Introduction

The Local Government Comprehensive Planning and Land Development Regulation Act, Chapter 163, *Florida Statutes*, requires that the Treasure Coast Regional Planning Council (TCRPC) review local government comprehensive plan amendments prior to their adoption. Under the provisions of this law, the Department of Community Affairs (DCA) prepares an Objections, Recommendations, and Comments (ORC) Report on a proposed amendment only if requested to do so by the local government, the regional planning council, an affected person, or if an ORC Report is otherwise deemed necessary by the DCA. If an ORC Report is to be prepared, then the TCRPC must provide DCA with its findings of consistency or inconsistency with the Strategic Regional Policy Plan (SRPP), and provide any comments and recommendations for modification on the proposed amendments within 30 days of its receipt.

Background

The City of Vero Beach has proposed three amendments to the Future Land Use Map (FLUM) of the City Comprehensive Plan. The City has requested a formal review of the amendments by the DCA.

Evaluation

The FLUM amendments are for properties that the City has previously annexed. The City considers the new FLUM designations assigned to be compatible with the designations assigned to the properties under the Indian River County Comprehensive Plan. The amendments are summarized on Table 1 and the approximate locations of the properties are shown on the attached exhibits.
Table 1
Proposed Amendments to the Future Land Use Map
City of Vero Beach Comprehensive Plan
DCA Reference No. 09-1

<table>
<thead>
<tr>
<th>Amendment Number/Name</th>
<th>Approx. Acreage</th>
<th>Current FLUM Designation</th>
<th>Proposed FLUM Designation</th>
<th>Approximate Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>C09-000005</td>
<td>22.2</td>
<td>Medium Density Residential (M-1)</td>
<td>Residential Medium (RM)</td>
<td>North of intersection of 33rd Street and 13th Avenue.</td>
</tr>
<tr>
<td>C09-000007</td>
<td>124.0</td>
<td>Conservation (C-2)</td>
<td>Conservation (CV)</td>
<td>South of 45th Street, along western shore of Indian River Lagoon.</td>
</tr>
<tr>
<td>C09-000008</td>
<td>16.7</td>
<td>Conservation (C-2)</td>
<td>Environmentally Significant (ES)</td>
<td>Between 45th Street and Gifford Dock Road, along western shore of Indian River Lagoon.</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>162.9</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key to FLUM Designations**

**City Designations**
- **ES** Environmentally Significant – maximum one dwelling unit per two acres
- **CV** Conservation (no residential development permitted)
- **RM** Residential Medium – maximum 10 dwelling units per acre

**County Designations**
- **C-2** Conservation – maximum one dwelling unit per 40 acres
- **M-1** Medium Density Residential – maximum 8 dwelling units per acre

1. Amendment #C09-000005

This 22.2 acre property is located just northeast of the intersection of 13th Avenue and 33rd Street (see Exhibits 2-3). The property is currently vacant and, according to the amendment materials, is 100% wooded and vegetated. No development has yet been proposed for this property.

The current FLUM designation under the County plan is Medium Density Residential (maximum 8 dwelling units per acre). The proposed City designation is Residential Medium (maximum 10 dwelling units per acre). The land uses on surrounding properties are:

<table>
<thead>
<tr>
<th>Existing</th>
<th>FLUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Medical Park</td>
<td>Commercial/Industrial*</td>
</tr>
<tr>
<td>East Professional services, vacant</td>
<td>Low Density Residential *</td>
</tr>
<tr>
<td>South Home for the aged, single family residential</td>
<td>Residential Medium; High Density Residential *</td>
</tr>
<tr>
<td>West Vacant</td>
<td>Commercial; Commercial/Industrial*</td>
</tr>
</tbody>
</table>

* County FLUM designation
The property was annexed on October 3, 2006. The amendment was initiated by the City. The City acknowledges there could be an increase of 44 dwelling units under the new designation, but the property lies within the Urban Service Area and there would be no adverse effects on service levels for public facilities. The City considers the property, which is located between areas of single family residential and commercial land uses, to be an appropriate transitional use at the allowable density. Adequate school capacity will be determined at the site plan stage.

2. Amendment #C09-000007

This 124 acre property is located south of 45th Street, along the western shore of the Indian River Lagoon at the northern boundary of the City (see Exhibit 4). The property was annexed in May, 2007.

The property currently serves as a mitigation bank for the development of properties that impact salt water wetlands. The property is privately owned. There is no proposed change in use. The FLUM designation under the County Comprehensive Plan is Conservation (C-2). The proposed designation under the City Plan is Conservation (CV). The land uses on surrounding properties are:

<table>
<thead>
<tr>
<th></th>
<th>Existing</th>
<th>FLUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>Vacant Land</td>
<td>Conservation *</td>
</tr>
<tr>
<td>East</td>
<td>Indian River Lagoon</td>
<td></td>
</tr>
<tr>
<td>South</td>
<td>Vacant Land</td>
<td>Medium Density*,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Environmentally Sensitive</td>
</tr>
<tr>
<td>West</td>
<td>Vacant Land, home for the aged</td>
<td>Medium Density Residential *</td>
</tr>
</tbody>
</table>

* County FLUM designation

As indicated above, this property serves as a saltwater mitigation bank providing credits for development of properties that impact saltwater wetlands. The City Conservation designation is to be applied to “areas which contain or possess lands with qualities and features that play an essential role in the normal function of the local, regional and Indian River Lagoon ecosystems.” Such lands shall remain undeveloped and uses allowed are open space, conservation and compatible passive recreation. These lands are candidates for public acquisition. The location of this property is classified as wetlands and the parcel is within the flood hazard area.

3. Amendment #C09-000008

This 16.7 acre property is located to the immediate north of amendment #C09-000007; between 45th Street and Gifford Dock Road (see Exhibits 5-6). The property is privately owned, and was annexed by the City in August, 2007.

The property is currently vacant. The City is considering a site-plan for single family residential development. The FLUM designation under the County Comprehensive
Plan is Conservation (C-2). The proposed FLUM designation by the City is Environmentally Significant. According to the City Comprehensive Plan, this designation is “for islands, riverfronts, environmentally sensitive areas and lands adjacent to environmentally sensitive lands”. However, single family residential development is permitted on lands designated as Environmentally Significant at up to 1 dwelling unit per two acres on the mainland. The land uses on surrounding lands are:

<table>
<thead>
<tr>
<th>Existing</th>
<th>FLUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Grand Harbor Development of Regional Impact (DRI)</td>
<td>Medium Density Residential</td>
</tr>
<tr>
<td>East Indian River Lagoon</td>
<td></td>
</tr>
<tr>
<td>South Outfall canal, vacant land</td>
<td>Conservation</td>
</tr>
<tr>
<td>West Grand Harbor DRI</td>
<td>Medium Density Residential; Conservation</td>
</tr>
</tbody>
</table>

This property has been used as a mosquito impoundment since the 1950s. It is surrounded by a dike, ditches, a borrow area and Gifford Park Road. The property consists of isolated wetlands with a “reduced wetlands value”, according to the City. According to the amendment materials, there is no direct connection with the Indian River Lagoon. However, as the attached letter from the Florida Department of Environmental Protection (FDEP) dated October 16, 2009 indicates, the property is a “high salt marsh wetland system. The site is connected to the Indian River Malabar to Vero Beach Aquatic Preserve, during high tides and storm events. This is evident in the obligate salt marsh vegetation found on the west end of the property. The nature of this type of wetland system is to be inundated several times during the year with salt water” (see Attachment A). The property is within a flood hazard area.

The proposed FLUM designation for this site, according to the City, is in part based on access to adequate public utilities and good street access (Gifford Dock Road). This is the lowest density designation allowed by the City. Although the property could accommodate as many as 8 or 9 dwelling units based on the FLUM designation, the City indicates that a maximum of 3 dwelling units could be developed on the property based on “environmental restrictions, other applicable ordinances and Indian River County requirements”. Because of wetlands regulations, development would be limited to one dwelling unit per lot of record. There are 3 lots of record for this property. This property was offered for purchase under the County Environmental Lands Program, but was not considered as a high priority for purchase by the County’s Land Acquisition Advisory Committee. According to Indian River County staff, there was some discussion about acquiring the property for a public boat ramp to complement the adjoining County access and dock.

**Extrajurisdictional Impacts**

Under the informal agreement facilitated by the TCRPC, local governments in the northern three counties of the region are to provide copies of amendment materials to
other local governments that have expressed an interest in receiving such materials. The City provided copies of the amendment materials to Indian River County, the Town of Indian River Shores, the City of Fellsmere, the City of Sebastian and the Indian River County School District. Council sent a memorandum to each of these local governments and organizations on October 14, 2009 seeking comments regarding any areas of potential conflict. As of the date of the preparation of this report, no responses have been received.

Effects on Significant Regional Resources or Facilities

Analysis of the proposed amendments indicates that amendments C09-000005 and C09-000007 would not have adverse effects on significant regional resources or facilities. However, the development of property in Amendment #C09-000008 would directly impact salt marsh wetland systems and have negative impacts on the Indian River Lagoon. The City should take all necessary precautions to see that development does not negatively impact existing wetlands or the Indian River Lagoon ecosystem and Aquatic Preserve.

Analysis of Consistency with Strategic Regional Policy Plan

Comments/Recommendation for Modification

1. Amendment #C09-000005

   Evaluation of aerial photography suggests this 2.2 acre site may be covered with native pine flatwoods in relatively good condition. The City did not provide any information regarding the quality and type of native habitat, or about the existence of animal species. Furthermore, the City Plan does not include any requirements for the preservation of native habitat. No development is currently proposed for the property. Council recommends that prior to development approval on this property:

   a. a written assessment of ecological or environmental resources and potential impacts be prepared, consistent with Regional Policy 6.7.1.3; and

   b. any development plan for the property be required to maximize the amount of upland natural communities protected consistent with Regional Policy 6.7.1.2. As a minimum, the City should strive to protect 25 percent of the upland natural communities on the project site. The benefits of this strategy include 1) water conservation by reducing the area in need of irrigation; 2) providing habitat for wildlife; and 3) sequestering carbon in the effort to protect against climate change.
2. Amendment #C09-000008

The proposed designation of this property as Environmentally Significant by the City seems consistent with the character as a high salt marsh wetland system (see FDEP letter dated October 16, 2009). The City’s decision to allow residential development on 2-acre lots on such lands does not seem to be consistent with the character of such lands; nor does it seem compatible with the existing County designation as Conservation.

According to information received from the City, development on the property will be limited to 3 residential dwellings. This is based, in part, on the information that the property contains 3 lots of record. The County staff confirmed that their information indicates there are 3 lots of record. Despite this limitation, it will still be difficult to utilize these lands for residential use (see Attachment A).

Based on the information provided by FDEP in Attachment A, it would be impossible to have any development on the subject parcel without directly impacting wetlands. Therefore, the proposed amendment allowing an increased level of development on this parcel is inconsistent with SRPP Policy 6.6.1.1, which indicates that no activity shall be allowed that results in the alteration, degradation or destruction of wetlands. Allowing development of wetlands on this parcel is also inconsistent with Regional Goal 6.5, Protection of estuarine resources, Strategy 6.5.1, Maintain and enhance the functions and values of the Region’s estuaries; and Policy 6.5.1.1, Improve and restore the Indian River Lagoon estuary system.

The most appropriate FLUM designation on the subject parcel would be Conservation (CV). The City should not assign a FLUM designation that allows increased development rights on the subject parcel unless the City has a mechanism to transfer development rights from environmentally sensitive areas to other less sensitive areas. The subject parcel is especially sensitive because it is in a low-lying coastal hazard area. This area is expected to be directly impacted by sea level rise later in this century. Increasing the intensity of development on the subject parcel is likely to exacerbate efforts to address sea level rise issues in the future, and increase the cost of infrastructure required to provide services to the development as sea level rises.

Council encourages the City to establish and implement programs to provide for the protection of environmentally sensitive lands platted prior to the adoption of regulations that require wetlands protection. This is especially important for lands where wetlands must be destroyed or damaged in order to permit any development to occur. Examples of such programs are transfer of development rights and conservation easements.
**Consistency with Strategic Regional Policy Plan**

The contract agreement with the DCA requires the TCRPC to include a determination of consistency with the SRPP as part of the written report to be submitted to the DCA. The TCRPC finds proposed amendments #C09-000005 and #C09-000007 to be CONSISTENT with the SRPP. Proposed amendment #C09-000008 is found to be INCONSISTENT with the SRPP.

**Recommendation**

The Treasure Coast Regional Planning Council should adopt the above comments and instruct staff to transmit the report to the Department of Community Affairs.

**Attachments**
List of Attachments

Attachment

A  October 16, 2009 letter from the Florida Department of Environmental Protection
Carter Associates, Inc.
1708 21st Street
Vero Beach, Florida 32960

Attention: John H. Blum, P.E.

Indian River County - ERP
Oculina Bank (Osprey Estates)
File No. 31-0294392-001

Dear Mr. Blum:

The Department of Environmental Protection received your response to the March 20, 2009, request for additional information (RAI) on September 16, 2009. The information requested below is required to sufficiently review the application, pursuant to Chapters 373 and 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 62-302, 62-330, 62-343, 40C-4, 40C-40, 40C-41 and 40C-42.

1. Thank you for modifying the project design to reduce or eliminate adverse impacts to wetlands and other surface water. The Department acknowledges that the applicant modified a portion of the project based on the Department’s May 20, 2009 recommendations, specifically the applicant has:
   - Eliminated the 20 foot wide new road and will be utilizing the existing road, Gifford Dock Road/45th Street, and
   - Minimized the size of the wetland impact area on each parcel by constructing stilt homes.

As previously stated in the May 20th RAI, when considering whether to approve an application, the Department looks at the degree of impact to wetlands and other surface waters caused by the proposed structure, and whether the impacts can be mitigated. The subject sites are NOT isolated but are a high salt marsh wetland system. The site is connected to the Indian River Malabar to Vero Beach Aquatic Preserve, during high tides and storm events. This is evident in the obligate salt marsh vegetation found on the west end of the property. The nature of this type of wetland system is to be inundated several times during the year with salt water. Additional project modification must be provided to reduce wetland impacts to the fullest extent possible on each tract. [SJRWMD A.H. Section 12]
Based on the current plans, Department staff offers the following suggestions: [Sections 12.2.1, 12.2.1.1 A.H.]

- Modify the location of tracts 1 and 3 to the western end of the property off Gifford Dock Road/45th Street. The subject site is located between Grand Harbor development which has a preservation area on the south end and CGW Mitigation Bank. Development and impacts to the wetlands along the western end of the wetland system would allow for wildlife utilization within the eastern portion of this system;

- The construction of stilt homes will reduce the wetland impacts but will not eliminate the impacts. Based on the drawings, the eastern extents of the concrete driveways are very wide and can be reduced. Reduce the width of the eastern ends of the driveways and relocate them directly under the footprint of the stilt homes;

- Eliminate the pool and pool deck. This is an avoidable impact;

- As stated in the previous RAI and acknowledged by the applicant in the RAI response, the remaining wetlands, including the mangroves, will be required to be placed in a perpetual conservation easement as partial mitigation for the impacts to wetlands and surface waters. Therefore the mangroves will be required to remain in their natural state. However, the construction of stilt homes elevates the homes for adequate views of the Indian River Aquatic Preserve.

2. Please provide documentation that the division of the approximately 16 acre lot into three (3) separate lots was a legal lot split. This will include a warranty deed to each lot showing ownership by the applicant. [this information was not included in the submittal to the Department as indicated in the RAI response package]

In addition, please provide a statement from Indian River County that the lots are zoned for private, single-family use.

3. Based on Sheet C-2 the east/west portion of Gifford Dock Road is to be improved by elevating the grade. Have the proposed improvements been approved by Indian River County? Please provide specific details to why this portion of the road is to be elevated and the perimeter installed with a retaining wall. This road has been used for many years by residents to access the Indian River County property and dock at the northeast end of Gifford Dock Road. These improvements can be entirely eliminated by modifying the impacts on tract 3 to the west as indicated above.

In addition, the Department cannot permit road improvements [Operating Agreement between SRWMD and the DEP]. All road improvement details and notations must be removed from all drawings.
Wetland Impacts

4. As stated above, the subject site is a high salt marsh wetland system. The site is connected to the Indian River Malabar to Vero Beach Aquatic Preserve, during high tides and storm events. This is evident in the obligate salt marsh vegetation found on the west end of the property. The nature of this type of wetland system is to be inundated several times during the year with salt water.

Please have all figures, tables, and drawings changed to REMOVE all notations indicating altered or non-tidal.

5. Based on the information provided above, the inundation of salt water several times a year would submerge any septic/drainfields that may be installed and would lead to contamination of ground water, wetland systems and eventually the Indian River Aquatic Preserve. Therefore the Department strongly suggests that the applicant either connects to the existing sewer line that is located on the west side of Indian River Boulevard or use compositeing toilets at the homes.

However, if the applicant wishes to proceed with septic/drainfields, the applicant must provide documentation from an engineer that clearly demonstrates that contamination will not occur from a septic tank/drainfield when this site is flooded.

6. The applicant must provide the sanitary systems to be used. Detailed information regarding the type to be used and specific details to the systems and the locations on each tract must be on the drawings. Please provide.

7. Based on the information received, the applicant will not be connecting to the existing water line? Therefore, please provide engineering documentation that during times of inundation of salt water from the Indian River the well will not be affected by saltwater intrusion.

The well type, details and location must be on all drawings. Please provide.

8. In addition, the proposed boardwalks through wetlands and docks in the aquatic preserve must be included in the impacts to each tract. Please revise and provide accordingly.

To date, the following has not been received:

9. Please provide draft Articles of Incorporation and Declaration of Covenants and Restrictions for the proposed property owner's association. Please incorporate the Department's recommended language or language with equivalent effect, into these documents [40C-4.301(1)(j), F.A.C.]

Mitigation

10. The following was requested in the March 20th RAI but has not yet been received:

Please note that the conservation easement documentation (enclosed with the March 20, 2009 RAI) will be required for the placement of a perpetual conservation easement as (or partial) mitigation.
11. Please note that based on the impact tables provided, the total impact area for the three (3) tracts is 2.08, not 1.5 acres as indicated in the RAI response. In addition the stilt homes, although they significantly reduce the impacts, must be included as an impact. Please revise.

12. Based on the RAI response, the following is provided as mitigation:
   a) Rotational Impoundment Management Plan (RIM) that includes 10 tidal culverts;
   b) Dike removal and hydrologic ditch connection;
   c) Exotic removal and replanting native vegetation; and
   d) A conservation easement over the remaining on-site wetlands and surface waters (above the mean high water level).

The mitigation plan is addressed in chronological order:
   a) As stated above, this site is a functional high salt marsh system that is already tidally connected to the Indian River. Therefore a RIM plan would not be appropriate mitigation for this project;
   b) This site has two (2) existing concrete culverts that connect this area to the Indian River during times when seasonally high tides do not occur. Additional hydrologic ditch connections do not appear to be needed. Please provide a separate, dimensional and scaled plan view drawing that only shows the areas proposed for dike removal. This drawing should include, but is not limited to, the current elevations and proposed elevations. In addition please provide specific details to the methods and equipment that will be used for the dike removal. Please locate and show the two (2) culverts on all the drawings;
   c) Exotic plant removal is a requirement of the conservation easement. Therefore it cannot be used as part of the mitigation. Please provide a separate, dimensional and scaled plan view drawing that only shows the areas proposed for planting of native wetland vegetation. In addition please provide specific details to the methods and equipment that will be used for the plantings and the type, number, center and size of plants to be used;
   d) As stated above, the conservation easement documents must be provided.

13. Once the project has been reduced to meet SJRWMD A.H. Section 12, additional mitigation plans have been received (as described above several of the proposed plans are not appropriate). and specific details to the dike removal and planting plans are received the mitigation will be reviewed to make sure it meets the requirements of 62-345, F.A.C.
Dock

Please note that your project is located on sovereign submerged lands and within the Indian River, Malabar to Vero Beach Aquatic Preserve and therefore must comply with all the requirements set forth under Chapter 18-20, Florida Administrative Code (F.A.C.) and 18-21, F.A.C.

14. Please revise each plan view drawing to meet the following:
   a) The access walkway cannot exceed four (4) feet in width [18-21.004(5)(b)(1)];
   b) No portion of the mooring area, boat lift, can be located along the access walkway [18-21.003(29) & (67)];
   c) No more than two (2) vessels can moor at this structure at any time. Please change the slip numbers on tracts 2 and 3 to indicate only one (1) and (2) slips to prevent any future confusion;
   d) Width of the waterbody (MHW to MHW).

15. Please provide a profile drawing of each boardwalk and dock from commencement to the terminus. This drawing shall include, but is not limited to, the dimensions, slips, handrail locations, elevations, wetlands and surface water the boardwalk transverses, and water depths (referenced from mean low water level).

16. The Department noted that the applicant will provide the following after April 1, 2010:

Please clearly stake the location of the proposed access walkway, terminal platform, and slips. Each of the four corners of both the slips and the terminal platform must be staked. Once the area has been staked, the Department will conduct a site inspection to verify the submitted seagrass and water depth survey. Please note that seagrass surveys do not begin until April 1st. The Department will notify the applicant after the inspection has been completed.

To comply with 12.2.1 Applicant’s Handbook (A.H.) (SJRWMD) there must be a minimum clearance of one foot between the deepest draft of the vessel and the top of the resources.

17. Your project is within an Outstanding Florida Water (OFW), and your project must be shown to be clearly in the public interest. Please demonstrate that your project is clearly in the public interest.

In determining whether a project is clearly in the public interest, the department will consider and balance the following criteria:

1. Whether the project will adversely affect the public health, safety, or welfare or the property of others;
2. Whether the project will adversely affect the conservation of fish and wildlife, including endangered or threatened species, or their habitats;
3. Whether the project will adversely affect navigation or the flow of water or cause harmful erosion or shoaling;
4. Whether the project will adversely affect the fishing or recreational values or marine productivity in the vicinity of the project;

5. Whether the project will be of temporary or permanent nature;

6. Whether the project will adversely affect or will enhance significant historical and archeological resources under the provisions of section 267.061; and

7. The current condition and relative value of functions being performed by areas affected by the proposed activity. [See 373.414, F.S.]

18. The following was not clearly provided as requested in the March 20th RAI:

Please clearly delineate which mitigation projects proposed are to be used as mitigation for the impacts to wetlands and on-site surface water and which are to demonstrate that the project is clearly in the public interest.

19. The applicant’s response item # 33 states the following regarding “public benefits resulting from the project”, “Approximately $3,800,000.00 purchase savings for taxpayer to purchase, preserve, enhance, and restore 14+ acres of impounded salt marsh (price is based upon impoundment sale in 2006 @ $250k/ac. and cost of additional mitigation onsite)”. Please provide specific details to exactly what this statement is describing.

20. Please note that the applicant must provide separate mitigation and public interest projects for the impacts to wetlands and surface waters above the mean high water level and the impacts to the river bottom of the Indian River Aquatic Preserve and the resources.

21. The list of items in the applicant’s response item # 33 does not include accompanying details or figures. Please provide details to each item listed. For example, please provide details, diagram of the new seagrass and manatee signs at the existing public park. Where are they going? Are there existing signs at the facility? Please note that Florida Fish & Wildlife Conservation Commission has approved signage for both seagrass and manatees.

Please remember that a RIM plan is not appropriate for this site and must be removed from the mitigation proposal.

STORMWATER TREATMENT
(Chapters 62-330, 62-343, 40C-4, 40C-40, and 40C-42, F.A.C.)

22. Please provide either a full-sized or 11” X 17” drawing that shows the various basins described in pages 3 through 6 of the stormwater calculations. The drawing must have a clear and consistent scale. The 8½” X 11” nodal diagrams are not sufficient to verify basin areas.

23. Please revise drawings to include areas of “Existing stabilized pathway” and any areas that are claimed as existing impervious. There areas should be shown with cross-hatching, stippling, or shading so that they are clearly differentiated from other areas on the drawings. Note that if these areas will be disturbed or will be subject to regular
vehicular traffic, then appropriate stormwater treatment to current criteria must be provided.

24. The areas of the houses were not included as impervious surface in the calculations of required water quality treatment volume. Under the rules and St. Johns River Water Management District (SJRWMD), roof areas must be included as impervious surface. Even though the proposed homes will be elevated, the roof areas will concentrate pollutants which will then be flushed off during a rain event. Please revise the design calculations and engineering drawings to include the area of the proposed houses as impervious surface.

25. Are roof drains anticipated? Explain in detail how the runoff from the roofs will be captured and treated by the proposed stormwater systems. Revise engineering drawings to depict the location of the proposed roof drains. If necessary, revise stormwater calculations accordingly and resubmit.

26. It is unclear why the concrete pool deck areas were considered "open area" and not impervious area in the stormwater calculations. Please revise the calculations and resubmit.

27. It is not appropriate to include the swimming pools as part of the retention volume for the stormwater treatment system as appears to have been done. Please revise the calculations and resubmit.

28. Please provide plan view drawings of each retention area (in close up) with sufficient topographic information to verify the stage/storage information provided in the engineering calculations.

29. Please revise the engineering drawings to include, in full detail, cross-sections of each retention area including, but not limited to, the side slopes and the elevations for bottom of the ponds, the top of the bank, the seasonal high ground water table elevation (SHGWT), and the water table elevation found at the time of the geotechnical investigation. Also, include any other substantial characteristics for all the cross-sections.

30. The driveway for Tract 3 (the northern lot) is not sloped to direct stormwater runoff into the retention area. Please revise the design and resubmit.

31. Is stormwater treatment in any wetland area proposed? Treatment of stormwater in natural wetlands is not appropriate. Please revise the design and resubmit.

32. The projects, as proposed, will result in highly impervious areas subject to vehicular traffic. Revise the design of the overflow structures for the dry retention ponds to include mechanisms suitable for preventing oils, greases, and floating trash from leaving the retention areas.

33. How will the dry retention areas be stabilized? Will they be seeded or sodded? What species will be used to survive the high salt concentrations at the site?
34. Please provide 1 copy of the standard construction/installation practices and specifications used by the Indian River Mosquito Control District for installation of the proposed cross culverts. If this information is voluminous, please provide on a CD.

35. Please provide the input and output files for the ICPR routing analyses on a CD.

36. As noted in item #2, above, based on the current operating agreement between the Department and the SJRWMD, the Department cannot permit road improvements [http://www.dep.state.fl.us/water/wetlands/erp/rules/guide.htm]. All road improvement details and notations must be removed from all drawings.

37. To what datum is the elevation information on the drawings and in the geotechnical report referenced? Is it NGVD 29 or NAVD 88 or something different?

38. Please submit a copy of the geotechnical report that has been signed, sealed and dated by the registered professional engineer.

39. Where will the fill material for the proposed project be obtained? Please provide detailed specifications for the fill material to be used.

40. Item #2 of the previous RAI was not addressed. The reviewer has contacted staff in the Palm Bay office of the SJRWMD and has received concurrence that compensatory storage volume is appropriate for projects in this area. This request is also consistent with other projects in the area that the Department has reviewed. Please demonstrate that appropriate compensating storage is provided for proposed fill impacts to the regulated floodplain.

41. The reviewer was unable to verify that sufficient water quality treatment volume will be provided by the proposed design. Please revise the stormwater calculations and engineering drawings based on the comments above and resubmit.

42. The reviewer was unable to verify that the required water quality treatment volume will recovery within 72 hours following a storm event. Please revise the stormwater calculations and engineering drawings based on the comments above and resubmit.

43. Please revise the ICPR routing analyses based on the comments above and resubmit.

44. Demonstrate that issues regarding any potential impacts to historical or archaeological resources have been appropriately addressed with the Florida Department of State, Division of Historical Resources. A written response from DCS/DHR that any concerns have been addressed must be provided.

45. Demonstrate that issues regarding the project’s potential impacts to threatened and endangered species have been appropriately addressed with the Florida Fish and Wildlife Conservation Commission’s Bureau of Protected Species Management, Division of Wildlife.

46. Please submit only two copies of the response to this RAI. Submit two copies of any revised drawings in full size, signed, dated and sealed by the professional engineer of record. Also provide one set of engineering drawings in reduced size (11" X 17").
The Department reserves the right to request additional information once the responses to this request have been received. Any application, which has not been technically completed within 90 days from the date of receipt of a request for additional information by the Department, may be denied. In order to expedite the review of your application, use the application number 31-0294393-001 on all correspondence, and submit one copy of all requested information.

If you have questions, please do not hesitate to contact me at 407/893-7874, or by email at Debra.Lasure@floriddep.net.

Sincerely,

Debra Lasure, P.E.
Manager of Engineering Support
Submerged Lands and Environmental Resources Program

Cc: Chris Boland, (Chris.Boland@myFWC.com)
    Tamy Dabu, ACOE-Merritt Island (tamy.s.dabu@usace.army.mil)
    Timothy McGarry, City of Vero Beach-Planning & Development, tmcgarry@covb.org
    Roland Deblois, Indian River County, rdeblois@ircgov.com
List of Exhibits

Exhibit

1. General Location Map
2. Future Land Use Map (Amendment #C09-000005)
3. Location Map of Amendment #C09-000005
4. Future Land Use Map (Amendment #C09-000007)
5. Future Land Use Map (Amendment #C09-000008)
6. Location Map of Amendment #C09-000008
Exhibit 2
Future Land Use Map
(Amendment #C09-000005)
Exhibit 3
Location of Amendment #C09-000005
Exhibit 6
Location of Amendment #C09-000008