



DON PEDRO ISLAND STATE PARK

Park Chapter

CHARLOTTE HARBOR REGION

TABLE OF CONTENTS

Don Pedro Island State Park

Park Chapter

Introduction	1
Location and Acquisition History	1
Secondary and Incompatible Uses	1
Purpose and Significance of the Park	1
Other Designations	2
Park Accomplishments	2
Resource Management Component	3
Topography	3
Soils	4
Hydrology	4
Natural Communities	6
Imperiled Species	16
Invasive Species	23
Cultural Resources	27
Special Management Considerations	28
Land Use Component	29
Visitation	29
Existing Facilities and Infrastructure	29
Conceptual Land Use Plan	31
Optimum Boundary	34

Planning Region: Charlotte Harbor

County: Charlotte

Lease/Management Agreement Number: 3415

Overview: Don Pedro Island State Park protects and preserves coastal natural communities representative of southwest Florida’s chain of barrier islands, providing important habitats for coastal species and opportunities for resource-based outdoor recreation.

Total Acreage: 253.76

Natural Communities	Acres
Beach Dune	10.01
Coastal Berm	1.10
Coastal Grassland	34.57
Coastal Strand	23.16
Estuarine Seagrass Bed	0.19
Maritime Hammock	29.94
Mangrove Swamp	62.39
Marine Unconsolidated Substrate	15.35
Mesic Flatwoods	43.39
Salt Marsh	19.18
Scrubby Flatwoods	1.08

Altered Land Cover	Acres
Developed	7.96

Acquisition: Don Pedro Island State Park is to protect representative portions of Florida’s coastal natural communities that provide important habitats for coastal species and opportunities for resource-based outdoor recreation.

Resource Management Component

Hydrology

- Continue to assess the park’s hydrological restoration needs.

Natural Communities

- Develop/update annual prescribed fire plan.
- Conduct prescribed fire on 15 acres annually.
- Conduct natural community/habitat improvement activities on 50 acres of mesic flatwoods and scrubby flatwoods to prepare zones for the safe application of prescribed fire.
- Conduct mechanical treatment to reduce fuel loads.

Imperiled Species

- Continue to inventory the park to update imperiled species inventory lists.
- Continue existing monitoring protocols for marine turtle species.
- Complete gopher tortoise surveys following every prescribed burn.
- Review and revise protocols as necessary to remain consistent with FWC and USFWS standards.
- Monitor impacts on sea turtle nesting by terrestrial nuisance predator species in the park.
- Continue to improve protection and awareness of sensitive shorebird nesting areas.
- Continue to implement existing protocols for four imperiled plant species in the park including shell mound pricklypear, Florida mayten, golden leather fern, and inkberry.

Invasive and Nuisance Species

- Identify the major vectors and pathways for invasive plants at the park and reduce incoming propagules where possible.
- Regularly update surveys to reflect accurate infestation levels of each management zone.
- Develop an early detection rapid response protocol for new infestations.
- Develop a species-specific action plan for each management zone with a prioritization framework.
- Evaluate and update plan on an annual basis and adapt to changing conditions.
- Survey all maintenance areas yearly for new infestations.
- Treat areas where invasive plant spread is imminent (e.g., after prescribed fire, mechanical, or other disturbance).
- Document treatments and update surveys in NRTS.
- Survey and treat after prescribed fire for rapid spread of invasive species.
- Treat medium infestations with staff and volunteers where available.
- Reduce high infestations with additional labor sources (e.g., contract funding, strike teams) and plan for passive or active restoration.
- Document treatments and update surveys in NRTS.
- Manage invasive or nuisance animals as needed.
- Coordinate with USDA and FWC to develop monitoring and control plans for invasive black spiny-tailed iguanas.

Cultural Resources

- Conduct biennial site condition assessments per OM Chapter 4.1, Section 3.5.1.
- Continue to survey the park and document all historic and archaeological resources encountered with the FMSF.
- Follow DHR Matrix and required Compliance and Review consultations when ground disturbing activities are planned.
- Complete a Phase 1 archaeological assessment of Little Gasparilla Island State Park (CH00363).

Land Use Component

Conceptual Land Use

Mainland Tract

- Maintain and improve parking.
- Designate paddlecraft launch for pedestrian access only.
- Stabilize pathway surface for recreational pedestrian access and operational vehicular access.
- Replace culverts as necessary to maintain/enhance hydrological connectivity between areas of mangrove swamp.
- Consider phased removal of the Lemon Bay dock as structure becomes inoperable.
- Maintain boat ingress/egress to the mainland tract at Spyglass Canal boat basin for official use only.
- Develop small maintenance facility with storage capacity and site-built ranger residences.
Provide
- two volunteer sites.

Island Tract

- Replace boat slips and paddlecraft landing.
- Repair on-grade access paths between the visitor dock and the Gulf beach.
- Provide visitors with sheltered space and interpretive element(s).
- Remove restroom.

Optimum Boundary

- Management authority 25 ft. seaward of mean high waterline for resource protection.
- Estuarine islands in vicinity of the current park boundary.
- Strategic parcels along both the southeast northwest borders of the Mainland Tract.
- Reassign Amberjack parcel from Charlotte Harbor Preserve State park lease to Don Pedro Island State Park.
- Five parcels totaling 25 acres to the north of the mainland tract adjacent to Amberjack Environmental Park.

INTRODUCTION

LOCATION AND ACQUISITION HISTORY

Don Pedro Island State Park is located in Charlotte County. The park consists of a mainland parcel accessible from County Road 775, and a barrier island parcel accessible only by boat or paddlecraft. The Charlotte Harbor Region map reflects significant land and water resources existing near the park.

Don Pedro Island State Park was initially acquired on February 15, 1985, with funds from the Save Our Coasts program. Currently, the park comprises 253.76 acres. The Board of Trustees of the Internal Improvement Trust Fund (Trustees) hold fee simple title to the park. On September 9, 1985, the Trustees leased (Lease No. 3415) the property to the Department of Environmental Protection's (DEP) Division of Recreation and Parks (DRP) under a 50-year lease. The current lease will expire on September 8, 2035.

Don Pedro Island State Park is designated single-use to provide public outdoor recreation and conservation. There are no legislative or executive directives that constrain the use of this property (see appendix). A legal description of the park property can be made available upon request to DEP.

SECONDARY AND INCOMPATIBLE USES

In accordance with section 253.034(5), Florida Statutes (F.S.), the potential of the park to accommodate secondary management purposes was analyzed. These secondary purposes were considered within the context of DRP's statutory responsibilities and resource values. This analysis considered the park's natural and cultural resources, management needs, aesthetic values, visitation and visitor experiences. It was determined that no secondary purposes could be accommodated in a manner that would not interfere with the primary purpose of resource-based outdoor recreation and conservation.

DRP has determined that uses such as water resource development projects, water supply projects, stormwater management projects, linear facilities and sustainable agriculture and forestry (other than those management activities specifically identified in this plan) would not be consistent with the management purposes of the park.

In accordance with section 253.034(5), F.S., the potential for generating revenue to enhance management was also analyzed. Visitor fees and charges are the principal source of revenue generated by the park. It was determined that multiple-use management activities would not be appropriate as a means of generating revenues for land management. Instead, techniques such as entrance fees, concessions and similar measures will be employed on a case-by-case basis as a means of supplementing park management funding. Generating revenue from consumptive uses or from activities that are not expressly related to resource management, conservation and resource-based recreation is not under consideration.

PURPOSE AND SIGNIFICANCE OF THE PARK

Park Purpose

The purpose of Don Pedro Island State Park is to protect and preserve some of the last remaining coastal natural communities representative of the southwest Florida's chain of barrier islands, providing important habitats for coastal species and opportunities for resource-based outdoor recreation.

Park Significance

- The park is part of a barrier island system that protects the Lemon Bay Aquatic Preserve, an estuarine ecosystem of mangroves, seagrasses and mollusk reefs.
- The park protects some of the last natural portions of Don Pedro Island, providing critical nesting habitat for sea turtles and shorebirds. The park also protects an adjacent mainland tract with extensive mangrove swamps and pine flatwoods.
- Paddling or boating to the barrier island portion of the park helps preserve this secluded and pristine stretch of beach lending to a rare nature-based and semi-remote experience.

Central Park Theme

A component of the southwest Florida barrier island chain, Don Pedro Island provides important habitat for coastal wildlife and opportunities for beach recreation and interpretation in a setting apart from typical modes of access.

Internal Classification

Don Pedro Island State Park is classified as a State Park in DRP's unit classification system. In the management of a state park, balance is sought between the goals of maintaining and enhancing natural conditions and providing various recreational opportunities. Natural resource management activities are aimed at management of natural systems. Development in the park is directed toward providing public access to and within the park, and to providing recreational facilities, in a reasonable balance, that are both convenient and safe. Program emphasis is on interpretation of the park's natural, aesthetic and educational attributes.

OTHER DESIGNATIONS

The unit is not within an Area of Critical State Concern as defined in section 380.05, F.S., and it is not under study for such designation. The park is a component of the Florida Greenways and Trails System, administered by the DRP's Office of Greenways and Trails.

All waters within the park have been designated as Outstanding Florida Waters, pursuant to Chapter 62-302, Florida Administrative Code. Surface waters in this park are also classified as Class II waters (shellfish propagation and harvesting area), by DEP. The park is adjacent to Lemon Bay Aquatic Preserve as designated under the Florida Aquatic Preserve Act of 1975 (section 258.35, F.S.).

PARK ACCOMPLISHMENTS

- Annual surveys and treatments of invasive non-native plant species include Australian pine, Brazilian pepper, cogongrass and beach naupaka.
- Design and planning are underway to redevelop recreational infrastructure following a series of hurricanes that impacted the park from 2022–2024.
- The park monitors and manages sea turtle nests as part of the Statewide Nesting Beach Survey per the annual Florida Fish and Wildlife Conservation Commission (FWC) program. Annually, Don Pedro Island records an average of approximately 200 nests.



DP-01

DP-02

DP-03

DP-04

DP-05

DP-06

DP-07

DP-08

DP-09

DP-10

DP-11

 Park Boundary
 Management Zones



DON PEDRO ISLAND STATE PARK
Management Zones



This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other uses.

RESOURCE MANAGEMENT COMPONENT

Don Pedro Island State Park Management Zones		
Management Zone	Acreage	Managed with Prescribed Fire
DP-01	53.39	Yes
DP-02	50.92	Yes
DP-03	2.28	No
DP-04	72.96	No
DP-05	20.43	No
DP-06	3.81	No
DP-07	18.26	No
DP-08	15.55	No
DP-09	7.28	No
DP-10	8.35	No
DP-11	0.02	No

TOPOGRAPHY

Don Pedro Island State Park is in the Peace River District, specifically the Peninsular Coastal Lowlands Province. The park rests upon Pleistocene-aged limestone overlain by a relatively shallow soil layer. The upper layer of limestone belongs to a series of sedimentary deposits called the Anastasia formation—coquinoid limestone, sand and clay (Puri and Vernon 1964). Don Pedro Island State Park, which includes acreage on both Don Pedro Island and the mainland, has a maximum elevation of slightly more than 15 feet above mean sea level (msl). The highest elevation occurs at the south end of the state park on Don Pedro Island and is a result of spoil deposition from dredging activity. The spoil mound is being eroded by the Gulf surf resulting in an escarpment that is higher than most of the foredune to the north. On the bay side of the island, the spoil mound is not as high but drops off sharply to a narrow fringe of mangroves.

The mainland or land-based parcel is part of the Silver Bluff Terrace, which may be correlated with the period of about 4,000 to 5,000 years ago when sea level was 8 to 10 feet higher than at present and the climate was warmer. This portion of the park presents an overall gradual rise in elevation from sea level to about 6 feet above msl along County Road 775, which marks the eastern boundary of the park. A natural berm has formed along the seaward edge of the tidal swamp. There are even more pronounced rises in elevation where dredged spoil has been deposited along the Intracoastal Waterway (ICW) as well as along a navigable canal that delineates the southern boundary of the park.

Don Pedro Island is part of the 300-kilometer barrier-inlet system along the west coast of Florida that extends from Anclote Key in the north to Cape Romano in the south (Davis 1989). Barrier islands of the Gulf Coast were built from sand locally derived, probably by erosion of headlands. Significant erosion occurring between estuaries led to the development of barrier islands attached to the mainland, midway between the mouths of the estuaries. These barrier islands are increasingly separated from the mainland as the estuary is approached. Intervening bays show the inverse pattern, narrow at their heads and widest at their mouths (White 1970). Don Pedro Island became permanently connected to Knight Island and Little Gasparilla Island with the closing of Bocilla Pass to the north of the park, and Little Gasparilla Pass at the south end of the park (Antonio 2002).

SOILS

The park's soil types include porous formations characteristic of Gulf Coast barrier islands—undifferentiated sand, shell, clay, marl and peat. Sand and shell are the major component on the west side of the barrier island, and peat occurs on the east side, where mangrove swamp produces detritus deposits. Peat also occurs on the west side of the mainland parcel. The upland mainland soils consist of sands characteristic of “flatwoods areas.” Several spoil piles are present where dredging has occurred.

There are seven soil types (see Soils Map) at Don Pedro Island State Park: Canaveral fine sand, Beaches, Myakka fine sand, Kesson fine sand, Immokalee sand, Satellite fine sand and St. Augustine sand. The Southwest District Soils Descriptions appendix contains a complete description of the soil types in the park.

The soil comprising the beaches and coastal grasslands on the barrier island is Canaveral fine sand. Its fertility is low, the surface layer consisting of shell fragments amongst black and dark gray fine sand. The underlying layers also contain shell fragments, but lighter colored sand. Underlying the maritime hammock and tidal swamp is Kesson fine sand. The water table in this soil fluctuates with the tide but usually range up to 6 inches. On the mainland, Immokalee sand underlies most of the mesic flatwoods, and Satellite fine sand underlies the scrubby flatwoods along County Road 775. The surface layer of Satellite fine sand is lighter colored compared to Immokalee sand, and the water table is typically at a greater depth (12 to 42 inches vs. 6 to 18 inches).

Historically, a road from the mainland crossed the bay via a bridge at a point midway along the length of the barrier island portion of the park. Soil underlying this former roadway was fill from earthmoving operations and is designated St. Augustine sand. Soil layers are typically not well defined within this mapping unit, and the water table tends to be 18 to 36 inches. Natural erosion occurs along the Gulf side of the barrier island, where waves and wind produce changes in beach shape through erosion and redeposition of beach materials. This process does not require remedial action. The remainder of the park does not have erosion problems. The beaches north and south of the park are considered critically eroded beaches due to the presence of residential development. Multiple beach nourishments have occurred north of the park since 2003. It is likely that sand from these activities has migrated to the park due to longshore sediment transport from north to south.

HYDROLOGY

Don Pedro Island State Park is located in the Southern Coastal Watershed that also encompasses the watersheds of Sarasota Bay, Dona and Roberts Bays, Lemon Bay and Gasparilla Sound. The mainland and island parcels of the park are separated by Lemon Bay, which extends from South Venice to the Gasparilla Island Causeway (Southwest Florida Water Management District 2000). All waters within the park boundary are designated as an Outstanding Florida Waterway and Class II surface waters by DEP and are managed by DEP's Charlotte Harbor Aquatic Preserves office.

Surface water flow on the mainland portion of the park generally moves from the upland mesic flatwoods areas through the saltmarsh and mangrove swamps, which connect tidally with Lemon Bay. However, several fire-plover scars and spoil piles may be restricting this flow and impacting the hydroperiod of the saltmarsh. The salt marshes have been invaded by shrubby vegetation, such as groundsel tree (*Baccharis halimifolia*) and invasive species such as Australian pine (*Casuarina equisetifolia*) and Brazilian pepper (*Schinus terebinthifolia*). Prescribed fire in the salt marsh has been limited and not effective in reducing the shrubs.



Soils

- 2 - Canaveral fine sand, 0 to 2 percent slopes
- 4 - Canaveral fine sand-urban land complex, 0 to 2 percent slopes
- 7 - Matlacha gravelly fine sand-urban land complex, 0 to 2 percent slopes
- 22 - Beaches
- 24 - Kesson fine sand, tidal, 0 to 1 percent slopes
- 36 - Immokalee sand-urban land complex, 0 to 2 percent slopes
- 48 - St. augustine sand, 0 to 2 percent slopes
- 67 - Smyrna fine sand-urban land complex, 0 to 2 percent slopes
- 99 - Water
- 100 - Waters of the Gulf of America
- 118 - Kesson fine sand, tidal-urban land complex, 0 to 1 percent slopes
- 123 - Myakka fine sand-urban land complex, 0 to 2 percent slopes
- 134 - Satellite fine sand-urban land complex, 0 to 2 percent slopes
- 135 - St. augustine sand-urban land complex, 0 to 2 percent slopes



DON PEDRO ISLAND STATE PARK
Soils



This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other uses.

There is no surface water flow on the island-based parcel with rain rapidly percolating through the sandy soil into the groundwater table and ultimately to the Gulf. The only natural source of freshwater on the island is rainfall.

Hydrological Alterations

Multiple spoil piles at the land-based parcel previously impeded tidal flow from the salt marsh and mangrove swamp natural communities to Lemon Bay. These spoil piles included an elevated path leading from the main parking area through the mangroves to the main park dock and kayak launch site, and an 800-foot linear spoil pile flanking Spyglass canal on the southern side of the park. Both spoil piles pre-exist the park acquisition.

In 2006, DRP obtained grant funding to survey, design and complete hydrology restoration activities at both spoil pile sites to restore historic tidal flow. The restoration design included two project phases, Phase I including the installation of four culverts under the elevated path that bisected the mangrove swamp and phase II including leveling the approximately 800-foot linear spoil pile on the southwest side of the park.

Phase I began in 2007 with four culverts installed under the elevated trail leading to the kayak launch site. The project was completed in 2008 with immediate evidence of hydrological improvement including the elimination of a shrub layer along the pathway, now dominated by red mangroves (*Rhizophora mangle*). The flow of water through the culverts was disrupted in 2019 when a culvert collapsed due to vehicular use of the pathway by park staff and visitors. Vehicular use was discontinued, and a replacement culvert was installed in 2022 with permits from the U.S. Army Corps of Engineers, restoring tidal flow through the mangrove swamp community.

While the intent was for both phases to complete in 2008, it was necessary to postpone Phase II until a later date due to the limited funds available. In 2017, DRP received funding from FWC's Aquatic Habitat Restoration/Enhancement subsection. This funding allowed for the successful completion of Phase II with the spoil berm removed entirely from site and the natural grade of the area restored to allow tidal flow to Lemon Bay. Restoration efforts in the spoil removal areas included native plantings and treatment of invasive non-native vegetation. The salt marsh restoration area was planted with salt marsh cordgrass (*Spartina alterniflora*), needle rush (*Juncus roemerianus*), saltwort (*Batis maritima*) and red mangroves. An invasive non-native plant treatment project targeted all Florida Invasive Species Council (FISC) Category I and II species throughout the land-based portion of the park. Ongoing invasive plant treatment efforts at the park will be necessary due to the seed bank that was present in the spoil pile prior to removal.

Coastal Erosion/Sedimentation

As barrier islands, constant shifts in shoreline locations and overall morphology are expected. There are no unique erosion problems except those associated with the dynamics of a sandy coastline. Hurricanes Helene and Milton in 2024 resulted in a significant loss of vegetation within the beach dune and some subsequent shoreline erosion along the island with some sedimentation in mangrove swamps along the south end of the park. Sand displaced from the beach during the storm surge associated with Hurricanes Helene and Milton has buried sections of beach dune and coastal grassland along the shoreline. Longshore sand transport has not been disrupted by breaches in the island and will continue to replenish the shoreline with sand moving south from the north end of the island.

Currently, no beach nourishment or other erosion mitigation projects are proposed for Don Pedro Island State Park. If extensive erosion occurs, the park should reposition trails and access points as needed to maintain normal park operations. Beach renourishment is preferable over any type of engineered stabilization (e.g., seawall, jetties, breakwaters, etc.) but should only be considered in situations where park operations are fully hindered.

Monitoring and Assessment

Objective: Assess the park's hydrological restoration needs.

Action:

- Continue to assess the park's hydrological restoration needs.

Several areas within the park's land base could benefit from further hydrological assessments and potential restoration. Portions of the salt marsh have been invaded by shrubby vegetation such as saltbush and the prescribed fire measures in 2007 and 2013 were not effective in reducing the shrub layer. The community may be lacking the proper hydroperiod due to ditches, berms and a roadway that bisects the salt marsh. Assessments of the existing roadway and culverts through the salt marsh will be necessary in the future. Additionally, several fire-plow scars may influence surface water flow (i.e., direction and flow rate) from the mesic flatwoods to the salt marsh. An ongoing assessment to restore hydrology to protect and maintain the salt marsh community located on the mainland is recommended. Staff will also assess and seek funding sources for hydrological restoration.

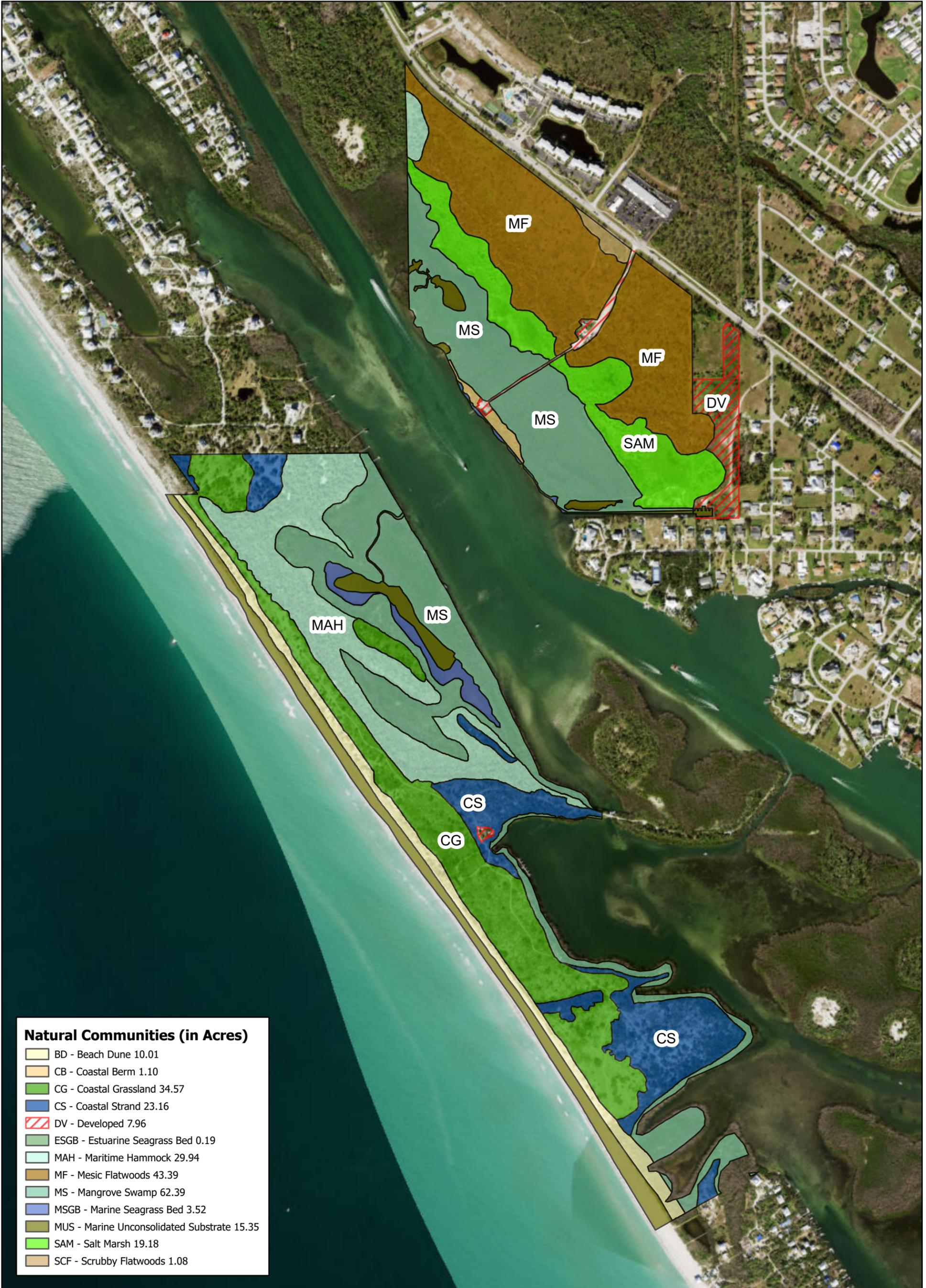
NATURAL COMMUNITIES

Don Pedro Island State Park contains 12 natural communities and one altered landcover type, developed areas (see Natural Communities Map). A list of known plants and animals occurring in the park is included in the Southwest District Species Matrix appendix.

Beach Dune

Beach dunes at Don Pedro Island State Park are wind or wave deposited ridges of unconsolidated sediments along high energy shorelines. The beach dune community extends the entire length of the barrier island and is highly variable with narrow stretches of beach dune present at the north end of the park (management zones DP-05 and DP-07) and no beach dune present at the south end of the park (management zone DP-10). At the southern end of the barrier island parcel, the beach dune community occurs on top of and seaward of a large escarpment, the highest elevation of the park. The topography here was created by spoil deposition, but typical beach dune community has formed on top of the spoil. North of the spoil deposition, the community is comprised of a linear, narrow foredune less than 2 meters high.

The dominant dune vegetation in all areas of the park consists of species such as sea oats (*Uniola paniculata*) and railroad vine (*Ipomea pes-caprae* spp. *brasiliensis*). Other species commonly found in the beach dune community at Don Pedro Island State Park include coastal sea rocket (*Cakile lanceolata*), seacoast marshelder (*Iva imbricata*), shoreline seapurslane (*Sesuvium portulacastrum*) and west coast dune sunflower (*Helianthus debilis* subsp. *vestitus*). Shrubs such as the state threatened inkberry (*Scaevola plumieri*) are common throughout.



Natural Communities (in Acres)

- BD - Beach Dune 10.01
- CB - Coastal Berm 1.10
- CG - Coastal Grassland 34.57
- CS - Coastal Strand 23.16
- DV - Developed 7.96
- ESGB - Estuarine Seagrass Bed 0.19
- MAH - Maritime Hammock 29.94
- MF - Mesic Flatwoods 43.39
- MS - Mangrove Swamp 62.39
- MSGB - Marine Seagrass Bed 3.52
- MUS - Marine Unconsolidated Substrate 15.35
- SAM - Salt Marsh 19.18
- SCF - Scrubby Flatwoods 1.08



DON PEDRO ISLAND STATE PARK
Natural Communities - Existing Conditions

0
500
1,000 Feet

Sources: ESRI; Florida Department of Environmental Protection
 This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other uses.

Imperiled animal species commonly found in the beach dune community include gopher tortoises (*Gopherus polyphemus*) and nesting sea turtles including the federally threatened loggerhead (*Caretta caretta*) and green (*Chelonia mydas*) sea turtles. Shorebirds are present at the park, but imperiled avian species are rarely observed and have not been documented utilizing any areas for nesting habitat. This could be in part due to the narrow and variable dune system, predator presence at the park and the presence of off-leash dogs from residential areas to the north and south of the park.

The beach dune community at Don Pedro Island State Park is currently in poor condition. This dune has changed in size and configuration over the years due to major storm events. Hurricane Ian in 2022 and Hurricanes Helene and Milton in 2024 played a significant role in the recent erosion and sedimentation of the beach dune community at the park. Restorative revegetation efforts will not be necessary moving forward given the natural width of the island, the presence of stabilized coastal grassland vegetated areas landward of the dune systems and the lack of infrastructure in the park. Pioneer dune species such as railroad vine and sea oats will naturally recover along the beach dune as it reconfigures and recovers over the next few years. Natural coastal erosion processes will continue to alter and reshape the beach dune community, resulting in iterative acreage fluctuations in this community. New beach dunes will continue to form as the communities shift with changing sea levels and increased erosion patterns.

Management of beach dune at Don Pedro Island State Park focuses on imperiled species protection and monitoring, invasive animal and predator control, invasive non-native plant survey and treatment efforts, protection from human disturbances and restoration following storm events. Sea turtle nests are posted for protection and monitored using the FWC protocol throughout the breeding season. All wrack and seaweed deposited naturally on the beach dune community should be left in place to allow for the addition of nutrients to the sandy soil of this community.

A past effort to remove Australian pine was successful in eliminating it from the beach dune community at Don Pedro Island State Park; however, large stands of Australian pines on beachfront private outparcels north and south of the park make extermination efforts on state park property nearly impossible. As saplings are observed, park staff should make every effort to hand pull the trees while they are small. This includes plants such as beach naupaka (*Scaevola taccada*), which can outcompete its native relative, the state threatened inkberry.

Furthermore, all new and existing dune walkovers should be designed in winding or zig-zagged patterns to prevent sand blowouts and avoid changing salt exposure for vegetative communities.

Coastal Berm

Coastal berm at Don Pedro Island State Park is located on the land-based parcel on a man-made embankment (i.e., a low, linear, flat-topped spoil pile) between the mainland mangrove swamp community and the ICW. Coastal berm is defined by its substrate of coarse, calcareous, storm-deposited sediment forming long narrow ridges that parallel the shore. Tree species present in this community include buttonwood (*Conocarpus erectus*) and seagrape (*Coccoloba uvifera*) with salt-tolerant lower shrubs such as gray nicker (*Guilandina bonduc*), bushy seaside oxeye (*Borrichia frutescens*), saltwort, shoreline seapurslane (*Sesuvium portulacastrum*), goldenrod (*Solidago sempervirens*), Christmasberry (*Lycium carolinianum*), seablite (*Suaeda linearis*) and saltgrass (*Distichlis spicata*).

The coastal berm community is in good condition. Several historic dwellings were present along the coastal berm in the early 1950s and were subsequently removed prior to park acquisition. This community is bound by mangrove swamp to the north, east and south. An elevated trail had been built through the mangrove swamp and connects the coastal berm to the mainland upland communities.

The sides of the elevated trail support some of the same plant species found on the coastal berm. Four culverts were installed in 2007 to restore tidal flow blocked by the elevated trail through the mangrove swamp. Minimal levels of invasive non-native plant species are present including Brazilian pepper, Portia tree (*Thespesia populnea*) and creeping oxeye (*Sphagneticola trilobata*).

Management of coastal berm at Don Pedro Island State Park largely focuses on invasive plant survey and treatment efforts. DRP staff will continue periodic surveys for rare plants and invasive plant infestations to catch new infestations early.

Coastal Grassland

Coastal grassland on Don Pedro Island State Park is predominantly an herbaceous community, occupying the flatter and drier portions of the transition zone between the primary beach dunes and the coastal strand and maritime hammock communities. At Don Pedro Island, this community is the most extensive, occurring mostly behind the narrow beach dune community along the Gulf side of the barrier island in management zones DP-05 and DP-07. It is currently bisected by an old road being used as a park trail. This community also occurs along a low ridge within the maritime hammock in the interior of the island. The former spoil area on the southern end of the barrier island in management zone DP-07 has succeeded to coastal grassland having developed a diversity of grasses characteristic of this community type. Mature and young slash pines as well as small patches of cogongrass occur on the barrier island parcel at the edge of the coastal grassland community in management zones DP-03 and DP-04 in the northwestern corner of the park.

Typical plant species found within this community at Don Pedro Island include sea oats, located closer to the beach dune ecotone transitioning into bushy bluestem species varieties (*Andropogon glomeratus*), broomsedge bluestem species varieties (*Andropogon virginicus*), Gulf hairawn muhly (*Muhlenbergia capillaris*), saltmeadow cordgrass (*Spartina patens*) and Leavenworth's tickseed (*Coreopsis leavenworthii*). Other species present include ground cherry (*Physalis angustifolia*), spotted beebalm (*Monarda punctata*), seaside heliotrope (*Heliotropium curassavicum*), mangrove spider lily (*Hymenocallis latifolia*) and prickly-pear cactus (*Opuntia humifusa*). Imperiled species found in this community at Don Pedro Island State Park include shell mound prickly pear (*Opuntia stricta*) and gopher tortoises.

This community is currently in fair condition having sustained damage from Hurricanes Helene and Milton in 2024 with several feet of sand having been deposited on top of the seaward areas by storm surge associated with those systems. Recovery will take time, but it is expected. Pioneer dune building species will emerge first and may then transition into coastal grassland dominant species in future years as the beach dune recovers and stabilizes. Some areas of coastal grassland closer to the shoreline may remain beach dune permanently with a net loss in acreage to the coastal grassland community.

Management of coastal grassland at Don Pedro Island State Park largely focuses on invasive plant survey and treatment efforts. DRP staff will continue periodic surveys for invasive plant infestations to catch new infestations early.

Coastal Strand

Coastal strand communities at Don Pedro Island State Park typically form a transition zone between coastal grassland communities and older maritime hammock or mangrove swamp communities. Within the coastal strand are pockets and small strips of grassland understory, creating a fluctuating mosaic of strand and grassland throughout the islands. This coastal strand community is located on the island portion of the park, recognizable by the dominance of salt-tolerant shrubs.

Dominant plant species will include cabbage palm (*Sabal palmetto*), seagrape, coco plum (*Chrysobalanus icaco*), Hercules-club (*Zanthoxylum clava-herculis*), wax myrtle (*Morella cerifera*), Florida privet (*Forestiera segregata*) and myrsine (*Myrsine cubana*). Additional ground cover vegetation includes beach creeper (*Eronodea littoralis*), ground-cherry, Spanish bayonet (*Yucca aloifolia*) and Gulf hairawn muhly. Imperiled species commonly found in the coastal strand community at Don Pedro Island State Park include state threatened species such as Florida mayten (*Tricerma phyllanthoides*), shell mound prickly pear and gopher tortoises.

The coastal strand community at Don Pedro Island is located at the north end of the park in management zone DP-03 in a pocket flanked by maritime hammock, along the disturbed site of an old roadbed at the center of the island in management zone DP-06 and along the park's southern boundary in management zones DP-07, DP-08 and DP-09. The higher elevation areas in management zones DP-07, DP-08 and DP-09 are locations where spoil had been placed historically. This area has successfully transitioned from a previously ruderal state to coastal strand.

Coastal strand is not considered a fire dependent community although it does receive prescribed fire for a variety of reasons including proximity to fire dependent communities. According to the Florida Natural Areas Inventory (FNAI), the natural fire frequency of coastal strand is unresolved (FNAI 2010). The coastal strand community varies in dominant species from temperate areas in north to central Florida, which contain dense saw palmetto (*Serenoa repens*) patches, to tropical areas such as Don Pedro Island State Park dominated by seagrape. A range of 4 to 15 years has been estimated by DRP; however, variability outside this range may occur based on site specific conditions and management goals. For Don Pedro Island State Park, coastal strand will not be identified as a pyric community with a set fire return interval unless other evidence is presented that justifies the need for ecological burning.

Management of coastal strand at Don Pedro Island State Park largely focuses on rare plant surveys and invasive plant survey and treatment efforts. DRP staff will continue periodic surveys for rare plants and invasive plant infestations to catch new infestations early.

Maritime Hammock

The maritime hammock community at Don Pedro Island State Park includes an area of evergreen tropical hardwood species located on the northern section of the island. It flanks the widest portion of the mangrove swamp along the east side and coastal grassland grades into it from the west. There is also a small pocket on the land-based portion in management zone DP-01. While the maritime hammock at Don Pedro Island State Park lacks the live oak (*Quercus virginica*) commonly found in hammocks throughout the state, other tropical hardwood species such as seagrape, red cedar (*Juniperus virginiana*), wax myrtle, Jamaican dogwood (*Piscidia picipula*) and strangler fig (*Ficus aurea*) merge with cabbage palms to form a closed canopy, with an understory of myrsine, indigoberry and snowberry.

The maritime hammock community at Don Pedro Island State Park is in good condition. In 2011, approximately 25 acres of Brazilian pepper were treated by a contractor within the maritime hammock and along the ecotone as mitigation for impacts from a nearby development. Additional contractor treatments with funding from DRP and FWC occurred in 2019 and 2025.

Management of maritime hammock at Don Pedro Island State Park largely focuses on invasive plant survey and treatment efforts and invasive animal control. DRP staff will continue periodic surveys for rare plants and invasive plant infestations to catch new infestations early.

Mesic Flatwoods

The mesic flatwoods community at Don Pedro Island State Park is the most extensive natural community, located on the land-based parcel in management zones DP-01 and DP-02. It is characterized by an open canopy of tall slash pines (*Pinus elliottii*), cabbage palms and a dense, ground layer of saw palmetto with shrubs, such as gallberry (*Ilex glabra*), staggerbush (*Lyonia fruticosa*), dwarf live oak (*Quercus minima*), American beautyberry (*Callicarpa americana*), winged sumac (*Rhus copallinum*) and shiny blueberry (*Vaccinium myrsinites*). Grasses and forbs found within this community include wiregrass (*Aristida stricta*), lopsided Indiangrass (*Sorghastrum secundum*), October flower (*Polygonum polygamum*) and bluestem grasses (*Andropogon sp.*). The optimal fire return interval for this community is two to four years.

The mesic flatwoods at Don Pedro Island State Park are in fair condition having not received fire since 2016. Prior to 2007, prescribed fire was excluded from the mesic flatwoods within the park, despite a small wildfire in 2006 within management zone DP-02. There are shallow ditches present within the mesic flatwoods that could be remnants of old plow lines. Prescribed fires were completed in January 2007 north of the main park road in management zone DP-01 and in December 2009 south of the main park road in management zone DP-02 with the zone roller-chopped in advance to reduce saw palmetto height. Additional prescribed burns of management zone DP-02 in 2013 and management zone DP-01 in 2016 resulted in pine mortality as result of pine beetle (*Ips sp.*) infestation. Pine regrowth had been evident throughout the mesic flatwoods at the park; however, a lack of fire has resulted in overgrowth of the understory, choking out pine recruits.

The once dense pine canopy throughout the park was further damaged during Hurricane Irma in 2017, which removed the crowns from many of the already stressed trees and toppled others. Additional snags and trees toppled during Hurricane Ian in 2022 and Hurricanes Milton and Helene in 2024. Much of the remaining pine trees within the canopy post-Hurricane Milton have died off as a result of the saltwater inundation from the several feet of storm surge received at the park. Additional mitigation including mechanical treatment ahead of future prescribed burns to keep fire intensity down for the remaining canopy will need to be considered.

The mesic flatwoods were once invaded by melaleuca, especially adjacent to the salt marsh. All mature trees have been cut down and treated; however, saplings persist throughout the area due to the extensive seed bank. Additional invasive vegetation found within the mesic flatwoods community at Don Pedro Island State Park includes cogongrass (*Imperata cylindrica*), creeping oxeye, Brazilian pepper, Caesarweed (*Urena lobata*) and small-leaf climbing fern (*Lygodium microphyllum*).

Management of mesic flatwoods at Don Pedro Island State Park largely focuses on invasive plant survey and treatment efforts and prescribed fire. DRP staff will continue periodic surveys for rare plants and invasive plant infestations to catch new infestations early. Mesic flatwoods are a pyric community that burns frequently, and this community will continue to be ecologically maintained with prescribed fire. However, it should also be monitored for pine mortality and groundcover response. Burn preparation should include mechanical treatment to reduce the fuel load ahead of any prescribed burn efforts.

Scrubby Flatwoods

The scrubby flatwoods at Don Pedro Island State Park are characterized by an open canopy of slash pine with a relatively dense, shrubby understory including several species of scrub oaks. The scrubby flatwoods are located on the land-based parcel along the southeast fence line on the east side of the main park road in management zone DP-01. It is associated with the soil type Satellite fine sand. Dominant species include slash pine, sand live oak (*Quercus geminata*) and myrtle oak (*Quercus myrtifolia*). Coontie (*Zamia integrifolia*) and saw palmetto are present, but the latter is shorter here than in the adjacent mesic flatwoods. The herb layer includes wiregrass, October flower and lichens cover the light-colored, sandy soil. Imperiled species found within this community include gopher tortoises. The optimal fire return interval for this community is 6–8 years.

The scrubby flatwoods at Don Pedro Island State Park are in good condition despite the absence of fire. The scrubby flatwood acreage at the park was included in the prescribed burns that occurred in management zone DP-01 in 2007 and 2016. Currently, the scrub oaks are becoming overgrown due to the lack of applied fire. Maintaining this community within the optimal fire return interval is recommended to reduce the density of the scrubby oaks and increase species diversity.

Management of scrubby flatwoods at Don Pedro Island State Park largely focuses on invasive plant survey and treatment efforts and prescribed fire. DRP staff will continue periodic surveys for rare plants and invasive plant infestations to catch new infestations early. Scrubby flatwoods are a pyric community that will continue to be ecologically maintained with prescribed fire.

Salt Marsh

The salt marsh community at Don Pedro Island State Park is a largely herbaceous community affected by the daily tidal cycle and seawater and protected from large waves. It is located on the land-based portion of the park flanked by mangrove swamp to the west, mesic flatwoods to the east and bisected by an elevated trail that crosses through the mangrove swamp to the ICW. Salt marsh typically has distinct zones of vegetation based on water depth and tidal fluctuations.

Dominant plant species include saltmarsh cordgrass, sand cordgrass (*Spartina bakeri*), black needlerush and giant leather fern (*Acrostichum danaeifolium*). Additional species found in the saltmarsh community at Don Pedro include marsh fimbry (*Fimbristylis spadicea*), needlepod rush (*Juncus scirpoides*), saltwort, herb-of-grace (*Bacopa monnieri*), perennial glasswort (*Salicornia ambigua*) and saltmarsh morning-glory (*Ipomoea sagittata*). Imperiled species commonly found in the saltmarsh natural community at Don Pedro Island State Park include golden leather fern (*Acrostichum aureum*). While ecological burning occurs in salt marsh communities for many purposes including reduction of mangrove and hardwood encroachment and preservation of bird nesting habitat, there is not an associated optimal fire return interval for salt marsh. The salt marsh at Don Pedro Island State Park is not currently managed with prescribed fire.

The salt marsh at Don Pedro Island State Park is in good condition. The invasive plant coverage is minimal after multiple contractor treatments in 2019 and 2024. Invasive species such as Australian pine, Brazilian pepper and Melaleuca continue to pop-up due to the extensive seed bank that is present. Salt marsh vegetation is sensitive to disturbance by humans, and several vegetative scars from past utility vehicle (UTV) usage within the marsh are slowly recovering. There are several ditches in the marsh both north and south of the main park road that may be man-made and impacting the natural hydrology. Several acres of marsh were restored in 2017 after the spoil berm along Spyglass Canal was removed. Many species of wading birds frequent the marsh community year-round.

Management of salt marsh at Don Pedro Island State Park largely focuses on invasive plant survey and treatment efforts. DRP staff will continue periodic surveys for rare plants and invasive plant infestations to catch new infestations early. Prescribed fire should be considered to reduce mangrove and other hardwood encroachment. In addition, a study of the salt marsh should be undertaken to determine the effects of the ditches on the natural hydrology in this community.

Mangrove Swamp

The mangrove swamp community at Don Pedro Island State Park is the most extensive natural community encompassing acreage along the ICW on both the island and land-based parcels. Dominant overstory includes red mangrove, black mangrove (*Avicennia germinans*), white mangrove (*Laguncularia racemosa*) and buttonwood in differentiated, monospecific zones based on degrees of tidal influence, salinity levels and type of substrate. Soils found in mangrove swamps are typically anaerobic and saturated with brackish water at all times, becoming inundated at high tide. Red mangroves dominate the deepest water, followed by black mangroves in the intermediate zone and white mangroves and buttonwood trees in the highest, least tidally influenced zone. Mangroves at Don Pedro Island State Park usually occur with little to no understory in the lower tidal zones; however, in upper tidal reaches, may have a shrub groundcover including seaside oxeye, gray nicker, coinvine and herbaceous species such as saltwort, perennial glasswort and giant leather fern. Imperiled plant species present in the mangrove swamp at Don Pedro Island State Park include state threatened golden leather fern. Mangrove swamps provide important habitat for birds, juvenile fish and crustaceans, and play an important role in the cycling of nutrients and breakdown of detritus.

The mangrove swamp at Don Pedro Island State Park is in good condition. Invasive plant infestations are minimal, typically occurring on the higher ecotonal edges of the swamp. Brazilian pepper, melaleuca and Australian pines are the most common invasive species observed along with beach naupaka.

Management of mangrove swamps at Don Pedro Island State Park largely focuses on invasive plant survey and treatment efforts. DRP staff will continue periodic surveys for rare plants and invasive plant infestations to catch new infestations early.

Seagrass Bed

The seagrass beds at Don Pedro Island State Park are near the access to the lagoon on the island parcel and within the shallow areas of the lagoon. These seagrass beds are part of the Lemon Bay Aquatic Preserve and monitored and managed by DEP staff despite falling within state park boundaries. Seagrass beds are typically characterized as expansive stands of vascular plants that occur in subtidal or coastal waters where wave energy is moderate. Seagrass beds provide important habitat for a host of commercially and recreationally important species. Many species spend part or all their life cycles in seagrass, which provides food, oxygen and shelter. Seagrass blades trap suspended sediment in the water allowing for clear water to be transported to the offshore coral reefs during tidal movement. Species found within the lagoon include turtlegrass (*Thalassia testudinum*), which occurs in patches at the mouth of the lagoon and in shallow portions of the lagoon less than four feet in depth. The lagoon also contains dense areas of shoal grass (*Halodule wrightii*), especially in the southern region. Portions of the lagoon within management zone DP-04 are deceptively deep, up to 7 feet; however, it is an important refuge for fish and shallower areas may be utilized by foraging birds during low tide.

The seagrass beds at Don Pedro Island State Park are in good condition. Individually mapping these patches is difficult, so they are included under the larger marine unconsolidated substrate of the lagoon. The lagoon is inaccessible to motorized vessels due to the narrowness and shallow nature of the creek that connects the lagoon to the bay. Limited accessibility protects this community.

Marine Unconsolidated Substrate

Marine unconsolidated substrate at Don Pedro Island State Park consists of expansive unvegetated areas of sandy beaches and subtidal lagoon locations, typically along the western shoreline at both locations. At Don Pedro, the marine unconsolidated substrate is located mostly along the western shoreline of the island parcel with additional areas located in the lagoon on the northeast side of the island parcel. An additional location of marine unconsolidated substrate is located on the southwest side of the land-based parcel in an area where spoil was removed for tidal marsh hydrology restoration. Seagrasses are present in both the lagoon location and the restoration site.

The sandy beaches of Don Pedro provide important nesting habitat for imperiled sea turtles, primarily the loggerhead and green sea turtles. In 2014, the marine unconsolidated substrate community along the west side of the island parcel received a designation as critical habitat for the northwest Atlantic Ocean distinct population segment of the loggerhead sea turtle (Federal Register 2014). All-terrain vehicles and UTVs are used on the beaches for sea turtle nesting surveys, with driving limited to those lower beach areas near or below the high-tide line not utilized by shorebirds and sea turtles in accordance with FWC best management practices.

Shorebirds and seabirds frequently forage along the shoreline in this community; however, shorebird nesting has not been documented in the park for many years potentially due to predator levels and the presence of dogs, both leashed and off leash, that enter the park from neighboring residential areas. Most of the shorebird nesting activity on the island occurs in an area monitored by Charlotte County at the very north end of the island, Knight Island. At Don Pedro Island State Park, wrack and seaweed is typically left in place to provide foraging opportunities for shorebirds and additional nutrients to the sandy soil. Situations where hand removal or hand raking of wrack might be necessary include large fish kill events typically associated with harmful algal blooms.

The marine unconsolidated substrate at Don Pedro Island State Park is in excellent condition. Natural beach erosion and accretion occur constantly within this community. The acreage and shape of the substrate changes daily based on the speed and location of the longshore current. During Hurricanes Helene and Milton in 2024, much of the marine unconsolidated substrate shifted landward into the dune and coastal grassland areas along the north end of the park, burying those communities in several feet of sand.

Management of marine unconsolidated substrate at Don Pedro Island State Park largely focuses on minimizing habitat disturbances and imperiled species monitoring efforts. Beach renourishment and structures are not necessary on the island as erosion and accretion fluctuate naturally along the beach. Beach raking should not be conducted on Don Pedro Island State Park to preserve the wrack line and minimize impacts to nesting shorebirds and sea turtles.

Natural resource protection should be balanced with recreational use by posting marine turtle nests in accordance with FWC permits and guidelines, increasing signage prohibiting pets on the beach. Should shorebirds attempt to nest at the park, the park would install post and rope. Driving on this natural community should be limited to necessary management activities and in accordance with FWC best management practices to avoid conflicts with beach nesting species.

Altered Land Cover Types

Spoil Area

Spoil area sites are present because of human disturbance on both the barrier island and mainland portions of the park. A large pile of spoil dredged from the ICW was placed on the barrier island in management zones DP-05, DP-07 and DP-08 many years before acquisition. Subsequently, the spoil was heavily invaded by Australian pine and Brazilian pepper. After the property was acquired, removal of invasive non-native plants was initiated. Portions of the site have now succeeded to coastal strand and coastal grassland natural communities, with characteristic species of both communities now dominant amid the debris from the removal effort. Brazilian pepper and Australian pine continue to re-sprout amongst the dead branches.

A separate 800-foot-long and 20-foot-tall spoil pile previously located on the land-based parcel along Spyglass Canal has been removed from the park with the area fully restored to salt marsh and mangrove swamp. Tidal flow previously blocked by the spoil pile has been restored through the saltmarsh and mangrove swamp communities. Ongoing invasive plant management will be necessary in all areas of the park.

Developed

Developed areas within the park consist of natural communities that have been replaced or nearly replaced by structures or permanently cleared areas. Developed areas at Don Pedro Island State Park currently located on the land-based parcel include restroom facilities, sheds, pavilions with picnic tables, docks, elevated trail, parking area, kiosk and unpaved entrance road. On the land-based parcel, the dock and elevated path through the mangrove swamp existed prior to park acquisition and are used for park management operations and visitor access to the bay. Much of the infrastructure within the developed areas on the island-parcel was damaged during Hurricane Ian in 2022, including a pavilion with picnic tables, restroom facilities, shed and storage area, all of which were destroyed by Hurricanes Helene and Milton in 2024. Existing infrastructure in developed areas on the island parcel currently includes docks and a shed.

Developed areas at the land-based parcel also include a newly acquired eight-acre parcel on the southeast side of the park. The land within the new parcel has been fully cleared, except for several slash pines and cabbage palms, on multiple occasions by the previous owner. This parcel includes a dirt road leading from Green Dolphin Drive through two outparcels before entering the southeast park boundary. The road terminates at a boat dock site with concrete slab at the end of Spyglass Canal. A pile of vegetative debris located adjacent to the terminus of Spyglass Canal was dumped on the site prior to park acquisition and includes large Australian pine trunks. Invasive plant species are prevalent across this newly acquired parcel including cogongrass, castor bean (*Ricinus communis*), Brazilian pepper, Australian pines and melaleuca. An initial DRP contracted invasive treatment project was completed in 2024 along with the rest of the uplands and salt marsh and mangrove swamp edges throughout the entire land-based parcel. Follow-up treatments for large patches of cogongrass on the new parcel were completed by park staff.

Management of developed areas at Don Pedro Island State Park largely focuses on invasive plant survey and treatment efforts. DRP staff will continue periodic surveys for rare plants and invasive plant infestations to catch new infestations early.

Prescribed Fire

Objective: Within 10 years, have 50 acres maintained within the optimum fire return interval.

Actions:

- Develop/update annual prescribed fire plan.
- Conduct prescribed fire on 15 acres annually.

The table below lists all fire-dependent natural communities found within the park, their associated acreage and optimal fire return interval and the annual average target for acres to be burned.

Prescribed Fire Management		
Natural Community	Acres	Optimal Fire Return Interval (Years)
Mesic Flatwoods	47	2-4
Salt Marsh	15	2-5
Scrubby Flatwoods	3	5-8
Annual Target Acreage	19-55	

Reintroducing fire to the scrubby flatwoods, mesic flatwoods and salt marsh communities on the mainland have been a primary management concern. The mainland portion of the park is divided into two management zones (i.e., DP-01 and DP-02) that are separated by the main park road. Both zones contain mesic flatwoods, salt marsh and mangrove swamp natural communities. Management zone DP-01 also contains three acres of scrubby flatwoods in the southeast corner. Fire lines have been established along the perimeter of the land-based park after the last management plan was adopted.

Until recently, fire has been absent from Don Pedro Island State Park for nearly a decade with management zone DP-01 last burned in 2016 and management zone DP-02 last burned in 2013. The mesic flatwoods in management zone DP-01 were roller chopped between 2001 and 2003 with a prescribed burn conducted in management zone DP-01 in 2007. Pine mortality occurred after the fire and increased because of a subsequent pine beetle infestation. Additional pine mortality from pine beetles occurred following a prescribed burn in 2016. The area was then hit with Hurricane Irma in 2017, which resulted in many of the dead trees being toppled or their crowns taken off by high winds. Subsequently, Hurricane Ian in 2022 and Hurricanes Helene and Milton in 2024 toppled additional trees that had survived Irma. Pine recruitment is visible throughout both zones, with management zone DP-01 currently containing a dense understory. Successive fires in management zone DP-01 will require mechanical treatment to reduce fuel loads along with clearing around taller pines or pine recruits to reduce overall pine mortality.

A mitigation burn was completed by the Florida Forest Service and DRP in October 2025 in management zone DP-02 using drone ignition to remove the layers of hurricane blow down and dead vegetation from saltwater intrusion. The last burn in management zone DP-02 occurred in 2013 and was followed by a subsequent infestation of pine beetles. The dense canopy of pine trees was thinned out by the hurricanes in 2017, 2022 and 2024 with many dead trees and snags toppling throughout the zone. Additional snags were cleared by DRP's fire team in preparation for the mitigation burn. Post-burn inspections revealed several areas of the zone currently carpeted by downed trees and snags that have fallen over the years. Management zone DP-02 will require additional mechanical treatment to remove the toppled trees from the zone for fuel reduction prior to a subsequent growing season burn to reduce the duff layer for natural plant recruitment.

Prescribed burning at the park requires planning to ensure that smoke dispersal does not impact State Road 776/Placida Road along the eastern boundary and residences along the southern boundary of the park. Prescribed burn preparations that will need to occur ahead of every future burn at the park include herbicide treatment of all cogongrass patches several weeks prior to any mechanical treatment for burn preparation to prevent unnecessary spread. Since the mesic flatwoods in management zone DP-01 are currently considered backlogged, they will require mechanical treatment to reduce understory fuel loads with additional clearing around taller pines or pine recruits to reduce overall pine mortality. Further mechanical treatment should not be necessary when the zones are maintained within their optimum fire return interval of two to four years with fire allowed to burn into scrubby flatwoods and salt marsh as often as it will carry. The scrubby flatwoods in management zone DP-01 will continue to be mechanically treated as necessary before burning to reduce the fire hazard. Gopher tortoise surveys should be completed post-burn to get a baseline of the park's current population.

Improvement

Objective: Conduct natural community/habitat improvement activities on 50 acres of mesic flatwoods and scrubby flatwoods to prepare zones for the safe application of prescribed fire.

Action:

- Conduct mechanical treatment to reduce fuel loads.

Mesic flatwoods in management zones DP-01 and DP-02 and the scrubby flatwoods in management zone DP-01 require mechanical treatment to reduce understory fuel loads ahead of any prescribed burns. Mowing may be the most appropriate mechanical treatment for management zone DP-01 as it has received fire more recently than management zone DP-02. Mechanical removal of the dead pines lying throughout management zone DP-02 will be necessary to reduce fuel load ahead of a subsequent growing season fire. Mechanically reducing shrub dominated fuels along the downwind sides of burn zones significantly reduces the complexity of blacklining, eliminates fire shadow and can help improve understory species proportions.

Targeted clearing around live pine trees and tall pine recruits should also be completed in both zones to mitigate heat scorch and reduce further pine mortality.

IMPERILED SPECIES

Don Pedro Island State Park has a rich diversity of plant and animal life, including a variety of imperiled species that utilize the park for breeding, nesting, resting and feeding grounds. Although the impetus of natural systems management as practiced by DRP is management of natural communities and not individual species, certain species are of particular concern and importance, and merit special management attention. At Don Pedro Island State Park, these species include marine turtles and gopher tortoises.

Imperiled marine turtles frequently nest on the beaches of Don Pedro Island State Park. Federally threatened loggerhead sea turtles are the most common with 164 nests in 2023, 193 nests in 2024 and 121 nests in 2025. Federally threatened green sea turtles lay more nests at Don Pedro Island State Park than at any other Southwest Florida DRP-managed beach park with 61 nests in 2023, 31 nests in 2024 and 67 nests in 2025.

Don Pedro Island State Park participates in the Statewide Nesting Beach Survey program involving daily sea turtle nesting surveys from April 15 to October 31 with a yearly nesting summary provided to FWC's Fish and Wildlife Research Institute. All marine turtle activities conducted at the state park are regulated under a Marine Turtle Permit issued by FWC. The permit allows staff, volunteers or contractors to conduct nesting surveys, conduct stranding and salvage activities, relocate nests for conservation purposes, outfit nests with self-releasing screens/cages, conduct hatch success evaluations and maintain and display preserved specimens. Nests are posted and monitored daily until hatch with information about tidal inundation, erosion or depredation recorded. Depredation by nuisance animals, such as raccoons (*Procyon lotor*), armadillos (*Dasypus novemcinctus*) and coyotes (*Canis latrans*), has previously been a significant issue for nesting sea turtles. Protective screening of nests involves placing a 4x4-foot self-releasing screens over the nests deter depredation in accordance with the Marine Turtle Conservation Handbook (2016). Screens are secured in place with four tent stakes and buried 2–3 inches below sand surface. Additional nuisance animal removal activities have previously been contracted for the protection of incubating sea turtle nests when depredation levels are high. Nests are excavated three days after hatching occurs or 70 days from the date when eggs are first deposited.

No structural lighting exists in the parking areas or restroom area at Don Pedro Island State Park. Plans for new construction or updates to existing structures should not include structural lighting since the park is closed to the public at night. If lighting is necessary, lights will need to conform to FWC Marine Turtle Lighting Guidelines designed to prevent adult and hatchling disorientations. Disorientation events attributed to artificial light sources and area sky-glow near the park are reported to FWC and Charlotte County.

While shorebird and seabird nesting has not been documented at the park for over a decade, park staff complete monthly shorebird focal species nesting surveys during the FWC Florida Shorebird Database windows (March through August). Many imperiled avian species use both the island and land-based parks as resting and feeding grounds including the snowy plover (*Charadrius nivosus*), sandwich tern (*Thalasseus sandvicensis*), least tern (*Sternula antillarum*), black skimmer (*Rhynchops niger*), little blue heron (*Egretta caerulea*), reddish egret (*Egretta rufescens*) and tricolored heron (*Egretta tricolor*). Finally, wood stork (*Mycteria americana*) and roseate spoonbill (*Platylea ajaja*) have been sighted on the bay side of the island.

Predation critically threatens many rare species (Hecht and Nickerson 1999), with the deleterious impacts of predation losses compounded by habitat loss (Reynolds and Tapper 1996). In Florida, nesting beaches have been substantially altered by urbanization and development, leaving few beaches isolated from development, thereby severely reducing the amount of habitat suitable for successful nesting by sea turtles and shorebirds (e.g., Rogers et al., 1995). At the same time, predators are found along many beaches where nesting could otherwise succeed. Nest predation can have severe impacts on reproductive success for sea turtles and shorebirds (Engeman et al., 2010).

Nuisance sea turtle and shorebird predators at Don Pedro Island State Park includes coyotes and armadillos. Both armadillos and coyotes can destroy multiple turtle nests in one night and have previously impacted the overall hatching success at the state park. To combat depredation of sea turtle eggs, park staff and volunteers place an FWC-approved self-releasing metal screen over the clutch of eggs to prevent the predators from reaching the egg clutch. Unfortunately, many of the nests are depredated overnight, before the surveyors arrive in the morning and have a chance to place the screen on it. With funding assistance from the Sea Turtle Conservancy and DRP, trapping efforts have taken place on Don Pedro for coyotes and armadillos to reduce nest depredation and boost sea turtle hatching

success. Predation levels at the park have reduced from 42% in 2019 to 24% in 2024 due to ongoing predator control efforts at the park each season.

Though no longer listed as imperiled, southern bald eagles are noted here because of the FWC guidelines for activities near eagle nests during the October 1 through May 15 nesting season (FWC 2008). Special precautions are taken near active bald eagle nests, including buffers, to prevent disturbance. Precautions are also taken to protect osprey nests that can be found in pine snags at the park.

Gopher tortoises are common on both the island and land-based portions of the park. Gopher tortoise burrow surveys should be conducted ahead of any proposed construction activities on site in association with the implementation of land use plans and following prescribed burns. The last gopher tortoise survey that occurred on the land-based parcel took place in April 2008 within the mesic flatwoods in management zone DP-02.

These flatwoods stay relatively wet throughout the year and may contain standing water in some areas during the summer months. This may explain why only abandoned burrows were observed during the 2008 survey; however, fire exclusion may also help explain why the species does not occur more frequently within this habitat. An updated census should be conducted in the mesic flatwoods after the next prescribed burn. Prescribed burning of mesic flatwoods on the land-based parcel will continue to benefit this species.

Imperiled plant species found at the park include golden leather fern, Florida mayten, giant air plant (*Tillandsia utriculata*), inkberry and shell mound prickly pear. Management measures implemented by the park for the protection of imperiled plant species include invasive plant treatment efforts.

The Imperiled Species Inventory table below contains a list of all known imperiled species within the park and identifies their status as defined by various entities. It also identifies the types of management actions that are currently being taken by DRP staff or others and identifies the current level of monitoring effort. The codes used under the column headings for management actions and monitoring level are defined following the table. Explanations for federal and state status as well as FNAI global and state rank are provided in the Southwest District FNAI Element Tracking Codes appendix.

Imperiled Species Inventory						
Common and Scientific Name	Imperiled Species Status				Management Actions	Monitoring Level
	FWC	USFWS	FDACS	FNAI		
PLANTS						
Golden leather fern <i>Acrostichum aureum</i>			T	G5, S3	2, 4	Tier 2
West coast dune sunflower <i>Helianthus debilis subsp vestitus</i>				G5T2, S2	2	Tier 1

Imperiled Species Inventory						
Common and Scientific Name	Imperiled Species Status				Management Actions	Monitoring Level
	FWC	USFWS	FDACS	FNAI		
Shell-mound pricklypear <i>Opuntia stricta</i>			T	G4?, S3S4	2	Tier 1
Inkberry <i>Scaevola plumieri</i>			T	G5, S4	2	Tier 1
Giant airplant <i>Tillandsia utriculata</i>			E	G5, S3	2	Tier 1
Florida mayten <i>Tricerma phyllanthoides</i>			T	G3G5, S3	2	Tier 1
FISH						
Smalltooth sawfish <i>Pristis pectinata</i>	FE	E		G1G3, S1S2	13	Tier 1
REPTILES						
American alligator <i>Alligator mississippiensis</i>	FT(S/A)	SAT		G5, S4	13	Tier 1
Loggerhead sea turtle <i>Caretta caretta</i>	FT	T		G3, S3	8, 9, 10, 13	Tier 3
Green sea turtle <i>Chelonia mydas</i>	FT	T		G3, S2S3	8, 9, 10, 13	Tier 3
Eastern indigo snake <i>Drymarchon couperi</i>	FT	T		G2G3, S2?	1, 2, 9, 10, 13	Tier 1
Gopher tortoise <i>Gopherus polyphemus</i>	ST			G3, S3	1, 2, 7, 10, 13	Tier 3
Kemp's ridley sea turtle <i>Lepidochelys kempii</i>	FE	E		G1, S1	8, 9, 10, 13	Tier 3
BIRDS						
Rufa red knot <i>Calidris canutus rufa</i>	FT	T		G4T2, S2N	10, 13	Tier 3
Snowy plover <i>Charadrius nivosus</i>	ST			G3, S1	8, 9, 10, 13	Tier 3
Wilson's plover <i>Charadrius wilsonia</i>				G5, S2	8, 9, 10, 13	Tier 3
Little blue heron <i>Egretta caerulea</i>	ST			G5, S4	4	Tier 1
Reddish egret <i>Egretta rufescens</i>	ST			G4, S2	4	Tier 1
Tricolored heron <i>Egretta tricolor</i>	ST			G5, S4	4	Tier 1

Imperiled Species Inventory						
Common and Scientific Name	Imperiled Species Status				Management Actions	Monitoring Level
	FWC	USFWS	FDACS	FNAI		
Magnificent frigatebird <i>Fregata magnificens</i>				G5, S1	13	Tier 1
American oystercatcher <i>Haematopus palliatus</i>	ST			G5, S2	10, 13	Tier 3
Wood stork <i>Mycteria americana</i>	FT	T		G4, S2	13	Tier 1
Roseate spoonbill <i>Platalea ajaja</i>	ST			G5, S2	4	Tier 1
Black skimmer <i>Rynchops niger</i>	ST			G5, S3	10, 13	Tier 3
Roseate tern <i>Sterna dougallii</i>	FT	T		G4, S1	10, 13	Tier 2
Least tern <i>Sternula antillarum</i>	ST			G4, S3	10, 13	Tier 3
Sandwich tern <i>Thalasseus sandvicensis</i>				G5, S2	10, 13	Tier 2
MAMMALS						
Florida manatee <i>Trichechus manatus latirostris</i>	ST			G2G3T2T3, S2S3	10, 13	Tier 1

Management Actions:

- | | | |
|---|-----------------------------------|-------------------------------------|
| 1. Prescribed Fire | 5. Nest Boxes/Artificial Cavities | 10. Protection from Visitor Impacts |
| 2. Invasive Plant Removal | 6. Hardwood Control | 11. Decoys (Shorebirds) |
| 3. Translocation/Augmentation | 7. Mechanical Treatment | 12. Vegetation Planting |
| 4. Hydrological Maintenance/Restoration | 8. Predator Control | 13. Outreach/Education |
| | 9. Erosion Control | 14. Other |

Monitoring Level:

Tier 1. Non-Targeted Observation/Documentation: includes documentation of species presence through casual/passive observation during routine park activities (i.e., not conducting species-specific searches). Documentation may be in the form of Wildlife Observation Forms or other district specific methods used to communicate observations.

Tier 2. Targeted Presence/Absence: includes monitoring methods/activities that are specifically intended to document presence/absence of a particular species or suite of species.

Tier 3. Population Estimate/Index: an approximation of the true population size or population index based on a widely accepted method of sampling.

Tier 4. Population Census: A complete count of an entire population with demographic analysis, including mortality, reproduction, emigration and immigration.

Tier 5. Other: may include habitat assessments for a particular species or suite of species or any other specific methods used as indicators to gather information about a particular species. [If referenced in table, provide discussion in narrative]

Inventory

Objective: Update baseline imperiled species occurrence inventory lists for plants and animals.

Action:

- Continue to inventory the park to update imperiled species inventory lists.

Update imperiled species list as necessary to add or remove species in compliance with the current FWC or U.S. Fish and Wildlife Service (USFWS) listing status and update any accepted nomenclature changes.

Fauna

Objective: Continue existing monitoring protocols for three selected imperiled animal species.

Actions:

- Continue existing monitoring protocols for marine turtle species.
- Complete gopher tortoise surveys following every prescribed burn.
- Review and revise protocols as necessary to remain consistent with FWC and USFWS standards.
- Monitor impacts on sea turtle nesting by terrestrial nuisance predator species in the park.
- Continue to improve protection and awareness of sensitive shorebird nesting areas.

Imperiled species management at Don Pedro Island State Park focuses primarily on marine turtle nesting surveys. This includes implementation of predator control measures at the park to reduce depredation attempts at nesting sites. The park coordinates all monitoring of imperiled species at the park with FWC and Charlotte County and ensures monitoring data is submitted to FWC as required.

Daily marine turtle nesting surveys are completed by park staff and volunteers under a FWC Marine Turtle Permit issued to the park and in strict accordance with FWC's Marine Turtle Conservation Handbook (FWC 2016). Don Pedro Island State Park is part of the Statewide Nesting Beach Survey program and is surveyed in accordance with DRP's Marine Turtle Permit. Staff previously used a digital survey application, developed by DRP and adopted by FWC, to collect GPS data in the field and allow direct digital data entry of the marine turtle nesting data. Currently, the state park uses a digital survey application created by FWC that allows direct digital entry from the field and allows FWC to directly pull the annual reports submitted.

Current protocols for nesting surveys include data collection on the presence of terrestrial predators. Staff and volunteers are trained to observe and document predator tracks near sea turtle nest sites and false crawls. In accordance with FWC guidelines and permit conditions, self-releasing cages and screens are installed over sea turtle nests by park staff on Cayo Costa and North Captiva to discourage depredation by nuisance mammal species. Park staff coordinate with District Biologists, who monitor shorebird and sea turtle nest depredation activity and coordinate predator removal efforts at all southwestern beach parks. Park staff will continue to communicate with DRP biologists as depredations occur for timely implementation of predator removal efforts.

Gopher tortoise burrows will continue to be mapped at the park following all prescribed burns with burrows observed documented as active, inactive, or abandoned and GPS locations recorded. Burrows will continue to be mapped within several weeks after burns by the park or district biologist. The last gopher tortoise survey was conducted within the mesic flatwoods on the land-based parcel in 2008.

An updated gopher tortoise survey should be completed for the entire park, especially after the next prescribed fire in the mesic flatwoods on the land-based parcel.

Shorebird surveys are conducted in accordance with DRP Resource Management Standard, "Shorebird and Seabird Management." The presence of terrestrial predators and domesticated dogs brought to the park by visitors may be the reason why nesting behavior has not been documented or observed at the park in many years. Dogs brought by visitors to the park introduce significant and challenging impacts on shorebird nesting success. The park is only accessible by boat; however, it is flanked to the north and south by residential areas. Evidence of dogs is typically observed during every sea turtle and shorebird nesting survey conducted on the island. Park staff maintain signage and educate visitors on policies when dogs are encountered in areas of the park where prohibited. Despite routine checks by parks staff and signage installed that clearly describes DRP's policy on pets, evidence of non-compliance persists.

With implementation of predator control measures and increased education opportunities for the neighboring communities, there is a possibility that imperiled avian nesting could return to the park. Measures to increase FWC law enforcement presence may be needed. These measures should include pairing of DRP and FWC law enforcement staff, vessels and equipment to meet partnering agency safety requirements that may otherwise limit the number of days that law enforcement personnel are present during the nesting season. Continued monitoring will gauge the effectiveness of such enhanced partnerships.

Flora

Objective: Monitor and document four selected imperiled plant species in the park.

Action:

- Continue to implement existing protocols for four imperiled plant species in the park including shell mound pricklypear, Florida mayten, golden leather fern and inkberry.

Park staff should develop a protocol to monitor shell mound prickly pear cacti to assess whether it is being impacted by the invasive cactus moth (*Cactoblastis cactorum*), which has been identified at neighboring island parks. The female moth lays her eggs at the base or tip of a spine on the shell mound prickly pear in the form of a long chain known as an egg-stick. The larvae crawl down the egg stick onto the cladode where they burrow into the pad and destructively feed on the tissue, moving to other cladodes until the food source is exhausted or the larvae exit the plant to pupate (Habeck et al., 2016). Cactus moth feeding may be detected by the pile of frass on or beneath an infested pad. The Florida Department of Agriculture's (FDACS) Division of Plant Industry (DPI) has submitted a petition to the U.S. Department of Agriculture (USDA) for permission to release a biological control agent of the moth (personal communication with Nicole Benda, FDACS-DPI). Monitoring solutions could include monthly visual inspections of known cacti populations for egg sticks and signs of cactus moth destruction, removing egg sticks and infested pads as needed. Egg sticks and infested pads should be frozen or heat-killed prior to disposal.

A monitoring program should be established to document areas where golden leather fern, a state-threatened plant species, is present on the mainland. A targeted survey that documents the population changes of this species over time will help determine the response of golden leather fern to prescribed fire exposure. After surveys are completed, management actions can be adjusted accordingly to prevent future population decline.

INVASIVE SPECIES

Don Pedro Island State Park has 17 known invasive plant species documented in the park, with Brazilian pepper the most prevalent. In 2004, a grant from the Southwest Florida Water Management District provided for treatment of approximately 40 gross acres of Australian pine and Brazilian pepper on the island parcel along the dredge-spoil pile at the south end and the old roadbed at the center of the island. In addition, 200 native plants of seven different species were re-planted in this area. Additionally, more than 25 acres of maritime hammock located in management zone DP-04 was treated in 2011 by a contractor to fulfill a mitigation requirement for a nearby development project. The island and land-based parcels both underwent large-scale invasive plant treatment projects targeting FISC I species in the upland areas (and saltmarsh on the land-based) with funding from FWC's Aquatic Habitat Restoration/Enhancement subsection and Invasive Plant Management in 2018. Additional DRP funded re-treatments for FISC I species occurred in 2024 on the land-based parcel and FWC funded treatments in 2025 on the island-based parcel. Invasive small-leaf climbing fern (*Lygodium mycophyllum*) was identified near the pocket of maritime hammock present on the land-based parcel in 2023. Continued treatment of this and other FISC I species at both parcels will be important in preventing spread to other areas of the park and keeping the park close to maintenance conditions. Eradication of invasive species entirely is not likely given the extensive seed banks present at both the island and land-based parcels, and continued surveys and re-treatments by park staff or contractors will be necessary long-term.

Black spiny-tailed iguanas (*Ctenosaura similis*) are commonly found on nearby Boca Grande and have been observed recently at Don Pedro Island State Park. The black spiny-tailed iguana can displace gopher tortoises and limit food sources for many native animals. This species will need to be monitored closely and may require nuisance animal control to limit population growth at the park.

Nuisance imperiled species predators commonly found at Don Pedro Island State Park include coyotes and nine-banded armadillos which account for most of the depredation activity for sea turtle nests on the island. Historically, predator control efforts were initiated in response to periods of elevated nest depredations. In addition to funding through DRP, the Sea Turtle Conservancy had provided the park with several years of predator removal funding with a goal of increasing the number of hatchlings reaching the Gulf. Through these consistent predator control efforts, mammalian depredations of sea turtle nests at the park have dropped from more than 50% of total nests in 2018 to 23% of total nests in 2024. Continued predator control will be necessary to achieve and maintain a mammalian sea turtle nest depredation rate of less than 10%.

Invasive Plant Species			
Species Name <i>Scientific Name - Common Name</i>	FISC Category	Distribution	Zone ID
Rosary pea <i>Abrus precatorius</i>	I	Scattered Plants or Clumps	DP-02
Australian pine <i>Casuarina equisetifolia</i>	I	Single Plant or Clump	DP-03, DP-05, DP-08, DP-09
		Scattered Plants or Clumps	DP-01, DP-02, DP-04, DP-10
		Scattered Dense Patches	DP-02
Carrotwood <i>Cupaniopsis anacardioides</i>	I	Single Plant or Clump	DP-02, DP-05
		Scattered Plants or Clumps	DP-02

Invasive Plant Species			
Species Name <i>Scientific Name - Common Name</i>	FISC Category	Distribution	Zone ID
Durban crowfootgrass <i>Dactyloctenium aegyptium</i>	II	Scattered Plants or Clumps	DP-02, DP-04, DP-05, DP-06, DP-08
Air potato <i>Dioscorea bulbifera</i>	I	Single Plant or Clump	DP-02
Surinam cherry <i>Eugenia uniflora</i>	I	Single Plant or Clump	DP-02
Laurel fig <i>Ficus microcarpa</i>	I	Single Plant or Clump	DP-07
		Scattered Plants or Clumps	DP-02
Australian umbrella tree <i>Heptapleurum actinophyllum</i>	I	Single Plant or Clump	DP-05
Cogongrass <i>Imperata cylindrica</i>	I	Single Plant or Clump	DP-02
		Scattered Plants or Clumps	DP-01, DP-02
		Scattered Dense Patches	DP-02, DP-04
		Dominant Cover	DP-02
Lantana <i>Lantana strigocamara</i>	I	Single Plant or Clump	DP-02, DP-03, DP-05, DP-06, DP-08
		Scattered Plants or Clumps	DP-04
Lead tree <i>Leucaena leucocephala</i>	II	Single Plant or Clump	DP-02
Old world climbing fern <i>Lygodium microphyllum</i>	I	Scattered Plants or Clumps	DP-01, DP-02
Melaleuca <i>Melaleuca quinquenervia</i>	I	Single Plant or Clump	DP-02
		Scattered Plants or Clumps	DP-01, DP-02
		Scattered Dense Patches	DP-02
Natal grass <i>Melinis repens</i>	I	Single Plant or Clump	DP-02, DP-05,
		Scattered Plants or Clumps	DP-01, DP-03, DP-04, DP-06, DP-08, DP-09
		Scattered Dense Patches	DP-01, DP-02
Balsampear <i>Momordica charantia</i>	II	Single Plant or Clump	DB-08
		Scattered Plants or Clumps	DB-04
Guinea grass <i>Panicum maxium</i>	II	Scattered Plants or Clumps	DP-02
		Scattered Dense Patches	DP-02
Castor bean	II	Scattered Plants or Clumps	DP-02

Invasive Plant Species			
Species Name <i>Scientific Name - Common Name</i>	FISC Category	Distribution	Zone ID
<i>Ricinus communis</i>			
		Scattered Dense Patches	DP-02
Bowstring hemp <i>Sansevieria hyacinthoides</i>	II	Scattered Plants or Clumps	DP-08, DP-09
Beach naupaka <i>Scaevola taccada</i>	I	Single Plant or Clump	DP-05
		Scattered Plants or Clumps	DP-09, DP-10
		Dominant Cover	DP-10
Brazilian pepper <i>Schinus terebinthifolius</i>	I	Single Plant or Clump	DP-05
		Scattered Plants or Clumps	DP-01, DP-02, DP-04, DP-06, DP-08, DP-09, DP-10
		Scattered Dense Patches	DP-01, DP-02
		Dominant Cover	DP-02
Creeping oxeye <i>Sphagneticola trilobata</i>	II	Single Plant or Clump	DP-06
		Scattered Plants or Clumps	DP-01, DP-02
		Scattered Dense Patches	DP-02
West Indian dropseed <i>Sporobolus jacquemontii</i>	I	Scattered Plants or Clumps	DP-02
Java plum <i>Syzygium cumini</i>	I	Linearly Scattered	DP-02
Mahoe <i>Talipariti tiliaceum</i>	II	Single Plant or Clump	DP-02
Caesar's weed <i>Urena lobata</i>	I	Scattered Plants or Clumps	DP-01, DP-02
Washington fan palm <i>Washingtonia robusta</i>	II	Single Plant or Clump	DP-02

Invasive Plant Treatment

Objective: Update the long-term invasive plant management plan for the park.

Actions:

- Identify the major vectors and pathways for invasive plants at the park and reduce incoming propagules where possible.
- Regularly update surveys to reflect accurate infestation levels of each management zone.
- Develop an early detection rapid response protocol for new infestations.
- Develop a species-specific action plan for each management zone with a prioritization framework.
- Evaluate and update plan on an annual basis and adapt to changing conditions.

Objective: Monitor and maintain 56 gross acres of habitat already in maintenance condition as needed.

Actions:

- Survey all maintenance areas yearly for new infestations.
- Treat areas where invasive plant spread is imminent (e.g., after prescribed fire, mechanical or other disturbance).
- Document treatments and update surveys in the Natural Resource Tracking System (NRTS).

The highest priority at Don Pedro Island State Park is to maintain the significant amount of invasive plant control work that has been conducted on the island and land-based parcels to eradicate Brazilian pepper and Australian pine.

Objective: Reduce or maintain cover class on 196 acres not in maintenance.

Actions:

- Survey and treat after prescribed fire for rapid spread of invasive species.
- Treat medium infestations with staff and volunteers where available.
- Reduce high infestations with additional labor sources (e.g., contract funding, strike teams) and plan for passive or active restoration.
- Document treatments and update surveys in NRTS.

Cogongrass patches located on the land-based parcel including the newly acquired eight acres on the south end of the park will require continued re-treatment to control and prevent further spread.

Invasive and Nuisance Animal Control

Objective: Implement control measures on three invasive/nuisance animals to protect native species and habitats.

Actions:

- Manage invasive or nuisance animals as needed.
- Coordinate with USDA and FWC to develop monitoring and control plans for invasive black spiny-tailed iguanas.

Sea turtle predator management completed by USDA has been shown to effectively reduce sea turtle nest depredation rates in subsequent seasons. Park staff will continue to coordinate with DRP biologists to monitor depredation levels at the park during nesting seasons and assess when further predator control is warranted.

FWC, USDA and DRP staff have previously partnered to remove black spiny-tailed iguanas from Cayo Costa and Gasparilla Island state parks. DRP will continue to coordinate with FWC and USDA in developing and implementing plans for monitoring and control. Field staff should set traps to opportunistically capture iguanas to assist in management efforts. Qualified field staff may also assist in direct reduction efforts of species in park property and should keep a record of management activities for the NRTS nuisance animal section. Any large increases in populations or effects on threatened and endangered species should be noted so USDA contractors may assist in reducing the number of individuals present. Staff should also report any occurrences of the species in areas where they were previously undocumented.

CULTURAL RESOURCES

Pre-Historic and Historic Archaeological Sites

Don Pedro Island State Park contains one archaeological site known as Little Gasparilla Island State Park (CH00363). This site was recorded as part of the Historic Properties Survey of Charlotte County, conducted in 1989 by Historic Property Associates. Due to the limited scope of the survey, the surveyor determined that there was insufficient information to evaluate the site for National Register significance. The site consists of a sparse scatter of shell midden debris of unknown cultural affiliation or significance other than prehistoric ceramic. Remains of shell tools were recovered from the surface of this 0.1 km² site, but the depth of the site was not determined. The condition of the archaeological site is fair because recreational facilities were constructed on the site prior to park acquisition and natural erosion is also occurring along the beachside of the site. Portions of the site were also buried by several feet of sand following storm surge associated with Hurricanes Helene and Milton in 2024.

In 2013, the Alliance for Integrated Spatial Technologies at the University of South Florida were contracted as part of a DRP Districts 4 and 5 project to perform predictive modeling of cultural resource potential in state parks. During this project, aerial LiDAR data was used to refine maps showing the complex surface elevations of the park (Collins 2014). Fieldwork was also conducted to survey with sub-meter instrumentation and GPS camera equipment to ground truth previously recorded sites and potential new sites. Results of this work show distributions of high, medium and low cultural sensitivity areas for this park for use in land planning activities.

Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment
CH00363 Little Gasparilla Island State Park	Prehistoric Aceramic	Archaeological Site	NE	F	P

Significance:

NRL - National Register Listed
 NRE - National Register Eligible
 LS - Locally Significant
 NE - Not Evaluated
 NS - Not Significant

Conditions:

G - Good
 F - Fair
 P - Poor

Recommended Treatment:

RS - Restoration
 RH - Rehabilitation
 ST - Stabilization
 P - Preservation
 R - Removal

Condition Assessment

Objective: Monitor and assess all recorded cultural resources.

Action:

- Conduct biennial site condition assessments per DRP Operations Manual Chapter 4.1, Section 3.5.1.

The park will continue to assess and evaluate the recorded cultural site annually. The Division of Historical Resource's (DHR) management procedures should be consulted and followed prior to any ground disturbing activities or facility development in the vicinity of the site.

Archaeological sites along this coastline region are currently subject to greater wave action, higher tidal surges and unknown changes due to sea level rise. As the threat of significant disturbance from these factors at Don Pedro Island State Park increase, additional precautions may be needed, including more intensive archaeological evaluation.

Documentation of Recorded Sites

Objective: Compile reliable documentation for all recorded historic and archaeological resources.

Actions:

- Continue to survey the park and document all historic and archaeological resources encountered with the Florida Master Site File.
- Follow the DHR Matrix and required Compliance and Review consultations when ground disturbing activities are planned.

DRP will continue to complete surveys of the park to identify and document all historic and archaeological resources encountered through submittal of new or updated Florida Master Site File forms to DHR.

According to the predictive model completed in 2014, 25.99% of Don Pedro Island State Park has a high probability of archaeological sites (Collins 2014). The DRP matrix should be followed for any area where ground disturbing activities are planned. DHR compliance and review consultations will be triggered by the level of disturbance identified in the DHR Matrix for ground disturbing activities.

Preservation Measures

Objective: Bring all cultural sites into good condition.

Action:

- Complete a Phase 1 archaeological assessment of Little Gasparilla Island State Park (CH00363).

Little Gasparilla Island State Park (CH0063) is currently in fair condition and has been recently impacted by significant storm events. Structures previously existing on this site (i.e., pavilion, boardwalk, restroom and storage closet) were demolished by storm surge and wind from Hurricane Ian in 2022 and Hurricanes Helene and Milton in 2024. A Phase 1 archaeological assessment of Little Gasparilla Island State Park, which existed in the footprint of these structures prior to park acquisition, should be completed prior to rebuilding any structure on site to better understand site boundaries and cultural resources.

SPECIAL MANAGEMENT CONSIDERATIONS

Arthropod Control Plan

Mosquito control plans (i.e., Arthropod Control Plans) are typically proposed by county mosquito control districts when they desire to treat on public lands that are protected by section 388.4111, F.S. (Charlotte County Mosquito Control District 2012; FDACS 2012). The current plan for Don Pedro Island State Park was finalized in 1987 and is available in the Southwest District Arthropod Control Plan appendix. Mosquito control plans temporarily may be set aside under declared threats to public or animal health, or during a declared state of emergency.

See the Florida State Park System – Statewide Philosophy and Framework for additional information.

LAND USE COMPONENT

VISITATION

While Don Pedro Island State Park includes a mainland tract, the island portion of the park is the primary destination for most visitors. Accessed only by watercraft, the island tract has an adventurous appeal and is popular with active outdoor enthusiasts. Favored activities include paddling and fishing along the mangrove lined estuarine shoreline and enjoying the 1.2-mile stretch of unspoiled Gulf beach, as well as hiking the trail through the coastal grassland.

Trends

Interest in kayaking, standup paddleboarding and other paddlecraft usage continues to trend upwards. Offering access to well-preserved maritime recreational environments, visitation at Don Pedro Island State Park is typically constant throughout the year, although mid-summer, particularly July, tends to see peak attendance. The park sees on average approximately 53,000 visitors per year. Although, due to significant hurricane damage, the park experienced a decline in attendance in 2023 and 2024. The land base portion of Don Pedro Island is open to recreational use, while island access remains closed.

Economic Impact

Don Pedro Island State Park recorded 9,471 visitors in FY 2023-24. By DRP estimates, the FY 2023-24 visitors contributed \$1,989,811 in direct economic impact, the equivalent of adding 28 jobs to the local economy (DEP 2024).

EXISTING FACILITIES AND INFRASTRUCTURE

Parkwide Overview

Arriving at the mainland portion of the park, visitors have access to a restroom, picnic pavilion and several miles of hiking trails. Visitors can launch their own paddlecraft via a path through the mangrove swamp or take advantage of a mobile concessionaire that provides rentals and launch/recovery assistance. A staff boat ramp accompanied by a dock with four slips is located at the east end of Spyglass Canal. There is also a staff boat dock on Lemon Bay, adjacent to the paddlecraft launch. The namesake Don Pedro Island is a destination for many paddlers and boaters, offering 1.2 miles of Gulf beach. The bayside of the island consists of intricate sheltered coves and mangrove swamp that are well suited for exploration by paddlers and small watercraft.

Mainland Tract

The mainland portion of Don Pedro Island State Park serves as the initial point of arrival and land base for visitors arriving by motor vehicle. Facilities include stabilized parking and cement ADA pads, a small restroom and one pavilion—all of which are accessed via a stabilized entrance drive from adjacent Placida Road. From this point of arrival, visitors can access the mainland hiking trails and the trail leading to the paddlecraft launch on the ICW. The location and configuration of these facilities have met visitation demands and served visitor needs while imposing a light development presence.

If necessary during this planning cycle, stabilization measures, including paving, may be considered. With central water and sewer connection, the restroom sufficiently meets the current level of use, including periods of peak visitation. DRP will improve the access path from the parking area to the Lemon Bay Dock, including replacing compromised culverts under the path and stabilization measures (see Conceptual Land Use Plan).

The paddlecraft launch is a short walk from the parking area and consists of a gently sloping beach along the ICW. Water depth is shallow with a compacted sand bottom that is conducive for either self-launch and recovery or aiding others. Aesthetically, this location provides a natural setting that is buffered from adjacent residential developments by dense mangrove swamp. The launch/landing provides immediate access to the desired aquatic destinations including the undeveloped backwaters of Kettle Harbor and Rambler Hole. Paddlers have the option to bring their personal paddlecraft or rent from the park concessionaire. It should be noted that the concessionaire provided assistance at the mainland launch/landing, is not provided at the destination dock on the barrier island tract.

In 2023, an 8.7-acre parcel at the southeastern corner of the landbase was acquired. This acquisition includes a small boat basin with docks and a ramp along Spyglass Canal, connecting to Lemon Bay, which presented opportunity for a new visitor receiving area and paddlecraft launch facility. In this scenario, the existing boat basin at the terminus of Spyglass Canal would be utilized for recreational use, which would require modification of the current wharf and docks, as well as the enhancement of natural aesthetics to help screen view of adjacent residential structures. While Spyglass Canal offers access to the destination waters, it does not offer the same park experience of the current paddlecraft launch. Launching at Spyglass Canal would entail a 350-yard dark-water paddle (i.e., over uncirculated canal water) visually exposed to adjacent private residences prior to reaching the destination waters. In addition, a portion of the existing access road leading to Spyglass Canal is not currently within the park boundary, such that either the neighboring parcel would need to be acquired, or the road would be reconfigured within the existing park boundary.

Island Tract

Arriving at the barrier island portion of the park, there is a 12-slip dock for boaters and kayak/equipment racks for paddlers. The visitor boat dock was destroyed during Hurricane Ian and will be reconstructed. Other visitor facilities on the barrier island side of the park previously included a restroom and large picnic pavilion. Both were destroyed by landfalling hurricanes from 2022–2024. A one-mile hiking trail traverses the interior of Don Pedro Island.

Staff support facilities on the barrier island tract include a small boat dock and small equipment shed. In the aftermath of the multiple hurricanes, the island now provides few amenities (see Conceptual Land Use Plan for details).

Mainland Facilities Inventory

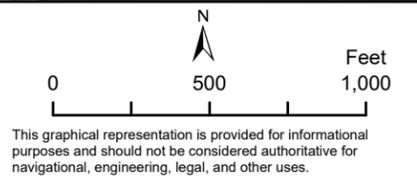
<i>Recreation</i>	
Restroom	1
Small Picnic Shelter	1
Interpretive Kiosk	1
Nature Trail (mileage)	2.20
<i>Support</i>	
Unimproved Parking	60
Paved ADA Parking	2



-  Park Boundary
-  County Road
-  Park Road Paved
-  Park Road Stabilized
-  Park Road Unstabilized
-  Structures
-  Hiking Trail
-  Walkways
-  Parking Lots



DON PEDRO ISLAND STATE PARK
Existing Facilities



Equipment Storage Shed	1
Service Dock	1
Stabilized Road (mileage)	0.14
<i>Spyglass Canal</i>	
Dock + Boat Slips	1
Boat Ramp	1

Island Facilities Inventory

<i>Recreation</i>	
Nature Trail (mileage)	1
Paddlecraft Storage (destroyed by Hurricane Ian)	1
Recreational Boat Dock (destroyed by Hurricane Ian)	1
<i>Support</i>	
Service Dock (damaged by Hurricanes Ian and Helene)	1
Storage Shed (damaged by Hurricane Milton)	1

CONCEPTUAL LAND USE PLAN

Mainland Tract

Objective: Maintain and stabilize access to the existing semi-primitive paddlecraft launch on Lemon Bay.

Actions:

- Maintain and improve parking.
- Designate paddlecraft launch for pedestrian access only.
- Stabilize pathway surface for recreational pedestrian access and operational vehicular access.
- Replace culverts as necessary to maintain/enhance hydrological connectivity between areas of mangrove swamp.

In the past, vehicular access was allowed down the 788 linear feet of paddlecraft access road. The underlying culverts were first installed in 2007. After one culvert began to fail in 2018, the access road was closed to public traffic. A replacement culvert was installed in 2022 and has since failed a second time. It has been determined that the culverts are unable to handle continuous vehicular traffic, and therefore the access path should be limited to pedestrian use (i.e., portaging paddlecraft) and occasional operational vehicle use only.

Given the scenic and interpretive value of this road and the lack of suitable alternative access points to Lemon Bay, traversing the mangrove swamp along the existing path is essential. Accordingly, stabilization of this road is essential for the purposes of continuing the primary recreational activity of the park. The culverts are critical for maintaining the natural hydrology of the mangrove swamp that is bisected by this path.

Objective: Consider phased removal of the Lemon Bay dock.

Action:

- Discontinue use and remove as structure becomes inoperable.

The dock adjacent to the Lemon Bay paddlecraft launch existed prior to park acquisition and was reconstructed in 2013 after being destroyed by a tropical event. It is primarily used for park management operations or by fishermen and other visitors accessing the mainland from the bay. Considering that a staff boat ramp and dock exist on Spyglass Canal, the dock here may be redundant for park operations. Phased removal is recommended. If the structure is destroyed or severely compromised by storm events, gradual weathering, etc., replacement or repairs should not be provided, and the structure should be removed appropriately.

Objective: Provide necessary staff support facilities at Spyglass Canal.

Actions:

- Maintain boat ingress/egress to the mainland tract at Spyglass Canal boat basin for official use only.
- Develop small maintenance facility with storage capacity and site-built ranger residences.
- Provide two volunteer sites.

The development of operational support facilities accessible by water, including a maintenance facility, storage and one ranger residence are proposed on the mainland tract. This optional residence would serve the complex of barrier island parks in this vicinity.

The southeastern corner of the mainland tract near the Spyglass Canal boat basin is the preferred site for a maintenance facility and staff residence. With a large boat ramp and multiple slips, the Spyglass Canal boat basin provides separate boat ingress/egress for official use, including room to expand partnerships with FWC and local law enforcement. This provides a sheltered and distinct location for park staff and first responders to reliably arrive and depart from the park via water as opposed to the region's congested roads. Desirable modifications to the Spyglass Canal boat basin would consider removal of unnecessary segments of wharves and docks coupled with creation of a vegetative buffer to help visually shield adjacent private residences.

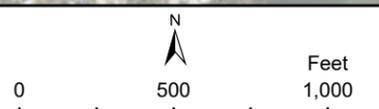
Staffing the Gasparilla Island group of parks is a growing challenge given the economics of the region. Providing a residence for essential staff positions serves both park and employee needs. The mainland tract of Don Pedro Island State Park provides an appealing centrally located site for a staff residence that would support the locally administered group of parks. Traveling between the collectively administered units (Don Pedro Island, Stump Pass Beach, Gasparilla Island and Cayo Costa state parks) via boat for the purposes of staff commuting and transporting supplies and equipment would largely avoid the use of congested roadways and the corresponding loss of time and efficiency. Providing residence options at this mainland location as opposed to the more remote and vulnerable island locations would significantly improve key facilities and infrastructural resiliency and appeal to a greater number of staff, improving recruitment and retention. While single-family structures are more typical for staff residences throughout DRP, a multi-family structure should be considered here to improve spatial efficiency and consolidation of maintenance. Given vulnerability to coastal hazards, site-built structures are recommended.



- ① Landbase Point of Arrival - Maintain and improve parking. Stabilize access path surface and replace underlying culverts as necessary.
- ② Lemon Bay Dock - Consider phased removal when dock becomes inoperable.
- ③ Spyglass Canal - Develop a small maintenance facility and staff residences. Provide two volunteer sites.
- ④ Beach Use Area - Remove restroom. Provide visitors with sheltered space and interpretive element(s).
- ⑤ Dock with Boat Slips - Replace (12) slip boat dock. Repair on-grade access path between the dock and beach.
- ⑥ Paddlecraft Landing - Re-establish paddlecraft landing and beach access path.



DON PEDRO ISLAND STATE PARK
Conceptual Land Use Plan



This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other uses.

Compatible with a staff residence, two volunteer sites could also be provided within the immediate vicinity of the proposed maintenance facilities to further support park operations. It should be noted that the Amberjack Parcel of Charlotte Harbor Preserve (located within the near vicinity of the Don Pedro Island Landbase and to be transferred to management under Don Pedro Island State Park) is also identified for potential staff residences (see Optimum Boundary Section for further detail). Although both the Amberjack Parcel and Don Pedro Island Landbase are suitable for staff residences, consolidation of residence areas should be considered.

DRP should coordinate with the U.S. Army Corps of Engineers to explore the feasibility of a joint or combined permitting effort to address the comprehensive canal maintenance dredging needs at not only Spyglass Canal, but both the Jug Creek and Pelican Bay access points at Cayo Costa State Park.

Island Tract

Objective: Provide reasonable access from the water and appropriate support facilities.

Actions:

- Replace boat slips and paddlecraft landing.
- Repair on-grade access paths between the visitor dock and the Gulf beach.
- Provide visitors with sheltered space and interpretive element(s).
- Remove restroom.

In 2022, Hurricane Ian severely damaged and effectively destroyed the 12-slip boat dock, staff dock and paddlecraft landing site, as well as the beach side pavilion. In 2024, Hurricanes Helene and Milton subsequently destroyed the restroom facility. All that remains of the 12-slip boat dock are the pilings, and an assessment is needed to determine if the pilings remain viable to support the former dock structures. Whether repair or full reconstruction, recreational boating access at this location should be reestablished. Repair needs for this facility include backfilling, grading and stabilizing the path to the Gulf beach, as the former route was largely washed away by storm surge resulting in a deep gully.

A pavilion should be reconstructed toward the Gulf side of this beach access path to replace the structure lost in Hurricane Ian. Planning appropriate interpretive elements to deepen understanding of barrier island dynamics and improve orientation should be considered.

Reconstructing the restroom facility was considered but due to several factors, it was determined that a replacement is not warranted. The facility would require considerable maintenance in a difficult to access area with limited staff. Acknowledging the park's vulnerability in this dynamic environment, the cost of reconstructing the restroom anywhere on the island would be high and require storm resilience features. In the absence of providing a restroom facility, dispersed impacts would be within acceptable limits. It is also assumed that some boats that arrive at the park may have head facilities on board.

OPTIMUM BOUNDARY

The optimum boundary for the park includes at least a 50-foot radius of sovereign submerged land around the land base dock on the intracoastal for maintenance and resource management, and the submerged area at least 50 feet seaward of the mean high waterline along the Gulf shore of the island tract for resource protection. Either inclusion of these sovereign submerged areas via a boundary or lease amendment to provide DRP with management authority needs to be addressed with DEP's Division of State Lands and coordinated through DRP's Office of Park Planning. Acquisition of the islands southeast of Don Pedro Island would help buffer the park, protect wildlife habitat and preserve resource-based recreational space as well as viewshed and water quality.

Two county-owned inholdings near the southeastern boundary of the mainland tract are considered strategic acquisitions. Similarly, nine parcels of land adjacent to the mainland tract's northwest boundary would contribute buffer to the park, adjacent aquatic resources and paddling experience along the intracoastal. These nine parcels would bring an additional 35 acres of natural area within park protection.

One parcel to the north adjoins Placida Road and Charlotte County-owned Amberjack Environmental Park and is managed by Charlotte Harbor Preserve State Park. The Charlotte Harbor Preserve State Park lease was amended in the early 2000s to include this parcel (i.e., management zones CH31A-D), and it was purchased to protect approximately 32 acres of scrubby flatwoods from future development. The parcel is locally landlocked and disjunct from other tracts of logistically difficult for preserve staff. Considering this parcel is located 0.5 miles north of the park, it should be reassigned to Don Pedro Island's lease and considered as a potential residence hub for Cayo Costa and Don Pedro Island park staff. A 0.19-acre triangular parcel bordering Placida Road and this Charlotte Harbor Preserve parcel is proposed for acquisition to prevent potential encroachment or externalities from adjacent parcels and continue providing a natural buffer from the adjacent urban environment.

Although the park is named for the island feature, the landbase is increasingly viewed as a conservation and resource-based recreation asset on its own. In spatially constrained park settings such as this, adjacent undeveloped parcels function as part of the park, such that if these parcels were developed now, the park would feel encroached upon. Four undeveloped parcels totaling 24.71 acres are proposed for acquisition north of the entrance to the mainland tract and adjacent to Amberjack Environmental Park. These parcels help buffer surrounding urban interface from protected natural areas which is vital to maintaining state-level conservation quality. Adjacency to the built environment compromises the natural environment such that experiences at smaller units may be disrupted when residential or commercial structures are visible through a tree line. In addition to aesthetic impacts, the parks could sustain hydrological alterations, diminished water quality, limitations to conducting a prescribed fire program, light-casting at night and acoustic disturbance. These factors could compound and render the landbase a utilitarian launch and landing point rather than a scenic and interpretive destination.

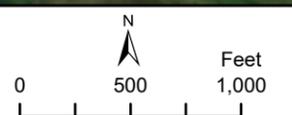
A utility tower exists in the middle of these parcels mentioned above. Therefore, if these parcels are acquired for park management, the non-conservation utility infrastructure should be excluded, requiring an access easement for operations of the utility inholding.



- Existing Park Boundary
- Other Existing Conservation Lands
- Optimum Boundary (ARC-Approved)
- Optimum Boundary (Proposed Additions)



DON PEDRO ISLAND STATE PARK
 Optimum Boundary



This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other uses.

