MARINE SPATIAL PLANNING



SAN FRANCISCO

Innovations in Managing Complex Waterways — The Case of the San Francisco Bay Region

The San Francisco Bay Region is a socially, culturally and ecologically complex and dynamic area. It boasts critical habitats and well-known protected marine species and hosts a wide range of commercial and recreational maritime activities. In 2013 alone, nearly 7,500 commercial vessels transited in and out of the bay. Passenger ferries make over 90,000 trips each year. Commercial fisheries are active, especially outside the bay. Recreational users - swimmers, kite-boarders, and sailors — also enjoy these waters. This intense use often leads to conflicts — amongst users and between users and the marine environment.



he marine spatial planning (MSP) approach has long been used in the Bay Region to address myriad ocean and coastal management issues. The two cases that follow — the 34th America's Cup races and the San Francisco Port Access Route Study (PARS) — tell the story of how marine spatial planning was adapted to address two very different waterways management challenges.

These cases share some similarities. Federal agencies the U.S. Coast Guard (USCG) and the National Oceanic and Atmospheric Administration (NOAA) National Marine Sanctuaries — led the efforts in collaboration with partners and local stakeholders. Both efforts used existing management authorities and resources to achieve their goals. And in both cases, the MSP approach was recognized as the multipurpose tool that it is for addressing a wide range of use conflicts while protecting economic activities and the environment.



PHOTO: U.S. COAST GUARD SECTOR SAN FRANCISCO

The 34th America's Cup Races



PHOTO: PHIL UHL

"From the maritime world, everybody was delighted at how well it went. There was no traffic or ship arrivals . . . delayed. They [the USCG] specifically changed the race days and race times so they didn't interfere with the traffic hours during the day . . . nobody was really hampered or slowed down in any way."

> CAPTAIN LYNN KORWATCH HSC CHAIR

In 2010, San Francisco won the opportunity to host the 34th America's Cup yacht races. These would be the first Cup finals held in a semi-enclosed busy harbor instead of open ocean. Also, they would be the first to use 86 foot-long AC72 racing yachts massive, super-fast vessels. These firsts came with challenges. How could bigger, faster yachts race within a congested area while ensuring the safety of bay users and protecting the environment?

Over the next two years, and using formal and informal mechanisms, the USCG and partner agencies worked with industry, the recreational community, and other stakeholders to collect data, gather input, and tap local knowledge and expertise to plan for these races. While the USCG led the effort, they worked hand in hand with the Bay Area's Harbor Safety Committee (HSC) — an established group of maritime industry stakeholders and agencies in the Bay Area. The HSC was key to communications and coordination that ensured race needs were met, as well as those of maritime commerce, recreation and other maritime activities.

It was the HSC network that helped the USCG to have informal discussions with maritime stakeholders. By 2012, a final plan that reflected stakeholder comments was in place. However, the interagency collaboration continued during the race period. This included assembling a team that provided real-time response to on-thewater situations and holding calls the evening before race days to help mitigate potential vessel traffic conflicts before they took place.

The MSP process resulted in two separate plans for the 2012 and 2013 races. These included designated racing

areas, transit areas for ferries and small recreational boats, and a safety zone that traveled with the AC72s. It also included a plan for routing large vessel traffic around these areas.

In the end, the races successfully took place in busy San Francisco Bay on 80 different days over the two years. Using the MSP approach, involving stakeholders from the start, and adapting as they went, the USCG and partners pulled off the 34th America's Cup races without major disruption to users or negative impact on the environment.



San Francisco Port Access Route Study (PARS)



PHOTO: JOHN CALAMBOKIDIS/CASCADIA RESEARCH

"This collaborative process is how government, as far as I'm concerned, should work . . . [The PARS] is a story about government synergy and collaboration."

MICHAEL CARVER CORDELL BANK NATIONAL MARINE SANCTUARY The 2007 sinking of a small fishing boat, struck by a huge container ship outside San Francisco Bay, triggered the Approaches to San Francisco Port Access Route Study (PARS) (2009 – 2011). A PARS is a tool the USCG uses to reduce risk of accidents, increase efficiency of commercial traffic, and reconcile conflict between marine traffic and other uses of the area. Meanwhile, the issue of ships striking whales in the PARS area was already being researched by the Cordell Bank and Greater Farallones National Marine Sanctuaries. By working together, the USCG could tap the sanctuaries' stakeholder network and data-analysis knowhow, while the sanctuaries could address ship strikes faster by working through the USCG process. The PARS required using hard data and firsthand knowledge of the story behind the data. The sanctuaries' Joint Working Group on Vessel Strikes and Acoustic Impacts, including research scientists and stakeholders, shared findings in a final report that influenced the new northern shipping lane so it "... moves vessels quickly and efficiently through the area of highest whale concentrations." Meanwhile, USCG Vessel Traffic Service staff interpreted data using firsthand knowledge of traffic patterns gained through daily discussions with vessel operators.

In 2011, the USCG published the final PARS analysis with recommendations for changes to shipping lanes that would make marine traffic safer and reduce the chance of ship strikes. In June 2013, the new lanes were entered into international law. Compliance was immediate. The PARS was instrumental in leading to:

- Shipping lanes that avoid areas of high whale density, reducing risk of whale strikes
- A clearly-defined path for cargo vessels traveling through prime fishing grounds —thus reducing conflict between commercial shipping and fishing vessels
- Predictable vessel traffic patterns through environmentally sensitive areas — reducing risk of vessel collisions or other environmentally damaging incidents

The PARS process accomplished its goals through active stakeholder engagement — leading to high voluntary compliance. While using a single, efficient MSP process, it addressed two issues at once. The result was safer waterways and a protected marine environment.



Lessons Learned from the San Francisco Bay Region



S an Francisco's two MSP examples illustrate lessons learned that can inform MSP and coastal management practitioners throughout the U.S. and the world. For a more complete description of these lessons, please visit the website www.crc.uri.edu/initiatives_page/msp/

Engage stakeholders informally to build commitment and legitimacy

In the words of USCG Commander Amy Wirts: "... [the way to do informal stakeholder engagement] is not to go into the process with what you think the answer is and let people respond ... but, ... showing you are willing to have conversations."

Don't meet your colleagues and constituents for the first time during a crisis

Captain Bruce Horton of the San Francisco Bar Pilots noted: "We've always had a great working relationship with the Coast Guard . . . We're able to pick up the phone and talk . . . they always try to get things squared away before it turns into a bigger problem."

Stay agile and allow your plan to respond to multiple issues

If your plan is driven by a specific issue, do not stop there. Address overlapping concerns. With little investment, you may solve multiple problems with one MSP effort — a cost-effective win-win, especially if government funding for such efforts is limited.

Figure out what others have and that you need

When you do not have all the skills and expertise you need, look to partners and stakeholders. In the PARS case, the USCG brought an understanding of vessel traffic and navigation safety. The sanctuaries brought knowledge of whales and environmental protection.

Listen to the locals

Nobody knows a place better than those who live and work there. Firsthand experience from local stakeholders and technical experts helps explain the story behind data and maps.



"Because the bay is so dynamic, with so many users who are invested in the bay, both economically and environmentally, it is very important to have an open, transparent process when you are making decisions that impact someone's livelihood or way of life. You cannot get to the right, workable solution without having sought out and heard all of the voices. That means listening as equitably to the guy who lives on his sailboat in the bay, and has every right to do so, as to the maritime industry reps and the event sponsors. Maybe everyone wasn't thrilled, but they were at least happy and could see that their compromises in the big picture allowed everyone to have their piece of the pie, even if it's not as big as the pieces they normally get."

> COMMANDER AMY WIRTS U.S. COAST GUARD SECTOR SAN FRANCISCO



This document was produced in 2016 by the Coastal Resources Center and Rhode Island Sea Grant College Program at the University of Rhode Island Graduate School of Oceanography. It is one of a series of products sharing lessons learned from the practice of marine spatial planning in the United States and abroad. These products include the "Case Studies in Marine Spatial Planning Report Series" edited by Jennifer McCann. They are part of our ongoing research and capacity-building initiative to strengthen the network of MSP and coastal management practitioners.

For further information, and for access to other documents including technical reports summarizing the three case studies mentioned here, please see www.crc.uri.edu/initiatives_page/msp/





