

SUPERINTENDENT'S UPDATE REPORT

November 2011 to March 2012

Sanctuary Advisory Council

The Superintendent's Update Report highlights major activities that have occurred at Fagatele Bay National Marine Sanctuary (FBNMS) between November 2011 and March 2012. It also provides an overview of upcoming events, activities and priorities that will occur in 2012.



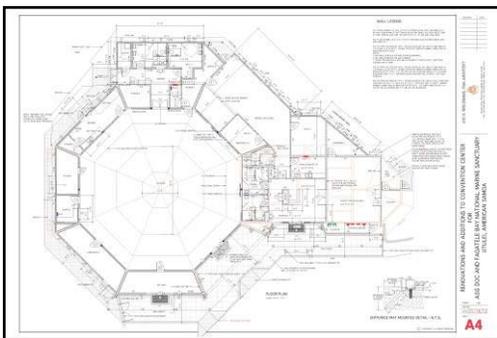
ACCOMPLISHMENTS

1) Cultural Heritage and Community Engagement

a) *Public Hearings and Informational Community Meetings*

The public comment period for the FBNMS Draft Management Plan and Draft Environmental Impact Statement (DMP/DEIS) was open from October 21, 2011 through January 6, 2012. Due to requests for additional time for comment, the comment period was re-opened from January 25, 2012 through March 9, 2012. During the initial public comment period public hearings were held in the American Samoa Community College (ASCC), Auasi, Fitiuta, and Ofu. In addition, our Territorial partners at the American Samoa Department of Commerce (ASDOC) have continued to hold informational meetings with communities around potential sanctuary units to better inform them on what is being proposed.

b) *Ocean Learning & Discovery Center*



FBNMS is currently renovating staff offices and creating an Ocean Learning & Discovery Center that will serve as a premier marine educational, outreach and learning facility in the territory. The Ocean Learning & Discovery Center will facilitate direct contact with the community as well as provide a



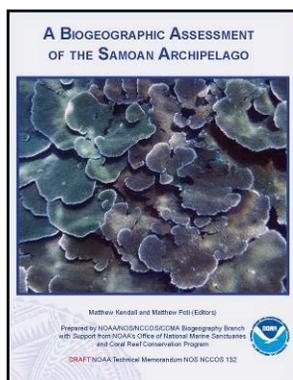
platform to increase the visibility of National Marine Sanctuaries and marine conservation throughout the greater Pacific Islands region. Conceptual planning for the exhibits started in February, with a plan to complete and install the Science on a Sphere (SOS) exhibit in June, and the rest of the exhibits in July and August. Grand opening is planned for August, 2012. There's been a collaboration and partnership with the Fine Arts Department at American Samoa Community College (ASCC) to date for the exhibit designs and messaging.

2) Marine Conservation Science

a) NOAA Dive Training

In order to build diving capacity within FBMNS, Research Coordinator Wendy Cover attended the three week NOAA Working Diver training course in January and February. She is now a certified Working Diver, which allows for a broad range of diving activities regulated under the Occupational Safety and Health Administration (OSHA), in addition to scientific diving. This also meets the diving requirements of other federal agencies, allowing for collaborations in diving activities, as well as providing the foundation for further dive training to meet all NOAA requirements and expand our diving and boating capabilities.

b) Biogeographic Assessment Report



NOAA's National Center for Coastal and Ocean Science (NCCOS) released a Biogeographic Assessment of the Samoan archipelago, funded by FBNMS. The assessment includes biological, oceanographic, and human dimension components and will serve as a prototype for assessments in other areas of the Pacific. The Marine Protected Area (MPA) chapter of the assessment clearly supports the potential sites proposed for sanctuary designation as these areas would add potential reef ecosystem and additional coral reef and hard bottom areas to the overall MPA network in American Samoa. In addition every one of the proposed units either 1) provides replication of non-unique regions or habitats, 2) protects bioregions or ecological hotspots not currently protected by existing MPAs, or 3) protects special ecological features not currently protected by the existing MPA network. The report utilizes existing datasets from numerous sources including the Department of Marine and Wildlife Resources (DMWR) and NOAA's Coral Reef Ecosystem Division, as well as data from Independent Samoa.

3) Climate Change

Pacific Adaptation to Climate Change Cost-Benefit Analysis Training

Policy Analyst Emily Gaskin helped facilitate the *Pacific Adaptation to Climate Change (PACC) Cost-Benefit Analysis Training* to help Pacific Island member countries and territories strengthen the economic elements of climate change adaptation projects. The week-long training at the Secretariat of the Pacific Regional Environment Programme (SPREP) brought together representatives of the PACC project and other interested participants to help determine which climate change adaptation options they are implementing will confer the greatest benefits for their island communities. FBNMS is

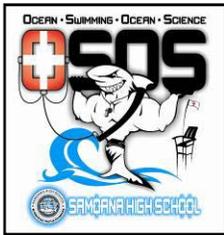
currently exploring the feasibility of hosting a similar workshop here in American Samoa.

4) Ocean Literacy

a) *Toa o le Tai (Ocean Heroes)*

The *Toa o le Tai* program offers youth participants instruction in swimming and ocean conservation. The original project proposal was developed by Bruckner Chase and the project is being funded through a grant with the American Samoa Department of Commerce (AS-DOC). Bruckner has visited the territory on two occasions to oversee the program and work with you participants. FBNMS Research and Education Staff have been involved in developing education material for the bi-weekly ocean conservation class offered to *Toa o le Tai* students.

b) *Ocean Swimming/Ocean Science (OSOS)*



The Ocean Swimming/Ocean Science (OSOS) class piloted at Samoana High School is funded by FBNMS in partnership with the Department of Commerce and with in-kind support and expertise devoted by Bruckner Chase as the mentor and co-creator of

this program. The semester-long OSOS class kicked off on January 9, 2012, with 25 students. This 45 minute course is taught daily with four days devoted to swimming lessons with Bruckner Chase and the American Samoa Aquatic Agency (ASAA), and one day of Marine Science curriculum with FBNMS staff Isabel Gaoteote and Wendy Cover. The theme of the marine science component is “A Tour of Our Reefs”, and instruction focuses on key reef organisms, processes that shape reef communities, and major threats to coral reefs in American Samoa. Classes are activity-based and feature guest speakers from other agencies and field trips to view reefs and better understand local impacts. This course is a hands on learning experience for the students.



c) *High School Student Presentations*



ASCC interns Charles Miller and Jessica Peters worked together to develop an interactive presentation to educate high school students in American Samoa about the importance of marine conservation. The interns spent two weeks travelling to different schools and spoke to nearly 200 students. The participants were actively engaged and many requested to come and visit FBNMS following the presentation.

d) *Kiosk Installation*



FBNMS installed two interactive kiosks at the Lyndon B. Johnson Tropical Medical Center and Pago Pago International Airport. The kiosks include information in both English and Samoan about the sanctuary program, resource protection, education, research, marine life, threats and partner agencies. Several Sanctuary Advisory

Council agencies have an informational page on the kiosk, including the National Park of American Samoa, the American Samoa Visitor's Bureau and the American Samoa Department of Commerce. The kiosks increase the visibility of the sanctuaries program and promote marine conservation in the territory.



e) *Trail Signs*



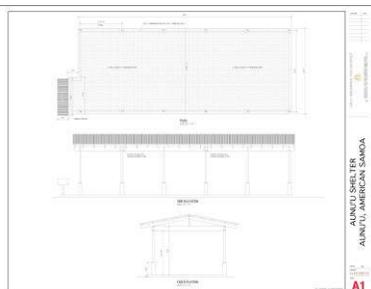
FBNMS recently installed ten interpretive signs along the trail that leads to Fagatele Bay. The signs introduce visitors to FBNMS and explain in both English and Samoan, how traditional indigenous knowledge has informed marine conservation in American Samoa. The signs were produced by NOAA Holling's Scholar Victoria Szlag with significant input from the Office of Samoan Affairs and the Department of Youth and Women's Affairs.

5) **Partnerships and Interagency Collaboration**

a) *Hyperbaric Chamber*

FBNMS is working with the Lyndon B. Johnson Tropical Medical Center to establish a dive chamber that will increase dive safety in American Samoa as well as serve as a public health treatment facility for 40% of the territory's diabetic community. A vendor was selected for this project that will include construction of a special sized chamber, training of hospital staff, maintenance and installation of the project. The opening of the Hyperbaric Wound Care Clinic is planned for May 18, 2012.

b) *Aunu'u Community Transit Fale*



Following the success of the Bruckner Chase swim from Aunu'u to Utulei in 2011, the village of Aunu'u will collaborate with the Office of National Marine Sanctuaries (ONMS) to improve the Transit Fale for visitors and residents of Aunu'u. The Department of Port Administration approved land use and building permits. The Department of Public Works will provide a maintenance and operations team construct the Transit Fale while Fagatele Bay will supply the materials. A dedication ceremony is being planned for May 18, 2012.

FUTURE PLANS

1) Cultural Heritage and Community Engagement

Community Meetings

Future meetings are planned for 2012 in April, May and July with village areas adjacent to proposed new units. At these meetings, FBNMS will discuss specific action plans and coordination with community leaders for various projects, activities and how we plan to engage and include residents in our work.

2) Marine Conservation Science

a) *Hi'ialakai Cruise*

In April, Research Coordinator Wendy Cover will participate in the NOAA Research Assessment and Monitoring Program cruise aboard the NOAA ship *Hi'ialakai*. The cruise will conduct rapid ecological assessments of the underwater habitats of Tutuila, the Manu'a islands, and Rose and Swains atolls. Dr. Cover will conduct benthic monitoring surveys of corals, other invertebrates, and algae. Relevant data will be used in monitoring and planning for National Marine Sanctuary sites.



b) *Swains Expedition*

NOAA's Maritime Heritage Program and partners will support a six-day heritage and archaeology expedition to remote Swains Island. The primary focus is the search for artifacts that pre-date western contact that may indicate the important role of the island as a voyaging waypoint and Polynesian settlement. The second focus is the search for historic nineteenth century features and artifacts revealing the island whaling contacts and copra activities. The survey combines the efforts of three related teams: a maritime archaeology team, a terrestrial archaeology team, and a cultural navigation team.

3) Climate Change

a) *Economic Costs of Coral Reefs in American Samoa under Changing Climate Conditions*
Policy Analyst Emily Gaskin will be exploring the potential economic costs of coral reefs in American Samoa under changing climate conditions. The objective of the study will be to provide detailed information about public preference for coral reef ecosystems under varying climate scenarios. The information can be used to develop an economic framework that benefits local policy makers and coastal resource managers to prepare for change.

b) *Climate Change Indicator Monitoring in FBNMS*

Climate Smart standards recommend that each site achieve sentinel site capacities that establish the sanctuary's role as a location for long-term monitoring and research related to climate change. This includes regular measurements of parameters that track basic critical climate change indicators: Temperature, Dissolved oxygen, Salinity, Acidification, Nutrients, Sea level, Circulation, Upwelling intensity, Coralline Algae,

Storm intensity and frequency. Regular measurements of climate indicators is Activity CC-3.1 in the Climate Change Action Plan in the FBNMS Draft Management Plan. FBNMS will collaborate with the American Samoa Community College (ASCC) marine science program to take regular measurements of salinity, water level, and temperature on the reef flat at Fagatele Bay and Larson's Bay. Students in the Field Technician class will monitor loggers at each site once a month and provide the data to FBNMS. During the bleaching season (November to February) more frequent monitoring of temperature loggers will take place.

4) Ocean Literacy

a) *Hi'ialakai Cruise Education Program*

FBNMS will sponsor an education cruise for high school and Ocean Heroes (*Toa o le Tai*) students aboard the NOAA Ship *Hi'ialakai* on April 11, 2012. Approximately 55 students will be given the opportunity to learn from the scientists on board the ship and participate through hands-on experiments and activities. The proposed plan is to have two sessions – one in the morning for high school students and another in the afternoon for Ocean Heroes (*Toa o le Tai*) students. Students will be divided into small groups and participate in three workshops, each providing them with a different perspective on the daily work of a marine scientist. In addition, students will be given a detailed tour of the *Hi'ialakai*, including the hyperbaric chamber and a talk on marine rescue. Research will be conducted on identifying the four most common types of algae found in the waters of American Samoa, and the role of algae in coral reef environments. Another class that is of special interest is the Live Rock study. Students will be given the chance to examine live rock for invertebrates and other critters that utilize this special habitat.



b) *NOAA Holling's Scholars*

This summer, FBNMS plans to host three NOAA Holling's Scholars in their offices. Kelly Speare, from the University of North Carolina, will be working with Research Coordinator Wendy Cover to assess reef resilience factors in American Samoa. Autumn Rauchwerk, from American University, will be working with Policy Analyst Emily Gaskin to develop a Green Operations Plan for the new offices and Ocean Learning & Discovery Center. Austin Collins will be analyzing data for the study *Economic Costs of Coral Reefs in American Samoa under Changing Climate Conditions*.



c) *2 Samoa's 1 Ocean Film*

Late April/early May, Bruckner Chase will complete a film that will be featured at the Blue Film Festival that connects ocean conservation programs to market healthy oceans with swimming as a platform. The project was funded by the NMSF Foundation Holling's Grant and FBNMS.

d) *Marine Technology Links with Alpena Community College*

FBNMS first established a relationship with Alpena Community College (ACC) in 2009 when ACC President Mr. Olin Johnson met with Dr. Seth Galea'i to discuss linking the colleges for distant learning programs to enhance hyperbaric nursing. This past year, FBNMS has been working with Thunder Bay National Marine Sanctuary (TBNMS) to link ASCC and ACC to develop an associate's degree program in Marine Technology.

e) *Youth Ocean Summit & Ocean Conservation Job Fair*



The Youth Ocean Summit and Ocean Conservation Job Fair will bring together all high school students to a showcase of project presentations lead by the Ocean Swimming/Ocean Science students of Samoana High School. The Youth Ocean Summit will highlight the lessons, triumphs of these students and allow them a forum to share their experience, what they learned, and to share their group science projects with peers from other schools. Immediately following the Summit, a job

fair is planned to showcase the various professional careers that exist locally within the various agencies so that students understand these when they are pursuing future endeavors.

f) *Summer Youth Education Program*

In partnership with American Samoa Department of Human Resources (DHR), students from Ocean Heroes (*Toa ole Tai*) and Ocean Swimming/Ocean Science will participate in a Summer Youth Education Program (SYEP) that will allow students that complete certificates with American Samoa Aquatic Association to work during summer to further their swimming competencies by assisting other students to become proficient swimmers. Fagatele Bay is guaranteed six slots by DHR for SYEP interns.

5) **Partnerships and Interagency Collaboration**

Local Action Strategies

FBNMS Research Coordinator is involved in two local planning groups, one is creating a Coral Bleaching Response Plan, and the other is adapting the Climate Change Action Plan for the Coral Reef and Mangrove Ecosystems Subcommittee of the Climate Change Adaptation Advisory Group. Both groups aim to create a territorial action plan for these pressing issues through collaboration among key local agencies, including DMWR, NPS, NOAA fisheries, and CRAG. The plans will help guide future management actions across the territory, including Fagatele Bay.

MARK YOUR CALENDARS

MAY 12	Ocean Family Day: Swim from Aunu'u to Utulei filmed for 2 Samoa's 1 Ocean Project. The swim will be followed by festivities at Utulei beach including an Island Fair, Concert, and Booths.
MAY 15	Youth Ocean Summit & Ocean Conservation Job Fair: The events will take place at Lee Auditorium.
MAY 18	Marine Conservation Project Two dedication ceremonies will take place: <ul style="list-style-type: none">• Aunu'u Transit Fale in Aunu'u from 9-11AM.• Hyperbaric Wound Care Clinic Opening at LBJ Hospital starting at 3.30PM and followed by a reception.
MAY 19	Toa ole Tai: <ul style="list-style-type: none">• Trials & Expedition Events• Graduation Gala Event
MAY 24	SAC Meeting: ONMS Director Dan Basta and other ONMS leadership will join us in the ASDOC Conference Room at 1:30PM.
JUNE 17-28	SOS Exhibit Installation: The installation will take place over 10 days at the Ocean Learning Discovery Center.
JULY 23- AUGUST 10	Student Exchange: Two ASCC students will travel from American Samoa to Alpena, Michigan, home of Thunder Bay National Marine Sanctuary. The students will participate in a two week Marine Heritage & Conservation class at Alpena Community College.
JULY 12-21	Swains Expedition of Discovery: The trip will be led by ONMS Maritime Heritage Specialist Dr. Hans Van Tilburg.
AUGUST 21	GRAND OPENING OF THE GOVERNOR TAUERE SUNIA OCEAN CENTER!