



**MILLER PACIFIC
ENGINEERING GROUP**

October 14, 2014
File: 1139.01bltr.doc

Ms. Lucy Macmillan
108 Rising Road
Mill Valley, CA 94941

Re: Geotechnical Opinion of Water Holding Capacity
Haystack Landing Wetlands Restoration/Mitigation
Petaluma, California

Dear Lucy:

Introduction and Opinion

Following our recent discussions, this letter presents our geotechnical opinion of "water holding capacity" of soils at the Haystack Landing Wetlands Mitigation project site in southeast Petaluma, California. We prepared a Geotechnical Investigation for the project that is dated October 1, 2004 (Appendix B of the Haystack Wetlands Mitigation Plan) and Balance Hydrologics noted clayey bay mud and deeper underlying bedrock at the site in their 2006 project work (Table 1 of the Haystack Wetlands Mitigation Plan). The mitigation site is currently vegetated with a predominance of non-native grasses and herbs and some natives including pickweed and other native herbaceous wetland plants.

Based on the relatively fine-grained nature of on-site, near-surface soils (which are generally clays and silts) and existing vegetation, from a geotechnical perspective, we expect sufficient water holding capacity exists for many plant species. We did not encounter bedrock or large gravels/boulders at the surface of the site that would tend to be less conducive to vegetation with a corresponding reduced water availability.

We trust this brief letter will address the Regional Board's question, however, please call if there are additional questions or if we can be of further service.

Very truly yours,
MILLER PACIFIC ENGINEERING GROUP

A handwritten signature in black ink, appearing to read 'M. Morisoli', is written over a horizontal line.

Michael P. Morisoli
Geotechnical Engineer No. 2541
(Expires 12/31/14)