

QUESTION 13 – WETLANDS

A. If there are wetlands on the site, discuss and specify the following:

- 1. Acreage and percentage of property which is currently wetlands. These wetlands should be shown on Map F, Vegetation Associations and identified by individual reference numbers. (These numbers should be utilized in responding to the other sub-questions.)**

The wetlands within the Subject Property have yet to be formally delineated pursuant to the methodologies of the U.S. Army Corps of Engineers (COE) Wetlands Delineation Manual (1987), and Chapter 62-340 Florida Administrative Code (FAC), governed by the Florida Department of Environmental Protection (FDEP) and the St. Johns River Water Management District (SJRWMD). At this time, only preliminary wetland assessment data has been used to identify the natural communities and corresponding acreages present on the site, although this level of assessment does provide for the identification of all on-site wetlands of high ecological and regional value. Map F identifies the approximate wetland boundaries, and Table 13-1 summarizes the various wetland communities and provides the approximate acreage of each type.

**Table 13-1
Acreage of Wetland Communities and Surface Waters On-Site**

COMMUNITY	FLUCFCS CODE	APPROX. ACREAGE
Wetland Communities		
Bay Swamp	611	59.2
Stream Bottomland	615	71.7
Mixed Wetland Hardwoods	617	188.3
Cypress	621	11.1
Wetland Forested Mixed	630	512.1
Harvested Wetland Forested Mixed	6301	217.4
Vegetated Non-Forested Wetlands	640	6.2
Other Surface Waters		
Ditches	510	15.4
Total Approximate Acreage:		1081.4

Source: Environmental Resource Solutions, 2004

Prior to the formal application for any construction-level permitting issued by the State and Federal regulatory agencies, all wetlands on the subject property will be delineated and surveyed on a project by project basis. Descriptions of the wetland communities are based on the Florida Land Use, Cover and Forms

Classification System (FLUCFCS) and are provided in Question 12 and Map F of this ADA.

Wetlands comprise approximately 1081.4 acres± (38%) of the 2,815.7 acre± Elkton project area. The dominant wetland community types, making up approximately 65% of the on-site wetlands, are Wetland Forested Mixed (FLUCFCS Code 630) and Mixed Wetland Hardwoods (617). The majority of these wetlands occur within large contiguous systems that comprise the tributaries of Deep Creek. In general, the central portions of these contiguous wetland systems are high quality, with moderate, more disturbed quality portions occurring on the fringes. Silviculture activities have occurred along the periphery of many of the natural wetland areas, resulting in disturbed wetland communities exhibiting a higher density of opportunistic species such as myrtle leafed holly (*Ilex myrtifolia*) and wax myrtle (*Myrica cerifera*).

2. Historic hydroperiods and seasonal water elevations of on-site wetlands.

Hydroperiods and seasonal high water table elevations within the wetlands that occur on the Elkton project site are variable and dependent upon both natural and human factors. Natural factors influencing these parameters include their location in the landscape, watershed characteristics, local weather influences, soil type, surface contours, groundwater table elevation, and vegetation. Silvicultural management activities have altered the hydroperiods and seasonal high water table elevations of existing wetlands in many areas.

Based on the conceptual site plan, the majority of the large contiguous wetland systems will be preserved (Map H). The hydroperiods within wetlands range from ephemeral in isolated systems, to semi-permanent in portions of the deeper swamps. The proposed drainage systems for the Elkton project will be designed and permitted in compliance with SJRWMD rules that require protection from adverse alterations to wetland hydroperiods adjacent to development.

3. Acreage and location of wetlands which are to be preserved in their natural or existing state, including proposed hydroperiods, seasonal water elevations and methods for preservation.

Based on the Elkton Preliminary Master Plan (Map H), the vast majority of the two highest quality and most functional wetland community types, including the Wetland Forested Mixed and Streams and Lake Swamps (615) communities, will be avoided for development purposes and preserved in perpetuity. These areas of preservation, along with appropriate upland buffers, are included in the areas identified as greenway corridor on Map H. In addition to those wetland areas included in the conservation area, additional isolated and contiguous

wetlands will be preserved wherever impacts can be avoided during future, more resolute, site planning efforts.

A final site plan has not been completed to accurately assess the total specific amount and location of preserved or impacted wetland areas within the Elkton property. However, the majority of the contiguous forested and higher quality isolated wetland systems will be preserved and protected by perpetual conservation easements. Locations and configurations of these wetlands are depicted on Maps F and H.

4. Acreage and location of areas to be enhanced, including proposed hydroperiods, seasonal water elevations and methods of enhancement.

There are many on-site opportunities to provide an ecological lift within previously disturbed wetlands through hydrologic and/or vegetative enhancement. Since the site plan is currently preliminary in nature, direct identification of the areas to be enhanced and/or the specific enhancement methods to be employed is not practicable at this time.

5. Actions taken to minimize or mitigate impacts on wetland areas, including maintaining the hydroperiod and providing buffers.

From the initial stages of planning the Elkton project, avoidance and minimization of impacts to environmentally sensitive areas has played a major part in the development of the site design. The importance of the Moccasin Branch and Deep Creek watersheds prompted the avoidance of the majority of wetlands and tributaries associated with these systems. Minimization considerations have included proposing road crossings at the narrowest wetland areas and/or at areas where crossings already exist, and limiting residential, commercial, and institutional lot fill, where practicable, to lower quality wetlands. Once the wetland jurisdictional determination for both COE and SJRWMD is conducted, during future permitting efforts, proposed encroachments will be reviewed in an effort to further minimize impacts. The type and amount of mitigation will be determined during the permitting process utilizing the Wetland Rapid Assessment Procedure (WRAP) for COE and the Uniform Mitigation Assessment Method (UMAM) for SJRWMD.

To satisfy all applicable state and local regulations, upland buffers adjacent to wetlands will be incorporated into the site where practicable.

6. Acreage and location of wetlands which will be disturbed or altered, including a discussion of the specific alterations and disturbances.

As discussed above, a final site plan has not been presented to accurately assess the total amount (acreage) and location of wetland impact areas within the Elkton property. Furthermore, at this time it is difficult to assess the location or amount of wetlands that will be proposed to be disturbed.

Proposed impacts will be limited to those necessary to achieve an economically viable project while protecting the integrity of the high quality connected wetland systems. The majority of impacts will be to isolated wetlands and peripheral extensions of the forested systems that have been degraded by intensive silvicultural management activities, in order to accommodate the proposed plan.

Wetland impacts resulting from development of a local roadway network are unavoidable due to the landscape configuration of the on-site wetlands. Wetland crossings required to access upland areas have been located within the narrowest portion of the wetland to minimize wetland impacts to the maximum extent practicable.

The Developer has made a conscious effort to consider all potential wetland impacts and will initiate wetland permitting with COE and SJRWMD to address these issues. During this process, impacts will be evaluated in accordance with regulatory criteria, and detailed mitigation plans will be developed to address authorized impacts.

7. Precautions to be taken during construction to protect wetland areas.

Best Management Practices (BMP's) will be employed throughout construction phases that are located within or adjacent to sensitive wetland preservation areas, including buffer zones. The location of wetland preservation areas and corresponding wetland buffers will be surveyed and staked in the field to determine the location of erosion control fencing, hay bales, etc. which will be installed to protect the wetlands from adjacent construction activities. In addition, the contractor will be responsible for obtaining National Pollutant Discharge Elimination System (NPDES) Permits from the Florida Department of Environmental Protection (DEP) prior to construction that may affect wetland areas. Any dewatering activities that may be necessary to construct the proposed surface water management system will be discharged to containment or holding areas located in uplands to prevent the discharge of waters to wetlands. Furthermore, should any discharges be proposed to reach any jurisdictional wetland areas, the contractor will secure the necessary NPDES Groundwater Discharge Permit. Any newly exposed surfaces will be seeded or sodden to prevent erosion as practicable within 14 days of being exposed. Any excavated wetland spoil material will be stockpiled in uplands and contained within siltation curtains, as necessary, to ensure no adverse impacts to water quality. All prudent and necessary steps will be followed for the duration of the

project to ensure protection against water quality contamination from erosion resulting from construction.

8. If available, provide jurisdictional determinations.

As discussed above, the wetlands within the Elkton project have not yet been formally delineated in the field. Upon initiation of environmental permitting with SJRWMD and COE, the on-site wetlands will be delineated.

B. Provide any proposed plans (conceptual or specific) for created or enhanced wetland areas, including littoral lake slopes, buffers, vegetative species to be planted, etc.

Conceptual plans for the creation or enhancement of wetland areas, if needed, will be further defined after impacts to jurisdictional wetlands are finalized during subsequent environmental permitting efforts. All mitigation will be determined during permitting utilizing the Uniform Method Assessment Method (UMAM) for COE and SJRWMD.