GULF OF THE FARALLONES NATIONAL MARINE SANCTUARY
ADVISORY COUNCIL MEETING -
June 17, 2004 – Presidio of San Francisco

Note: The following meeting notes are an account of discussions at the Advisory Council meeting and do not necessarily reflect the opinion or position of the Gulf of the Farallones NMS or NOAA.

Council Members (Seats and Alternates):

Bob Breen	Education Seat/Council Vice Chair
Richard Charter	Conservation Seat
Brenda Donald	Research Seat (Alternate)
Gwen Heistand	Education Seat (Alternate)
James Kelley	Research Seat
Mick Menigoz	Maritime Activities Seat
Brian O'Neill	Government/Dept. of the Interior
Chris Powell	Government/Dept. of the Interior (Alternate)

Monterey Bay Council Liaison:

Steve Shimek	Conservation Alternate

Gulf of the Farallones National Marine Sanctuary Staff:

Julie Barrow	Coordinator, San Mateo District
Maria Brown	Manager
Jan Roletto	Research Coordinator
Mary Jane Schramm	Advisory Council Coordinator

Joint Management Plan Review Team

Ruth Howell	Management Plan Review Assistant
Anne Walton	Management Plan Review Coordinator

Copies to/Absent:

Barbara Emley	Maritime Activities Seat/Council Chair
Peter Grenell	Maritime Activities Seat (Alternate)
Mark Dowie	Public-at-Large Seat (Alternate)
Bob Wilson	Conservation Seat

ITEM 1: Call to Order, Roll Call, Review of Agenda

Roll was called; a quorum was present. The agenda was amended (items 13 and 14 switched) and approved.

ITEM 2: Public Comment at 9:15 a.m. No public comment was forthcoming.

Bob Breen opened the meeting with a note that this is the first Council meeting since the establishment of the Northern Management Area, and congratulations are in order.

Council noted that although the comment period on the US Ocean Commission Report was concluded, if it affects the sanctuary, it should be put on the agenda for discussion at a later meeting.

Steve Shimek, Executive Director of the Otter Project and the liaison from the Monterey Bay NMS to the Farallones Council, introduced himself, and provided an update on the latest sea otter census. The US Geological Survey recorded 2,825 animals, an increase over the previous year. Overall, population counts can be highly variable. The spring counts are less variable, and are relied upon for overall population figures. Fall counts are used primarily to track pup production.

Steve noted there is currently a significant mortality event occurring. Through May 2004 they recovered 135 dead otters, compared to 116 for the same time period in 2003 - a new, unfortunate, record. The ten-year average carcass recovery is 166 for the entire year. In 2003, they recovered 262 (for the entire year), well ahead of the ten-year's and last-year's pace.

ITEM 4: Member Reports

Richard Charter: Richard advised that the National Petroleum Council meets again on June 21 and 22 to discuss lifting the Outer Continental Shelf (OCS) moratorium on development. Areas on the west coast include Humboldt and Cambria. It is possible that all areas outside of the marine sanctuaries will be opened to offshore drilling.

The House leadership passed the Energy Bill, but it is not yet through the Senate. The House passed Richard Pombo's amendment to waive NEPA (National Environmental Policy Act) requirements for alternative energy projects. This includes Liquid Natural Gas (LNG) terminals, wind and wave energy production. The bill's language is very broadly written.

The Pacific Fisheries Management Council may recommend a krill fishing ban in the entire Exclusive Economic Zone (EEZ). If this goes into effect, it could have a displacement effect, and there would still be harvesting elsewhere. Several groups have requested a kill harvest ban in opposition to a Department of Commerce initiative to bring this fishery to the west coast.

Brenda Donald: The new Surfrider Foundation water quality monitoring lab grand opening in Half Moon Bay is Saturday, June 19. They will manage a long term citizen monitoring project in cooperation with the Sewer Authority Midcoastside.

There was a 1,000 gallon gas spill at the Pillar Point Harbor. The US Coast Guard has issued a notice of violation to the Texaco station that was responsible. Jan Roletto mentioned that Beach Watch was conducting special surveys. Of 50 live seabirds, six were seen with "wet" looking plumage, likely from lightweight hydrocarbons. No dead birds were seen. One live oiled murre was seen at San Pedro Rock the next day, but was probably not from the harbor spill. Brenda noted that barnacles would be most affected by the spill.

Jim Kelley: The California Ocean Science Trust has responded to the US Ocean Commission Report. Brian Baird coordinated the Trust's response. The Trust will discuss it further at their July 6th meeting. California is poised best to respond to many of the issues in the report. California would be a good place in which to fund projects and to "seed" new projects for national emulation.

Mick Menigoz: Salmon fishing is great this year, with abundance high, and the area off the San Mateo coast yielding well. Commercial fishing is going on outside the Pillar Point harbor and near the Farallon Islands, from the main island to the north islands. So far, all are king salmon; no silver salmon have been seen.

Mick ran a cruise to the *S/S Jacob Luckenbach* shipwreck for a program to air on the History Channel this fall (August 30th 8 or 9pm is the airdate - MJ). Two divers, who visited the wreck two years ago found a great deal of deterioration since then. Several structures are collapsing, and the roof is 10 feet deeper than it was previously. While anchored, he saw small amounts of oil daily, small tarballs or a light sheen a few square feet across. The remaining oil is buried under a significant amount of sand, according to the Coast Guard. The lightering project in 2002 removed about 40% of the total oil, with about 85 thousand gallons remaining. Details are available on the Luckenbach web page.

Bob Breen mentioned that Mike McGowan at the Romberg Tiburon Center is investigating bioremediation using microbes. However, Jan Roletto noted that bioremediation is typically done on crude, not weathered, oil. Winter wildlife foulings have been cut in half after the lightering project, but this may not continue as the ship implodes. There are now 65% fewer tarballs found on Beach Watch surveys than before the project.

Bob Breen: On February 14th the National Ocean Science Bowl was held, and again Mission High from San Jose won. All Bay Area counties were represented.

Bob Breen and Jennifer Saltzman are exchanging math-based labs in connection with the sand crab monitoring project to be brought into area high schools. They will be using the Shannon-Weiner function to measure species diversity. The students can use the "fail safe" methods to keep their interest level high.

ITEM 5: Manager's Report

Maria Brown indicated that as a result of the discussion of regulating lights on vessels to minimize wildlife disturbance, a coalition was formed. The group last met June 11th (three meetings had been held to date), including Joelle Buffa, Gerry McChesney, David Crab, Mike McHenry, Zeke Grader, Anne Walton, Tim Sullivan, Frank Berlottie, Kate Wing, Brenna Langabeer (by phone), and Karen Reyna.

The action proposed is a package including a reduction in the wattage used by vessels at night. The goal is improved legislation and production of a new brochure for outreach. GFNMS was requested to take the lead on the outreach efforts to be aimed at all types of vessels and aircraft.

In regard to light impacts from the squid fishery, the maximum harvest level is not to exceed 90 thousand metric tons. The waters for 1 mile around the Point Reyes Headland and around Southeast Farallon Islands will be subject to nighttime-only closure for squid vessels. Whether to close nighttime squid operations from Pillar Point to Pt. Arena is still up for discussion. This will represent a change in the fishery management plan, Section 1.1.4. The sanctuary will take no regulatory action regarding the proposed legislation. The Fish and Game Commission will take the action.

The sanctuary will work with the fishing community to form a network for outreach, as exemplified with the salmon boats near the Farallones. The sanctuary will take regulatory action only as a last resort. A timeframe for evaluating success will be needed.

The final parameters are still being set for distance and impact measurement, but the 1,000 foot overflight restriction will be incorporated into the education campaign. The campaign will also educate fishermen and women how to respond if wildlife lands on their boats.

The California Regional Water Quality Board has established Areas of Special Biological Significance (ASBSs). These tend to be areas with bird breeding populations, although the designation was intended for water quality issues. ASBSs within the Farallones sanctuary jurisdiction include Duxbury Reef, Southeast Farallon Islands, Ano Nuevo, Bird Rock, Double Point, Pt. Reyes Headlands, Fitzgerald Marine Reserve, and informally Bolinas Lagoon. These areas in particular are where resource agencies are concerned about impacts from lights at night.

Boundary Expansion: Maria met with Tom Roth, Congresswoman Lynn Woolsey's aide on June 16th. The Congresswoman is very enthusiastic about boundary expansion. Dan Basta has received her letter proposing a boundary expansion to Point Arena during the National Environmental Protection Act (NEPA) process. Dan responded that he was pleased with the request but indicated that the sanctuary is currently involved in the Joint Management Plan Review process. The expansion should be a separate process to ensure adequate attention is given to it. The management plan provides for a review of this in 3 to 4 years. To our knowledge, no other congressionals have weighed in on this issue.

Anne Walton is attending the Pacific Fisheries Management Council (PFMC) to update the PFMC on Gulf of the Farallones activitie related to fisheries. The Department of Fish and Game does not want the sanctuary to become involved in regulating Mariculture in Tomales Bay, but only to act in a consultative role.

Krill Fishery: The GFNMS prepared a letter recommending that PFMC ban krill harvest within the sanctuaries, but not within the whole EEZ. It is outside our scope of authority to recommend action beyond sanctuary boundaries.

MBNMS recommended a ban because krill is the food web basis, with the highest concentrations in the Gulf of the Farallones. It was recommended that the Precautionary Principal approach be used, and concerns were voiced that if Monterey Bay bans krill harvest proactively and the Farallones sanctuary does not, it could displace the harvest and by default the Farallones could become a target zone.

Advisory Council Updates: The council expressed an interest in hearing about issues such as enforcement and permits, and about major events in the sanctuary.

Vessel Sinking: The matter of the *Contender*, which sank off Ocean Beach, is still unresolved. The Coast Guard is actively pursuing an investigation.

Offshore Mariculture: The proposal to conduct offshore pen fisheries generates several concerns: use of krill as farmed fish food, reduction in krill available to wild salmon, and environmental impacts. Discussion touched on whether a ban would be initiated due to science-based concerns, or as a political move to ensure offshore mariculture would not happen in the sanctuaries.

Fishing Working Group: Maria reported on meetings involving Cordell Bank and the Farallones sanctuaries. Astrid Shultz provided a socioeconomic analysis of fisheries. She presented California Department of Fish and Game (CDFG) data integrated into a Geographic Information System, and will have the fishing community

comment on the data and provide their recommendations. She indicated that data from CDFG is not useful for GFNMS purposes, especially regarding salmon and Dungeness fishing.

Mick Menigoz added that CDFG map Block 1038 shows high fishing concentrations. Some of the fishermen went through the maps to "ground truth" the data. Surveyors will go on to docks to query the fishermen and women about gear types used, and landings at various harbors will be narrowed down. Some harbors have fallen into disuse recently. Also, there was some concern that Dock Walkers from Environmental Defense (ED) were asking two different sets of questions, and consequently the fishermen may be suspicious of the use of that data. Consequently, ED has agreed to ask only one set of questions.

Staffing: The sanctuary is looking for a Resource Protection specialist and coordinator, as well as an Education Specialist to work in the Half Moon Bay office. The Resource Protection Coordinator position is still open to applicants, and a decision should come by mid-July. Maria will notify the Council when new staffers come on board, and an updated list of all staff with contact information will be provided.

The question was posed whether the decision to cede authority of the Northern Management Area negatively impacted Monterey's staffing. Maria indicated that, to the contrary, Monterey received more funding.

ITEM 6: Old Business/Action Items

MJ will email the Areas of Special Biological Significance (ASBS) list to the council. (done)

Regional Guidelines: Maria indicated that none are available in writing at this time. She proposed the group discuss it at the retreat and discuss the council's recommendations at next LT meeting in September. Regionalization is still being defined.

The question was raised whether regionalization will be another layer of management, or does it arise from a commonality of issues, and will the span of control be less streamlined than at present between the sites and Headquarters and the decision makers. Maria indicated she has been advised there is to be no additional layer, but we have nothing in writing from headquarters.

The list of invasive organisms in California is still pending. Anne will send it to Bob Breen's new email address.

Noise Impacts: This should be put on the agenda for the August meeting or the retreat. The retreat will not have a public meeting component.

Another agenda item would be for Richard Charter to speak on the esteros.

MJ will report on charter renewal and member changes.

Staffing Update: Maria noted that the plans for a NOAA Corps billet candidate fell through, but NOAA Corps Officer CDR Steve Thompson will try to assist with another NOAA Corps officer.

US Committee on Ocean Policy (USCOP) Report: Bob Breen and Richard Charter analyzed the report's section on oil, gas and methane hydrates. Most non-governmental organizations (NGOs) formed "SWAT" teams to

review the report, including Environmental Defense. There was a great deal of oil industry participation on the panel, who were surprisingly neutral on Outer Continental Shelf (OCS) lease moratoriums; this was encouraging.

They recommended a more thorough federal monitoring of discharges from exploration, especially cumulative impacts. Instances included the Gulf of Mexico Dead Zone, and the post-Exxon Valdez impacts which are still causing mutagenic impacts on pink salmon. They also recommended that the energy potential and impacts of methates be evaluated.

Richard has been reappointed to the methane hydrate working group. This resource is orders of magnitude greater than all the planet's oil supply. When we exploit it is only a matter of time.

They recommended that the OCS moratorium on development be continued. Also, if methyl hydrates are to be exploited, research must be done before leases are awarded to industry. We must monitor cumulative discharges from rigs and exploration.

A key piece in all states' comments, except Louisiana, were related to USCOP's recommendations that revenues from oil and gas drilling be passed through to the states. We should be wary of offering revenues as incentive to more drilling, or closer-to-shore drilling.

Bob Breen referenced a Science Magazine editorial and article, and will distribute the details.

The Tropical Ocean Array (TOA) is a system of moored buoys concentrated at the equator, which gives us predictive capability for El Ninos in the tropical Pacific where global weather is generated. It has been a great success, and is in demand. Woods Hole Oceanographic Institute is now warning of an impending ice age if the Ecuador Current shuts down.

There is a need for an integrated moored monitoring system, as opposed to ship-based snapshots. If the U.S. doubles its research budget, we could have a worldwide array system. This Integrated Ocean Observing Systems (IOOS) would be a significant change in the way oceanographic research is conducted.

The temperature of North Atlantic deep water at 4,000 meters has increased significantly. Due to the North Atlantic Oscillation, ice is disappearing. This may be a decadal oscillation. Scientists need to look for larger cyclical processes.

NOAA is the leader in the IOOS effort. The national marine sanctuaries also have this mandate, and Research Coordinator Jan Roletto is on a working group for the west coast region for IOOS. Money is available for equipment but not for data analysis, or for integrating the physical and biological data.

Gulf of the Farallones is slated for four or five thermisters to monitor near shore temperatures linked with the PISCO (Partnership for Interdisciplinary Studies of Coastal Oceans) project for long term monitoring from Alaska to Mexico. It is not as large as a TOA array, but will link the sanctuaries' observations. Monterey Bay's system is localized, and money is needed for maintenance, analysis and data exchange.

The Coastal Conservancy grant has not yet been awarded, but has been narrowed to two proposals.

A request for clarification was posed concerning procedures for USCOP recommendations. President Bush appointed the commissioners, and provided for a 60 day comment period from the states' governors. The plan is to overlay USCOP recommendations with those of the governors and propose priorities and action. USCOP won't change its recommendations after the governors' comments, but both sets of comments will be submitted together. The White House response may or may not be to take action. It is unlikely that legislative action will occur this year.

ITEM 7: Ecosystem Update

Maria Brown described Gulf of the Farallones NMS's ecosystem-based management approach. GFNMS will focus on rocky coast, estuarine, and open ocean ecosystems initially.

Departmental areas for each include administration, habitat characterization, Research and Monitoring, Education and Outreach, Interpretive Facilities, Volunteers, and Resource Protection. We're taking a team approach to addressing issues.

Administration: This includes Memoranda of Understanding (MOUs), finance, contracting, facilities, and vessels.

Habitat Characterization: The sanctuary needs to characterize its habitats by geospatial character, acreage, and scaling. Also, baseline inventories and quantification are needed, as is more exploration.

Research: All research will be issue based. Goals will be to identify stressors, cause of change assessment, process studies, predictive modeling and effectiveness assessment. Monitoring will include water quality, habitat and living resources.

Education and Outreach: These will focus on school programs, developing resource products, outreach programs, the Visitor Centers, and professional development. Outreach will be achieved through public programs, community involvement, and media and other publications. Interpretive facilities include exhibitions, e.g. the Ocean Exploration Center at Crissy Field; and the California Academy of Sciences rocky shores proposed exhibit; small exhibits such as the Visitor Centers; and interpretive signs along the coast.

Volunteer involvement: This will be accomplished with the new Sanctuary Naturalist Corps as the overall program. Types of involvement include monitoring, interpretive, school programs and public programs, and internships.

Resource Protection: This is accomplished through regulations, policy, enforcement, response efforts, damage assessment, and issue-based education of decision makers.

Questions and discussion followed. Clarification was requested on how our efforts in Bolinas Lagoon will be interwoven with existing studies, such as the Bolinas Lagoon Technical Advisory Committee (BLTAC) restoration plan. The sanctuary will issue coring permits, and will help manage the outcome, but not do the work directly. Information will be put into a database accessible to the public. Partnerships will be important in this area. Also, community awareness is needed that these waters are part of GFNMS.

It was remarked that monitoring and research are separate items. The chart presented was abstracted from the Draft Management Plan. It looks simple, but represents a great deal of work and will be a map for the future.

Richard suggested that Interpretive/Education/Outreach displays he recently visited on the Maine Coast provide excellent models. Also, the museum/aquarium setup is a great model to use for the Glass Palace (Ocean Exploration Center) and can be incorporated into the design. Some models are quite affordable. Archaeological sites will be included, and are to be identified on adjacent shores. Also, regarding fairs and small exhibits, Bioneers is coming back, and the sanctuary could be involved with it in with NOAA booths. It will be at the Marin Civic Center in September.

Coastal Armoring: Requests for coastal armoring permits will be processed by the Resource Protection Specialist in Half Moon Bay.

It was urged that we fully integrate our Information Technology (IT) capability, which will require a network specialist. We should avoid separate data analysis groups, and the system must be "service" oriented and facilitate group interchange. The IT person will just facilitate interchange, but not be responsible for supervision of content. The data manager ensures the compatibility of data structures. NOAA has found that national data centers don't work together well, despite compatible formats. A distributed versus monolithic IT system is needed.

ITEM 8: Northern Management Area (NMA) Update

Although still part of the Monterey sanctuary, this area will be managed by the Farallones sanctuary. Staff from both the Monterey Bay and Gulf of the Farallones sanctuaries have met, once in an all hands meeting, then again in subgroups or teams. Maria, Bill Douros, Julie Barrow, Brady Phillips and Holly Price (Acting Superintendent for MBNMS) developed the general framework. The transition is to be completed by August 15. An August 12 all hands meeting is planned to mark the transition and facilitate team building. On December 3rd GF is going to co-host a joint advisory council meeting at Costanoa near Pescadero. This will be an annual event.

Framework: We are to view the general area as "national marine sanctuaries" and not stress the individual sites. It is our intent to discontinue use of the "NMA" term.

Communication must be open and consistent with Monterey. When permitting happens, both staffs are to communicate together. We are taking a "family" position to share our resources among all three sites, e.g. expertise on research, fisheries issues, etc. We are also trying to standardize regulations among sites. Thus far, the transition is going well. Both the councils' help is needed and valued.

The staffs, Transition Team and all parties are working to make this a success for the entire Program. We're updating and revising the Transition Plan. Focus group meetings were held for research, education and outreach and resource protection, with representatives from both sites. These will be folded into the Transition Plan in JMPR. The council should see a draft for review and comment by the next advisory council meeting.

A question arose how MBNMS will oversee a water quality program for Bodega Bay, that this is too local an issue for long-distance handling. The response was that a new water quality position for which MBNMS is hiring will handle the whole region, and help sites to develop their own programs, based on successful models.

San Mateo County issues are yet to be addressed, but the sanctuary will work with MBNMS on these. The council can strategize how best to approach Monterey.

Council commended the leadership of both sanctuaries, noting that alignment of purpose in joint cooperation will be essential to success. The sanctuary should be proactive on San Mateo County water issues. Where resource sharing occurs, we should capture details in our annual work plans, lay out specifics as to who can provide what assistance and other support. State Parks and NPS have a model agreement. The success is directly related to the quality of their work plan. Monitoring for quarterly evaluation is recommended, and we should document all agreements.

Concerning water quality in the esteros, in Bodega Bay a public notice went out regarding an upcoming meeting on Estero Americano. Richard Charter will attend. The stakeholders are forming spontaneously to attend to issues affecting the estero. The sanctuary should support local efforts. Richard Charter can be the liaison for the sanctuary, but he's planning to be neutral at this meeting, to be held Thursday, June 24 at Old Valley Ford School.

Sanctuary Liaisons: Concerning the GFNMS liaison to the Monterey Bay council, Bob Wilson has been designated informally, subject to confirmation when he returns. Monterey council liaison Steve Shimek noted that his council was skeptical at first, but the process is going well. The working groups are moving through the various questions about the new management, and the full council will suspend any interference until an appropriate time. The general feeling is that good things will come out of this process.

The Farallones council is extending the olive branch of friendship. Both councils' capabilities will be needed to achieve collective goals.

ITEM 9: Marine Life Protection Act (MLPA)

With regard to fishing restrictions off Duxbury Reef, the Sanctuary can work on committees, or can identify areas where efforts should be made to mitigate impacts.

It was noted that restrictions will be matters of concern to recreational and commercial fishermen, and that agencies should not close off large tracts of water just to see what will happen. If a use is not sustainable, however, the fishing community wants to be notified.

Although the governor put MLPA implementation on hold due to lack of funds, it is still the law. Although no one at CDFG is working on it, Mike Chrisman, the Secretary of Resources, has stated he plans to restart the consultative process. The draft maps have caused an outcry. Civil society processes are happening in coastal communities in the Bolinas and Pt. Reyes areas. Some CBNMS council members are involved in these processes. If a local community agrees that an area has special attributes, taking into consideration the existing user groups and socioeconomic impacts, the public can go to the Fish and Game Commission with nominations for reserve designation with some restrictions, e.g. recreational vs. commercial fishing. All these actions are in keeping with the MLPA, and independent of CDFG and the sanctuaries.

The sanctuary can support this civic system, and should engage in the process when decisions are made on nominations, whether in or outside of sanctuary waters. The sanctuary should look at these areas one at a time, and tailor actions to address specific problems. Small boat fishermen need access to near shore waters, and would not want either a blanket closure or blanket access. Research is needed to convince the fishing community it's worthwhile, and get the fishing community to participate in the research process to evaluate if MPA designation is recommended. All stakeholders must be part of the process, and the sanctuaries should facilitate this. The Monterey council finds this process a scary issue. The role of this sanctuary will work itself out over time, but in the meantime we'll lobby for doing it right.

Congressman Leon Panetta has stated that MPAs can be a tool, and has asked John Burton to sponsor COPA (the California Ocean Protection Act). No new appointees shall be placed on the subcommittee, but should be drafted from the Environmental Protection Agency (EPA) and other agencies. COPA would expand Proposition 50 funds for coastal wetlands, to include California and near shore waters in a Trust to mitigate other areas. Funding would be used for U.S. Commission for Ocean Policy (USCOP) implementation. The full Senate has considered it, and it will go to the Assembly soon. There is no taxpayer cost involved, but it could be on the November ballot. These are small steps toward implementing the Pew Ocean Commission and USCOP recommendations. New public polling numbers indicate that controlling storm pollution and protecting fish from mercury contamination have broad public support. Proposition 50 money may be allocated for broader applications.

ITEM 10: Northern Management Area Water Quality Programs, Part I

Katie Siegler, Agriculture Water Quality Coordinator for the Monterey Bay NMS. Ms. Siegler gave a presentation on the water quality programs for the Northern Management Area. She limited her remarks to agricultural issues, and indicated that Chris Coburn could give additional information if the council so desired.

Nitrates and persistent pesticides are the primary concerns, erosion as well. Sediments can carry persistent pesticides (e.g. DDT) to the coast and oceans. They can bury spawning grounds for fish and cover rocky areas that kelp need to take hold.

Nutrients can cause harmful algal blooms (HABs), and can impact native species. Persistent pesticides can concentrate over time. Methods to address these issues include cover cropping, grassed waterways, grassing farm roads, building hedgerows to prevent wind erosion and attracting beneficial insects. Also, they can build sediment basins for settling of sediments.

The Watershed Working Groups represented farmers working together in a six-county coalition The program offered a Farm Water Quality Plan course through the University of California Extension. This identified the problems, the means to address them, and provided a record for growers to document their success. Technical assistance included more technical field staff, an agronomist, water quality specialist, and more available technical information. Education and public relations activities included a central coast tour of farms and fisheries, with travel up the watershed.

The program addressed permit coordination among the several agencies, and developed a list of best practices. They will combine all the different agencies' conditions into one permit. Funding Incentives were also offered. The program also focused on public lands and rural roads. For documenting success they published Annual Reports.

Discussion of the presentation followed:

Brenda Donald questioned the change in the agenda from the agreed upon speaker to two speakers, and objected that it was disrespectful to her efforts.

Groundwater and saltwater intrusion and outflows were also discussed. Local water agencies are handling those issues. There is no formal role for the sanctuary, just for local groups and political agencies, depending on the location.

PRESENTATION: Water Quality Programs in the Northern Management Area (NMA) Part II.

Tim Frahm, Director of Conservation and Water Quality, SM Co. Farm Bureau spoke. Tim noted that he and Katie Siegler of Monterey Bay both modified both their presentations collaboratively.

Six years ago the Farm Bureau began its water quality program. The agriculture community wanted to be involved in any sanctuary action plan touching on agriculture.

Six counties' waters flow into MBNMS. The Farm Bureau office is now closed, but Tim assists growers to address agricultural non-point source issues. The State seeks voluntary compliance. Partners include the Watershed Working Group, Coalition of Central Coast Farm Bureaus, MBNMS, individual farmers/ranchers, Non-regulatory agencies, San Mateo County Farm Bureau, regulatory agencies, regional boards, and the agricultural commission.

Watershed Working Groups (WWGs) were formed of associations of agricultural operators or land owners in specific watersheds, organized to recognize and address nonpoint source issues. They wish to share information between farmers (there are varying sizes of farms in each of the watersheds). They also work to promote successful practices. Each WWG has its unique issues and responses.

If stakeholders formulate their own agendas, they are easier to engage. Then regulators are often invited to sit in, as opposed to regulators setting the agenda and inviting farmers to sit in.

Current watershed groups include those for Pescadero/Butano, Pilarcitos Creek, Frenchman's Creek, and Ano Nuevo. Represented are conventional farms, two organic farms and one "hobby" farmer. The Bureau encourages localized plans, not broad scope programs.

Types of issues include E. coli bacteria, which has resulted in beach postings; urban runoff and road runoff from Hwy. 92. Typical crops are nursery/greenhouse crops, Christmas trees, and pumpkins.

At the Pescadero/Butano watershed sediment is an issue, and the watershed is rated "impaired." It drains to the Pescadero Marsh Reserve and lagoon, and is habitat for juvenile steelhead. The typical crops are field vegetables and primary crops.

The WWG has addressed problems in various ways. At Pilarcitos they grant-funded a coliform study, and advocated for tertiary wastewater use and improving irrigation practices (e.g., field drip systems).

At Pescadero/Butano the WWG facilitated access for regional board monitoring, developed demonstration projects to reduce sediment (including field drip), implemented grant funding for sediment issues. Most was spent for assessment, only some funds were available for demonstration projects. A 319H project was implemented by the MBNMS Foundation. Field drip systems are still uncommon in San Mateo County, though they are common statewide. Vendors haven't been promoting them in this location.

Each participating farmer received a 15 hour short course via the UC Extension, held in northern Santa Cruz and southern San Mateo counties. Several hundred farmers went to the short course, recognizing the benefits. Field days/tailgate workshops were held.

Implementation included riparian fencing around fields to exclude cattle. This addressed both E. coli and erosion from cattle issues. Photo-monitoring using Global Positioning System (GPS) points document the success of cattle exclusion methods. Cover crops, both annual and seasonal. Row planting arrangement are encouraged to lessen erosion. In addition to fencing, buffer areas were planted with native perennials. The annuals come in first, perennials later.

Regarding riparian corridors, compare San Mateo County creeks with Salinas.' You will find that San Mateo's creeks are healthy riparian corridors and habitat to several listed species.

Concerning riparian waterways, there were health risk issues with the Department of Agriculture (DOA), regarding certification of ditches as non-pathogenic. DOA wants "clean" ditches, as opposed to weedy ditches; there is a conflict here.

Cover crop projects were to plant annual grasses and legumes after the fall harvest to provide soil stability in winter; prevent soil loss, and prevent sedimentation. This also resulted in increased productivity because of legume enrichment. Planting methods were reviewed, and they compared broadcast planting with linear methods.

Lastly, the group encouraged the farmers to document their work, including individual self assessment. The farmers want a sustained community. They realize that to achieve this the ground must stay productive, and the water pure.

Questions and discussion followed:

It was asked if the farmers feel these efforts are cost-wise worthwhile. With these programs, the farmers were not footing more of the bill for these practices (they split the costs 50/50). Overall, the farmers are most interested in the health of the soil.

A question arose if Pilarcitos Creek was affected by nearby dumps. There were some large E. coli spikes and periodic releases from the creeks. Tertiary water treatment can be used to wean farmers from direct diversion eventually. The San Francisco Public Utilities Commission, Midcoastside Sewer Authority and other agencies are involved in this.

ITEM 11: Update on Esteros.

Sue Buxton of Friends of the Esteros (FOE) outlined some estero issues.

Leachate in Estero Americano will continue to be a problem, from the historic dumpsite, and from a newly proposed quarry near the dumpsites.

Estero de San Antonio is threatened by the existing Meacham Road landfill, which is 20 years old. It is causing leakage into Stemple Creek. The Water Quality Control Board had diverted most of county trash elsewhere. The County is moving to the original Meacham Road dumpsite due to costs. The creek is within 50 feet of the dumpsite. FOE advocates Total Resource Recovery Program, not relocation.

Estero Americano begins in Americano Creek, adjacent to a closed landfill which operated from 1956-1971. No records are available about the contents. In 1995 a sedimentation/erosion problem triggered a monitoring program. Problems are minor so far. However, recently an application was filed for a new hardrock quarry which includes blasting and digging away the uplands areas. Toxins in the current site could be released.

Another issue is serpentine rock, which when dug releases asbestos into the environment. The state has restrictions on asbestos quarrying, but any details are lacking. One hundred percent dust containment would be difficult and would require extreme irrigation.

In summary, we should endorse a total resource recovery program in Sonoma County and oppose a new hardrock quarry near the creek.

Richard Charter added that there are now two dumps, old and new, that are breached and leaking and asked what Environmental Impact Statements we should review, or what hearing we should attend.

The county has not yet done an initial quarry study. Scoping meetings will follow in a couple of months. An Environmental Impact Review will come later. The advisory council may be able to propose issues for the scoping meetings. No long term monitoring data is available, and data analysis would also be needed.

Regarding existing total resource recovery facilities, Marin Recycling is a model project.

Concerning the sanctuary and NOAA's authority over water quality issues and quarry impacts, Maria noted the sanctuary has authority over direct deposit, but not deposit through the watershed. The new regulations will give GFNMS more power to weigh in on the issue through "enter and injure" language.

Santa Rosa's sewage proposal for direct discharge triggered a need for critical path analysis of potential impacts to the sanctuary. The agricultural community can provide another voice against industrial impacts.

Humboldt County now has asbestos quarrying problems, and the estero area is even windier, bringing a greater threat. This can be brought up at scoping meetings. The question is, how do you arm the community to identify all the issues?

ITEM 12: Advisory Council Retreat and Charter

MJ Schramm presented several options for the October council retreat, and invited suggestions for special activities.

Preliminary plans are to stay at the Pt. Reyes Seashore Lodge, and have several options for outdoor activities, including kayaking, nature walks, as a general "area familiarization exercise." For Communications training, Ian Pearson comes highly recommended, and is especially good at addressing controversial issues. See Brian O'Neill; Ian is fairly pricey, so the Park Service would only bring him in on hot topics. Brian will get MJ Ian's contact information. 415/435-3489

Alternatives are Michael Ellis or Rich Stallcup to lead natural history walks. Activities could include a tour of the cheese farm (examine best management practices), or tour the Hog Island Oyster Company. We could review the restoration project at Giacomini Ranch, Mariculture at Tomales Bay, or Cypress Grove Preserve: fun with a purpose. The council could also visit seals monitoring sites at Bolinas Lagoon, or the Sacramento Landing education/research facility.

Another topic, previously suggested at council meetings, would be a presentation on acoustics impacts

ITEM 13: Proposed California Government Seat.

The sanctuary will invite Dominic Gregorio of the State Water Resources Control board as an alternate state government seat. Brian Baird from the California Resources Agency will be invited to be the primary state government seat, plus one other. It was recommended to target state seats for working groups in specific areas of expertise. Dominic can be the California government alternate.

Motion: Council will request Brian Baird as the California Government primary representative.
Motion: Richard Charter
Second: Jim Kelley
Vote: All in favor, none opposed.

ITEM 14: Stagger Duplicate Seats.

Liaison from GF to MB:
Motion: The Council should accept Steve Shimek from the Monterey Bay NMS Advisory Council as liaison to the Farallones Advisory council. In return, we will send Bob Wilson as liaison to the Monterey council, contingent on his acceptance. Bob Breen will serve as the alternate liaison.
Motion: Richard Charter
Second: Mick Menigoz
Vote: All in favor, none opposed.

ITEM 15: Presentation: Acoustic Thermometry of Ocean Climate (ATOC) Cable

Irena Kogan, of the Monterey Bay NMS and Monterey Bay Aquarium Research Institute (MBARI) gave a presentation on the impacts of the ATOC cable. ATOC stands for Acoustic Thermography of Ocean Climate, a study of global warming through ocean temperature measurement of the transmission of sound.

The cable is in the Northern Management Area at Pioneer Seamount, and runs to Pillar Point. It is 100 km long and two-thirds of it lies in sanctuary waters. NMSP headquarters permitted the project, but required that surveys be done. This was a joint project of NOAA-OAR (Oceanic and Atmospheric Research), NMSP headquarters, MBNMS, and MBARI. MBARI provided the expertise and equipment.

ATOC operated in the sanctuary from 1995 through 1998. Oregon State University received the signals from the Pillar Point station. Then, the ATOC cable broke in 2003.

One goal is public access to ATOC information. Benefits include obtaining census information, monitoring ship traffic and general ocean noise. They could identify kinds of marine mammals based on sonogram logs, and identify individual animals. The project yielded much data and resulted in much discourse within the scientific community.

They examined the cable itself: its condition, its environmental impacts, etc. They looked at substrate types and utilized push cores adjacent to the cable area to determine infaunal impacts.

The 13 stations were named by their water depths. 138 push cores were done along 15 km of sea floor directly over the cable path.

Running from east to west, the cable was not buried, just laid down initially. Self-burial occurred on the Continental Shelf to 120m, where it is mostly buried. It is partly on the slope, exposed in deep sea and rocky substrates.

The edge of the shelf shows cable damage. Burial is shallow in the shelf area. With storms, some sections may still become exposed. Currently, a cable at Pillar Point runs down slope from the station, and is buried onshore. Is the exposed cable definitely ATOC/Pioneer? There is no way to know and it's too costly to determine.

In July and October erosion exposed the cable. Any cable thus installed here and in this manner will be eventually exposed.

At 20m station folded rocks were seen in sidescan sonar, indicating high bathymetric variability. They found that the cable is incising into the rocks, and altering the seabed. There is a cone shaped depression up to 45 cm wide. A potential action would be to charge a hard bottom mitigation fee. They also found a cable crossing involving the ATOC and another cable. The owner of other cable is unknown, it is probably military. Or, the second cable may be the one which ran from San Francisco to Honolulu dating back to 1903, proving it can remain buried for 100 years.

The ATOC cable created three separate, parallel grooves. Once the cable incised into the rock, it didn't stay in the one groove, but jumped and made new grooves. Frayed sections of cable were seen, proving that double armoring is inadequate to protect it. The steel is coming undone. Keep in mind that the Mavericks area is a high energy zone.

On the mid-Shelf silt belt, anemones sit on cables which could not affix to soft substrate. Lines of anemones revealed the route of cable beneath. They were mostly *Metridium farcimen* species, other cnidarians and surprisingly, flatfish. Flatfish were seen at three sites, but not in the control transects; perhaps they were attracted by the anemones.

140m Station: This revealed more anemones and drift kelp. They were not growing or entangled, just lying next to the cable. Was this random? Sea pens dominated here, and were significantly more abundant by an order of magnitude. Brittle stars were found mid-shelf, as well as echinoderms. Crinoids, sponges and mushroom coral dominated the deeper station.

The cable break occurred in the 300-500m depth. Another break was seen in the 900m depth. The primary cause of damage to underwater cables is trawlers. The Cable moved up to one kilometer away from its recorded path, and could possibly have been dragged to its present location.

The presence of the cable may have a sheltering effect, collecting coarser materials. Rockfish were found under and around the cable, creating an artificial reef scenario.

Lower slope: Sperm whales can become entangled in cable loops, especially where repairs have been done. Sonar from the Remotely Operated Vehicle (ROV) revealed tracks perpendicular to the ATOC cable. They could be old trawl marks, from one to three meters wide.

At greater depths, they found more anemones, sea stars, hermit crabs, polychaetes in the sediment, and more drift kelp. Why were there aggregations of hermit crabs? What caused the patchiness in the populations? Why were more worms and taxa of worms found in the cable area? Patchiness was again suspect.

Pioneer Seamount: Here the cable was exposed, with no differences between the cable and control sites. Basalt rocks showed no damage. It's not the presence of rock that is key, but the energy of the environment (low at Pioneer, high at Mavericks). Here sponges and coral were seen.

Summary:

Status: The cable is abraded, probably the result of the "wave factor." The cable is variably buried, depending on its location. Intermittent burial was also seen seasonally. The exposed cable attracted cnidarians, and organism density was higher along the cable. A half-million organisms live on or near the cable.

The estimated survey cost was $500,000, which was borne by the nonprofit group.

Risks Involved: These included damage to nearshore rocks, attraction of additional organisms, repair-generated seafloor disturbance, and snagged fishing gear. Removal impacts would include organism mortality, rock breakage, and beach impacts from digging out.

ATOC Project Permitting Status: The permit expired Dec. 31 2003. Headquarters has extended it until the end of July, 2004. They are doing an Environmental Assessment (EA). Their options are: Abandon it in place, repair and reuse it, remove the segments, or effect a complete removal within sanctuary limits.

The MBNMS position is in favor of complete removal from the sanctuary. Abandonment is prohibited by regulations, and there is concern about setting such a precedent, and the habitat impacts it causes. There is an action plan on the cable (see Draft Plan) which addresses siting concerns, fees, and development of standards. The Monterey Bay NMS advisory council opposes any commercial cables in the sanctuary.

Questions and Discussion:

In the course of headquarters' permitting the project, Dan Basta must have figured out the ultimate fate of the cable. The removal option is under Dan's discretion (as stated in the 2nd permit). The original permit required its removal.

One challenge is that several of the original staff are no longer with the program, e.g. Dave Evans and Chris Fox are no longer at OAR.

The comment was made that the project sounded like Rigs to Reefs, and serves to save industry the decommissioning costs. Bonds should be posted in future, geared at looking at the full life of the cable, not just at installation costs. The projected cost of removal from sanctuary boundaries is at least $1 million, not including the beach removal. The cables are rated for a 25 year lifetime. The ATOC cable was a former military cable.

The location and number of breaks are unknown. Fiber optic cables break if they are bent, vs. coaxial cables which are more flexible. Sound bounces back off a fully broken cable, but a weak signal returns if the cable is simply "faulted."

Alternate and future uses were discussed, e.g., can this be used to signal from Pioneer to a real-time broadcast in the visitor center? Hydrophone arrays in Monterey Bay and elsewhere can triangulate the locations of whales, etc.

The general feeling is it's best to remove it, as it's a bad precedent to set. The Coastal Commission wants its removal up to 200 nautical miles (nm) but can only require it up to 3nm (state waters). Regarding bonds, bonds are hard to valuate, and the Olympic Coast sanctuary's cable company went bankrupt.

The Environmental Assessment is still going on, they are still evaluating options. Will the GFNMS council be able to comment? The length of the comment period is not known; John Armor would have that information.

The Farallones is inheriting this problem from MBNMS. Caitlyn Gaffney from the Ocean Conservancy was involved, and would have additional information. This may be a non-issue if a single cable is involved, but the precedent potential is huge if it is abandoned or reused.

It was pointed out that at the confluence of the two sanctuaries, there are eight high interest oil tracts. When drilling occurs, petroleum explorers could use the precedent to their advantage.

NOAA, not the sanctuary, should bear the costs of removal.

Irina added that the cable issue also related to proposed windfarms which would use cables, and wave energy transmission requires cables. The NMSP wants telepresence to connect the sanctuaries for outreach, whch would involve cables, too. These will be buried initially, with more initial impact, but would obviate seabed use issues. Also, the location will be different, in a lower energy area. The existing pipes from Duke Energy will be conduits for the shoreward installation.

It was asked if the ATOC cable study yielded worthwhile information. It was noted that the marine mammal study diverted funds from completing the ATOC study. There was a paper published last year on elephant seal behavioral impacts from the cable.

Regarding NOAA re-permitting the cable, it is unlikely the cable will be useful on reuse, unless we are willing to bury and secure it properly. Look at the in-place and removal costs, and at the precedent-setting issues.

Helen Knowlton would be the likely consultant for the oil industry. We should find out the EA status from headquarters. An EA will require a 30 day minimum public comment period, but it can be longer. We should report on the status of the EA and comment period, and discuss it at the August meeting, revisiting it again in Monterey at the joint December council meeting.

Jim Kelley stated that we need more, and not fewer, cables. However, the ATOC is a baseline study on how not to install cables. Two issues are involved, installation and disposal.

This experiment yielded information that can be used to mitigates future impacts. What are the best practices?

It showed that burial may not be the solution. Burial "one meter deep" means up to one meter deep, not at one meter. Also, when the data stops coming in, all benefit is lost. The MBNMS Conservation Working Group decided removal must be carried out. Although the SOFAR (Sound Fixing And Ranging) project is a good instance of reapplication of technology from submarines to whale bioacoustics, this only works if the cable remains unbroken.

The meeting adjourned at 4:03 p.m.

For questions or comments, please contact Mary Jane Schramm, 415/ 561-6622 ext. 205 or via email at maryjane.schramm@noaa.gov