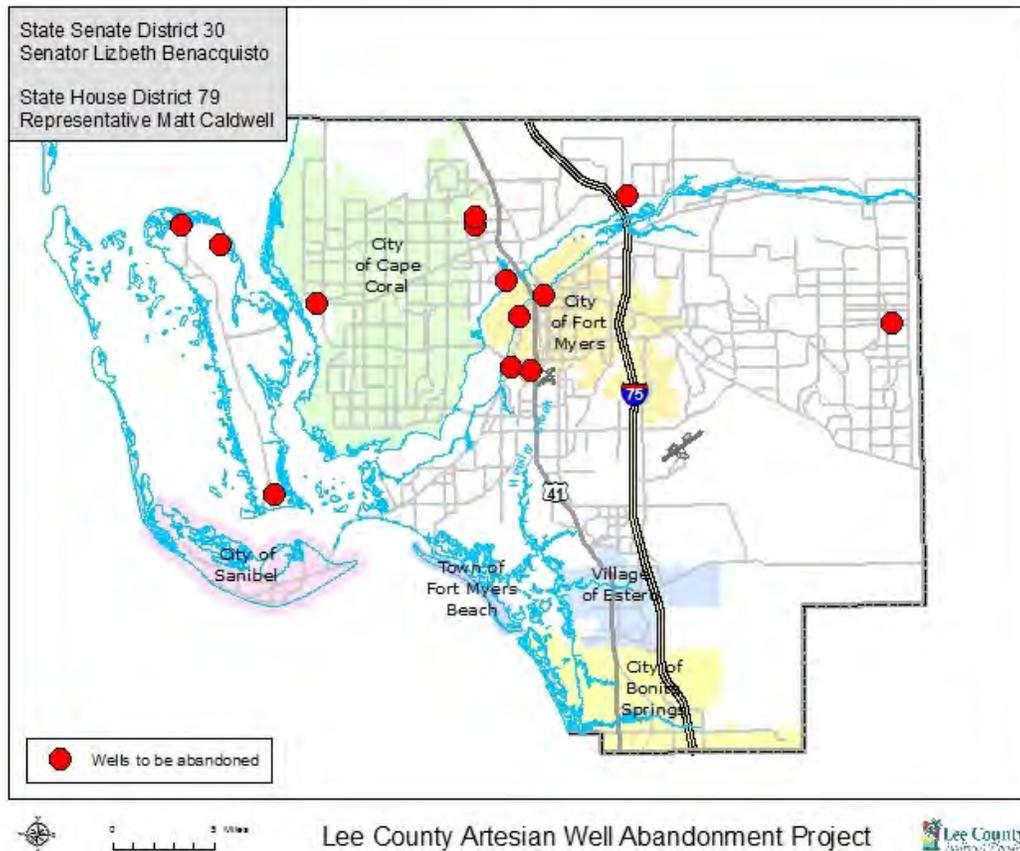


# Lee County Artesian Well Abandonment Project



## Background

Uncontrolled, improperly constructed, deteriorated or abandoned artesian (free-flowing) wells can have an adverse impact on the quantity and quality of water in aquifers (the groundwater source) and other water bodies in Southwest Florida. Groundwater is used for many purposes such as public supply, business, agriculture, and landscaping, and incorrectly constructed free-flowing wells compromise the use of these key resources. Historically, few regulatory controls were placed on well placement and construction and subsequently non-permitted wells, free-flowing artesian wells, abandoned, and damaged wells have been reported. Containing wasteful water flow and maintaining healthy aquifers by avoiding contamination and/or saltwater intrusion are critical to our water resources being able to meet the needs of both Lee County's natural systems and the growing human population. This project is intended to assist well owners in complying with Florida law that requires well owners to control discharges from artesian wells by properly controlling the flow.

## The Project

- The work consists of permanent well abandonment (plugging from bottom to top of the well with cement grout) activities which will be performed by a state licensed water well contractor.

## Lee County Artesian Well Abandonment Project

- Lee County representatives will conduct site visits, inventory the wells, coordinate with the landowners and appropriate agencies to organize participation, and oversee plugging operations.
- The total number of wells to be plugged is undetermined and will be dependent upon the project budget.

### **Benefits**

Properly abandoning free-flowing wells helps prevent adverse impacts to water resources. Deterioration of the well casing occurs as a well ages, which can allow poor quality water to move upward into fresher zones used for drinking water supplies. Old free-flowing wells that were drilled into a deeper portion of the aquifer in certain locations may be susceptible to an increase in salinity. Proper plugging of these wells helps to prevent contamination of water supply. Free-flowing wells can potentially waste many millions of gallons of water per day, cause the water quality in the surface waters and other potable aquifers to decline, act as a conduit for sources of contaminants to enter the aquifer, and often contribute to mosquito problems.

### **Water Quality Improvement Projects FY 2017-18 Funding Request**

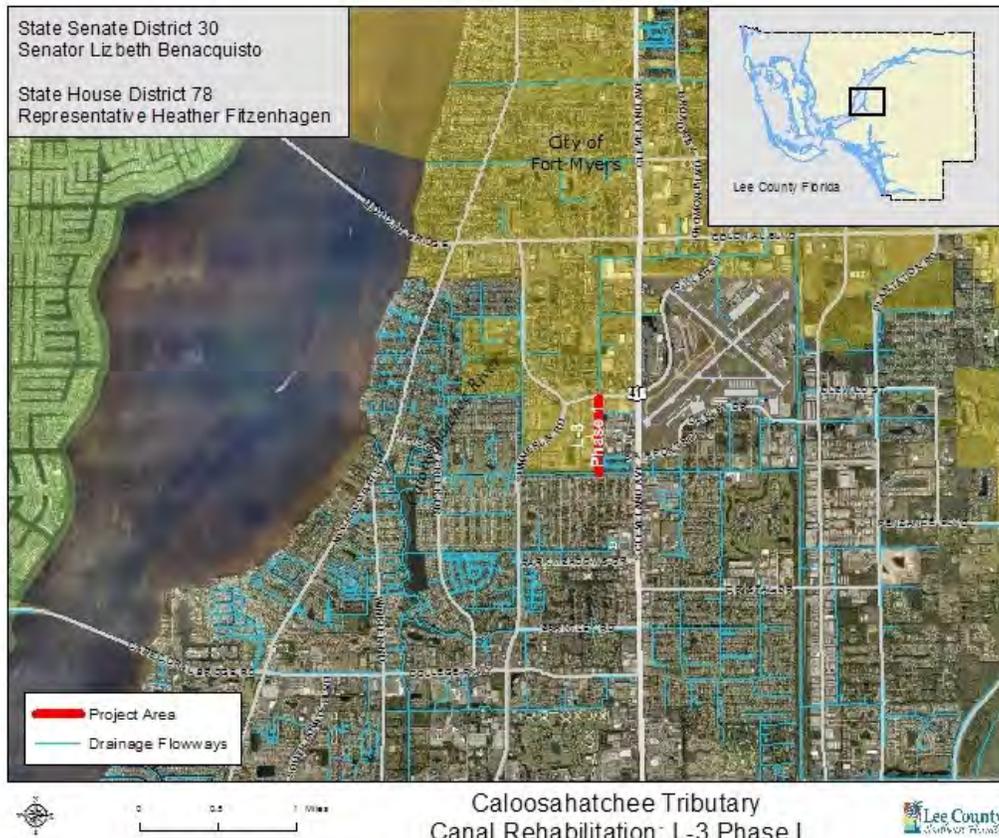
- **Requested dollar amount: \$80,000**
- **Local matching funds pledged, along with a written copy of the vote or other commitment by a local elected body: \$20,000**
- **Total project cost/phase amount: \$100,000**

## **Vital Southwest Florida Facts**

- More than 75% of Florida's population lives within an estuary watershed and 78% of Florida's GDP is generated within estuary regions.
- Southwest Florida is experiencing the fastest growth in population, employment, and GDP among all U.S. estuary regions. Protecting or enhancing the region's estuaries is essential to support the regional economy.
- Lee County tourism, which depends on a healthy natural ecosystem, employs 1 in 5 workers. This includes the restaurant and hotel industries as well as ecosystem-based industries such as fishing and boating.
- Sources: Charlotte Harbor National Estuary Program, South Florida Water Management District, and NOAA.

*For more information, please contact:*  
Kurt Harclerode, Operations Manager  
Natural Resources Division  
Lee County Government  
[kharclerode@leegov.com](mailto:kharclerode@leegov.com), 239-533-8146

# Caloosahatchee Tributary Canal Rehabilitation: L-3



## Background

This project seeks to rehabilitate the L-3 Canal, located in Lee County. The canal was excavated as a relatively deep, uniform channel which is drastically different from the shallow natural flow-way system of the area's prior undisturbed condition. The L-3 Canal was originally constructed in the 1920's as part of the Iona Drainage District to provide drainage for an area south of Fort Myers. The maintenance and operation of the canals are now the responsibility of the Lee County Department of Transportation. The L-3 Canal is located in an area that has been developed into single and multi-family residential as well as light commercial development land uses. It is a major tributary channel to the L Canal and subsequently Whiskey Creek, which is a tributary to the Caloosahatchee River. The canal has become overgrown with nuisance vegetation and lacks water control structures to attenuate flow. Portions of the L-3 Canal watershed lie within Lee County while the canal itself lies within the municipal boundaries of the City of Fort Myers. Lee County and the City of Fort Myers would join as partners to complete this project, which will enhance water quality and conservation without jeopardizing flood control. **The L-3 Canal provides drainage from developed areas into the Caloosahatchee River, which has a TMDL for total nitrogen and is currently subject to a State of Florida Basin Management Action Plan.**

## The Project

- Rehabilitate the L-3 Canal for the purpose of water quality improvement
- Canal rehabilitation activities may include:
  - Reshaping and stabilizing bank slopes to reduce potential for sedimentation and erosion;
  - Creation of littoral zones with planted native vegetation;
  - Removal of invasive vegetation;
  - Installation of control structure(s) if necessary to enhance water quality by increasing residence time and thereby allowing nutrient uptake by plants

## Benefits

The project will be designed with water quality improvement, increased natural function, and habitat enhancement in mind. The project will increase the residence time of stormwater runoff, which will allow for attenuation, groundwater recharge, and nutrient uptake by plants. The rehabilitation of these canals will also add aesthetic appeal to them with the addition of native plants. **This project helps achieve the goals of the Caloosahatchee River Watershed Protection Plan and the Caloosahatchee Estuary Basin Management Action Plan.**

## Water Quality Improvement Projects FY 2017-18 Funding Request

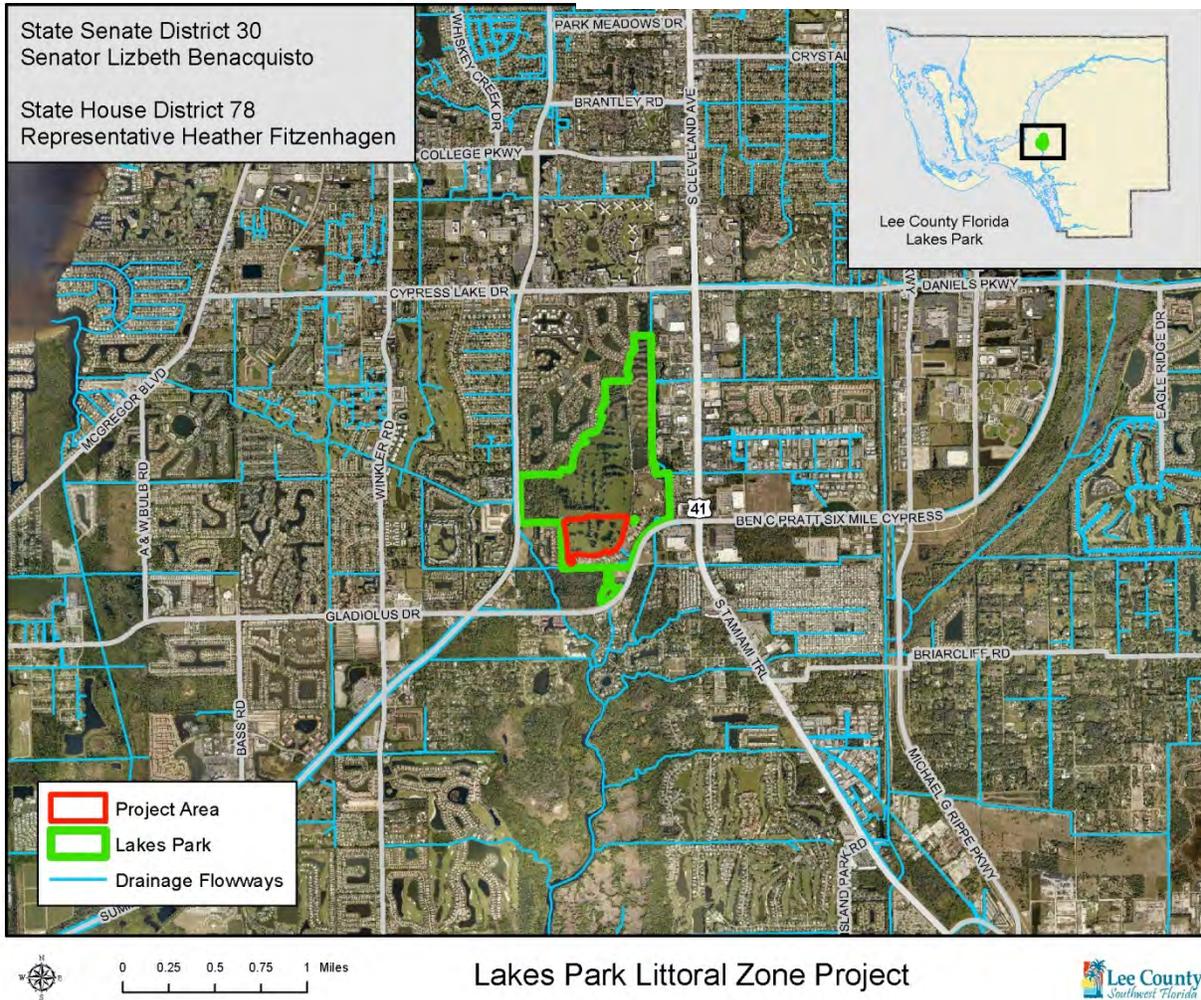
- **Requested dollar amount: \$400,000**
- **Local matching funds pledged, along with a written copy of the vote or other commitment by a local elected body: \$100,000**
- **Total project cost/phase amount: \$500,000**

## Vital Southwest Florida Facts

- More than 75% of Florida's population lives within an estuary watershed and 78% of Florida's GDP is generated within estuary regions.
- Southwest Florida is experiencing the fastest growth in population, employment, and GDP among all U.S. estuary regions. Protecting or enhancing the region's estuaries is essential to support the regional economy.
- Lee County tourism, which depends on a healthy natural ecosystem, employs 1 in 5 workers. This includes the restaurant and hotel industries as well as ecosystem-based industries such as fishing and boating.
- Sources: Charlotte Harbor National Estuary Program, South Florida Water Management District, and NOAA.

*For more information, please contact:*  
Kurt Harclerode, Operations Manager  
Natural Resources Division  
Lee County Government  
[kharclerode@leegov.com](mailto:kharclerode@leegov.com), 239-533-8146

# Lakes Park Littoral Zone Project



## Background

Lakes Park is an existing 279 acre recreational area, with 158 acres of lakes, located north of Gladiolus Drive, east of Summerlin Road, in Lee County, Florida. Stormwater from surrounding neighborhoods and commercial areas flows into the lakes. Prior to the 1950's, the project area was undeveloped wetlands and uplands, and the headwaters of Hendry Creek originated further north of the current park. Lakes Regional Park began as a man-made area where limestone was quarried during the 1960's. The Lakes Regional Park property was purchased by Lee County in 1978.

Lakes Park is located in the headwaters of Hendry Creek, which flows for a few miles before entering the Estero Bay Aquatic Preserve. **Hendry Creek has a TMDL for total nitrogen and is currently subject to a State of Florida Basin Management Action Plan.**

## The Project

This project will augment ongoing restoration efforts at Lakes Park. Construction of east and west filter marshes, removal of invasive vegetation, and planting of native vegetation has already been completed on portions of the property. The purpose of this project is to achieve water quality improvements for the southern region of the West Lake by modifying existing exotic infested spoil islands to create littoral “benches” by removing the exotics, grading excess spoil material to a depth that is suitable for plant grown, and installing littoral plantings for nutrient uptake. Design is complete and the project is now in the permitting phase. The proposed work will include construction of these littoral “benches”.

## Benefits

The proposed project provides passive water quality treatment through use of a filter marsh to reduce nutrients and improve oxygen content along Hendry Creek. One of the main objectives of this project is to reduce total nitrogen discharge into Hendry Creek. **This project helps achieve the goals of the Everglades West Coast Basin Management Action Plan.**

## Water Quality Improvement Projects FY 2017-18 Funding Request

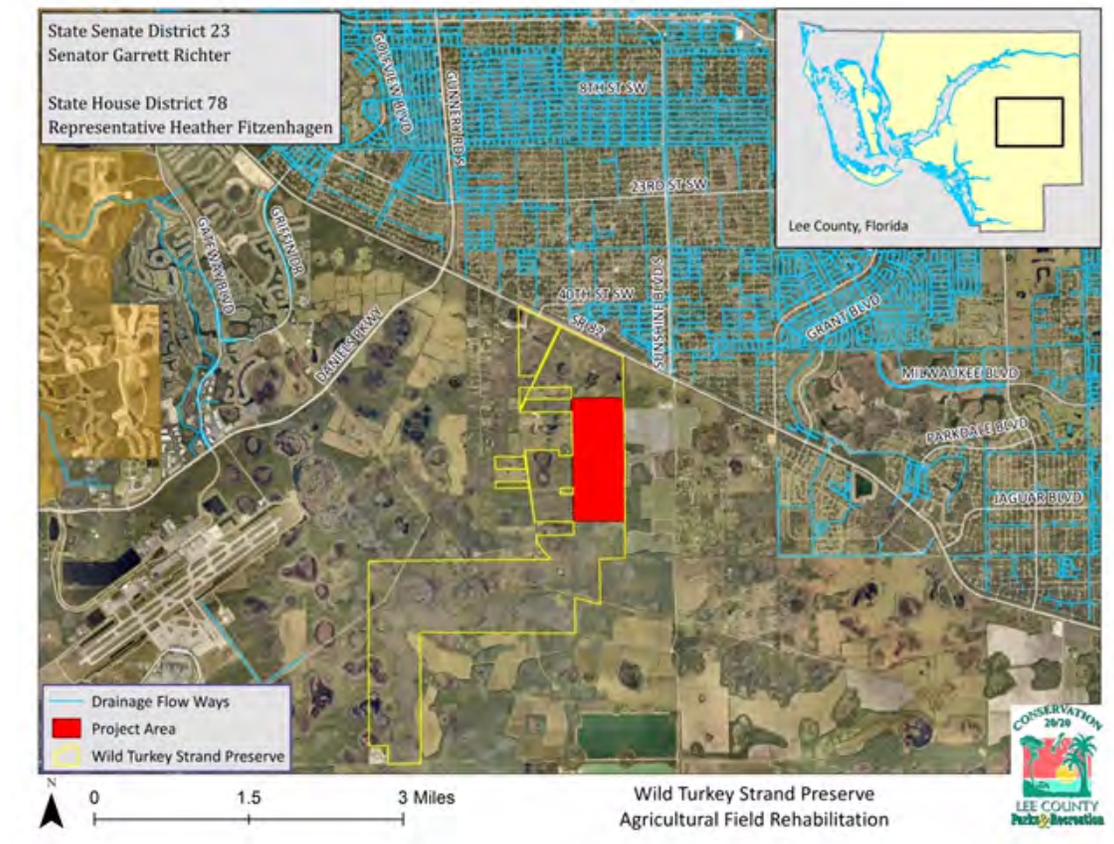
- Requested dollar amount: **\$400,000**
- Local matching funds pledged, along with a written copy of the vote or other commitment by a local elected official: **\$400,000**
- Total project cost/phase amount: **\$800,000**

## Vital Southwest Florida Facts

- More than 75% of Florida’s population lives within an estuary watershed and 78% of Florida’s GDP is generated within estuary regions.
- Southwest Florida is experiencing the fastest growth in population, employment, and GDP among all U.S. estuary regions. Protecting or enhancing the region’s estuaries is essential to support the regional economy.
- Lee County tourism, which depends on a healthy natural ecosystem, employs 1 in 5 workers. This includes the restaurant and hotel industries as well as ecosystem-based industries such as fishing and boating.
- Sources: Charlotte Harbor National Estuary Program, South Florida Water Management District, and NOAA.

*For more information, please contact:*  
Kurt Harclerode, Operations Manager  
Natural Resources Division  
Lee County Government  
[kharcclerode@leegov.com](mailto:kharcclerode@leegov.com), 239-533-8146

# Wild Turkey Strand Preserve Hydrological Restoration



## **Background**

Man-made alterations and influences have substantially impacted natural drainage and surface water flow patterns in and around the 3,137 acre Wild Turkey Strand Preserve in Lee County. These alterations have drained portions of the preserve and increased potential wet season flooding concerns of local residents to the west of the preserve. This hydrological restoration project reclaims former agricultural lands and enhances natural communities through a series of wetland flow ways, ponds to provide dry season refugia and uplands. The enhancements are being designed to allow for an increased north-to-south surface water flow (the historic main flow) to reduce flow that is currently forced west and redirect through the created and restored ecosystems. The design will be configured to maintain inflows from the adjacent farm to the east of the preserve and allow the water to settle on the land as well as flow south in historic drainage patterns. This project will hold and treat water on approximately 350 acres of former agricultural fields, help water flow south and reduce flood water going west into neighboring residential areas. The property is located on the northern end of the Estero Watershed.

## Wild Turkey Strand Preserve Hydrological Restoration

Specific tasks include shaping the flow way, excavating ponds and re-countouring the agricultural fields to act as a more natural system.

### The Project

- Construct flow way and ponds for the purpose of redirecting water to historic flows, water quality improvement and habitat enhancement
- Activities may include:
  - Reshaping agricultural fields to hold water and create defined flow ways
  - Creation of ponds for dry season refugia;
  - Ditch blocks to reduce off fist flows to the west

### Benefits

The project is being designed with water quality improvement, increased natural flow, and habitat enhancement in mind. The project will increase the residence time of stormwater runoff, which will allow for attenuation, groundwater recharge, and nutrient uptake by plants.

### Water Quality Improvement Projects FY 2017-18 Funding Request

- **Requested dollar amount: \$500,000**
- **Local matching funds pledged, along with a written copy of the vote or other commitment by a local elected body: \$1,500,000**
- **Total project cost/phase amount: \$2,000,000**

## Vital Southwest Florida Facts

- More than 75% of Florida's population lives within an estuary watershed and 78% of Florida's GDP is generated within estuary regions.
- Southwest Florida is experiencing the fastest growth in population, employment, and GDP among all U.S. estuary regions. Protecting or enhancing the region's estuaries is essential to support the regional economy.
- Lee County tourism, which depends on a healthy natural ecosystem, employs 1 in 5 workers. This includes the restaurant and hotel industries as well as ecosystem-based industries such as fishing and boating.
- Sources: Charlotte Harbor National Estuary Program, South Florida Water Management District, and NOAA.

*For more information, please contact:*  
Cathy Olson, Conservation Lands Manager  
Parks and Recreation Department  
Lee County Government  
[COlson@leegov.com](mailto:COlson@leegov.com), 239-533-7455

## 2018 STATE LEGISLATIVE AGENDA

---

### **BIG CARLOS PASS BRIDGE REPLACEMENT**

The Big Carlos Pass Bridge is an almost 1700-foot long, 2-lane bridge linking the southern end of Estero Island (the Town of Fort Myers Beach) to the northern end of Lovers Key (within the City of Bonita Springs). It is a bascule (draw) bridge that was built around 1965-1967, with a horizontal clearance of 25 feet. The most recent State inspection of the bridge, dated January 15, 2014, gave it a Health Index of 91.83 and a Sufficiency Rating of 49.0.

The Big Carlos Pass Bridge is part of a much longer, continuous corridor running along the southern coast of Lee County, encompassing Hickory Boulevard in the City of Bonita Springs, Estero Boulevard in Fort Myers Beach, and San Carlos Boulevard. The Matanzas Pass Bridge and San Carlos Boulevard are currently part of the State Highway System (SR 865). The Hickory Boulevard and Estero Boulevard segments used to be part of the State Highway System but were turned over to Lee County for maintenance in the 1980's. The corridor is recognized as a regional roadway as jointly designated by the Lee and Collier County MPO's and provides access to the primary parts of Lee County's beaches, which are regional and even international draws. The bridge is one of only two accesses to Estero Island and the Town of Fort Myers Beach, and provides a critical linkage between the Town and the City of Bonita Springs. On the Bonita Springs side of the bridge is Black Island, which is home to Lovers Key State Park.

The Big Carlos Pass Bridge Replacement project has been identified in the Lee County MPO long range transportation plan as a State-funded project, and Lee County anticipates pursuing an agreement with FDOT to jointly fund the project to help get it replaced near the 2021 time-frame. Lee County has begun a PD&E Study and is expected to hold the public hearing at the end of 2018. Total estimated costs for the PD&E and design/permitting is \$6.6 million.

