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Subject: Prima Vista Commons
Preserve Area Monitoring and Management Plan
St Lucie County, Florida
Parcel ID No.: 3414-501-0608-150-6

The purpose of this Preserve Area Monitoring and Management Plan (PAAMP) has been established to ensure that upland and wetland preservation areas (Wetland 1 and Wetland 2) within the proposed Prima Vista Commons project remain free of exotic and nuisance vegetation and remain healthy and viable in the post development condition. Preserve signs will be installed along the boundary of the preservation areas. A perimeter berm also serves to demarcate the preserve from developed areas.

According to the Soil Survey of St Lucie County, Florida, the soils on-site are mapped as Waveland fine sand, Waveland sand and Lawnwood sand. These soil types are poorly drained and are associated with areas of a high groundwater table. Site observation would suggest that these soil identifications are consistent with those present on-site.

The primary focus of the PAMMP for the Prima Vista Commons project is to preserve and enhance the ecological function and value of the 5.90 acres of on-site wetlands and associated upland buffer by exotic and nuisance vegetation eradication in the post development condition. The proposed PAAMP for the wetland preserve area will be detailed within the Success Criteria and Monitoring Parameters section of this write-up.

Monitoring will be conducted semiannually for five years with annual reports sent to the District and County both. These monitoring reports will include the Preserved Wetlands 1 & 2, associated Upland Buffer areas as well as the Littoral zone of the on-site pond to be constructed as well as the surrounding upland buffer. Exhibits will describe the monitoring and mitigation activities schedule, and discuss the monitoring methodology. Monitoring will include vegetative cover, hydrologic conditions and success of the enhancement planting, as well as wildlife usage and recommendations for maintenance work.

Wetlands 1 and 2

The enhancement area of Wetlands 1 & 2 will achieve 80% survival of planted vegetation and 95% cover by native wetland vegetation within 2 years of planting. Supplemental planting will be performed if necessary due to lack of natural recruitment survival to achieve the required coverage of native species within the necessary enhancement area. Activities associated with the construction of the FDOT pond west of Wetland 1 associated with the construction of Lennard Road has negatively impacted the wetlands hydroperiod and may lead to invasion of exotic vegetation. Planned enhancement activities will provide
better long-term ecological value to wildlife that preservation and exotic vegetation maintenance only could produce. Through providing and maintaining appropriate vegetative and hydrology, it is anticipated that an enhanced ecological benefit will be realized.

The preservation and enhancement areas (both wetland and upland) will be maintained at less than 5% cover by exotic species and nuisance species within the preservation and enhancement areas. All maintenance will be conducted in perpetuity to comply with State and County conditions.

The wetlands on-site contain preferred habitat for wading birds, some of which are listed and threatened wildlife species or species of special concern. Because Wetlands 1&2 will be preserved and enhanced, no adverse impacts on these species are anticipated as a result of this project.

**Wetland Preservation**

* The percent coverage of native wetland plant species in the wetland preserve area is 80% or greater for five years.
* Potentially problematic species including but not limited to, cattails, Japanese climbing fern, torpedo grass, primrose willow, punk tree, Chinese tallow, Brazilian pepper, and ear-leaf acacia will be controlled at less than 5% aerial coverage for five consecutive years.
* Sketch and Legal Descriptions of the proposed upland and wetland preservation areas are attached (W1, W2, Associated Upland Buffer).
* Additional plantings are not proposed within the Wetland Preservation areas

**Upland Buffer Preservation**

* The percent coverage of native upland coverage of native upland plant species (trees, shrubs, groundcover, etc.) in the upland preserve areas is 95% or greater for five consecutive years.
* Potentially problematic species including but not limited to Japanese climbing fern, punk tree, Chinese tallow tree, Brazilian pepper, air potato, ear-leaf acacia, and Australian pine will be controlled at less than 5% for five consecutive years.
* As shown in the attached Landscape Plan, a number of transplanted Slash Pines and Sabal Palmetto trees will be planted in the upland buffer proposed along the eastern boundary. This area will be put under conservation easement and preserved in perpetuity.
* Additional plantings to be included in the Upland Preservation Areas are shown on the attached Landscape Plan and include:
  * Southern Magnolia (Magnolia grandiflora)
  * Slash Pine (*Pinus elliottii*)
  * Live Oak (*Quercus virginiana*)
  * Royal Palm (*Roystonea elata*)
  * Sabal Palmetto
  * Bald Cypress (*Taxodium distichum*)
  * Crape myrtle (*Lagerstomenia indica*)
  * Transplanted Cabbage Palms and Slash Pine
Methodology

The percent coverage and species composition of the canopy, shrub layer, and groundcover within the preservation areas will be assessed utilizing the Line Intercept Method. Straight line transects will be laid out in both the wetland and upland preserve areas. A total of 2 transects will be established in wetland 1 and 1 transect in Wetland 2 (one transect extending from wetland through to the upland buffer) as shown in the attached Landscape and Tree Mitigation Plan. Aerial coverage of vegetation will be estimated using the meter square plot system. Each stratum (shrubs, canopy and groundcover) will be independently assessed along each transect.

Photographic Documentation

Photographs will be taken at the beginning of each transect. The photographs will be taken in cardinal directions and documented for each subsequent event. This will allow us to provide a visual record of the long-term condition of the upland and wetland preservation areas over time. Photographs will be submitted with the monitoring reports as required. Additionally, fish and wildlife observed during monitoring events will be field recorded. Details of observation will include evidence, time, and relative location of findings.