



NATIONAL CONSERVATION LANDS

Eastern States
2023: Annual Manager's Report

Jupiter Inlet Lighthouse Outstanding Natural Area



Map



Accomplishments

The Jupiter Inlet Lighthouse Outstanding Natural Area (ONA) hosted over 150,000 visitors in Fiscal Year (FY) 2023, expanding its offerings of historical interpretation and environmental education to a wider audience. In addition, the ONA completed work on its 'Septic to Sewer' project and formally opened its new public restrooms and meeting house (photo below) for use. Other progress was made on undergrounding electrical service and replacing antiquated components of the Lighthouse's electrical systems. The Great American Outdoors Act shoreline stabilization project received an additional \$3,000,000 grant award in non-federal funds from the Florida Inland Navigation District to support this important work.



New Meeting House Facility at the ONA inside a remodeled 1960's era USCG home that now includes public restroom facilities.

The highlight of the year, however, was the coming together of all 22 of the ONA's formal and informal partners for a celebration of National Public Lands Day. Nearly 500 participants joined in a morning of volunteer service combined with a daylong celebration of public lands and the partnerships that support their important resources and values.

Challenges

The biggest challenge facing the ONA continues to be the rapid erosion of the ONA's shoreline. A mix of natural processes, climatic factors, and public use has led to erosional rates of up to 7 ft per year along the shoreline. Dramatic impacts have occurred to several resources including loss of habitat, damage to sensitive archaeological sites, loss of recreation opportunities and scenic impacts. Two projects designed to resolve these issues, funded by Great American Outdoors Act and the Bipartisan Infrastructure Law, made progress with completion of their designs and submittal of their permit applications to the Florida Department of Environmental Protection and U.S. Army Corps of Engineers. The project is anticipated to receive permits in 2024 and begin construction later that year.



Erosion along the ONA's Indian River Lagoon Shoreline showing loss of vegetation (collapsed cabbage palms and Seagrape)

Visitors

The Jupiter Inlet Lighthouse ONA is a popular destination for a wide range of activities from birdwatching and photography to beach and motorboat use. Visitors enjoy a range of cultural and historic interpretive and educational activities, along with a robust program of environmental science activities to include marine science education, natural area interpretation and wildlife appreciation. Visitation occurs year-round, with peak visitation in March for those interested in touring the Historic Lighthouse. Memorial Day is typically the highest single day visitation of the year, primarily due to dispersed use of the ONA.

Throughout the year, the Jupiter Inlet Lighthouse ONA supported visits from over 150,000 individuals. Visitation increased approximately 10% over the previous year. The increase in visitation came as on-site programming increased with new educational and interpretive programs offered by partners and in association with new facilities on site. Dispersed use visitation remained high after a significant increase from the previous year.



Presenters from Leave No Trace conduct programming for local BSA Scout Troops at the ONA.

This ONA also hosted several large-scale events ranging from the Family Adventure Day that typically attracts 2,000 participants, to the Wild and Scenic Film Festival and Lighthouse Rendezvous.

Partnerships

Several formal partnerships supported ONA management for the duration of the year. Long running partnerships with the Loxahatchee River Historical Society (LRHS) and Palm Beach County (PBC) continued to support visitor services and natural area management. In addition to these partnerships, law enforcement agreements with the Tequesta Police Department, Jupiter Inlet Colony, and PBC Sheriff's Office supported routine patrols of the ONA and emergency response as needed. Throughout the year, the LRHS assisted with management of cultural/historic resources, visitor services, and educational programming. The LRHS has a dedicated staff to manage the maintenance and operations of the lighthouse and associated historic structures on the site, as authorized through their lease with the federal government initiated with the USCG. This year, they gave interpretive tours, facilitated programs, and events, provided School Board approved curriculum and teacher resources concerning the Jupiter Inlet Lighthouse.

PBC's Department of Environmental Resources Management provided management assistance for the natural area portions of the site. Their work primarily focused on fuels reduction, firebreak maintenance and biological resource monitoring, to include routine surveys of special status species. A highlight of the work this year including mechanical fuels treatments, in place of prescribed burns.



Vegetation treatment performed at the ONA in conjunction with Palm Beach County Environmental Resources Management Division.

Science

The BLM continued its partnerships with Palm Beach State College and Florida Atlantic University to conduct scientific studies in support of the management of the ONA. This year, Palm Beach State College’s scientific research established a baseline survey of shoreline biodiversity for the Jupiter Inlet District and BLM’s project to install a living shoreline along the Loxahatchee River.

Throughout the year, Florida Atlantic University continued to monitor the ONA’s shoreline as part of the project: “UAS based 3D Shoreline Change Detection of Jupiter Inlet Lighthouse Outstanding Natural Area”. Data from this study was presented to a wide range of audiences and is being used in the ONA’s Shoreline Stabilization and Restoration projects. Florida Atlantic University is also host to the Florida Public Archaeology Network (FPAN) that works onsite to enhance the ONA’s cultural and historic resources. Conducting active archaeological research, FPAN adds to the wealth of knowledge about the site’s history and provides educational and interpretive programs using innovative technologies supporting the field of study.



Students attend the first Archaeological Field School at the ONA combing study and hands on field experience with continued discovery and understanding of the ONA’s history.

Climate Impacts

The Jupiter Inlet Lighthouse ONA increasingly shows impacts from climate related change, including increased sea-levels, stronger more frequent storm events, and higher than average tides. These factors, coupled with changing rainfall patterns, changes in temperature and seasonal effects, create stressors within the ONA that have adverse impacts on some of the values for which the site was designated.



The most significant concern is that of sea-level rise. Significant archaeological, historic, and biological resources are found at sea-level, and are already considerably impacted by erosion and tidal influence. Any increase in sea-levels will have potentially devastating impacts to portions of the ONA.

Climate Resiliency

Adaptation and resiliency to climate is a key component of the Jupiter Inlet Lighthouse ONA's management strategy. This year the ONA continued enhancement of its living shoreline and implemented several native plant enhancement projects in partnership with the Nature Conservancy and the Institute for Regional Conservation. The goal of the plantings is to increase population numbers and species diversity of several of the ONA's key native plants that are particularly susceptible to changes in climatic conditions, including increased rainfall or prolonged periods of drought. The newly planted areas increase the extent of these native species throughout the site adding layers of resilience to the sensitive habitats at the Jupiter Inlet Lighthouse ONA.



The Institute for Regional Conservation leads volunteers in a native planting project at the Jupiter Inlet Lighthouse ONA.

Social and Environmental Justice

The Jupiter Inlet Lighthouse ONA continues to strive to make events and activities relevant and accessible to all members of the community. This was accomplished by BLM's commitment to providing equipment necessary to accommodate virtual tours of the lighthouse for those unable to climb; to creating social media posts highlighting the achievements of previously under-recognized local historical figures; to making the path to the new pier ADA accessible for veterans' fishing events; and to leading guided experiences targeted to underserved communities.

A new partnership with El Sol, brought new community members to the ONA for tours and service projects, while new programs conducted in partnership with the MANG Foundation brought Boys and Girls Club participants from key Environmental Justice populations to the site for a day of environmental education focused on mangroves.



EL Sol volunteers lend a hand to habitat enhancement projects at the ONA.

Events

The BLM and its partners hosted a range of events at the Jupiter Inlet Lighthouse ONA including general and coastal cleanups, mangrove planting volunteer days, citizen science bird counts, Family Adventure Days and National Public Lands Day. Other events included Scouts of America merit badge camping weekends, volunteer appreciation events, and many events associated with Special Recreation Permits from fundraising activities to guided experiences.



Florida Fish and Wildlife Conservation Commission demonstrate the correct capture techniques for invasive phytoms at the ONA's National Public Lands Day celebration.



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Jupiter Inlet Lighthouse

Outstanding Natural Area

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Volunteers from El Sol, Jupiter's Hispanic Community Foundation work to clean-up trash at the Jupiter Inlet Lighthouse Outstanding Natural Area, March 2023.