
**SEMINOLE COUNTY GOVERNMENT
AGENDA MEMORANDUM**

SUBJECT: Revenue Agreement Between the St. Johns River Water Management District and Seminole County for the Howell Creek Basin Master Plan (Contract #SK952XA).

DEPARTMENT: Public Works

DIVISION: Engineering

AUTHORIZED BY: Gary Johnson

CONTACT: Mark Flomerfelt, P.E.

EXT: 5709

MOTION/RECOMMENDATION:

Approve and authorize the Chairman to execute a Revenue Agreement between the St. Johns River Water Management District and Seminole County for the Howell Creek Basin Master Plan (Contract #SK952XA) Capital Improvement Project #00209114.

District 1 Bob Dallari

District 2 Michael McLean

District 4 Carlton D. Henley

Jerry McCollum, P.E., County Engineer

BACKGROUND:

The St. Johns River Water Management District (the District), in cooperation with Seminole County, Orange County, the Cities of Altamonte Springs, Casselberry, Orlando, Oviedo, Maitland, Winter Park, and Winter Springs, is developing a Watershed Management Plan (WMP) for the Howell Creek Basin. This agreement supports the development of a Comprehensive Stormwater Master Plan for the Basin similar to a previously completed plan for the Little Wekiva River. The WMP will address both water quantity and water quality issues.

The attached Revenue Agreement authorizes payment of \$75,000 to the District as the County's share contribution for development of the Comprehensive Stormwater Master Plan. These funds are budgeted in CIP #00209114. Cost share contributions were determined by the District according to square footage in the study area. (See attached Study Area Map). The District shall contribute \$200,000 to the development.

STAFF RECOMMENDATION:

Staff recommends the Board approve and authorize the Chairman to execute a Revenue Agreement between the St. Johns River Water Management District and Seminole County for the Howell Creek Basin Master Plan (Contract #SK952XA) Capital Improvement Project #00209114.

ATTACHMENTS:

1. Location Map
2. Study Area Map
3. Revenue Agreement - Howell Creek Basin Master Plan

4. Howell Creek ScopeofServices Dec2005

Additionally Reviewed By:

- County Attorney Review (Matthew Minter)
- Budget Review (Fredrik Coulter, Lisa Spriggs)

Howell Creek Basin Location Map

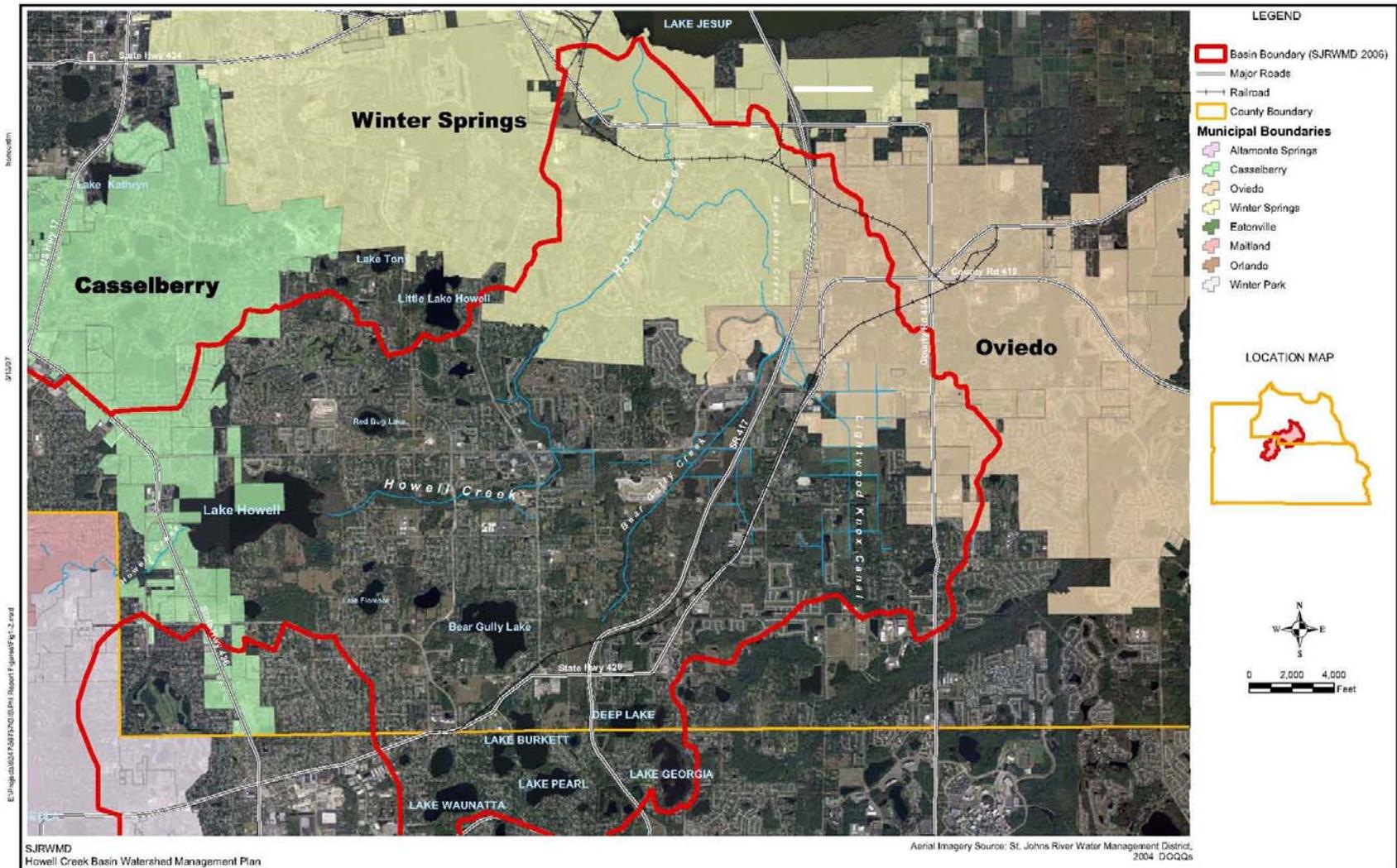
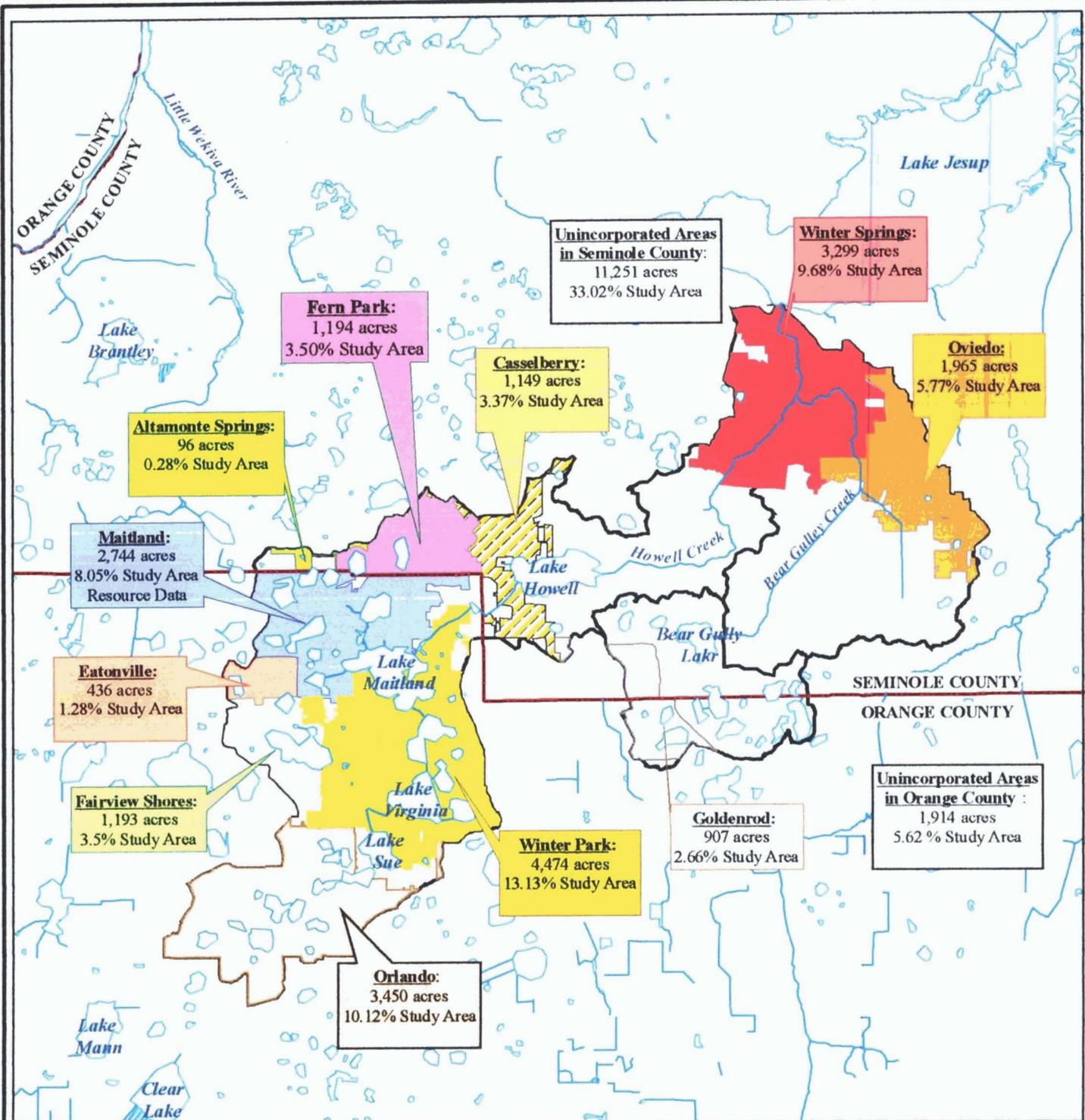


Figure 1-2
Eastern Portion of the Study Area



Municipalities in Howell Creek Study Area



1 0.5 0 1 Miles
1:135000

Legend

Municipalities in Each County

- Altamonte Springs
- Casselberry
- Eatonville
- Fairview Shores
- Fern Park
- Goldenrod
- Maitland
- Orlando
- Oviedo
- Winter Park
- Winter Springs
- Study Area
- County Boundary
- Water Bodies

The St. Johns River Water Management District prepares and uses this information for its own purposes and this information may not be suitable for other purposes. This information is provided as is. Further documentation of this data can be obtained by contacting: St. Johns River Water Management District, Geographic Information Systems, Program Management, P.O. Box 1429, 4049 Reid Street Palatka, Florida 32178-1429 Tel: (386) 329-4176.

**REVENUE AGREEMENT BETWEEN
THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
AND SEMINOLE COUNTY FOR THE
HOWELL CREEK BASIN MASTER PLAN**

THIS Agreement is entered into by and between the GOVERNING BOARD of the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT ("the District"), whose address is 4049 Reid Street, Palatka, Florida 32177, and SEMINOLE COUNTY ("the County"), whose address is 1101 East First Street, Sanford, Florida 32771.

WITNESSETH THAT:

WHEREAS, the District is a special taxing district created by the Florida Legislature and given those powers and responsibilities enumerated in Chapter 373, Fla. Stat., whose geographical boundaries encompass Seminole County; and

WHEREAS, pursuant to the Howell Creek Basin Master Plan each local government within the Howell Creek Basin Area, as defined therein, is required to develop a master stormwater management plan, and

WHEREAS, the local governments subject to the Howell Creek Basin Master Plan have agreed that the objectives of the Plan can be accomplished most expeditiously and efficiently by pooling their resources in developing a master stormwater management plan that addresses the requirements of all of the local governments within the Howell Creek Basin and

WHEREAS, the District wishes to assist these local governments in development of the master stormwater management plan by administering the contract for its development; and

WHEREAS, the District is already administering an annual contract for multi-disciplinary professional engineering services; and

WHEREAS, the District will accomplish the work for this project in a cooperative effort with the County through a work order issued to a third-party Consultant; and

WHEREAS, the District and the County have determined that it is in the public interest for the District to administer the work for this project.

NOW THEREFORE, for and in consideration of the above premises, which are hereby made a part of this Agreement, and the mutual covenants, terms and conditions herein contained, the District and the County, each intending to be legally bound, agree as follows:

ARTICLE I - TERM, SCHEDULE AND TIME OF PERFORMANCE

Term. The term of this Agreement shall be from the Effective Date to the Completion Date.

1. **Effective Date.** The Effective Date of this Agreement shall be the date upon which the last party to this Agreement has dated and executed the same.
2. **Completion Date.** The Completion Date of this Agreement shall be no later than September 30, 2008, unless extended by mutual written agreement of the parties. All Work under this Agreement shall be completed for use no later than the Completion Date.

ARTICLE II - STATEMENT OF WORK

The work to be performed pursuant to the Agreement is specified in the attached Statement of Work (Exhibit A), attached hereto and incorporated herein.

ARTICLE III - COMPENSATION

- A. **Funding.** Through this Agreement, the County agrees to pay \$75,000 to the District for the Howell Creek Basin Master Plan (“the Plan”), as described above. The District shall contribute \$200,000 to its development.
- B. **Invoicing Procedure.** The District shall invoice the County in the amount of \$75,000 within thirty (30) days of the effective date of this Agreement.
- C. **Payments.** The County shall pay the District one hundred percent (100%) of this invoice pursuant to chapter 218, Fla. Stat., as amended, within thirty (30) days of receipt of an approved invoice from the District.

ARTICLE IV - LIABILITY AND INSURANCE

- A. Each party to this Agreement is responsible for all personal injury and property damage attributable to the negligent acts or omissions of that party, its officers and employees, acting within the scope of employment. In addition, each party is subject to the provisions of section 768.28, Fla. Stat., as amended. Neither this provision nor any other provision of this Agreement shall be construed as a waiver of sovereign immunity by either party.
- B. Each party shall also acquire and maintain throughout the term of this Agreement such general liability, automobile insurance, and workers’ compensation insurance as required by their current rules and regulations.

ARTICLE V - PROJECT MANAGEMENT

- A. **Project Managers.** The project managers shall be responsible for overall coordination, oversight, and management of the Work. The parties agree to the following persons being designated as project manager:

DISTRICT

Regina Lovings Morse, Project Manager
St. Johns River Water Management District
4049 Reid Street
Palatka, Florida 32177
386-329-4819
E-mail: rmorse@sjrwmd.com

COUNTY

Mark Flomerfelt, P.E.
Seminole County
520 W. Lake Mary Blvd., Suite 200
Sanford, Florida 32773
407-665-7509
E-mail: mflomerfelt@co.seminole.fl.us

- B. **District Project Manager.** The District’s Project Manager shall be available to the County to respond to questions regarding the project. The District’s Project Manager shall keep the County informed as to the progress of the project and any issues requiring a decision by the County and provide the County reasonable opportunities to review and comment upon the Work. The District shall be solely responsible for obtaining, managing and directing the Work of its consultant in completing the Work. The District shall provide the County with a copy of deliverables, including quarterly and annual reports prepared by its consultant regarding the Work.

- C. **Change in Project Manager.** Either party to this Agreement may change its project manager by providing not less than three (3) working days prior written notice of the change to the other party.

ARTICLE VI - TERMINATIONS

- A. This Agreement may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligations under this Agreement through no fault of the terminating party, provided that no termination may be effected unless the other party is given: (1) not less than thirty (30) calendar days written notice delivered by certified mail, return receipt requested, and (2) an opportunity for consultation with the other party prior to termination. Upon termination, both parties shall enter negotiations to determine an equitable settlement for payment of all appropriate services, materials, and costs and provide reimbursement to the County of the appropriate unexpended amount.

ARTICLE VII - MISCELLANEOUS PROVISIONS

- A. **Assignment and Subcontracts.** The District shall subcontract the work required for this Agreement through an issuance of a separate contract to a third-party consultant. This Agreement is not assignable by either party without the written consent and agreement of both parties.
- B. **Interest of County.** The County certifies that no officer, agent, or employee of the County has any material interest, as defined in chapter 112, Fla. Stat., either directly or indirectly, in the business to be conducted hereby, and that no such person shall have any such interest at any time during the term of this Agreement.
- C. **Interest of District.** The District certifies that no officer, agent, or employee of the District has any material interest, as defined in chapter 112, Fla. Stat., either directly or indirectly, in the business to be conducted hereby, and that no such person shall have any such interest at any time during the term of this Agreement.
- D. **Civil Rights.** Pursuant to chapter 760, Fla. Stat., the District shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin, age, handicap, or marital status.
- E. **Audit: Access to Records.** Each party agrees that either party or its duly authorized representatives shall, until the expiration of three (3) years after expenditure of funds hereunder, have access to examine any books, documents, papers and other records involving transactions related to this Agreement. The District shall preserve all such records for a period of not less than three (3) years. Payment(s) made hereunder shall be reduced for amounts charged that are found on the basis of audit examination not to constitute allowable costs. The District shall refund any such reduction of payments. All required records shall be maintained until an audit has been completed and all questions arising from it are resolved. The District will provide proper facilities for access to and inspection of all required records.
- F. **Release of Information.** Records of the parties that are made or received in the course of performance of the Work may be public records that are subject to the requirements of chapter 119, Fla. Stat. In the event a party receives a request for any such records, the receiving party shall notify the other party's project manager within three (3) workdays of receipt of such request. Each party reserves the right to cancel this Agreement for refusal by the other party to allow public access to all documents, papers, letters, or other material related hereto and subject to the provisions of chapter 119, Fla. Stat., as amended.

- G. **Dispute Resolution.** The parties have the mutual obligation to seek clarification and resolution of any issue, discrepancy, misunderstanding, or dispute arising from questions concerning interpretation or acceptable fulfillment of this Agreement. The project managers will diligently seek to resolve all matters of dispute. In the event any such disputes cannot be resolved by the project managers, each party will defer resolution to its respective department director for resolution.
- H. **Governing Law.** This Agreement shall be construed and interpreted according to the laws of the state of Florida.
- I. **Venue.** In the event of any legal proceedings arising from or related to this Agreement, venue for such proceedings, if in state court, shall be in Seminole County, Florida, and if in federal court, shall be in the Middle District of Florida, Orlando Division.
- J. **Attorney's Fees.** In the event of any legal or administrative proceedings arising from or related to this Agreement, including appeals, each party shall bear its own attorney's fees.
- K. **Waiver of Right to Jury Trial.** In the event of any civil proceedings arising from or related to this Agreement, the parties hereby agree to trial by the court and waive the right to seek a jury trial in such proceedings.
- L. **Conflicting Provisions.** If any provision hereof is found to be in conflict with the General Conditions, Special Conditions, or any attachments hereto, the terms in the body of this Agreement shall prevail.
- M. **Construction of Agreement.** This Agreement shall not be construed more strictly against one party than against the other merely by virtue of the fact that it may have been prepared by counsel for one of the parties, it being recognized that both parties have contributed substantially and materially to the preparation hereof.
- N. **Entire Agreement.** This Agreement, upon execution by the County and the District, constitutes the entire agreement of the parties. The parties are not bound by any stipulations, representations, agreements, or promises, oral or otherwise, not printed or inserted herein. The County agrees that no representations have been made by the District to induce the County to enter into this Agreement other than as expressly stated herein. This Agreement cannot be changed orally or by any means other than written amendments referencing this Agreement and signed by all parties.
- O. **Separate Counterparts.** This Agreement may be executed in separate counterparts, which shall not affect its validity.

IN WITNESS WHEREOF, the St. Johns River Water Management District has caused this Agreement to be executed on the day and year written below in its name by its Executive Director, and Seminole County has caused this Agreement to be executed on the day and year written below in its name by its duly authorized representatives, and, if appropriate, has caused the seal of the corporation to be attached.

ST. JOHNS RIVER WATER
MANAGEMENT DISTRICT

SEMINOLE COUNTY

By: _____
Kirby B. Green III, Executive Director

By: _____

Brenda Carey, Chairman
Typed Name and Title

Date: _____

Date: _____

APPROVED BY THE OFFICE
OF GENERAL COUNSEL

Attest: _____

Stanley J. Niego, Sr. Assistant General Counsel

Maryanne Morse, Clerk to the Board of County
Commissioners of Seminole County, Florida
Typed Name and Title

Attachment: Exhibit "A" – Statement of Work

As authorized for execution by the Board of
County Commissioners at their
_____, 2008 regular
meeting

Attachment: Exhibit "A" – Statement of Work

**EXHIBIT "A" – STATEMENT OF WORK
REVENUE AGREEMENT WITH SEMINOLE COUNTY FOR THE
HOWELL CREEK BASIN MASTER PLAN**

I. INTRODUCTION/BACKGROUND

The St. Johns River Water Management District (the District) in cooperation with Orange County, Seminole County, City of Altamonte Springs, City of Casselberry, City of Orlando, City of Oviedo, City of Maitland, City of Winter Park, and the City of Winter Springs shall further develop a Watershed Management Plan (WMP) for the Howell Creek Basin. The purpose of this Statement of Work is to describe the Howell Creek Basin local governments agreement to support the development of a stormwater master plan for the basin. The WMP will address both water quantity and water quality issues as defined in the scope of services.

District staff has coordinated with the local governments within the Howell Creek Basin and the majority of the entities would prefer to complete a regional stormwater master plan rather than each embarking on their own master planning effort. The local governments identified a scope of work with the District's continuing service contractor (Camp Dresser & McKee). A work order utilizing District funding was begun in June 2006. Additional work under this scope will be authorized through change orders or additional work orders, as appropriate. The work is to be completed by September 30, 2008.

II. OBJECTIVES

The purpose of this revenue agreement is to develop a mutual agreement between Seminole County and the District for the Howell Creek Basin Stormwater Management Plan. Seminole County will provide \$75,000 to the District for development of the Plan. The District has issued a work order for this work through its annual engineering services contract.

III. SCOPE OF WORK and TASK IDENTIFICATION

The scope of work and tasks to be accomplished by the District's engineering consultant are outlined in the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT SCOPE OF SERVICES CONSULTING ENGINEERING SERVICES FOR HOWELL CREEK BASIN WATER MANAGEMENT PLAN DRAFT dated December 2005.

V. TIME FRAMES AND DELIVERABLES

The goal is to complete the work identified in Howell Creek Basin Stormwater Management Plan by September 30, 2008. Deliverables identified in the Plan shall be provided to the District and County by the District's engineering consultant.

VI. CONTRACT BUDGET

The budget for this revenue contract is \$75,000. Seminole County shall provide the District with an advance payment of \$75,000 to support funding of the Howell Creek Basin Stormwater Master Plan.

A specific budget for each task will be finalized under the work order authorizing the work by the District's engineering consultant. The County's funding, along with District funding (\$200,000), and funding from other local governments (approximately \$200,000, including Seminole County's contribution of \$75,000), will be provided to the District via separate revenue agreements and/or purchase orders and will be utilized to fund the work order with the District's engineering consultant. The total amount of funding available (from all sources) is estimated to be \$400,000.

DRAFT

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT SCOPE OF SERVICES CONSULTING ENGINEERING SERVICES FOR HOWELL CREEK BASIN WATERSHED MANAGEMENT PLAN

December 2005

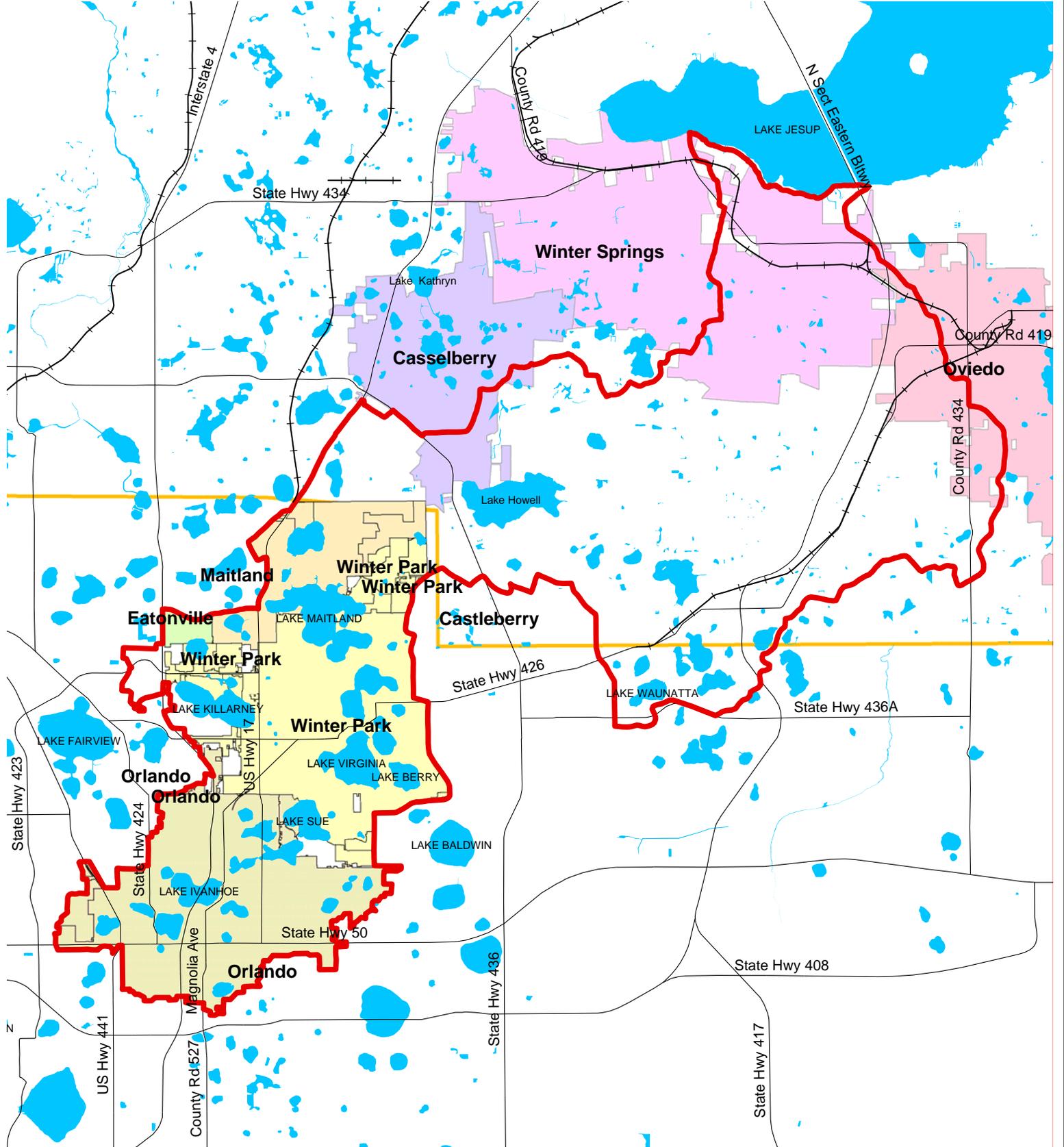
INTRODUCTION

The St. Johns River Water Management District (SJRWMD) in cooperation with Orange County, Seminole County, the City of Orlando, the City of Altamonte Springs, City of Winter Park, City of Winter Springs, City of Oviedo, City of Casselberry, and City of Orlando (PARTICIPANTS) has hired Camp Dresser & McKee, Inc. referred to below as the CONSULTANT to complete a Watershed Management Plan (WMP) for the Howell Creek Basin. The Howell Creek Basin has a tributary area of approximately 53 square miles and includes portions of Orange County, Seminole County, the City of Altamonte Springs, City of Casselberry, City of Orlando, City of Oviedo, City of Maitland, City of Winter Park, and the City of Winter Springs (See Figure 1). The purpose of this Scope of Services is to specify the required services and associated fees of the CONSULTANT to conduct the WMP. To the extent practicable, the CONSULTANT will build upon stormwater modeling and planning efforts previously completed for the basin. Specifically, the CONSULTANT will build upon the stormwater model and analyses previously completed for the Flood Management Study, Howell Creek Basin Technical Publication SJ94-3 (1994 Study) as well as the Howell Creek Basin Drainage Inventory Engineering Study, Seminole County completed by DRMP, Inc. in 1994 (DRMP study). The WMP will address both water quantity and water quality issues as defined by this scope of services.

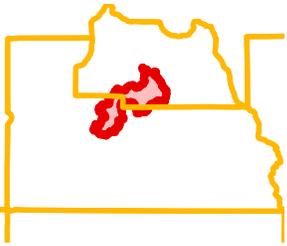
This study will be undertaken in three (3) parts:

- Part I - Inventory Update of existing stormwater management systems.
- Part II - Engineering analysis of the existing stormwater system and identification of problem areas.
- Part III - Engineering analysis to develop alternatives to alleviate flooding in problem areas and/or develop regional solutions.

Part I will address the system inventory update, accompanied by the review of existing available engineering plans and studies, from which the flow patterns and existing stormwater management structures will be updated. Also in this part, potential data gaps between existing data and data needed for modeling will be determined, and a scope of services to collect the additional needed data will be prepared. Wetlands and waterbodies within the study area will be identified using current St. Johns River Water Management District (SJRWMD) and US Army Corps of Engineers (USACOE) rule criteria and mapped using aerial photo interpretation. The wetlands and waterbodies will be designated using the Florida Land Use Cover and Forms Classification System. Part II will provide the engineering analysis to determine the existing stormwater system

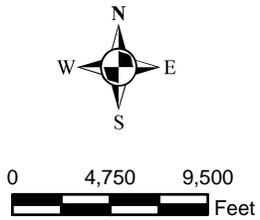


LOCATION MAP



LEGEND

- RAILROAD
- Howell Creek Basin (SJRWMD, 1994)
- Major Roads
- Water Bodies
- County Boundary
- Casselberry
- Oviedo
- Winter Springs
- Eatonville
- Maitland
- Orlando
- Winter Park



SJRWMD
Howell Creek Basin Watershed Management Plan

CDM

Figure 1
Study Area

capacity, demands, and deficiencies. Part III will provide engineering analysis to develop alternatives to reduce and alleviate flooding in problem areas and improve water quality and water quantity upstream and downstream of structures, downstream erosion control, plus operating schedules for water control structures.

Presented below is the scope of services developed to complete these three parts of this project.

SCOPE OF SERVICES

The CONSULTANT will provide the following scope of work:

PART I: INVENTORY AND PROBLEM IDENTIFICATION

Part I, Task 1 Data Collection and Evaluation

Part I, Subtask 1.1 Data Collection and Evaluation - The SJRWMD and PARTICIPANTS will make available to the CONSULTANT all data previously gathered or developed for the Howell Creek Basin including:

- a. Existing reports, as-built drawings and survey data in the study area.
- b. Hydrologic meteorological records.
- b. Existing and proposed drainage systems.
- d. Most recent existing aerial photography (with and without contours) from the SJRWMD and the PARTICIPANTS.
- e. Documentation of past flooding complaints.
- f. Documented finished floor elevations.
- g. Present and projected future build-out land use within the study area including all DRIs, PUDs, EISs, major subdivision plats, and other large developments which has been approved by or approvals filed with the PARTICIPANTS.
- h. Existing water quality and water quantity data for lakes and major streams.
- i. Existing waterbodies and wetlands relative to water quality, quantity within the watersheds and mitigation potential.
- j. Rules, regulations, ordinances, and laws (local, state, federal) pertinent to the study area.
- k. Archeological resources as available from the Florida Department of State, Division of Historical Resources.
- l. National Wetlands Inventory Maps (NWI).
- m. Florida Land Use Cover and Classification System Maps (FLUCCS).
- n. Proposed wetland mitigation areas already approved by regulatory agencies, as of the effective date of the contract.

The SJRWMD and PARTICIPANTS will be responsible for supplying the CONSULTANT, in both digital and hardcopy formats (as available), any data developed or compiled for the Howell Creek Basin (i.e., as-built drawings, GIS data, aerial photography, etc.) as described above. The CONSULTANT will be responsible for contacting the SJRWMD and PARTICIPANTS to review available data, and evaluate these data for use in this study. The CONSULTANT will produce a Data Collection and Evaluation Report Section that will summarize available data and data needs.

Part I, Task 2 System Inventory and Mapping

Part I, Subtask 2.1 Base Maps - The CONSULTANT will develop working hardcopy base maps of the basin using a map scale mutually agreed to by the CONSULTANT and the

SJRWMD. The base maps will be developed from the existing Geographic Information System (GIS) coverage features provided by the SJRWMD and the PARTICIPANTS. The base map features may include parcel data, municipal boundaries, major roads (and names), aerial photography, and existing water and wetland coverage. The CONSULTANT will use ArcMap® Version 9.0 to develop the project base maps. For report figures, maps will be plotted at a scale that will fit either on an 8 ½ -inch by 11-inch sheet of paper or an 11-inch by 17-inch sheet of paper. Supplement base maps may also be printed out on a 24-inch by 36-inch drawing at a scale of approximately 1-inch equals 1,500 feet with match lines as needed. All mapping will be done using a coordinate system mutually agreed upon between the CONSULTANT and the PARTICIPANTS.

Part I, Subtask 2.2 Problem Identification – The CONSULTANT will attend one (1) meeting with Orange County staff, one (1) meeting with Seminole County staff, one (1) meeting with City of Orlando staff, one (1) meeting with City of Altamonte Springs staff, one (1) meeting with City of Winter Park, one (1) meeting with City of Winter Springs, one (1) meeting with City of Oviedo, one (1) meeting with City of Casselberry, and one (1) meeting with SJRWMD staff to discuss known problem areas and to document the nature of each problem (10 meetings). Problems will focus on serious flooding problems (flooding of homes/buildings or road flooding greater than 1 foot deep). Problem areas identified during each meeting will be added to the project base map by the CONSULTANT and included in the Data Collection and Evaluation Report Section.

Part I, Subtask 2.3 Stormwater Model Schematic – The CONSULTANT will incorporate the stormwater model schematic developed for both the 1994 Study the DRMP study at a higher level of detail into an overall base stormwater model schematic for this study. Additionally, the CONSULTANT will refine the stormwater model schematic (if needed) to address the problem areas identified in Subtask 1.2 as mutually agreed upon by the CONSULTANT and the SJRWMD. The updated model schematic will be used as a guide for the system inventory efforts defined in subsequent Subtasks. The model schematic will be added to the project base map.

Part I, Subtask 2.4 System Inventory -The CONSULTANT will develop a structure inventory map for the Howell Creek Basin based upon published data collected under Part I, Task 1. Known structures will be hand drawn on the project base map by the CONSULTANT unless already in digital format and in a compatible coordinate system with the project base map. For each structure inventoried, the CONSULTANT will record the available documented geometric information (diameter, length, invert elevations, material, and top-of-road elevation) as available. This Task does not include survey of the structures. The CONSULTANT has budgeted for **100** structures with an equivalent diameter greater than 36-inches to be added to the project base map. If the inventory reaches **100** structures and is not complete, the CONSULTANT will provide the SJRWMD with a new scope of services and budget to complete the additional inventory for review and approval.

Part I, Subtask 2.5 Field Reconnaissance - Based on the updated inventory, the CONSULTANT will complete a field reconnaissance of the primary stormwater management system and identify observed structural changes or differences from the data inventoried under Subtasks 1.3 and 1.4. New or modified structures will be marked on copies of the PARTICIPANT's existing aerials and added to the survey plan for the basin. The CONSULTANT shall also document observations related to scour, physical deficiencies, and other environmental problems. The CONSULTANT will take digital photographs of structures field inspected by the CONSULTANT. The CONSULTANT's field inspection shall extend upstream to the outfall structure of a given subdivision and not beyond. The CONSULTANT's

field crews will carry a 1-page information notice describing the goals of the WMP. For budgeting purposes, a maximum of **100** primary system structures will be field inventoried. If the inventory reaches **100** structures and is not complete, the CONSULTANT will provide the SJRWMD with a scope of services and budget to complete the additional inventory for review and approval.

Part I, Subtask 2.6 Survey Plan - Based upon the results of Subtasks 1.1, 2.3, 2.4 and 2.5, and feedback from the PARTICIPANTS, the CONSULTANT will prepare a recommended survey plan for stormwater structures, open channel cross sections, and finished floor elevations that will be included in the Part II - Engineering Analysis. The plan will identify the locations of the structures, channel cross-sections, and finished floor elevations to be surveyed, definition of information to be measured, and a listing of available benchmarks. For planning purposes, the CONSULTANT has estimated there to be a total of approximately 94 open channel cross-sections and 75 structures that make up the primary conveyance system of the Howell Creek Basin. Of these facilities the CONSULTANT has estimated that approximately half will require survey. The CONSULTANT has established a project survey budget of \$45,000. It is important to note that this is an estimate and the actual number of structures to be surveyed may vary and will be dependent on the results of the aforementioned subtasks as well as PARTICIPANT input to define the surveying need. If additional survey is needed beyond what can be accomplished for the \$45,000 budget, the CONSULTANT will provide the SJRWMD with a scope of services and budget to complete the additional survey work for review and approval.

Part I, Subtask 2.7 Structure Mapping – The CONSULTANT will digitize stormwater structures inventoried under Task 1 using ArcMap® Version 9.0. Structures will be digitized by the CONSULTANT from the working base maps using visual interpretation (approximate locations). For each structure inventoried, the CONSULTANT will add the basic structure geometry (dimensions, invert elevations, material) as table attribute data within ArcMap® Version 9.0. The CONSULTANT has budgeted for up to **200** structures to be mapped (100 from file review and 100 from field reconnaissance). If the inventory reaches **200** structures and is not complete, the CONSULTANT will provide the SJRWMD with a new scope of services and budget to complete the additional mapping for review and approval.

Part I, Task 3 Wetland Inventory

Part I, Subtask 3.1 Preliminary Wetland Screening - The CONSULTANT will update existing wetland map data from the National Wetlands Inventory and other available digital coverages from the PARTICIPANTS by superimposing the hydric soils coverage, parcel coverage, and Florida Land Use Cover Classification System (FLUCCS) based wetlands coverage over the most recent aerial photographs of the Howell Creek Basin. Using these data, the wetland boundaries for the basin will be revised. Each wetland will be identified by wetland type on the project base map using the FLUCCS.

Part I, Subtask 3.2 Wetland Functional Assessment - Once the wetlands have been identified, the CONSULTANT will conceptually assess the functional rating for up to 20 wetlands. The functional rating is based by the size, amount of disturbance, connectedness, and location in the landscape. The potential use of wetlands for restoration, rehydration, and/or stormwater flood storage and attenuation will be assessed and presented as part of the functional assessment. This Subtask includes four (4) 8-hour field visits by a two-person field crew.

Part I, Subtask 3.3 Habitat Assessment - The CONSULTANT will compile a list of known listed species that are located within the basin based upon published data available from the

SJRWMD or the Florida Department of Environmental Protection. The Florida Natural Area Inventory (FNAI) will be contacted for this purpose. The CONSULTANT will develop a map showing the general location of listed species potentially within the basin.

Part I, Task 4 Water Quality

Part I, Subtask 4.1 Water Quality Data Review - The CONSULTANT will review published water quality data available for up to 20 stations in the basin as provided by the PARTICIPANTS and provide a written summary of the review as a report section. The CONSULTANT will add to the base map the general locations of where water quality sampling was performed as can be determined from the published data. The CONSULTANT will also provide a written summary of the water quality data for each of the 20 water bodies.

Part I, Task 5 Existing and Future Land Use

Part I, Subtask 5.1 Existing Land Use Data – The SJRWMD will provide the CONSULTANT with a digital copy of the current land use map used to develop the hydrologic parameters. The digital current land use map provided by the SJRWMD will be in a format compatible with ArcMap® Version 9.0. Potential discrepancies noted by the CONSULTANT between the current land use map provided by the SJRWMD and existing aerial photographs of the basin and existing land use information provided by each PARTICIPANT will be documented in a letter to the SJRWMD for review. The CONSULTANT will also identify any needed refinements to the aggregation of land use categories with respect to the water quality modeling effort described in Part II.

Part I, Subtask 5.2 Future Land Use Data - The CONSULTANT will use the available digital future land use maps available from each PARTICIPANT to develop a composite future land use map of the study area using ArcMap® Version 9.0. Future land use maps that are only available in paper format or are not to a standard coordinate system will only be reviewed qualitatively by the CONSULTANT for consistency with future land use data available from the PARTICIPANTS in digital format. Large scale discrepancies (if any) will be noted by the CONSULTANT would be documented in a letter to the SJRWMD. If large-scale discrepancies are noted by the CONSULTANT, the CONSULTANT will use the land use category with the higher percent imperviousness value. Also, potential large-scale discrepancies noted by the CONSULTANT between the future land use map and the existing land use map (if any) will be documented in a letter to the SJRWMD. A maximum of 15 land use categories will be used for developing hydrologic parameters for this study.

Part I, Task 6 Report Development

Part I, Subtask 6.1 Report - Upon the completion of Part I, the CONSULTANT shall prepare and submit (10) copies of the Draft Inventory and Problem Definition Report for review and approval by the SJRWMD. Written comments provided by the SJRWMD on the draft report will be addressed in a manner mutually agreed upon by the SJRWMD and the CONSULTANT. It is expected that the SJRWMD will prepare a composite comment list based upon input from each PARTICIPANT. Upon final approval, the CONSULTANT shall submit ten (10) copies of the Final Inventory and Problem Definition Report, one (1) unbound original copy, and digital document files (Microsoft OFFICE PRO format) on a compact disk (CD).

Part I, Task 7 Meetings and Coordination

Part I, Subtask 7.1 Meetings and Coordination - The CONSULTANT will attend one (1) project kickoff meeting and four (4) monthly meetings with the SJRWMD to discuss the status and/or problems encountered during this work authorization. These meetings are in addition to the problem identification meetings that will be done individually with each PARTICIPANT. The SJRWMD will be responsible for coordination of the meetings with each PARTICIPANT. The CONSULTANT will provide summary meeting minutes for the SJRWMD's review.

PART I - DELIVERABLES

1. The CONSULTANT will provide the SJRWMD with seven (7) project map sets based upon the results of Subtasks 2.1, 2.2, 2.7, 3.1, 3.3, 5.1 and 5.2.
2. The CONSULTANT will submit seven (7) compact disks that include the associated ArcMap[®] Version 9.0 files of primary stormwater management systems inventoried under Subtask 1.4 and Subtask 1.5.
3. The CONSULTANT will prepare a scope of work for and additional surveying requirements mutually agreed upon by the CONSULTANT and the SJRWMD.

PART II: ENGINEERING ANALYSIS

Upon completion of Part I and written authorization by the SJRWMD, the CONSULTANT will develop and negotiate a revised scope and budget necessary to complete Part II of this project based upon the findings of Part I. After written approval by the SJRWMD, the CONSULTANT shall commence with Part II. The objective of this part will be to analyze the existing stormwater system, establish service levels, and determine system deficiencies using the ICPR[®] for Windows Version 3.02 computer program.

Part II, Task 1 Hydrologic/Hydraulic Model Development

Part II, Subtask 1.1 Hydrologic Unit Delineation - The CONSULTANT will use the hydrologic units previously delineated as part of both the 1994 Study and the DRMP study and build upon it. The SJRWMD will provide a digital copy of the existing hydrologic unit delineations in a format compatible with ArcMap[®] Version 9.0. Based upon the updated model schematic developed under Part 1, Subtask 1.3, the CONSULTANT will modify/add up to 50 hydrologic units to account for areas where significant development has occurred or to be modeled at a higher level of detail.

Part II, Subtask 1.2 Soils Data - The CONSULTANT will use the digital soils data available from the SJRWMD to create a soils coverage for the Howell Creek Basin. The digital soil data available from the SJRWMD are based upon the U.S. Department of Agriculture Soil Conservation Service Soil Survey of Orange County and Seminole County, Florida. These data will be classified into their defined Hydrologic Soils Group (A, B, C, or D). Dual class soils will be assigned to the class that has the lowest infiltration potential (e.g., Hydrologic Soil Group A/D will be assigned to Hydrologic Soil Group D for modeling purposes). Also, unclassified soil types (e.g., urban lands) will be assigned the hydrologic soil groups adjacent to those areas.

Part II, Subtask 1.3 Hydrologic Parameters – The CONSULTANT will review the previous work done as part of the 1994 study (i.e., HEC-1 modeling) and use the hydrologic parameters

developed to represent existing land use conditions. For modified hydrologic units, the CONSULTANT will estimate the Curve Number (CN) and time of concentration. For future land use conditions, the CONSULTANT will estimate a composite Curve Number (CN) using the information developed under Part I. Additionally, the CONSULTANT will revisit the time of concentration under future land use conditions for each hydrologic unit that has more than a 20 percent change in acres of each land use type. CN calculations will be based upon normal antecedent moisture conditions (AMCII). These data will be input to the hydrologic component of the ICPR[®] for Windows Version 3.02.

Part II, Subtask 1.4 Hydraulic Model Development - The CONSULTANT will develop a hydraulic model of the system using previous work done by others as a baseline. This would include the ICPR model developed as part of the Howell Creek Basin Drainage Inventory Engineering Study (1994) prepared by DRMP for the Seminole County portion of the basin. This will also include the HEC-1 modeling done as part of the 1994 Study by the SJRWMD. Both Seminole County and the SJRWMD will be responsible for providing digital copies of the models developed as part of the aforementioned efforts. For the purposes of this Subtask, the models provided by both the SJRWMD and Seminole County for use in this study are assumed to be numerically stable (stages and flows), calibrated, and verified as stated by the PARTICIPANTS. If the stormwater model are found not to be numerically stable, the SJRWMD will be responsible for correcting the model provided to the CONSULTANT in terms of numeric stability or amend this contract (scope and budget) to have the CONSULTANT correct the existing model to a level mutually agreed upon by the SJRWMD and the CONSULTANT.

Using this baseline information, the CONSULTANT will develop a hydraulic model using ICPR[®] for Windows Version 3.02 to represent the hydraulic primary stormwater management system of the Howell Creek Basin. This model will also include the new reaches to be modeled based upon the updated model schematic. The hydraulic elements included in the model will be based upon the Part 1 data collection effort and survey based upon the survey plan developed by the CONSULTANT. Additional model calibration and verification is considered additional services to this scope of services.

Part II, Task 2 Existing Condition Model Results

Part II, Subtask 2.1 Flooding Levels-of-Service (LOS) – For the primary stormwater management system reach elements included in the stormwater model, the CONSULTANT will assign the applicable design storm LOS criteria based upon its assigned function (i.e., bridge, roadway culvert, stormwater pond, etc.). The assigned design criteria will be based upon the LOS defined by each PARTICIPANT. The CONSULTANT will then assign the appropriate LOS to each PSMS segment depending on its location of PSMS segments.

Part II, Subtask 2.2 Design Storm Analysis – The CONSULTANT will use the ICPR[®] for Windows Version 3.02 of the Howell Creek Basin to simulate the mean annual, 10-, 25-, 50-, and 100- year/24-hour design storm events under existing land use and hydraulic conditions and under normal antecedent moisture conditions. The CONSULTANT will simulate these five storm events using both the SCS Type II (Florida Modified) and the Orange County rainfall distributions unless directed otherwise by the SJRWMD (a total of 10 storm event simulations). The CONSULTANT will tabulate the resulting peak stages and peak flows for the modeled system resulting from the 10 design storm event simulations. Based upon this table, the CONSULTANT will identify predicted serious flooding problems (flooding of homes/buildings or road flooding) based upon the LOS criteria assigned in Subtask 2.1. Identified problems will

be added to the problem area map. These problems will be classified as existing system deficiencies.

Part II, Subtask 3 Mapping

Part II, Subtask 3.1 Floodplain Mapping - The CONSULTANT will delineate the 100-year floodplain based upon the peak stages generated from Part II, Subtask 2 for one duration as mutually agreed upon by the SJRWMD and PARTICIPANTS. The CONSULTANT will use available 1-foot topographic contour data prepared for the Middle St. Johns River Basin (MSJRB) in 2001 provided by the SJRWMD to delineate the 100-year floodplain. Where topographic data for the Howell Creek Basin are not available from the MSJRB 2001 GIS coverage, the CONSULTANT will use the existing 1-foot topographic contour data available from the SJRWMD (based on aerial photography taken from 1980's through early 1990's). The 100-year floodplain will then be digitized by the CONSULTANT and converted into an ArcMap[®] Version 9.0 coverage that will be an overlay to the project base map developed under Part I.

Part II, Task 4 Future Condition Model Results

Part II, Subtask 4.1 Design Storm Analysis - The CONSULTANT will simulate the mean annual, 10-, 25-, 50-, and 100-year/24-hour design storm events using the ICPR[®] for Windows Version 3.02 model of the Howell Creek Basin under future (build out) land use and existing hydraulic conditions and normal antecedent moisture conditions. The CONSULTANT will simulate these five storm events using both the SCS Type II (Florida Modified) and the Orange County rainfall distributions unless directed otherwise by the SJRWMD (a total of 10 storm event simulations). The CONSULTANT will tabulate the resulting peak stages and peak flows for the modeled system resulting from the 10 design storm event simulations. Based upon this table, the CONSULTANT will identify predicted serious flooding problems (flooding of homes/buildings or road flooding) based upon the LOS criteria assigned in Subtask 2.1. Identified problems will be added to the problem area map. These problems will be classified as future deficiencies. Differences between existing and future deficiencies will be used to guide the phasing of recommended capital improvement projects.

Part II, Task 5 Report Development

Part II, Subtask 5.1 Report - Upon the completion of Part II, the CONSULTANT shall prepare and submit ten (10) copies of the Draft Existing Conditions Analysis Report for review and approval. Written comments provided by the SJRWMD on the draft report will be addressed in a manner mutually agreed upon by the SJRWMD and the CONSULTANT. The SJRWMD will be responsible for compiling comments the PARTICIPANTS into a single document. Upon final approval, the CONSULTANT shall submit ten (10) hard copies of the final report, ten (10) CDs containing the final report in pdf format, and all digital document files (Microsoft OFFICE PRO format) on a CD.

Part II, Task 6 Meetings and Coordination

Part II, Subtask 6.1 Meetings and Coordination - The CONSULTANT will attend a maximum of ten (10) monthly meetings with the SJRWMD to discuss the status and/or problems during this work authorization. The SJRWMD will be responsible for meeting coordination with the PARTICIPANTS. The CONSULTANT will provide summary meeting minutes for the SJRWMD's review

Part II, Task 7 Additional Model Runs

Part II, Subtask 7.1 Additional Model Runs – At the request of the SJRWMD, the CONSULTANT will develop a cost estimate for simulating additional design storm events based upon an agreed set of design standards (i.e., rainfall distribution, volume, duration). Once the CONSULTANT received written approval from the SJRWMD, the CONSULTANT will simulate the additional design storm events. The results will be tabulated by the CONSULTANT and presented in a brief technical memorandum that will be included as an appendix to the Part II Report.

PART II DELIVERABLES

1. The CONSULTANT shall prepare floodplain maps for the existing condition stormwater model for the primary stormwater management system for the 100-year storm event using ArcMap® Version 9.0.
2. The CONSULTANT shall prepare and submit ten (10) hard copies of the Draft and Final Report.
3. The CONSULTANT shall submit ten (10) CDs each containing a copy of Final Report in digital format.
4. The CONSULTANT shall submit ten (10) CDs each containing a copy of the ICPR modeling input and output data in digital format.

PART III: ALTERNATIVE ANALYSIS OF PROBLEM AREAS

Upon completion of Part II and written authorization by the SJRWMD, the CONSULTANT will develop and negotiate a revised scope and budget to complete Part III of this project based upon the findings of Part II. Upon written approval by the SJRWMD, the CONSULTANT shall commence with Part III.

Part III, Task 1 Alternatives

Part III, Subtask 1.1 Alternatives Evaluation - The CONSULTANT will develop up to three (3) basin-wide alternative stormwater management plans for the problems identified under Part II. Alternatives will be directed toward solving serious flooding problems that also aid/relieve some nuisance problems in order to meet the assigned LOS. Solving serious problems for the purpose of this scope means reducing the flooding to achieve the appropriate LOS criteria and will use non-structural and structural improvements. If total maximum daily loads (TMDLs) are established or estimated by the Florida Department of Environmental Protection (FDEP) prior to this task being initiated, then alternative improvements may also be directed towards pollutant load reduction goals (PLRG) established through the TMDL program. Alternative solutions will be based upon future land use conditions to plan for ultimate facility needs within the basin. The alternative analysis will also consider the findings of the wetlands analysis completed under Part I, Task 3. Alternatives will be shown in plan view on the project base map showing the general location of the proposed improvement. Conceptual information on alternative improvement dimensions, elevations, and costs will be summarized in the Alternatives Section of the Report using tables to the extent practicable.

For each alternative, the CONSULTANT will simulate the mean annual, 10-, 25-, 50-, and 100-year/24-hour design storm events using the ICPR[®] for Windows Version 3.02 model of the Howell Creek Basin under future (build out) land use and proposed hydraulic conditions (alternative) and normal antecedent moisture conditions. The CONSULTANT will simulate these five storm events using the SCS Type II (Florida Modified) and Orange County rainfall distributions unless directed otherwise by the SJRWMD. The CONSULTANT will tabulate the resulting peak stages and peak flows for the modeled system. These results will be tabulated. A total of 10 design storm events are included in this task.

Part III, Subtask 1.2 Alternatives Ranking - Based upon the findings of Part III, Subtask 1.1, the CONSULTANT shall review the recommended improvements with the SJRWMD and document comments regarding permissibility of the recommended solutions. The CONSULTANT will prepare a prioritized and phased improvement list using a ranking matrix mutually agreed to by the SJRWMD and the PARTICIPANTS. The alternative ranking matrix will include the following considerations: a. Estimated costs (including land acquisition and capital cost); b. Potential wetland impacts; c. Expected relative water quality benefits (surface and ground water); d. Implementation considerations (practicality); e. Social acceptability; f. Operation and maintenance requirements; g. Permitting feasibility; and, h. Anticipated flood benefits (e.g., reductions in flood stages). The ranking matrix will be used to recommend a final basin plan.

Part III, Subtask 1.3 Vegetation Management Plan Review – Based upon the information garnered for the Howell Creek Basin, the CONSULTANT will provide recommendations on an overall vegetation management plan and identify areas where additional information may be needed. This may include information on potential funding sources, public access and use.

Part III, Task 2 Meetings

Part III, Subtask 2.1 Public Meetings - The CONSULTANT will conduct two (2) public meetings to obtain input from the attending public on the recommended WMP. The CONSULTANT will prepare the SJRWMD approved handout material for the meetings. The SJRWMD will be responsible for the scheduling and advertising of each meeting. The CONSULTANT will provide the SJRWMD written summary minutes of the meetings.

Part III, Task 3 Reporting

Part III, Subtask 3.1 Draft and Final Reports - The CONSULTANT will prepare and submit ten (10) Draft Final Report that will include the results of Part I, Part II, and Part III. Written comments provided by the SJRWMD will be addressed in a manner mutually agreed upon by the SJRWMD and the CONSULTANT. The SJRWMD will be responsible for compiling comments from the PARTICIPANTS. Upon approval of the Draft report by the SJRWMD, the CONSULTANT shall submit ten (10) copies of the Final Report, which must include one (1) photo reproducible original, ten (10) CDs containing the Final Report in pdf format and all digital document files (MS OFFICE PRO format, etc.) on a CD.

Part III, Subtask 3.2 Public Information Pamphlet - The CONSULTANT will condense the information in the Final Report including the purpose, conclusions, and recommendations into a brief public information pamphlet. The CONSULTANT shall furnish thirty (30) copies of the pamphlet to the SJRWMD and digital document files (MS OFFICE PRO format, etc.) on a CD.

Part III, Task 4 Mapping

Part III, Subtask 4.1 Final Base Maps - The CONSULTANT will use the Part II mapping of the basin to prepare Part III mapping of the basin. These revised maps will reflect existing and proposed conditions (i.e. SJRWMD endorsed WMP). The CONSULTANT will provide the SJRWMD with three (3) sets of project maps in both digital and hardcopy format for distribution to Orange County and Seminole County. Hardcopy maps will be at a scale that can fit onto a maximum of five (5) 24-inch by 36-inch drawings.

Part III, Task 5 Coordination

Part III, Subtask 5.1 Meetings and Coordination - The CONSULTANT will attend up to six (6) monthly meetings with the SJRWMD to discuss the status and/or problems during this work authorization. The CONSULTANT will provide summary meeting minutes for the SJRWMD's review.

Part III, Subtask 6.1 Additional Model Runs – At the request of the SJRWMD, the CONSULTANT will develop a cost estimate for simulating additional design storm events based upon an agreed set of design standards (i.e., rainfall distribution, volume, duration). Once the CONSULTANT received written approval from the SJRWMD, the CONSULTANT will simulate the additional design storm events. The results will be tabulated by the CONSULTANT and presented in a brief technical memorandum that will be included as an appendix to the Part III Report.

PART III - DELIVERABLES

1. The CONSULTANT will prepare and submit ten (10) hard copies of the Draft Report.
2. The CONSULTANT will submit ten (10) hard copies of the Final Report that must include one (1) photo reproducible original.
3. The CONSULTANT will submit ten (10) CDs containing the Final Report in pdf format.
4. The CONSULTANT will submit the FINAL mapping of the basin. The FINAL maps will consist of one (1) set for existing conditions and one (1) set for proposed conditions (i.e. SJRWMD endorsed WMP).
5. The CONSULTANT will furnish thirty (30) copies of the pamphlet to the SJRWMD and digital document files (MS OFFICE PRO format, etc.) on a CD.
6. The CONSULTANT will submit the ICPR computer input and output data (hard copy and digital files) on a CD.

The estimated fees for completion of the Little Wekiva Basin WMP are presented in Table 1. It should be noted that the required services and associated fees for Part II and III will be negotiated based upon the findings of Part I as directed by the SJRWMD.

Table 1
St. Johns River Water Management District
Howell Creek Basin Watershed Management Plan
Cost Buildup
December 2005

Task No.	Description	Subtask No.	Description	Officer & Tech. Rev.	Principal/ Prj. Mgr.	Sr. Prof.	Prof. II Prj. Eng.	Prof. I Eng.	Sr. Supp. GIS Specialist	Staff Supp. Tech. Drafter	Financial & Clerical	Activity Total	Total Labor
				\$187 Hrs	\$164 Hrs	\$105 Hrs	\$85 Hrs	\$74 Hrs	\$95 Hrs	\$75 Hrs	\$56 Hrs	Hrs	\$
Part 1 - Inventory & Problem Identification													
1	Data Collection & Evaluation	1.1	Data Collection	2	4	16	24	120	16	0	8	190	\$ 15,598
2	System Inventory & Mapping	2.1	Base Maps	0	0	4	4	16	16	0	2	42	\$ 3,576
		2.2	Problem Identification	0	2	18	18	0	4	0	4	46	\$ 4,352
		2.3	Model Schematic	0	2	8	12	18	0	0	0	40	\$ 3,520
		2.4	System Inventory	2	2	6	0	40	0	16	4	70	\$ 5,716
		2.5	Field Reconnaissance	0	2	8	24	32	0	0	4	70	\$ 5,800
		2.6	Survey Plan	0	2	4	8	0	0	0	2	16	\$ 1,540
		2.7	Structure Mapping	0	0	8	0	12	4	50	0	74	\$ 5,858
3	Wetlands Inventory	3.1	Screening	0	4	16	40	0	12	0	4	76	\$ 7,100
		3.2	Function Matrix	2	4	6	26	0	0	0	4	42	\$ 4,094
		3.3	Habitat Assessment	0	4	4	20	0	8	0	8	44	\$ 3,984
4	Water Quality	4.1	Data Review	2	4	10	16	40	8	0	12	92	\$ 7,832
5	Land Use	5.1	Existing Land Use Data	0	0	2	4	24	8	0	4	42	\$ 3,310
		5.2	Future Land Use	0	0	2	4	20	8	0	4	38	\$ 3,014
7	Report Development	6.1	Phase I Report	8	12	24	40	60	4	4	24	176	\$ 15,848
8	Coordination	7.1	Meetings & Coordination	4	8	12	12	0	0	8	16	60	\$ 5,836
			Part 1 Subtotal	20	50	148	252	382	88	78	100	1118	\$ 96,978
Part 2 - Engineering Analysis													
1	Hydrologic/Hydraulic Models	1.1	Subbasin Delineation	0	2	8	16	40	0	20	4	90	\$ 7,212
		1.2	Soils Data	0	0	2	0	8	4	0	2	16	\$ 1,294
		1.3	Hydrologic Parameters	2	8	16	24	40	0	16	6	112	\$ 9,902
		1.4	Hydraulic Model	4	12	24	40	80	8	8	8	184	\$ 16,364
		2.1	LOS	0	0	8	12	24	0	0	8	52	\$ 4,084
		2.2	Design Storms	0	4	12	16	32	0	0	16	80	\$ 6,540
3	Floodplain Mapping	3.1	Floodplain Maps	0	2	12	24	40	4	24	0	106	\$ 8,768
4	Future Conditions Model	4.1	Design Storms	0	4	12	12	24	0	0	16	68	\$ 5,608
5	Report Development	5.1	Report	8	12	40	80	60	40	16	40	296	\$ 26,144
6	Coordination	6.1	Meetings & Coordination	8	12	16	20	0	0	16	24	96	\$ 9,388
7	Additional Modelling ¹	7.1	Additional Modelling	0	0	0	0	0	0	0	0	0	\$ -
			Part 2 Subtotal	22	56	150	244	348	56	100	124	1100	\$ 95,304
Part 3 - Alternatives Analysis													
1	Alternatives	1.1	Evaluation	12	32	80	160	200	32	16	12	544	\$ 49,204
		1.2	Ranking	0	8	12	0	16	0	8	8	52	\$ 4,804
		1.3	Vegetation Plan Review	0	8	24	0	32	0	8	16	88	\$ 7,696
2	Meetings	2.1	Public Meetings	4	6	8	8	0	8	4	8	46	\$ 4,760
3	Reporting	3.1	Draft & Final Reports	12	24	50	60	80	16	24	40	306	\$ 28,010
		3.2	Public Pamphlet	0	2	4	8	0	0	6	4	24	\$ 2,102
4	Final Mapping	4.1	Final Base Maps	0	4	16	8	24	24	0	2	78	\$ 7,184
5	Coordination	5.1	Meetings & Coordination	4	4	18	16	0	0	12	8	62	\$ 6,002
6	Additional Modelling ¹	6.1	Additional Modelling	0	0	0	0	0	0	0	0	0	\$ -
			Part 3 Subtotal	32	88	212	260	352	80	78	98	1200	\$ 109,762

¹This task is reserved for future modeling requests by SJRWMD and PARTICIPANTS.

Total Project Cost Summary	
Part 1	
Labor	\$ 96,978
ODC	\$ 5,658
OP - Survey	\$ 45,000
Subtotal	\$ 147,636
Part 2	
Labor	\$ 95,304
ODC	\$ 4,510
OP	\$ -
Subtotal	\$ 99,814
Part 3	
Labor	\$ 109,762
ODC	\$ 3,725
OP	\$ -
Subtotal	\$ 113,487
Total Project Cost	\$ 360,937