

# FY11-14 U.S. Coral Reef Task Force Accomplishments

*A Progress Report on Resolution 25.1*

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## Introduction

Healthy coral reefs are among the most biologically diverse and economically valuable ecosystems on Earth. Since its establishment in 1998, the U.S. Coral Reef Task Force (USCRTF) has recognized the urgent need for actions to address the state of coral reef science and management and to reduce threats to coral reef ecosystems to make reefs more resilient in the face of climate change.

The USCRTF was established in 1998 by Presidential Executive Order to lead U.S. efforts to preserve and protect coral reef ecosystems. The USCRTF includes leaders of 12 Federal agencies, seven U.S. States, Territories, Commonwealths (American Samoa, the Commonwealth of the Northern Mariana Islands, Florida, Guam, Hawai'i, Puerto Rico, and the U.S. Virgin Islands), and three Freely Associated States (Palau, Republic of the Marshall Islands, and the Federated States of Micronesia). The USCRTF helps build partnerships, strategies, and support for on-the-ground action to conserve coral reefs.

Throughout the past seventeen years, the USCRTF served as an effective intergovernmental body promoting a holistic, ecosystem-based approach to coral reef conservation, and has facilitated coordination and integration across the federal government to support federal, state, territorial, commonwealth, tribal, and local governments in conserving and managing coral reef ecosystems. The USCRTF provides for integration of priorities and sharing of views among coral reef managers and scientists working at the local and regional levels and regulators and policy makers within each tier of government. Through this unique partnership, the seven coral reef jurisdictions, the Freely Associated States and the federal agencies are advancing cross-cutting priorities at the local level and fostering new innovations by sharing updates, expertise, and information among local and federal managers.

The USCRTF is the leading intergovernmental body implementing several of the priority areas under the Coastal and Ocean Resilience theme of the National Ocean Policy (NOP) Implementation Plan. These priority areas pertain to coral reef ecosystem health and include: Resiliency and Adaptation to Climate Change and Ocean Acidification, Regional Ecosystem Protection and Restoration, and Water Quality and Sustainable Practices on Land. The USCRTF members and partners also play an important role in the Marine Planning process. USCRTF member agencies and partners provide expertise to ensure that the data and information related to coral reef ecosystems are available to regional planning bodies as needed. To enhance our effectiveness within the context of the NOP and in continued on-the-ground action, the USCRTF identified strategic and targeted priorities for FY11-FY14 which can be found in *Resolution 25.1: USCRTF Framework for Priority Action FY11-14*.

From 2011 through 2015 the USCRTF, in collaboration with our state, territorial, commonwealth, tribal, and local partners, as well as NGOs, businesses, and academia, made considerable strides in addressing and/or completing many of the action items put forth in *Resolution 25.1*. Strong leadership and active engagement by federal, state, territory, and commonwealth members fostered a more unified vision and a voice for coral reef conservation. The USCRTF continues to provide an invaluable opportunity for jurisdictional managers, leadership, and federal agencies to interact at a national level, under a shared goal of conserving the nation's coral reefs. These "intangible" connections are truly the legacy of the USCRTF. These connections are forged at every meeting and galvanized by every call in between, yet they are among the most difficult "successes" to measure. The highlights included in this report demonstrate the USCRTF's progress on the action items identified in *Resolution 25.1*. While the value of partnership building and communication opportunities within the USCRTF are not described specifically in each section of this report, they were an essential component of each accomplishment.

## National Ocean Policy

The USCRTF remains engaged in National Ocean Policy (NOP) implementation efforts, providing regular reports on progress. By the fall of 2015 the USCRTF will have completed all three of the NOP action items for which it is responsible:

- Implement coordinated land use and watershed projects in targeted jurisdiction reef locations to reduce land-based pollutants (2014)
- Develop a reference handbook for use when responding, assessing, mitigating, and restoring coral reef ecosystems (2015, as adjusted through quarterly reporting)
- Establish state/territory specific coral bleaching response plans and/or resilience/adaptation strategies (2014)

Additional details on these three items can be found under the Watershed Partnership Initiative, Climate Change, and Coral Injury and Restoration sections of this report.

## Place-based Partnerships

### USCRTF Watershed Partnership Initiative

Land-based sources of pollution (LBSP) present a suite of problems confronting coral reef ecosystems including transport and deposition of sediment, nutrients, and chemical/bacterial contaminants from a variety of land-based activities. LBSP are transported to coral reef ecosystems via multiple vectors: surface waters, runoff, groundwater seepage, and atmospheric deposition. In 2009, the USCRTF began working on a place-based watershed partnership in Guánica, PR, to leverage member resources and expertise to address LBSP. The second USCRTF priority watershed, in West Maui, HI, was established in February 2011 at the same time the USCRTF passed *Resolution 25.1*. A small group of watershed experts from across the USCRTF began meeting to discuss coordination among these USCRTF priority watersheds and to produce a resolution to guide the implementation of a Watershed Partnership Initiative (WPI). In 2012, *Resolution 28.1: Watershed Partnership Initiative* was passed and Faga'alu, AS,

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was adopted as the third USCRTF priority watershed. Shortly after, a Watershed Working Group, which has approximately 50 members and operates by rotating leadership responsibilities among six federal agencies/departments, was established to spearhead the WPI. The Watershed Working Group holds monthly calls to support these initiatives and organizes watershed workshops in conjunction with USCRTF meetings held in the jurisdictions. The overall goal of the WPI is to improve watershed management, reduce stressors to coral reefs at priority watershed sites, and support robust monitoring and stewardship programs. The Watershed Working Group has finalized a strategy for future work focusing on supporting the USCRTF priority watersheds and providing assistance to other ongoing watershed and land-based pollution control sites in all of the jurisdictions.

#### ***Watershed Metrics***

*Resolution 28.1* included specific language to evaluate the success of LBSP reduction efforts conducted in the priority watersheds across three areas: programmatic, ecological, and social/community engagement. In March of 2013, a Metrics Subcommittee was formed. The subcommittee developed a Programmatic Checklist<sup>1</sup> to be used by watershed coordinators to help assess the status of the institutional and stakeholder support for the watershed partnership sites and determine whether agency resources and support are adequate for the successful implementation of a watershed management plan. The subcommittee is currently preparing a recommended set of ecological indicators and sediment and water quality parameters to measure changes in coral reef communities due to interventions made to reduce LBSP in the watershed. The ecological indicators will be finalized in 2015. Lastly, the subcommittee will address the need for metrics to inform social and community stakeholder engagement in each of the priority watersheds.

#### ***Guánica, Puerto Rico***

The success of the Guánica Bay Watershed Initiative has relied heavily on the continued working partnership among federal, territorial, and local governments, non-governmental organizations, and private stakeholders. Utilizing Coordination Funds from the NOAA Coral Reef Conservation Program (CRCP), Protectores de Cuencas, Inc. (PC) leveraged additional resources to continue to implement several projects laid out in the Guánica Bay Watershed Management Plan which was established in 2009. PC, in partnership with coffee farmers, NGOs, territorial, and federal agencies, developed the Shade Coffee Roundtable Initiative that resulted in the attainment of the Ecologically Friendly Coffee Production Standards. In collaboration with the PR Department of Natural and Environmental Resources (DNER), PC completed the Guánica Lagoon Restoration Economic Viability Study. This study serves as a longitudinal analysis documenting the socio-economic benefits of restoring the Guánica Lagoon. PC provides direct support to the community group, Committee Pro-Restoration of the Guánica Lagoon, to

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<sup>1</sup>[http://data.nodc.noaa.gov/coris/library/NOAA/CRCP/other/other\\_crmp\\_publications/USCRTF/FINAL\\_Programmatic\\_Checklist\\_version\\_1\\_Fall\\_2014.pdf](http://data.nodc.noaa.gov/coris/library/NOAA/CRCP/other/other_crmp_publications/USCRTF/FINAL_Programmatic_Checklist_version_1_Fall_2014.pdf)

conduct outreach and education activities and has supported their initiatives by building upon partnerships and documenting illegal impacts taking place in the Lagoon footprint area.

There are several ongoing projects within the Guánica Watershed. Construction of treatment wetlands in the Guánica watershed is in process and thirty percent of the design has been completed. From 2011 to 2014, PC, with funding from the National Fish and Wildlife Foundation (NFWF) and NOAA Restoration Center (RC), successfully developed and tested hydroseeding mixes that were used to successfully stabilize 16 acres of bare soils in the Guánica/Río Loco watershed. This effort resulted in tremendous reductions in sediment runoff than would have been anticipated without stabilization, and provided immediate, resilient vegetative cover in an area previously consisting of highly erodible lands. In August 2014, PC utilized funds provided by the NOAA Marine Debris Program to implement a community-based social marketing campaign to reduce marine debris in coastal ecosystems within the Guánica Bay Watershed. Additionally, PC has conducted more than 30 outreach and education presentations within the last year at symposiums, public conservation events, radio stations, public schools, and municipal offices. These presentations included topics such as the importance of integrated watershed management, best management practices for sediment and erosion control, and promising approaches for coral reef conservation. PC signed a co-management agreement to collaborate closely in the management of the Guánica Dry Forest. In December 2014, PC received additional funding from NFWF to build a nursery of native species to support the Guánica Shade Coffee Roundtable Initiative, the Natural Resources Conservation Service's (NRCS) Environmental Quality Incentives Program, and all of the other watershed conservation efforts PC currently leads in Puerto Rico.

In April 2014 the Municipality of Yauco provided a building (including four offices, a conference room, and space for a nursery) free of cost to host Proctores de Cuencas. PC will soon receive the contribution of two laptop computers from the organization Idea Wild. These contributions support capacity building and will further watershed conservation efforts in Guánica, Cabo Rojo, Culebra, La Parguera (Lajas), and the Northeast Ecological Corridor.

PC has successfully utilized the Guánica watershed management model as an integrated participatory approach for other priority areas such as Culebra, Cabo Rojo, and the Northeast Ecological Corridor. These efforts have facilitated and strengthened partnerships across the Island with local, state, and federal agencies. All of these accomplishments are a result of this strong network of committed citizens working in solidarity for sustainable watershed conservation.

### **West Maui, Hawai'i**

West Maui successfully created a collaborative organizational watershed management structure and is using it for planning, implementation and outreach. Key components include creating the West Maui Ridge to Reef Initiative (R2R Initiative); signing of a cost share agreement between the U.S. Army Corps of Engineers (USACE) and the Hawai'i Department of Land and Natural Resources-Division of Aquatic Resources (DLNR-DAR) for the development of a comprehensive watershed plan to guide the R2R Initiative; forming of an agency funding support team (FAST) and a local working group to guide the implementation of on-the-ground activities in West Maui; and hiring a watershed coordinator. The FAST

members include most of the federal agencies of the USCRTF as well as key state agency representatives. A short-term watershed management plan was completed in 2012 focusing on the watersheds of Wahikuli and Honōkōwai and implementation is ongoing, with 100% of the identified priority projects being initiated. Over \$1 million dollars of agency partner funding have been committed to these implementation projects, and an additional \$400,000 have been mobilized through local matching funds. The development of a second short-term plan for the watersheds of Kahana, Honokahua, and Honolua is now underway. A more comprehensive planning effort led by USACE and partners that includes greater analysis and consideration of long- as well as short-term recommended actions is also underway in the five watersheds within West Maui: Wahikuli, Honōkōwai, Kahana, Honokahua and Honolua. Through leveraging partner networks and a dynamic social marketing campaign, called West Maui Kumuwai, both broad and targeted outreach initiatives have been launched across the watersheds.

While the West Maui Watershed has benefited from the focus and momentum brought by all partners' contributions, the group has several years of work ahead before ecosystem improvements should be evident, and establishing sufficient criteria and indicators for coral stressors that originate throughout the watershed is a continued priority.

#### **Faga'alu, American Samoa**

There has been a lot of activity in Faga'alu, American Samoa, since it was selected in 2012 as the third priority watershed of the USCRTF Watershed Partnership Initiative. Faga'alu finalized the Village Watershed Management Plan in 2012 and an Implementation Supplement was completed by the Horsley Witten Group with support from CRCP in 2013. In these documents, excess sedimentation was identified as a top threat in the watershed and the source was determined to be Samoa Maritime Company, an open pit quarry located above Faga'alu Village. While an erosion and sediment control plan was being developed to address the sedimentation issues at the quarry, joint efforts among CRCP, National Fish and Wildlife Foundation (NFWF), and the Department of the Interior's Office of Insular Affairs (OIA) funded San Diego State University (SDSU) to quantify sediment dynamics and loading baselines in Faga'alu Bay from 2012 to 2015. Before any changes were implemented at the quarry, additional coordinated baseline monitoring was supported by CRCP to document coral demographics in Faga'alu Bay (2013) and contaminants of surface sediments in the watershed and in the bay (2014). Additionally, a baseline socio-economic study for Faga'alu watershed (2014) was conducted. With financial support from CRCP, OIA, and NFWF, and considerable in-kind contributions from Samoa Maritime, a Corrective Action Plan consisting of retention ponds and enhanced drainage was implemented in late 2014 at the Samoa Maritime Quarry to mitigate sediment contributions from the operations at the crushed rock quarry. Instruments from SDSU's research remain in Faga'alu stream for ongoing monitoring. NOAA's Coral Reef Ecosystem Division, American Samoa Community College, American Samoa EPA, Department of Marine Wildlife Resources (DMWR), and the U.S. Geological Survey's (USGS) Pacific Coral Reef Project have contributed to monitoring of coral reefs and water quality in Faga'alu and will remain engaged in long-term monitoring to determine the effectiveness of the Corrective Action Plan. Faga'alu Village and its partners are hopeful that data collected during

continued monitoring will provide quantitative evidence of improved ecological indicators due to the conservation and mitigation efforts implemented in Faga'alu.

Several additional projects are ongoing in Faga'alu including collaborative contributions from the Natural Resource Conservation Service and OIA to provide assistance in converting piggeries to dry litter systems and plant erosion control grasses at farms in the watershed. USGS's Pacific Coral Reef Project, in collaboration with the National Park Service, NOAA, and DMWR, are working to finalize the first high-resolution benthic habitat map of the coral reefs in the bay to improve science and management within the ecosystem.

### **Additional Jurisdiction Priority Watersheds**

Federal, state, and local agencies, in partnership with nongovernmental organizations, have invested in projects targeting LBSP across the seven USCRTF jurisdictions. Examples of these projects include: watershed management planning, building local capacity to address watershed issues, implementing best management practices to mitigate LBSP inputs, and monitoring for the presence of chemical contaminants and biological effects of LBSP (e.g., biological surveys and analyses, measuring water chemistry, and creating habitat maps to locate sensitive areas). Results from these studies provide coral reef managers with the information and tools needed to establish baseline conditions, develop practices and policies to reduce LBSP and improve coastal health, and measure the efficacy of implemented activities. The USCRTF's Watershed Working Group recognizes the need to continue to strengthen local capacity within USCRTF priority watersheds and other jurisdictional priority sites to better address watershed management issues. The Watershed Working Group is awaiting final adoption by the USCRTF of a strategy for the overall WPI to link federal funding opportunities with USCRTF watershed metrics, facilitate workshops that address local issues, and showcase jurisdictional watershed efforts where federal agencies can contribute as well as share lessons learned between USCRTF priority and additional jurisdiction priority watershed sites.

## **Trans-jurisdictional Issues**

### **Climate Change**

The Climate Change Working Group (CCWG) continues to support federal, state, and territorial partners in refinement and implementation of bleaching and crisis response plans and resilience and adaptation strategies under the Regional Ecosystem Protection and Restoration action of the NOP: *Complete State/Territory-specific coral bleaching response plans and/or resilience/adaptation strategies to better coordinate action to address the impacts of climate change and ocean acidification on coral reef ecosystems*. Plans are in place for each of the seven jurisdiction members of the USCRTF. Since 2011, these plans have been used to respond to coral bleaching events as well as crown of thorn starfish outbreaks in the jurisdictions. A community of practice is being established for reef managers who are responding to these types of incidents after a learning exchange event was held concurrently with the 32<sup>nd</sup> Meeting of the USCRTF in Maui, HI (September 2014).

The Corals and Climate Adaptation Planning (CCAP) Project is a collaborative effort of the CCWG established in 2013 to translate the latest guidance on adaptation approaches into a framework that can be used specifically by coral reef managers for place-based adaptation planning. A draft CCAP framework that integrates general principles for adaptation to climate change with information from ongoing advancements in coral reef science and assessment was tested in a stakeholder workshop in Honolulu, HI, in July 2014, using West Maui as a case study. The feedback and contributions from workshop participants are being used to further develop a climate-smart, “adaptation design tool” to help managers address challenges identified at the workshop. Challenges facing managers include temporal and spatial scale differences in both impacts and response to climate change, the need to work across strategic and operational planning levels, the need for a systematic planning process that identifies and deals with interactions (synergies, dependencies, and conflicts) among adaptation options, and decision-making under uncertainty (e.g. uncertainty about both future climate change and ecosystem responses).

The CCWG also implemented a webinar series during standing monthly calls to keep federal and state/territorial partners updated on scientific and management topics, and to facilitate member-provided updates on jurisdictional activities. Topics in 2013-2014 included climate change impacts and response tools and projections, the latest science and methods to inform coral reef management in a changing climate, and climate adaptation-related activities within the agencies of the USCRTF. Webinar-based discussions are a mechanism to increase collaboration on this trans-jurisdictional issue, gather feedback, and advance information sharing.

The CCWG has been instrumental in the formation of two working groups. In 2012, under a mandate established in *Resolution 28.2 Coral Reefs and Climate Change Renewed Call to Action*, the CCWG helped to reconstitute a previously existing working group on education and outreach. After a period of support and brainstorming with the CCWG, the Education and Outreach Working Group (EOWG) became a freestanding working group that still works closely with the CCWG as well as others in the Task Force.

In February 2014, in response to calls from USCRTF members at the 31<sup>st</sup> Meeting of the USCRTF in Washington, D.C., to increase attention and action on ocean acidification, the CCWG stood up a sub-Working Group on Ocean Acidification (OA). Initial meetings hosted on CCWG monthly calls focused on scoping the issue, gathering information, and discussing first-step activities. The OA Working Group quickly became a free-standing group with 2014 accomplishments.

### **Education and Outreach**

The Education and Outreach Working Group (EOWG) was re-established as a result of *Resolution 28.2: Coral Reefs and Climate Change Renewed Call to Action* passed in 2012 at the 28<sup>th</sup> Meeting of the USCRTF in American Samoa. The resolution called for the USCRTF to “Expand and coordinate education and outreach efforts focused on the impacts of climate change and ocean acidification on coral reefs, including reinvigorating the USCRTF EOWG and collaborating with federal, state, and territory climate change initiatives.” Further, per *Resolution 25.1*, the establishment of the EOWG supports activities

advancing information sharing on topics involving trans-jurisdictional issues. Chairs of the reinvigorated EOWG were selected during the 29<sup>th</sup> Meeting of the USCRTF in Washington, D.C. Afterwards, the EOWG started, through monthly conference calls, organizing the educational activities that were developed further in subsequent USCRTF meetings in St. Croix (2013) and Maui (2014).

During the 30<sup>th</sup> Meeting of the USCRTF in St. Croix, USVI, the EOWG organized and sponsored a panel discussion at the University of the Virgin Islands where the watershed coordinators from each of the three USCRTF priority watersheds gave presentations to students, professors, and community members. Each coordinator gave an overview of ongoing projects, and fielded questions from the audience about effective watershed management. Dr. Robert Richmond from the University of Hawai'i closed the panel discussion with a presentation on the effects of nutrients and poor management on coral reef health worldwide. Additionally, the EOWG, in coordination with the 2013 Sunia Fellows, conducted a presentation at a local school, to approximately 75 students and teachers, on the projects they completed during their internships. Through these presentations, the Sunia Fellows described how their experience gave them on-the-job training and encouraged students to pursue science careers. Furthermore, two of the Puerto Rico 2014 Sunia Fellows presented their projects at the 33<sup>rd</sup> Meeting of the USCRTF in Washington, D.C., in February 2015. Also, at the USCRTF meeting in St. Croix (2013) and on Maui (2014), the EOWG coordinated additional educational presentations targeted at enhancing the public's understanding of coral reef ecosystems locally, regionally, and worldwide. These presentations are highlighted in a separate relevant section later in this document.

### **Ocean Acidification**

In 2014 the Ocean Acidification (OA) Working Group was formed to address the critical impacts of ocean acidification on coral reefs. A workshop was held in conjunction with the 32<sup>nd</sup> Meeting of the USCRTF in Maui, HI. Panelists included Jared Blumenfeld, Regional Administrator for EPA's Region 9, which encompasses the Hawaiian Islands, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands (SNMI); Rod Salm from The Nature Conservancy; and Rob Toonen from Hawai'i Institute of Marine Biology, University of Hawai'i. Recommendations to the USCRTF included active support of EPA's efforts to reduce greenhouse gas emissions, continued efforts to reduce LBSP and coastal acidification at priority watersheds, and expanded efforts to communicate OA's current and anticipated impacts on coral reef ecosystems.

### **Coral Injury and Restoration**

Since 2011, the Coral Injury and Mitigation Working Group successfully combined two working groups from the Pacific and the South Atlantic/Caribbean to identify commonalities in lessons learned in both regions regarding best practices in addressing mitigation needs for planned and unplanned activities. With funding from DOI's Office of Insular Affairs, a technical editor was hired in July 2014 to draft a handbook on managing coral reef impacts. The working group will present the draft "Handbook on Coral Reef Impacts: Avoidance, Minimization, Compensatory Mitigation and Restoration" to the 33<sup>rd</sup> Meeting

of the USCRTF in February 2015 and request formal interagency review. The schedule is to submit the final Handbook by the 34<sup>th</sup> Meeting of the USCRTF in Puerto Rico in the fall of 2015.

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In developing the handbook, the working group has identified several emerging issues in coral reef restoration and mitigation where work is only beginning, but where lessons learned may be available in the next several years. These topics include current proposals for mitigation banks and in lieu fee programs, initiatives underway for development of functional assessment methodologies, and ongoing lessons learned as implementation and monitoring of different coral reef restoration activities occur. Keeping the coral reef managers abreast of the lessons learned in these emerging issues is critical to advance knowledge and understanding of effective coral reef mitigation. The working group proposes that the USCRTF commits to continued support of regular updates to the handbook through supplements and white papers to the coral reef community as these emerging approaches come to fruition. In addition, where there are key products of interest developed by a particular agency (e.g. specific actions related to Endangered Species Act (ESA) consultations on listed corals), these could also be included as agency specific white papers.

## **Enforcement**

Enforcement, or regulation, is one tool for managing several of the key threats to coral reefs identified by the USCRTF and others. The USCRTF Steering Committee has engaged participants on the topic of enforcement several times over the Task Force’s history. Identifying key threats to coral reef ecosystems, both in general and at specific locations is a nuanced undertaking. While requests for federal-to-federal or federal-to-jurisdiction trainings sometimes arise, discussions of enforcement in general are too broad to be actionable, even when bounded by the key interest of coral reefs and the primary operational area of the marine environment. Additional analyses and threats assessments could also yield a clearer statement of needs and allow agencies and organizations to better align support to address needs. USCRTF members from the U.S. Coast Guard and the Department of Justice have discussed the enforcement issue with interested representatives from the jurisdictions and other agencies, and the need for re-engagement is evident. Two Steering Committee points of contact have volunteered to lead an effort to determine next steps for the topic of enforcement.

## **Jurisdiction Coral Reef Management Priorities**

The USCRTF provides the opportunity for jurisdictions, mainly state, territory, and commonwealth coral reef management agencies, to work with federal agencies to protect and conserve coral reefs. As members of the USCRTF, the jurisdictions, represented by their Governors and with a unified voice through the U.S. All Islands Coral Reef Committee, are able to share concerns and priorities and coordinate and partner on key priority actions as well as network with federal agency members.

The partnership building and communication opportunities provided through the USCRTF, particularly connecting and collaborating with individual members, have been invaluable in addressing jurisdictional management priorities. The USCRTF continues to provide an invaluable opportunity for jurisdictional managers, leadership, and federal agencies to interact at a national level, under a shared goal of

conserving the nation's coral reefs. These "intangible" connections are truly the legacy of the USCRTF and are forged at every meeting and galvanized by every call in between.

Jurisdictional management priorities are typically addressed at the agency (versus USCRTF) level, such as in the development of watershed management plans and implementation of best management practices (BMPs). For USCRTF priority watersheds and the three jurisdictions that have them, the USCRTF has supported monitoring, capacity building, data collection, and community efforts through the Watershed Working Group meetings, calls, and workshops. These events also serve as place for information sharing with other jurisdictions that do not have USCRTF priority watersheds at this time.

Often the USCRTF is a pathway through which individual members can mobilize to assist with local needs. Through the USCRTF, the Coral Reef Management Fellowship Program has been reinstated, providing initial steps toward increasing local capacity in the jurisdictions. Additionally, by highlighting emerging issues through the USCRTF, federal agencies contributed support to address emerging issues, such as the crown of thorns starfish outbreak in American Samoa. The *Handbook on Coral Reef Impacts: Avoidance, Minimization, Compensatory Mitigation and Restoration*, currently being developed by the USCRTF, may also help support jurisdictional efforts in terms of consistency in appropriate mitigation for direct and indirect impacts to coral reefs. The USCRTF has also provided support and assistance to jurisdictions in planning for and mitigating the effects of global climate change through the development of bleaching and crisis response plans and resilience and adaptation strategies.

The USCRTF continues to identify ways to address local needs and could increase their work in addressing jurisdictional management priorities through greater federal-local integration and a shift in focus towards place-based management and resource outcomes.

## Science to Management

The USCRTF regularly draws on the robust scientific expertise of its members and partners to execute its goals and objectives. Scientific coordination has occurred consistently and this collegial foundation underpins the execution of the activities and accomplishments in this report. The USCRTF continues to strive for dialogue among USCRTF members that promotes information sharing and coordination of scientific activities that can be utilized to enhance the effectiveness of approaches to coral reef management.

During the 32<sup>nd</sup> Meeting of the USCRTF in Maui, HI, a panel on ocean acidification and workshops on ocean acidification and stormwater management were held as part of our science to management effort. The USCRTF is committed to continue hosting scientific discussions and to further engage its members to ensure the best available knowledge is presented and is factored into decisions about coral reef management and conservation.

## Opportunities to Enhance Understanding of Coral Reef Ecosystems

As part of the mission to enhance the general public's understanding of coral reef ecosystems, associated global and local threats, and the importance of coral reef conservation, the EOWG has worked with jurisdictions to conduct educational talks on relevant issues during the USCRTF meetings held in the jurisdictions. For example, during the 30<sup>th</sup> Meeting of the USCRTF in St. Croix, a team presentation on coral bleaching was given by Mark Eakin, NOAA Coral Reef Watch Coordinator and Zandy Hillis-Starr, Chief of Resource Management and Research, National Park Service, St. Croix. Global and local perspectives on coral bleaching were presented to a large crowd, including USCRTF participants and community members during the monthly community lecture series event. Similarly, during the 32<sup>nd</sup> Meeting of the USCRTF in Maui, HI, a "double header" of exciting presentations, accompanied by a wonderful tour of the Kō'ie'ie fishpond cultural site and visitor center, was conducted. First, Hokuale Johnson of the Papahānaumokuākea Marine National Monument talked about how Google Street View is educating the world about the Northwestern Hawaiian Islands. Then, Susan White, Superintendent of the Pacific Reefs National Wildlife Refuge and Monuments Complex, talked about the removal of shipwrecks and reef restoration taking place at Palmyra Atoll and Kingman Reef Refuges. Additionally, personnel from the NOAA Pacific Services Center and the NOAA Educational Council demonstrated several educational products available for K-12 teachers. Each of these activities was attended by more than 80 people. Lastly, on Maui, an herbivore grazer underwater survey was conducted at Kahekili Beach Park in coordination with the DLNR –DAR's Eyes of the Reef Program. Participants during this site visit were able to take part in a survey of the Kahekili Reef, to assist with ongoing research to determine the effect on the reef when herbivore fishing is banned. Participants snorkeled to collect data including herbivore species, behavior, and depth, after receiving a briefing by the DAR staff. A total of 18 people participated in this activity. The EOWG continues to convene regular conference calls and planning activities to support these opportunities to enhance understanding of coral reef ecosystems.

## Internal Operations

USCRTF meetings have become more action and decision oriented. The USCRTF has held Executive Sessions at almost every meeting to deliberate the actions and decisions prior to opening discussion in the public business meetings. Topics for discussion at USCRTF meetings are determined at least one meeting in advance, which has enhanced USCRTF member engagement and allowed for the Steering Committee (SC) to have adequate time to plan a productive meeting around agreed upon topics.

The SC has been reviewing the status of working groups to ensure adequate representation and to establish goals and measures of work products. Outcomes of Working Group actions are shared with other SC members and USCRTF members as appropriate.

# Resolution 25.1 FY14 Work-Plan Status

In order by Resolution 25.1

Projects	Activities and Deliverables	Status
<b>Strategic and Targeted USCRTF Priorities FY11-14</b>		
<b>1a-b. Contribute to the National Ocean Policy: Implementation Plan actions</b>	Remain engaged in NOP efforts Report to the National Ocean Council on progress of the 3 actions for which the USCRTF is responsible: <ul style="list-style-type: none"> <li>• Reference handbook for use when responding, assessing, mitigating, and restoring coral reef ecosystems (2015)</li> <li>• Implement coordinated projects in targeted locations to reduce land-based pollutants (2014)</li> <li>• State/Territory specific coral bleaching response plans and/or resilience/adaptation strategies (2014)</li> </ul>	Actions complete; handbook expected for adoption by USCRTF in November 2015
<b>1c. Contribute to the National Ocean Policy: Marine Planning (formerly known as CMSP) process</b>	Coordinate with and support the Regional Planning Bodies and Regional Ocean Partnerships as appropriate with data, portals, or other needs; Connect our regional ROPs with the National Ocean Council data working group to assist with any needs	Pacific Islands RPB and Caribbean RPB established; coordination ongoing
<b>2. Place-based partnerships: Watershed Partnership Initiative (WPI)</b>	Continue efforts of <i>Resolution 28.1</i> toward efforts to reduce land-based sources of pollution in 3 priority watersheds, and to measure the success of these efforts. The 3 priority watersheds include Guánica Bay, Puerto Rico; West Maui, Hawai'i; and Faga'alu, American Samoa.	Watershed coordinators have been hired in all 3 watersheds. Programmatic Checklist tool for watershed coordinators completed in Fall 2014. In Faga'alu: BMPs put in place to reduce sedimentation. Activities are ongoing and continuing commitment.
<b>3a-d. Trans-jurisdictional issue: Injury Response and Mitigation Working Group (see item #1)</b>	Hire contractor to draft/coordinate injury, mitigation, and restoration handbook and complete handbook	Expected to be submitted for adoption by USCRTF in November 2015
<b>3e. Trans-jurisdictional issue: Education and Outreach</b>	Hold regular meetings of the Education and Outreach WG; Plan activities for jurisdictional meetings; Coordinate the Sunia Internship	Ongoing
<b>3e. Trans-jurisdictional issue: Climate Change</b>	Continue efforts of <i>Resolution 28.2</i> toward state/territory specific coral	Bleaching response plans and adaptation strategies exist and are

	bleaching response plans and/or resilience/adaptation strategies, as well as efforts toward developing <i>Adapting to Climate Change: A Guide for Reef Managers</i> ; Corals & Climate Adaptation Planning (CCAP) Project; engage USCRTF staff that are also staffing the Presidential Climate Change Adaptation Task Force	being implemented in all jurisdictions; CCAP Stakeholder workshop held in 2014 and established relationship with The Nature Conservancy to host online CCAP adaptation tools (next generation of Reef Managers Guide); Stood up the Education and Outreach and the Ocean Acidification Working Groups; and launched monthly webinar series to foster information exchange and collaboration
<b>3e. Trans-jurisdictional issue: Enforcement</b>	Assess current enforcement strengths and shortfalls and, to the extent possible, identify specific highly resolved areas where assistance would likely yield improved reef conservation and management outcomes.	USCG and DOJ have had an initial conversation with the Steering Committee
<b>3e. Trans-jurisdictional issue: Jurisdiction and AIC Coral Reef Management Priorities and Emerging Issues</b>		Some jurisdictional management priorities have been addressed through other action items listed and timely assistance when needed.
<b>4a-b. Science to Management: Begin dialogue among USCRTF members that promotes information sharing and develop a plan for how to better coordinate scientific activities.</b>	CCWG information sharing webinars and the CCAP project developing climate smart tools.	Coordination has occurred as needed during the execution of other activities. The CCWG has launched a monthly webinar series to foster information exchange and collaboration on climate change efforts (science and management) in the federal agencies and jurisdictions.
<b>4ci. Science to Management: Host Scientific Discussions on needs and gaps related to Ocean Acidification, Climate Change, Ecosystem Protection and Restoration, and Water Quality and Sustainable Practices on Land</b>		A panel on Ocean Acidification was held during a business meeting and workshops on OA and Stormwater management. The USCRTF needs to continue to hold scientific discussions regarding each of the topics listed here. CCAP Stakeholder workshops bring together scientists and managers to discuss scientific needs and methods for management adaptation planning.
<b>4cii. Science to Management: Ensure activities in 2 and 3 (above) are informed by science.</b>	Engage scientists throughout entire processes and ensure best available knowledge is used in actions taken.	Ongoing, with a need to capture how we are accomplishing this action.

<b>5a. Opportunities to enhance understanding of issues facing coral reef ecosystems</b>	Participate in conferences; Share information, messages, lessons learned, gaps and needs, and tools with other organizations. Host science talks at annual meetings in D.C. and jurisdictions.	Ongoing
<b>Internal Business</b>		
<b>1. Organizational Structure</b>	Review the status of Working Groups; Ensure clear purpose and end goals of Working Groups	Ongoing
<b>2. Focus on Decision-Making</b>	Develop results-oriented meetings; Hold Executive Sessions; Require working groups to report to the Steering Committee	Ongoing
<b>3. Engage Members</b>	Ensure meeting attendees have appropriate decision-making authority	Ongoing
<b>4. Report on Actions</b>	Track resolutions requiring action	Ongoing
<b>5. Review Charter</b>	Convene a working group to review the USCRTF charter and provide recommendations for revisions	A group reviewed the charter and suggested no revisions.
<b>6. Assess Progress</b>	In 2013, compile an analysis of USCRTF accomplishments and major actions.	Progress is assessed on monthly Steering Committee calls, bi-annually during USCRTF meetings, and in the FY2011-2014 Accomplishments Report.