

*Jennifer Stock:* Good afternoon, everyone. My name is Jennifer Stock and I'm your host today for Ocean Currents. Ocean Currents is broadcast once a month every fourth Monday and on this show we dive into the big blue and bring the ocean to your community radio. We focus on what effects this blue planet, talking about discoveries, exploration, ocean policy, natural history, and ways for us land-based humans to get involved in protecting it.

Today we are talking about management of our local national marine sanctuaries offshore here of Point Reyes and what it means for the future of these areas. For more than 30 years the National Marine Sanctuary Program has engaged the public in helping to create new sanctuaries, develop resource protection strategies, address complex issues such as water quality, marine reserves, and vessel traffic, and more recently to review and update sanctuary management plans. Today I have two folks in the studio with me.

I have Maria Brown, the superintendent of the Gulf of the Farallones, with me and Dan Howard, the superintendent of Cordell Bank National Marine Sanctuary, and Maria and Dan have long been involved in our sanctuaries off the coast here leading science and education efforts and have been leading the joint management plan review for each of their sanctuary sites, respectively. So, thank you for joining me today, Maria and Dan.

*Maria Brown:* Thank you, Jenny.

*Dan Howard:* Good to be here, Jenny.

*Jennifer Stock:* So, first, before we talk a little bit about this management plan review process, maybe you could both just introduce both Gulf of the Farallones and Cordell Bank sanctuaries to kind of set the scene of what these places are all about. Maria, how about you start with Gulf of the Farallones?

*Maria Brown:* Great. Well, Gulf of the Farallones National Marine Sanctuary is a very special place. The sanctuary is located off the Marin County coast. We come into shore at Rocky Point in Marin County, go offshore out around the Farallon Islands and then come back into shore at the Bodega Head. So, the coastline from Rocky Point to Bodega Head is all protected as part of the sanctuary and the reason we were established 25 years ago was to protect seabirds and marine mammals. Many people probably don't know that the Gulf of the Farallones has the largest concentration of breeding

seagulls in the contiguous United States as well as home to 36 different marine mammal species.

So, we're in a very biologically rich place, actually, one of the most biologically rich places in the world. We're really fortunate it's our backyard.

*Jennifer Stock:* Excellent and just north of Gulf of the Farallones is Cordell Bank National Marine Sanctuary and Dan do you want to introduce Cordell Bank a little bit?

*Dan Howard:* Yeah. Cordell Bank National Marine Sanctuary was designated in 1989 and really, the designation was the result of grassroots efforts by the local communities of Marin and Sonoma County. The first was a group of folks that were opposed to the development of oil and gas exploration off our coast and the second group was a group called Cordell Expeditions that dove out there in the late 70's up through the mid-80's and so it was really the grassroots efforts of the folks opposed to oil and gas development and the folks that participated in the Cordell expeditions kind of came together, took their cause to Washington DC and culminated with the designation of the sanctuary in 1989.

Cordell Bank National Marine Sanctuary is entirely offshore. We're located just on the outside edge of the Gulf of the Farallones, six miles from shore and we go to about 30 miles offshore and we actually protect an area of about 526 square miles, which is about the same size as Marin County. The bank is actually the same geologic formation as the Farallon Islands except it's underwater. It's about four miles wide by about 9 miles long and the very top of the bank comes to within about 120 feet of the surface.

So, it's this dramatic bathymetry or topography of the bank located 20 miles from shore that make it this wonderfully productive area and supports an incredible diversity of local marine critters. as well as attracts all kinds of migratory animals that come to this area to feed such as whales and seabirds and sea turtles, et cetera.

*Jennifer Stock:* Excellent. We live next to one of the most amazing areas offshore here and right along the coast of Point Reyes. One thing that I think is amazing about Cordell and Gulf of the Farallones is the birds that breed on the Farallon Islands spend a lot of time feeding nearby in Gulf of the Farallones and up at Cordell Bank, which is one of the things we're starting to see a little bit more of in our

monitoring programs, some of the seabirds that are spending time feeding up there. That's pretty dependent ecosystems on each other.

So, in the last few years the sanctuaries have been a part of this joint management plan review process and I'd love to introduce what this process has been about because right now we are in the public comments period and I was wondering, can Maria or Dan or both of you together just describe what this process has been all about. When did we start? What was the first thing you did and how'd we get to where we are now?

*Dan Howard:*

Well, I'll start first and maybe hand it off to Maria halfway through or something like that. In 2001, Monterey Bay, Gulf of the Farallones, and Cordell Bank National Marine Sanctuaries jointly started the process to review their respective management plans. At that point the idea was, if we did this together, there would be some efficiency. We had a lot of similar issues.

A lot of our resources are similar and the thought was, if we all reviewed our management plans together, one, we would have some consistencies with programs and regulations and two, it would be more efficient just administratively. So, in 2001 the first step was to go out and invite public comment. We had 20 scoping meetings from Gualala and Sonoma County down to Cambria, just south of San Luis Obispo, and had, I think, about 12,000 comments that came in during the course of those 20 public scoping meetings.

So, what we had to do then was to try and figure out how to organize all of these different comments and the way we did that is we set up...Monterey Bay already had an advisory council. Gulf of the Farallones and Cordell Bank very early on in this process established advisory councils, citizen advisory councils and the folks on this council sat down with us and we went through kind of a prioritization process, looking at all of these comments and organizing them into 30 issues and then each of the sites selected those issues that were relevant to their respective sites and we formed working groups, which involved members of our advisory councils as well as citizens from the public, experts in their respective fields.

So, once we established these working groups, we had a series of meetings where we talked about how we would address these issues that came up in our management plan and maybe at this

point, I'll hand it over to Maria and let her walk us through to where we are right now.

*Maria Brown:* Something I'd like to add to what Dan was speaking about is that this has been a very public and transparent process and we invite the public to be a part of it. Not only what's happened in the past, but what's continuing to happen in terms of managing our marine environment. Our advisory councils are members of the public, as Dan had mentioned, and experts in the community and all of our advisory council meetings are open. We have slotted time for public comment.

So, we want to hear what the community has to say about our marine resources. What we...after we embarked on our working groups for the different issue areas, we developed action plans. So, the Gulf of the Farallones has 11 different action plans. How many action plans does Cordell Bank have?

*Dan Howard:* We have 5 different action plans.

*Maria Brown:* Which address issues that were brought up during the scoping comments. These action plans range from administrative to education outreach to issue based, such as water quality, vessel spills, wildlife disturbance and the working groups developed the action plan. They were compiled into a draft management plan. As part of this process, we also looked at our regulations and how might we better revise the regulations to come more up to speed.

It had been 25 years since the Gulf of the Farallones had reviewed our regulations, reviewed our management plan. Were there additional regulations we might need?

*Jennifer Stock:* So, have there been some proposed regulation changes for Gulf of the Farallones and Cordell Bank?

*Maria Brown:* Yes. All three sites have looked at revising our regulations, Monterey Bay, Gulf of the Farallones, and Cordell Bank, to make them consistent across all three sites, which is great for the person who's on the water. You don't have to worry about crossing any invisible boundaries. The regulations will be virtually identical between the three sites on general issues such as wildlife disturbance, cruise ship discharge...we're banning the discharge and depositing a material from cruise ships except for anchor water in Monterey Bay and what's the other...

*Dan Howard:*            Cooling water is the one...Gulf of the Farallones and Cordell Bank, there will be no discharge of any kind from a cruise liner, except for cooling water.

*Maria Brown:*            So, that's on of the proposed regulations. Another one is we've introduced a new regulation on introduced species. We're proposing to prohibit the introduction or release of any non-native species including their genetic parts into the sanctuary. Striped bass is not included in this regulation. So, if you catch a striped bass out there and you release it back into the sanctuary, you're fine. Nothing to worry about, but this is to prohibit animals and plants that aren't native to the area coming in, recolonizing, and taking over native species.

So, that's a new regulation that's being proposed for all three sites.

*Jennifer Stock:*            That's pretty important stuff, specifically talking about the cruise ships. We live outside the Bay Area where, how many cruise ships come in and out every week? You see them all the time when I'm driving over Mt. Tam. You can see cruise ships coming out and cruise ships coming in. So, it's great that there's going to be new regulations placed with them.

As far as any significant changes in regards to the implementation of these plans, how are you gearing up for that since it seems like there may be more staffing required and new positions for each of the sites?

*Maria Brown:*            Well...do you want to go, Dan?

*Dan Howard:*            Sure. Like I said in the introduction there, Cordell Bank, which is probably half the size of Gulf of the Farallones, we currently have 5 permanent members on our staff. There's no way that we could even propose to do this by ourselves and so part of these plans for all three sites is going to involve forming partnerships and for enforcement purposes we'll be working very closely with NOAA enforcement and also with the state, California Department of Fish and Game. We also work very closely with the Coast Guard and it really depends on what the regulation is. I think our philosophy is that we would like to educate folks, first of all, and make sure everybody's aware of, you know, really what needs to be done.

I think by and large, most people want to do the right thing and it's just the, you know, we just need to let them know how they can best serve the resources out there and so we'll be working very

closely with those partners and we'll be working with each other as well.

*Jennifer Stock:* Excellent. I want to let listeners know you're listening to Ocean Currents and I'm talking with Dan Howard from Cordell Bank National Marine Sanctuary and Maria Brown from Gulf of the Farallones National Marine Sanctuary and we're talking about the joint management plan review process as we're in the public comment period right now. So, one of the things that I'm curious about is this part summer there was an emergency response drill that was performed and that's a very heavily inter-agency effort, much like what Dan was describing, the way these things happen. Do you envision more emergency response efforts happening as far as drills go in the future and outside...or maybe even in different bodies of water? This one was out near the Farallones in between Half Moon Bay and the Farallones, but any further north or Tomales Bay, any other type of emergency response efforts?

*Maria Brown:* That's a very good question, Jenny. The emergency response in particular, vessel spills, is one of the action plans within the Gulf of the Farallones draft management plan. Oil spills happen to be one of our biggest threats that we have along the Marin County coast. We are right next to extremely busy shipping ports, Oakland and San Francisco. They're in the top 10 busiest shipping ports in the United States and we have a lot of shipping traffic going up and down the coast as well as going in and out of the ports and to the Pacific Rim countries.

As a result of the traffic and this amount of activity, we have experienced some type of oiling event almost every other year since I've been a part of the sanctuary and I've been working with the sanctuary for over 10 years. So, one of our concerns is how do we address this? How do we allow for efficient and effective transportation and minimize the risk to our wildlife and habitat, as well as our economy? Oil spills effect our economy as well.

So, the safe sanctuaries drill, safe sea sanctuaries drill that happened this summer was one of our efforts to be better prepared to respond to an emergency and it was a joint effort between the state as well as federal government and between all the sanctuaries in the region: Cordell Bank, Gulf of the Farallones, all participated in it and it provided an opportunity for the federal and state staffs to work together to understand where expertise lies and how we can support each other, as well as what assets, what types of vessels, aircraft, helicopters are available for us to use during an

emergency response. So, I feel that we're better prepared than we were to respond to emergencies. However, we can continually improve our ability to respond as well as prevent oil spills along our coast.

*Jennifer Stock:* And I also wanted to add there's already an incredible response unit out there, somewhat the eyes and the ears of the sanctuary and many of them actually live out here, the beach watch volunteers that are patrolling the beaches and that is a sanctuary program. Can you describe that a little bit to get some background?

*Maria Brown:* Yes. The beach watch program is an amazing program. It's won awards nationally as well as statewide. The beach watch program is a program in which we train volunteers. It's very intensive. It's 80 hours of classroom training on how to identify live and dead marine wildlife, birds and marine mammals. They are trained how to collect oil samples as evidence from the state of California and to document changes along a beach.

The beaches from Bodega Head down to Santa Cruz County are surveyed once every four weeks. We have approximately 100 volunteers and they basically make biological observations, record what's out there at every time of year, what is dead, what's alive, collect the oil samples, document changes to the beaches and this is..they have often been the first people to identify that there's oil offshore because birds are washing up with oil on their feathers, alive and dead, and able to collect samples that are then fingerprinted. All oil products have a fingerprint.

So, we can go back and determine where it came from and the beach watch volunteers are very instrumental in identifying the oil from the Jacob Luckenbach, which had sunk in 1952, however had continued to burp up oil and it was through the beach watch efforts of collecting oil samples that we were able to fingerprint it back to that vessel and then work in partnership with the U.S. Coast Guard to remove the oil off of the vessel and so we're seeing in the past two years, we're seeing less wildlife washing up on our beaches that have been oiled.

*Jennifer Stock:* That's wonderful and I've also seen with a lot of these volunteers, they really become strong supporters and really invested in helping protect the marine environment as a whole, outside their beaches even, getting involved. So, it's a wonderful program. I hope the management plan has that and continues to go along with one of the protection programs for Gulf of the Farallones and as far as

some new things that might be coming on the horizon or looking at the ecosystem as a whole, Dan, have there been any included actions in the Cordell Bank plan that would help protect some of the fragile environments that you're starting to learn about on Cordell Bank?

*Dan Howard:*

Yeah. The management plan process has been interesting. There's kind of, there's two parallel efforts going on and one has to do with developing programs such as education, research, enforcement and the second component is something we talked about earlier and that's the enforcement and the regulations. One of the things that came up very early on through our public scoping process and through our working groups was the need to protect krill and krill, for those that might not know, as this little teeny shrimp-like organism that bloom in phenomenal numbers off of our coast in the spring and summer and really are the keystone to the biological food web that exists off of our coast here and the idea was that this critter, this little guy is so important that we need to do something to protect it and so what came out of this process was a recommendation to prohibit any kind of commercial harvest of this krill and the fishing community, of course, was incredibly supportive and so we moved forward with that proposition.

It actually started down in the Monterey Bay Sanctuary and Gulf of the Farallones and Cordell Bank both endorsed that idea and we took that idea then to the Pacific Fisheries Management Council, which is the management agency for commercial fisheries on the west coast, and presented them with that recommendation and the council then thought that that sounded like something worth while and something that would be important for fisheries and the marine ecosystem on the west coast and they have since taken that recommendation and are in the process of developing regulations to prohibit krill fishing on the west coast. One of the, kind of, one of the examples of how this management plan review process has resulted in, you know, an action that's really going to protect our marine ecosystem for the long-term.

*Jennifer Stock:*

Can you just describe what the Pacific Fisheries Management Council is? I'm not so sure if everybody understands that the state manages out to three miles and the Federal Pacific Fisheries Management Council manages out to 200 miles in the U.S. Exclusive Economic Zone, but can you just describe who makes up the Council?

*Dan Howard:* Right. The council is an advisory body to the National Marine Fisheries Service, which is the federal agency that's charged with regulated commercial fisheries off our coast, and the council meets regularly, 5-6 times a year. Again, these are all public meetings if people are interested in attending and it's at these meetings where they make decisions on quotas and have information on stock assessments presented and really decide how they're going to manage the different fisheries on the west coast and they're made up of individuals who are on the council that represent certain interests. They're made up of state representatives. So, the state of California has a representative, the state of Oregon, the state of Washington, and interestingly enough, the state of Idaho because of salmon issues, and there's an executive director and a chairman who run the council and then it's through this council process that information is presented and debated and then recommendations are made to the National Marine Fisheries Service on which fishery's recommendations should be implemented and how many pounds of a certain species can be harvested and still maintain the health of that stock.

So, they just recently last week, I think, finished up their meeting in San Diego where they talked about everything from salmon in the Klamath River to ground fish fisheries off our coast.

*Jennifer Stock:* And the Pacific Fisheries Management Council, they recently created a new rule to protect the tops of Cordell Bank. Can you talk a little bit about that?

*Dan Howard:* Yeah, that was really exciting news for the sanctuary and again, one more thing that came out of our management plan review process. One of the actions that came out of the scoping meeting was that we needed to further protect the top of Cordell Bank, which is an absolutely spectacular area. Again, the very tip top of the Bank is about 120 feet and...from about 120 feet to 180 feet, space is the limiting factor. We have sponges on top of anemones on top of corals and crabs crawling on top of that. It's a spectacularly rich area and it provides a very important habitat for a number of rock fish species. So, realizing that, through the public scoping process a recommendation came that we needed to do more to protect this incredibly important habitat.

We took that...the sanctuaries took that recommendation to the Pacific Fisheries Management Council and worked through the council process and then culminated in June of 2006. Just this year the council designated the top of Cordell Bank as a conservation

area under their essential fish habitat designation and so they identified a number of areas along the west coast to include as part of their essential fish habitat designation and then underneath that umbrella is a more restrictive term, or a more restrictive designation, and that's the conservation areas and so, in Cordell Bank, which was one of several conservation areas that were identified...they worked...and the National Marine Fisheries Service actually developed some regulation and the regulation said that there will be no bottom contact fishing gear allowed on Cordell Bank any shallower and 50 fathoms or about 300 feet.

So, basically on the bank proper there, starting in June 2006, it's prohibited to use any of the bottom-contact gear that could potentially impact that really fragile system.

*Jennifer Stock:* And if anybody wants to see any video footage of what that fragile, the tops of Cordell Bank looks like, you should get online at the Cordell Bank website, cordellbank.NOAA.gov, and search under the video gallery and there's a couple videos on there. You can see how spectacular this place is.

*Dan Howard:* And I just might add also, you can go to the Point Reyes National Seashores Visitors Center and there's a little display on the sanctuaries with a little video that shows some of this. You will see what I mean when you look at that video. So, check it out.

*Jennifer Stock:* Very pink. You wouldn't believe these coral reefs out here in California. (Audio dropout) Dan Howard from Cordell Bank National Marine Sanctuary and Maria Brown from Gulf of the Farallones National Marine Sanctuary and we are discussing some of the upcoming issues that are on the table with the joint management plan review that is open for public comment right now and Maria, I was wanting to ask you if you see any changes in store for Tomales Bay since Gulf of the Farallones is one of the managers of the waters in there? Do you see anything coming up for that?

*Maria Brown:* Yes. Tomales Bay is one of our areas of emphasis. We want to ensure that Tomales Bay stays a pristine bay and is well-protected. One of our regulatory changes is actually very specific to the bay itself. We are proposing seagrass protection zones along the shores of the bay and basically what a seagrass protection zone would do is prohibit anchoring on seagrass beds and seagrass beds are a very important habitat for spawning fish. It's also an important habitat for water quality. It helps keep our water clean and we will be

hosting a lecture so the public can learn a lot more about this great habitat, seagrasses, in the beginning of December and if you get your pencils ready, we'll make an announcement at the end of the show on the place and time where you can join us to learn more about seagrass and ask any questions you'd like about the proposed regulation.

*Jennifer Stock:* That should be pretty interesting. Eelgrass is an amazing habitat. It's kind of like the kelp forests of Tomales Bay

*Maria Brown:* That's right.

*Jennifer Stock:* One of the major attractants about Gulf of the Farallones is the wildlife and it's such a hot spot for birds and marine mammals and most recently, white sharks for viewing. How do you plan to keep an eye on this increasing trend of ecotourism to ensure the best protection for the wildlife.

*Maria Brown:* Well, white sharks probably is what most people identify with the Farallones. We have one of the largest concentration of white sharks in the world and they congregate every fall around the Farallon Islands to feed on nice, plump elephant seals and sea lions and it has gotten worldwide attention, specifically in the last couple of years. Ecotourism has blossomed.

Boats will take passengers out to the Farallones during the fall to view topside from the vessels, white shark attacks as well as place cages in the water so people get a view from underwater what's happening, what the sharks look like. The sharks can be up to 20 feet long. They're very big animals. They're amazing predators and it's like the rest of our coastline. We want to ensure that we don't love it to death, that we respect, and we learn how to respectfully view wildlife.

So, one of our regulations is geared towards protecting white sharks. We are prohibiting attracting white sharks. That means that people cannot throw fish parts, any type of food particle, to attract a shark. In the past, people have used pig's parts and horse parts. This is not a normal part of their diet and they've also towed surfboards to attract white sharks as well and we don't want white sharks to associate surfboards with any type of food.

We want to help protect humans, as well. So, we're prohibiting the attraction of white sharks as well as the approaching of a white shark within the two nautical mile circumference of the Farallon

Islands, you cannot approach within 50 feet and the reason we're recommending this regulation is because at times it becomes almost a circus out at the Farallon Islands. Lots of people wanting to see a white shark feed, we've received reports of boats actually going over the top of a white shark while it's trying to eat, scaring white sharks away from their food, and they eat very infrequently. A shark may eat only once a month.

So, that time that they're eating, it's very important that we don't disturb and don't stress them out. So, we're proposing some regulations. It will not prohibit ecotourism. We will be looking at issuing permits for ecotourism as well as research. We just want it to be a managed activity not a free for all.

*Jennifer Stock:* Excellent. How do they actually try to view the sharks now? Do they just plop themselves in the water and hopefully see something? There's just not very good visibility out there.

*Maria Brown:* Well, the fall is the best visibility and what they do is people don the wetsuits, climb into a cage into the 57 degree water, some have up to three people in a cage. They're not using traditional scuba. They're using air that's attached to the tank so you don't have to be scuba certified and the outfitters that are out there right now are using carpets cut out in the shape of a seal filled with water bottles and the sharks have been exploring the carpet seals, checking them out, determining if they're real food or not.

*Jennifer Stock:* Interesting. Well, we'll see what public comments come back on that one since this is fairly new. Now, part of the management plan, there are a couple of cross-cutting plans. Can you describe what the cross-cutting plans are and how those are to address some of the ecosystem issues that are out there Monterey Bay, Gulf of the Farallones, and Cordell Bank.

*Dan Howard:* Yeah, I think the idea with developing the cross-cutting plans was to again, try to attain some economy of scale there, but also to have some consistency and so, I think we identified if an activity crosses two or more sanctuaries we were going to call that a cross-cutting activity, but there are several that are just natural activities. We all do it, say, research and monitoring. There's research and monitoring activities that we are all taking part in right now. So, the idea will be to look at those activities together, try and standardize our methods, and collect information in the same way so that we can not only understand what's going on in our own

little sites, but we have some ability to look at that data across the three sites and then education and outreach.

There's things like signage plans where we're looking to have a consistent look and a consistent message. As people travel up the coast, they may see some of these interpretive signs and, you know, start to recognize that these signs are, you know, interpretive information about the sanctuaries and start to get a feel for the sanctuary program.

*Jennifer Stock:* Excellent. As far as the joint management plan review goes, this has been a way to address this ecosystem here between the three sanctuaries, but there's been more and more growing in the media about the larger global issues about the ocean and many issues facing the ocean and I'm curious, how do you feel that national marine sanctuaries can address some of these global issues like climate change and water quality and such like that? How do you think sanctuaries can get involved with these larger issues?

*Maria Brown:* Well, I still love the old saying, and I believe it, that you think globally and act locally and national marine sanctuaries provide an opportunity for communities to act locally to protect our local waterways, our local ocean environment, and make them as pristine as possible so we can enjoy them still and that the wildlife continues to flourish. One way that we can help translate what we do locally to the much bigger global picture is through education and the national marine sanctuary program would like to become a leader in developing an ocean stewardship ethic within the country. To bring the ocean to every classroom in the United States so that you don't necessarily have to live by an ocean to be able to experience and appreciate it and understand that the ocean effects us on land. It effects every single human being.

It effects our weather, it provides food we eat, it's our enjoyment, it's where we go for vacation, the ocean is a very important part of humans' life. Want to add anything to that, Dan?

*Dan Howard:* Yeah, that's a really tough question, Jenny, and the reason it's tough is I have to look at my daily activities and, you know, what I do to have that, you know, what my footprint is and, you know, some of the things that I think about that I should be doing better and things that I can easily do and that's, you know, number of the trips in the car per day, you know? If I would just stop and think before I ran down and jumped in the car to go to the store, you know, I might be able to go fill up or go pick the kid up at the

softball game or, you know, run 2 or 3 errands while I was out and something else that I know is near and dear to Jenny's heart and that's plastics in the marine environment and, you know, it is a global issue.

It really is and the more information I learn, the more I understand this and so maybe come the holiday season here, you look at the packaging and maybe you can make a determination on what you purchase, everything else being equal, of course. But there's lots of little things that I think you can do and again, that's a tough one for me because I need to start practicing what I preach a little bit, I think.

*Jennifer Stock:*

Excellent. Well, we all have a chance to work a little bit harder at acting locally and taking a daily responsibility. It's tough to change a lot of our ways of living, but those are all great answers. So, as far as we keep mentioning this is a public process and right now that plan, the joint management plan has been released and is open to the public and I was wondering if you could tell us a little bit of how the public can learn more right now and get involved if they want to read the plan or read a part of the plan or just hear the big action plans instead of reading it all. How can they get this information right now and get involved?

*Maria Brown:*

Well, there's lots of different ways they can get involved. On our website, they can go to the website, download the action plans for any one of the three sites: Monterey, Gulf of the Farallones, or Cordell Bank, an individual action plan or all of them. They can also download the regulations, the proposed regulatory changes. We're having hearings the last week of November, the first week of December. So, people can come out to our public hearings and provide comment on the action plans.

There's also some community groups that have been hosting public workshops throughout the community. You can send comments to our offices. You can send them directly to me if you'd like, Maria Brown at the Gulf of the Farallones National Marine Sanctuary. Our address is Fort Mason, Building 201, San Francisco, 94123. Send us your comments and you have until January 5th to either email or comment at a public hearing or send written comments to us and you can also come to our advisory council meetings. The Gulf of the Farallones' next advisory council meeting is in Half Moon Bay in December and the public can come to that and provide comment as well.

*Jennifer Stock:* And Dan, you have a sanctuary advisory meeting coming up as well.

*Dan Howard:* Yes we do and that's going to be on December 6th. Unfortunately, this one, for the local folks here in Point Reyes is going to be up at the Bodega Marine Lab in Bodega, but we rotate our advisory council meetings between Bodega and between the Red Barn classroom in Point Reyes, which is just right next to our office there.

*Jennifer Stock:* And we announce those on the radio station as well for those of you who are listening and want to come. I wanted to give out the website where people can go to get these plans. You can link right off the Cordell Bank dot NOAA dot gov site to it, but you can also go directly to W-W-W sanctuaries dot NOAA dot G-O-V backslash joint plan and on that website are all the dates of the hearing coming up and the plans where people can download, and ways to submit comments and the two public hearings are scheduled for November 29th at 6:30pm at Bodega Marine Laboratory, which is 2099 West Side Road in Bodega Bay and then November 30th, right here in Point Reyes at the Dance Palace Community Center at 6:30pm, 503 B. Street, there will be another public hearing and this is where people come out, they can read their comment for probably two minutes and then sit down.

There isn't a lot of discussion. It's just people can voice their comments out loud. There's another one in San Francisco too on December 5th at 6:30pm at the Fort Mason Center at the Firehouse, which is at the northeast corner of Center. So, those are some ways to get involved right now.

*Dan Howard:* I just want to let folks know that there's going to be two documents there. There's the programmatic management plan for each site. So, Cordell Bank has one. Gulf of the Farallones has a programmatic plan and Monterey Bay and then there's a separate document that's the Draft Environmental Impact Statement. The DEIS and that's the document that evaluates all of the regulatory changes. So, what you're probably going to want to do is look at the programmatic plan, look at education plans, look at the research plan, enforcement plan and then also look at that DEIS to look at the regulatory portion of that and I believe we placed a copy of all of those in the local library here and as soon as I get out of here today, I will make sure they're there. So, that's for the folks who like flipping through pages rather than looking at something on their computer screen. I'll make sure those are there for folks to look at.

*Maria Brown:* And you can also stop by our office and pick up a hard copy if you'd like a hard copy of the plans. The Gulf of the Farallones, our office is located in the Presidio of San Francisco. Cordell Bank?

*Dan Howard:* Yeah, we actually have a limited number of hard copies. We'll give them out to the first, oh, whatever lucky callers to our office and we're right at the red barn at the Point Reyes National Seashores offices, big red barn, where our offices inside the barn. Come on by and they'll run out when they're all gone.

*Maria Brown:* And I'll make sure the Cordell Bank office has plenty of Gulf of the Farallones plans as well.

*Jennifer Stock:* Thank you. So, one final question that I like to ask all the guests on Ocean Currents and you've addressed this a little bit already, but what is the one thing you would like to tell our listeners about their role in protecting the ocean?

*Dan Howard:* Their role in protecting the ocean? I would, you know, we're incredibly fortunate. I think we do live right next door to one of the most productive ocean areas in the whole world. Certainly sanctuaries have been designated as special places in this very incredibly productive area, but what we need is for people to start believing and acting like this ocean is theirs, which it is. This is a common resource, a trust resource, it's all of our ocean and I would hope that people wouldn't think it's just our job to protect this incredible place. That everybody will join us as we review our management plan, help us to think about issues that we need to be addressing and really that everybody sees it as their responsibility to protect this, just this really incredible place.

*Maria Brown:* I think you hit it right on the nail, Dan, that with your help, we can build on our achievements at the sanctuary program to become true leaders in ocean protection and citizen stewardship. It's going to take all of us working together and everything we do, every day of our lives, we effect the ocean. The water we drink, the toilets we flush, the cars we drive, the products we purchase, and just, you know, take a minute and step back and just think about what you're doing and how you can make a small change and if all of us made a small change, it would add up to something big.

*Jennifer Stock:* Next show is a month from now, four weeks, it's December 18th and we'll be talking about Humboldt squid. They're also known as jumbo squid and they can grow up to six feet and they're coming

our way, folks. They've been coming north from their southern region area where they are normally up the coast, all the way known up to Alaska now. These are one of the larger squid species and moved into the area recently and researchers are starting to take a look at their diet and what are they doing to some of our local ecosystems here? So please tune in and don't forget about the sanctuary public hearings November 29th and November 30th in Bodega Bay and then Point Reyes? Do you have any last words?

*Dan Howard:* Come out, we'd love to see you in Point Reyes or Bodega Bay. Really, this is your opportunity to take a look at that plan and help us manage our oceans.

*Maria Brown:* Yep. Ditto what Dan said. We'd love to see you. Please come visit.

*Jennifer Stock:* Excellent. Thank you so much. You've been listening to Ocean Currents on KWMR at 90.5FM in Point Reyes Station and 89.3 in Bolinas.