



County of Marin Community Service Fund Program Application Form

Application Date August 9, 2017

Fiscal Year July 1, 2017 - June 30, 2018

Organization Information

Full Legal Name: Ocean Conservation Research

Organization URL: www.OCR.org, www.Ocean-Noise.com

Mission/purpose of your organization:

Ocean Conservation Research is focused on understanding the scope of, and exploring solutions to the growing problem of human generated noise pollution and its impact on marine animals.

We engage in marine biological and technological research based on conservation priorities. We use the products of this research to inform the policies and practice of the public, industry, and lawmakers so that we may all become better stewards of the sea.

Grant Request Information

Program/Project Name: Citizen Science Sailors - Hydrophone design

Amount Requested Dollar: \$10,000.00

Total Project Cost: \$35,000.00

Description of the proposed project/program, including the proposed project's goal(s), and the nature of the costs in specific terms, i.e. materials, labor costs, etc. Specifics of how the requested County funds will be used.

The ocean is getting really LOUD these days due to commercial, industrial, and military uses of the sea. It is 10 times louder now that it was just 40 years ago due to commercial shipping alone. Then there are all sorts of other noises generated by the Navy, offshore oil and gas surveys, and other industrial exploitation and extraction operations.

There is a lot of evidence of the impacts of this noise through catastrophic marine mammal strandings, feeding and migratory disruptions, fisheries compromise, and elevated stress levels in marine animals.

Unfortunately, we only have speculative models about most of the noise because direct measurements from research vessels are really expensive. Our project will harness the services of "Citizen Scientist" sailors equipped with an instrument complement and recorders to record and measure the noise in the oceans as they ply the waves.

The first stage of this program is to design and create the instrument and software complement, and test it in our local waters. We project that the equipment costs will be about \$1000 per vessel. The design will involve crafting a high-fidelity hydrophone in a hydrodynamic envelope.

We have engaged AutoDesk 3-D CAD personnel who have expressed interest in assisting with the fluid dynamics of the design (\$15k design services – also in Marin County) We have a lot of Marin County boaters who want to help out as well, so this \$10,000 grant can be highly leveraged here in Marin. The funds would go toward electronics and hardware, but also to software design and testing of the complete package in the bay on recreational sailboats.

The over-arching project would deploy our instruments packages with long-range recreational sailors to provide NOAA CetMap-CetSound database with empirical ocean noise data in the world's ocean. These data are used (and continuously updated) by researchers to inform marine mammal studies, and conservation efforts for ocean-oriented Environmental Impact Reports.

List of all community interests that will be affected by the proposed project/program and the public benefit to be derived from it:

Ocean Conservation Research's population served are the animals we all treasure - the community of whales,

dolphins, fish, sharks, and invertebrates in our surrounding waters that are all subject to human-generated noise. So our work, with the support of this grant will serve anybody who depends on the ocean and ocean life. This means we serve everybody. From the child standing on the shore seeing a whale breach for the first time, to the fishing folk pulling in the day's catch. We must consider our friends in the waters of the ocean and the bay as our neighbors, and treat them with the respect and support they so deserve.

This is particularly the case in Marin County; embraced between the Pacific Ocean and San Francisco Bay; marine life and ocean habitats are part of our identity. Our proximity to the sea is a significant attraction to the millions of visitors who come here every year to enjoy our coastal waters and delight in the marine life of our adjacent Sanctuaries.

The project is also consistent with residents of our county being innovators at the forefront of environmental stewardship. We pride ourselves in taking care of our environment – and serving as examples where our sustainable practices - informed by social and scientific research, populate the vocabulary of regional-to-global conservation efforts. The Marine Mammal Center, Point Blue Conservation Science, the Romberg-Tiburon Center, SPAWN/Turtle Island Restoration Network, and Bodega Bay Marine Labs are all representative of this.

The larger public benefit would be the provision of ocean noise data to stewardship and regulatory agencies such as NOAA and the California Coastal Commission that will help drive decisions and inform and improve our relationship with the ocean.

But before we can deploy this at scale, we need to design, and test the equipment to assure we can get quality data. Thus this request

This organization has never received Community Service funds.

No County funding was received for this project or others.

Project/program cannot be completed if amount received is less than requested amount of Community Service funds.

Applicants are encouraged to leverage funding from other non-County sources, and priority will be given to requests that represent no more than 50% of total project cost. To demonstrate all sources of project funding, including other County sources, please provide a project/program budget below. Please fill in as applicable, and round to the nearest dollar.

Project Funding Sources	Funding Agency	Funding Requested	Received	Notes
County CSF	Marin County CSF	\$10,000		
Federal Grant				
State Grant				
Individual Contributions	Ocean Conservation Research	\$10,000	\$5,000	<i>\$5k for design work already completed</i>
Other Local Agencies				
In kind services	AutoDesk	\$15,000		<i>Fluid dynamics design</i>
Other				
Total Sources		\$35,000	\$5,000	
Project Expenses		Budgeted	Spent to Date	Notes
Personnel Costs		\$10,000	\$5,000	
Services and Supplies		\$5,000	\$1,250	<i>Hydrophone parts, electronics, computer platform</i>
Capital				
Other		\$5,000		<i>Software design</i>
Total Expenses		\$20,000	\$6,250	