



USACE JACKSONVILLE DISTRICT

PROTECTED SPECIES MONITORING AT CANAVERAL LOCK IN SUPPORT OF CANAVERAL LOCK SECTOR GATE MAINTENANCE

Brevard County, Florida

PROJECT HIGHLIGHTS

CLIENT PROFILE

U.S. Army Corps of Engineers (USACE) operates and maintains navigation locks and dams, including the largest navigation lock in Florida – Canaveral Lock in Brevard County. Built in 1965 for vessels passing from the Banana River to Port Canaveral and, ultimately, to the Atlantic Ocean, Canaveral Lock allowed passage of Apollo rocket first-stage boosters. It also prevents hurricane tides and saltwater intrusion into the Banana River. For more than 15 years, MSE has supported USACE districts nationwide to comply with federal, state, and local regulations governing various ecological projects.



Aerial view of Canaveral Lock, January 2, 2020

PROJECT OVERVIEW

In 2019, USACE Jacksonville District closed the Canaveral Lock to perform sector gate maintenance and dewatering. Protected species (Florida manatees, bottlenose dolphins, green sea turtles) that use the lock to transit between the ocean and river were unable to do so during closure. MSE provided visual and aerial protected species observers (PSO) for the duration of the project, which was scheduled for winter months when Florida manatees are less likely to pass through the lock system. When temperatures drop, manatees require a warm water refuge, and those that were oceanside prior to closure can become trapped and cold-stressed, requiring rescue. MSE's PSOs identified manatees located oceanside, monitored them for signs of stress, and coordinated with state and federal agencies on rescue or relocation.



Adult Florida manatee and calf, Canaveral Lock, January 24, 2020

CHALLENGES

- Minimizing interruption to ongoing construction activities

THE MSE GROUP APPROACH

MSE visually monitored the water surface for protected marine species during any in-, on-, or over-water work and east of the lock for the scheduled hours. MSE PSOs also conducted three aerial surveys to observe waters east of the lock and in the ocean for manatees that were trapped/required rescue. MSE maintained direct communication with Florida Fish and Wildlife Conservation Commission and U.S. Fish and Wildlife Service during manatee sightings to relay information needed to determine if rescue was required. MSE maintained open communication with PSOs and onsite USACE staff so that all activities were monitored, limiting potential interruptions to ongoing maintenance.



Juvenile green sea turtle, Canaveral Lock, January 15, 2020

ACCOMPLISHMENTS

- Protected marine species; avoided injury or harm to any wildlife
- Communicated with onsite USACE staff to limit interruptions to construction/maintenance activities

AREAS OF EXPERTISE

- Marine species identification
- Protected species observers and aerial observers