

FLORIDA KEYS NATIONAL MARINE SANCTUARY ADVISORY COUNCIL

**Marathon Garden Club, Marathon
Tuesday, February 16, 2010**

MINUTES

Members Present

Jason Bennis
Chris Bergh
Jeff Cramer
Jack Curlett
Dolly Garlo
Richard Grathwohl
David Hawtof
Don Kincaid

Jerry Lorenz
Corey Malcom
Rob Mitchell
Martin Moe
George Neugent
Bruce Popham
Brad Simonds
Jim Trice

Alternates Present

Alex Brylske
Bruce Frerer
Peter Frezza

Susan Hammaker
Bob Smith
David Vaughan

**Call to Order/Pledge of Allegiance/Roll Call/ Approve Minutes from December 8, 2009 Meeting/
Adopt Agenda for this Meeting/Chairperson's Comments/Introductions**

- Chairman Bruce Popham called the meeting to order at 9:03 A.M.
- Jack Curlett then led the group in the Pledge of Allegiance.
- After review of the draft minutes of the December 8, 2009 meeting, County Mayor George Neugent moved that they be approved, and Chris Bergh seconded the motion. As there were no suggested changes, Chair Popham deemed the minutes approved.
- Chair Popham asked if there were any additions or changes to the agenda. Mr. Bergh said he would be the only speaker for the SAC Ecosystem Restoration Working Group Report. Susan Hammaker moved that the agenda be adopted with that change, and David Hawtof seconded the motion. Chair Popham then deemed the agenda approved.
- Chair Popham thanked Lilli Ferguson and the staff for getting the meeting together, and thanked the Sanctuary Friends Foundation of the Florida Keys (SFFFK) for the refreshments. He commented that he had recently reviewed the SFFFK membership list and noticed that a number of Sanctuary Advisory Council (SAC) members were not members of SFFFK. Dolly Garlo said that the SFFFK membership application was available on the organization's web site.
- Chair Popham referred to the SAC mission statement and how it was about everything the group was trying to do, and he said his challenge to the SAC was to continue to be action based and accomplishment oriented.

Acting Superintendent's Report – Sean Morton, Acting Superintendent, Florida Keys National Marine Sanctuary [FKNMS]

Mr. Morton mentioned the recent roll out of the President's budget, noting the 2011 National Oceanic and Atmospheric Administration (NOAA) budget totaled \$5.6 million, but Congress will hash it out and may or may not approve that. He said it is a bigger NOAA number than previously; much of it would go towards weather and satellite stuff.

- Mr. Morton said a new NOAA Climate Service had been announced a little while back, and would

reorganize different parts of NOAA into it. He encouraged people to visit climate.gov to see what NOAA was working on related to climate.

- He announced that David Kennedy, who had been with NOAA for quite some time, most recently running the coastal zone program, was now acting as the NOAA Ocean Service's Assistant Administrator.

- In reference to the recent cold snap, Mr. Morton said FKNMS had worked with its partners at The Nature Conservancy, the National Park Service, Mote and anyone they could get out on the water to survey the coral to get a sense of the impacts from the cold. Early signs were not good, and there was significant mortality and some serious bleaching, he said. At one site in a Sanctuary Preservation Area (SPA), he noted there was catastrophic mortality of a century-old colony of large mounding star coral, but close by, just outside the SPA, coral colony mortality was minimal. He said they would continue to learn more about impacts later; Mr. Bergh said he would also mention this during the SAC Ecosystem Restoration Working Group report.

- Mr. Morton introduced John Armor and Becky Holyoke from [Office of National Marine Sanctuaries (OMNS)] headquarters in Silver Spring. Mr. Armor is the branch chief of the [Conservation] Policy [and Planning] branch, and Ms. Holyoke is a new hire to that program, after having spent one year there as a Sea Grant fellow, Mr. Morton said. He encouraged people to introduce themselves to them. They were present to learn about the SAC what is going on here.

Agency Report Highlights:

Florida Department of Environmental Protection (FDEP) Report -- Kent Edwards, DEP

Mr. Edwards noted the DEP diving program had been working on making changes, and a commercial dive manual was drafted and approved by the DEP control board and the Secretary. He said the DEP Inspector General reviewed it and made some recommendations, and staff members are going through those now. There was a brief stand down of operations during a review, but he said they were back up and running. He also said there is some gray area between what qualifies as scientific diving versus commercial diving, but they have taken the position that if there were questions, people should follow the commercial diving standard, and work with the Occupational Safety and Health Administration and others agencies to put a finer point on commercial and scientific diving.

- He talked about the recent Coast Guard drill FKNMS participated in the week before, which he thought went well. The Navy, the City, and others were there and the agencies were all working together to help prepare for the future.

- Mr. Edwards said there was a fundraiser a few weeks ago to support the mooring buoy program. The buoys mark zoned areas and separate activities, and there is education around them, so the program encompasses everything the sanctuary does.

- Regarding the state budget, Mr. Edwards said the Legislature was in session, and it looked like it would not be a good year again, but more information will be available later.

Florida Fish and Wildlife Conservation Commission (FWC) Report .—Capt. Pat Langley, FWC

Capt. Langley announced that Major Alfredo Escanio was the new regional commander for this area (Monroe, Miami-Dade and Collier Counties), with Mike Edwards' retirement. He said that that Major Escanio was unfortunately unable to make this meeting due to attending another meeting in Tallahassee. He said that Major Escanio previously was an investigative captain in the same area.

- Capt. Langley reported that there was a commercial kingfish case in Key West at the end of January, of 460 kingfish over the limit. Some warnings were given to others over the limit as well.

- He said with the cold weather, FWC had collected marine turtles and pulled in dead manatees, and got lots of calls.

- Regarding groundings, Capt. Langley said there were 70 in the period from October to January; last year in that time period there were 93.

- Chair Popham mentioned hearing of judgment of \$5,000 on an Islamorada grounding and seagrass damage on the radio. Mr. Morton confirmed that as being part of the Office of Law Enforcement's (OLE's) work.

South Florida Water Management District (SFWMD) Report -- Thomas Genovese, SFWMD

Mr. Genovese said that the groundbreaking for Phase One of the C-111 Canal project took place on January 26 and that it follows on the heels of the Tamiami Trail bridge and other projects. He said it is an 18-month project. He also reported that Mike Collins' term was up on the District's governing board (he had two terms), and the Governor would replace him; he did not know the exact process, but said anyone who wanted more information could contact Ernie Burnett at the District. Two candidates from the Keys were being considered already, he said. Jim Trice asked who they were, and Mr. Collins replied, Jim Reynolds and Sandy Walters. Mr. Genovese said he was certain Mr. Collins would continue to be active in water issues.

FWC Report cont. – John Hunt, FWC

Mr. Hunt reported that there was a workshop in January on the Research Natural Area (RNA) in Dry Tortugas National Park. He said everyone at the workshop submitted their two page reports on time and a progress report had been drafted on the RNA. He said the report was being finalized and he would bring copies of it to the April meeting. *ACTION ITEM:* Mr. Hunt to bring copies of the Dry Tortugas RNA report to the April SAC meeting. Mr. Hunt said the Tortugas RNS would be on the Commission meeting agenda in April and that the meeting would be in Tallahassee. He noted the Memorandum of Agreement on the RNA was signed three years ago in February.

- Mr. Bergh said he recalled that at five years, a decision would be made regarding what to do with the RNA. Mr. Hunt confirmed that, and said the decision would be made by the FWC Commission. He reported that upcoming meeting of the Commission would be in Tallahassee in April.

- Chair Popham asked Mr. Hunt if his general feeling about it the RNA was generally positive. Mr. Hunt thought there were very interesting early results. Some of the research looked at connectivity of nearshore areas in and around the Park and Tortugas north, including fish movements (primarily mutton snapper), where they spawn, etc. He thought the areas being connected on both ends of their movements was making a difference in the spawning of mutton snapper, and mentioned that scientists observed thousands of them spawning in June and July 2009 at Riley's Hump. He added that it was reasonable to expect that the response from nature in a reserve like this one, where fishing pressure was not that high to start with, was likely to be smaller. He added that the trend looked good.

- Mr. Hunt said an interesting model was being developed, using modeled mutton snapper larvae at Riley's Hump, and that the model showed a lot of the modeled larvae would arrive in the Keys from there.

Mr. Curlett asked about the closure from the Christmas freeze of snook, bonefish, and tarpon, and wondered if FWC would use scientific information from the fish kill when the time comes to reopen it at the September meeting. Mr. Hunt replied that no one had asked him about it and that the snook researchers were centered in West Palm Beach; he thought perhaps the Wildlife Foundation also might get involved. Mr. Curlett said the Foundation had made some grants for redfish and snook hatcheries. Mr. Hunt said there were competitive pressures from different stakeholder groups on these fish. Mr. Curlett said he thought it made sense to keep bonefish and tarpon classified.

- Mr. Bergh commented that there was an emergency executive order from the Commission due to the cold snap, which involved not taking the normally allowed number of these three types of fish, and a short term suspension of the bag limit for dead fish. Mr. Hunt added that the dead fish bag limit was extended a month.

- Mr. Hunt said he and others at FWC had been talking about how to understand the relative abundance of two bonefish species.

- Mr. Hunt reported that he and Brian Keller were the leads for a conference planned for October 19-21, 2010 on the Florida Keys marine ecosystem, linking science to management. It will include management approaches of FKNMS and the Park and some ecology. He said it would be held at Hawk's Key and a website on it would be up and running within the week. He mentioned the people involved in organizing it and that there would be less time than needed to cover everything, and that sessions were still being finalized. There will be a registration fee for the conference, he said, and he hoped interested stakeholders would attend.
- Mr. Bergh mentioned that October 19 was the date of a SAC meeting, and that it would be a challenge for some people to attend.
- Mr. Hunt appreciated that information, and said he would keep the SAC updated on the conference and agenda. ***ACTION ITEM:*** Mr. Hunt to update the SAC with information about the conference agenda and other details, regarding the October 2010 conference on linking Florida Keys marine ecosystem science to management approaches. [He contacted Ms. Ferguson after the SAC meeting to let her know that the dates of the meeting were changed to October 20-22, 2010, and to let the SAC know, and this was done.]
- In conclusion, Mr. Hunt said that the Fish and Wildlife Research Institute (FWRI) was informed it would be awarded a NOAA Protected Species Program Section 6 grant on *Acropora palmata* which will start this summer. He described the components of it, which will include mapping in the Florida Keys. He said he would bring a fact sheet on this to the SAC. ***ACTION ITEM:*** Mr. Hunt to bring a fact sheet to the SAC on a NOAA Protection Species Program Section 6 grant to FWRI.

U.S. Fish and Wildlife Service (USFWS) Report – Anne Morkill, USFWS

- Ms. Morkill said they had hired two new law enforcement officers. One of them, Dave Simons, previously worked for the City of Key West and the County. She mentioned that he would be going in May to Afghanistan for 13 months as he is a member of Special Operations.
- On the topic of sea level rise, she said a few months ago she, Dr. Keller, Mr. Bergh and others went to a workshop on it, and that she and Mr. Bergh had discussed doing a similar science symposium in the Keys in the future.
 - Ms. Morkill said the final 15-year conservation plan for the Refuges had been completed and sent out. She noted a number of people on the SAC had gotten a copy, but people who wanted one could sign up on a sheet with her for a hard copy or CD.
 - She said now they will look at other issues, one of which is the backcountry management plan, which was developed in 1992. She said she wanted to piggyback on the marine zoning of the sanctuary and might want to co-host some public meetings. She said she new some of the islands in nearshore waters had been obliterated by hurricanes and others had populations of birds they wanted to protect.
 - Ms. Morkill asked if Mr. Morton had anything to say about the Coast Guard drill, which she did not attend. Mr. Morton referred to Mr. Edwards' report on it earlier in the meeting, and elaborated that it was a marine security drill and pollution response exercise. The scenario was a major spill at Eastern Dry Rocks that came ashore at Key West and a number of places. He thought it went well in terms of getting everyone from the relevant agencies into the room and in learning of deficiencies and resources that would need to be on hand in the case of a real spill. He said a real highlight was the environmental response and getting rapid outputs out to those who would be deploying boom in the field, etc. Mr. Edwards said he had worked with USFWS personnel, and he said there was an Area Contingency Plan, which, while it could use some updates, was good. Mr. Morton said this was most important, and was required under the Oil Pollution Act of 1990. The plan is updated every five years and a drill is held every five years to determine how to make the plan better, he said.
 - An armadillo was found on Big Pine Key, Ms. Morkill said. She asked people to let her know if any more armadillos were seen. ***ACTION ITEM:*** If anyone sights armadillos in the Keys, please let Ms. Morkill know.

U.S. Environmental Protection Agency (USEPA) Report -- Patricia Bradley, USEPA

Ms. Bradley passed on making a report.

NOAA Fisheries OLE Report -- Kenny Blackburn and John O'Malley, NOAA Fisheries OLE

Special Agent Blackburn said he would provide the General Counsel's report in addition to the OLE report, as Karen Raine could not be present, and would mention settlement agreements from the period since July 2009.

- He quickly listed the settlements, the location of the cases, and their amounts (spearfishing, grounding, etc.).

- He also reported that Ms. Raine was in town last week, for an administrative hearing regarding the *Sea King*. This was a head boat unpermitted in federal waters, based on a complaint received by FWC. FWC inspected the vessel when it came in, and it since went to OLE as a criminal case. The case is not over yet.

- Special Agent Blackburn also said OLE was investigating complaints from the past month of illegal sale and harvest of species such as swordfish, grouper, redfish and one other species.

Special Agent John O'Malley provided an update on the latest round of criminal sentencing of Nick DeMaura and John Buckheim – they each received sentences of a year and a day, and a boat and truck were forfeited. In addition, he said that they had 100 days to remove the rest of the casitas from the seafloor, at their own cost, before they had to report to jail. The only cost to FKNMS was to have a person on a boat observing them to ensure that the casitas were removed, he reported.

Someone in the audience mentioned the shallow water grouper closure in the south Atlantic and said there were a lot of questions about the Bahamas and if people could catch their limit and bring them back to the U.S. He said when people come from the Bahamas' Exclusive Economic Zone (EEZ) in the US's EEZ with these fish, then there is a possession violation. He said he got inquiries on that, as well as on conch, and spiny lobster, and added that people have to follow Bahamian rules when in the Bahamas. The Lacey Act could possibly be triggered as well, he said.

Public Comment

Bill Weir addressed the SAC, saying he saw a mooring buoy at Bahia Honda that NOAA had put in for its buoy tenders. He thought it would be good to have more [for other people to use], and he asked the park manager about it, who said that was NOAA's jurisdiction; he therefore requested if NOAA could put some mooring buoys there.

- Mr. Edwards said he had a conversation with Mr. Weir about it, and said that he would take the matter to the Bahia Honda State Park staff, as he thinks the area is in their jurisdiction, and that the Park would have the ability get permits to put mooring buoys in. He said FKNMS was not looking to expand [its buoy system] due to the budget right now, but could provide expertise to the Park staff.

- County Mayor Neugent mentioned a pilot program proposed by the State, in which the City of Marathon and the County were participating. He wondered if this could be a part of that. He suggested Mr. Edwards should communicate with Rich Jones about it, so they could work together. Mr. Edwards felt this could be a part of that, and said he had been to a meeting in October where there was a test case. County Mayor Neugent asked if it was best to go through a permitting process for expanding mooring fields, or if NOAA could do it more quickly than the County or State.

- Mr. Edwards said there were Coast Guard and other regulations, and the state's pilot program was going to address this. He said the state owned the bottom, but there was a regulatory aspect of dropping anchor on the bottom and digging up resources, which are hard cases to make. He noted that Miami-Dade and other areas had similar problems. He said DEP was looking at six municipalities or counties around the state, to dev a mooring ordinance, which could result in mooring fields and keeping people from dropping anchors on sensitive resources. Regarding the moorings Mr. Weir suggested, Mr. Edwards said if the area were inside the Park's jurisdiction, it could fall outside of the larger County's ordinance.

- Neugent said he thought Bahia Honda should be included in these discussions.

- Mr. Edwards said the maps would need to be consulted regarding whether it was the Park's or Sanctuary's jurisdiction. He said he would call and talk to Park staff. He also said another point to consider would be if any new proposed mooring were consistent with the Park's management plan.
- Chair Popham said there was a funding issue here, and wondered if perhaps the yacht club could raise some funding to donate some moorings help with this.
- John Halas said he thought this was a mooring field application, and that John Pennekamp State Park was already doing this. He did not see it as a NOAA situation, and added that there were more and more of these being put in around state.

Bill Kelly said he had come to introduce himself to the SAC, and said he was the acting director of the Florida Keys Commercial Fishermen's Association (FKCFA). He said he was getting ready for "United We Fish", a march on the nation's capitol of united anglers the following week. He said the reauthorization of the Magnuson-Stevens Act was wreaking havoc across the board. He said he hoped they would be meeting with some members of Congress, and said he hoped some House resolutions would be passed to bring more stability, based on sound science and flexibility in management programs. Mr. Kelly asked people to contact him at FKCFA if people had issues with which he could help.

Chair Popham mentioned the resignation of the previous director of FKCFA, and asked Mr. Kelly if he was acting in his position. Chair Popham stated that, generally, the FKCFA director applied to be the alternate for the SAC commercial fishing seat [currently] held by Jeff [Cramer]. Mr. Kelly said that he was contacted by FKCFA to come on board, due to FKCFA's recent instability, for the United We Fish march and an upcoming South Atlantic Fishery Management Council meeting. He said he agreed to come on board as an acting director and that at some point it might become permanent. Chair Popham asked if that position had been advertised. Ms. Ferguson said that it had, but the application period had closed, and that it would be advertised again this summer, with the intention of having the term start in October.

SAC Education and Outreach Working Group Report – Martin Moe, SAC

Mr. Moe reported that the Working Group had met on January 26. He noted that the education/outreach organization presentation was not scheduled for this SAC meeting, in order to provide maximum time for the presentations on oil drilling offshore of Florida.

The Working Group continued discussion on the involvement of youth, ages 14-17, with the SAC. He said involving youth could involve many people, organizations, issues, permissions and regulations, and [as per SAC guidance at the December meeting], the group determined informal involvement, interacting with high schools, was the best initial approach. The Working Group recommended to the SAC that a letter be drafted to high school teachers in marine science, biology and related subjects, inviting their assistance and thoughts. The group hoped that through informal interaction with the SAC, individually or in groups, students would become interested in the work of the SAC. Mr. Moe said he drafted a letter and the Working Group had begun reviewing it.

Regarding the idea of creating opening slides for SAC members' own PowerPoint presentations at various community events, Mr. Moe drafted a set of slides and Working Group members provided suggestions and content for a second draft of them, to be distributed to the group a couple of weeks before its next meeting. Mr. Moe hoped to be able to have the slides available for review by the SAC after the Working Group's April 5 meeting.

Mr. Moe reported that the state chapter of the National Marine Educators Association was holding a meeting in Key Largo May 14-16. He said the focus of the meeting would be climate change, ocean acidification and coral reefs, and Billy Causey would be one of the keynote speakers. He also said Nancy

Diersing had submitted suggestions for speakers which included some SAC members, and he hoped anyone invited to speak would be able to do so. He also encouraged SAC members to attend the meeting. Alex Brylske and Mary Tagliareni both expressed that they hoped the SAC could take advantage of the conference. Mrs. Tagliareni said she would forward notice of the meeting to the SAC after she received it. **ACTION ITEM:** Mrs. Tagliareni to provide the SAC with a notice about the May 2010 National Marine Educators Association meeting.

SAC Ecosystem Restoration Working Group Report – Mr. Bergh, SAC

Mr. Bergh said that Jon Fajans, Chair of the Working Group, could not make the last Working Group meeting or this SAC meeting, so he was providing the report on Mr. Fajans' behalf. Mr. Bergh reported that the Working Group met two times since the last SAC meeting, and that both meetings focused on the oil drilling session scheduled for the afternoon portion of this SAC meeting. During the Working Group's second meeting, he said they also worked on a draft SAC resolution on marine sanitation device discharge and a draft SAC resolution on oil drilling offshore of Florida.

Mr. Bergh also said the Working Group talked about other topics, including Everglades restoration, the C-111 canal, and the Dry Tortugas RNA. They also reviewed how a consultant from PBS&J was willing to give a talk about the monitoring results from removal of the Lake Surprise causeway, whenever it fits into the SAC schedule.

Mr. Bergh commented that a few mentions had already been made about the recent cold event, and that he wanted to talk about the impact of cold on corals. He said it looked like, for the inshore reefs of the Keys and the mid-channel reefs in Hawk's Channel, the cold resulted in the immediate mortality of all species, but that offshore there was not as much impact to spur and groove formations, and corals in the Dry Tortugas and northern reefs. He reviewed that The Nature Conservancy coordinates the annual summer coral bleaching monitoring, working with many agencies. He talked about the scientific design used in monitoring to determine the conditions of corals, and said it was adapted for use by the same agencies during the cold event. This will result in a relatively detailed assessment, that would go beyond anecdotal reports, he said, adding that they may be able to say what caused a big drop in coral cover by next summer, including the locations and species impacted. He said this information may help managers better prepare for similar events in the future. He noted that it would be good to have a series of short presentations in April or this summer on the monitoring results.

- Dr. Brylske asked about the outreach mechanism to be used to get out this information. The results will go to FKNMS (Mr. Morton and Karrie Carnes) and all the involved partners for dissemination, Mr. Bergh replied. Dr. Brylske offered to assist in getting the information out.

- Richard Grathwohl asked the impact on *Diadema* during the cold snap; Mr. Moe replied that he did not know. He did say that at around fifty degrees, *Diadema* do not make it, so he expected those in the shallow areas were hit.

- Jason Bennis thanked Mr. Bergh for his leadership in stepping in [as temporary Working Group Chair], and agreed it was a good idea to talk further about the cold snap.

Joe Boyer said another thing that was mentioned during one of the Working Group meetings was the USEPA criteria for coastal waters. He said a rule was promulgated for inland waters, and that the USEPA would come out with criteria in January for coastal waters. He announced he would be doing a presentation at an upcoming USEPA meeting on this, and one of the issues he and others were concerned with is how the numeric standards for the waters of the Keys would be determined. He encouraged anyone with input, including alternate models to suggest beyond what the USEPA would present, to let him know.

- Mr. Bergh made the point that the creation of the numerical standards was not just an academic exercise; Dr. Boyer agreed.

- Mr. Edwards said an example in a regulatory setting would be using the standards for determining if the water quality was impaired and for the steps to take to improve water quality.
- Mr. Moe said that the function of herbivory needed to be considered, as herbivores remove the algae from corals. He said if they don't remove it, the coral may be lost and not return.
- Mr. Bergh agreed that was a great point.

Mr. Bennis provided a brief update on the Florida Power and Light Turkey Point expansion. He said while the company said the plans were on hold for financial considerations, if the project was still moving forward towards expansion on the state (DEP) and Nuclear Regulatory Commission levels, as far as he knew.

- Mr. Bergh said that was more than the Working Group knew at its last meeting, and thanked Mr. Bennis for the update.
- Dr. Boyer added that Florida Power and Light had come out with a Request for Proposals for expanded groundwater and surface water monitoring in the communities in that area.
- Mr. Grathwohl commented that he had heard during the morning news that the President had OK'd three to four more new nuclear power plants.

Regarding marine spatial planning, Mr. Bergh said the Obama administration had said last December that all waters of the U.S. should receive some marine spatial planning. He said he knew FKNMS managers would be looking at the sanctuary's marine zoning, stemming from the *Management Plan* review, and he said it would be useful to know more about the national level of marine spatial planning and if that would have any impact on local efforts, or if it would be the other way around, where we could offer something to the process. He asked if Mr. Morton or Mr. Armor could characterize the status of marine spatial planning.

- Mr. Morton said it sounded like a look would be taken at laying down some decisions, perhaps regulatory, about what will happen in the water. He said there were a lot of agencies that promoted or regulated certain activities. One example he provided was the Department of the Interior, which has a mandate to look at oil and gas expansion, and has leased and unleased areas. He also said the Army Corps of Engineers had authority over disturbance of the seafloor, and the NOAA Fisheries Service had authority over fisheries, habitat, etc. He said the functions may not happen in concert with each other, and that there is no one place someone may go to find out about resources in a given area and what may or may not happen there. He said a draft interagency task force report on this went to the President, but there has been no action yet. He added that a National Marine Sanctuary, with its *Management Plan* and education and outreach, is a microcosm example of this, and includes what can and cannot be done within the sanctuary area.
- Mr. Bergh said there was a public process to get this sanctuary established, and that his understanding was that this [national] effort would include a vigorous and extensive public process. Mr. Morton affirmed there would be a large scoping process.

Report on Recent Water Quality Protection Program Meeting – Chair Popham, SAC and Mr. Morton, FKNMS

Chair Popham reported that he and Mr. Morton attended the Water Quality Protection Program meeting January 20. The morning session was devoted to the issue of sewerage in the Keys, and he reported that 53% of the county is complete.

- County Mayor Neugent added some more details, and said about \$30 million had been provided by the federal government and about the same from the state. He referred to funds being authorized but not appropriated, and mentioned that the need to get the projects finished was why the additional sales tax had been proposed. He was also optimistic about some legislation being passed. He said the next big project, at \$230 million, the county was looking at was the Cudjoe region, from Big Pine to the Saddle Bunch Keys.

- Ms. Hammaker said, as part of the effort by the Army Corps of Engineers, \$24 million in stimulus funds were awarded last year. She said there were additional funding request deadlines (working with politicians) in February and April. The key is for the four local partners to work together, and she said the question will be asked if the money has been spent.
- Mr. Moe asked about the status of the [proposed] toll road. County Mayor Neugent it was revived; there was a lot of opposition, and complexities about how to put it in place, he said. He also said Key Largo would be impacted more than the rest of the Keys. He felt there was no support for it at this time from the county Commission, as other taxes had been proposed.
- County Mayor Neugent agreed about the Army Corps of Engineer stimulus funds through the county, and he also described that the Key Largo Wastewater District had employed lobbyists and gotten money. Because of that, he said they were not able to get some other dollars, but efforts were being made to get money in DC.

Chair Popham brought the focus back to the sewer portion of the Water Quality Protection Program meeting, and reported that Key Largo was done, and Marathon was 2/3 done. This did not include Islamorada, he noted. The afternoon session was opened up to more discussion, he said. He commented that he and Mr. Bergh previously asked that the Steering Committee get back to doing things, and there was good discussion on this at the meeting. Participants wanted to continue with the current water quality monitoring programs, and he pointed at that Dr. Boyer's program had 15 years of data. The USEPA got this message, he said, but is looking at how to do more with less. There will no longer be special studies, but there will be special projects, he said. He said a lot of things had been done on the list of to do items, but there was more that needed to be done, and there was discussion of having a report card. He concluded by saying the next meeting would be in July, and that the USEPA might come back with some funding.

- Mr. Morton said there was a question at that meeting about whether or not the data was being used, and it was discussed that it was important for the USEPA to show that the data was being used in order for the agency to be able to take actions. He had not realized that; he said some of it is being used. For example, he said some was used in the proposed regulations for vessel discharge.
- Chair Popham noted that a better job needed to be done describing what was going on, about how all the agencies were using the data everywhere, so that message could go up the chain. He said the Chesapeake Bay was getting more money than this region (beyond just funds for water quality), but was doing a better job of selling why they needed it.
- Mr. Bergh felt the Water Quality Protection Program was the best entity to tackle climate change issues, including ocean acidification, and for it to figure out the problem and communicate about what could be done. He asked if that had been discussed.
- Chair Popham said that it was, and the challenge to the USEPA was where to bring in projects to improve water quality now.
- Mr. Bergh suggested the SAC Ecosystem Restoration Working Group or the SAC might develop a resolution on the Water Quality Protection Program to draw attention to its importance. Chair Popham felt that it was a good idea. **ACTION ITEM:** Develop a resolution for SAC consideration, drawing attention to the importance of the Water Quality Protection Program.

It was also reported that during the Water Quality Protection Program meeting, there was discussion about the fact that the Technical Advisory Committee (TAC – which advises the Water Quality Protection Program) had been fairly dormant, and the roles of the program's management committee vs. the TAC were differentiated. Mr. Morton said that the TAC was necessary for answering the technical science questions that managers could not answer.

- Mr. Moe asked if anything could be done to move the TAC along or if further interaction could be developed between the TAC and the SAC.

- Mrs. Bradley said Bill Kruczynski had been asked to working on getting the TAC reinvigorated again, including contacting people formerly involved to see if they were still interested in participating. She also referred to the roles of the USEPA's Office of Wetlands, Oceans and Watersheds.
- Someone pointed out that the TAC was part of the sanctuary rather than the USEPA.
- In further discussion, it was stated that there were multiple people on the SAC involved in this and the SAC already received regular updates on this program, so nothing more formal needed to be done at this time to foster more TAC-SAC interaction.
- Mr. Bergh asked if Mr. Kruczynski's position would be advertised for replacement or if it would be lost.
- Dr. Boyer said the position had already been filled, and was not being refilled here.
- Chair Popham asked about Water Quality Awareness Month. Ms. Carnes reported that it began February 1st.

Management Plan Implementation – Proposed Marine Sanitation Device Discharge (MSD) Rule – Mr. Morton, FKNMS

Mr. Morton said he had talked about the proposed NOAA MSD discharge rule at the previous SAC meeting, to remove the exemption that allowed for wastewater discharge from MSDs into the federal waters of the sanctuary, and would require locking MSDs while in FKNMS waters. He noted that the draft regulation went out for public comment in November, and he said this was a key function of the SAC, to weigh in when proposed NOAA rules come out for comment. Mr. Morton said that FKNMS held three public hearings on this in January, in Marathon, Key West and Islamorada. The turnout was absolutely minimal, but a few written comments were received at these meetings, he reported. Mr. Morton also said he had mentioned this on the Bill Becker show every single week.

Chair Popham asked if any comments had come in online. Mr. Morton said was aware of three comments that had come in on line; these were in support of the proposal, but questions about how to enforce the regulation, he said. As of today's meeting, Mr. Armor said five comments had come in online. Mr. Morton asked if Ms. Holyoke or Mr. Armor had anything else to add. Mr. Armor said the comments received online were generally supportive.

Mr. Morton said there had been some discussions with the boating community about the availability of pumpout stations or fixing pumpout stations that were not currently working, and that had already generated discussions and internal work with the county to see what could be done to make it easier for people to not have to discharge, if facilities were available and operating. He said funding is needed to get them in place, and that operation and maintenance funding was also needed.

Brad Simonds said he felt as soon as his constituency woke up, the comments would be negative. He felt people would want to know the specifics of retrofitting, when talking about a locking device for an MSD. He asked what "locked" was and what a vessel would need to do to be in compliance. He wondered what constituting locking for a boat like his, with an electric marine head with a y valve to pump overboard with a macerator or into a holding tank.

- Chair Popham said to keep in mind that 65% of the sanctuary was already in a no- discharge zone (state waters), and this rule would add the federal waters. He asked Capt. Langley to address what a lock would be in state waters.
- Capt. Langley said a "lock" was a lock, a tie wrap or something that has to be broken.
- Mr. Bergh asked Mr. Simonds if the concern was not about continuing to dump, but was about enforceability.
- Mr. Simonds said yes, but was also concerned if there was any cost to retrofit, and that the issue of "lock" came into play.
- Chair Popham felt whatever people were doing in state waters to lock MSDs would apply in federal waters.

- Don Kincaid said there could be a padlock on the y-valve for vessels with holding tanks. For vessels without holding tank, they could have a chain when in waters where they could not discharge. He added that said that some vessels waited to dump until outside the reefs or outside the Tortugas.
- Dr. Hawtof said that he had a boat in the Great Lakes, and there, a cable and a lock were used to secure MSDs.
- Mr. Kincaid agreed that a cable tie was easy to put in, and added that a brass lock was easier to enforce.

Mr. Trice and others wondered about the area to be covered by the rule. Mr. Trice commented 8-9 years ago there was a no discharge implementation committee, in which both Chair Popham and Gus Rios were involved. He said one result was the committee recommended the county double vessel registration taxes, which it did. The original purpose of that fund was to fund discharge facilities in the islands, he said. Mr. Trice also said that everyone owns a sport boat and it was not easy to find a discharge station; there were not enough of them, he said. He did not feel that lockdown of an MSD or retrofitting would be hard to do.

- In response to Mr. Trice's and others' questions about what the added area would be if the NOAA rule were finalized, Mrs. Tagliareni provided a graphic, and Mr. Morton explained it to the SAC. The state waters of FKNMS, shaded in the first graphic, are already covered by the no discharge [USEPA] regulation, he said. As shown in the second graphic, all sanctuary waters (state and federal) would be covered by the proposed NOAA regulation, he explained. Mr. Morton also said there are also a few small special areas management currently in federal waters of the sanctuary and the waters of the National Parks do not allow discharge of MSDs.

- After seeing the graphics, Mr. Trice said the difference was pretty trivial, and he did not think that the regulation would create an undue burden, even without new pumpout stations.

- Mr. Edwards commented that it was important to ensure that the funding sources were there for pumpouts, and to ensure that the pumpouts were available.

- Chair Popham said 8% funding was still available today for pumpout stations, but that it often had to be trucked someplace else currently. He referred to the fact that, as the sewerage process moved forward, and more systems were available, it would make it a lot easier as there would be a place for the waste to go.

- Mr. Kincaid said a lot of available pumpouts currently do not get used, even though people are encouraged to use them.

Mr. Bergh referred to the draft resolution on the proposed MSD rule, which had been provided to the SAC in advance of the meeting. Mr. Bergh moved that it be adopted, and the motion was seconded by Mr. Trice. Brief discussion ensued.

- A suggestion was made to change "locked" to "secured", and this friendly amendment was accepted.

- Mr. Bergh asked if the SAC wanted a further amendment, for the sanctuary to continue to support enhanced pumpout capacity, with pumpout stations and boats. Mr. Trice suggested that language be added to continue to education and communicate about the availability of funds and grants for pumpouts. Both of these friendly amendments were accepted.

The motion passed upon roll call vote, with one dissension.

The wording of the resolution follows.

FLORIDA KEYS NATIONAL MARINE SANCTUARY ADVISORY COUNCIL

**RESOLUTION ON THE PROPOSED NOAA RULE REGARDING DISCHARGE FROM
MARINE SANITATION DEVICES INTO THE WATERS OF THE
FLORIDA KEYS NATIONAL MARINE SANCTUARY**

February 16, 2010

Whereas, the National Oceanic and Atmospheric Administration (NOAA) is considering a proposed rule prohibiting the discharge of effluent (sewage) from vessels' marine sanitation devices into Florida Keys National Marine Sanctuary waters and to require marine sanitation devices be secured to prevent discharges within sanctuary boundaries, and

Whereas, vessel sewage discharge has been prohibited in state waters of the Sanctuary since their designation as a No Discharge Zone by the U.S. Environmental Protection Agency in 2002, and

Whereas, although 65 percent of the Sanctuary is within state waters, the remaining federal waters, with the exception of specially-protected zones, currently permit vessel sewage discharge, and

Whereas, current sanitation treatment devices do not kill all viruses found in wastewater, nor do they remove nutrients such as phosphorous and nitrogen, a contributor to degraded water quality and toxic algal blooms, and

Whereas, excessive amounts of nutrients harm coral reef ecosystems by stimulating the growth of fast-growing aquatic plants and algae, which in turn smother and kill live coral.

Now, therefore, the Sanctuary Advisory Council of the Florida Keys National Marine Sanctuary resolves as follows:

We recommend that NOAA expeditiously adopt and actively enforce the proposed rule prohibiting the discharge of effluent from vessels' marine sanitation devices into any and all waters of the Florida Keys National Marine Sanctuary and requiring that marine sanitation devices be secured to prevent discharges within Sanctuary boundaries. We further recommend that the Florida Keys National Marine Sanctuary continue to support the installation of land and boat-based pumpout facilities and continue to educate the public about the availability of pump-outs and the importance of pumping out.

Passed on this date: February 16, 2010.

The Council is an advisory body to the sanctuary superintendent. The opinions and findings of this publication do not necessarily reflect the position of the Florida Keys National Marine Sanctuary, the National Oceanic and Atmospheric Administration, the Florida Department of Environmental Protection, or the Florida Fish and Wildlife Conservation Commission.

ACTION ITEM: Acting Superintendent Morton to consider/follow up on the recommendation of the SAC regarding the proposed NOAA rule on marine sanitation device discharge in the FKNMS.

Mr. Morton reminded the SAC that the day following the SAC meeting was the close of the public comment period, if anyone wanted to provide a comment, and that the public comment period had been

open since November. The best way for folks to comment would be to go online to www.regulations.gov and enter "Florida Keys" and it should come up at the top for proposed regulations, he said. People could also send a comment to him by the deadline, but he recommended going the online route. Later, the comments will be posted publicly, then NOAA would go through a process to respond to the comments, he said. Then, if the agency decided to go that route, it would propose a final rule, he said.

- Mrs. Tagliareni said people could view the proposed rule and draft Environmental Assessment at floridakeys.noaa.gov.

Discussion of SAC Officer Election in April 2010, Amendment to SAC Charter, and Nomination of Candidates for Chair and Vice-Chair for Ballot—Mr. Morton, FKNMS

Mr. Morton reviewed that there would be a SAC officer election at the April SAC meeting, and that in December, the SAC had voted to request to remove the SAC officer term limit from the SAC Charter. He said he forwarded this request up the chain. After significant discussion, the request was denied, he said. It was decided not to remove the officer term limit from the charter, Mr. Morton said, because of a broader national policy; Dan Basta wants to encourage developing leadership within the councils via turnover and leadership development. But because of where the FKNMS currently is, with the 20th anniversary of sanctuary and starting some regulatory initiatives, Mr. Morton said an exemption was negotiated with Mr. Basta from that policy for two more years--if Mr. Popham and Ken Nedimyer are reelected for another term as officers. He added that part of the SAC's recommendation to amend the charter, the part to have all the officer terms be two years, which will align the elections, was approved.

Mr. Bennis said that it made sense to have a limit to encourage new people as officers, and wondered if something on was on the books about working with the vice-chair or other SAC members, because if that does not happen, the chair might not be working with x, y and z people on becoming chair. Mr. Morton said to his knowledge there was nothing formal on this, but that the vice-chair does step in on the chair's behalf when needed. There was agreement that it was a good idea for chairs to work with others on succession, and Mr. Morton and Mr. Popham said they would have further discussion on the topic.

ACTION ITEM: Mr. Morton and Mr. Popham to have further discussion on the topic of SAC chair succession.

Mr. Morton said that at this meeting, the nominations needed to be taken for Chair and Vice-Chair.

Mr. Ferguson then described the process as it took place at the previous SAC officer election two years ago. Nominations were taken at the meeting, so everyone could hear who was nominated, and then if a person was not there to accept, follow up would be done to see if he/she accepted the nomination or not. Written ballots were then created by the SAC coordinator based on the nominations accepted and sent to the primary SAC members in advance, with a provision that they could cast absentee ballots if not able to be present at the election. The written ballots would then be collected at the next SAC meeting from primary members. Mr. Morton described how he had been involved in a less formal process, and that there were other options. Ms. Ferguson noted that one reason the FKNMS followed the model it did was so that members who were not at the meeting where the nominations were made could know who the nominees were.

Mr. Popham asked if the group wanted to make the nominations or think about it and wait until after lunch. Mr. Trice advocated moving ahead, and the nominations ensued.

- Mr. Trice nominated Mr. Popham for Chair and Mr. Bergh for Vice-Chair.

- Mr. Moe nominated Mr. Nedimyer for Vice-Chair.

- Mr. Trice also nominated Ms. Garlo for Vice-Chair.

- There were no further nominations; Chair Popham summarized the nominations, and said the vote would be taken at the next meeting.

ACTION ITEM: Ms. Ferguson to follow up with each officer nominee to confirm his/her acceptance or non-acceptance of the nomination. Ms. Ferguson to create ballots with the names of the officer candidates and provide them with voting instructions in advance of the April SAC officer election.

Summary of Current Legislative Efforts Regarding Opening Waters Offshore of Florida to Oil Drilling—Megan Tinsley, Audubon of Florida

Mr. Bergh informed the group that the SAC Ecosystem Restoration Working Group organized the afternoon session of this SAC meeting. He noted that the SAC started talking about this at the December SAC meeting, to have the SAC get a well-rounded introduction to oil and gas drilling in the Gulf of Mexico. He reviewed the topics and speakers for this session, then thanked everyone who helped put it together, including Mr. Fajans, Ms. Ferguson, and Megan Tinsley, who did a lot of the work.

Ms. Tinsley introduced herself, and noted her area of expertise was Everglades Restoration. She said in her presentation, she would relay actions that Audubon of Florida saw at the last [state] legislative session. In 2009, during the legislative session, House Bill 1219 was introduced as an amendment to another bill, she said, and she said it did not have a shortage of co-sponsors, all of whom were Republicans. The bill authorized: the Board of Trustees of the Internal Improvement fund to accept bids for oil and gas leases on specified submerged lands; provided location restrictions on refining and sale of products extracted; revised the requirements prior to drilling for the lessee's financial responsibility; provided for distribution of royalties, payments, other state income, etc.; provided exemptions from restrictions on land leasing, permitting and construction on submerged state lands leases; and revised applicability provisions related to surety for exploration, drilling and production. This bill passed in the House 70-43, she said, but the Senate did not take up the bill during that legislative session, so it died.

Ms. Tinsley said if this had passed, it would have: authorized drilling 3-10 miles from shore without evaluating the economic or environmental risks; failed to demand top dollar for public resources' reversed long-standing state policy without substantive debate or review by fellow legislators; and, most importantly, she felt, authorized the sale of extensive public resources without sufficient opportunity for public input. She also provided further details about other negative aspects that she said would have occurred, should the bill have passed. This bill was being pushed by lobbyists for Florida Energy Associates, she said, but the funding was not revealed.

In the 2010 legislative session, she said that a bill was expected to appear early to mid season, in the House Committee. Select Policy Council on Strategic and Economic Planning. She said meeting topics in the 2010 session included: energy production technology and practices, oil and gas accidents and responses, regulatory requirements, and competing uses of state waters.

Ms. Tinsley then offered to let Adam Rivera fill the SAC in on federal legislation on this topic, if he would like to. Mr. Rivera said he wanted to address the pending federal legislation on this. He said this past year the Senate Energy and Natural Resources Committee passed an energy bill that repealed protections from the Gulf of Mexico Energy and Security Act of 2006, which protects Florida's portion of the eastern Gulf of Mexico until 2022. This repeal would allow oil and gas drilling in federal waters as close as 45 miles off the coast and up to 10 miles off the coast of Pensacola in the so-called Destin zone, he said. He said in the future, different versions of bills passed out of Senate committees were expected to be merged into one bill and passed in the Senate, then reconciled with a bill from the House prior to June or July, when the second round of the Copenhagen conference will take place. He said President Obama had proposed drilling on the campaign trail until the height of the gas price spike, then he said President Obama relented to a degree from that position, saying he would accept drilling in certain environmentally sensitive places in exchange for a comprehensive energy bill. Mr. Rivera offered to provide anyone interested with language from the relevant federal bills.

Discussion ensued.

- Mr. Bergh commented that this first agenda items was supposed to be an objective discussion of the facts of the energy bills, what they contained, and so on.
- Ms. Tinsley said that this session, there is no bill.
- Mr. Bergh said he understood, but the first session was supposed to be without editorial comments. He noted there was room for that later in the meeting, during discussion.
- Mr. Bergh asked if anyone around the table, or any other speakers, like Mr. Mica, had any further facts about what was proposed last year or what would be proposed this year.
- Mr. Mica said he hid did, but would like to do discuss it during his portion of the agenda.
- Mr. Bergh mentioned that 3-11 miles offshore was in the proposal last year, so wondered if three miles would be the closest drilling was still proposed to occur to Florida shores.
- Ms. Tinsley replied that that was her understanding.
- Mr. Morton asked if there were maps showing such things as the extent of where exploration had taken place in the past, the lease blocks on the western shelf, the number of leases, and energy structures and pipelines, or if it was premature to talk about lease blocks about at this point.
- Mr. Mica replied that he had plenty of maps, and would show some during his presentation, but that it was premature to talk about infrastructure at this point.
- Ms. Tinsley said it was her understanding that there were just discussions up to this point about easements and pipelines.

Ocean Currents and Circulation of the West Florida Shelf/Gulf of Mexico—Villy Kourafalou, University of Miami Rosenstiel School of Marine and Atmospheric Science

Dr. Boyer introduced Villy Kourafalou, noting she is a physical oceanographer. Dr. Kourafalou added that she was also involved in oceanography issues around the world; for a long time, coastal groups focused on their local coastal waters, she said now the way to go was to understand the connectivity of the currents among coastal areas.

Dr. Kourafalou said that physical oceanographers deal with the ocean circulation, and the interaction between the ocean and the atmosphere. She said on the West Florida continental shelf, circulation in local, shallow waters are driven by winds and surface heating and cooling. She showed how the Caribbean current goes into the Gulf of Mexico, then, when it runs out of room, it goes through the Straits of Florida and goes around the east coast of Florida (the name of the current changes to the Florida current then to the Gulf Stream). Sometimes the current from the Caribbean goes up to the top of the Gulf, and sometimes not as far, she noted. She also showed the ocean circulation around the Florida Keys and Dry Tortugas, and drew attention to the eddies. Sometimes they are close to Cuba, and sometimes close to the Keys, she said, and often they break apart. Eddies can entrain things, like fish larvae, nutrients, or pollutants, and recirculate them until the eddies break apart. She also pointed out how the southward currents on the Florida shelf follow the bathymetry.

Dr. Kourafalou then reviewed the methods used to gather data on the West Florida shelf (high frequency radar, balloons, buoys, gliders, satellites, drifters, etc.), noting there have been long term studies to understand the currents. One example of what they have learned is the mean tendency for the current is overwhelmingly southward on the shelf, although depending on the wind, it may also go north, onshore or offshore, she said. Due to the difference in mean sea levels, she said the Gulf Stream flows south and creates a mean average southward flow. Many of the nutrients in this area come from the Tampa region, she said, and materials from the West Florida Shelf may reach the Florida Keys within days to weeks. Prevailing onshore winds along the Keys chain and from Miami/Key Biscayne to the Palm Beaches could bring such materials onshore, she said.

There are sophisticated computer models that can be used predict natural phenomenon, based on theories, and provide information for where data does not exist at a given time, she noted. The information available can be used to forecast future conditions and create scenarios, and combining observations with modeling is important for making good policy decisions on ocean management, she said. Sustaining the infrastructure of ocean observations is important, she concluded.

Dr. Kourafalou asked if there were questions, and discussion ensued.

- A person from the audience asked how many years the study had been going on; she replied 15, for this type of comprehensive study/modeling.

- Mr. Kincaid recommended people look at the pilot charts, started by Thomas Jefferson. He said current and wind information had been collected for decades.

- Mr. Trice said there was a lot of offshore drilling going on, both shallow and deep, and wondered if any science had been done on oil coming from Louisiana. Dr. Kourafalou said that was not her area of expertise. She said she had been studying interactions between the shelf and the Mississippi River, and she noted the transport varied due to the varying of the currents, though the currents may sometimes bring materials here.

- Mr. Moe asked if the data had been used to predict red tides, and Dr. Kourafalou affirmed that it had, and mentioned several groups that had done that work. She added that ecological forecasting of full ecosystem models was difficult, including details of influences on local areas, and that so far, there had not been a lot of funding for connectivity in the Gulf of Mexico.

- Dr. Boyer asked how good the model was at predicting eddies. She replied it was very good, and the Florida Keys model was embedded in the Gulf of Mexico model.

- Mrs. Bradley asked about the modeling of particle deposition, and how much would be deposited versus not deposited. Dr. Kourafalou said when she had talked about the movement of particles earlier, she was referring only to water particles, which had different physical properties from other particles. She said other important phenomenon needed to be considered [for deposition of other types of particles].

- Ms. Garlo wondered if studies had been done on where marine debris in the Keys came from. Dr. Kourafalou replied she could learn a lot about this from the water particle studies.

- Mr. Kincaid said the mutton fish studies from 1989 or thereabouts estimated that water in a gyre passed the Tortugas six times, and larvae dropped off there on each pass. He felt it would be the same for plastics. He also said there was an old Center for Marine Conservation study that said 60% of the garbage in this area came from South America, 30% from the offshore industry, and 10% from local causes.

- Dr. Kourafalou noted that sometimes the eddies were also very deep, in addition to combining and colliding.

Statement of Opposition to Opening Waters Offshore of Florida to Oil Drilling—Adam Rivera, Environment Florida

Mr. Bergh briefly introduced Mr. Rivera, who then provided a bit more detail about himself and Environment Florida's mission to protect Florida's air, water and open spaces and to take action to improve the quality of the environment and our lives.

Mr. Rivera said there were consistently destructive impacts from coastal industrialization, including ocean drilling. He said it could take 10-20 years for unmapped waters to turn into productive leasing sites, and that environmental degradation occurred during that time. First, companies must find promising features on the seafloor, which they do with seismic exploration and mapping. He said that seismic testing is done with an air gun, and that it produces 260 decibels of noise. He said 85 decibels can damage human ears, and he listed impacts that have been documented on cetaceans and fisheries.

Regarding exploratory drilling and production, one result is toxic drilling muds, he said. He noted that the threat of oil and gas drilling prompted the establishment of the sanctuary, according to the sanctuary's web site. The muds contain mercury, lead and cadmium, he said, and are legally dumped into the ocean

over the lifetime of the drilling rig. Mercury poisoning can be an impact, he said, as mercury from drilling is taken up by fish. He added that oil rigs use water to pump oil and gas to the surface; it is cleaned to some degree, then discarded. He said the water can contain chemicals that we do not want impacting the sanctuary. Another impact from drilling and production is oil spills, and he said the frequency and magnitude of offshore drilling in the Gulf and elsewhere warranted concern in Florida. He said no technology associated with drilling was sufficiently safe from spillage, and that spills were costly and difficult, if not impossible, to clean up. He provided examples of spills near St. Petersburg, Australia, East Timor and other places, and showed a model of the East Timor spill superimposed off of Florida (to show the size of the spill). His examples included spills from platforms, pipelines, and tankers, and he provided details of the environmental, social and economic impacts of those spills. By 2015, he said many ships will be required to have double hulls, but ships that carry oil for their own use may not have to have them. Mr. Rivera also noted that hurricanes and other types of extreme weather can impact drilling.

Mr. Rivera skipped talking much about the loop current, as he said Dr. Kourafalou had discussed it. He cited a 1984 University of South Florida study on pelagic tar. Mr. Rivera said the study showed concentrations of pelagic tar found in the Eastern Gulf of Mexico were substantially higher than values reported for other areas around the world, and were associated with the Gulf Loop Current. Grounding of significant amounts of tar were found to occur primarily along the south-east coast of Florida, between Key West and Fort Pierce. He also said natural oil seepage was responsible for some of the sheen seen on ocean waters, and that some organisms eat the oil, but he felt it was far-fetched to say all the oil came from natural causes.

Mr. Rivera then briefly reviewed some of the direct and indirect impacts of oil in the marine environment, including oiling of birds, mammals and plants; toxicity of dispersants, and destruction of wetlands from construction of canals for oil and gas infrastructure. He said 90% of emissions from drilling will come from our consumption of the final products, and the emissions are connected to global warming. He concluded by saying one impact from continuing to burn fossil fuels with abandon was coral bleaching, and that rising ocean temperatures were the major cause of the bleaching.

Mr. Rivera asked if there were questions, and there were a few.

- Mr. Moe mentioned drilling muds, and mercury, lead and cadmium eventually ending up in the water. He wondered how many tons of drilling muds were used in the lifetime of a rig and what the concentrations of those three elements were in the muds.
- Mr. Rivera pointed Mr. Moe to the citation on the bottom of the relevant slide from his presentation, and said that same study also contained information about high mercury concentrations in fish stocks around the rigs.
- Bob Smith asked why the mud contained those elements, and asked if there were alternatives.
- Mr. Rivera did not know, but provided the website where the information came from, www.offshore-environment.com/discharges.html.

Statement of Support for Opening Florida Waters to Oil Drilling—David Mica, Florida Petroleum Council

Mr. Bergh introduced Mr. Mica, who came from Tallahassee for the meeting. Mr. Mica said he was happy to be able to address the group, and said he had been with the Florida Petroleum Council for about 25 years. He explained it is a division of the American Petroleum Institute, and is involved in advocacy, standard setting, and representing all segments of the petroleum industry.

Mr. Mica said the long term energy strategy was to focus on efficiency, increasing American supplies, the use of alternative and renewable energy, and investment in technology. He showed charts on efficiency

improvements (with total energy consumption trending down from 1973-2007) and demand (with total energy consumption trending up during the same period). He said efficiency was a big deal in the industry, and among other things, was a return to investors. This includes cogeneration at refineries and other technology improvements at refineries. He said China and the rest of Asia were growing in consumption, while U.S. consumption was less. The long term oil demand forecast, he reported, shows that demand will grow.

Regarding alternatives, he noted there were challenges. For example, ethanol is an alternative, but he said the U.S. had surpassed Brazil in its production (and he said Brazil was always used as the comparison point). Mr. Mica said the U.S. had challenged itself to be energy independent, but he believed that in our lifetimes, it will be energy interdependent. In 2007, the U.S. Energy Independence and Security Act was passed. The industry is required to use other types of biofuels, and will have to use blends in the future, he said.

Mr. Mica said there were domestic oil reserves in the U.S. that were off limits due to federal controls; text in his accompanying graphic indicated there was enough off limits oil to fuel 60 million cars and 25 million homes for 30 years, and enough off limits natural gas to heat 60 million homes for 160 years.

Oil was discovered in Florida in 1943 at the Sunniland Oil Field, Mr. Mica reviewed. In 1966, he said oil was found in west Florida, and in the 1970s in other parts of Florida. Exploration in the Keys and Charlotte Harbor came up mostly dry, he noted. He challenged people to find environmental impacts from this exploration.

He discussed the Gulf of Mexico Energy Security Act of 2006 and mentioned Lease Sale 224. Florida did not get in on the revenue sharing deal, he said, but Texas, Louisiana, Mississippi and Alabama share 37.5% of the revenues from the eastern Gulf of Mexico. Starting in 2017, he said they get that same percentage from all of the Gulf; Florida gets a 125-235 mile drilling buffer. Lease Sale 206 brought in \$3.7 billion and was not eligible for revenue sharing, Mr. Mica said.

New technology had changed the industry incredibly, Mr. Mica noted. Regarding the East Timor incident, he said the Minerals Management Service (MMS) had said that well and engineering design would not be permitted in the U.S. He said the industry used 3D seismic technology enhancements, which he said had been mischaracterized, and he referred to other information on this being available online. In another example of technology improvement, he said the industry could use directional drilling to hit a small area the size of a closet a mile under the seafloor, from five miles away. Another example he provided was being able to reach oil in waters over 10,000 feet deep.

Mr. Mica showed a graphic of the Gulf of Mexico (from the Symposium Part II: FSU Institute for Energy Systems, Economics and Sustainability), which depicted natural seeps. None were depicted close to Florida's shoreline.

Referring to earlier discussions on timeframes, Mr. Mica said companies don't buy a lease to sit on it. They may run into hurdles when making a lease, or may not have the technology yet to make it a viable prospect, or may do a study to determine if exploration is feasible. In one example, the Independence Project, he said the first discovery was in 2003, and the first production was in 2007. He said that platform now produces 2% of the U.S.'s natural gas.

Mr. Mica provided examples of ways in which the industry had worked to preserve the environment, and ways to disguise drilling features close to population centers, and he noted that at the Flower Garden Banks National Marine Sanctuary, the oil and gas industry had a very good track record. He also

mentioned the need for drilling windows and coordinating with the Department of Defense on the training area off of Florida, which he said was workable.

Mr. Mica said the MMS did testify before the House since this discussion last year. He said efforts had been made to make this transparent, and the head of MMS testified before the House a couple of years ago, and bill was released which passed the House with 70 votes, but the Senate did not pass it. He mentioned another upcoming hearing in the House, and stated a lot of testimony had been made before a single committee. He said the resource potential was somewhat unknown in a "frontier area" like Florida, where the seismic data was old. He said a significant movement of jobs and effort would need to take place just to do the analysis long before anyone might apply to the state for a permit or an area might be nominated.

Mr. Mica also briefly touched on the use of natural gas and natural gas forecasts, and said a Public Service Commission representative told him by 2014, no matter what we do, 45% of our electricity will be made from natural gas; he said there would be an even greater demand (55% by 2017), if new coal powered plants were not built. He also showed a graphic of a natural gas pipeline that was constructed to bring gas from Mobile to Manatee Bay.

Mr. Mica said he did not come to the meeting to advocate drilling in the National Marine Sanctuary, though he said if the resource potential were discovered to be here, he might come back to discuss how it could be done collaboratively. He encouraged the group to restrain from advising legislators not to produce more oil and gas. He said would love to engage in discussion in the U.S. of putting areas that are off limits, on limits, and reiterated that efficiency, conservation and renewable energy were part of the energy equation. Mr. Mica concluded by saying that about 8% of the Gross National Product was associated with oil and gas and would be for some time, and, as the transition is made to other kinds of fuels and things like that, the companies he works with will continue to invest in research and development in those types of products.

He then called for questions, and discussion ensued.

- Dr. Hawtof asked about the incidence of leaks per number of platforms and tankers and pipelines currently, using new technology.
- Mr. Mica pointed him to a National Academy of Sciences study, which he said found something like .001% was released by the industry into the environment. He added that the industry does not want to lose any of its product. From a risk management standpoint, he said shipping was the biggest problem, with pipelines being less, and that exploration/production was the safest. Mr. Mica also said there were 5000 platforms in the Gulf of Mexico, and some of these were ancient and were being decommissioned. Some of them have rare corals attached to them, he said, which would be destroyed by decommissioning required by federal rules. He said they are looking turning more of those into "rigs to reefs" structures.
- Bruce Frerer asked about the environmental impact of drilling for oil versus natural gas, and if the drilling was different for these.
- Mr. Mica said the drilling was basically the same, and that the industry believes it can do both without significant environmental degradation. He felt both types of products were needed.
- Mr. Moe asked what percentage of oil used would come from the west coast of Florida if it were opened up to oil production, and also asked if some of the petroleum might be saved for humans hundreds of years in the future.
- Mr. Mica said the industry feels that reserves should be used for emergencies. He also said they were not sure how much oil was there off of Florida, and noted that estimates have changed for the Gulf as a whole over the years (from 6 billion oil-equivalent barrels in 1985 to a new estimate of 42 billion).
- Mr. Moe asked if it made sense to try to drill along the west coast of Florida.

- Mr. Mica said he was not a driller, but that this was highly competitive type stuff. Resource potential and a stable regulatory environment are needed to go forward, he thought. He thought the thing to do was the change the law and see who came forward [to drill].
- Mr. Bergh said the terrestrial inland sites in Florida did not seem to show a lot of oil potential, when compared to Texas and Louisiana, and wondered about the regulatory landscape and why not much was going on in inland Florida.
- Mr. Mica said one of the biggest hurdles was when Seminole Indian Tribe was looking for oil on their lands in the Everglades, and they got pushed back pretty hard. H also talked about other exploration and drilling that had been done all over the state. The environmental permitting it might take might lead someone to try west Texas, he felt.
- Mr. Bennis asked if Mr. Mica agreed with a nine billion barrel spill statistical comparison (like Exxon Valdez or a spill due to a hurricane) or not.
- Mr. Mica said not so much, and he would want to examine further the impacts of the East Timor spill, what actually happened and what was done there, etc. He said the MMS basically gave them an “A” after Katrina, though there were some areas where they made recommendations. He said the Exxon Valdez spill was useful in putting a price in things, and he noted they were involved in Natural Resource Damage Assessment in Florida, which puts a specific price on coral and everything out there, and puts billions of dollars aside for a coastal protection trust fund. He referred also to the creation of the Marine Spill Response Corporation.
- Mr. Curlett complimented Mr. Mica on a fine presentation, and said it was obvious he had done this before.

Public Comment

There was none.

SAC Discussion

- County Mayor Neugent said all the terrestrial drilling had been done and the technology had improved, moving drilling offshore. He said better technology is also allowing for deeper drilling, and that companies have reentered abandoned fields and gotten oil via pumping steam and carbon dioxide into them. He noted the U.S. still buys from the Middle East, where drilling is land based and easier. He also commented that there is hydrogen sulfide at the J Field, and that the Destin Dome would have been within eyesight.
- Mr. Bergh said he was impressed by the map by one speaker showed that depicted natural oil seeps, and that it was interesting that there were none in this area.

Mr. Bergh credited Alex Score with developing the first draft of a resolution on this for this meeting, and said Ms. Tinsley had added text to that [with suggestions from the SAC Ecosystem Restoration Working Group]. Ms. Tinsley referred to some of the changes she included in the text, including previous SAC actions on this topic and that the resources in the sanctuary are already degraded so might not be able to withstand the severe trauma of an oil spill making its way to this area.

- Ms. Tinsley said the Working Group wanted to bring the issue forward because of the activity that occurred during the last legislative session, and said it was expected that a drilling bill would come before the Florida Legislature again this year. It is good for the SAC to use its voice to emphasize how precious these resources are, she said.

Mr. Trice referred to the draft resolution, which had been provided to the SAC in advance of the meeting. Mr. Trice moved that it be adopted, and the motion was seconded by County Mayor Neugent. Further discussion ensued.

- Mr. Smith asked if the concern was that a door was being opened. He also expressed that he had not heard what the pollution concerns were from exploration.

- County Mayor Neugent said drilling muds do enter into the marine environment, and he also thought the upland infrastructure, transportation and transmission were also concerns. He felt transportation via shipping was the biggest spill problem. He also reviewed that Senator Nelson, per discussions County Mayor Neugent participated in three months prior, was opposed to drilling in state waters as he felt it was a wedge for drilling in state waters, and Senator Nelson was concerned about impacts to the military and the economy. County Mayor Neugent felt the general Monroe County public was adamantly opposed to drilling in state waters, and he said there were clearly potential environmental impacts. He added that the Monroe County Board of County Commissioners had not yet taken a position on this.
- Mr. Trice said his company was currently working with oil companies in the Gulf of Mexico. He did not think the discussions had clearly brought up the emphasis the industry places today on safety and environmental protection. He also did not think that what went on in Louisiana in the past was the case anymore. He said there was virtually no oil on Florida's coastlines, but it was unknown what was out there in the waters; he felt there was low probability of finding a lot. He agreed that drilling from 3-10 miles out did open the door for drilling in federal waters, but he asked that the resolution focus on the state only.
- Ms. Tinsley said the resolution could apply to both the state and federal governments.
- Mr. Trice said did not think the SAC had enough information, and that there was talk of drilling 300-400 miles away.
- Various SAC members provided further statements and pros and cons for having the resolution cover drilling in both federal and state waters.
- Dave Vaughan said he was glad references to previous SAC actions had been included in the draft resolution, and wondered why there was so much debate now.
- Several people affirmed they wanted the wording to cover drilling in both federal and state waters.
- Ms. Garlo suggested changing the resolution wording from "state or federal waters" to "state and federal waters"; this friendly amendment was accepted.
- Dr. Kourafalou commented that she had not heard of any environmental impact study on this, and no one on the SAC had either.

The motion passed unanimously upon roll call vote.

The wording of the resolution follows.

FLORIDA KEYS NATIONAL MARINE SANCTUARY ADVISORY COUNCIL

RESOLUTION

**OF THE FLORIDA KEYS NATIONAL MARINE SANCTUARY ADVISORY COUNCIL
OPPOSING ANY EXPANSION OF OFFSHORE DRILLING IN THE GULF OF MEXICO**

February 16, 2010

WHEREAS, the Florida Keys National Marine Sanctuary extends approximately 220 miles southwest from the southern tip of the Florida peninsula; and

WHEREAS, The Florida Keys National Marine Sanctuary and Protection Act (Public Law 101-605) finds the following:

Sec. 2(2) Adjacent to the Florida Keys land mass are located spectacular, unique and nationally significant marine environments, including seagrass meadows, mangrove islands and extensive living coral reefs.

Sec. 2(3) these marine environments support rich biological communities possessing extensive conservation, recreational, commercial, ecological, historical, research, educational and esthetic

values which give this area special national significance.

Sec. 2(4) these environments are the marine equivalent of tropical rain forests in that they support high levels of biological diversity, are fragile and easily susceptible to damage from human activities, and possess high value to human beings if properly conserved.

Sec. 2(5) these marine environments are subject to damage and loss of their ecological integrity from a variety of sources of disturbance; and

WHEREAS, the plant and animal communities within the Florida Keys National Marine Sanctuary have experienced decline resulting from numerous causes, such as boat groundings and anchor scrapes, warm and cold water temperature extremes, the effects of diminished freshwater flows from development in the Everglades, algal blooms, etc., and are at a vulnerable state where any further stress may jeopardize their health for future generations; and

WHEREAS, the impacts of drilling contaminants and spills caused by offshore oil development can be carried great distances by the Gulf Loop Current into Florida's coasts and into the Florida Keys National Marine Sanctuary; and

WHEREAS, environmental specialists contend a major risk from drilling platforms is the wastewater they routinely discharge which contains drilling fluids and heavy metals including mercury; and

WHEREAS, according to oil industry data, an oil rig in the Gulf of Mexico can dump up to 90,000 tons of drilling fluid and metal cuttings over its lifetime. These contaminants accumulate in the marine food web and may contaminate local beaches and have a negative effect on the environment and the tourism industry; and

WHEREAS, despite technological advances in oil drilling technology, there is no positive assurance that catastrophic damage to our coastline, beaches, coral reefs, plant and fish life could be avoided during normal operating conditions, including pipeline or tanker transport, or during storm situations; and

WHEREAS, lifting the moratorium on mineral leasing in the Gulf of Mexico poses a devastating threat to the resources of the Florida Keys National Marine Sanctuary; and

WHEREAS, the Florida Keys National Marine Sanctuary Advisory Council previously passed two resolutions and one motion, in 2006, 2007, and 2009, respectively, related to opposing efforts to expand drilling efforts in the Gulf of Mexico;

Therefore be it resolved,

We hereby strongly encourage all elected officials at the local, State and Federal levels to oppose legislative attempts to expand oil and gas exploration or drilling in Florida, including those allowing near-shore drilling or eliminating moratoria prohibiting off shore drilling in state and federal waters, and we urge such officials to take immediate steps to encourage and assist in the development of renewable and sustainable sources of energy.

Passed unanimously on this date: February 16, 2010.

The Council is an advisory body to the sanctuary superintendent. The opinions and findings of this publication do not necessarily reflect the position of the Florida Keys National Marine Sanctuary, the National Oceanic and Atmospheric Administration, the Florida Department of Environmental Protection, or the Florida Fish and Wildlife Conservation Commission.

ACTION ITEM: Acting Superintendent Morton to consider/follow up on the recommendation of the SAC regarding opposing expansion of oil drilling offshore of Florida in the Gulf of Mexico.

Chair Popham thanked the SAC Ecosystem Restoration Working Group and the speakers for doing a great job.

Adjourned, 4:01 PM.

Submitted by Lilli Ferguson