

WFCRC Strategic Plan 2021

Join WFCRC

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I. Risk Assessment and Prior Management Actions:

- A. There is an immediate and strategic need to better administer to our oceans' health, coral reefs, and coastal environments. The goal is to make the objectives conversational and viewable so everyone "young and old, near and far" can address these marine concerns in a meaningful and objective manner. As believers in evidence-based science, we share the framework necessary to provide better data-driven decisions.
- B. All projects utilize programs developed for, and are built around an ESRI Geographic Information System (GIS) database that embeds ecosystem services into stakeholder-driven planning processes.
- C. In order to better administer to the health of our oceans and to share our GIS knowledge with other like-minded organizations, The World Federation for Coral Reef Conservation (WFCRC), is offering limited GIS support for individuals and organizations, whose goals of coral and coastal conservation aligns with our strategy. We are supporting the United Nations Sustainable Development Goals SDG14 (Life Below Water) & SDG17 (Partnership for the Goals) with Voluntary Commitments for the past three years.

II. From the Director:

Coral reefs are ecologically and economically important to our wellbeing. Coral reef ecosystems provide critical habitat for a wide range of fish and invertebrates.

Ecologically, they are essential for many species that rely on their habitat for food, shelter, and breeding. Coral reefs also provide protection for our shorelines during tropical storms and hurricanes due to their massive structures.

Economically, coral reefs support many species that are important for recreational and commercial interests including activities such as diving, snorkeling, and commercial

fishing. In southeast Florida alone, coral reefs are estimated to value \$8.5 billion and generate over 70,000 jobs. The benefits of coral even reach the medical industry which uses coral to treat cancer, arthritis, bacterial infections, and several diseases.

With all of us working together we can make an impact on coral conservation efforts within years, not lifetimes. The loss of coral reefs would be a devastating loss to the entire world's ecosystem. The need for local and global observations and the *science of where*, will continue indefinitely well into the future, as we develop new and advanced avenues to protect our coral reefs and coastal communities.

III. Competitive Advantage:

- A. Non-Profit 501 c 3 organizations enjoy the advantage of raising funds for projects and operational support from a wide variety of resources while offering tax deduction for donations and/or project sharing. The most comprehensive advantage that we have made is more than just observing our marine world, but monitoring and projecting trends, solutions, and problem areas, more than just for current viewing, it's a *predictive* tool. We are able to ask the question What If? The use of a predictive tool lends itself to long term development as a living document transforming data into actionable insights.
 - The combination of our marine conservation implementation is unmatched by any organization in the Keys. We merge international and local science with local marine events and citizenry with ecotourism and make it available to all WFCRC network members. Free of Charge!
 - 2. Our *Document Gallery* is the result of over a decade of gathering research, articles, and related subjects locally and internationally that are highly relative to our objective. This gives our members a current and historical view of how other parts of the world are dealing with the same issues. This is a continued effort to connect our local participants with similar conservation efforts around the world.
 - 3. The structure of our organization is defined by our volunteers. From our very beginning, we knew that to receive funding from some resources could have some bearing on the way we pursue our goals. We felt that total freedom to pursue our projects would allow us the opportunity to impact areas of our choice. However, funding and grants are what makes it possible.
 - 4. Both internal and external components are considered when doing SWOT Analysis, as they both have the potential to impact the success of a project or venture. The SWOT analysis process involves four areas and consideration is given to both internal and external components. Strengths, Weaknesses, Opportunities, & Threats.

Measuring success:

| Measurement | New Members | 10% Yearly Growth |
|----------------------|---------------------|-------------------|
| Target | Response Reaction | 10% Yearly Growth |
| Source | CRM & Media Outlets | 10% Yearly Growth |
| Frequency Evaluation | Quarterly | Fixed |

IV. Mission, Vision, & Objective:

- A. *Mission*: To collaborate with both governmental and non-governmental organizations on a united front to enhance and restore our reefs and marine ecosystems through education, outreach, and data sharing utilizing the most current Geographic Information System technology, software, and workflows.
- B. Vision: Utilizing grassroots efforts to build healthy and thriving ecosystems through technology, inclusion, education, and research. Turning the long term effort to minimize what we throw into the ocean into a very short term goal for best results. We promote stewardship rather than ownership.
- C. Objective: Identify, analyze, and increase understanding of the environmental and societal impacts of marine debris by assessing impacts and risks to targeted species and sectors while adhering to all governmental laws and/or regulations protecting coral reefs and doing no harm.

V. Sustainable Goals:

A. Knowledge Exchange

- Continued and long term Knowledge Exchange and collaboration. We continue to attend and share knowledge at major marine conferences and events like Ocean Day, March for the Ocean, SharkCon and many others.
- 2. We continue to work with state parks like The John Pennenkamp Coral Reef State Park where we executed mangrove cleanups in four different locations and are currently identifying additional areas to clean up and are pursuing the necessary credentials to be part of NOAAs Derelict Fishing Gear Removal programs and combining our proposed Hope Spots with NOAA's Hot Spots to illuminate areas of special needs with special events
- 3. We engage other Florida state parks for cleanups in mangroves, beaches, and shallow waters as a part of our coral protection efforts.

- 4. The Tortuga Tour Plan is one of awareness, seeing and touching a lifesized bronze turtle and learns about turtle conservation as a road trip for the turtle, starting in Key West moving north to other locations for viewing. The Florida Turtle Hospital in Apollo Beach has expressed an interest in displaying our turtle in their facility and at public events.
- B. Promote Partnership between science and marine ecosystems and to engage in long term collaboration with grassroots participants, like-minded constituents, and organizations. It is our desire to be a contributing member of organizations and projects such as NOAA's Iconic Reefs and Hot Spots, Clean Seas, Marine Debris, The United Way of Collier and the Keys, UNESCO and State and Federal Organizations.
 - 1. Development of Studies, Work Flows, and/or Tools to beat the predicted trends brought up by GIS monitoring and sharing.
 - 2. Seek out specialists, scientists, and input for locals on a regular basis for their input.
 - Add assistance to FKNMS Sanctuary Preservation Areas Iconic Reefs and Control Sites (Carysfort Reef & Elbow Reef, Looe Key & American Shoal, Sombrero Key & Delta Reef, Eastern Dry Rocks & Sand Key)

VI. Projects:

A. Geographic Information System (GIS): Implementation of ArcGIS web maps, databases, and dashboards will reflect high relativity to the WFCRC Keys project location.

This information will not only include reactive information but it will also allow us to predict reactions which will help with the identification of trends, hot spots, and/or problem areas. Creating a **high level of situational awareness** for The Keys and select locations in the Keys, not seen before.

- 1. These objectives are accomplished by a variety of Geographic Information Systems (GIS). We leverage our ArcGIS Online license to create platforms like the ground-breaking Keys Collector for the Florida Keys. Providing critical information to the general citizenry, county, and policymakers in near real time. Coastal communities developing conservation and restoration projects need to understand dynamics at local scales to target conservation and restoration efforts, using these different tools: see attached link
 - a) GIS Dashboard Coral reef Mapping tool
 - b) WFCRC Story Web maps
 - c) Keys Collector

d) www.wfcrc.org

- B. <u>Coral Grow/Plant: Long term project.</u>
 - 1. Early on we should be volunteering with other organizations that are doing this work actively.
 - 2. Raise money for this project our goal is \$50K quarterly, to start and \$300-\$400K cost before out-planting coral #1. The last facility to hit the market capable of large scale coral production (5,000-15,000 corals monthly, after an 18 month grow out period) in Florida was for sale and valued at \$4M.
- 3. This program will run alongside our kids program and our coral mapping tools.

C. Coral Reef Mapping Tool

- 1. Using the trends and data from the GIS software we have created a suite of solutions to help protect the underwater world.
 - 2. Our model of conservation workflows is encouraged to be adopted by other nonprofit organizations.
- D. Kids Program: Host a week-long program for kids ages 10 and above. During this time students will get their Open Water Certification along with a Citizen Scientist Certification. These programs will run at least once a quarter. During that time kids will learn:
 - 1. How to have proper buoyancy to reduce the impact on the coral while learning how to scuba.
 - 2. Have a better understanding of why the ocean environment is important to humans and our ecosystem. This will be possible with visits to marine facilities like MOTE for a hands-on experience.
 - 3. Scientific skills needed for coral restoration projects through coral cropping simulations in a controlled underwater environment.
- E. Carrack Entertainment Studios Plan: Carrack is poised to be a positive force in entertainment using renewable resources to promote a "Blue Economy" in local communities while protecting culture, fostering and creating sustainable environments, and maintaining focus on global initiatives. Our purpose is to surpass the needs of each community with the desire to create immersive, sustainable environments in innovative media solutions.
 - 1. Focus on providing non-profits, working towards Sustainable
 Development Goals, with a core-collaborative and innovative team focused on
 creating and implementing technology for sustainable studio environments.
 - 2. Will develop opportunities alongside other WFCRC programs for youth and underprivileged through both virtual and on-location training.
 - Shall nurture current relationships and cultivate lasting relationships within local and global communities and with non-profits by supporting the SDG media needs of partners.

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The only thing necessary for the triumph of evil is that good men do nothing"....Edmund Burke