SECTION E: SUPPLEMENTAL INFORMATION REQUIRED FOR WORKS OR OTHER ACTIVITIES INVOLVING A STORMWATER MANAGEMENT SYSTEM
(OTHER THAN A SINGLE-FAMILY PROJECT)

Instructions: The information listed in the checklists below represents the level of information that is usually required to evaluate an application. Information can be provided within reports, plans and documents. The level of information required for a specific project will vary depending on the nature and location of the site and the activity proposed. Conceptual approvals generally do not require the same level of detail as a construction permit. However, providing a greater level of detail will reduce the need to submit additional information at a later date. If an item does not apply to your project, proceed to the next item. The supplemental information required by this section is in addition to the information required by Section A of the ERP application.

PART 1: STORMWATER MANAGEMENT SYSTEM SUMMARY

Provide drainage calculations, signed and sealed by an appropriate registered professional, and supporting documentation demonstrating that the proposed project meets the conditions for issuance under 62-330.301(1)(a),(b),(c),(e), F.A.C. The drainage calculations should include, but not necessarily be limited to, the following:

1. General Site Information:

   a. ☒ Provide pre-development and post-development drainage map(s), as appropriate, that include drainage patterns and basin boundaries with acreage served by each hydraulically separate system, showing the direction of flows, including any off-site runoff being routed through or around the system; topographic information; and connections between wetlands and other surface waters.

   b. ☒ Provide the results of any percolation tests, where appropriate, and soil borings that are representative of the actual site conditions. Identify the wet season high water table elevations, soil profiles, and hydraulic conductivity. Include dates, datum, and methods used to determine these soil parameters.

   c. ☒ Identify the onsite hydrologic soil classification (e.g. Type A, B/D, D). Reference the source, such as the USDA/NRCS Soil Survey, used in estimating the onsite hydrologic soil classification. Provide maps, as appropriate, with the project limits delineated.

   d. ☒ Identify the seasonal high water or mean high tide elevation for receiving waters/wetlands into which runoff will be discharged. Include dates, datum, and methods used to determine these elevations. **Previously determined.**

   e. ☒ Identify the name of each receiving waterbody to which the proposed stormwater management system will discharge: **Cocohatchee Canal**.

   f. ☒ Indicate the existing land use and land cover.

   g. ☒ Provide the acreage, and percentages of the total project, of the following:
      1. Impervious surfaces, excluding buildings, wetlands and other surface waters;
      2. Buildings;

3. Pervious surfaces (green areas not including wetlands);
4. Lakes, canals, retention areas, other open water areas; and
5. Wetlands (Please refer to Section C to ensure consistency in wetland acreages).

h. ☒ Provide the location and description of any nearby existing offsite features (such as wetland and other surface waters, stormwater management ponds, and building or other structures) which might be affected by or affect the proposed construction or development.

2. Water Quality Analysis:

a. ☒ Provide a description of the proposed stormwater treatment methodology that addresses the type of treatment, pollution abatement volumes, and recovery analysis.

b. ☐ Is the receiving waterbody known to be impaired, and/or has an established Total Maximum Daily Load (TMDL) or Basin Management Action Plan (BMAP)? If so, please provide specific descriptions of all water quality parameters for which the waterbody is known to be impaired? For more information about water quality, impaired waters, and to determine whether a TMDL has been adopted in your project area, refer to: http://waterwebprod.dep.state.fl.us/basin411/downloads/Florida-Adopted-TMDLs.pdf. To determine whether a BMAP exists, or is being developed in your project area, refer to: *http://www.dep.state.fl.us/water/watersheds/bmap.htm#rad*.
☐ yes ☒ no ☐ don't know
If yes, provide calculations demonstrating that the proposed project will not contribute to violations of state water quality standards in accordance with the applicable Applicant's Handbook, Vol. II.

c. ☐ Does the project have a direct discharge to a Class I, Class II, Outstanding Florida Waters or Class III waters, which are approved, conditionally approved, restricted, or conditionally restricted for shellfish harvesting? *To determine whether your project is within, or will discharge to an OFW, or for more information about OFWs in general, refer to: http://www.dep.state.fl.us/water/wqssp/ofw.htm.*
☐ yes ☒ no ☐ don't know
If yes, additional treatment in accordance with the applicable Applicant's Handbook, Vol. II, may be required.

d. ☒ Provide construction plans and calculations that address the required treatment volume and recovery, as well as stage-storage and design elevations, which demonstrate compliance with the appropriate water quality treatment criteria in the applicable Applicant's Handbook, Vol. II.

Provide a description of the engineering methodology, assumptions and references for the parameters listed above, and a copy of all such computations, engineering plans, and specifications used to analyze the system. If a computer program is used for the analysis, provide the name of the program, a description of the program, input and output data, and justification for model selection.

3. Water Quantity Analysis:

Provide calculations and documentations demonstrating that the project, as proposed, meets the applicable design criteria as indicated in the applicable Applicant's Handbook, Vol. II. Typically, the information would include, at a minimum, but is not necessarily be limited to, the following:

a. ☐ For projects requiring pre-development analysis, provide an analysis of the pre-development peak rate of discharge and / or volume of runoff, for all design storm events. Account for all

onsite depressional storage and offsite contributing area. Please refer to the applicable Applicant's Handbook, Vol. II for the design storm event(s) that apply to your project.

N/A – previously determined.

b. ☐ Provide an analysis of the post-development peak rate of discharge and / or volume of runoff for all applicable design storm events. Account for all onsite storage and offsite contributing area. Please refer to the applicable Applicant's Handbook, Vol. II for the design storm event(s) and criteria that apply to your project.

N/A – previously determined.

These analyses should include:

- ☐ Runoff characteristics, including area, runoff curve number or runoff coefficient, and time of concentration for each drainage basins in the pre-development and post-development condition;
- ☐ Design storms used including rainfall depth, duration, frequency, and distribution;
- ☐ Runoff hydrograph(s) for each drainage basin, for all required design storm event(s);
- ☐ Stage-storage computations for any area such as a reservoir, closed basin, detention area, or channel, used in storage routing;
- ☐ Stage-discharge computations for any storage areas at a selected control point, such as control structure or natural restriction;
- ☐ Flood routings through on-site conveyance and storage areas;
- ☐ Water surface profiles in the primary drainage system for each required design storm event(s);
- ☐ Runoff peak rates and volumes discharged from the site for each required design storm event(s);
- ☐ Design tailwater elevation(s) for each storm event at all points of discharge (include source or method of estimate); and
- ☐ Pump specifications and operating curves for range of possible operating conditions (if used in system).

Provide a description of the engineering methodology, assumptions and references for the parameters listed above, and a copy of all such computations, engineering plans, and specifications used to analyze the system. If a computer program is used for the analysis, provide the name of the program, input and output data, justification for model selection, and, if necessary, a description of the program.

4. Floodplain Analysis (where applicable). **N/A**

a. ☐ If the project is in a known floodplain of a stream or other water course, identify the appropriate floodplain boundary and approximate flooding elevations of any lake, stream or other watercourse located on or adjacent to the site.

b. ☐ For traversing works, in accordance with the applicable Applicant's Handbook, Vol. II, provide:

☐ Hydraulic calculations for all proposed traversing works; and

☐ Water surface profiles showing upstream impact of traversing works.

c. ☐ For impacts to regulated floodplains, in accordance with the applicable Applicant's Handbook, Vol. II, provide:

☐ Location and volume of encroachment within regulated floodplain(s); and

☐ Plans and calculations for compensating floodplain storage, if necessary, and calculations required for determining minimum building and road flood elevations.

PART 2: CONSTRUCTION PLANS

1. Provide clear, construction level detailed plans for the system. The plans must be signed and sealed by an appropriate registered professional as required by law. These plans should include cumulative information from all applicable sections; as well as the following:

a. ☒ Project area boundary and total area, including distances and orientation from roads or other landmark.

b. ☒. Existing topography extending at least 100 feet off the project area. All topography shall include location and description of benchmarks, reference to NGVD 1929 or NAVD 1988 along with the conversion factor.

c. ☒ Proposed site plan with acreage, including the following:
☒ plan view of proposed development, including impervious surfaces and water management areas;
☒ land cover and natural communities*;
☒ wetlands and other surface waters*;
☐ undisturbed uplands*;
☐ aquatic communities*;
☐ proposed buffers*;
☒ proposed impacts to wetlands and other surface waters, and any proposed connections/outfalls to other surface waters or wetlands, (if applicable); and
☐ onsite wetland mitigation areas*.
*Please refer to Section C.

☐ For phased projects, provide a master development plan clearing delineating the limits of each phase of construction.

d. ☒ Paving, Grading, and Drainage Information, which includes, but not necessarily limited to, the following:
☒ Existing topography;
☒ Boundaries of wetlands and other surface waters and upland buffers (see Section C);
☒ Plan view of proposed development;
☒ Proposed elevations and/or profiles, including:
☒ roadway, parking, and pavement grades;
☒ floor slabs, walkways, and other paved surfaces;
☒ earthwork grades for pervious landscaped areas; and
☒ perimeter site grading, tying back into existing grades.

☒ Location of all water management areas, including elevations, dimensions, side slopes, and design water depths;
☒ Location, size, and invert elevations of existing and proposed stormwater conveyance systems;
☒ Vegetative cover plan for all on-site and off-site earth surfaces disturbed by construction; and
☒ Rights-of-way and easements for the system, including all on-site and off-site areas to be reserved for water management purposes (including access), and rights-of-way and easements for the existing drainage system, if any.

e. ☒ Stormwater detail information, including but not necessarily limited to, the following:
☒ Cross section of all stormwater management areas, including elevations, dimensions, side slopes, and proposed stabilization measures (with location of the cross section(s) shown on the corresponding plan view);
☒ Detail of all proposed control structures, including elevations, dimensions, and skimmer, where applicable; and
☒ Details of proposed stormwater management systems, such as underdrains, exfiltration trenches, vaults, and other proposed Best Management Practices (BMPs).

f. ☒ Location and description of any nearby existing offsite features (such as wetland and other surface waters, stormwater management ponds, and building or other structures) which might be affected by or affect the proposed construction or development.

PART 3: CONSTRUCTION SCHEDULE AND TECHNIQUES

Provide a construction schedule, and a description of construction techniques, sequencing and equipment. This information should include, as applicable, the following.

a. ☒ Access and staging of equipment. **Access via existing cart paths; equipment will be staged on-site.**

b. ☒ Location and details of the erosion, sediment and turbidity control measures to be implemented during each phase of construction and all permanent control measures to be implemented in post-development conditions.

c. ☒ The location of disposal site(s) for any excavated material, including temporary and permanent disposal sites.

d. ☒ A demolition plan for any existing structures to be removed.

e. ☒ Dewatering plan details. If dewatering is required, detail the dewatering proposal including the methods that are proposed to contain the discharge, methods of isolating dewatering areas, and indicate the period dewatering structures will be in place; **Note: a Consumptive Use or Water Use permit may be required for dewatering.**

Dewatering for earthwork and utility pipe installation will be performed in accordance with a General Permit by Rule 40E-2.061 FAC. The Contractor will operate under and meet the conditions for (2) General Permit by Rule for Short-Term Dewatering (a) and (b).

f. ☒ Methods for transporting equipment and materials to and from the work site. If barges are required for access, provide the low water depths and draft of the fully loaded barge;

Access will be via Valewood Drive and existing cart paths.

PART 4: OPERATION AND MAINTENANCE AND LEGAL DOCUMENTATION:

a. ☒ Describe the overall maintenance and operation schedule for the proposed system. **See attached Urban Stormwater Management Plan.**

b. ☒ Identify the entity (or entities) that will be responsible for operating and maintaining the system (or parts of the system) to demonstrate that the entity (or entities) meet(s) the requirements of section 12.3 of the Applicant's Handbook, Vol. I.

☐ If different from the permittee, provide a draft document enumerating the enforceable affirmative obligations on the entity to properly operate and maintain the system for its expected life, and documentation of the entity's financial responsibility for long-term maintenance. **N/A**

☐ If the proposed operation and maintenance entity is not a property owner's association, provide proof of the existence of an entity, or the future acceptance of the system by an entity which will operate and maintain the system. **N/A**

c. ☐ Provide drafts of all proposed conservation easements, stormwater management system easements, draft property owner's association documents, and plats for the property containing the proposed system. **N/A**

d. ☐ Provide legal reservations for access to the treatment system for maintenance and operation by future maintenance entities for subdivided projects. **N/A**

e. ☒ Provide indication of how water and wastewater service will be supplied.

Water and wastewater service are provided by Collier County Utilities.

f. ☒ Provide a copy of the boundary survey and/or legal description and acreage of the total land area of contiguous property owned/controlled the applicant.

PART 5: WATER USE – N/A – NO CHANGES ARE PROPOSED

a. ☒ Describe how irrigation will be provided to the project. Will the surface water system be used for water supply, including landscape irrigation, or recreation? **Previously permitted – no changes are proposed.**

b. ☒ If a Consumptive Use or Water Use permit has been issued for the project, state the permit number: **11-00192-W**

c. ☐ If a Consumptive Use or Water Use permit has not been issued for the project, indicate if such a permit will be required. ☐ yes ☐ no ☐ don't know
If yes, please indicate when the application for a permit will be submitted:

N/A

d. ☐ Indicate how any existing wells located within the project site will be utilized or abandoned.

N/A

PART 6: SPECIAL BASIN INFORMATION

Is your project within a special basin as described in the applicable Applicant's Handbook, Vol. II?

☐ yes ☒ no ☐ don't know

If yes, please demonstrate that the project will meet the applicable special basin criteria.

June 5, 2018

QUAIL CREEK CLUBHOUSE

URBAN STORMWATER MANAGEMENT PROGRAM

1.0 Introduction

This document provides details of the Urban Stormwater Management Program for **QUAIL CREEK CLUBHOUSE** 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 **QUAIL CREEK CLUBHOUSE** 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) routine water quality testing; and (6) 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

A landscape plan must be developed for **QUAIL CREEK CLUBHOUSE**. The plan must be comprehensive in nature and follow the landscape design guidelines established by Collier County and **QUAIL CREEK CLUBHOUSE**.

Commercial applicators of chemical lawn products must register with **QUAIL CREEK CLUBHOUSE** 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 maintenance personnel are permitted to apply chemicals within the property. 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 management system.

2.2 Nutrient Management Program

Management and application of nutrients and fertilizers in **QUAIL CREEK CLUBHOUSE** 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 Street Sweeping

This practice involves sweeping and vacuuming the primary streets to remove dry weather accumulation of pollutants, especially particulate matter, before wash-off of these pollutants can occur during a storm event. This practice reduces the potential for pollution impacts on receiving water bodies by removing particulate matter and associated chemical constituents. Although street cleaning operations are frequently conducted primarily for aesthetic purposes, the primary objective of the street sweeping program for **QUAIL CREEK CLUBHOUSE** is to improve the quality of stormwater runoff generated from impervious traffic areas. Street sweeping activities can be particularly effective during periods of high leaf fall by removing solid leaf material and the associated nutrient loadings from roadside areas where they could easily become transported within stormwater flow.

Street sweeping operations will be performed in **QUAIL CREEK CLUBHOUSE** at a minimum frequency of one event every three (3) months. A licensed vendor using a vacuum-type sweeping device will perform all street sweeping activities. Sweeping activities during each event will include all primary street surfaces. Disposal of the collected solid residual will be the responsibility of the street sweeping vendor.

4.0 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 the premises prior to collection will be considered the responsibility of **QUAIL CREEK CLUBHOUSE.**

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 maintenance staff will receive periodic educational materials that address proper disposal of leaves and other vegetation to minimize water quality impacts.

5.0 Stormwater Management and Treatment System

The stormwater management system for **QUAIL CREEK CLUBHOUSE** is designed to maximize the attenuation of stormwater generated pollutants prior to discharge off-site to the D2 (I-75) Canal. Operational details and maintenance requirements of the various system components are given in the following sections.

5.1 Wet Detention Areas and Interconnect Pipes

The basic element of the stormwater management system consists of a series of interconnected wet detention lakes that provide stormwater treatment through a variety of physical, biological, and chemical processes. A wet detention lake works 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 littoral plants and microorganisms; along with natural chemical flocculation and complex processes.

Maintenance of the wet detention lakes 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 detention areas 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 areas and canals for evidence of excessive sediment accumulation or erosion.
D. Inspect the planted littoral vegetation 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 **QUAIL CREEK CLUBHOUSE.**

5.2 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.

5.3 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.

6.0 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.

QUAIL CREEK CLUBHOUSE

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A SWP3 HAS BEEN CREATED IN ORDER TO ENSURE THAT POLLUTANTS FROM THE PROPOSED CONSTRUCTION ACTIVITIES WILL NOT ENTER THE STORM WATER DISCHARGE FROM THE SITE.

SECTION A - PLANNING AND ORGANIZATION

The plan has been developed by Hole Montes, Inc., for the property owner/developer, **Quail Creek Country Club, LLC.** The Project Pollution Prevention Team shall consist of the Owner/Developer (**Quail Creek Country Club, LLC**), Engineer (Hole Montes, Inc.) and the General Contractor.

The plan has been developed and will be implemented, maintained and revised by **Hole Montes, Inc.** The Contractor shall be responsible for daily observance of the requirements of the plan and shall report any instances of non-compliance immediately to the Engineer.

The Engineer will also be responsible for conducting site inspections on an as needed basis. Records of the site inspection/evaluation by the Engineer's Rep will be kept on file at the Engineer's office.

SECTION B - ASSESSMENT

A construction plan set has been created and is attached herein. The plans identify all discharge points, runoff patterns, and control structures.

The First Phase process under control of this plan is the removal of the existing vegetation. The Second Phase is the excavation of the lake, construction of the new roadway, drainage and associated facilities.

The following list is an inventory of possible contamination sources from the demolition phase of the project:

1. Sedimentation from exposed earth during clearing.
2. Vegetation debris from existing green areas.
3. Dewatering.

The following list is an inventory of possible contamination sources for the new construction phase:

1. New paving materials

2. Silt and sedimentation, new grading
3. New building construction materials
4. Heavy equipment lubricants and fuel

The demolition/construction activities proposed will require the contractor to excavate and backfill areas on site. The earth moving activity leaves exposed earth for periods of time which is susceptible to erosion and sedimentation. Also, construction of the roadway drainage system can lead to the scattering of debris on-site which can enter the stormwater management system.

Allowable non-storm water discharges that could occur during construction on this project, which would therefore be covered b y the General Permit, include:

1. Fire Hydrant flushing.
2. Water used to wash vehicles, buildings, and pavement or to control dust.
3. Discharges from fire fighting activities.
4. Irrigation drainage.
5. Dewatering.

SECTION C - PROJECT DESCRIPTION AND CONSTRUCTION SEQUENCE

The project is located at 13300 Valewood Drive, Naples, Florida 34119. The project will consist of the following: Site improvements to the existing Quail Creek Clubhouse and Golf Driving Range including grading, drainage, paving and utilities.

The stormwater system will employ several recommended SFWMD best management practices that includes silt fence, hay bales, on-site wet detention.

Described below are the major construction activities that are subject to this SWP3. They are presented in the order (or sequence) they are expected to begin, but each activity will not necessarily be completed before the next begins. Also, these activities could occur in a different order if necessary to maintain adequate erosion and sedimentation control.

1. Construct stabilized entrance/exit. This will be the first construction work on the project.
2. Install sediment barriers down slope from construction activities that disturb site soil.
3. Construct stormwater improvements in accordance with the approved Construction plans.

4. Filling of embankment and site grading.

5. Underground Drainage – Sediment barriers will be utilized as required to bound the down slope side of drainage construction and soil stockpiles.

6. Final Grading – Sediment barriers will be maintained down slope from disturbed soil during this operation.

7. Completion of on-site stabilization.

The actual schedule for implementing pollutant control measures will be determined by project construction process. Down slope protective measures must always be in place before soil is disturbed.

SECTION D - BMP IDENTIFICATION AND SELECTION

Best Management Practices (BMP's) as outlined herein will be used to prevent contamination of the stormwater discharge. The following BMP's will be implemented for this project:

1. Good Housekeeping - A safe, orderly and clean work environment shall be maintained. A dumpster shall remain on-site until project completion for storage of discarded construction debris. The Contractor shall periodically perform clean-up work to remove general trash and debris from the site. The Contractor shall store with extreme care any and all possible contaminants.

2. Stormwater Management Practices - The Stormwater Management system has been designed to provide water quality treatment prior to discharge.

3. Preventive Maintenance - The Contractor shall provide routine inspection of his equipment to ensure proper operation and prevent leaks and spills. Equipment inspection shall be performed daily prior to any construction activities. Fuel containers shall be inspected for leaks. Lubricants and other fluids shall be inspected for possible leaks.

4. Sediment and Erosion Prevention - Construction of the Stormwater Management System including detention areas and control structures shall be performed first. Silt fence and/or hay bales shall be located around all points of discharge. A silt fence construction detail is attached herein. Two turbidity barriers will be installed downstream of the site work in the existing drainage ditch prior to discharging into the Gordon River. A turbidity barrier detail is attached herein. In addition, a filter material shall be placed over the inlets to the control structures during construction activities. If dewatering is used, discharges shall be contained in on-site retention areas. Silt fence and/or hay bales shall be installed and maintained around the perimeter of conservation areas which are adjacent to construction activities.

5. Visual Inspections - Routine visual inspections of the pollution prevention measures shall be performed daily. The Contractor shall be responsible for expedient repair of any damage to the silt fence/hay bale erosion control devices.

6. Spill Prevention and Response - The Contractor will implement a plan of spill prevention including dual containment for fuel storage and all other hazardous materials stored on-site and shall monitor all re-fueling activities. The contractor shall install spill cleanup equipment adjacent to fueling stations and shall instruct all employees on correct cleanup and response procedures. In the case of a spill all affected authorities shall be contacted. A list of telephone numbers shall be posted on site of all governmental agencies and other entities having jurisdiction.

7. Employee Training - The Contractor shall be responsible for the proper training of his employees for performance of the construction activities as well as the pollution prevention measures herein.

8. Record Keeping and Reporting – The Contractor will be responsible for the weekly SWP3 inspection record keeping and reporting. The Contractor shall keep daily SWP3 inspection and the 0.25" rain event inspection records and shall notify the Engineer immediately concerning non-compliance issues.

SECTION E - IMPLEMENTATION

This Stormwater Pollution Prevention Plan shall be in effect throughout the construction phase of the project, and shall be initiated at the time of the Notice of Commencement to the Contractor.

The Owner, Contractor and Engineer shall conduct a pre-construction conference in which the plan will be discussed in full. The Contractor will then have a period of one week to train his employees to follow the plan.

SECTION F - EVALUATION AND SITE INSPECTION

The Engineer will make as-needed site inspections and will be responsible for evaluating the success or failure of the plan. A report will be drafted which will include the following items:

1. Date and Time
2. General description of construction activities to date
3. General description of the conditions of the site (good, fair, poor)
4. Detailed description of the condition of erosion control system
5. Recommendations of repair or clean-up.

The Engineer will distribute a copy of the report to the Contractor, Developer and Owner, and shall keep the reports on file.

The Engineer shall also be responsible for any amendments to this plan. Should the plan be amended, copies will be sent to the Contractor, Developer and Owner for posting at the site.

SECTION G – CONTRACTOR CERTIFICATION

The General Contractor and all Subcontractors involved with the major construction activities that disturb site soil have read and understand their responsibilities and requirements outlined in the above Stormwater Pollution Prevention Plan (SWP3).

Name	Title	Company	Date