

**ENVIRONMENTAL ASSESSMENT
AND PRELIMINARY LISTED SPECIES SURVEY**

Burnt Store Road Assemblage

Prepared for:

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INTRODUCTION -

The following preliminary environmental assessment was conducted for Saundry & Associates, Inc. as part of the due diligence evaluation of the 370± acre Burnt Store Road Assemblage in unincorporated Charlotte County, Florida. The sites are located in Section 16, Township 42 South, Range 23 East, east of and adjacent to Burnt Store Road and north of Clarks Canal (see Figure 1, Location Map). The surrounding area has mixed uses (including single-family residential and agriculture) and some portions adjacent to the sites are state-owned conservation lands (see Figure 2, Aerial Photograph).

PROPERTY DESCRIPTION -

The subject property contains both upland and wetland areas, some of which have been altered due to ongoing use as pasture land. The property contains unimproved pasture and natural upland and wetland communities. There is one man-made borrow pit/lake on the western-central parcel. Most of the improved pasture areas are associated with the lake parcel. There are varying amounts of exotic vegetation present, including downy rose myrtle, melaleuca, and Brazilian pepper. Downy rose myrtle is the most prolific of these, and covers up to 80% of the groundcover/midstory in some of the pine flatwood areas.

A majority of the subject sites is vacant wooded native lands and wetlands with evidence of recent human (hunting and off-road) activities. The central western portions have been cleared of native understory and are being used for cattle grazing and horses.

SOILS –

Figure 3 shows the soil types associated with the project site parcels (Charlotte County Soil Survey). Typical for this area of Southwest Florida, the sites are comprised of sandy soils capable of supporting upland communities such as pine flatwoods and palmetto prairie. Mixed with these upland sandy soils are associations of depressional soils. Such soils support the wetland communities found on the parcels.

EXISTING LAND USE AND LAND COVER -

Based on field reconnaissance, the sites have several distinct habitat types. The classification of the communities is based on the Florida Land Use, Cover, and Forms Classification System (FLUCCS). Please refer to the accompanying aerial photograph (Figure 4, FLUCCS Map) for specific locations of these habitats. Community types are determined from vegetation diversity, density, crown closure, and soil, among others.

Wetland Habitat

#510: Ditch –

This is a man-made ditch that runs through the northwestern corner of the site. Vegetation primarily consists of Brazilian pepper (*Schinus terebinthifolius*) in most locations.

#524: Lakes under 10 acres -

There is one man-made, U-shaped lake/borrow pit located on the central western property. Most of the shoreline is steeply sloped. There were no significant littoral areas other than the portions that were consistent with the wet prairie habitat described later in this section. The dominant shoreline vegetation includes bahia grass, cattail, and various *eleocharis* and *panicum* grasses.

#618: Willow -

There are two areas containing this habitat type, one near the western property boundary and one at the southwestern tip of the site. These areas are very densely vegetated, primarily with midstory species in most areas, though some groundcover was also noted. A partial list of species observed and typical of this habitat includes:

Willow *Salix caroliniana*

Primrose willow *Ludwigia* spp.

Swamp fern *Blechnum serrulatum*

Brazilian pepper *Schinus terebinthifolius*

#619: Melaleuca -

This small area is similar to the Hydric Pine Flatwood described below, but with a significant amount of Melaleuca (*Melaleuca quinquenerva*) present in the canopy, such that it is the dominant cover.

#625: Hydric Pine Flatwoods -

This area contained groundcover similar to the wet prairie areas, but contained significant amounts of slash pine in the canopy. However, there is less saw palmetto than noted in the upland pine areas. It is possible that there may be other narrow fingers of hydric pine habitat within the center of the site, however, it is not likely that State or Federal agencies would claim those areas as jurisdictional. The areas labeled as 625 on the attached FLUCCS map are those most likely to be claimed as jurisdiction by the permitting agencies. A partial list of species observed and typical of this habitat includes:

Slash pine *Pinus elliotti*

Melaleuca *Melaleuca quinquenerva*

Wax myrtle *Myrica cerifera*

Yellow-Eyed Grass *Xyris* spp.

Beakrush *Rhynchospora* spp.

Bluestem *Andropogon* spp.

St. Johns wort *Hypericum* spp.

Spikerush *Eleocharis celluosa*

Maidencane *Panicum hemitomom*

Bog buttons *Lachnocaulon anceps*

Hat pins *Eriocaulon compressum*

Beak Rush *Rhynchospora* spp.

Pink sundew *Drosera capillaris*

Saw palmetto *Serenoa repens*

#643: Wet Prairie -

These areas are composed predominately of herbaceous vegetation. There are several wet prairie areas found on the subject properties. Many of these areas, particularly the large, contiguous area at the northeast corner had evidence of frequent off-road vehicular and dumping activities. Other, smaller areas of wet prairie are scattered throughout the sites. At the time of review there was no standing water observed within the wet prairie areas. A partial list of species observed and typical of this habitat includes:

Yellow-Eyed Grass <i>Xyris</i> spp.	Bog buttons <i>Lachnocaulon anceps</i>
Beakrush <i>Rhynchospora</i> spp.	Hat pins <i>Eriocaulon compressum</i>
Bluestem <i>Andropogon</i> spp.	Beak Rush <i>Rhynchospora</i> spp
St. John's wort <i>Hypericum</i> spp.	Pink sundew <i>Drosera capillaris</i>
Spikerush <i>Eleocharis celluosa</i>	Blazing star <i>Liatris gracilis</i>
Maidencane <i>Panicum hemitomon</i>	

Upland Habitat

#211: Improved Pasture

This area is currently under agricultural (pasture) and single family use, and is maintained by mowing. Most of the native vegetation has been removed.

#212: Unimproved Pasture

The improved pasture habitat type is found primarily around and north of the lake. The pasture has been mowed on a regular basis, and was recently mowed at the time of the site visit making positive identification of any species present somewhat difficult in some areas. There is a small ditch within this community type just north of the excavated lake that can be seen on the USGS quad map used for Figure 1, Location Map. The vegetation observed in the improved pasture includes:

Bahia grass <i>Paspalum notatum</i>	Wild cotton <i>Gossypium hirsutum</i>
Smutgrass <i>Sporobolus indicus</i>	Broom grass <i>Andropogon</i> spp.
Purple love grass <i>Eragrostis spectabilis</i>	

#411: Pine Flatwoods

As mentioned previously, pine flatwoods strongly dominate the properties. These areas typically have a canopy of young slash pines and an understory of saw palmetto and wiregrasses. The canopy is dominated by young slash pines but varies in density. Laurel oak and cabbage palm are present primarily on the extreme western portion and on the lake parcel. The western portion also had more Brazilian pepper than any other areas, excluding the ditch. Much of the pine flatwoods, particularly around the central area of the site, contains downy rose myrtle in varying amounts (often >50% of the midstory/groundcover).

This species is a nuisance exotic and very difficult and labor-intensive to eradicate. The vegetation observed in the pine flatwoods includes:

Slash Pine <i>Pinus elliottii</i>	Laurel oak <i>Quercus laurifolia</i>
Wax Myrtle <i>Myrica cerifera</i>	Brazilian pepper <i>Schinus terebinthifolius</i>
Saw Palmetto <i>Serenoa repens</i>	Cabbage Palm <i>Sabal palmetto</i>
Downy rose myrtle <i>Rhodomyrtus tomentosus</i>	Greenbriar <i>Smilax</i> spp.
	Melaleuca <i>Melaleuca quinquenervia</i>

#424: Melaleuca

This is a dense stand of Melaleuca (*Melaleuca quinquenervia*) located along the southern fenceline of the lake parcel.

#740: Disturbed Lands

The areas of disturbed land within the site are comprised of areas used by frequent vehicular passage, as well as the area associated with the billboard along Burnt Store Road. The vegetation observed in the Disturbed Lands area includes:

Bahia grass *Paspalum notatum*
Caesar weed *Urena lobata*
White head broom *Spermacoce verticillata*

LISTED SPECIES EVALUATION -

During the field investigation period, observations were made for protected plant and animal species.

Although no gopher tortoise burrows were observed on the subject parcels, the remains of one deceased tortoise were found in the northeastern corner. In addition, gopher tortoise scat was observed on-site in that area. A specific gopher tortoise survey will be necessary as land alteration activities draw near. The presence of burrows would require relocation of tortoises to natural habitat upland preserve areas within the project area. The relocation would be coordinated directly through Florida Fish and Wildlife Conservation Commission (FWCC) and completed only after approved permits have been obtained by the applicant. Along with the occurrence of gopher tortoises comes the potential for occurrence of listed burrow commensals, which may include the Eastern indigo snake, Florida mouse, and gopher frog. Any management activities for the gopher tortoises will account for the protection of any burrow commensals that may be present.

Habitat on-site is not considered suitable for scrub jays, therefore formal scrub jay surveys have not been conducted and are not recommended on the sites. No scrub jays were seen on the property during the site investigation.

Published mapping by the Florida Fish and Wildlife Conservation Commission suggests that the subject parcels are not within the Florida panther or Florida black bear ranges or consultation zones. Also, the standing stock of slash pines on and near the project sites are not large or old enough to support the federally-endangered red-cockaded woodpecker. Published maps confirm that the range of this bird includes the project area, but no cavity trees were observed during the site investigations.

The lakes and wetland areas could potentially provide nesting habitat for the Florida sandhill crane, a state Species of Special Concern. No sandhill cranes were observed during the site visit, and no nests were observed within wetlands in the project area. Several other wading birds including the little blue heron, reddish egret, snowy egret, tricolored heron, and white ibis are listed as Species of Special Concern and may utilize the area. Field reconnaissance included observation of great blue heron and little blue heron (Species of Special Concern) near the lake.

One small alligator was noted in the lake. The American alligator is listed as a Species of Special Concern with the State of Florida and Threatened by the USFWS.

Non-listed species noted on the site include various songbirds, hawk, cormorant, and vultures. Raccoon and large dog or coyote tracks were seen on the southwestern parcel along the dirt road/trail. Several hog skulls were noted throughout the site, and some hog disturbance was noted on the western side of the site.

No listed vegetation was observed or is likely to occur on the site. The listing of plant species is conducted by the Florida Department of Agriculture, and typically reflects concerns with commercial exploitation rather than danger of extinction. Although none was observed, the most common listed plant species that may occur on site is the golden polypody fern which typically grows out of the aprons of cabbage palms.

POTENTIAL DEVELOPMENT CONSTRAINTS -

Impacts to wetlands in Florida have been regulated since the mid-1970's. Wetlands, and their associated upland buffers, are protected by local, state and federal laws. Impacts to wetlands in Florida are discouraged. If impacts cannot be avoided, mitigation will be sought by the permitting agencies. Mitigation on-site is an option if a majority of the wetlands are preserved and enhanced. Wetland creation on-site is not a viable option. If impacts to the wetland areas on-site are proposed, environmental and engineering permits from the Southwest Florida Water Management District and the U.S. Army Corps of Engineers will be necessary. Avoiding development within the wetland areas will enhance the ability to receive such permits.

In addition to wetland impact and surface water management permitting, consideration must be given for the potential impacts to listed species. Although no listed wading birds were observed nesting or denning within the on-site wetlands, there is the potential for such species to use the site for foraging. Impacts to federally-listed species would be coordinated with the U.S. Fish & Wildlife Service, while impacts to state-listed birds would be

coordinated through the Florida Fish & Wildlife Conservation Commission. Coordination may be required regarding the gopher tortoise, a state Species of Special Concern. Typically, this species, if in the way of proposed land alteration, is relocated to upland preserves on-site. If there are no suitable upland preserves on-site, a fee may be paid to the Florida Fish & Wildlife Conservation Commission in the form of a “take” permit.