

School of Natural Sciences

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PRE-PROPOSAL—April 25, 2017

Summer 2017 Bathymetric Survey of Los Padres Reservoir

From: Doug Smith & Rikk Kvitek (School of Natural Sciences, CSUMB)
To: Larry Hampson (Monterey Peninsula Water Management District)

We propose to provide Monterey Peninsula Water Management District (MPWMD) with a report and electronic files detailing the bathymetry of the Los Padres Reservoir (Carmel River watershed) as it exists in Summer 2017. We list the deliverables, approximate budget, and contingencies below.

Deliverables

The deliverables will be a brief report with:

1. background for the project,
2. methods of data collection and analysis,
3. general error analysis
4. table of water stage to reservoir volume relationship
5. cursory comparison with prior estimates of reservoir volume, and
6. electronic file with cleaned xyz data in UTM NAD83 NAVD88 (vertical control will be tied to vertical benchmark used in CSUMB 2009 reservoir study)

Budget and Assumptions

Bathymetric work and report will cost approximately \$16,000. The University Corporation will need to approve the final budget and proposal before contracting.

Assumptions for this estimate include:

1. approximately 50 acres of surface water,
2. depths not in great excess of 50 feet,
3. approximately 1 day of boat time using high-quality bathymetric equipment and survey-grade GPS,
4. single point vertical precision of 0.5 ft or less,
5. standard post-cruise data reduction,
6. research vessel can be launched from ramp (high reservoir stage),
7. 20% overhead rate to CSUMB Corporation, in keeping with other recent contracts.

Work on this project is contingent upon contracting between the MPWMD and the University Corporation. Review of this estimate will be required before the formal contract and budget can be finalized and work begun.

Douglas Smith

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