

**WETLAND DESIGN FORM**  
**Coast Redwood School - SLV Home School Wetland**

**Date:** 05-19-2014

**Site:** Coast Redwood School - SLV Homeschool  
325 Marion Avenue, Ben Lomond, CA

**Designers:**

Thomas R. Biebighauser [tombiebighauser@gmail.com](mailto:tombiebighauser@gmail.com)

Kerry Kriger, PhD.: [kerry@savethefrogs.com](mailto:kerry@savethefrogs.com)

Marcy Reynolds

**GPS coordinates:** UTM: 0582093-4104685 (center of area)

**Percent slope:** Existing basin with 30-percent slopes

**Hydric soil or plants present:** None

**Groundwater elevation:** None

**Topsoil depth:** 12-inches of leaves

**Soil texture:** Sand

**Evidence of historic drainage:** A garden hose is hung on the deck overlooking the wetland

**Construction fill present?** Yes

**Size of proposed wetland:** 16 x 20-foot oval

**How marked on the ground:** pink ribbons were used to mark the perimeter of the wetland

**Does a stream channel enter the area?** No

**Are head-cuts located uphill or downhill from the marked area?** None

*Prepared by:*

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&

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SAVE THE FROGS! is the world's leading amphibian conservation organization. We work in California, across the USA, and around the world to prevent the extinction of amphibians, and to create a better planet for humans and wildlife.



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**Description of project and construction notes:**

A sign labels the location as Mac Pond, which was built in 1997. The pond no longer contains water. The dry depression is located behind an unused portable building. A deck was built overlooking the pond. A chain link fence surrounds the outdoor classroom. Trees shade the area and a garden hose provides water to the site.

A naturally appearing and functioning wetland (vernal pond) may be built at the location to provide habitat for a diversity of frogs, dragonflies, and insects. The wetland would be made by using a one-piece, aquatic-safe liner, protected on the top by the same size-piece of geotextile fabric. The liner and geo-textile would be ordered from Fab-Seal Industrial Liners, Inc. The two-layers would be anchored along the top edge and covered with 8-inches of soil. The area surrounding the wetland would be planted to native grasses, trees, and shrubs. Branches and logs would be added to the wetland to improve habitat for wildlife.

The construction work would be completed by the students using rakes and shovels, as it is not possible to access the site with heavy equipment. The project would be completed in one day. It would be important to build this wetland to be shallow and with gradual slopes to prevent sand from filling the depression.

The school system is asked to obtain all necessary approvals and permits for the project, and would need to check for buried utilities. The project would not adversely affect drainage around the school or affect the school buildings. The wetland would not affect a stream or floodplain. The soil around the new wetland would be planted to native grasses, wildflowers, trees, and shrubs. It is recommended that the techniques described in Wetland Restoration and Construction-A Technical Guide be followed.

Tom Biebighauser is available to direct the construction of the wetlands. To view some of the wetlands he has built at school please visit [www.wetlandsandstreamrestoration.org](http://www.wetlandsandstreamrestoration.org) and <https://picasaweb.google.com/105985116543820569589/SchoolWetlands#>

SAVE THE FROGS! Founder Dr. Kerry Kriger (<http://www.savethefrogs.com/kerry-kriger>) and another SAVE THE FROGS! biologist will be on hand to educate students about amphibians and wetlands, and to communicate our project results to the greater public so that all participants, host organizations and funders get proper recognition, and so that this project inspires people around the world to create frog habitat and to appreciate nature and wildlife.

[www.savethefrogs.com/ponds](http://www.savethefrogs.com/ponds)

<http://www.savethefrogs.com/wetlands>

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*Location of planned wetland:*



**Budget:**

1. Fish-grade liner (Fab-Seal Industrial liners), 30-mil, 16 x 20-feet, factory seamed, 0.46/square-foot x 816 square foot = \$320.00
2. Geo-textile (Fab-Seal Industrial liners), 8oz, 16 x 20-feet, factory seamed, one-piece, 816 square-feet @ 0.27/square-foot = \$220.32
3. Shipping for liner and geo-textile pads = \$240.00
4. Landscape spikes for anchoring liner, 12-inches long, 40 x \$1.00/spike = \$40.00
5. Washers to fit spikes for liner, one box of 50 = \$3.50
6. Small sledge hammer = 1 @ \$15.00 = \$15.00
7. Plastic utility knives with long, break-off blades, \$5.00/knife x 2-knives = \$10.00
8. Straw for mulch 4-bales @ \$12.00/bale = \$48.00
9. Native grass seed, shrubs, and trees = \$250.00
10. Tom Biebighauser project implementation coordination = 1-day @ \$750.00/day = \$750.00
11. Two SAVE THE FROGS! biologists: coordinating, implementing, educating = \$700 total
12. Followup documentation, promotion and communication to the public, and reporting to funders = \$240
13. Educational materials for the students and teachers (info cards, posters, wetlands construction book): \$100

**Funding subtotal = \$2,937**

**Indirect costs @ 15% = \$441**

**Funding Total = \$3,378**