



CORAL BAY COMMUNITY COUNCIL

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Mangrove Debris Removal Guidelines for Volunteers – *Thank you!*

What to wear: THICK-SOLED CLOSED-TOED SHOES, light long sleeves and pants, gloves, sun screen, sunglasses and hats. – It is buggy, sunny and muddy!

Caution: Be prepared to balance on old mangrove roots and uneven ground. Wet mud can be so soft, you can sink in 12 inches or more. There could be sharp debris, metal, glass, etc. hidden in the mud. Avoid these areas or protect yourself in advance with proper footgear – like old hiking boots. **BRING DRINKING WATER!**

We are only removing trash and debris. In general, we will not cut, trim or remove dead mangrove trees. They are natural wildlife habitat and their roots continue to protect the shoreline.

Do not step on new green shoots coming up, choose a path to step on old “dead” red mangrove roots, or rocks and soil only.

Safety First: Avoid using sharp tools. Have a safety volunteer keep people 25 feet away or further when chainsaws or other sharp tools are in active use by professionals.

Hand-carrying debris with no dynamic change to the natural habitat is best!

Thank you so much for helping to clean up Coral Bay’s Beautiful Nature!

Please let us know what creatures you see during the clean up too.

Volunteer name: _____

Mailing address: _____

Email address: _____

Date and hours of cleanup: _____

Notes on what you saw, recommended next debris removal steps:

Mangrove Post Hurricane Biological Assessment

In September 2017, the mangrove forests in Coral Bay and across the Virgin Islands were severely impacted by the tandem effects of Hurricanes Irma and Maria. High winds and intense wave energy combined damaged, uprooted and killed mangroves and other trees along our coasts. The Coral Bay Community Council (CBCC) contracted Geographic Consulting, LLC (a natural resources management and consulting company) to conduct a mangrove forest health assessment in Coral Bay in January 2018. The analysis documented the extent and severity of this damage using traditional forestry measurements, GPS mapping and photographs. The work was funded by a grant to CBCC from the Friends of the Virgin Islands National Park. Here are highlights from the report:

Findings

- Uprooted, dead and damaged trees were found along the entire coastline. However, many of the damaged trees are regenerating vigorously.
- Red mangroves which grow in the deepest water, bore the brunt of the wind and wave action. Thereby, they were the species most severely affected.
- Red mangrove propagules or seedlings were abundant and growing vigorously in many places where the forest canopy was lost. The mangrove system has already begun “healing itself” just months after the storms.
- Wildlife continues to use the mangrove habitat, including dead snags.
- Mangrove hydrology is the movement of fresh and salt water through the system and is the single most important factor in determining where mangrove trees grow and how healthy they are. The hydrology of Coral Bay’s mangroves may have been altered in some areas by erosion and sediment deposition.

Recommendations for Trees

- Dead and damaged trees still provide ecological benefits and should not be cut or removed. Red mangrove tree roots continue to provide protection for fish and other small creatures. The roots and trees, although dead, are still protecting the coast and trapping sediment and soil.
- Standing dead trees (or snags) in mangrove forests provide great terrestrial habitat. Birds use the broken branches as perches. Insects use the wood to make their homes and to produce their next generation. Removing dead trees would result in the displacement of wildlife that uses the physical structure of the trees. Changes in temperature and soil saturation could also occur due to the removal of dead trees, thereby affecting the many fiddler and land crabs that reside in the wetlands.
- Dead red mangroves, in particular, continue to stabilize the site where they once lived. The young propagules and saplings growing below them still benefit from this stabilization.
- Together, the dead trees combine to form a large volume of biomass. The organic material should be left onsite and remain part of the nutrient cycle.

Recommendations for Debris Removal

- When removing storm debris, consider the damage that extraction will cause and how to minimize it. It is better to damage dead trees than live trees and seedlings.
- In some locations it would be helpful to have a land-side team and a sea-side team on a boat working in tandem. This will permit trash and debris to be removed along the path of least resistance

Large pieces of roof and plywood are difficult to drag through the dense forest while still intact. Consider having professionals use battery powered saws to reduce the size and make removal easier and less impactful to the forest.