

**U.S. Coral Reef Task Force Meeting  
November 3, 2009  
Puerto Rico**

**Resolution 22-1: To improve stormwater management for roads in order to protect coral reef ecosystems.**

**Sponsoring Party** \_\_\_\_\_

Governor of \_\_\_\_\_

U.S. All Islands Coral Reef Committee

Contacts:

Takiora Ingram, U.S. All Islands Coral Reef Committee Secretariat,

[takiora.ingram@noaa.gov](mailto:takiora.ingram@noaa.gov) (808) 944-2286

Vangie Lujan, U.S. All Islands Coral Reef Committee Chair, [vangelujan@yahoo.com](mailto:vangelujan@yahoo.com)

Chantal Collier, U.S. All Islands Coral Reef Committee, Vice-Chair,

[Chantal.Collier@dep.state.fl.us](mailto:Chantal.Collier@dep.state.fl.us)

**Responsible Parties**

U.S. Coral Reef Task Force (USCRTF)

U.S. All Islands Coral Reef Committee

**Background**

The AIC and USCRTF have prioritized Land Based Sources of Pollution (LBSP) as one of the three top threats to coral reefs. Increases in impervious surfaces are known to disrupt natural hydrologic systems and lead to increased sedimentation and coastal pollution. Increased sheet flow causes increased runoff volumes, water velocity, erosion potential and the transport of suspended solids and other pollutants that are known to degrade coral reefs. Stormwater runoff from roads carries hydrocarbons, heavy metals and other toxicants that are harmful to sensitive coral reefs.

The USCRTF recommends that the Department of Transportation (DOT) collaborate with the U.S. Environmental Protection Agency (USEPA), U.S. Fish and Wildlife Service (USFWS) and the NOAA National Marine Fisheries Service (NMFS), and other relevant local agencies, in developing and implementing stormwater best management practices for during and post-construction roadway design, and for stormwater retrofit of roads and related other impervious surface construction that will minimize environmental impacts to coral reef ecosystems. This approach should include adopting procedures that provide valuation for environmental benefits when considering permitting and alternatives for project designs. The approach should aim to improve permitting, compliance, and maintenance for roadway stormwater management in the jurisdictions and facilitate the availability of technical information about stormwater management for

roads.

This resolution should be adopted at this time to develop best management practices and define available low impact environmental tools for roadway and hardening projects that minimize reductions in water and substratum quality affecting coral reefs. This action will assist jurisdictions to reduce LBSP and improve water quality and natural habitats, supporting coral reef resource replenishment through successful reproduction and recruitment events that are water and substratum quality dependent.

**Relevant Mandates and Action to support the development of improved road storm drainage systems to protect coral reef ecosystems:**

**Executive Order #13089 for the Protection of Coral Reefs** mandates that the “Task Force shall oversee implementation of the policy... and support activities under the U.S. Coral Reef Initiative (“CRI”). All Federal agencies whose actions may affect U.S. coral reef ecosystems shall review their participation in the CRI and the strategies developed under it... and to the extent feasible, shall enhance Federal participation and support of such strategies and plans.”

Executive Order (E.O.) 13089 on Coral Reefs also directs U.S. government agencies to avoid actions and decisions that may harm coral reefs. Specifically, federal agencies are required “to the extent permitted by law, to ensure that actions they authorize, fund or carry out will not degrade the conditions of such ecosystems.” This Presidential directive is particularly important given that many potentially harmful activities (e.g. dredging, pollution discharge, fishing, etc.) are expressly authorized, permitted or conducted by federal agencies under existing authorities and programs.

**The National Action Plan to Conserve Coral Reefs**

In 2002, the USCRTF adopted the *National Action Plan to Conserve Coral Reefs* and a *National Strategy*, which included 13 goals for coral reef conservation in the U.S. One of the top threats to coral reefs prioritized was LBSP.

At the 8<sup>th</sup> meeting of the USCRTF held in Puerto Rico in 2002, the USCRTF met to discuss how to increase translation of these broad national goals into on-the-ground management action in the states and territories, and how the USCRTF could better support implementation to reach these goals and objectives.

**Issue Statement:**

Healthy coral reefs require good water, bottom, and habitat quality in order to persist and provide ecological, economic and cultural benefits. Pollution enters coral reef ecosystems in many ways ranging from specific point source discharges such as sewage outfalls and vessels, to more diffuse runoff from land-based sources such as agriculture, coastal development, stormwater from developed areas and roads or golf course irrigation. Water pollution can poison sensitive species, disrupt critical ecological functions, trophic structure and dynamics, and impede the normal settlement and growth

of critically needed reef-dwelling larvae.

A key conservation objective in the National Action Plan to reduce pollution is to “develop innovative partnerships with, and provide technical guidance to, landowners, federal, state and local governments, and users to reduce land based sources of pollution on a watershed scale”.

The AIC and USCRTF have prioritized “Land Based Sources of Pollution” as one of the three top threats to coral reefs. Increases in impervious surfaces are known to disrupt natural hydrologic systems and lead to increased coastal pollution. Increased sheet flow causes increased runoff volumes, water velocity, erosion potential and the transport of suspended solids and other pollutants that are known to degrade coral reefs.

A diversity of tools to avoid, minimize or manage the impacts associated with hardening projects have been developed but have not been routinely incorporated into planning design. Also, past practices have not adequately considered the value of natural resource elements in the cost benefit considerations, and this has often resulted in decisions in conflict with choosing the least environmentally detrimental practical alternative.

The USCRTF recommends that the DOT collaborate with the USEPA, USFWS and NMFS and jurisdictions in improving during and post-construction stormwater management for roads to minimize environmental impacts to sensitive coral reef ecosystems.

**Statement Decision:**

The USCRTF

1. Recommends that the DOT collaborate with the USEPA, USFWS, NMFS and local jurisdictions to improve stormwater management practices during and post-construction for roads and related other impervious surface construction to minimize negative impacts to coral reef ecosystems. All other members of the USCRTF are welcome to contribute technical expertise and resources to the effort.

The following tasks are recommended.

- a. Establish a Secretariat-led working group including USDOT, USEPA, USFWS, NMFS, local jurisdictions, and other interested partners to review existing stormwater requirements and permitting procedures, evaluate deficiencies and informational needs, and develop a strategy for improving stormwater management for roads in areas with sensitive coral reefs.
- b. Identify implementation considerations for the USCRTF for appropriate during and post-construction stormwater management

- practices for roads that minimize water quality degradation on coral reefs resulting from roadway construction and hardening projects.
- c. Evaluate opportunities to elevate considerations of environmental impacts in the project valuation and planning process.

2. The USCRTF requests the working group provide:
  - a. An interim briefing at the 23<sup>rd</sup> USCRTF Meeting.
  - b. A final report at the 24th USCRTF Meeting.