

# Mission to Recover the Coral Reefs of the Florida Keys

he iconic coral reefs of the Florida Keys are the foundation of the vibrant regional economy that hosts 5 million visitors per year. North America's only barrier reef protects the island communities from catastrophic storm surge, while also supporting a world-renowned destination for diving, snorkeling, and fishing. However, decades of compounding stress from coral bleaching, coral disease, hurricanes, and high impact human use have significantly degraded the coral reefs. The United States is on the verge of losing a national treasure. Emergency action is required to keep Florida Keys coral reefs from collapsing beyond a point at which they can be restored and protect the economy that depends on them.

## **Restoration Strategy**

NOAA and partners have developed a bold mission to restore seven ecologically and culturally significant coral reefs within Florida Keys National Marine Sanctuary. The selected restoration sites represent a diversity of habitats, support a range of human uses, span the full geographic range of the Florida Keys, and show a high probability of restoration success. The mission represents one of the largest investments ever undertaken in coral restoration.

Informed by years of research, successful trials, and expertise from scientists and restoration practitioners, this effort complements other regional management efforts and will result in resilient and regenerative coral reefs in the Florida Keys.







Mission: Iconic Reefs will proactively intervene with natural conditions by restoring a diversity of stony corals, reintroducing algae-grazing species to support coral health, and building community stewardship by engaging stakeholders in the continued maintenance and monitoring of the sites. Active restoration will begin immediately by

Coral reefs are dynamic ecosystems comprised of stony corals, soft corals, sponges, and algae.

276

#### Status quo

Current stony coral cover in the Florida Keys is around 2%, based on 2019 observations from Iconic Reef sites only. Historically, Florida Keys healthy reefs had about 30-40% coral cover.



### Phase 1

Goal: Restore to 15% stony coral cover Method: Restore elkhorn coral, a species not susceptible to stony coral tissues loss disease. Restore star, brain, pillar, and staghorn corals, and introduce algae-grazing species.



#### Phase 2

Goal: Restore to 25% stony coral cover Method: Restore more elkhorn, star, brain, pillar, staghorn, finger, and blade corals to increase reef biodiversity.

scaling-up the propagation of quick growing elkhorn and staghorn coral species, rapidly returning structure to the reef. Research and development of restoration methods for the other stony coral species will occur simultaneously to support later phases. The need for additional infrastructure and personnel will also foster a new economic sector for the Florida Keys region, centered around this innovative effort.

### **Working Together**

NOAA isn't in this alone. Our expanding network of world-renowned scientists, federal and state agencies, local restoration partners, and community stakeholders will promote a collaborative effort, so that everyone can make a meaningful contribution to Mission: Iconic Reefs.

