

## **NOAA Coastal and Marine Habitat Restoration Grant**

### **Components:**

#### **PHASE ONE: Construction of a coastal dune habitat on Historic Virginia Key Beach Park and surface grading**

- Approx. 2,000 linear feet and 15,000 cubic yard of sand material.
- Construction of 8 dune crossings varying from 30-60 feet in length
- Native re-vegetation on the coastal dune approx. 2 linear acres (2,390 coastal shrubs and plants; 53 coastal trees; 30,000 Sea Oats)
- Grading and leveling Sand material throughout the historic park
- 6-8 week dune construction project; employs 17 workers
- 3 week dune vegetation project; employs 20 workers
- 2 week dune crossing project; employs 6 workers
- 1 week post and rope installation on dune project; employs 6 workers
- 6 week vegetation watering, fertilization, replacement and monitoring project; employs 8 workers
- Pre-construction survey and “as built” survey
- Cost: 188,720

#### **PHASE TWO: Construction and Re-vegetation of Tropical Hardwood Hammock on Historic Virginia Key Beach Park**

- 15.5 acres of Tropical Hardwood Hammock
- 12 week vegetation project: employs 26 workers including trucking and major installation team
- 6 week vegetation watering, fertilization, replacement and monitoring project; employs 10 workers
- Native re-vegetation in the tropical hardwood hammock 15.5 acres (3,435 trees; 6,520 plants and shrubs)
- Cost: 237,212

#### **Freshwater Pond Clearing and Water Quality Management**

- 3.2 acres of freshwater Pond with Wetlands
- 4 week selective exotic removal and clearing of pond area (2.5 acres); employs 8 workers
- Native plantings and debris hauling and disposal
- Cost: 24,000

#### **PHASE THREE: Construction of Native Plant Nursery with outdoor classroom component**

- 15,000 sq. ft. native plant nursery, fencing and preparation areas (100x150)
- 3,000 sq. ft. outdoor classroom with covered area (50x60)
- Water/electrical infrastructure, portable office, sheds, nursery equipment and supplies
- 2 week water access project: employs 4 workers
- 2 week electrical access project: employs 2 workers
- 4-5 week nursery construction project (fencing, land contouring, light construction): employs 8 workers
- 78 week initial nursery set up and vegetation supply, preparation, organization and continued operation; employs 4 workers (1 park naturalist, 1 nursery assistant, 1 volunteer coordinator, 1 programming specialist)
- Cost: 248,000

#### **PHASE FOUR: Buoy Line Purchase and Installation on Virginia Key**

- 25 Swimmer Safety Zone Buoys
- 25 special down lines with shock absorber for buoys
- 25 auger anchors
- Installation of 23 auger anchors, down lines and buoys
- 3 week buoy line installation project: employs 5 workers
- Cost: 20,550

#### **PHASE FIVE: Debris field removal and hauling on Historic Virginia Key Beach Park**

- Approx. 800 linear feet seaward of the Mean High Water Line extending approx. 50 feet off shore
- Survey, permit, excavation
- 2 week excavation project: employs 6 workers
- Cost: 35,000

#### **Equipment for habitat construction and project maintenance**

- Pick up truck
- All-terrain gasoline powered ATV 4x4 with flatbed
- Loader/backhoe
- Bobcat & various attachments
- Watering reservoirs and pump(s)
- Chain saws, circular saws, trimmers, edgers, ladders
- Laptops w/docking stations (2), printers (2), wireless router
- Cost: 92,500

#### **Interpretative signage and way finding**

- Themed interpretative and way finding signage for historical elements on the

- historic park property - design, fabrication and installation
- Interpretative and way finding signage for elements on Virginia Key - design, fabrication and installation
- Cost: 600,000

**Project management, monitoring and maintenance staff (duration of 18-month project)**

- Project management: 78 week management (length of total project); employs 3 workers (2 coordinators, 1 administrative assistant)
- Cost: 157,500
- Project monitoring: 78 week monitoring (length of total project); employs 3 workers (NOAA research staff)
- Cost: 200,000
- Project maintenance: 78 week maintenance (length of total project); employs 26 - 10 workers throughout varying phases of the total project
- Cost: 252,000