, reports, information, manuals, drawings, or other written, recorded, photographic or visual materials, or other deliverables produced in the performance of this Agreement for use by Agency. Consultant shall retain no ownership interest in any of the foregoing described deliverables except as may be described herein, and such deliverables, including those retained by Consultant in the normal course of Consultant's business, may not be reused, sold, transferred or conveyed without Agency's permission. Any reuse of Consultant prepared documents, except for the specific purpose intended hereunder, will be at Agency's sole risk and without liability or legal exposure to Consultant or its subconsultants.

ARTICLE 7 CONFLICT OF INTEREST/BUSINESS ETHICS

Consultant shall exercise reasonable care and diligence to prevent any actions or conditions that would result in a conflict with Agency's interest. During the term of this Agreement, neither Consultant nor its subcontractors shall accept employment or engage in any work that creates a conflict of interest between Consultant and Agency, or in any way compromises the interest of Agency for which Contractor's services are being retained. Consultant shall immediately notify Agency of any and all such violations of this clause, by Consultant, its agents or subcontractors, immediately upon becoming aware of such violations. Failure of such notification or lack of knowledge of a violation by Consultant or its subcontractors shall not excuse the performance hereunder.

ARTICLE 8 TERMINATION

Agency may suspend or terminate this Agreement by giving thirty days prior written notice to Consultant, but such termination shall not relieve Agency of its obligation to pay Consultant for expenses incurred and Services performed up to the date of termination and all reasonable expenses

that Consultant incurs by reason of such termination. Any reports, drawings or other documents prepared for Agency prior to the effective date of such termination shall be delivered to Agency by Consultant prior to Agency's release of its final payment to Consultant.

ARTICLE 9 WARRANTY

Consultant warrants that its Services are performed with the degree of skill and care that is required by current, good and sound professional procedures and practices, and in conformance with generally accepted professional standards prevailing at the time the Services are performed so as to ensure that the Services performed are correct and appropriate for the purposes contemplated in this Agreement.

ARTICLE 10 LIMITATION OF LIABILITY

Consultant's total cumulative liability for any claims of any kind, whether based on contract, tort (including negligence and strict liability), under any warranty or otherwise, for any loss or damage relating to this Agreement or the performance of the Services, shall not exceed the insurance coverage specified in this Agreement, and Agency hereby releases Consultant from any liability in excess of such amount. This monetary limitation shall survive the failure of any exclusive remedy.

Neither Agency nor Consultant shall be liable, whether based on contract, tort (including negligence and strict liability), under any warranty or otherwise relating to the Services or this Agreement, for any consequential, indirect, special, punitive or incidental loss or damage, any damage or loss of any property or equipment, or any loss of use of property or equipment, and Agency and Consultant mutually release the other from any liability for all such losses and damages.

All of the provisions of this Agreement providing for limitation or protection against liability of Consultant and Agency shall also protect their directors, officers and employees, and affiliated entities of Consultant and their directors, officers, employees and affiliates, and shall apply regardless of the fault, negligence or strict liability of Consultant, its directors, officers, employees or affiliates.

ARTICLE 11 INSURANCE

Consultant shall provide and continue to maintain during the performance of this Agreement insurance coverage as follows:

- i. Workers' Compensation insurance in compliance with statutory limits.
- ii. Employers' Liability with the following limits:
 - Each Accident \$1,000,000
- iii. Business Automobile Liability with the following limits:
 - Combined Single Limit \$1,000,000
- iv. Commercial General Liability with the following limits:
 - Each Occurrence \$500,000
 - General Aggregate \$1,000,000
- v. Professional Liability Insurance with the following limits:
 - Any One Claim \$500,000
 - Policy Aggregate \$1,000,000

ARTICLE 12 SAFETY

Consultant shall plan and conduct its work to safeguard persons and property from injury. Consultant shall direct performance of the work in compliance with reasonable safety and work practices and applicable federal, state and local laws, rules and regulations. Agency may designate safety precautions in addition to those in use or proposed by Consultant. Agency reserves the right to inspect the work and to halt work to ensure compliance with reasonable and safe work practices and with applicable federal, state, and local laws, rules and regulations.

ARTICLE 13 DELAYS

Neither party shall be considered in default in the performance of its obligations hereunder, except obligations to make payments for Services previously performed, to the extent that the performance of any such obligation is prevented or delayed by any cause that is beyond the reasonable control of the affected party. In the event either party claims that such performance of its obligations was prevented or delayed by any such cause, that party shall promptly notify the other party of that fact, and of the circumstances preventing or delaying performance. Such party claiming a cause-delayed performance shall endeavor, to the extent reasonable, to remove the obstacles which preclude performance.

ARTICLE 14 DISPUTES

Any dispute, controversy or claim arising out of or relating to this Agreement or the breach thereof, shall be subject to mediation under the guidelines of the American Arbitration Association in Sacramento, California, as a condition precedent to the institution of arbitration. If any dispute, controversy or claim cannot be resolved through mediation, it shall be resolved through binding arbitration under the commercial arbitration rules of the American Arbitration Association in Sacramento, California. The Arbitrator shall give full effect to Articles 8 and 9 and shall not deviate therefrom.

ARTICLE 15 NOTICES

Any notice related to this Agreement shall be in writing and shall be considered duly made if delivered to the other party at the following addresses:

Consultant:
William Rettberg, P.E., Vice President
GEI Consultants
180 Grand Avenue, Suite 1410
Oakland, CA 94612
Telephone: (510) 350-2900
wrettberg@geiconsultants.com

Agency:
South Feather Water and Power Agency
Kathy Zancanella, Power Division Manager
2310 Oro-Quincy Hwy.
Oroville, CA 95965
Telephone: (530) 534-1221, ext. 202
kzancanella@southfeather.com

Either party may change its address or numbers for receiving notices by giving written notice of such change to the other party.

ARTICLE 16 SURVIVAL

The provisions of this Agreement which by their nature should survive expiration, cancellation or termination of this Agreement, including but not limited to provisions regarding warranty and liability, shall survive such expiration, cancellation or other termination.

ARTICLE 17 LAW

This Agreement shall be governed by and interpreted in accordance with the laws of the State of California, excluding its conflicts of law principles.

ARTICLE 18 INTEGRATION

These terms and conditions are intended by Consultant and Agency to constitute the final and complete statement of their agreement, and all prior proposals, communications and understandings related to the subject matter of this Agreement are hereby superseded. No modification or amendment of this Agreement shall be effective unless the same is in writing and signed by both parties.

CONSULTANT: GEI CONSULTANTS

SOUTH FEATHER WATER AND POWER AGENCY

By: _____

By: _____

Title:

Michael Glaze
Title: General Manager

Date: _____, 2009

Date: _____, 2009