

## Stormwater Pollution Prevention Plan

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

\_\_\_\_\_  
Name (Operator and/or Responsible Authority)

\_\_\_\_\_  
Date

<b>Project Name and location information:</b>	Richmond Park Intersection of Immokalee Road and Woodcrest Drive Naples, FL 34120
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**A site map must be developed and must contain, at a minimum, the following information:**

1. Drainage patterns,
2. Approximate slopes after major grading activities,
3. Areas of soil disturbance,
4. Outline all areas that are not to be disturbed,
5. Location of all major structural and non-structural controls,
6. The location of expected stabilization practices,
7. Wetlands and surface waters, and
8. Locations where stormwater may discharge to a surface water or MS4.

**Site Description**

Describe the nature of the construction activity:	Construction of 13 multi-family buildings, one amenity center and the supporting infrastructure.
Describe the intended sequence of major soil disturbing activities:	<ul style="list-style-type: none"> <li>• Site preparation and stabilized construction entrance.</li> <li>• Install sediment and erosion control around wetlands/ROW/project boundary and as needed to prevent soil from leaving the site.</li> <li>• Install storm water retention basin and stockpile excavated material</li> <li>• Clear, grub, and grade all areas not designated buffers or conservation easements.</li> <li>• Install water distribution and wastewater collection systems.</li> <li>• Install storm sewer system.</li> <li>• Construct roadways and sidewalks.</li> <li>• Install concrete slabs.</li> <li>• Frame structures.</li> <li>• Finish building;</li> <li>• Clean out sediment accumulated in retention basin</li> <li>• Final grade and install permanent grasses and planting. All disturbed areas to be reseeded or sodded</li> <li>• Remove erosion control when stabilization has been established to prevent soil from leaving the site.</li> </ul> <p>To be completed by Contractors/ Subcontractor(s); 1,2,3</p>
Total area of the site:	15.89 Acres
Total area of the site to be disturbed:	10.60 Acres
Existing data describing the soil or quality of any stormwater discharge from the site:	Existing soil type is silty sand with a seasonal high water table varying from 0 to 1 feet below existing grade. Existing grade is naturally flat.
	1. Basin 2- 25.08 acres

Estimate the drainage area size for each discharge point:	
Latitude and longitude of each discharge point and identify the receiving water or MS4 for each discharge point:	<p>1. LAT: N 26° 16' 21.36"  LON: W 81° 40' 29.56"  Discharges into Cocohatchee Canal through an existing control structure (OSC-2 of Permit #11-01373-P)</p>

<p>Give a detailed description of all controls, Best Management Practices (BMPs) and measures that will be implemented at the construction site for each activity identified in the intended sequence of major soil disturbing activities section. Provide time frames in which the controls will be implemented. NOTE: All controls shall be consistent with performance standards for erosion and sediment control and stormwater treatment set forth in s. 62-40.432, F.A.C., the applicable Stormwater or Environmental Resource Permitting requirements of the Department or a Water Management District, and the guidelines contained in the <u>Florida Development Manual: A Guide to Sound Land and Water Management</u> (DEP, 1988) and any subsequent amendments.</p>
<ul style="list-style-type: none"> <li>• Prior to any soil disruption, a silt fence (trenched 4 inches deep and backfilled on the uphill side) shall be placed around the project boundary. A double row of silt fence with field fencing shall be placed around wetland areas and buffers.</li> <li>• During the clearing, grubbing, and site grading stages, areas that will not be worked for more than seven days, shall be seeded and mulched immediately. On all exposed slopes that are greater than or equal to 5%, an erosion blanket shall be used until these areas achieve final stabilization. A rock construction entrance composed of 6 inches of FDOT No. 1 Coarse Aggregate and have a length of at least 50 feet, shall be constructed to minimize sediment tracking both on and off the site. There will be only one construction entrance at this site.</li> <li>• Following the clearing, grubbing, and site grading stages, once all proposed inlets have been installed, such inlets shall be protected and maintained as specified in the plan set. All drop inlets shall be protected by either a fabric inlet filter or a prefabricated filter bag. All proposed curb inlets shall be protected by gravel filled sand bags or filter sock.</li> <li>• All BMPs shall be installed and maintained as specified on the "typical" sheet.</li> </ul> <p>To be completed by Contractors/ Subcontractor(s); TBD</p>
<p>Describe all temporary and permanent stabilization practices. Stabilization practices include temporary seeding, mulching, permanent seeding, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, vegetative preservations, etc.</p>
<ul style="list-style-type: none"> <li>• Temporary seeding shall take place in any disturbed areas that are inactive more than 7 days. Prior to seeding, 1 fertilizer shall be applied to each acre to be stabilized as specified by the manufacturer. Rye (grain) seed shall be used as the temporary seed and applied at a rate of 120 pounds per acre. After seeding, each area shall be mulched with 4,000 pounds of straw per acre. The straw mulch is to be tacked into place by a disk with blades set nearly straight. Areas of the site which are to be paved will be temporarily stabilized with primed limerock base.</li> <li>• Sod shall be used to stabilize the sides of the retention basin.</li> <li>• Filter fabric shall be placed under the rock entrance/exit, swale outfalls and the retention pond outfall.</li> </ul>

To be completed by Contractors/ Subcontractor(s); TBD
Describe all structural controls to be implemented to divert stormwater flow from exposed soils and structural practices to store flows, retain sediment on-site or in any other way limit stormwater runoff. These controls include silt fences, earth dikes, diversions, swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, coagulating agents and temporary or permanent sediment basins.
<ul style="list-style-type: none"> <li>• A silt fence (installed as indicated under the BMPs heading) shall be installed around the entire perimeter. A double row of silt fence reinforced with field fence (installed as indicated under the BMPs heading) shall be placed around the vegetative buffers and wetlands.</li> <li>• All lakes shown in the site plan are to be dug and used as temporary sediment basin (prior to being connected to a discharge structure) if needed.</li> <li>• Inlets/outlets shall be protected as described in the BMPs heading.</li> <li>• Rock outlet protection lined with filter fabric shall be installed at all outfall points.</li> </ul>
To be completed by Contractors/ Subcontractor(s); TBD
Describe all sediment basins to be implemented for areas that will disturb 10 or more acres at one time. The sediment basins (or an equivalent alternative) should be able to provide 3,600 cubic feet of storage for each acre drained. Temporary sediment basins (or an equivalent alternative) are recommended for drainage areas under 10 acres.
<ul style="list-style-type: none"> <li>• Not applicable, the retention basin (prior to being connected to a discharge structure) may be used as temporary sediment basin if needed.</li> </ul>
To be completed by Contractors/ Subcontractor(s); TBD
Describe all permanent stormwater management controls such as, but not limited to, detention or retention systems or vegetated swales that will be installed during the construction process.
<ul style="list-style-type: none"> <li>• A stormwater retention basin shall be constructed per ERP permit No. XX-XXXX-X</li> <li>• A dry detention system shall be constructed per ERP permit No. XX-XXXX-X</li> </ul>
To be completed by Contractors/ Subcontractor(s); TBD

**Describe in detail controls for the following potential pollutants**

<p>Waste disposal, this may include construction debris, chemicals, litter, and sanitary wastes:</p>	<p>All waste materials will be collected and stored. Removal will be by a licensed solid waste management company in Lee County. The dumpsters will meet all state and local solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpsters. The dumpster will be emptied a minimum of once a week or more often if necessary, and the trash will be hauled to the licensed solid waste disposal facility. No construction waste materials will be buried onsite. The dumpster will be location as shown in the plan. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer and Project Superintendent will be responsible for seeing that these procedures are followed. In addition, Material Safety Data Sheets will be on site for all items used.</p> <p>All hazardous waste materials will be disposed of in the manner specified by local or State regulations or by the manufacturer. Site personnel will be instructed in these practices and the Project Superintendent will be responsible for seeing that these practices are followed.</p> <p>All sanitary waste will be collected from the portable units by a licensed sanitary waste management contractor in accordance with local regulation.</p> <p>To be completed by Contractors/ Subcontractor(s); TBD</p>
<p>Offsite vehicle tracking from construction entrances/exits:</p>	<p>A stabilized construction entrance has been provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance will be swept as needed, at a minimum weekly, to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin.</p> <p>To be completed by Contractors/ Subcontractor(s); TBD</p>

<p>The proper application rates of all fertilizers, herbicides and pesticides used at the construction site:</p>	<p>Florida-friendly fertilizers and pesticides will be used at a minimum in accordance with the manufacturer's suggested application rates. The fertilizers and pesticides will be stored in a covered shed, as indicated in the plan set.</p> <p>To be completed by Contractors/ Subcontractor(s); TBD</p>
<p>The storage, application, generation and migration of all toxic substances:</p>	<p>A double walled fuel tank will be placed on a drip plan to contain and prevent any drips or leaks from being discharged in stormwater runoff. All paints and other chemicals will be stored in a locked covered shed, as show indicated in the plan. A spill prevention plan is also in place to minimize the number of spills that may occur.</p> <p>To be completed by Contractors/ Subcontractor(s); TBD</p>
<p>Other:</p>	<p>All sanitary waste will be collected from the portable units by a licensed sanitary waste management contractor in accordance with local regulations and will be placed away from surface waters, wetlands, and stormwater systems. No vehicle maintenance is to occur on-site. A washdown area shall be designated and will not be located in any areas that will allow for the discharge of polluted runoff. A small vegetated berm shall be placed around the washdown area.</p> <p>To be completed by Contractors/ Subcontractor(s); TBD</p>

Provide a detailed description of the maintenance plan for all structural and non-structural controls to assure that they remain in good and effective operating condition.

- All control measures will be inspected at least once each week and following any storm event of 0.50 inches or greater.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of report.
- Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Built up sediment will be removed from silt fence when it has reached one-half the height of the fence.
- The perimeter berm will be inspected and any breaches promptly repaired.
- Temporary and permanent grassing and planting will be inspected for bare spots, washouts, and healthy growth.
- Bare areas of the site that have been previously seeded will be reseeded as per the manufacturers' instructions.
- Maintenance shall be performed on the construction entrance when any void spaces become full of sediment.

To be completed by Contractors/ Subcontractor(s); TBD

Inspections: Describe the inspection and inspection documentation procedures, as required by Part V.D.4. of the permit. Inspections must occur at least once a week and within 24 hours of the end of a storm event that is 0.50 inches or greater (see attached form).

- The Project Superintendent will select qualified personnel who will be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance report.
- A maintenance inspection report will be made after each inspection. A copy of the report form to be completed by the inspector is attached.
- Personnel selected for inspection and maintenance responsibilities will receive training from the Project Superintendent. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.
- Where sites have been stabilized, these inspections shall be conducted at least once every month until the Notice of Termination is filled.

To be completed by Contractors/ Subcontractor(s); TBD

Identify and describe all sources of non-stormwater discharges as allowed in Part IV.A.3. of the permit. Flows from fire fighting activities do not have to be listed or described.

It is expected that the following non-storm water discharges will occur from the site during the construction period:

- Water from waterline flushing
- Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).
- Uncontaminated groundwater (from dewatering excavation if necessary).

All non-storm water discharges will be directed to the detention lakes prior to discharge. Turbid water from the stormwater pond shall not be pumped directly into receiving waters. Any pumped water shall be treated to prevent the discharge of polluted stormwater. Treatment can include but is not limited to settling ponds, silt fences, and the proper use of flocculating agents.

To be completed by Contractors/ Subcontractor(s); TBD

**This SWPPP must clearly identify, for each measure identified within the SWPPP, the contractor(s) or subcontractor(s) that will implement each measure. All contractor(s) and subcontractor(s) identified in the SWPPP must sign the following certification:**

“I certify under penalty of law that I understand, and shall comply with, the terms and conditions of the State of Florida Generic Permit for Stormwater Discharge from Large and Small Construction Activities and this Stormwater Pollution Prevention Plan prepared thereunder.”

Name	Title	Company Name, Address and Phone Number	Date
TBD	TBD	TBD	TBD
TBD	TBD	TBD	TBD
TBD	TBD	TBD	TBD
TBD	TBD	TBD	TBD
TBD	TBD	TBD	TBD



## Stormwater Pollution Prevention Plan Inspection Report Form

**Inspections must occur at least once a week and within 24 hours of the end of a storm event that is 0.50 inches or greater.**

Project Name: **Richmond Park**

FDEP NPDES Stormwater Identification Number:

Location	Rain data	Type of control (see below)	Date installed / modified	Current Condition (see below)	Corrective Action / Other Remarks

Condition Code:

G = Good                      M = Marginal, needs maintenance or replacement soon                      P = Poor, needs immediate maintenance or replacement  
 C = Needs to be cleaned    O = Other

Control Type Codes

1. Silt Fence	10. Storm drain inlet protection	19. Reinforced soil retaining system	28. Tree protection
2. Earth dikes	11. Vegetative buffer strip	20. Gabion	29. Detention pond
3. Structural diversion	12. Vegetative preservation area	21. Sediment Basin	30. Retention pond
4. Swale	13. Retention Pond	22. Temporary seed / sod	31. Waste disposal / housekeeping
5. Sediment Trap	14. Construction entrance stabilization	23. Permanent seed / sod	32. Dam
6. Check dam	15. Perimeter ditch	24. Mulch	33. Sand Bag
7. Subsurface drain	16. Curb and gutter	25. Hay Bales	34. Other
8. Pipe slope drain	17. Paved road surface	26. Geotextile	
9. Level spreaders	18. Rock outlet protection	27. Rip-rap	

Inspector Information:

\_\_\_\_\_

Name

\_\_\_\_\_

Qualification

\_\_\_\_\_

Date

The above signature also shall certify that this facility is in compliance with the Stormwater Pollution Prevention Plan and the State of Florida Generic Permit for Stormwater Discharge from Large and Small Construction Activities if there are not any incidents of non-compliance identified above.

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"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

\_\_\_\_\_

Name (Responsible Authority)

\_\_\_\_\_

Date

# URBAN STORMWATER MANAGEMENT PROGRAM

## 1.0 Introduction

This document provides details of the Urban Stormwater Management Program for Richmond Park in Naples, Florida. This Plan discusses non-structural controls, intended to improve the quality of stormwater runoff by reducing the generation and accumulation of potential stormwater runoff contaminants at or near the respective sources for each constituent, along with significant structural components of the primary stormwater treatment system. Although many of the methodologies and procedures outlined in this document are general Best Management Practices (BMP's) which can be useful in attenuating pollutants in many types of urbanized settings, the implementation of these practices has been optimized, to the maximum extent possible, to reflect the unique character of Richmond Park and the surrounding hydrologic features.

Pollution prevention guidelines are provided for the areas of (1) nutrient and pesticide management; (2) street sweeping; (3) solid waste management; (4) operation and maintenance of the stormwater management and treatment system; (5) construction activities. A discussion of each of these activities is given in the following sections.

## 2.0 Nutrient and Pesticide Management

Nutrient and pesticide management consists of a series of practices designed to manage the use of fertilizers and pesticides so as to minimize loss of these compounds into stormwater runoff and the resulting water quality impacts on adjacent water bodies. Implementation of a management plan will also maximize the effectiveness of the nutrients and pesticides that are applied.

### 2.1 General Requirements

Commercial applicators of chemical lawn products must register with the property owners annually and provide a copy of their current occupational license, proof of business liability insurance, and proof of compliance with applicable education and licensing requirements. Individual employees working under the direction of a licensed commercial applicator are exempt from the educational requirements.

Only registered commercial applicators and individual lot owners are permitted to apply chemicals within the property on a private lot. All chemical products must be used in accordance with the manufacturer's recommendations. The application of any chemical product within five (5) feet of any surface water including but not limited to ponds, lakes, drainage ditches or canals, is prohibited. The use of any chemical product in a manner that will allow airborne or waterborne entry of such products into surface water is prohibited. This rule shall not apply to the use of chemical agents, by certified lake management specialists, for the control of algae and vegetation within the stormwater lakes or ponds.

## **2.2 Nutrient Management Program**

Management and application of nutrients and fertilizers within Richmond Park will adhere to the following guidelines:

- A. All fertilizers shall be stored in a dry storage area protected from rainfall and ponding.
- B. No fertilizer containing in excess of 2% phosphate/phosphorus ( $P_2O_5$ ) per guaranteed analysis label (as defined by Chapter 576, Florida Statutes) shall be applied to turf grass unless justified by a soil test.
- C. Fertilizer containing in excess of 2% phosphate/phosphorus ( $P_2O_5$ ) per guaranteed analysis label shall not be applied within 5 feet of the edge of water or within 5 feet of a drainage facility.
- D. All fertilizer shall be applied such that spreading of fertilizer on all impervious surfaces is minimized.
- E. Liquid fertilizers containing in excess of 2% phosphate/phosphorus ( $P_2O_5$ ) per guaranteed analysis label shall not be applied thorough an irrigation system within 10 feet of the edge of water or within 10 feet of a drainage facility.
- F. Liquid fertilizers containing in excess of 2% phosphate/phosphorus ( $P_2O_5$ ) per guaranteed analysis label shall not be applied through high or medium mist application or directed spray application within 10 feet of the edge of water or within 10 feet of a drainage facility.

## **2.3 Pest Management Program**

Proper maintenance of plants and turf areas will minimize the ability of pests to successfully attack landscaping. Several general guidelines follow:

- A. Apply fertilizer and water only when needed and in moderate amounts. Excessive amounts of either can cause rapid growth that is attractive to insects and disease.
- B. Mow St. Augustine grass to a height of 3-4 inches. If cut shorter, the plants may become stressed and more vulnerable to pest infestation. Each mowing should remove no more than one-third of the leaf blade, and those cuttings should remain on the lawn to decompose.
- C. It is recommended that pesticides, fungicides, and herbicides be used only in response to a specific problem and in the manner and amount recommended by the manufacturer to address the specific problem. Broad application of pesticides, fungicides and herbicides as a preventative measure is strongly discouraged.

The use of pesticides, fungicides, or herbicides is limited to products that meet the following criteria:

- A. Must be consistent with the USDA-NRCS Soil Rating for Selecting Pesticides
- B. Must have the minimum potential for leaching into groundwater or loss from runoff
- C. Products must be EPA-approved
- D. The half-life of products used shall not exceed seventy (70) days

### **3.0 Solid Waste Management**

In general, solid waste management involves issues related to the management and handling of urban refuse, litter and leaves that will minimize the impact of these constituents as water pollutants.

Maintenance of adequate sanitary facilities for temporarily storing refuse on private premises prior to collection is considered the responsibility of the individual homeowner. Local requirements for refuse collection will be brought to the attention of every homeowner at closing for the sale of the property. Information will be distributed as necessary stating specifications for containers, separation of waste by type, where to place containers prior to collection, and established collection schedules.

Fallen tree leaves and other vegetation, along with grass clippings, may become direct water pollutants when they are allowed to accumulate in swales and street gutters. All homeowners will receive periodic educational materials that address proper disposal of leaves and other vegetation to minimize water quality impacts.

### **4.0 Stormwater Management and Treatment System**

The stormwater management system for Richmond Park is designed to maximize the attenuation of stormwater generated pollutants prior to discharge to the off-site systems. Operational details and maintenance requirements of the various system components are given in the following sections.

#### **4.1 Wet Detention Lakes and Lake Interconnect Pipes**

The basic element of the stormwater management system consists of a series of interconnected wet detention ponds that provide stormwater treatment through a variety of physical, biological, and chemical processes. A wet detention pond acts similar to a natural lake by temporarily detaining stormwater runoff, allowing opportunities for treatment processes to occur, prior to slow controlled discharge of the treated water through the outfall structure. Pollutant removal processes in wet detention systems occur during the quiescent period between storm events. Significant removal processes include gravity settling of particulate matter; biological uptake of nutrients and other ions by aquatic plants, algae and microorganisms; along with natural chemical flocculation and complexation processes.

Maintenance of the wet detention ponds will consist of an annual inspection. During each annual inspection, the following items will be reviewed and corrected as necessary:

- A. Inspect the outfall structure and orifices to ensure free-flowing conditions and overall engineering stability of the outfall system.
- B. Review the banks of the lakes and canals to ensure proper side slope stabilization and inspect for signs of excessive seepage that may indicate areas of excessive groundwater flow and possible subsurface channeling.
- C. Physically evaluate each of the lakes and canals for evidence of excessive sediment accumulation or erosion.

- D. Inspect the planted aquatic vegetation in the littoral zone to ensure that the desired vegetation species, percent coverage, and density are maintained.

At the completion of the inspections, a written inspection report will be prepared, listing any deficiencies that need to be addressed or corrected by the Homeowners Association.

#### **4.2 Stormwater Inlets, Pipes and Culverts**

The grates should be unobstructed and the bottom, inside the inlet, should be clean. Check for any accumulation of sediment, trash such as garbage bags, or debris in the culverts connecting these inlets. Flushing out with a high-pressure hose may clean some sediment. Any noted blockage (due to a possible obstruction, or broken pipe, etc.) should prompt further investigation. Crushed or corroded culverts should be replaced with new ones of the same size.

#### **4.3 Swales and Grassed Water Storage Areas**

These provide for conveyance and/or above-ground (or surface) storage of stormwater. With age, these areas usually fill in with vegetation and sediment. Swales may need to be regraded and/or revegetated. It is a good idea to compare the existing slope and dimensions of the swale with the permitted design plans prior to the removal of excess sediment or regrading. Areas that show erosion should be stabilized with appropriate material such as sod, planting, rock, sand bags, or other synthetic geotextile material.

Regular mowing of grass swales is essential. These areas also improve water quality by catching sediment and assimilating nutrients, and recharge the underground water table. Remove any undesirable exotic vegetation. Culverts underneath driveways should be checked for blockage, and, if necessary, flushed with a high-pressure hose. After a storm, swales may remain wet for an extended period of time. This is normal and the water will recede gradually.

#### **5.4 Ditches or Canals**

Fill material, yard waste, clippings and vegetation, sediment, trash, appliances, garbage bags, shopping carts, tires, cars, etc. should be completely removed. Also check to make sure there are no dead trees or any type of obstructions which could block the drainage flow way.

Maintenance cleaning/excavation must be limited to the same depth, width and side slope as approved in the current permit. Making a ditch deeper or wider may trigger a need for a permit modification. Provisions must also be made to prevent any downstream silting or turbidity (*Contact the SFWMD Resource Compliance staff if you are unsure or need clarification.*) Be sure to dispose of all removed material properly so it won't affect any other water storage or conveyance system, environmental area, or another owner's property.

#### **5.5 Outfall Structure (also called the Discharged Control Structure or Weir)**

The outfall structure should be routinely inspected to determine if any obstructions are present or repairs are needed. Trash or vegetation impeding water flow through the structure should be removed. The structure should have a "baffle" or trash collector to prevent flow blockage and

also hold back any floating oils from moving downstream. Elevations and dimensions should be verified annually with all current permit information. Periodic inspections should then be regularly conducted to make sure these structures maintain the proper water levels and the ability to discharge.

#### **5.6 Earthen Embankments (Dikes and Berms)**

Check for proper elevations, width and stabilization. Worn down berms - especially if used by all-terrain vehicles or equestrian traffic – and rainfall – created washouts should be immediately repaired, compacted and re-vegetated.

#### **5.0 Construction Activities**

A Stormwater Pollution Prevention Plan (SWPPP) has been prepared for construction activities to minimize activities contamination that may be caused by erosion and sedimentation during the construction process. The plan includes provisions related to soil stabilization, structural erosion controls, waste collection disposal, offsite vehicle tracking, spill prevention and maintenance and inspection procedures. A copy of the SWPPP is attached hereto and made a part of hereof.

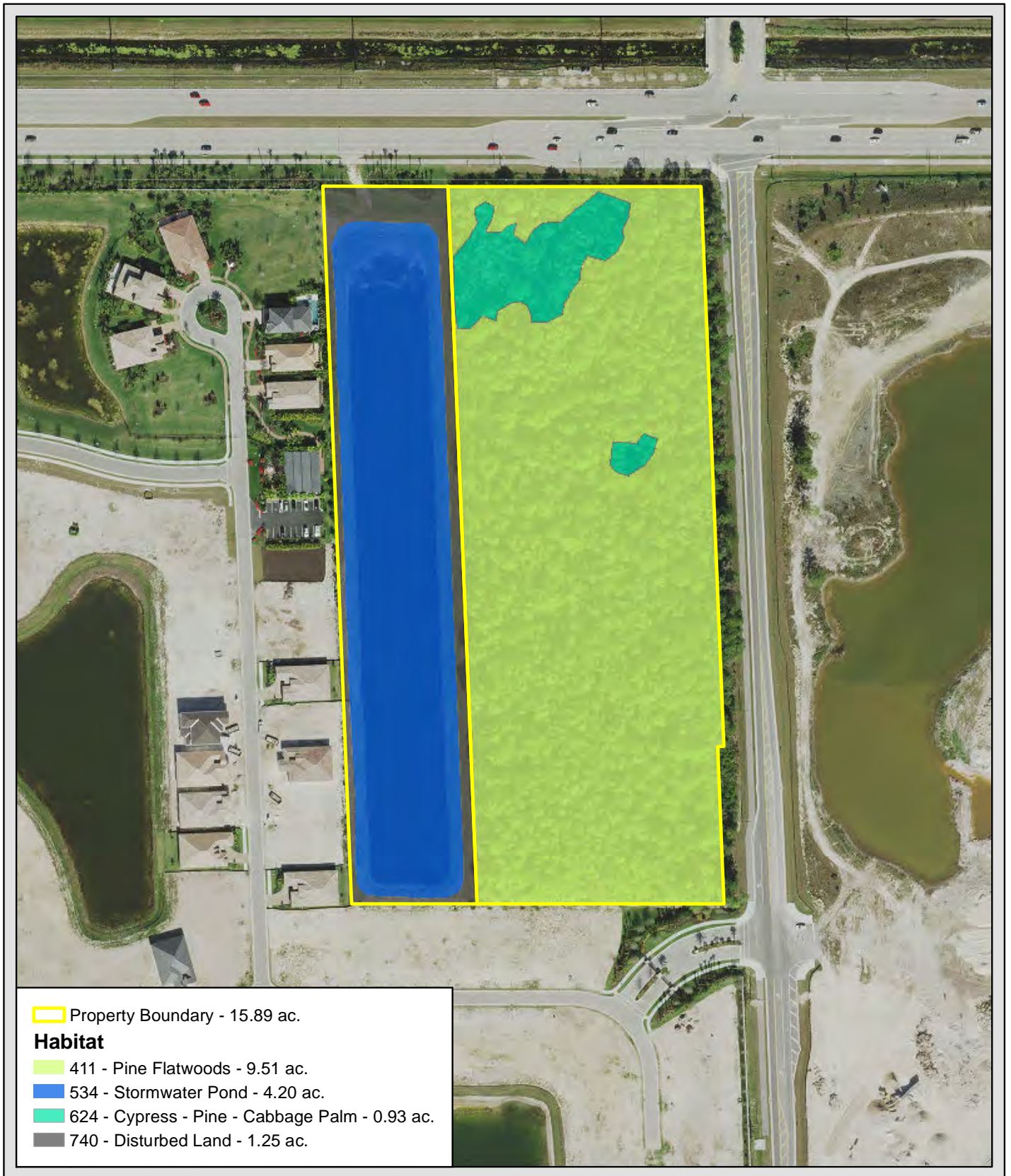


Image Source: FDOT 2015  
Date: 6-7-16

0 100 200  
Feet



### Habitat Map Richmond Club Collier County, Florida



WWW.ATLANTICECO.COM  
904-347-9133 | jody@atlanticeco.com  
217 Gallicia Ave | St. Augustine, FL 32086

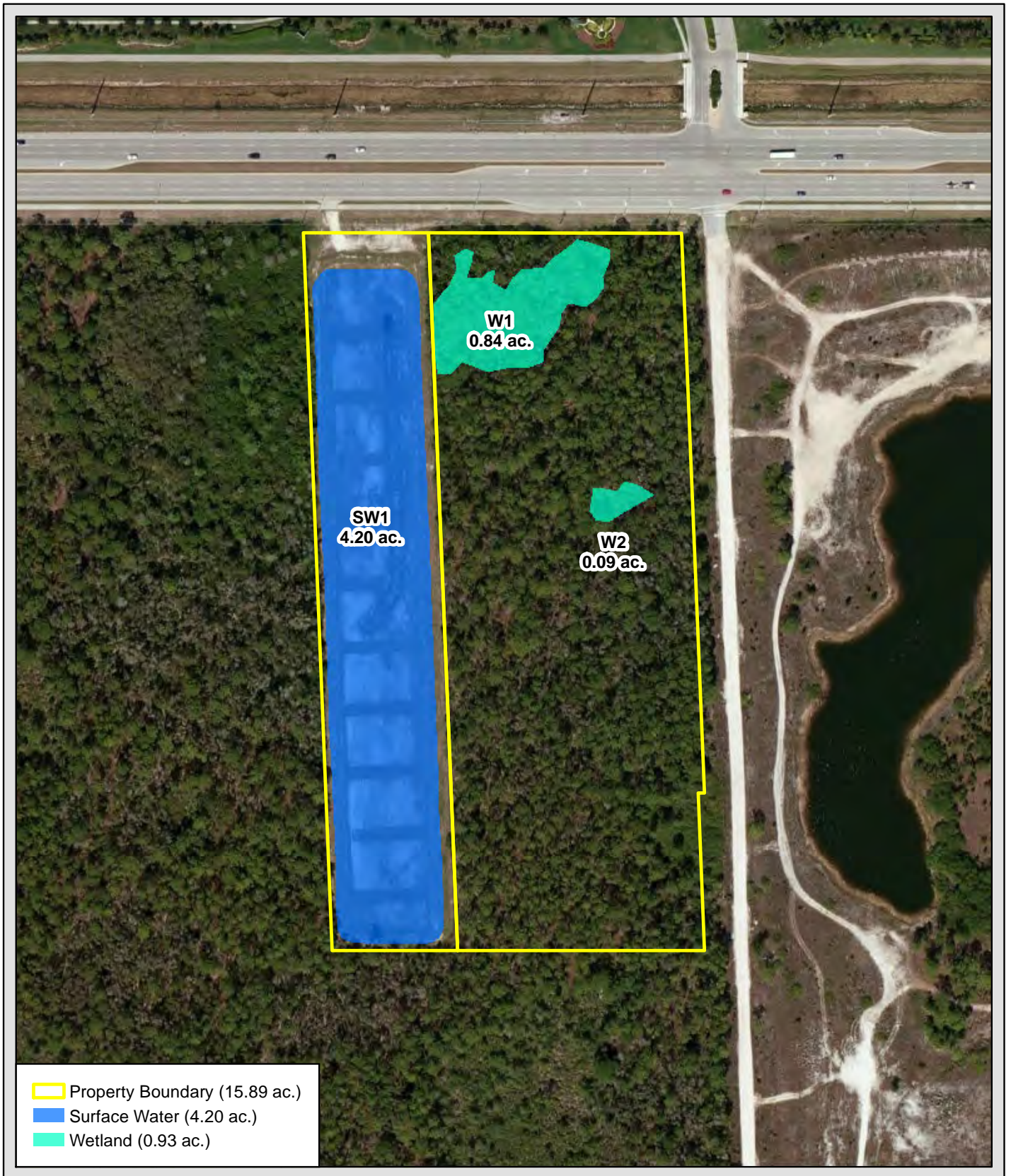


Image Source: ESRIWorld Imagery 2013  
Date: 6-4-16

0 100 200  
Feet



### Wetland and Surface Waters Map Richmond Park Collier County, Florida



WWW.ATLANTICECO.COM  
904-347-9133 | jody@atlanticeco.com  
217 Gallicia Ave | St. Augustine, FL 32086





Property Boundary - 15.89 ac.  
 Site Plan  
 Wetland Impact - 0.93 ac.

Image Source: FDOT 2015  
Date: 6-7-16

0 100 200 Feet



**Site Plan**  
**Richmond Club**  
**Collier County, Florida**



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 217 Gallicia Ave | St. Augustine, FL 32086



10097 Cleary Boulevard, Suite 303  
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Telephone 954.642.2427 888.301.1707  
Fax 866.433.4057

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August 1, 2016

Ms. Laura Layman  
Section Leader - Regulation  
South Florida Water Management District  
2301 McGregor Boulevard  
Fort Myers, FL 33901

**Re: SFWMD Permit Application No. 160426-14**  
**Project: Richmond Park**  
**Panther Island Mitigation Bank Letter of Reservation**

Dear Ms. Layman:

This is to confirm that Neal Communities of Southwest Florida, LLC is purchasing 0.36 freshwater forested mitigation bank credits from the Panther Island Mitigation Bank for the above referenced project. These credits are reserved accordingly.

Please do not hesitate to call if you have any questions or need further information.

Sincerely,

Desmond Duke

cc: Karyn Allman, SFWMD  
Stephen Collins, Panther Island Mitigation Bank  
James Schier, Neal Communities of Southwest Florida, LLC  
Jody Sisk, Atlantic Ecological Services

**South Florida Water Management District  
Work Schedule Requirements**

**Application No** : 160426-14

Page 1 of 1

**Mitigation Plan ID:** RICHMOND PARK

<b>Activity</b>	<b>Due Date</b>
SUBMIT MITIGATION BANK DOCUMENTATION	31-OCT-16

## **BIG CYPRESS FOX SQUIRREL HABITAT MANAGEMENT PLAN**

### **Richmond Park, Collier County**

This habitat management plan has been prepared for the purpose of addressing the conservation of potential Big Cypress fox squirrel (*Sciurus niger avicennia*) habitat on the Richmond Creek project (ERP Application # 160426-14). The project is located within Section 26, Township 48 South, Range 26 East in Collier County, Florida. The property is specifically located at the southwest intersection of Immokalee Road and Woodcrest Drive in Naples, Florida. This habitat management plan has been prepared to comply with South Florida Water Management District (SFWMD) permitting requirements. The Big Cypress fox squirrel is listed as threatened by the Florida Fish and Wildlife Conservation Commission (FWC).

The Big Cypress fox squirrel lives and breeds in varied habitats in southwest Florida including cypress swamps, pine flatwoods, tropical hardwood forests, live oak hammocks, mangrove forests, and suburban habitats, including golf courses, city parks, and residential areas in native vegetation (Humphrey 1992). Dense cypress/hardwood swamps are avoided. This may be due to the competition for food and habitat with gray squirrel (*Sciurus carolinensis*). Little data is available on the preferred forage habitat of the Big Cypress fox squirrel. Big Cypress fox squirrels apparently prefer to feed on the male and female cones of slash pine (*Pinus elliottii*). A smaller percent of the diet may consist of seasonal fruits, berries, and seeds (Humphrey 1992). Big Cypress fox squirrels often form platform nests in pines and hardwoods; and moss and stick nests in cypress, tops of cabbage palms (*Sabal palmetto*), and large clumps of bromeliads (*Tillandsia* sp.). Cabbage palms and bromeliads are especially important because they can provide immediate shelter, which allows the squirrel to range over large areas without requiring a daily return to a permanent nesting facility (Humphrey 1992). Big Cypress fox squirrels are solitary animals. Interaction between animals occur primarily during mating season. Mating chases occur frequently throughout the months of May through August. During the non-mating season, interactions are infrequent and often occur around food sources (Humphrey 1992).

A 100% survey for Big Cypress fox squirrels was conducted on the site. No Big Cypress fox squirrels were observed, nor were any nests, or other signs of occurrence identified on the site. Although the site is considered relict pine flatwoods (which is considered habitat for the species), the habitat is heavily overgrown with invasive species such as melaleuca and Brazilian pepper. Those habitats are not considered conducive to the inhabitation of Big Cypress fox squirrels. Prior to construction of the site, a 100% Big Cypress fox squirrel survey will be completed by a qualified ecologist. If a nest is identified during this survey then a 5 day survey of the nest for activity will be completed. And if the nest is considered active then a 125' buffer zone will be placed around the active nest until the juveniles leave the nest.

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RICHMOND PARK

**Application No:** 160426-14

**Permit No:** 11-03808-P

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