



**M.P.W.M.D.
PRELIMINARY DRAFT
SUBJECT TO REVISION**

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11 August 2011

Mr. Kevan Urquhart
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
5 Harris Court
Monterey, CA 93940

Re: Sleepy Hollow Steelhead Rearing Facility Renovation

Mr. Urquhart:

Thank you for considering List Engineering Company for your engineering needs. I trust the following information will describe our understanding of your requirements at this time.

General

Provide designs for the improvements identified in the 11 May 2010 List Engineering Company report and as follows:

1. Meetings with Client to verify program requirements and review design progress.
2. Assist with estimating possible traffic analysis at construction time.
3. Revise river water intake with new, self cleaning fish screen and protective devices.
4. Revise (e) river water pumping station by removing (e) pumps and revising piping.
5. Provide a new river water clarifier using a single, buried, pre-cast concrete chamber with manholes for access.
6. Provide for a new, duplex, variable speed, 100% redundant, river water pumping station. Pumping capacity to be increased to 3 CFS.
7. Provide additional, Lakos centrifugal separator between new pumps and cooling tower for increased water flow rate.
8. Provide new cooling tower cell with concrete slab to handle increased water flow.
9. Provide 'side filter' at cooling tower basin(s) for basin cleaning.
10. Revise piping to handle increased water flow.
11. Revise cold well pumps for increased water flow by adding, replacing or a combination of the two. Provide pumps with variable speed drives. Existing cold well to be re-used.
12. Provide an Arkal type water filter between the cold well pump discharge and the rearing channel. Arkal type filter or equivalent capable of filtering fine suspended sediments to below 30 micrometers
13. Provide access for chamber cleaning.
14. Provide a 'rough-order-of-magnitude' construction cost statement.
15. Revise electrical service including replacing (up-sizing) the emergency generator and fuel storage.
16. Revise process controls to include a replacement aquaculture process controller for pumps, filter systems, and cooling towers; as well as a system/process failure alarm warning system hooked to a phone dialer, and that the existing RAACO phone dialer will be used. The alarm system will cover pump operations, flow rates, intake and cold well water levels, dissolved



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- oxygen, and temperature at multiple points in the system, and must be able to operate and communicate on battery backup during power failures.
17. Product of service will be plans and technical specification sections suitable for plan check, an Engineer's cost estimate and brief report on construction issues (traffic).

Items Not Included at this Time

1. Public presentations.
2. Any work related to FEMA processing, if required.
3. Any 'permit' related work
4. Re-engineering of the service road to the Rearing Facility, if required.
5. 'Value Engineering' process or revisions.
6. Submitting to plan check process, preparation of bid documents, bidding and construction administration services.

Items of Note

1. Regarding the Pacific Gas & Electric service to the site: We have included a single site meeting with PG&E to review the conditions, and will provide an application to PG&E along with subsequent coordination with PG&E. Our responsibility on this will be complete when PG&E accepts the application and associated planning materials.
2. Excavated material will be placed at a location directed by MPWMD outside the limits of the FEMA flood plain, or would be taken to a County Approved disposal site, whichever the District prefers. Since the excavated material is approximately 240 CY, this would trigger a County grading permit.
3. Proposal presumes the (e) service road can accept clarifier service truck traffic loading. Client shall handle all permitting, reviews and meetings with all public agencies and districts.
4. Billings will be submitted and paid monthly.
5. Project team includes services from Whitson Engineers (civil), Fehr Engineering Company (electrical) and The Streeter Group (structural).

Design Fee

- Basic Services: Hourly, not to exceed \$ 160,608. Please refer to the attached fee spreadsheet.
- Add Alternate: Geotechnical Report, not to exceed \$13,500.

Kevan, please review and call with any questions on the proposal, scope or assumptions.

Sincerely,
LIST ENGINEERING COMPANY

Ronald M. Blue, PE LEED® AP
Principal

Attachment: Fee worksheet