

State of the Bay 2010

A Conference about Tomales Bay and its Watershed



Photograph: © KathleenGoodwin.net 2010

Friday, October 22 and Saturday October 23, 2010

presented by the Tomales Bay Watershed Council



Conference web-page - <http://www.tomalesbaywatershed.org/stateofthebay2010.shtml>

Abstract:

The Tomales Bay Vessel Management Plan

By Dr. Dominique Richard, Chair, Tomales Bay Working Group,
Gulf of the Farallones National Marine Sanctuary

A review of the working-groups' efforts to provide input to the development of a vessel management plan for Tomales Bay by the Gulf of the Farallones National Marine Sanctuary. Includes an overview of jurisdiction, issues under consideration, recommendations by the working group, and future steps.

See video of this presentation at: <http://vimeo.com/17076106>

Complete proceedings, individual presentations, and links to video from the 2010 State of the Bay Conference are available on the Tomales Bay Watershed Council's website:

<http://www.tomalesbaywatershed.org/stateofthebay2010.shtml>

Speaker Biography:

Dominique Richard, PhD. A native of France, Dominique first received the equivalent of a dual Master's in Mechanical and Electrical Engineering with a Bachelor in Mathematics. He also holds a master's degree in engineering acoustics from the Pennsylvania State University and a doctorate in System Engineering from the University of Pennsylvania. He is an expert in the use of mathematical programming, numerical optimization, simulation and statistical analysis. He has also in depth experience in database management and data mining. After two year as a research engineer in ceramic machining and medical electronics, Dominique developed a number of computer-based decision support systems designed to optimize resource management, inventory control, scheduling and routing for a world leader in glass manufacturing. For the past 19 years Dominique has been an independent consultant specializing in problem solving using techniques in applied mathematics and data mining. He applied this expertise to a number of fields ranging from manufacturing and distribution to financial services and education.

As an independent scholar, Dominique's academic research focuses on the cognitive and social aspects of system thinking. Dominique also taught graduate level courses in Computer science, Electrical Engineering an Industrial Engineering. For the past 7 years Dominique has focused his interests on the analysis of ecosystems to help resolve environmental problem in the most optimal way. His involvement with the National Marine sanctuary, first as a citizen scientist (Beach watch) and as a member of the Sanctuary Advisory council was the first step of this latest turn in his career.

The Tomales Bay Vessel Management Plan

Engaging the public for better decisions



Dominique M. Richard, Ph.D.

**Chair, Tomales Bay Working Group,
Community-at-large representative on the
Gulf of Farallones National Marine Sanctuary
Advisory Council**

State of the Bay Conference – October 22, 2010

Problem statement



Tomales Bay:

Listed as impaired by pathogen contamination.

Vessels use and associated facilities affect its water quality, its wildlife and habitats and the health and safety of its users.

Federal, state and local laws, regulations and ordinances govern its management.

Objectives



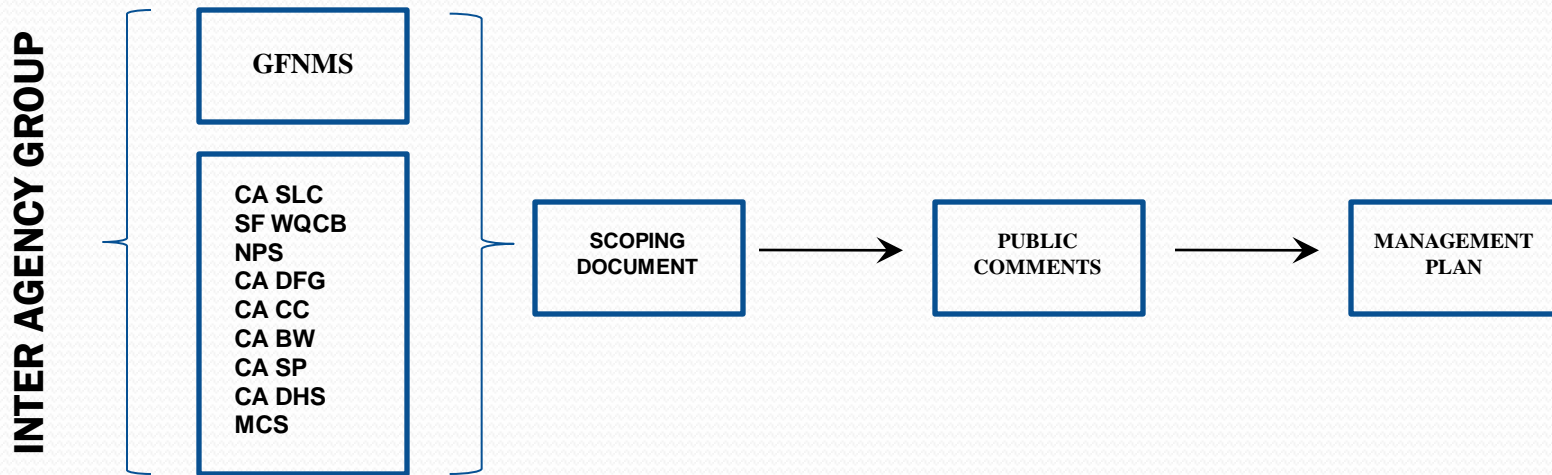
Protect public health.

Improve water quality to help get NDZ designation.

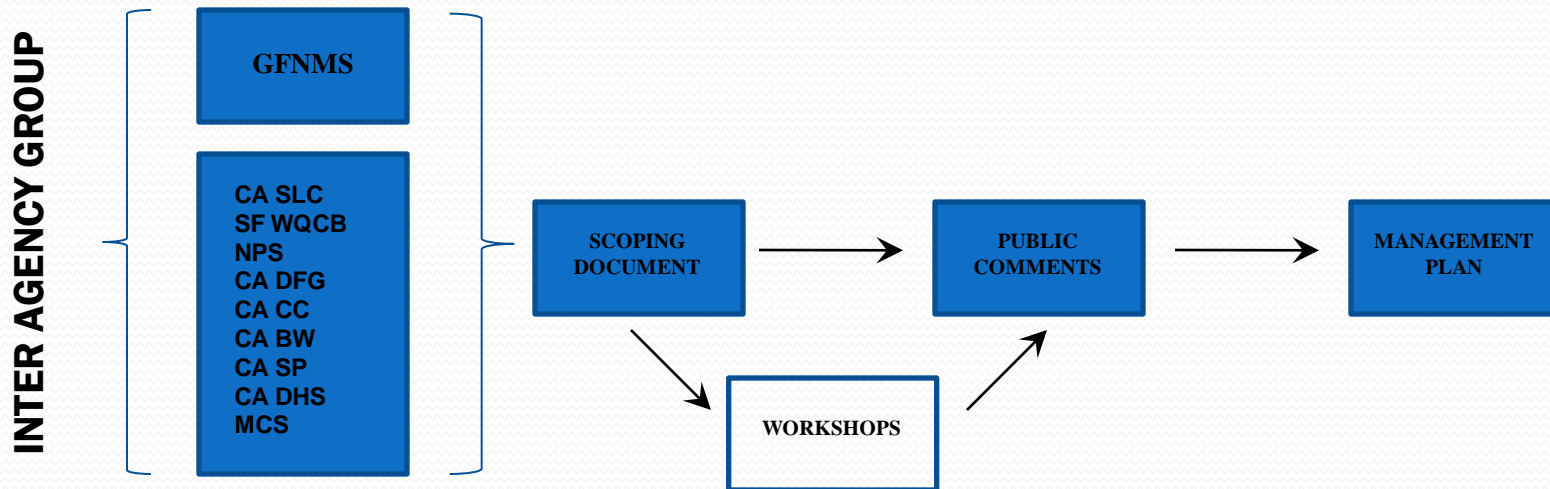
Protect habitat and decrease threats to and disturbance of wildlife.

Ensure safe and enjoyable water-related activities.

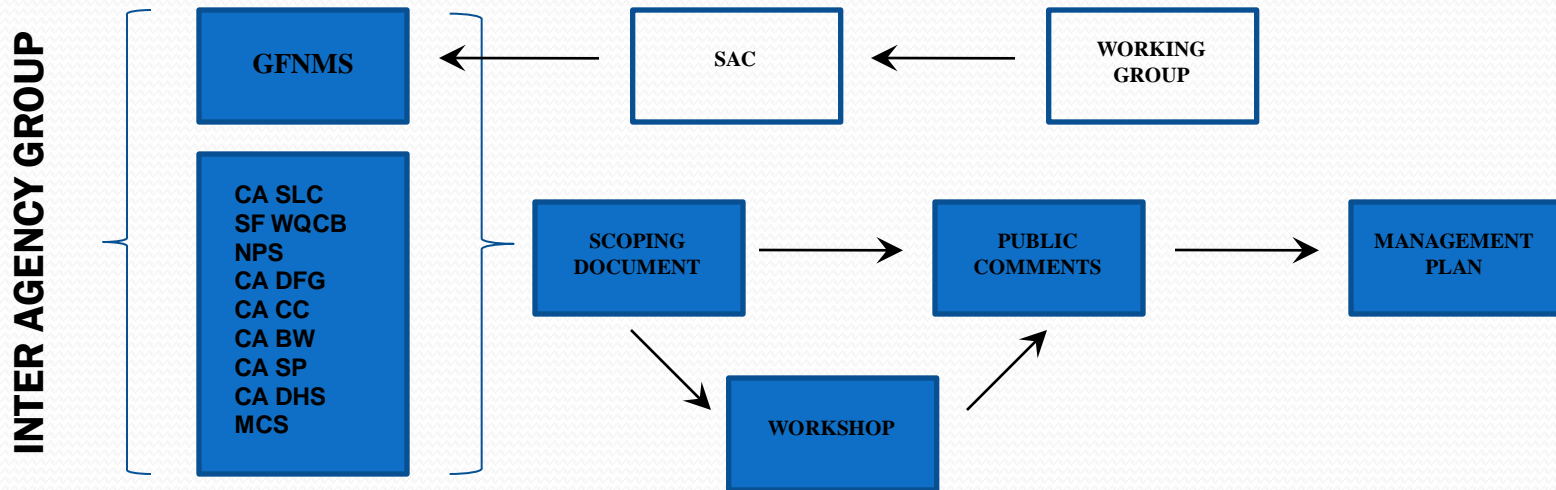
Basic Process



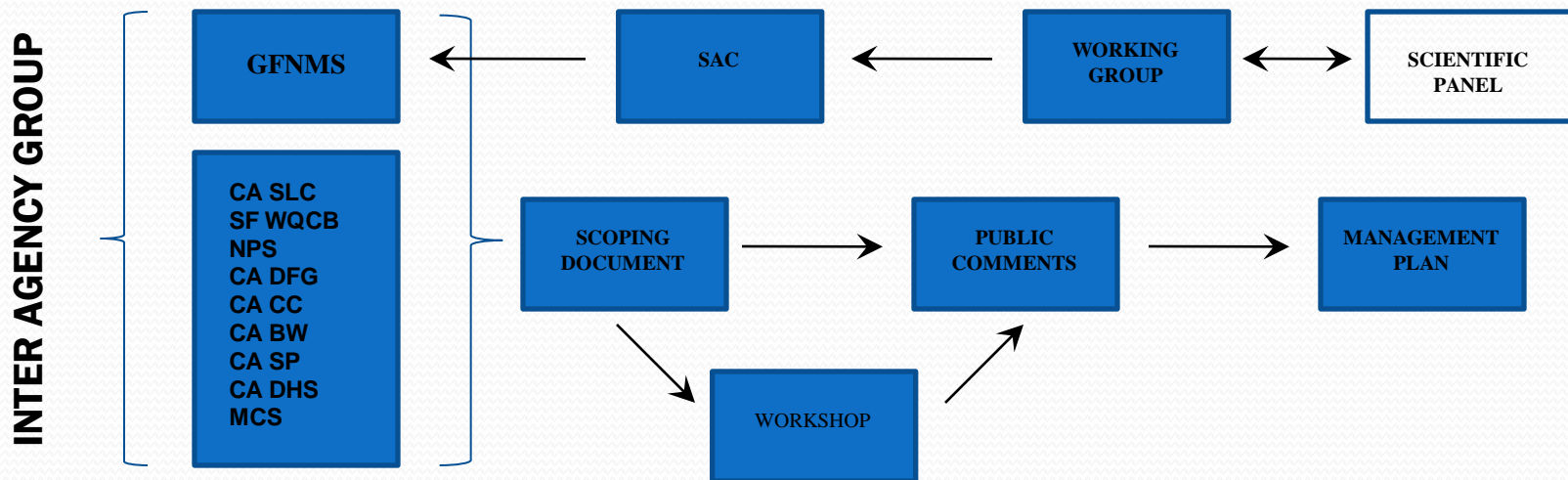
+ Engaging the public through workshops



+ Engaging the public through a SAC working group



+ Informing the working group on scientific issues



Vessel Management Issues

Mooring Tackle Pilot Test and Selection
Seagrass Monitoring and Assessment
Spacing and Total Number of Moorings



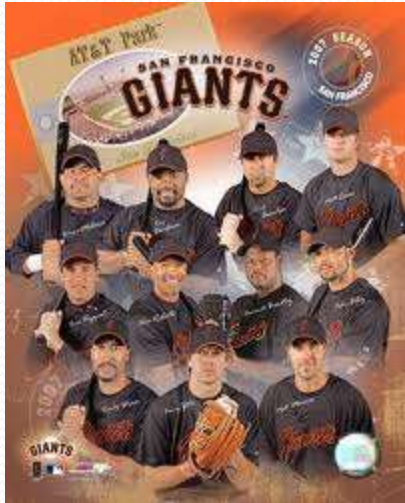
Mooring Fields
Mooring Criteria
Permit Program



Siting Environmental Services (Sewage and Oily Waste)
Education and Outreach Program



The team

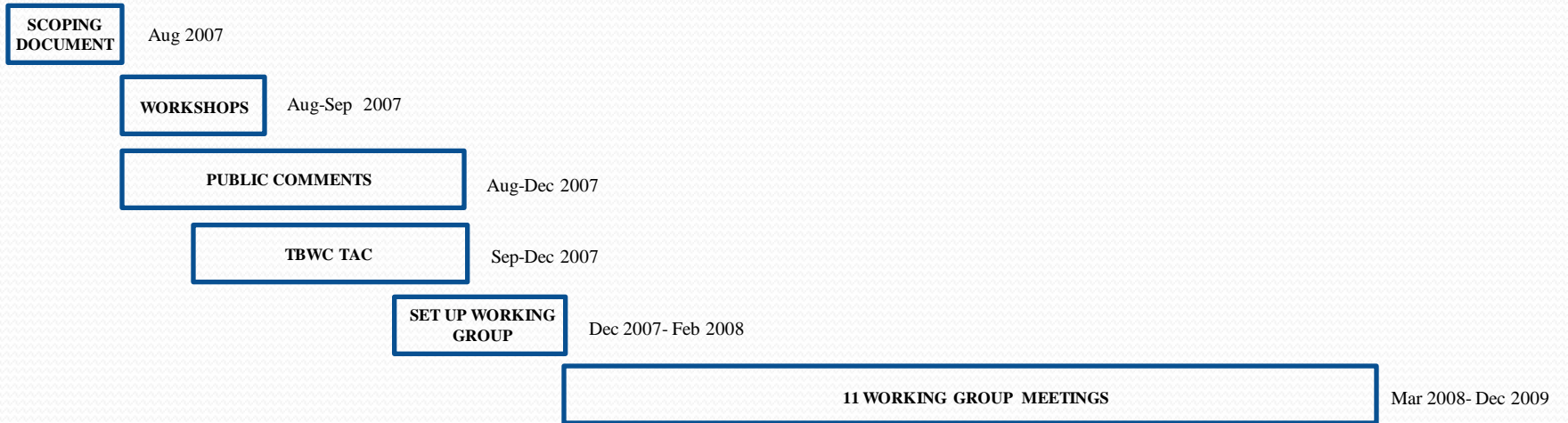


Dominique M. Richard SAC Public at-Large, Working Group Chair
Miriam Gordon - Brad Damitz, GFNMS Staff
Karen Reyna, GFNMS Staff
Maria Brown GFNMS, Superintendent

Nanci Smith, State Lands Commission
Colin Smith, National Park Service
Tom Moore, CA Dept. of Fish and Game

Jerry Abbott TBWC, Inv. Yacht Club
Mark Bartolini, Tomales Bay Boaters Association
George Clyde, East Shore Planning Group
John Finger, Hog Island Oyster Co.
Fred Smith, EAC West Marin
Gordon Bennett, Sierra Club
Willy Vogler, Lawson's Landing
John Granatir, Blue Water Kayaking
Jeremy Fisher-Smith, Fisher-Smith Boat Works
Skip Vilicich, Marshall Boat Works
Gene Maffucci

Timeline



Achievements



10 Day long Meetings
+
1 Consultation with a scientific panel
+
Countless thoughtful arguments
+
Much needed outings on the water
=
1 fat binder + 40 Recommendations

Recommendations on environmental services



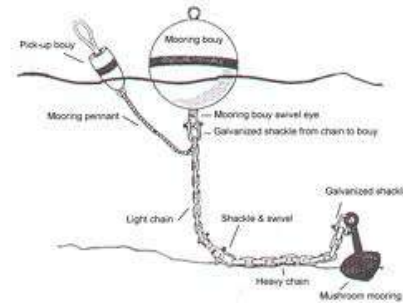
Pumpout station at Sacramento landing or Marshall Boat Works.

Dump stations at Lawson's Landing, Marshall Boat Works, Marconi Cove and Miller Park.

Oil absorbent exchange at Marshall Boat works, Miller Park and Lawson's Landing.

Oil recycling facilities at Lawson's Landing, Green Bridge Auto and Gas and Marshall Boat Works .

Recommendations on mooring technology



Manta Ray ineffective because of the Tomales Bay type of sediment.

Helix anchors effective during the pull tests.

Provide detailed technical specifications of the current mooring technology for thorough comparison.

Consider socio-economic, environmental and reliability factors in selecting new mooring technologies.

Recommendations on mooring criterion



Moorings are excluded from:

The Point Reyes National Seashore offshore waters and ¼ miles around Hog Island.

The 300 feet off seal haul out areas.

The 100 feet off swimming beaches.

The areas that fail to meet the DHS assessment for safe distance between mooring and shellfish growing operations.

The 1000 feet offshore of state park lands.

Recommendations on mooring criterion



No mooring in seagrass beds or in the buffer area around them equal to the mooring radius of a boat.

Seagrass beds are defined using current seagrass data (1992, 2000, 2001, 2002) and will be modified through adaptive management.

Recommendations on mooring zones



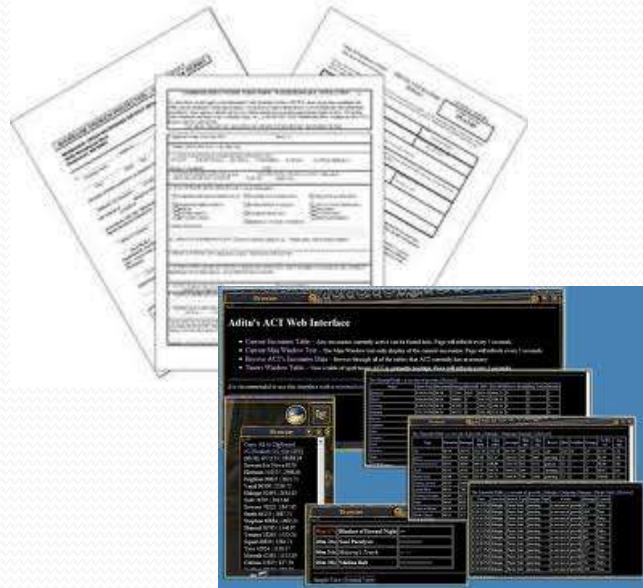
The contours of Mooring Zones are determined by historical photos and mooring surveys, carving out areas where the mooring criteria are violated.

All mooring anchors must be located within the confines of Mooring Zones.

With two exceptions:

- 1. mariculture operations considered separately by CDFG.**
- 2. Owners of developed littoral parcels considered individually by SLC to locate mooring on public lands in front of said parcel.**

Recommendations on permitting



Establish priority in the initial permitting batches by :

- A. processing existing mooring used by local residents,**
- B. processing all other existing mooring ,**
- C. opening the permitting process to new moorings within the confine of the mooring zones' capacity.**

Consolidate information about the mooring permit process on a single web site that can be linked to all interested agencies.

Enable both On line and paper based permit application.

Next Steps



Management plan completed.

Review from members of the inter agency group all completed except for SLC.

Vessel plan expected to be published in December 2010.

Following, will be a 45 days of public comments period.