

Progress Report to the U.S. Coral Reef Task Force on the Caribbean and Pacific Water Quality Resolutions

**Presented by the Coral Reef Task Force Steering Committee
May 4, 2006**

In 2003, the U.S. Coral Reef Task Force acknowledged the linkages between water quality and coral reef health, and adopted two resolutions for improving water quality in the Caribbean and the Pacific. This paper is a report on the progress made so far in implementing those resolutions. It includes a discussion of the resolutions themselves, responses to date from local and federal government, limitations to progress, and proposed future directions for improving water quality to protect coral reefs.

The summary is that there has been a significant response to the Caribbean and Pacific Water Quality resolutions. Most of the elements of the water quality resolutions either have been addressed or are in the process of being addressed. Inherent limitations such as budget constraints have prevented complete implementation of the resolutions. The Task Force and its Steering Committee can continue to play a valuable role to help improve water quality that will protect coral reefs by focusing on a regional approach to information sharing, technical support, and interagency engagement.

Caribbean and Pacific Water Quality Resolutions

The Caribbean Water Quality resolution was adopted at the 9th Coral Reef Task Force (CRTF) Meeting in Washington D.C. (Appendix 1). It identified six items for action within the Florida Keys, Puerto Rico, and United States Virgin Islands (USVI). Inadequate wastewater treatment infrastructure was recognized as a problem in each jurisdiction; the resolution supported three specific efforts to improve conditions. The resolution called for resources to implement wastewater facilities in the Florida Keys, assistance in planning and implementing wastewater hookups in Puerto Rico, and help bringing solid waste and wastewater treatment systems under consent orders in the USVI into compliance. The resolution also advocated implementation of the Comprehensive Everglades Restoration Plan in the Florida Keys, stabilization of unpaved roads in the USVI to reduce non-point source pollution, and assistance in identifying grant opportunities for local governments to address land based sources of pollution.

Adoption of the Pacific Water Quality resolution followed at the 10th CRTF Meeting in Guam and Saipan, Commonwealth of the Northern Marianas Islands (CNMI) (Appendix 2). Seven items were identified for action within this resolution. In contrast to the Caribbean Water Quality resolution, the Pacific resolution itself did not highlight specific projects in the jurisdictions for action, but rather requested each of the Pacific jurisdictions to submit a list of their top infrastructure needs to the Task Force. This resolution called for the identification of funding sources to support local government projects and the Pacific Islands local action strategies related to reducing land-based

sources of pollution. The resolution more broadly asked for enforcement assistance to bring jurisdictions into compliance, assistance to address wastewater treatment, and assistance to address erosion, sedimentation and runoff problems in the Pacific Islands. Additionally, the resolution called for a report on progress made towards addressing this resolution as well as the Caribbean Water Quality resolution be presented at the 12th CRTF Meeting in Miami, Florida.

Both the Caribbean and Pacific Water Quality resolutions recognized that “in the case of the Federal members of the Task Force, support for specific amounts and individual actions will be subject to the budget and appropriations process.”

Initial Member Response

In response to the Pacific Water Quality resolution, the governments of American Samoa, Guam, and CNMI each identified and prioritized their infrastructure needs, and submitted these lists to the CRTF prior to the 11th CRTF meeting in February of 2004. American Samoa identified five priority projects that would enhance water quality for coral reefs at an estimated cost of \$21 million. Their priority list included three stream improvements proposals to reduce erosion and sedimentation, as well as the construction of wastewater treatment facilities for two villages. Guam’s report highlighted nine projects with an estimated total cost of \$87.5 million. These proposed projects included requests for resources to plan and implement closure of a non-compliant solid waste facility, renovations and expansion of two sewage treatment plants, construction of two outfall extensions at two wastewater plants, and design and construction of a new stormwater system in a large watershed. CNMI also identified six projects in their needs report. Like Guam, CNMI’s needs list included requests for construction, renovations, and expansions of wastewater treatment systems in three areas as well as funds to close a solid waste facility. Additionally, CNMI’s list identified several unpaved secondary roads for improvements where significant erosion and sediment runoff occur as well as a plan to establish an island-wide trash and recycling effort.

At the 12th CRTF meeting in Miami, Florida in December 2004, a report was given to the Task Force on progress made to date since the adoption of the resolutions. Members discussed the priority reports that were submitted by the Pacific territories, as well as grants given to support water quality projects. Members recognized the significant needs of the islands for improved infrastructure, and also discussed the proposal of a new mechanism that would make it less expensive for the territories to finance some of their infrastructure projects.

In November 2005, renewed interest in both water quality resolutions surfaced at the 14th CRTF meeting in Palau, and the water quality subcommittee was asked to provide a progress report to the Task Force Steering committee at the 15th CRTF meeting in Washington, DC. This document is the product of that request.

Progress in Responding to the Resolutions

Since the resolutions were adopted in 2003, significant progress has been made to improve water quality in the Caribbean and the Pacific. Though several federal agencies already had existing funding, enforcement, and technical assistance programs designed to address water quality issues prior to the adoption of the Caribbean and Pacific Water Quality resolutions, these two resolutions have encouraged agencies to view proposed projects that benefit water quality with a watershed approach that extends to coral reefs.

The following is a summary of many of the federal activities that have helped address water quality issues in the jurisdictions and have supported items contained within the Caribbean and Pacific Water Quality resolutions.

Identifying grant opportunities. Both the Caribbean and Pacific Water Quality resolutions called for assistance in identifying grant opportunities to address land-based sources of pollution. In 2005, US Fish and Wildlife Service (USFWS) in partnership with NOAA, USDA, and EPA hosted coral reef grant workshops in Puerto Rico and the USVI. These workshops identified federal grant opportunities that may be used to address various threats to coral reefs and included land-based sources. Similar coral reef grant workshops are being planned in Hawaii and the three Pacific territories in 2006.

Federal funding for water quality improvements. Both the Caribbean and Pacific Water Quality resolutions requested assistance in the application of resources to address wastewater treatment. Federal funding to states and territories for wastewater treatment generally comes through EPA via the Clean Water State Revolving Fund (CWSRF), or additionally for the smaller territories through Department of Interior's (DOI) Capital Improvement Program grants, or for rural communities through USDA Rural Development grants and low-interest loans. Appropriations for the CWSRF are set each year by Congress, and have been declining in recent years. In FY06, CWSRF funding for the two states and five territories is about \$50 million. This is approximately one-third less than CWSRF funding in FY04.

EPA works with each state and territory receiving SRF funds to jointly prioritize constructions projects. Thanks to greater recognition of the impact of sewage effluent on coral reefs, including from Task Force efforts such as the water quality resolutions, coral reef protection has become more of a factor along with human health protection in selecting funding priorities.

For example, in the last few years, the U.S. Environmental Protection Agency (EPA) has provided over \$3 million in SRF grants to Guam to replace aging sewer system lines that will prevent sewage system overflows in Agat on the western side of the island, an area rich in coral reefs. EPA has also awarded over \$3 million in grants to CNMI for the design and construction of a deep ocean outfall in Agingan, which will reduce nutrient loading to nearshore reefs. Additionally, in American Samoa, EPA has already provided hundreds of thousands of dollars for engineering plans to eliminate raw sewage from entering Pago Pago Harbor from one of the last unsewered areas of the harbor. EPA and

DOI are working with the local government to provide grants to help fund construction of that project. In Florida, EPA has used CWSRF funding to benefit the Florida Keys. In 2004, a new advanced wastewater treatment system was built in the Florida Keys; over \$4.3 million in CWSRF funds were used to construct this facility. In Puerto Rico, EPA has provided an average of more than \$20 million per year in CWSRF funds for the last several years to improve the wastewater situation.

In addition Department of Interior provides Capital Improvement Program (CIP) funds to the smaller territories to finance infrastructure projects, including water quality. For example, DOI has provided over ten million dollars to improve wastewater collection and treatment in the USVI. In addition, DOI earmarked over two million dollars to close an old dump in Saipan and prevent contaminants from leaking from the dump into Saipan Lagoon.

USDA Rural Development Utilities Program provides financial assistance in the form of grants and low-interest loans to rural communities with populations of less than 10,000. Grants may be made in conjunction with loans to reduce the cost of water, wastewater, and solid waste facilities. The communities must demonstrate that they need federal assistance because they cannot obtain credit commercially. FY05 allocation for this program included funds targeted for the western Pacific (\$830,000 in grants and \$830,000 in loan), US Virgin Islands (\$830,000 grant, \$830,000 loan), Puerto Rico (\$5 million grant, \$14.7 million loan), and Hawaii (\$2.4 million grant, \$6.9 million loan).

Federal funding to address erosion, sedimentation, and runoff problems. Federal grants to address non-point source pollution are available from EPA and NOAA through section 319 of the Clean Water Act and section 6217 of the Coastal Zone Management Act respectively. In FY06, the two states and five territories are receiving approximately \$12.5 million in section 319 funds from EPA and \$11.5 million in section 6217 funds from NOAA. These funds are used to address various non-point source problems to help improve water quality. In American Samoa, non-point source funds have been used to move piggeries away from streams; this has noticeably improved water quality by decreasing inputs of bacteria and nutrients to the streams and oceans. Non-point source funds have been used in CNMI to design road improvements and to re-vegetate the area surrounding the access road to Laolao Bay, one of the most popular dive sites on Saipan.

USDA Conservation Programs on private lands provide off-site benefits to coral reef ecosystems. For the seven jurisdictions and the Freely Associated States, allocations from Farm Bill programs in FY06 total almost \$54 million. These funds are divided among four programs which address environmental quality incentives, wetland reserves, wildlife habitat incentives, and conservation security, and are used to address non-point pollution sources such as sediment and nutrients from private lands.

From 2003-2006 the NOAA Coral Reef Conservation Program has provided approximately \$250,000 a year across the seven jurisdictions to implement priority projects in their Local Action Strategies addressing land based sources of pollution.

Additional funds from state and territory coral reef management grants are also applied to various land based sources of pollution projects.

Research grants have been another way that federal partners have supported efforts to improve water quality. An EPA STAR grant supported research on coral spawning in Guam which led to the prohibition of certain construction and discharge activities during coral spawning periods in Guam. Several other islands have adopted similar restrictions; both CNMI and AS recently incorporated in their water quality standards work-stop provisions during coral spawning periods for dredging projects.

A \$70,000 EPA grant recently funded a project in the College of the Northern Marianas to develop a dry pig waste management system. The US Department of Agriculture (USDA) and the University of Hawaii are also sponsoring this project which may have water quality benefits throughout the Pacific. For example, as a follow-up to the successful pilot in the Northern Marianas, a demonstration project is being funded in American Samoa. Pigs produce large quantities of fecal matter, and if kept in close proximity to streams can degrade water quality by contributing large amounts of bacteria and nutrients. Corals can be harmed by the large nutrient loading from pig waste put into streams. People can get sick and even die from contracting *Leptospirosis* found in pig-waste contaminated waters. If the dry waste management system proves successful in American Samoa, the federal grant and partnership with local government and two academic institutions in the Pacific could be leveraged to reduce harm to people and corals throughout the Pacific and other areas where *Leptospirosis* is a problem.

In addition, in 2005 EPA funded consultants to help better implement and design stormwater regulations in Guam and CNMI. The CNMI/Guam Stormwater Best Management Plans (BMP) Manual, which resulted from this effort, will be used for construction and post-construction implementation. The manual will help contractors and developers to choose appropriate BMPs, and show them how to apply better design techniques to reduce stormwater impacts. Besides federal-local collaboration, this project was a good example of partnership between the territories of CNMI and Guam.

Help for territories to get better financing. While the CWSRF provide funding for improving water and wastewater infrastructure, significant gaps remain in funding needs and availability. As an example, in their 2003 priority needs list Guam identified six projects estimated to cost \$87.5 million. Yet, in FY04, Guam received just under \$770,000 in CWSRF monies. Recognizing this disparity, EPA and DOI spearheaded an environmental infrastructure workgroup in 2004 through the Interagency Group on Insular Affairs (IGIA, chaired by the Secretary of the Interior) to address ways to help the smaller territories improve their infrastructure. The workgroup, which included representatives from Guam, American Samoa, CNMI, and U.S. Virgin Islands as well as from several federal agencies, focused on ways to make it easier and less expensive for territories to obtain capital. A proposal to create a territorial bond bank evolved from this workgroup. By improving their credit ratings and lowering interest rates, the bond bank could help the territories save millions of dollars. Work is still being done to develop the bond bank, but both EPA and DOI are hopeful that this bank will become an added tool

that the territories can use to finance infrastructure projects to benefit water quality, public health, and coral reefs.

Technical assistance. Federal partners have provided technical assistance to many of the jurisdictions to build capacity and improve water quality. Beginning in FY05, EPA detailed professional engineers on loan from the U.S. Public Health Service to water utilities in American Samoa and Guam. EPA has also detailed water engineers from U.S. Public Health Service to the American Samoa EPA and CNMI Division of Environmental Quality. These engineers have already had a positive impact on improving utility operations and improving water quality in the Pacific territories. In addition, DOI and EPA have facilitated and funded a peer review of wastewater systems in Guam and CNMI by technical experts from other utilities in the U.S., and have provided utility operator training in the territories.

In 2005, NOAA supported a watershed expert to work with Guam and CNMI's watershed planning councils to review, assess and update coastal non-point source planning and management efforts. This technical assistance will help build capacity within local government to better address erosion, sedimentation, and runoff problems.

NOAA also hired the Center for Watershed Protection to provide customized training and technical assistance in watershed and stormwater management planning in Hawaii, Puerto Rico, and the USVI. In February 2006, workshops held in Molokai and Maui, Hawaii, presented a suite of watershed protection tools and design concepts specifically adapted to control sedimentation and stormwater runoff in tropical island environments. Similar workshops will be held during the summer of 2006 in Puerto Rico and the USVI.

NOAA has developed a GIS-based tool for local managers which allows them to look at the impact to coral reefs from specific watersheds so that they can prioritize watersheds for management action. NOAA is providing training in Puerto Rico and the USVI on the use of this tool.

Enforcement assistance. Both the Caribbean and Pacific Water Quality resolutions requested assistance to bring relevant jurisdictions subject to enforcement action into compliance. This has been addressed through both training and direct federal enforcement action.

In 2005, Department of Justice (DOJ) and National Oceanic and Atmospheric Administration (NOAA) hosted enforcement training in all of the territories to assist local agencies to strengthen their enforcement capacities. Beyond that, EPA has hosted more program specific inspection training in the three Pacific territories on environmental issues that include hazardous waste, underground and above ground fuel storage tanks, and wastewater. Better compliance in these areas will help prevent contaminants from entering the nearshore waters. In 2005, EPA and the State of Hawaii sponsored enforcement workshops on the use of illegal pesticides in the Pacific territories. As a result of these trainings, local authorities are already reporting changes in behavior that reflect better compliance rates.

Direct federal enforcement action for violations of environmental statutes is another mechanism to protect of water quality. In 2002, non-compliant fuel tanks were common in the Pacific territories. However, enforcement actions over the past few years have resulted in almost 100% compliance in the three territories with consent orders in place to bring the remaining non-compliant fuel tanks into compliance. As most of these fuel tanks are located near the water, these actions have reduced the risk of fuel spills to coral reefs.

Even more significantly, a federal court order with Guam's wastewater system has resulted in improved management and operation, and is addressing significant deficiencies in Guam's wastewater infrastructure. Already, the number of sewage spills in Guam has declined by 90% from 2002-2005. To comply with the court order, Guam's water utility has recently raised \$100 million through a municipal bond to improve its water and wastewater infrastructure. This capital is financing improvements to Guam's infrastructure, including the specific projects highlighted in Guam's report to the Coral Reef Task Force on top infrastructure needs, such as renovation of two large sewage treatment plants and construction of new outfalls for those plants.

In Puerto Rico, an implementation plan for wastewater management hookup prioritization has been implemented by the Puerto Rico water utility. This was one of the action items of the Caribbean Water Quality resolution. On December 2005, the utility implemented this policy; it will be part of a Consent Decree and will be fully enforceable.

In the USVI major strides have been made towards compliance of the Clean Water Act as part of an EPA-initiated Consent Decree. Facilities are achieving compliance with their clean water permit requirements; this was an action item from the Caribbean Water Quality resolution. Construction or upgrading of secondary sewage treatment plants on the islands of St. Thomas and St. Croix, to replace existing primary plants, is underway and is scheduled to be completed in 2007.

Significant enforcement actions have recently occurred in Hawaii. In October 2005, the Hawaii Department of Transportation (HDOT), EPA, Department of Justice (DOJ) and the Hawaii Department of Health reached an agreement estimated to cost \$52 million requiring HDOT to fix Clean Water Act violations at the state's airports and highways. In March 2006, a \$7.5 million settlement, the largest fine imposed on a single landowner at a single site, was proposed for stormwater violations of the Clean Water Act in Kauai.

Information sharing. Sharing information on funding and infrastructure needs in the states and territories among Task Force members has encouraged federal agencies to work more closely together and to better coordinate their resources. As mentioned previously, DOI and EPA provide significant funds for wastewater and solid waste infrastructure through the CWSRF and other appropriations. Realizing that these funds are inadequate to address all the needs of the islands, DOI and EPA have collaborated to help the territories better finance infrastructure projects. USDA's rural development program and EPA share information to improve the potential for certain construction

projects. USDA's Natural Resources Conservation Service and EPA share information on and jointly support several non-point source control projects, including improved pig waste management. EPA and NOAA also work together to review and approve state non-point source plans. In addition NOAA has recently been working with Department of Transportation to improve federal networking on water quality.

Limitations to Progress

Inadequate funds and shrinking budgets hinder progress on many of the infrastructure projects noted in both the Caribbean and Pacific Water Quality resolutions, and the Pacific territories' priority lists. Moreover, the CRTF itself does not have a funding mechanism to support those projects.

While individual member agencies may have funds to support various projects addressing the improvement and protection of water quality, much of the funding levels are set by Congress, and so are outside of the control of the CRTF, or its federal members.

Both the Caribbean and Pacific Water Quality resolutions highlighted the need for additional funds, but the budgets for many agencies and departments have shrunk in recent years. For example, funding levels for the CWSRF in FY06 are 1/3 less than those for FY04; further cuts are expected in FY'07.

Federal members have actively partnered with the states and territories to prioritize existing funding to improve water quality. Federal members have also shown great creativity in using available tools such as training, technical support, enforcement, assistance in helping the territories to get better financing, and partnering with each other to be more effective at improving water quality. However, at some level, constraints on funding serve as a limit on the progress that can be achieved in the area of water quality.

Future Directions for Improving Water Quality to Protect Coral Reefs

The Caribbean and Pacific Water Quality resolutions called on member agencies to support efforts to improve water quality in the regions to benefit coral reefs. Member agencies have made significant progress in the past few years to fulfill those resolution items. Most of the elements of the water quality resolutions have either been addressed or are in the process of being addressed. However, much work still remains to improve water quality and protect coral reefs.

The Coral Reef Task Force has been and continues to be an excellent mechanism for member agencies to work together to improve water quality and protect coral reefs. The Steering Committee believes that it can continue to play a positive role in this. It is planning to maintain a Water Quality Subcommittee that will help the Task Force serve the following roles:

Clearinghouse for Information sharing. The Subcommittee will serve as a clearinghouse that can help Task Force members share information on water quality-related issues (such as the impact of pollutants on reefs) and activities (such as training).

Technical assistance. Many federal agencies provide technical assistance to the territories on various topics, and the Task Force could help serve as a clearing house for technical information gained or made from these ventures. For example, Guam, CNMI and Hawaii have each developed Best Management Practices (BMPs) for addressing stormwater runoff and erosion. Other states and territories may find some of the practices applicable to their situations. Facilitating information sharing benefits others interested in similar topics, and may save jurisdictions from expending additional resources.

Local Action Strategy support. Local Action Strategies in all seven jurisdictions identify locally relevant threats and include priority projects that address threats to coral reefs. These projects include activities to minimize land-based sources of pollution, which affect water quality, research to link coral degradation to specific land-based sources, and establishing or maintaining water quality monitoring activities to measure and track land-based sources of pollution. Supporting implementation of Local Action Strategies will help improve water quality and benefit coral reefs.

Facilitate interagency interactions. Improving water quality is a national priority, and many inter-agency organizations exist to address regional and national environmental issues. Some of these inter-agency organizations have similar goals of restoring water quality, and in some instances the same members also participate on the CRTF. For example, several members of the CRTF also sit on the South Florida Ecosystem Restoration Task Force (SFERTF). Improving water quality is of interest to both groups and increased interactions might be of benefit to both agencies. Facilitating interactions between inter-agency organizations where there are overlaps in membership may help create awareness for the other's activities and help both organizations work more efficiently towards their goals.

Engage others. Many agencies actively participate on projects to improve water quality, but there may be opportunities to engage other agencies as well. Several islands have identified reductions in erosion and sedimentation from roads as priority projects in their jurisdictions. NOAA and EPA have funded implementation of some projects through their non-point source grants. Perhaps there are opportunities for other agencies to support road projects that will reduce erosion and benefit water quality.

Identify other programs. The CWSRF and 319/6217 non-point source programs have been traditional programs used by member agencies to address water quality for coral reefs. However, other water quality programs such as TMDLs and biological criteria may also be tools that could be used to benefit water quality for coral reefs. Efforts should be taken to explore other water quality programs that might benefit coral reefs.

Improve communication on a regional basis. Jurisdictions in the same region often face similar problems. Improving communication within the Caribbean and within the Pacific could facilitate the exchange of information on current issues, projects, and solutions.

Attachment 1

Resolution 9-1: Caribbean Water Quality

Proposed For Adoption By U.S. Coral Reef Task Force
2/27/03

Whereas, in the Caribbean waters of Florida, Puerto Rico and the US Virgin Islands, the coral reef resources are a cornerstone of the economy and support the fisheries of the Gulf of Mexico, Atlantic Ocean and Caribbean; and

Whereas, these coral reefs are extensive and of local, national and international importance, affording domestic and international divers, anglers, boaters, and sightseers the opportunity to develop an understanding of the aesthetic, recreational, economic, and scientific value of these resources to the world economy; and

Whereas, there are many different species of corals found in U.S. waters, which grow in a wide variety of marine habitats. Coral growth is best measured in geologic time, some coral species growing no faster than one centimeter per year; and

Whereas, the coral reefs of the Caribbean exist in close proximity to coastal development that provides lodging and infrastructure to residents and visitors; and

Whereas, these coral reef ecosystems often serve as the receiving waters for land-based pollution such as sewage, industrial effluent, and sedimentation from erosion; and

Whereas, in the U.S. Virgin Islands, the current wastewater treatment system is in dire need of repair, replacement and expansion, to accommodate increasing populations and to avoid the repeated incidents of sewage spills into the ocean. Such spills adversely affect coral reef health and the public health of residents and visitors alike; and

Whereas the Government of the U.S. Virgin Islands is under consent orders from the U.S. Environmental Protection Agency and the U.S. District Court, dealing directly with issues and violations regarding the Territory's failing solid waste and wastewater treatment systems; and

Whereas, in Florida, within the fossilized coral reefs that make up much of the land area of the Florida Keys in Monroe County, there are at least 6,500 cesspits, 25,000 septic tanks, 900 shallow injection wells and other unknown systems being used for wastewater management. Daily tidal flushing through the porous limestone conveys inadequately treated, nutrient-rich wastewater entry into the nearshore coral reef system, the vitality of which is based on maintaining nutrient-poor waters; and

Whereas, in Florida, the coral reef ecosystem of the Keys receives water from the South Florida watershed, and implementation of the Comprehensive Everglades Restoration Plan (CERP) is needed to improve the quality, quantity and timing of water flow to these areas.

Whereas, in Puerto Rico, more than 30% of the population is not connected to a wastewater treatment system and a study to prioritize wastewater hookups and develop an implementation plan is desperately needed; and

Whereas, the coral reefs of the U.S. Virgin Islands are exposed to the effects of erosion and sedimentation from more than 35 miles of unpaved Federally owned roads and more than 10 miles of locally owned roads which drain into Caribbean waters;

Whereas, these and other land based sources of pollution can result in negative impacts to coral reef habitat, varying from complete destruction to disease; and

Whereas, the tropical reef ecosystems of the Atlantic-Caribbean waters are connected by the currents and the movement and migration of organisms, and taking action at the local level is essential for the recovery of coral reefs within the entire region; and

Now, Therefore, Be It Resolved,

That the U.S. Coral Reef Task Force, supports, in coordination with local jurisdictions:

- (a) Assistance to bring the U.S. Virgin Islands facilities into compliance with the aforementioned consent orders;
- (b) Application of resources to address wastewater treatment in the Florida Keys;
- (c) Implementation of the CERP to benefit the coral reef ecosystem of the Florida Keys;
- (d) Development of an implementation plan for wastewater management hookup prioritization in Puerto Rico and implementation of that plan;
- (e) The stabilization of Federally owned as well as locally owned unpaved roads in the U.S. Virgin Islands to eliminate erosion and sedimentation problems; and
- (f) Assistance in the identification of appropriate grant opportunities for local governments in addressing land based sources of pollution,

recognizing that, in the case of the Federal members of the Task Force, support for specific amounts and individual actions will be subject to the budget and appropriations process.

Attachment 2

Resolution 10-2: Proposal on Pacific Water Quality

Whereas, in the Pacific Islands of Hawaii, Guam, American Samoa, Commonwealth of the Northern Mariana Islands (CNMI), and the Freely Associated States, the coral reef resources are a cornerstone of the economy, tourism, fisheries, and traditional cultures; and

Whereas, these coral reefs are of local, national and international importance affording the public at large the opportunity to develop an understanding of the aesthetic, recreational, economic, and scientific value of these resources to the world economy; and

Whereas, coral reefs protect shorelines and support a richly diverse and productive ecosystem; and

Whereas, coral reefs can only thrive under a narrow range of environmental conditions including light, salinity, temperature, water quality, and nutrients, and are thereby extremely vulnerable to anthropogenic inputs to nearshore waters; and

Whereas, the coral reefs of the Pacific exist in close proximity to coastal development which provides lodging and infrastructure to residents and visitors; and

Whereas, these coral reef ecosystems often serve as the receiving waters for land-based pollution such as sewage or industrial effluent, sedimentation and erosion, based on regulations and using management practices that do not adequately take into account impacts on the coral reefs; and

Whereas, in some of the Pacific Islands, current wastewater treatment systems are often in dire need of repair, replacement and expansion in order to accommodate increasing populations and to avoid repeated incidents of sewage spills. Such spills can adversely affect coral reef health and the public health of residents and visitors alike; and

Whereas, over 500 million gallons of raw sewage were spilled in Guam between 1999 and 2002, CNMI has 8,000 septic tanks, many of which were improperly constructed, almost 40% of the population of American Samoa is not hooked up to water or sewage, and there are approximately 18,000 cesspools in Hawaii. Releases of sewage and pollution into the nearshore environment jeopardize the coral reef ecosystem, the vitality of which is based on maintaining nutrient-poor waters; and

Whereas, the coral reefs of the Pacific Islands are exposed to the effects of erosion, sedimentation, runoff from construction and unpaved roads, and other poor land-use practices and these activities can seriously impact coral reef health in some areas; and

Whereas, all of these types of land-based sources of pollution can result in negative impacts to coral reef habitat, varying from poor reef health to complete destruction; and

Whereas, immediate and effective action is needed to ensure these sensitive and slow-growing coral reefs continue to be the cornerstone of thriving ecosystems; and

Whereas, the U.S. Pacific Islands have developed local action strategies that identify strategic short-term actions needed to reduce the threat of land-based sources of pollution on coral reef ecosystems; and

Whereas, these local action strategies have not fully identified the actions needed to address many of the large-scale and long-term infrastructure needs that continue to seriously degrade the Pacific Island coral reef ecosystems;

Now, Therefore, Be It Resolved,

That the U.S. Coral Reef Task Force supports, in coordination with the appropriate local jurisdictions:

- (a) Identification and allocation of funding or other resources to implement the elements of the U.S. Pacific Islands coral reef protection local action strategies that pertain to reducing land-based sources of pollution;
- (b) Assistance to bring relevant jurisdictions subject to enforcement actions into compliance as needed;
- (c) Assistance to address wastewater treatment in the Pacific Islands;
- (d) Assistance to address erosion, sedimentation, and runoff problems in the Pacific Islands;
- (e) Identification of appropriate grant or other opportunities to assist local governments to address land-based sources of pollution;
- (f) Submission of a list from each jurisdiction of the top infrastructure needs to reduce impacts on coral reefs to the USCRTF within 60 days of adoption; and,
- (g) A report by members of the Task Force on progress made toward addressing this resolution as well as the Caribbean water quality resolution by October 2004;

recognizing that, in the case of the Federal members of the Task Force, support for specific amounts and individual actions will be subject to the budget and appropriations process.