



**US Army Corps
of Engineers®**

**Excellence in Interpretive Partnerships Award
U.S Army Corps of Engineers**

**Nomination Information
South Pacific Division
January 2002**



**Bay Model Association
Bay Model Visitor Center
Sausalito, CA**

Nominee: Bay Model Association
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Mission: *The Bay Model Association, in partnership with the Bay Model Visitor Center promotes understanding of the aquatic environment and human impacts on local and regional watersheds.*

Background: The Bay Model Association (BMA) was incorporated and entered into a cooperative agreement with the San Francisco Bay Model Visitor Center, San Francisco District in 1989. The BMA currently employs a fulltime Executive Director and three part-time program administrators, while a part-time volunteer maintains the Bookstore operations. A 12 member Board of Directors and an 11 member Advisory Board direct the Bay Model Association. Several Strategic Planning Meetings of the Advisory Board, Board of Directors, and Corps of Engineers staff, over the last ten years, have largely been the impetus for the innovative and varied Association programs. The diverse scope and regional approach to programming has enabled the Bay Model Visitor Center to extend its reach and opportunity for expanded program funding, public awareness of the Visitor Center and the Army Corps of Engineers in the region and nation, increased educational involvement and contributed to the overall understanding of science, math and technology within the community. All programs take place at the San Francisco Bay Model Visitor Center.

The Association currently operates with a \$280,000/yr. budget and obtains funds via Bookstore sales, fundraising projects and program and operating grants from local foundations, corporations, county and state granting authorities.

Nomination Criteria:

Creativity and Originality- The Bay Model Association consistently generates new and creative direction of their efforts by enlarging the network capability of the Bay Model Visitor Center and seizing opportunities when and where they are presented. Of particular note is the creation and ongoing development of the North Bay Riparian Station. A significant component of the North Bay Riparian Station is its Online GIS-based Watershed Information Repository that provides a tool both for information sharing and functions as a hub of environmental watershed information for the San Francisco Bay Area nine county regions. The BMA has registered this program as a trademark and owns all rights to its use thus insuring that the focus remains on the Bay Model, the Corps and the Association.

Another project has as its genesis, the Bay Model itself- a 1-½ -acre, 3-D hydraulic model of the San Francisco Estuary. The BMA has initiated production of 3-D Terrain Models to be placed in classrooms around the area. The models are created using a 3-D milling machine that creates scaled topographic maps. Students, via a partnership with a local high school, are actually making the maps. In this map-making process, students have an opportunity to learn about computer hardware and software technologies as well as modeling concepts and, of course, geography and watershed functions. The project incorporates appropriate curriculum so the models can become fully integrated into CA State Science Standards.

Improvement in Public Awareness. Programs presented by the Bay Model Association have been well represented in local and regional newspapers and generate visitation that otherwise wouldn't be available to the Bay Model. A recent public workshop on oil spill prevention in the Bay was followed by a demonstration on the Bay Model of how oil moves throughout the estuary. The Corps' studies utilizing

the Bay Model on tidal hydraulic movements in the Bay were directly related to this “real life” issue of oil spill prevention and how Corps research is used to assist with cleanup efforts.

The *Project Transquest* program incorporates the Bay Model to highlight how the Corps used the Model to learn how bay tides are affected by manmade alterations of the Bay. The combination of theoretical and actual Bay conditions and experience adds a dimension of learning not found anywhere else in the Bay area.

Public Education. In addition to the construction of the Bay Model Classroom with funds contributed by the Association (\$24,000), the Association’s greatest efforts are the education partnering programs with Corps staff at the Bay Model. The biggest education initiative takes place each fall and winter with the nationally recognized JASON Project. The JASON Project goes about discovering a new part of the world through a developed, year-long thematic multimedia curricula and incorporates cultural and local themes that have a natural tie-in to the yearly theme. A team of Corps and Association staff attend the annual curriculum review for each year’s theme and then advertise and present teacher workshops and provide curriculum guides for the teachers to use in their classrooms from September thru January. The project culminates with a spectacular live satellite downlink program for a two-week period at the Bay Model Visitor Center. The students that have been studying their themes all year now arrive for an hour-long interactive program with real scientists in the field of study, followed by a hour of hands-on activities that tie local and Corps involvement in the various subject areas. Subjects have included earthquakes, volcanoes, rainforests, oceans and arctic environments. This program educates and excites over 3,000 students in grades 4-8 throughout the Bay Area, and includes one Saturday open to the public. Career awareness is also a component of the hands-on activities. All materials are funded by corporate and foundations grants and are available to teachers for free. Transportation grants are awarded to schools with limited resources.

The *Project Transquest* program utilizes a research vessel to transport students from the Corp’s pier in front of the Bay Model, out into the Bay for a series of activities that explore the local Bay environment via science experiments. The students are then taken through the Bay Model and learn how scientists use theoretical models to test proposed hypotheses. They also participated in additional hands-on activities presented by Corps staff and members of other local science and environmental organization.

The After-School/Extended Day Program with the Sausalito School District and a local Charter School provides activities and study hall investigations using scientific methods employed by scientists around the world. This program reaches low-income, at-risk youth, grades 2-5 from an ethnically diverse community.

Accomplishments of Management Objectives. Management objectives of the Bay Model Visitor Center are to increase public awareness of the natural and cultural resources of the San Francisco Bay Area and the role of the Corps of Engineers on the development and stewardship of water resources in the state of CA. To that end, the Bay Model Association has contributed in excess of \$175,000 in both direct and indirect programming support, and broadened the scope and audience of the approximately 150,000 Bay Model visitors annually. All BMA programs contribute special emphasis that the small Corps staff could not accomplish due to funding and time constraints. The BMA staff the Bookstore and assist Corps staff with the administration and management of education programs initiated by the BMA. The BMA coordinated a week-long professional workshop on Maritime History and Archeology, manage the online North Bay Riparian Station, coordinate *Project Transquest* and the After School/Extended Day Program and coordinate each year’s Jason Project. Each program extends an opportunity for the Corps to demonstrate the work and projects of the agency around the Bay Area.

Involving Other Partners. Below is a list of Association partners.

Marine Mammal Center
Aquarium by the Bay
Marin Conservation League

Watershed Collaborators
SPAWN (Salmon Protection and
Watershed Network)

Friends of Corte Madera Creek
Watershed
Mill Valley StreamKeepers
National Park Service
Marin Conservation Corps
Dominican University
University of Santa Clara
University of California- Berkeley
Regional Water Quality Control Board
USEPA
California State Lands Commission
County of Marin
City of Sausalito
Sausalito School District
Marin County Office of Education
San Francisco Office of Education
Federated Coast Miwok of Graton
Rancheria
Bechtel Corporation
Society of American Military Engineers

Marin Community Foundation
Hass Fund
Goldman Foundation
William Donner Foundation
ESRI
Terraverge Inc.
Wildlife Conservation Board
Gellert Family Foundation
Sausalito Art Festival
Marin County Stormwater Pollution
Prevention Program (MCSTOPPP)
CUEREC
Phillip Williams and Associates
Friends of the Estuary
Watershed Assessment Resource
Center
Headlands Institute
Marine Science Institute

Through these partnerships, the Corps benefits by an “extended arm” approach to programming efforts at the Bay Model Visitor Center. Without the Association’s efforts, the ability of Corps staff to reach additional audiences and to attract visibility to the Visitor Center would not be possible. The Corps efforts to inform the public about it’s work around the region is enhanced through these partnerships as they bring in members of the visiting public, local, regional and state authorities that become engaged via the Association’s joint efforts with Bay Model staff.

Serving Diverse Audiences. The Bay Model Visitor Center is located within the city limits of Sausalito and is adjacent to a low-income and ethnically diverse community of Marin City. In addition, the local Sausalito School District is generally made up of low-income, minority students and the After School/Extended Day Program is developed for these students. The JASON Project and Project Transquest serve diverse student bodies throughout the Bay Area. The support of the Association to assist with transportation funding allows schools with limited resources to participate in Bay Model programs.