



FORESTRY, FIRE & STATE LANDS REQUEST FOR GRANT APPLICATION Cover Sheet



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|---------------------------------------|--|----------------|--------------------|
| Project Title | Impacts of Eutrophication on Benthic Invertebrate & Fish Prey of Birds in Farmington and Bear River Bays of Great Salt Lake: Continuation | | |
| Lead Project Sponsor | Utah State University | | |
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| Project Description / Abstract | <p>Two large wetland bays in the Great Salt Lake support large populations of birds. Farmington Bay receives high nutrient loads from metropolitan areas and is hypereutrophic with frequent anoxia and abundant toxic cyanobacteria. An anoxic deep brine layer forms in its deepest area, likely eliminating invertebrate prey in this zone. The Utah DWQ has proposed it for listing as impaired under EPA's and Utah's 303d list. Because of its better water quality, Bear River Bay provides an excellent comparative opportunity to assess if the eutrophication in Farmington influences the biota. With funding from Utah FFSL, in 2017 we successfully measured water quality and benthic invertebrates in the bays in July and October, and additional sampling is scheduled for May and June of 2018. Although our original proposal requested funding until March 2019, we were only funded until June 2018. Here we request the additional funds to continue the work so that a complete annual cycle of water quality and benthic invertebrate abundances can be analyzed in the two bays. The outcome of the study will provide information for managers deciding whether Farmington Bay should be classified as an impaired water body, and how modification of the automobile causeway could influence the deep brine layer and benthic invertebrate food supply of birds in Farmington Bay.</p> | | |
| Project Funding | Amount Requested | Matching Funds | Total Project Cost |
| | \$28,205 | | \$28,205 |