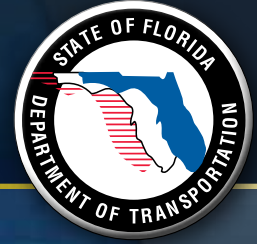


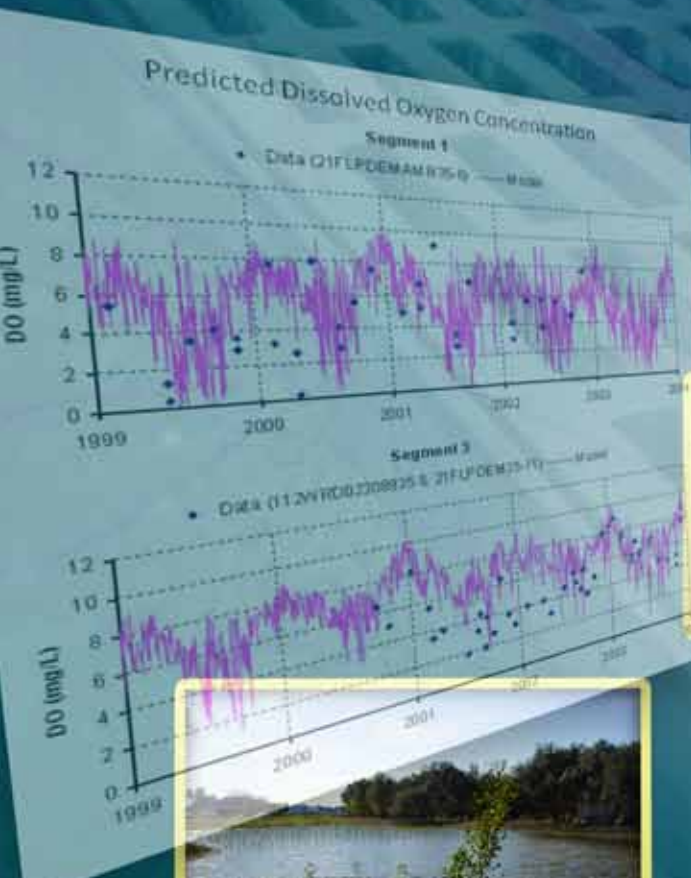
# District Wide Drainage Design Services

FPN: 198356 1 32 10

Submitted to:



December 7, 2009



Submitted by:



Contact Person: Timothy (Tim) Polk, PE  
600 North Broadway Avenue Suite 310  
Bartow, Florida 33830  
Tel: 863.533.7000 Fax: 863.533.7888  
e-mail: tpolk@pbsj.com

10159-DW-09





An employee-owned company

December 7, 2009

Mrs. Elizabeth Leopold  
District Procurement Office, MS 1-67  
801 N. Broadway Avenue  
Bartow, Florida 33830

Re: District Wide Drainage Contract (FPN 198356 1 32 10)

Dear Mrs. Leopold:

The Florida Department of Transportation (FDOT) District One's District Wide Drainage contract requires a strong consultant that is able to act as an extension of District staff. PBS&J has been privileged to serve as FDOT District One's District Wide Drainage consultant for the past 14 years.

Our team understands that the new contract includes additional scope items in a rapidly changing permitting environment. In order to meet these new challenges and to continue providing FDOT the level of quality and service in the manner to which the District is accustomed, PBS&J is proposing a team consisting of many of the same experienced drainage experts as well as additional staff with expertise in environmental sciences, water resources, water quality monitoring, and total maximum daily load (TMDL) and basin management action plans (BMAP). Our team also includes quality subconsultants including five certified disadvantage business enterprises—exceeding the District's contract goals.

PBS&J's proven drainage capabilities and extensive knowledge of FDOT District One policies and procedures, in combination with established leaders in the TMDL/BMAP/water quality arena, will be coordinated by our proposed project manager, Timothy (Tim) Polk, PE. Mr. Polk has served as the District Wide Drainage contract's project manager for the past five years and has provided oversight on multiple projects assigned under this contract. This experience affords him a keen understanding of the District's needs, and he will facilitate a timely and cost-effective response to those needs.

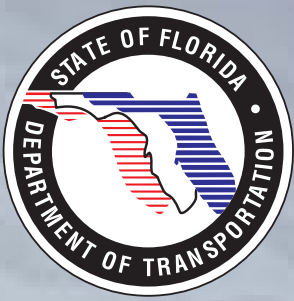
PBS&J appreciates the confidence the District has shown in our organization by allowing us to provide consultant services on previous District Wide Drainage contracts, and welcomes the opportunity to continue to assist FDOT with drainage and environmental support. PBS&J is focused on the future, and consistently strives to improve its solid record of quality, timely products, client service, and development of unique concepts to meet future transportation challenges. Should additional information be needed, please feel free to contact Mr. Polk at 863.533.7000 (tpolk@pbsj.com), or our proposed principal-in-charge, Mark Micikas, PE, at 813.281.8220 (mdmicikas@pbsj.com).

Sincerely,

Ben W. Doan, PE  
Vice President/Division Manager

Shayne Paynter, Ph.D., PE  
Drainage Manager

0010/008651/1209



# Table of Contents

District Wide Drainage Design Services

FPN 198356 1 32 10

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## Sections

## Title

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- ▶ *Certification Regarding Debarment*
- ▶ *Certification for Disclosure of Lobbying Activities*
- ▶ *Truth-in-Negotiations Certificate*
- ▶ *Consultant Certification*
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### DBE Participation Statement

- ▶ *DBE Participation Form (Exhibit G)*
- ▶ *DBE Certification for Subconsultants*

7.5-C

### Staffing Chart

- ▶ *Organizational Chart*
- ▶ *Resumes*

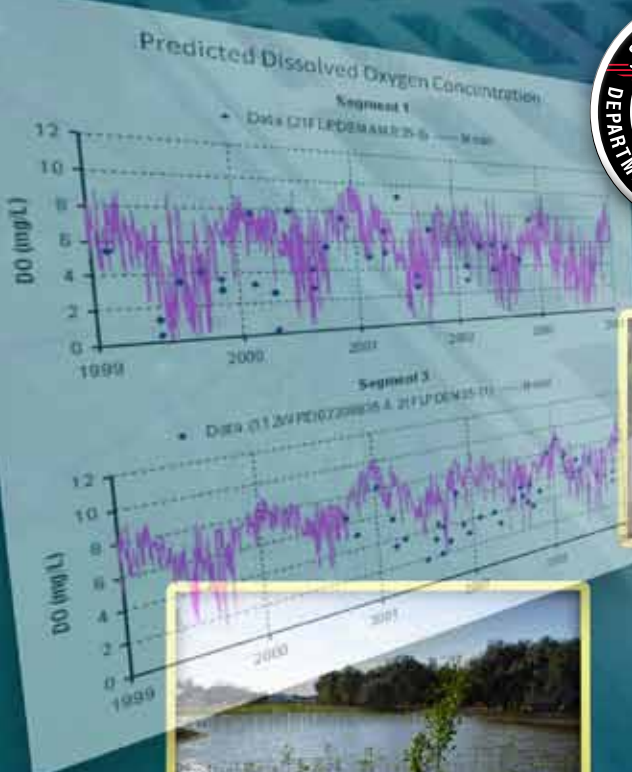
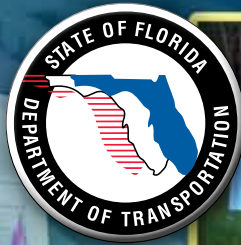
7.5-D

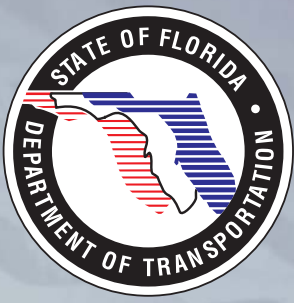
### Proposed Schedule of Events

- ▶ *Project Schedule*

# District Wide Drainage Design Services

FPN: 198356 1 32 10





# Consultant Affidavits

*Based on our past experience with similar projects and our outstanding staff expertise, we are confident in our team's ability to provide quality services to FDOT District One.*

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**A**s requested in the Florida Department of Transportation District One's request for technical proposals, we are submitting the following executed consultant affidavits in this section.

- ▶ Consultant Affidavit
- ▶ Certification Regarding Debarment
- ▶ Certification for Disclosure of Lobbying Activities
- ▶ Truth-in-Negotiations Certification
- ▶ Consultant Certification

CONSULTANT AFFIDAVIT

STATE OF \_\_\_\_\_  
COUNTY OF Hillsborough

Before me, the undersigned authority, personally appeared (Date) November 25, 2009  
who was sworn and says:

Post, Buckley, Schuh &

1. He is (Title) Vice President/Division Manager of (Firm) Jernigan, Inc. (d/b/a PBS&J) with office in (City and State) Tampa, Florida

2. The named firm is submitting the attached proposal for:  
Description: District Wide Drainage Design Services

Financial Project I.D.(s) 198356 1 32 10 F.A.P. No(s) N/A

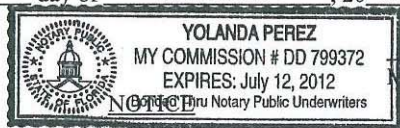
in District Wide County(ies), Florida.

- 3. The affiant has made diligent inquiry and answers this affidavit based upon his own knowledge.
- 4. Only one proposal for the above-referenced project will be submitted, under the same or different name, and the proposer has no financial interest in the firm or another proposer for the same work.
- 5. Neither the affiant or the firm has directly or indirectly entered in any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive pricing in connection with the firm's proposal on the above project. This statement shall restrict the discussion of pricing data until the completion of the execution of the Consultant Agreement for this project.
- 6. Neither the firm nor its affiliates, nor any one associated with them is presently debarred, suspended or otherwise ineligible from participating in contract lettings by any state agency in any state or the F.H.W.A.
- 7. Neither the firm, nor any officer, director, employee of the firm or any of its affiliates has been criminally or civilly charged with antitrust violations, or had convictions or judgments resulting from such charges. There have been no charges or subsequent convictions of any criminal act under state or federal law which involved fraud, bribery, conspiracy, public contract, except for matters previously disclosed to the Department and filed in Case No. (s) \_\_\_\_\_ with the Clerk of Agency Proceedings, (If inapplicable, enter N/A).
- 8. This affidavit includes disclosure of employees who were charged or convicted of contract crimes while in the employ of another company.

*Mark D. Micikas*

Affiant  
Mark D. Micikas, PE  
Vice President/Division Manager

Sworn to and subscribed before me this 25th day of November, 20 09.



*[Signature]*  
Notary  
My Commission Expires: July 12, 2012

Any evidence of collusion among participating proposers will preclude their recognition as proposers on such job and subjects them to penalties and restraints under applicable State and Federal Law.

**PROPOSERS ON ALL DEPARTMENT PROJECTS MUST SIGN AND ATTACH THIS AFFIDAVIT TO EACH PROPOSAL**

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY  
AND VOLUNTARY EXCLUSION FOR FEDERAL AID CONTRACTS**

(Compliance with 49CFR, Section 29.510)

(Appendix B Certification)

It is certified that neither the below identified firm nor its principals are presently suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

Name of Consultant: Post, Buckley, Schuh & Jernigan, Inc. (d/b/a PBS&J)

By: Mark D. Micikas Date: November 25, 2009  
Authorized Signature

Title: Mark D. Micikas, PE, Vice President/Division Manager

Instructions for Certification

1. By signing and submitting this certification with the proposal, the prospective lower tier participant is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the Department may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted. If at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms 'covered transaction', 'debarred', 'suspended', 'ineligible', 'lower tier covered transaction', 'participant', 'person', 'primary covered transaction', 'principal', 'proposal', and 'voluntarily excluded', as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the person to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the Department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Appendix B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction", without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant are not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the Department may pursue available remedies, including suspension and/or debarment.

**CERTIFICATION FOR DISCLOSURE OF LOBBYING ACTIVITIES  
ON FEDERAL-AID CONTRACTS  
(Compliance with 49CFR, Section 20.100 (b))**

The prospective participant certifies, by signing this certification, that to the best of his or her knowledge and belief:

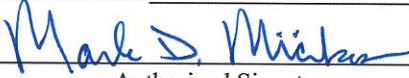
(1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer of employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities", in accordance with its instructions. (Standard Form-LLL can be obtained from the Florida Department of Transportation's Professional Services Administrator or Procurement Office.)

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

Name of Consultant: Post, Buckley, Schuh & Jernigan., Inc. (d/b/a PBS&J)

By:  Date: November 25, 2009  
Authorized Signature

**Title:** Mark D. Micikas, PE, Vice President/Division Manager



### TRUTH-IN-NEGOTIATION CERTIFICATION

For any lump-sum or cost-plus-a-fixed-fee professional service agreement over \$60,000 the Florida Department of Transportation (Department) requires the Consultant to execute this certificate and include it with the submittal of the Technical Proposal.

The Consultant hereby certifies, covenants and warrants that wage rates and other factual unit costs supporting the compensation for this project's agreement will be accurate, complete, and current at the time of contracting.

The Consultant further agrees that the original agreement price and any additions thereto shall be adjusted to exclude any significant sums by which the Department determines the agreement price was increased due to inaccurate, incomplete, or non-current wage rates and other factual unit costs. All such agreement adjustments shall be made within one (1) year following the end of the agreement. For purpose of this certificate, the end of the agreement shall be deemed to be the date of final billing or acceptance of the work by the Department, whichever is later.

Post, Buckley, Schuh & Jernigan, Inc. (d/b/d PBS&J)

Name of Consultant

By: Mark D. Micikas  
Authorized Signature

November 25, 2009

Date

Mark D. Micikas, PE  
Vice President/Division Manager

**CONSULTANT CERTIFICATION**

**(For Consultants Utilized for the Preparation of Environmental Documents)**

Project: District Wide Drainage Design Services (FPN 198356 1 32 10)

Consultant: Post, Buckley Schuh & Jernigan, Inc. (d/b/a PBS&J)

I hereby certify that neither this firm nor any of the principals of this firm have any financial or other interest in the outcome of this project.

By:

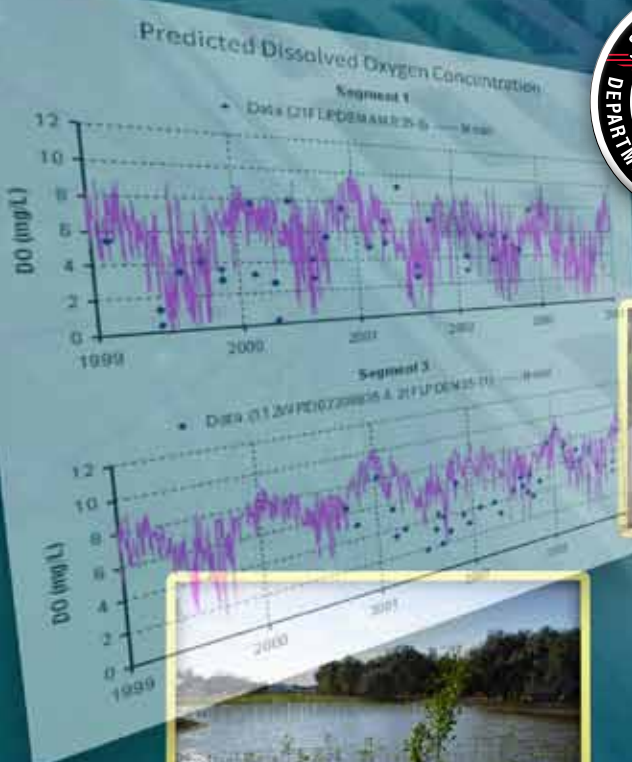
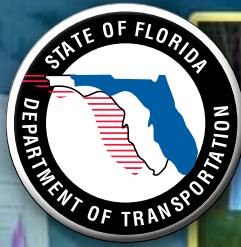
  
\_\_\_\_\_  
Signature

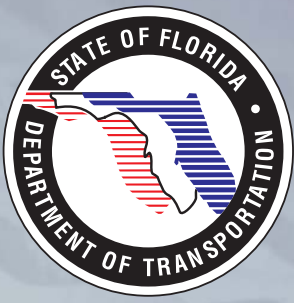
Mark D. Micikas, PE  
\_\_\_\_\_  
Printed Name

Title: Vice President/Division Manager

# District Wide Drainage Design Services

FPN: 198356 1 32 10





# DBE Participation Statement

*PBS&J is committed to a disadvantaged business enterprise (DBE) program that promotes the development and use of DBE firms on our projects.*

---

**A**s requested in the Florida Department of Transportation District One's request for technical proposals, we are submitting the following executed DBE Participation Statement in this section.

**DBE PARTICIPATION STATEMENT**

**Note:** The Consultant is required to complete the following information and submit this form with the technical proposal.

Project Description: District Wide Drainage Design Services (FPN 198356 1 32 10)

Consultant Name: Post, Buckley, Schuh & Jernigan, Inc. (d/b/a PBS&J)

This consultant (is ) (is not ) a Department of Transportation certified Disadvantaged Business Enterprise (DBE).

Expected percentage of contract fees to be subcontracted to DBE(s): 15 %

If the intention is to subcontract a portion of the contract fees to DBE(s), the proposed DBE sub-consultants are as follows:

DBE Sub-Consultant	Type of Work/Commodity
<u>Analytic Engineering, Inc.</u>	<u>Drainage Support</u>
<u>The Balmoral Group, LLC</u>	<u>Environmental Permitting Support</u>
<u>Echezabal &amp; Associates, Inc.</u>	<u>Surveying Services</u>
<u>Tierra, Inc.</u>	<u>Geotechnical Services</u>
<u>Quest Ecology, Inc.</u>	<u>Environmental Permitting Support</u>
<u> </u>	<u> </u>

By: Mark D. Micikas

Title: Mark D. Micikas, PE, Vice President/Division Manager

Date: November 25, 2009

## **BizNet Profile: ANALYTIC ENGINEERING INCORPORATED**

<b>Name:</b> ANALYTIC ENGINEERING INCORPORATED
<b>Business Description:</b> CIVIL ENGINEERING SERVICES
<b>Street:</b> 1465 TAMPA PARK PLAZA
<b>City:</b> TAMPA <b>State:</b> FL <b>Zip:</b> 33605
<b>County:</b> HILLSBOROUGH <b>District:</b> DISTRICT SEVEN
<b>Phone:</b> (813) 841-6548 <b>Fax:</b>
<b>E-mail:</b> <a href="mailto:ASTEWART1906@VERIZON.NET">ASTEWART1906@VERIZON.NET</a>
<b>Work Location:</b>
<b>County:</b>
<b>District:</b>
<b>Contact:</b> ALPHONSE J STEWART
<b>UCP Cert. DBE State Cert.:</b> MBE <b>UCP Certifying Member:</b> FDOT
<b>First SC: First NAICS:</b>
<b>2nd SC: 3rd SC: 4th SC: 5th SC: 6th SC: 7th SC: 8th SC: 9th SC: 10th SC:</b>
<b>2nd NAICS: 3rd NAICS: 4th NAICS: 5th NAICS: 6th NAICS: 7th NAICS: 8th NAICS: 9th NAICS: 10th NAICS:</b>

**NOTE:**

OBE stands for Other Business Enterprise indicating that the firm is not certified.

**[Florida Department of Transportation 2008.](#)**

## **BizNet Profile: BALMORAL GROUP LLC (THE)**

<b>Name:</b> BALMORAL GROUP LLC (THE)
<b>Business Description:</b> CIVIL ENGINEERING ECONOMIC AND GIS ANALYSIS
<b>Street:</b> 341 NORTH MAITLAND AVENUE STE 100
<b>City:</b> MAITLAND <b>State:</b> FL <b>Zip:</b> 32751
<b>County:</b> ORANGE <b>District:</b> DISTRICT FIVE
<b>Phone:</b> (407) 629-2185 <b>Fax:</b> (407) 629-2183
<b>E-mail:</b> <a href="mailto:vseidel@balmoralgroup.us">vseidel@balmoralgroup.us</a>
<b>Work Location:</b>
<b>County:</b>
<b>District:</b> DIST/ST WIDE
<b>Contact:</b> VALERIE SEIDEL
<b>UCP Cert. DBE</b> <b>State Cert.:</b> OBE <b>UCP Certifying Member:</b> FDOT
<b>First SC:</b> 941 <b>First NAICS:</b> 54133
<b>2nd SC:</b> 947 <b>3rd SC:</b> 950 <b>4th SC:</b> 963 <b>5th SC:</b> 300 <b>6th SC:</b> 7th SC: 8th SC: 9th SC: 10th SC:
<b>2nd NAICS:</b> 3rd NAICS: 4th NAICS: 5th NAICS: 6th NAICS: 7th NAICS: 8th NAICS: 9th NAICS: 10th NAICS:

**NOTE:**

OBE stands for Other Business Enterprise indicating that the firm is not certified.

**[Florida Department of Transportation 2008.](#)**

## **BizNet Profile: ECHEZABAL & ASSOCIATES INC**

<b>Name:</b> ECHEZABAL & ASSOCIATES INC
<b>Business Description:</b> SURVEYING & MAPPING
<b>Street:</b> 108 COUNTRY CLUB DRIVE
<b>City:</b> TAMPA <b>State:</b> FL <b>Zip:</b> 33612
<b>County:</b> HILLSBOROUGH <b>District:</b> DISTRICT SEVEN
<b>Phone:</b> (813) 933-2505 <b>Fax:</b> (813) 933-2721
<b>E-mail:</b> <a href="mailto:ewackerman@echezabal.com">ewackerman@echezabal.com</a>
<b>Work Location:</b>
<b>County:</b> CHARLOTTE COLLIER DE SOTO GLADES HARDEE HENDRY HIGHLANDS LEE MANATEE OKEECHOBEE POLK SARASOTA ALACHUA BAKER BRADFORD CLAY COLUMBIA DIXIE DUVAL GILCHRIST HAMILTON LAFAYETTE LEVY MADISON NASSAU PUTNAM ST. JOHNS SUWANNEE TAYLOR UNION BREVARD FLAGLER LAKE MARION ORANGE OSCEOLA SEMINOLE SUMTER VOLUSIA CITRUS HERNANDO HILLSBOROUGH PASCO PINELLAS BROWARD INDIAN RIVER MARTIN PALM BEACH ST. LUCIE
<b>District:</b> DISTRICT ONE DISTRICT TWO DISTRICT FIVE DISTRICT SEVEN DISTRICT FOUR
<b>Contact:</b> EDWARD W. WACKERMAN
<b>UCP Cert. DBE</b> <b>State Cert.:</b> MBE <b>UCP Certifying Member:</b> FDOT
<b>First SC:</b> 946 <b>First NAICS:</b> 54133
<b>2nd SC:</b> <b>3rd SC:</b> <b>4th SC:</b> <b>5th SC:</b> <b>6th SC:</b> <b>7th SC:</b> <b>8th SC:</b> <b>9th SC:</b> <b>10th SC:</b>
<b>2nd NAICS:</b> <b>3rd NAICS:</b> <b>4th NAICS:</b> <b>5th NAICS:</b> <b>6th NAICS:</b> <b>7th NAICS:</b> <b>8th NAICS:</b> <b>9th NAICS:</b> <b>10th NAICS:</b>

**NOTE:**

OBE stands for Other Business Enterprise indicating that the firm is not certified.

**[Florida Department of Transportation 2008.](#)**



## **BizNet Profile: TIERRA INC**

<b>Name:</b> TIERRA INC
<b>Business Description:</b> LABORATORY TESTING SERVICES
<b>Street:</b> 7351 TEMPLE TERRACE HIGHWAY
<b>City:</b> TAMPA <b>State:</b> FL <b>Zip:</b> 33637
<b>County:</b> HILLSBOROUGH <b>District:</b> DISTRICT SEVEN
<b>Phone:</b> (813) 989-1354 <b>Fax:</b> (813) 989-1355
<b>E-mail:</b> <a href="mailto:LMAHIQUEZ@TIERRAENG.COM">LMAHIQUEZ@TIERRAENG.COM</a>
<b>Work Location:</b>
<b>County:</b>
<b>District:</b> DIST/ST WIDE
<b>Contact:</b> LUIS MAHIQUEZ
<b>UCP Cert. DBE State Cert.:</b> MBE <b>UCP Certifying Member:</b> FDOT
<b>First SC:</b> 944 <b>First NAICS:</b> 54138
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**NOTE:**

OBE stands for Other Business Enterprise indicating that the firm is not certified.

**[Florida Department of Transportation 2008.](http://www3.dot.state.fl.us/EqualOpportunityOffice/biznet/profile.asp?BUSNO=631)**

## **BizNet Profile: QUEST ECOLOGY INC**

<b>Name:</b> QUEST ECOLOGY INC
<b>Business Description:</b> Other Management Consulting Services
<b>Street:</b> 735 LAKEVIEW DRIVE
<b>City:</b> WIMAUMA <b>State:</b> FL <b>Zip:</b> 33598
<b>County:</b> HILLSBOROUGH <b>District:</b> DISTRICT SEVEN
<b>Phone:</b> (813) 642-0799 <b>Fax:</b> (813) 642-0380
<b>E-mail:</b> <a href="mailto:Vivienne@questecology.com">Vivienne@questecology.com</a>
<b>Work Location:</b>
<b>County:</b> PINELLAS HILLSBOROUGH PASCO CITRUS HERNANDO
<b>District:</b> DISTRICT SEVEN
<b>Contact:</b> VIVIENNE HANDY
<b>UCP Cert. DBE State Cert.:</b> MBE <b>UCP Certifying Member:</b> FDOT
<b>First SC:</b> 954 <b>First NAICS:</b> 54162
<b>2nd SC:</b> 950 <b>3rd SC:</b> 4th SC: 5th SC: 6th SC: 7th SC: 8th SC: 9th SC: 10th SC:
<b>2nd NAICS:</b> 56291 <b>3rd NAICS:</b> 4th NAICS: 5th NAICS: 6th NAICS: 7th NAICS: 8th NAICS: <b>9th NAICS:</b> 10th NAICS:

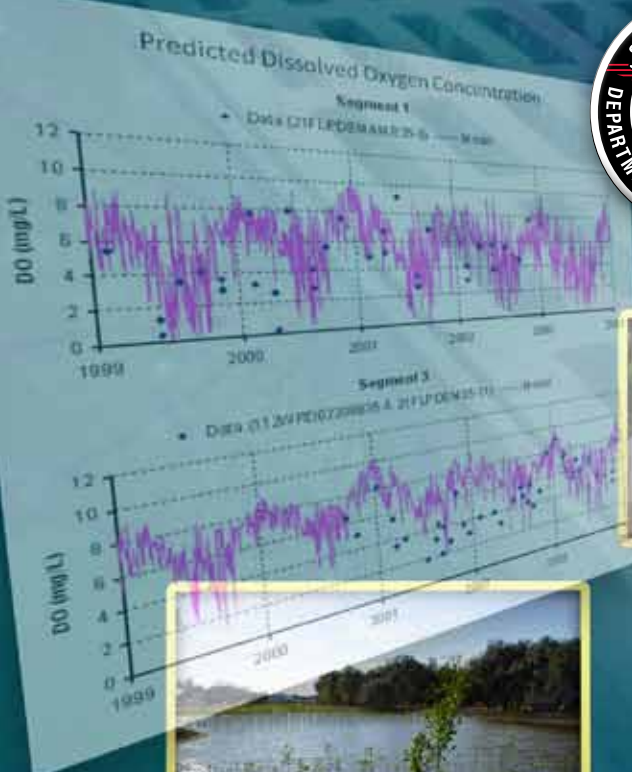
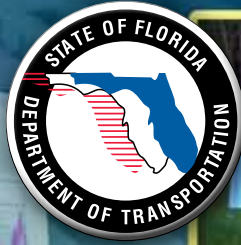
**NOTE:**

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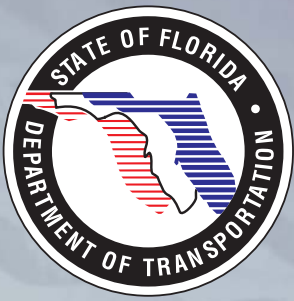
**[Florida Department of Transportation 2008.](#)**

# District Wide Drainage Design Services

FPN: 198356 1 32 10



Section 7.5-C  
Staffing Chart



## Staffing Chart

*PBS&J has built its reputation on understanding our clients' needs and meeting them, and by addressing challenges within requested time and budget constraints.*

**F**or task-order contracts, the ability to provide quality services in a timely and cost-effective manner is contingent upon the experience and expertise of the professionals assigned to each task. PBS&J's professionals are familiar with working on as-needed types of contracts; for the past 14 years, PBS&J has served as the Florida Department of Transportation's (FDOT) District One District Wide Drainage consultant.

Our proposed staff has performed multiple bridge hydraulics reports (BHR) such as at Bee Branch and the Myakka River, multiple drainage design and permitting projects such as at SR 72, total maximum daily load (TMDL) studies, location hydraulic reports (LHR), pond siting reports (PSR), expert witness, value engineering, design reviews, flood investigations, sediment transport studies and staff augmentation under the current contract. In total, our professionals have performed over 60 tasks as part of the District Wide contract.

We are also proposing additional staff in environmental sciences, water resources, and water quality monitoring, as well as TMDL and basin management action plan (BMAP) experts and quality sub-consultants including certified disadvantage business enterprises. PBS&J's proven drainage expertise and extensive knowledge of FDOT District One's policies and procedures, in combination with established leaders in the TMDL/BMAP/water quality arena, are tied together with a local, established project manager that can respond quickly to the District's needs. Brief summaries of our key staff are shown in the following paragraphs. A graphical representation of our complete project team appears on the following page. Resumes for our key team members are shown at the end of this section.

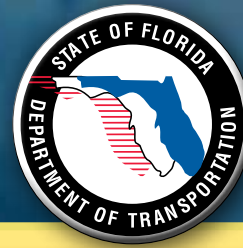
**Timothy (Tim) Polk PE,** PBS&J's proposed project manager, has 28 years of experience including all aspects of transportation drainage. Mr. Polk has extensive experience with BHR and Federal Emergency Management Agency (FEMA) no-rise certifications, and all aspects of drainage design and permitting including TMDL and 14.86 reviews. He has also performed numerous plans reviews. Mr. Polk has managed PBS&J's FDOT District One District Wide contract for the past five years and has worked on numerous task assignments such as Bee Branch BHR, SR 70/SR 31 Drainage Design, US 41 Post-Design services, Value Engineering Study on US 27/SR 80, I-75 Design Support, TMDL and Statewide Stormwater Treatment Rule Study, Crooked Lake Plans, and US 98 South Lakeland Permit. Mr. Polk's past experience, both as District One's drainage engineer and District Wide project manager for PBS&J, provides him with knowledge of FDOT District One's policies and procedures and yields the insight and expertise necessary to continue in his role as project manager for FDOT's District Wide Drainage contract.



**Mark Micikas, PE,** principal-in-charge, serves as a vice president/division manager for PBS&J's west Florida transportation design division. Mr. Micikas has 14 years of experience in roadway design, highway drainage design, and bridge hydraulics. Mr. Micikas has been involved with or managed numerous transportation projects ranging from major arterials



# PBS&J Team Organizational Chart



**Karina Della Sera**  
FDOT Drainage Manager



**Tim Polk, PE**  
Project Manager



**Mark Micikas, PE**  
Principal-in-Charge



**Shayne Paynter, Ph.D., PE**  
Drainage Manager



**Melisa Reiter, PWS**  
Environmental Manager

**PBS&J Tampa Drainage**

- Bart Rohrer, PE, CFM
- Richard Uptegraff, PE
- Hiren Patel, PE
- Caroline Cation, PE
- Amy Cromwell, EI
- Divya Pasupuleti, EIT
- Thomas Lyle, EI
- Dwayne Allgire
- Jennifer (Erin) Curtis-Boggs, EI
- David "Chip" Price
- Ronelle Drdla

**PBS&J Orlando Drainage**

- Ralph Bingham, PE
- Cynthia Skogsberg, PE
- Richard Wawrzyniak, PE
- Amy Wooley, PE
- Gary Elwer, PE
- Scott Wesson, PE
- Carlos Estrella, EI
- Adam Crouch, EI

**PBS&J Bartow Drainage**

- Larry Gaddy, PE
- Donald Witmer, PE
- Gordon Greene, PE
- Joseph Baan, EI

**PBS&J Specialty Services**

**Coastal Engineering**

- Jeffrey Tabar, PE
- Bryan Flynn, EI
- Todd DeMunda, EIT

**Surveying**

- Patrick McCormack, PSM
- Judith Garcia Ferguson, PSM
- Bret Bienkowski, LSIT
- Daniel Adams

**PBS&J Water Resources**

- L. Moris Cabezas, Ph.D., PE
- Andrea Martinez-Graves, PE, CFM
- George Wise, PE
- Joseph Walter, PE
- Raul Mercado, PE, CFM
- Peter deGolian

**PBS&J TMDL/BMAP**

- Thomas Singleton
- David Tomasko, Ph.D.
- Ralph Montgomery, Ph.D.
- Katherine Anamisis
- Emily Keenan
- Pam Latham, Ph.D., PWS
- Timothy Mann

**PBS&J Water Quality Modeling**

- Robert Woithe, Ph.D, PWS, CSE
- Kristin Jenkins
- Allan Willis
- Jeffery Winter

**PBS&J Environmental Permitting**

- Jim Wilt Jr., PE
- Melisa Reiter, PWS
- Melanie Calvo
- Thomas Davidowicz
- Ed Cronyn
- Amy Krebs, PWS
- Ramon Mendieta

## Subconsultants

**Analytic Engineering, Inc.\***

**Environmental Research and Design**

**Benchmark EnviroAnalytical**

**Tierra, Inc.\***

**Echezabal & Associates, Inc.\***

**The Balmoral Group, LLC.\***

**Geomasters, Inc.**

**Quest Ecology, Inc.\***

**Boylan Environmental Consultants, Inc.**

**George F. Young, Inc.**

\*Disadvantaged Business Enterprise



to interstate highways. He currently serves as the principal-in-charge for several District One contracts including the District Wide Drainage contract, and has extensive knowledge of on-call services contracts having supported the Department on district wide and general engineering consultant (GEC) contracts for his entire career with PBS&J. This coupled with his extensive District One drainage experience makes him a uniquely qualified principal-in-charge as well as a technical advisory resource.

**Shayne Paynter, Ph.D., PE,** drainage manager, has 12 years of diverse experience in roadway and drainage engineering. He has performed multiple projects for District One including flood investigations; preparation of a TMDL report that explored the potential impacts of a statewide rule change on FDOT pond sites; and drainage and permitting of SR 72, I-75 over Caloosahatchee River, and I-75 at Corkscrew Road transportation projects. Dr. Paynter has substantial experience in modeling, designing, and permitting transportation and bridge projects including bridge hydraulics and scour analysis and 14.86 reviews. As such, he is able to provide the District with innovative and cost-effective designs for any project assigned to PBS&J throughout the life of this contract. Dr. Paynter currently serves as the Tampa drainage group manager in PBS&J's transportation services division. In this capacity, his duties include being responsible for flood investigations, design, and computer modeling of drainage systems for transportation projects including treatment systems, cross drains, and stormdrain systems; permitting; and preparing design hydraulics reports, bridge hydraulic reports, PSRs, LHRs, and flooding studies.



**Melisa Reiter, PWS,** environmental manager, has 20 years of experience in environmental permitting, marine, terrestrial, and vegetative ecology. She and her staff provide support to the roadway, drainage, structures, water resources, water/wastewater, and design disciplines involved with wetland

impacts. She works closely with FDOT Districts One, Four, and Seven, along with local government entities including the City of Tampa and Pinellas, Pasco, Hillsborough, Polk, Lee, and Manatee Counties. Her specialized expertise includes habitat assessment, evaluation, and classification; dredge and fill permitting; marine studies; water quality studies; seagrass mapping; aerial photo-interpretation; land use mapping; ecological assessments; threatened and endangered species studies, and wetland mitigation design and monitoring. She also has extensive experience determining biological indicators of seasonal high-water, normal pool elevations, and wetland jurisdictional delineation. Recent District One permitting experience includes SR 72, Cortez Road (CCCL permitting), El Jobean (SR 776), Dona Bay Bridge, Lake Alfred (US 17-92), Mountain Lake Cutoff Road, US 98 (Polk Parkway), SR 37 and SR 17 Crooked Lake. Ms. Reiter's experience provides her with the expertise and knowledge to manage the permitting efforts required for this contract.



**Ralph Bingham, PE,** drainage engineering, has 34 years of experience that has included stormwater management and treatment systems for roadway and airport development projects, stormwater management master planning, design and permitting for various land development projects throughout Florida, water quality treatment systems for landfills, erosion and sedimentation control, water resources engineering, reclamation/restoration engineering, and environmental studies and permitting. As manager of PBS&J's transportation drainage design program in Orlando, Mr. Bingham coordinates the design and environmental permitting for various activities assigned to the drainage program. He is responsible



for quality control review of drainage design plans and permitting for FDOT Districts One, Three, and Five; Florida's Turnpike Enterprise (FTE); and the Orlando-Orange County Expressway Authority (OOCEA). His FDOT District One experience includes permitting support on multiple projects, including the I-75 rest areas, Bridge Hydraulic Report reviews and drainage and permitting for US 41 at Bonita Beach.

**Larry Gaddy, PE**, drainage engineering, has 47 years of drainage experience. He began work with FDOT's state road department in October 1962, and retired as District One's district design engineer in November 1994. He worked for three years with Hillsborough County where his duties included serving as the director of engineering. Mr. Gaddy's drainage experience includes district drainage engineer for District One as well as the assistant state drainage engineer, and 15 years as consultant senior drainage engineer. His experience includes forensic investigation of flooding issues, value engineering of stormwater management systems, bridge hydraulics and scour, and review and analysis of transportation drainage design plans. He has performed extensive 14.86 reviews and was instrumental in the writing of the original rule. He currently provides staff augmentation for District One.



**Donald (Don) Witmer, PE**, drainage engineering, has over 35 years of transportation-related experience with FDOT District One. Before retiring from FDOT, Mr. Witmer's last position with District One was as district drainage engineer. He has designed urban and rural drainage systems that have included water management district permitting. He has also studied numerous drainage issues and complaints, provided



recommendations to alleviate the problems, and prepared plans for minor drainage projects. Mr. Witmer spent many years administering the drainage connection permit review process for the local FDOT maintenance yard in Bartow, and as district drainage engineer was responsible for the entire 14.86 drainage connection review process for District One.

**Jeff Tabar, PE**, coastal engineering, is a project director with PBS&J's coastal engineering division. He has 16 years of experience in engineering, project management, structural design, hydrodynamics, sediment transport, nearshore processes, coastal engineering, and related fields. He has completed projects for FDOT District One including a two-dimensional hydrodynamic model for I-75 over Caloosahatchee River, and a sediment transport model for the District Wide Drainage contract. Other relevant experience includes development of a hydrodynamic and navigational hazard investigation completed as part of the Sanibel Causeway Improvements Study.



**L. Moris Cabezas Ph.D., PE, BCEE, CFM**, watershed modeling, has 30 years of professional experience in water resources management including development of watershed management plans for water quality, flood control, and water supply throughout Florida. Projects have generally included development of computerized hydrologic, hydraulic, and water quality models. Also, he is an active participant in the TMDL program implementation, and has provided support to several local governments during the impairment determination, TMDL development, and BMAP phases of the program. Currently he manages Florida water resources operations in Tampa. Dr. Cabezas' relevant TMDL experience includes work on TMDL support contracts



with Seminole, Orange, and Miami-Dade Counties, preparation of a TMDL report for Wagner Creek, Miami-Dade County, TMDL water quality model for Joe's Creek, Pinellas County, and development of a comprehensive watershed management plan for the 320-square-mile Peace Creek watershed for the Southwest Florida Water Management District (SWFWMD).

**Thomas Singleton**, TMDL/BMAP, is project director for TMDL and watershed services. He has more than 30 years of experience in land and water resource management in both the private and public sectors, with an emphasis on water quality. His experience includes the management, administration, and fiscal oversight of large, complex, long-term projects in the public and private sectors; program development and implementation; data and information management; and oral, written, and graphic presentations. For 12 years he directed a large team of professionals at Florida Department of Environmental Protection (FDEP) responsible for developing the state's strategic approach to implementing the TMDL Program in Florida. Mr. Singleton directed the development, editing, and production of all reports produced by the TMDL Program, including the state's water quality report to Congress; water quality assessment, TMDL, BMAP, and water quality monitoring reports; and best management practice manuals. Specific TMDL project experience includes the Peace Creek Watershed Sustainable Water Resources Management Plan.



**David Tomasko Ph.D.**, TMDL/BMAP, serves as a senior environmental scientist and group manager of the watershed sciences and assessment program in PBS&J's east sciences division. He has an extensive 28-year ecological sciences



background involving marine and freshwater ecology, wetland habitat evaluation and delineation, restoration design, development of estuary and lake management plans, environmental monitoring design, and water quality analysis and modeling. He has also been published widely and has made numerous presentations in his technical fields. Dr. Tomasko's duties at PBS&J include project management and administration services for ecological/environmental projects. Specific project experience includes water quality reports prepared for District One for unattenuated discharges to the Caloosahatchee River, Algal Bloom Dynamics in the Florida Keys, Lake Surprise Causeway Removal water quality studies for District Six, BMAP report for the Winter Haven Chain of Lakes, as well as for Wekiva River and Rock Springs Run, and Wagner Creek TMDL report.

**Ralph Montgomery, Ph.D.**,

TMDL/BMAP, is a senior technical professional in PBS&J's watershed science and assessment division in the firm's Tampa office. He has 31 years of professional experience working with numerous government agencies, on projects including the Peace River Cumulative Impact Study, Tampa Bypass Canal and Alafia River Hydrobiological Monitoring Program (WUP), and Source Water Feasibility Study for Cow Pen Slough/Dona Bay. Dr. Montgomery's environmental consulting projects regarding watershed studies include assessing seasonal and long-term changes in the water quality of riverine and freshwater systems; development of comprehensive, statistically sound monitoring designs to assess potential change in both freshwater and terrestrial environments; and development of methodologies to reduce statistical analysis, and effectively present the findings of environmental studies. Much of his work has been associated with evaluating long-term patterns in rainfalls and resulting stream flows, with regard to assessing both localized and downstream potential impacts associated with consumptive withdrawals for public supplies,





as well as assessing proposed TMDLs and proposing cost-effective responses during the development of associated BMAP documents. Dr. Montgomery has also served as project manager on several recent projects that evaluated the interactions between existing and potential future regulatory actions, and watershed land uses and resources. Examples of such studies include the Peace River Cumulative Impact Study conducted with FDEP/SWFWMD, as well as the Investigation of Resources, Threats, and Future Protection Needs of the Matanzas River Watershed, recently completed for St. John's River Water Management District (SJRWMD).

**Robert Woithe, Ph.D.,**

water quality modeling, serves as a systems ecologist and estuarine and wetland scientist. His expertise encompasses estuaries, wetlands, corals, and seagrasses. He is also experienced in the design and implementation of environmental monitoring studies and natural resource damage assessment particularly for water quality issues, wetlands, estuarine benthos, seagrass, intertidal, coral reef and hardbottom systems. Dr. Woithe designs habitat and wetland restoration projects; develops environmental management plans; performs reviews of proposed regulations; and manages projects and staff conducting water quality monitoring, mapping, and assessment activities. Mr. Woithe has assisted in developing and implementing numerous comprehensive water quality monitoring programs within the District One area, including the North Port Water Enhancement monitoring project.



**James (Jim) Wilt PE,** environmental permitting, has 40 years of experience including a 30-year career with FDOT—spending the last 31 years primarily involved in all types of permitting for transportation projects. While with FDOT, he served



on a variety of permitting committees, helping to guide statewide permitting policy and procedures. His diversified background includes construction of roadway and bridge projects, giving him a unique perspective on the impact that design phase decisions have on the ability to obtain regulatory approvals. His specific permitting expertise includes management and storage of surface water (MSSW) permits, dredge and fill permits, National Pollutant Discharge Elimination System (NPDES) permits, and FDOT drainage connection permits.

**Edward (Ed) Cronyn,**

environmental permitting, has 13 years of regulatory and private sector experience in wetlands ecology, mitigation banking, and surface water management systems, and is a recognized expert in wetlands permitting, mitigation, and functional assessment. While at the South Florida Water Management District (SFWMD), he co-authored the statewide Uniform Mitigation Assessment Method (UMAM), implemented the wetlands rapid assessment procedure (WRAP), and performed thousands of regulatory and field reviews for environmental resource permit (ERP) applications throughout south Florida. Mr. Cronyn's experience also includes regulatory and market research and their potential for water quality credit trading.



**Harvey Harper, Ph.D., PE,**

president of Environmental Research & Design, Inc., has more than 30 years of experience in hydrology, hydraulics, stormwater management, lake restoration, and water quality projects. Dr. Harper has written over 100 publications and conducted more than 115 seminars and short courses in the areas of water quality, water treatment, hydraulics, and stormwater management systems. Additionally, he has been instrumental in development of the Alternative



Stormwater Management Requirements that are the basis of the anticipated Statewide Unified Stormwater Rule change.

**Al Stewart, PE**, with Analytic Engineering, Inc., has 25 years of drainage and stormwater management experience including 4.5 years for FDOT District One. While working with the District, he completed an intensive professional engineer training program in which he received training and exposure to all areas of FDOT. He then worked for several years in the District's Drainage Department providing a variety of drainage and stormwater management designs for roadway projects. He has provided drainage-related services from a project's initial environmental phase through drainage design and construction plans preparation. He has also permitted projects throughout the state of Florida, and is familiar with the requirements of state and federal agencies, environmental permitting agencies, and local governments. Mr. Stewart's responsibilities have included preparation of staff-hour estimates, scopes of work, contract negotiation, supervision, training and mentoring of other drainage engineers, client contact, and maintenance. Experience includes managing FDOT District Wide Drainage contracts, stormwater engineering contracts with Hillsborough County, Florida, and drainage, stormwater management and permitting tasks on numerous roadway projects. Specific project experience has included the I-75 design-build project in Collier and Lee Counties, project manager for three 2-year District One District Wide contracts performing various drainage-related tasks, preparation and review of ten bridge replacements in Glade and Highland Counties, and District One 14.86 reviews.



**Greg Seidel, PE**, with The Balmoral Group, LLC, has over 20 years experience in engineering, with a focus on stormwater management. His experience includes stormwater management design for limited access, major and minor roadways, wet and dry systems, collection system design, permitting, reservoir design, flood mapping, roadway project management, roadway design, project development and environment (PD&E) studies, PSRs, site planning, and water distribution and wastewater collection design. Mr. Seidel's recent clients include SWFWMD; FDOT Districts One, Two, Three, and Five; FTE; and Clay, Orange, and Volusia Counties. His District One experience includes bridge hydraulics, TMDL development for SR 82 in Lee County, and drainage and permitting for the Daniels Parkway/I-75 interchange improvements.



# Timothy (Tim) A. Polk, PE

## Project Manager

Mr. Polk's professional experience encompasses 28 years in engineering, with the last 21 years focused on transportation drainage design and permitting. He has been the project manager for the Florida Department of Transportation (FDOT) District One's District Wide Drainage contract for five years. In this role he has provided management for several District One projects including the Bee Branch bridge hydraulic report (BHR), SR 70/SR 31 Drainage Design, Value Engineering for US 27/SR 80, the US 41 multi-lane reconstruction from north of Bonita Beach to Old US 41. Mr. Polk's experience provides him with an unmatched expertise to serve as project manager for this contract.



### ASSOCIATED FIRM

PBS&J

## Selected Project Experience

**Districtwide Drainage Consultant Services, West/Central Florida.** Mr. Polk is project manager for this multiyear contract with FDOT District One, which includes providing transportation-related drainage analysis, design, and production projects with an emphasis on preparing complete drainage designs in conjunction with roadway improvement projects or preparing an entire plan set for a drainage remediation project. Typical work elements have included hydraulic designs of highway drainage systems; designs of water management systems; environmental and water management district permits; bridge hydraulics reports/bridge hydraulic recommendation sheets; hydraulics reports for project development studies; hydraulic studies on existing drainage problems with subsequent recommendations; design field surveys/investigations including topography cross-sections, drainage, outfalls, utilities, and right-of-way; geotechnical investigation and analysis; video inspection services to determine condition of existing drainage structures and pipe; subsurface conditions investigations to discover voids under roadways; recommendations and plans for the rehabilitation and repair of existing storm drainage structures and facilities; technical reviews of other consultant projects; and coastal engineering services.

**I-75 (SR 80 to SR 78) Widening Design Services, Lee County, Florida.**

Mr. Polk is providing drainage and engineering support for this FDOT District One project, which involves the widening from four to six lanes of a 2.1-mile section of I-75 from SR 80 to SR 78 in Lee County. The project also includes eight bridges, including a major waterway crossing over the Caloosahatchee River, as well as a bridge evaluation and study of the existing bridges for compatibility of the six-laning with the ultimate ten-laning. Services are being provided for roadway, drainage, environmental permitting, structures, signing and marking plans, right-of-way survey and mapping, environmental cultural assessment, asbestos testing, scour analysis, bridge testing, photogrammetry, traffic control plans, and geotechnical services.

### EDUCATION

B.S., Engineering (Structures, Materials, Fluids), University of South Florida, 1977

### REGISTRATIONS

Professional Engineer:  
Florida 38784, 1987

### PROFESSIONAL DEVELOPMENT

FHWA/NHI Stream Stability and Scour at Highway Bridges  
FDOT/USGS Advanced Water Surface Profiles  
FDOT VE Team Leader Training  
FHWA/NHI Geotextile Engineering  
FEWA/NHI Highway Drainage Design  
FHWA/NHI UNET Training Course

### OFFICE LOCATION

Bartow

## HIGHLIGHTS

- ▶ 21 years of drainage experience
- ▶ Extensive experience with District One District Wide Drainage contract project manager for six years
- ▶ Focused on client service



## Timothy (Tim) A. Polk, PE - Page 2

**GEC Services, West/Central Florida.** As part of the GEC contract for FDOT District One, project assignments have consisted of project management, design reviews, project scheduling, cost estimating, construction sequencing, transportation planning, right-of-way acquisition, project development and environment (PD&E) studies, permitting assistance, value engineering, environmental services, constructability reviews, design-build support services, stormwater permitting, and other specialized services on an as-needed basis.

**East-West Connector Roads General Engineering Services, Polk County, Florida.** This project for the North Ridge Community Redevelopment Agency (CRA) involves completing an alignment study for east-west connector roads in Polk County. Services include a study of various roadway alignments through a high-growth area across environmentally sensitive lands, along with an extensive public involvement program. Close coordination is being maintained with landowners, the CRA advisory board, and local government staff to address all multimodal and economic development issues.

**GEC Services, West Florida.** This contract with FDOT District Seven consists of providing GEC services that include project management, plans and design review, traffic studies, design element updates, project scheduling, contractual services, right-of-way acquisition, permitting, and other specialized services on an as-needed basis for the district's five-county area (Hillsborough, Pinellas, Pasco, Citrus, and Hernando). Some of the tasks have included providing plans review of roadway and drainage elements of consultant-prepared plans and specifications for roadway resurfacing and rehabilitation, multilane reconstruction, and major interstate highway construction; and providing a supplemental technical work force.

Before joining PBS&J, Mr. Polk worked directly for FDOT for 12 years. He served as the District Drainage Engineer with District One for 5 years, and was the District Three Drainage Engineer for 4 years. In District Three, he was directly involved with the "flyover" project on Thomasville Highway and Capital Circle; the gabion installation on the Caryville intersection abutments in the floodplain of the Choctawhatchee River; Hurricane Opal reconstruction projects; several emergency flood hazard mitigation projects; and

coordination for reconstruction of three relief structures and the main span over the Choctawhatchee River on US 92.

Mr. Polk has been involved in the drainage design and FEMA floodway coordination for numerous drainage problems that have required analysis, reconstruction, or litigation and coordination with legal staff. His responsibilities have included directing the in-house drainage design for highways and bridges, managing districtwide drainage consultant contracts, and managing the drainage design by consultant engineers, which has included developing scopes and staff hours, as well as negotiating with consultants. Mr. Polk has also been responsible for managing the drainage aspects of the scour evaluation program for existing bridges, concurrence with bridge hydraulic reports, and training of consultant engineers and FDOT engineers in highway drainage and bridge hydraulics. He has given formal training to consultants and FDOT personnel in the areas of roadway drainage design projects, bridge hydraulics, and pond siting procedures.

Prior to the start of his transportation career, Mr. Polk served as an engineer in the nuclear components division of Westinghouse Electric Corporation for 8 years. As a stress analyst, he was responsible for the structural evaluation of nuclear steam generators and nuclear reactor internals. Complex structural geometrics and loading were evaluated using the finite element method and prototypical testing methods.

## Other Relevant Projects

### Engineer-of-Record

US 41 from North of Bonita Beach Road to CR 887  
SR 70 from Turner Road to East of SR 31  
SR 17 from South of Lake Easy Road to North of Muncie Road

### Bridge Hydraulic Reports

Oak Creek at County Line Road  
Bee Branch at CR 720



# Mark D. Micikas, PE

## Principal-in-Charge

Mr. Micikas serves as a vice president/division manager for PBS&J's south Florida transportation design division. He has 14 years of experience working with District One in highway drainage design, bridge hydraulics, environmental permitting and roadway design. Mr. Micikas has been involved with or managed numerous transportation projects ranging from major arterials to interstate highways. He currently serves as the principal-in-charge for several District One contracts including the Districtwide Drainage Contract. Mr. Micikas has extensive knowledge of on-call services contracts having supported the Department on Districtwide and GEC contracts for his entire career with PBS&J. This coupled with his extensive District One drainage experience makes him a uniquely qualified principal-in-charge and a technical advisory resource.



**ASSOCIATED FIRM**  
PBS&J

### EDUCATION

B.S., Civil Engineering, Rutgers University, 1995

### REGISTRATIONS

Professional Engineer:  
Florida 56092, 2000

### CERTIFICATIONS

National Highway Institute Stream Stability and Scour at Highway Bridge  
Stormwater Management Inspector, Florida Department of Environmental Protection  
Advanced Maintenance of Traffic

### OFFICE LOCATION

Tampa

## Selected Project Experience

**Districtwide Drainage Contract, Florida (FDOT District One).** Serves as the principal-in-charge and principal technical professional for this contract. His prior experience includes drainage plans and analysis, pond siting, flood investigation, permitting, traffic control plans and management of staff augmentation.

**General Engineering Consultant, Florida (FDOT District One).** Serves as the principal-in-charge and provides an additional layer of fiscal oversight and quality assurance for this contract. His previous experience includes: plans reviews, plans updates, and management of staff augmentation.

**General Engineering Consultant, Florida (FDOT District Seven).** Serves as the principal-in-charge and provides an additional layer of fiscal oversight and Quality Assurance for this contract. His previous experience includes: plans reviews, scope preparation, manhour estimation and negotiation, flood investigations, design support, and management of staff augmentation.

**US 41, Punta Gorda, Florida (FDOT District One).** Served as the engineer-of-record for drainage, roadway, maintenance of traffic (MOT) plans, and ERP permit. Project included milling and resurfacing with drainage modifications.

**SR 35 (US 17), Punta Gorda, Florida (FDOT District One).** Served as the engineer-of-record for drainage, roadway, MOT plans, and ERP permit. Project included milling and resurfacing with drainage modifications.

**SR 80, Hendry County, Florida (FDOT District One).** Served as the drainage engineer-of-record for GEC plans update and post design services.

**SR 78 (at US 41), Lee County, Florida (FDOT District One).** Prepared plan set to improve the rideability through the intersection.

**US 41, Lee County, Florida (FDOT District One).** Responsible for LHR

## HIGHLIGHTS

- ▶ 14 years of drainage experience
- ▶ Extensive experience with District One
- ▶ Focused on client service



**Mark D. Micikas, PE - Page 2**

and conceptual drainage design.

**US 98, Polk County, Florida (FDOT District One).** Prepared drainage criteria report and pond siting report, and prepared 30 and 60 percent submittal packages.

**Clark Road (SR 72), Sarasota, Florida (FDOT District One).** Prepared cross drain and side drain analysis and design.

**40th Street (from Hillsborough Avenue to Humphrey Avenue - Segments A, B & C), Tampa, Florida (City of Tampa).** Served as the project manager and drainage engineer of record, responsible for all aspects of the drainage and permitting design, including drainage plans and environmental resource permits (ERP).

**Cargo Road (from Ohio Avenue to Hillsborough Avenue), Tampa, Florida (Hillsborough County Aviation Authority [HCAA]).** Served as the drainage engineer-of-record for plans and ERP permit. Designed stormwater management facilities, stormdrain systems, and roadside ditches.

**SR 618 (Lee Roy Selmon Crosstown Expressway), Hillsborough County, Florida (The Hillsborough County Expressway Authority).** Served as the drainage engineer-of-record for plans, ERP permit, and bridge hydraulics report (BHR). Designed stormwater management facilities, stormdrain design, and BHR.

**I-275 North from Bearrs Avenue to South of SR 56, Hillsborough County, Florida (FDOT District Seven).** Served as the drainage engineer-of-record for plans and ERP permit. He designed stormwater management facilities, stormdrain systems, roadside ditches, and floodplain comp. sites.

**I-75 from SR 56 to CR 54, Pasco County, Florida (FDOT District Seven).** Served as the drainage engineer-of-record for plans and ERP permit.

**SR 60/Memorial Highway Interchange, Hillsborough County, Florida (FDOT District Seven).** Served as the drainage engineer-of-record for plans and ERP permit. Designed stormwater management facilities, stormdrain systems, and roadside ditches.

**US 19 (SR 55) from Coachman Road to Sunset Point, Pinellas County, Florida (FDOT District Seven).** Served as the drainage design engineer on project and MOT design. Designed stormwater management facilities, stormdrain systems, and traffic control plans, and prepared and obtained Southwest Florida Water

Management District (SWFWMD) permit.

**Buckeye Road, Manatee County, Florida (Manatee County).** Completed all drainage design for 30, 75, and 100 percent plans submittals (stormwater management facilities, storm sewer, roadside ditches, and cross drains). Prepared and obtained SWFWMD permit. Prepared Statement of Completion.

**63rd Avenue, Manatee County, Florida, (Manatee County).** Developed pond siting report and conceptual drainage design. Prepared and obtained SWFWMD permit.

**Lakewood Ranch Road, Manatee County, Florida (Manatee County).** Developed drainage design for stormdrain layout, pond siting report, and designed stormwater management facilities to meet treatment and attenuation requirements.

**Rifle Range Road, Polk County, Florida (Polk County).** Completed roadway geometry for a new alignment; prepared 30, 75, 100 percent, and final plans.



# Shayne M. Paynter, Ph.D., PE

## Drainage Production Manager

Dr. Paynter has 12 years of diverse experience in roadway and drainage engineering, including site investigation, design, bidding, permitting, construction inspection, contract administration, project management, program management, and procurement of new work. He currently serves as the drainage group manager in PBS&J's transportation services division. In that capacity, his duties include being responsible for flood investigations, design, and computer modeling of drainage systems for transportation projects, including treatment systems, cross drains, and storm drain systems; permitting; preparing design hydraulics reports, bridge hydraulic reports, pond siting reports, location hydraulics reports and flooding studies. Dr. Paynter has substantial experience in modeling, designing, and permitting transportation and bridge projects, as well as plans and 14.86 reviews.



### ASSOCIATED FIRM

PBS&J

### EDUCATION

Ph.D., Doctor of Philosophy,  
University of South Florida, 2009  
M.E., Water Resources Engineering,  
University of South Florida, 2002  
B.S., Civil Engineering, Florida  
State University, 1997

### REGISTRATIONS

Professional Engineer:  
Florida 58136, 2002

### OFFICE LOCATION

Tampa

Dr. Paynter's work experience has included the following duties:

- ▶ Drainage engineer-of-record for many large transportation stormwater projects, including the I-4/Crosstown Connector and the multiphase reconstruction of I-275.
- ▶ Site investigation, surveying, and assimilation of bid documents and specifications for contracts, permitting, design, construction inspection, and contract administration for several stormwater drainage systems.

## District One General Stormwater Experience

Dr. Paynter has performed numerous plans reviews, including a recent spike of LAP and stimulus reviews, flood investigations, and design tasks and these elements will be greatly utilized under the future District One contract. His specific project experience includes Key Royal Bridge Hydraulic Report (BHR) and SR 72 BHR and Drainage Design. Dr. Paynter has also served as engineer-of-record for many District One design projects including US 98, I-75 over Caloosahatchee River, and I-75 at Corkscrew Road.

## Selected Project Experience:

**SR 72 Myakka River Bridge, Sarasota, Florida (FDOT District One).** Drainage engineer-of-record for the replacement of four bridges along SR 72. The project included development of an unsteady split flow HEC-RAS model.

**Key Royale Drive Bridge, Sarasota County, Florida (FDOT District One).** Drainage engineer-of-record, responsible for bridge hydraulic modeling and scour analysis for a tidal bridge replacement.

**I-75 at Corkscrew Road Interchange, Lee County, Florida (FDOT District One).** Drainage engineer-of-record, responsible for permitting and drainage design of the construction of an interstate interchange.

## HIGHLIGHTS

- ▶ 12 years of drainage experience
- ▶ Extensive experience with FDOT projects
- ▶ Extensive modeling, designing, and permitting experience
- ▶ Focused on client service



**I-75 at Caloosahatchee River, Lee County, Florida (FDOT District One).** Drainage engineer-of-record, responsible for permitting and drainage design of the construction of a 1.6 -mile eight-lane interstate. The project includes a one-mile bridge over Caloosahatchee River that required two-dimensional modeling of a tidal area.

**Florida Department of Transportation (FDOT) District Seven, Stormwater Management.** Project manager for stormwater general services contract.

**I-4/Crosstown Connector, Tampa, Florida (FDOT District Seven).** Drainage engineer-of-record, responsible for permitting and drainage design of \$400 million elevated roadway and multilevel interchange as well as preparation of a bridge hydraulic modeling and scour analysis for a tidal system.

**I-75 from SR 56 to CR 54, Pasco County, Florida (FDOT District Seven).** Drainage engineer-of-record, responsible for permitting and drainage design of the construction of a four-mile, eight-lane interstate.

**I-275, Tampa, Florida (FDOT District Seven).** Drainage engineer-of-record, responsible for permitting and drainage design of multiphase reconstruction and widening of 2.4 miles of I-275.

**Laurel Road, Sarasota County, Florida (Sarasota County).** Project manager for drainage improvements along two miles of roadway.

**Arbuckle Creek Bridge, Polk County, Florida (Polk County).** Drainage engineer-of-record for bridge hydraulic report for the replacement of a 200-foot-long, two-lane bridge.

**Estero Parkway, Fort Myers, Florida (Lee County).** Drainage engineer-of-record, responsible for permitting and drainage design of the construction of a 0.9-mile, four-lane roadway on a new alignment. Estero Parkway was one of the first area projects to be permitted under Total Maximum Daily Loading (TMDL) criteria.

**Honore Avenue Extension, Sarasota County, Florida (Sarasota County).** Drainage engineer-of-record, responsible for permitting, drainage design and three bridge hydraulic reports, including tidal modeling and scour analysis, associated with the construction of a 3.1-mile, four-lane roadway on a new alignment.

**Celery Fields Stormwater Management Facility, Sarasota County, Florida (Sarasota County).** Served as resident inspection engineer for construction of a 350-acre stormwater management facility.

Specific areas of technical expertise include: GIS hydraulic and hydrologic applications, scour and bridge hydraulics, HEC-RAS steady and unsteady flow modeling, hydrologic statistics, transportation drainage design and permitting, including stormdrain systems and water management.

## Publications

Paynter S and Nachabe M (2009) *Regional scale spatio-temporal consistency of precipitation variables related to water resource management and planning*. Meteorological Applications 16: 413-423.

Paynter S and Nachabe M (2009) *Use of generalized extreme value covariates to improve estimation of trends and return frequencies for lake levels*. Journal of Hydroinformatics (in press).



# Melisa L. Reiter, PWS

## Environmental Manager

Ms. Reiter has 20 years of experience in marine, terrestrial, and vegetative ecology. Her specialized expertise includes habitat assessment, evaluation, and classification; dredge and fill permitting; marine studies; water quality studies; seagrass mapping; aerial photo-interpretation; land use mapping; ecological assessments; threatened and endangered species studies, and wetland mitigation design and monitoring. Her expertise with marine-related projects includes habitat restoration, single-family home docks, residential canal dredge projects, and large-scale marinas. Components of all of these projects involve field sampling, agency coordination, and permit package/application preparation. Ms. Reiter has excellent project management skills and is experienced at managing projects with multidiscipline services, which will assist her in managing environmental aspects of this contract.



**ASSOCIATED FIRM**  
PBS&J

### EDUCATION

B.S., Marine Biology,  
Eckerd College, 1989

### CERTIFICATIONS

Professional Wetland Scientist (1753)

### OFFICE LOCATION

Tampa

## Selected Project Experience

### Roadway Permitting

Ms. Reiter's group provides support to all permitting of linear and corridor projects. She and her staff provide support to the roadway, structures, drainage, water resources, water/wastewater, and design disciplines involved with wetland impacts. She works closely with FDOT Districts One, Four, and Seven, along with local government including the City of Tampa, as well as Pinellas, Pasco, Hillsborough, Polk, Lee, and Manatee Counties.

Some of the most recent roadway projects she has been involved with include:

- ▶ Florida High Speed Rail
- ▶ S.R. 31
- ▶ Corkscrew Interchange (I-75)
- ▶ County Road 721
- ▶ S.R. 72
- ▶ 40th Street Bridge and Pipeline (mitigation design)
- ▶ Dark Hammock Road
- ▶ Koreshan Boulevard (over I-75)
- ▶ Arbuckle Creek
- ▶ Medulla Road (permitting and mitigation design)
- ▶ S.R. 70
- ▶ S.R. 60/Memorial/Links
- ▶ US 19 Sidewalk (design-build)
- ▶ Staff scientist on the seagrass study of the Sanibel Bridge PD&E study for FDOT. Essential fish habitat (EFH) coordination was required on this project.

## HIGHLIGHTS

- ▶ 20 years of environmental/permitting experience
- ▶ Extensive permitting experience with FDOT District One projects
- ▶ Strong project management skills



## Melisa L. Reiter, PWS - Page 2

Corridor studies have been prepared for Florida Gas Transmission (FGT) and Tampa Bay Water (TBW). Ms. Reiter has been responsible for all aspects of permitting including field surveys, wetland delineations, mitigation design and negotiations, as well as alternatives assessment.

### Wetland Permitting

- ▶ Florida Department of Transportation (FDOT) permitting experience, including wetland impacts, pond design, PD&E studies, and technical memorandums.
- ▶ Currently working on the Riverdale/Inlets residential development in Manatee County. Project involves freshwater and estuarine wetlands, mitigation design, planting, and monitoring. A manatee protection plan was prepared specifically for this development.
- ▶ Regulatory permitting and design for a Pasco County park, including boat launch facilities, kayaking trails, parking areas, a fishing pier, temporary docking, swimming beaches, and interpretative nature/recreational trails. On-site mitigation area design will include seagrass transplant areas, macroalgae, and marsh plants.
- ▶ SunWest Harbourtowne. Permitting, design, and project coordination for a joint public/private sector venture with portions of the permitting shared between Pasco County, Southwest Florida Water Management District (SWFWMD), and SunWest Acquisitions. Permitting includes a Development of Regional Impact (DRI), a Conceptual Site Plan from SWFWMD, and a Joint Individual Environmental Resources Permit from the U.S. Army Corps of Engineers (USACE). The 2,350-acre project includes residential, commercial, marina village, recreational (golf), and preservation land use components.

### Habitat Assessment

- ▶ Involved in various projects for the Tampa Bay National Estuary Program. These studies have included various aspects of water quality, habitat assessment, and management options associated with the preparation of the Comprehensive Conservation and Management Plan.

- ▶ Habitat restoration experience, which includes work on the St. Petersburg-Clearwater International Airport Shoreline Restoration and the Lake Maggiore Restoration projects, as well as the Safety Harbor Stormwater Rehabilitation project on Mullet Creek and Picnic Island.

### Marine Permitting

Permitting expertise in marine-related projects includes single-family home docks, canal dredge projects, large-scale marinas, seagrass assessments, and coral reef natural resource damage assessments. These projects normally involve field sampling, agency coordination (county, Florida Department of Environmental Protection [FDEP], and USACE), and permit package/application preparation. Issues such as sovereign submerged land leases, negotiating dredge depth and technique, and establishing previous history of the project site are key elements to effective permitting.



# Ralph L. Bingham, PE

## Drainage Engineering

Mr. Bingham is responsible for quality control review of drainage design plans and permitting for the Florida Department of Transportation (FDOT); Florida's Turnpike Enterprise (FTE); and for the Orlando-Orange County Expressway Authority (OOCEA). Mr. Bingham is also responsible for drainage and permitting on numerous city, county, state, and private development design projects including watershed/wetland restoration projects. His experience over the past 34 years has included stormwater management and treatment systems for roadway and airport development projects, stormwater management master planning, design and permitting, water quality treatment systems for landfills, erosion and sedimentation control, water resources engineering, reclamation/restoration engineering, and environmental studies and permitting.



**ASSOCIATED FIRM**  
PBS&J

### EDUCATION

B.S., Civil Engineering, University of Kentucky, 1975

### REGISTRATIONS

Professional Engineer:  
Florida 31238, 1981  
Kentucky 12015, 1980

### OFFICE LOCATION

Orlando

## Selected Project Experience

**US 41 Drainage Design, Lee and Collier Counties, Florida (FDOT District One).** Drainage engineer for the widening from four to six lanes of 2.5 miles of US 41 in Lee and Collier Counties. Tasks included design of a storm sewer system for a 1 mile urban section, design of ditch conveyance system for 1.5 miles of rural section, design of a 15-acre stormwater management facility, design of treatment swales, preparation of an environmental resource permit (ERP) for SFWMD, and coordination with FDOT District One for drainage plans production.

**US 17 over Joshua Creek, SR 78 over Lemkin Creek, SR 80 over Misty Canal, US 41 at Oscar Shearer Park, and US 27 over the Caloosahatchee Canal, Bartow, Florida (FDOT District One).** Provided drainage design, permitting support, and oversight for these bridge replacement projects. Work efforts also included coordination of alternative selection based on hydraulic considerations for bridges, box culverts versus environmental permitting requirements, exemptions, and other issues. Represented FDOT in negotiations for acquisition of permits from water management districts, USACE, and other agencies as required.

**I-75 in the Big Cypress National Preserve, Naples, Florida (FDOT District One).** Managed the drainage and environmental permitting efforts for construction of the rest area at milepost 38. Permits were received from South Florida Water Management District (SFWMD), the Florida Department of Environmental Protection (FDEP), and USACE as well as approval from U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service, Florida Game and Fresh Water Fish Commission, and numerous environmental groups.

**Pensacola Street and Stadium Drive Realignment Feasibility Study and Final Design, Chipley, Florida (FDOT District Three).** Project-wide management of the drainage design and permitting components. This project included relocation of Pensacola Street in the vicinity of Florida State University's (FSU) Doak Campbell Stadium in Leon County, along

## HIGHLIGHTS

- ▶ 34 years of drainage experience
- ▶ Extensive experience with District One
- ▶ Proven track record



## Ralph L. Bingham, PE - Page 2

with widening of the existing two-lane facility to six lanes including intersection improvements with Stadium Drive, Lake Bradford Drive, Woodward Drive, and St. Augustine Street. Stormwater requirements included final design for the required treatment, attenuation, and floodplain compensation for all street and stadium parking lot improvements. Also included was coordination of stormwater permits through Florida Department of Environmental Protection (FDEP) and City of Tallahassee, dredge-and-fill permit through FDEP and U.S. Army Corps of Engineers (USACE), and erosion and sediment control permit through the City of Tallahassee.

**I-95/Palm Coast Parkway Interchange Modifications, DeLand, Florida (FDOT District Five).** Managed design and permitting of the stormwater management system for proposed improvements to the I-95/Palm Coast Parkway interchange in Flagler County, Florida. The scope of services also included plans for two additional travel lanes and a second bridge on Palm Coast Parkway, as well as roadway, drainage, bridges, signing and marking, lighting, maintenance of traffic, signals, and permitting.

**Southern Connector Extension, Osceola and Orange Counties, Florida (FDOT Florida's Turnpike Enterprise).** Managed the drainage and permitting activities for design of a 6.1-mile toll facility in Osceola and Orange Counties. Permits were received from FDEP, USACE, and other agencies as required.

**Clearwater Airpark Master Stormwater Management Plan, Clearwater, Florida (Clearwater Airpark, Inc.).** Drainage engineer for Clearwater Airpark, Inc. project that involved preparation of a stormwater management plan (SWMP) and environmental resources permit (ERP) from the Southwest Florida Water Management District (SWFWMD) and City of Clearwater for the airpark's short-term expansion plans. The scope of services was based on the 1999 Clearwater Airpark master plan update, and consisted of airport and environmental engineering and land-use planning for the modeling of the entire airpark's property, identifying both aviation and non-aviation components, and delineation of current and future land uses for the airpark.

**Sebring Regional Airport Expansion, Sebring, Florida (Sebring Airport Authority).** Project manager responsible for all drainage and permitting services for all projects completed and under design. These projects include the current stormwater master plan, Westside Stormwater Infrastructure project, Lesco and Hancor

manufacturing facilities, entrance roadways, Federal Emergency Management Agency (FEMA) conditional letter of map revision (CLOMR) requests, and other activities as deemed necessary by the client. Also served as engineering advisor at the request of the authority, as a member of the Statewide Florida Airport Managers Association (FAMA) Drainage Committee.

**The Nature Conservancy Water Ranch, Kissimmee, Florida (The Nature Conservancy).** Engineer-of-record for all watershed/wetland restoration activities for Disney Wilderness Preserve in Polk and Osceola Counties, Florida.

**US 41 (Tamiami Trail), Jacksonville, Florida, US Army Corps of Engineers (USACE) Jacksonville District.** Drainage task manager for preparation of the environmental assessment as part of the alternative analysis prepared for the Comprehensive Everglades Restoration Program (CERP). Under this task, PBS&J provided preliminary conditions to USACE Jacksonville District regarding proposed modifications to 10 miles of the Tamiami Trail, which is considered part of CERP.

**Panama City-Bay County International Airport, Conceptual and Final Stormwater Master Plan, Panama City, Florida (Panama City-Bay County International Airport).** Project manager for development of the conceptual and final stormwater master plan and final drainage design of this project. Since the inception of the program to relocate the Panama City-Bay County International Airport in the late 1990s, planning, design, permitting, and construction services have been provided for the newly relocated airport. Completed assignments include a feasibility analysis, site selection study, conceptual design report, overall environmental planning and permitting, mitigation plan development, and preliminary and final engineering. Additional services include wetland mitigation planning and design, and restoration of nearly 10,000 acres of industrial pine plantation to the wet pine savanna and flatwoods habitat of the late 1940s and early 1950s.

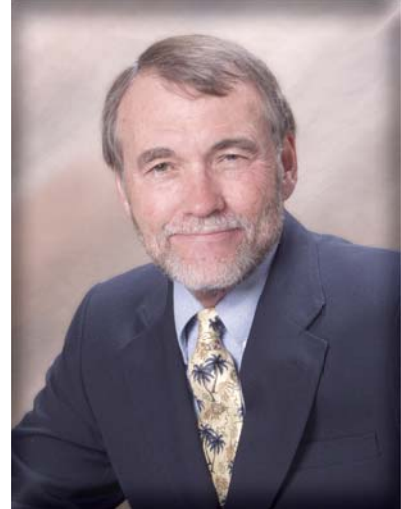
**Roadway Design, Santa Rosa, Milton, Florida (Santa Rosa Road and Bridge Authority).** Managed design of the stormwater treatment and conveyance systems for approximately 7 miles of adjoining roadway, including permit support services with FDEP, USACE, U.S. Coast Guard, and EPA.



# Larry J. Gaddy, PE

## Drainage Engineering

Mr. Gaddy has 47 years of drainage and highway design experience, including a 29-year career with the Florida Department of Transportation (FDOT). He currently serves as a senior drainage project engineer for PBS&J's. In this capacity, he is responsible for highway drainage design, bridge hydraulic studies and scour analysis, litigation and expert witness, Southwest Florida Water Management District (SWFWMD) permit acquisition, drainage studies, plans review, 14.86 permit reviews, and flood investigations. Mr. Gaddy's extensive experience and tenure with FDOT allow him to have a unique perspective for drainage-related projects.



**ASSOCIATED FIRM**  
PBS&J

**REGISTRATIONS**  
Professional Engineer:  
Florida 23294, 1976

**OFFICE LOCATION**  
Bartow

Mr. Gaddy has served as project manager for past FDOT District One District Wide contracts and has performed tasks for the Chapparell Slough and Horse Creek BHR, and SR 78 Drainage Improvement projects.

### Selected Project Experience

**FDOT District One, Bartow, Florida.** Served as assistant project development and environment (PD&E) engineer with primary responsibilities for engineering aspects of the preliminary engineering phases of highway and bridge projects, including typical sections, corridor selections, horizontal and vertical alignments, and conceptual drainage layouts.

**FDOT District One, Bartow, Florida.** Served as quality improvement program manager and value engineer administrator for the two programs in FDOT District One. This work included widespread training activities, promotion of the programs, as well as leading teams to improve work quality in all areas of the Department and to reduce project costs.

**FDOT District One, Bartow, Florida.** As district drainage engineer (production), he supervised a staff of engineers who were responsible for designing highway drainage systems and reviewing plans produced by consultants.

**FDOT District Seven, Tampa, Florida.** As district design engineer, he was administrator of the design department, overseeing employees responsible for designing highways and bridges. The department included more than 20 registered professional engineers and consisted of roadway design, structural design, drainage design and permitting, traffic engineering design, and environmental permitting sections, along with a utility coordination office.

### HIGHLIGHTS

- ▶ 47 years of drainage experience
- ▶ 29-year FDOT employee
- ▶ Managed District One's District Wide Drainage Contract for 9 years



**Larry J. Gaddy, PE - Page 2**

**Hillsborough County Engineering Department, Tampa, Florida.** As county drainage engineer, he supervised a staff of engineers responsible for designing all types of drainage systems, solving drainage problems, reviewing subdivision and commercial site development plans, setting 100-year flood elevations for the Federal Emergency Management Agency (FEMA) program, and promulgating drainage policies and regulations.

**Hillsborough County Engineering Department, Tampa, Florida.** As director of the engineering department, he served as administrator for 150 employees responsible for roadway design, bridge design and inspection, traffic engineering, traffic control device maintenance, drainage, surveying, mapping, subdivision construction inspection, capital improvement project construction inspection and contract administration (road and bridge), and development of policies and regulations for subdivisions and commercial sites.

**FDOT Tallahassee, Florida.** As assistant drainage engineer, he assisted the engineer of drainage in establishing statewide policies and procedures, standards, and criteria. He also reviewed highway and bridge plans to assure compliance.

**FDOT District One, Bartow, Florida.** Mr. Gaddy began as Engineer I and progressed to Engineer III. Duties included drainage system design, consultant plans review, site permit review, and bridge hydraulics design and review.



# Donald Witmer, PE

## Drainage Engineering

Mr. Witmer is a senior transportation engineer with PBS&J's transportation division. He has 35 years of drainage and highway design experience—all with the Florida Department of Transportation (FDOT) District One. Before retiring, Mr. Witmer's last position with District One was district drainage engineer. He has designed urban and rural drainage systems that included water management district permitting, prepared plans for minor drainage projects, studied numerous drainage problems and complaints, and provided recommendations to alleviate the problems or complaints. Mr. Witmer spent many years administering the drainage connection permit review process for the local FDOT maintenance yard in Bartow and as the district drainage engineer he was responsible for the entire drainage connection review process for District One.



### ASSOCIATED FIRM

PBS&J

### EDUCATION

A.S., Engineering Design, Polk Community College, 1972

A.A., General Education, Polk Community College, 1973

### REGISTRATIONS

Professional Engineer:  
Florida 45435, 1992

### OFFICE LOCATION

Bartow

## Selected Project Experience

- ▶ Over 35 years of transportation-related experience with FDOT District One where his responsibilities included administering drainage designs that included drainage studies and design services.
- ▶ Over ten years of drainage design and stormwater permitting experience.
- ▶ Over ten years of highway design experience which included the design of minor roadways and intersections.
- ▶ Over 15 years of highway maintenance and construction experience.
- ▶ Designed urban and rural drainage systems which included water management district permitting.
- ▶ Prepared plans for minor drainage projects.
- ▶ Studied numerous drainage problems and provided recommendations as to the most cost-effective measures to alleviate those problems.
- ▶ Certified in the design and construction of traffic control devices for streets and highways.

## HIGHLIGHTS

- ▶ 35 years of experience with FDOT District One
- ▶ 10 years of drainage permitting experience
- ▶ Proven track record in the design of urban and rural drainage systems



# Jeffrey R. Tabar, PE

## Coastal Engineering

Mr. Tabar has 16 years of experience in engineering, project management, structural design, hydrodynamics, water resources, site planning, flood management, sediment transport, river processes, scour analysis, and related fields. He is responsible for supervising project personnel and preparing construction plans and specifications. Also responsible for numerical modeling, site assessment and inspection, data collection and analysis, preparation of funding programs and benefit analysis, environmental permitting, monitoring and mitigation plans, investigations, and resource mapping.



**ASSOCIATED FIRM**  
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### EDUCATION

M.S., Coastal Engineering, Florida  
Institute of Technology, 1994  
B.S., Civil Engineering, University  
of Rhode Island, 1992

### REGISTRATIONS

Professional Engineer:  
Florida, 54094, 1999

### OFFICE LOCATION

Tampa

## Selected Project Experience

### **Caloosahatchee River Hydrodynamic and Flood Plain Analysis (FDOT).**

Served as project manager for this project which involved determining the response of the Caloosahatchee River area to combinations of extreme hurricane and rainfall events. Responsible for management of the design and implementation of a numerical modeling scheme to estimate river and flood plain hydraulics along I-75 in the vicinity of the river. The results of this model were used to predict scour at the bridge pilings for these extreme events. The model utilized for the project was FESWMS within the SMS pre- and post- processing environment.

### **Ogeechee River, 2-D Hydrodynamic Modeling and Stabilization Study, Route 144 (Georgia Department of Transportation).**

Served as project manager involved in determining the maximum velocity in the Ogeechee River in the vicinity of Route 144 in the Fort Hamilton area. Responsible for management of the design and implementation of a numerical modeling scheme to estimate the velocity in the river along Route 144 during upland and surge flood events. The results of this model were used to provide criteria for the design of a shore stabilization alternative for the threatened portion of roadway adjacent to the river. The models utilized for the project was TUFLOW within the SMS pre- and post- processing environment.

**Summer Haven Beach Protection Study, Marineland, Florida.** Served as project manager for a study to investigate solutions to protect a beachfront community adjacent to a natural inlet near Marineland, Florida. Responsible for management of project elements including: collecting and analyzing flood data, and collecting survey and bathymetry data to characterize the hydrodynamics of the area. The SBEACH and GENESIS models were used to determine the likely responses of the system to various beach nourishment and structural solutions.

## HIGHLIGHTS

- ▶ 16 years of experience
- ▶ Extensive experience with FDOT
- ▶ Experienced project manager





**State of Florida, Post-Storm Performance Evaluation of Coastal Armoring Structures.** Managed and performed for the Florida Department of Environmental Protection (FDEP) a technical evaluation of selected coastal protection structures located in Florida counties affected by the 2004 hurricane season. The evaluation included revetments, bulkheads, seawalls, and dune scour protection, and sand-filled containers. Performance evaluations were limited to damages (and any associated beach loss) incurred only during the 2004 hurricane season. The goal of the study was to provide documentation to the Department in support of current policy, and act as a reference to Department staff for future permitting efforts of coastal protection structures.

**Port Manatee Master Plan Development.** Managed the development of a 50 year port master plan that included economic analysis, waterside and landside projections, port planning, coordination with local stakeholders and recommendations to implement improvements. The project provided information with regards to berth layout, channel layout, navigation aids/improvements, dredge needs, environmental impacts, operations considerations, etc.

**New Orleans Levee Design for Lake Pontchartrain Hurricane Protection.** Managed and performed a design for the U.S. Army Corps of Engineers, New Orleans District (USACE-MVN) of overtopping calculations and levee crest elevations for the West Shore, Lake Pontchartrain Hurricane Protection Project for a variety of design scenarios. Design guidance, assumptions, recommendations and a discussion of uncertainty was provided

**Mobley Bayou Habitat Restoration Project, Hydraulic Analysis & Modeling, Engineer.** Performed hydraulic analysis and hydrodynamic modeling of the Mobley Bayou Preserve in support of an ecological restoration project. Specific questions addressed included the prediction of flow within the preserve due to proposed restoration actions.

**Design and Permitting of a Sheet Pile Seawall Following Severe Erosion, Engineer/Project Manager.** Completed the design and permitting of a 400-foot sheet pile seawall along the east coast of Florida. This project was a result of severe erosion that nearly collapsed several homes. As project manager obtained an emergency-armoring permit to provide immediate assistance to the clients. The project included making key decisions regarding the alignment, depth, and location of the seawall. Coordination with regulatory agencies was fundamental to the project's success.

**Numerical Modeling Analysis and Improvements to the Intake Canal of a Power Plant Facility, Engineer/Project Manager.** Completed a numerically driven particle tracking study for the intake canal and estuary system to identify dissolved oxygen (DO) dynamics. The particle tracking model, used in concert with a validated hydrodynamic model, was utilized to statistically evaluate plant operations DO monitoring program. Recommendations were provided to improve management and practices, as well as provide future steps for numerical modeling of appropriate engineered solutions.

# L. Moris Cabezas, Ph.D., PE, BCEE, CFM

## Watershed Modeling

Dr. Cabezas has 30 years of experience in the planning and engineering of watershed studies and surface water systems including hydraulic and hydrologic (H&H) and water quality/total maximum daily loads (TMDL) analyses. He has managed numerous projects encompassing watershed planning and hydrodynamic and water quality computer modeling. His project expertise also includes environmental impact studies, studies involving master planning for water supply, and wastewater collection and treatment systems. Dr. Cabezas' extensive modeling experience and knowledge local polices and procedures will enable him to oversee that all modeling development will meet permitting codes saving time and money.



**ASSOCIATED FIRM**  
PBS&J

### EDUCATION

Ph.D., Civil Engineering, Texas  
A&M University, 1985  
M.S., Urban Planning, Texas A&M  
University, 1983  
B.S., Civil Engineering, Universidad  
Central, Ecuador, 1978

### REGISTRATIONS

Professional Engineer:  
Florida 46965, 1993  
Texas 66314, 1989

### CERTIFICATIONS

Board-Certified Environmental  
Engineer (BCEE), American Acad-  
emy of Environmental Engineers  
Certified Floodplain Manager (CFM)

### OFFICE LOCATION

Tampa

## Selected Project Experience

**Watershed Management Program Consulting Services, West/Central, Florida.** This contract with the Southwest Florida Water Management District (SWFWMD) has involved development of management plans for several large watersheds throughout southwest Florida including the Withlacoochee River, Peace Creek Canal, and various watersheds in Pasco County. Projects have included development of digital topographic maps, hydrologic and hydraulic modeling, and identification of proposed projects to meet water quality, flood control, and ecological objectives.

**Watershed Management Master Planning Program Consulting Services, Hillsborough County, Florida.** This contract has involved development and update of management plans for five County watersheds including the Hillsborough River/Tampa Bypass Canal. Projects have included development of digital topographic maps, hydrologic and hydraulic modeling, and identification of proposed projects to meet water quality, flood control and ecological objectives.

**Total Maximum Daily Load (TMDL) Program Implementation Support.** Dr. Cabezas was responsible for overall management of contract with several Florida municipalities to provide support as the State of Florida implements the TMDL program. Work has included review of the Florida Department of Environmental Protection (FDEP) impairment analysis. Services included analyzing existing monitoring programs to determine if existing data gaps were being addressed; conducting reasonable assurance studies to help water bodies become delisted; preparing all supporting documentation for Clean Water Act Section 303(d) segment delisting; development of water quality models for nutrient enrichment, development of TMDLs and pollutant load allocations, and support during development of the Basin Management Action Plans.

**Lake Carroll Watershed Management Plan, Hillsborough County, Florida.** Served as project manager for this project, which consisted of diagnostic feasibility studies and the preparation of a comprehensive lake

## HIGHLIGHTS

- ▶ 30 years of water resources experience
- ▶ TMDL experience
- ▶ Experienced project manager



## L. Moris Cabezas, Ph.D., PE, BCEE, CFM - Page 2

and watershed management plan to address lake and watershed management issues including water quality, aquatic vegetation, flood control, recreation and aesthetics, TMDL impairments, and public education. Diagnostic work included the development of water and nutrient budgets; development a watershed models to be used to evaluate nutrient load reduction strategies; and identification of BMPs necessary to meet lake and watershed goals and objectives;

**Stormwater Management Plan, City of Opa-Locka, Florida.** As part of the flood mitigation strategy for the City of Opa-Locka, this three-year contract involved the development of a comprehensive stormwater master plan to identify chronic flooding problems in the city, to propose future drainage improvements for constructing approximately 82,000 feet of french drains and 14,000 feet of stormwater drains, and to provide a framework for an operations and maintenance plan. The scope of work included the submittal of an eight-volume report that covered an assessment of design criteria, an analysis and inventory of all stormwater structures using GIS technology, an assessment of existing conditions using H&H water quality modeling, canal cleanup and maintenance, an analysis of alternatives improvements, a master surface water management plan, a drainage and maintenance plan, and a water quality assessment. Also included was the development of a GIS-based stormwater maintenance scheduling system to track and schedule daily maintenance activities such as inspections and the allocation of resources, equipment, and materials.

**ArcView-Based Water Quality Model, Seminole County, Florida.** Project manager for an update of Seminole County's pollutant loading model using an application that was compatible with both the Environmental Protection Agency's (EPA) approved methodologies and previous submittals to EPA.

**Stormwater Continuing Engineering Services, Hillsborough County, Florida.** Dr. Cabezas manages this ongoing, as-needed services contract with Hillsborough County. Since 2000, PBS&J provided stormwater studies and design services for projects incorporated into the county's capital improvements program (CIP).

**Crane Creek/Hickory Ditch Stormwater Master Plan, Brevard County, Florida.** This project for Brevard County involved the preparation of a stormwater master plan of the 25-square-mile Crane Creek/Hickory Ditch and the adjacent 14-square-mile Eau Gallie River basin. The studies were prepared to determine cost-effective solutions to the flooding problem and to improve quality of stormwater runoff. The plan included a detailed structure inventory and survey, development of computer models for flood analysis, an alternatives analysis, a detailed cost estimate, H&H model simulations for various design storm events as well as conditions representing hurricane events, and the development of a water quality model to evaluate TMDL.

**Little Manatee River Watershed Management Plan, Hillsborough County, Florida.** PBS&J developed a comprehensive watershed management plan that considered flood protection, water quality, natural resources, and water supply assessments for this 280-square-mile watershed located in Hillsborough County, Florida. The project included a GIS inventory, development and calibration of an H&H model using SWMM, water quality and pollution loading assessment, and development of digital flood insurance rate maps.



# Thomas L. Singleton

## TMDL/BMAP

Mr. Singleton is project director for total maximum daily load (TMDL) and watershed services. He has more than 30 years of experience in land and water resource management in both the private and public sectors, with an emphasis on water quality. His experience includes the management, administration, and fiscal oversight of large, complex, long-term projects in the public and private sectors; program development and implementation; data and information management; and oral, written, and graphic presentations. Mr. Singleton's extensive experience and tenure with the Florida Department of Environmental Protection (FDEP) will ensure that TMDL procedures taken for the district wide drainage contract are compliant with FDEP and Southwest Florida Water Management District's (SWFWMD) polices and procedures. While providing cost-effective solutions for FDOT.



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### EDUCATION

B.S., Biology, Florida State University, 1977

### OFFICE LOCATION

Tallahassee

## Selected Project Experience

**Florida Department of Environmental Protection, Ongoing TMDL Support Contract.** Mr. Singleton served as the project director. Services have ranged from statistical analysis of water quality data used to determine water body impairments, to field studies for assessing microbial and nutrient sources, to coordination with local governments and stakeholders in the development of TMDL implementation plans for pollutant load abatement and water body remediation.

**City of Winter Haven, Florida, development of a Sustainable Water Resources Management Plan.** Mr. Singleton served as the project director. The backbone of the plan is an interconnected network of lakes, canals, wetlands, aquifers, open spaces, and parks, designed to meet the long-term water resource needs of the community, including supply (water quantity), treatment (water quality), flood protection, and the preservation of natural resources.

**Tampa Bay Water, Tampa, Florida.** Mr. Singleton served as the principal technical scientist. Project involved the development of an Integrated Source Water Protection Plan for protecting public drinking water sources, including groundwater, surface water, and saline sources. The protective measures evaluated include public information and education, protective policies and regulations, land acquisition programs, best management practices, local watershed protection measures, and volunteer monitoring programs.

Before joining PBS&J, Mr. Singleton was an environmental administrator and consultant for FDEP in Tallahassee, Florida. He served as the statewide team leader for the TMDL Program, overseeing a team of professionals in all phases of water quality assessment and TMDL development and implementation, including data collection, management, analysis, and reporting. He supervised staff in the development, editing, and production of all reports produced by the TMDL Program, including the states biennial water quality report to Congress, water quality status and assessment

## HIGHLIGHTS

- ▶ 30 years of water resources experience
- ▶ Extensive FDEP TMDL experience
- ▶ Proven track record



## Thomas L. Singleton - Page 2

reports, TMDL reports and implementation plans, water quality monitoring reports, and best management practice manuals. He managed a \$1.5 million contract to publish 58 water quality status and assessment reports and more than \$3.0 million in contracts to develop and implement TMDLs. As team leader, he developed the strategic approach for implementing the TMDL Program.



# David A. Tomasko, Ph.D.

## TMDL/BMAP

Dr. Tomasko serves as a senior environmental scientist and group manager of the watershed sciences and assessment program in PBS&J's southeast/east sciences division. An eminent scientist, he has an extensive 28-year ecological sciences background involving marine and freshwater ecology, wetland habitat evaluation and delineation, restoration design, development of estuary and lake management plans, environmental monitoring design, and water quality analysis and modeling. He has also been published widely and has made numerous presentations in his technical fields. Dr. Tomasko's current general duties at PBS&J include project management and administration services for ecological/environmental projects.



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### EDUCATION

Ph.D., Biology, University of South Florida, 1989  
M.S., Biology, Florida Institute of Technology, 1985  
B.S., Biology, Old Dominion University, 1982

**OFFICE LOCATION**  
Tampa

## Selected Project Experience

**Investigation of Algal Bloom Dynamics in the Florida Keys.** This project for the Florida Department of Transportation (FDOT) involved an assessment of the factors potentially involved with the development of a large (approx. 30 square miles) algal bloom in the vicinity of Key Largo. The project intent was to determine the relative impact of various factors (e.g., road construction, freshwater inflow, hurricane impacts) that could have contributed to a massive algal bloom in eastern Florida Bay. Served as project manager, responsible for contract and project management, coordinating and conducting field work and data analysis efforts, pollutant load model development, invoicing and report writing.

**Investigation of Impacts of Stormwater Pond Discharges on Salinity Levels and Biological Communities in the Lower Caloosahatchee River.** This project for FDOT involved an assessment of the potential impacts of non-attenuated discharges from stormwater ponds associated with road construction activities associated with the Caloosahatchee River crossing of Interstate 75. The project intent was to determine the relative impact of non-attenuated discharges from these ponds, both in terms of expected frequency of occurrence, volumes of discharge expected, and the probable impacts to water chemistry and biological communities in the Lower Caloosahatchee River. Served as project manager, responsible for contract and project management, coordinating and conducting data analysis efforts, invoicing, and report writing.

**Nutrient Effects on Attached Algae in the Wekiva River and Rock Springs Run.** This project for the St. Johns River Water Management District (SJRWMD) involved the development of a draft pollutant load reduction goal (PLRG) for the Wekiva River and Rock Springs Run. The project intent was to determine relationships between gradients in nitrogen and phosphorus availability in the Wekiva River and Rock Springs Run (near Orlando) and the abundance of periphytic algae. Served as project manager, responsible for contract and project management, coordination

### HIGHLIGHTS

- ▶ 28 years of ecological sciences experience
- ▶ Extensive FDEP TMDL experience
- ▶ Proven track record



of data collection efforts, data analysis, invoicing, and report writing.

**Wagner Creek Total Maximum Daily Load (TMDL) Report, Miami, Florida.** This project for the City of Miami involved the development of a TMDL for fecal coliform bacteria for Wagner Creek, a highly contaminated tributary of the Miami River. The project quantified the load reductions necessary for Wagner Creek to meet state water quality standards for total and fecal coliform bacteria. Served as task manager, responsible for data analysis, field collection of water quality data, coordination of source identification assessments, budget tracking and data analysis and interpretation.

**Dona and Roberts Bay Watershed Plan, Sarasota County, Florida.** This project for Sarasota County and the Southwest Florida Water Management District involved compilation of water quality data, production of geographic information system (GIS)-based shoreline data layers, and water quality modeling and analysis. The project intent was to develop a water budget and environmental restoration goals for the watershed of Dona and Roberts Bays. Served as project manager responsible for coordinating data collection efforts, tracking progress on other project tasks, invoicing, and data analysis and report writing.

**Sarasota Bay Stormwater Outfall Prioritization Project, Sarasota and Manatee Counties, Florida.** This project for the Sarasota Bay National Estuary Program involved the development of a conceptual plan for identifying priority stormwater retrofit projects within the Sarasota Bay watershed. The project intent was to develop high priority projects for reduction of nutrient and toxin loads to Sarasota Bay. Served as task manager responsible for data collection and analysis and final report compilation and editing.

**Peace River Cumulative Impact Assessment, Florida.** This project for the Florida Department of Environmental Protection (FDEP) involved an assessment of the impacts to hydrology and water quality of the Peace River associated with land use changes, point sources, and climatic phenomena. The project intent was to determine the relative contribution to observed changes in flows and water quality due to various land uses, as well as short- and long-term variation in rainfall patterns. Served as task manager responsible for data collection, and analysis and report writing on various components of the report.

**Lake Jessup TMDL Project, Seminole County, Florida.** This project for Seminole County involved the review and potential refinement of the existing nutrient TMDL for Lake Jessup. Served as task manager, coordinating field work for assessing the role of nitrogen fixation in Lake Jessup by blue-green algae, a research need outlined in the existing TMDL.

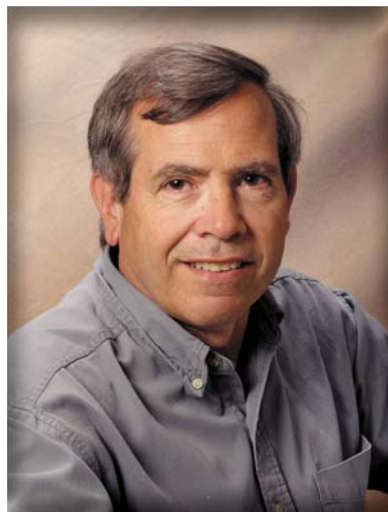
**Lake Hancock TMDL Project, Polk County, Florida.** This project, jointly funded by Polk County and FDEP, involved two main projects, a manipulative in situ experiment to determine potential responses of water quality to sediment removal, and a linked study to determine threshold values for phosphorus and nitrogen for water quality improvement. Served as project manager, responsible for coordinating logistics, field work, data compilation and analysis, as well as invoicing and report writing.

**Review of Site Specific Alternative Criteria for Dissolved Oxygen for the Lower St. Johns River.** This project for the City of Jacksonville's Electric Authority (JEA) involved the review and comment on recently completed and ongoing efforts to develop a site specific alternative criterion for dissolved oxygen in the lower St. Johns River. Served as task manager, responsible for review of reports, model assumptions, data compilation and analysis.

# Ralph T. Montgomery, Ph.D.

## TMDL/BMAP

Dr. Montgomery has 31 years of professional experience working with numerous government agencies and private sector clients. Environmental consulting services he has provided regarding watershed studies have included: assessing seasonal and long-term changes in the water quality of riverine and freshwater systems; the development of comprehensive, statistically sound monitoring designs to assess potential change in both freshwater and terrestrial environments; and developing methodologies to reduce statistical analysis and effectively present the findings of environmental studies. Much of this work has been associated with evaluating long-term patterns in rainfalls and resulting stream flows, with regard to assessing both localized and downstream potential impacts associated with consumptive withdrawals for public water supplies.



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### EDUCATION

Ph.D., Biology, Florida State University, 1978  
B.S., Biology/Zoology, University of California at Davis, 1970

**OFFICE LOCATION**  
Tampa

## Selected Project Experience

**Peace River Cumulative Impact Study (Florida Department of Environmental Protection/Southwest Florida Water Management District [FDEP/SWFWMD]).** Project Manager. This cumulative impact study of the Peace River Basin was mandated in December 2003 by the Florida Legislature. FDEP was instructed, in consultation with the SWFWMD, to study cumulative impacts of changes in landforms and hydrology in the Peace River basin. The study's primary objective was to evaluate cumulative impacts of activities conducted in the Peace River Basin on water resources of the basin, including surface waters, ground waters, fisheries, aquatic and estuarine habitat, and water supplies, as well as to assess long-term changes and the current status of subbasin water quality characteristics. The primary activities evaluated included mining, intense agriculture, and urban development. In addition, the study evaluated the environmental benefits, legal issues, and economic impacts of limiting certain activities within environmentally sensitive areas, and included recommendations for regulatory and policy changes to improve overall watershed management. The results of the study are to be used by FDEP to prepare and adopt a resource management plan for the Peace River Basin to minimize any identified existing and future adverse cumulative impacts to water resources of the basin.

**St. Johns River CUP Permit.** This work included providing technical analysis and expert testimony regarding potential biological, water quality and hydrological downstream impacts of a proposed 5.5 mgd withdrawal from the St. Johns River by Seminole County. Analyses were conducted of the potential magnitude of hydrological changes, impacts to riparian and floodplain communities, the spatial distribution of submerged aquatic vegetation (SAV), relationships between changes in water quality and flows, and potential entrainment impacts.

**Source Water Feasibility Study.** This project for the Peace River/Manasota Regional Water Supply Authority involved the investigation of the water supply potential for Cow Pen Slough/Dona Bay, the Upper

### HIGHLIGHTS

- ▶ 31 years of ecological sciences experience
- ▶ Extensive FDEP TMDL experience
- ▶ Proven track record





## Ralph T. Montgomery, Ph.D. - Page 2

Myakka River, and Shell Creek. The project involved an assessment of the flows, hydrologic yields, and water quality of each system. Determinations were made of the water supply yield, environmental benefits and/or concerns, treatment requirements associated with water quality conditions, and probable costs of water diversion, reservoir construction, treatment options, etc. Responsibilities included collecting, analyzing, and interpreting information related to water quality and ecological benefits and providing expertise in assessing relative ranking of alternatives.

**Peace River/Manasota Regional Water Supply Authority (WUP).** Project manager (1980-2008) overseeing the extensive Peace River Hydrobiological Monitoring Program (HBMP) designed to describe changes in various physical, chemical, and biological characteristics of the tidal Charlotte Harbor estuary potentially resulting from potable freshwater withdrawals. Prepared major annual and summary reports analyzing and statistically comparing physical, chemical and biological data collected during the historic period (1976-2008) of the monitoring program. SAS statistical software was utilized to assess long-term trend and seasonal patterns of both physical and biological parameters. Developed statistically based predictive models of potential long-term effects of freshwater withdrawals on salinity and nutrient inputs to the estuary.

**Tampa Bypass Canal and Alafia River Hydrobiological Monitoring Program (WUP).** This ongoing monitoring effort for Tampa Bay Water is being conducted to determine potential effects of potable freshwater withdrawals on the physical and chemical water quality characteristics and estuarine communities of the Hillsborough River, Palm River/McKay Bay, Alafia River, and Hillsborough Bay. This project uses both fixed continuous measurements of physical in situ water quality, as well as additional statistically based sampling, to directly establish long-term relationships between freshwater inflows and ambient estuarine characteristics.

**City of Punta Gorda, Shell Creek and City of Punta Gorda's Consumptive Water Use Permit, Punta Gorda, Florida.** A comprehensive statistical analysis of physical and chemical water quality characteristics of Shell Creek in conjunction with the City of Punta Gorda's Consumptive Water Use Permit. Statistical models were developed as part of the permit renewal process at the request of SWFWMD staff. These characterized the relationships between seasonal freshwater flows with both measured physical/chemical

water quality characteristics and the relative positions of major isohalines.

### **Investigation of Resources, Threats and Future Protection Needs of the Matanzas River Study Area.**

A comprehensive assessment of wetland resources in the Matanzas River Basin, as well as associated potential threats and future protection needs. The report findings suggested that rather than using a single, default buffer width for protection of wildlife throughout the entire Matanzas River Basin, an optional approach would be for buffer width guidance to vary with the "quality" of the wetland system likely to be impacted by future development. Such an approach would allow the variety of stakeholders in the region to focus their efforts on protecting those wetland features that are more likely to serve as critical wildlife habitat for wetland-dependent species in the Matanzas River basin.

## Publications

"Trends and explanatory variables in major phytoplankton groups for two southwestern Florida estuaries, U.S.A." 2008. *Journal of Sea Research* "Phytoplankton Time Series Special Issue". Dixon, L. K., G.A. Vargo, J.O.R. Johansson, R.T. Montgomery and M.B. Neely

"Percent-of-flow Approach for Managing Reductions of Freshwater Inflows from Unimpounded Rivers to Southwest Florida Estuaries." 2002. Flannery, M., E. Pebbles, and R. Montgomery.



# Robert D. Woithe, Ph.D.

## PWS, CSE

### Water Quality Modeling

Dr. Woithe serves as a systems ecologist and an estuarine and wetland scientist. His expertise encompasses estuaries, wetlands, corals, and seagrasses. He is also experienced in the design and implementation of environmental monitoring studies and natural resource damage assessment particularly for water quality issues, wetlands, estuarine benthos, seagrass, intertidal, coral reef and hardbottom systems. Dr. Woithe designs habitat and wetland restoration projects; develops environmental management plans; performs reviews of proposed regulations; and manages projects and staff conducting environmental monitoring, mapping, and assessment activities.

Dr. Woithe is currently a project scientist for several large monitoring programs in the Tampa Bay and Big Bend areas. In this role, he oversees field staff conducting water quality, vegetation, wildlife surveys, and benthic macroinvertebrate monitoring, and maintaining a system of continuously deployed water quality and hydrologic sensors and recorders. Dr. Woithe also oversees data validation and quality control as well as data base management for these and similar projects.

### Areas of Expertise

- ▶ Natural resource valuation and damage assessment
- ▶ Water quality and hydrologic monitoring and analysis
- ▶ Environmental monitoring and analysis
- ▶ Estuarine, marine, and wetland ecology
- ▶ Systems ecology

### Selected Project Experience

**Myakkahatchee Creek Hydrobiological Monitoring Program Northport, Florida.** Project manager and chief scientist for continuous water quality monitoring program for the City of Northport, Florida. Program operates several continuous, water quality recorders in the Myakkahatchee Creek/Big Slough tributary of the Myakka River. Monitoring program supports City's Water Use Permitting process and developed and implements statistical models for salinity, dissolved oxygen (DO), and flow to analyze the effect of water diversions.

**Peace River/Manasota Regional Water Supply Authority, Hydrobiological Monitoring Program Continuous Recorders Program, Desoto County, Florida.** Principal scientist for continuous, water quality monitoring in the Peace River. Monitoring is in support of continued freshwater diversions by water supply authority. Parameters monitored include specific conductivity, salinity, temperature, DO, and water level. Also performing river-long, continuous transects measuring chlorophyll concentrations using continuous flow fluorometers.



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### EDUCATION

Ph.D., Environmental Science & Ecology, University of Florida, 1994  
M.S., Environmental Science & Ecology, University of Florida, 1992  
B.A., Biology, Middlebury College, 1988

### CERTIFICATIONS

Certified Senior Ecologist, Ecological Society of America  
Professional Wetland Scientist (1160)  
NAUI Nitrox  
SCUBA Certification (829973)

**OFFICE LOCATION**  
Tampa

### HIGHLIGHTS

- ▶ 19 years of experience
- ▶ Water quality expert
- ▶ Marine and wetland ecology experience



**Tampa Bay Water, Hydrobiological Monitoring Program for the Alafia, Palm, and Hillsborough Rivers, Hillsborough County, Florida.** Lead scientist for \$5 million, five-year, water quality, hydrologic, and biological monitoring project to determine effect of fresh water withdrawals on the Tampa Bay estuary. Management of hydrologic, water chemistry, benthic, fish, plankton, wildlife, and vegetation sampling and monitoring efforts. Data interpretation, review, analysis, and management as well as quality assurance and control reviews.

**Apollo Bay Monitoring Program/Tampa Bay Desalination Facility, Hillsborough County, Florida.** Project management and lead scientist for \$250,000, two-year, water quality and biological monitoring project to measure the effect of desalination brine discharge on the Big Bend area of the Tampa Bay estuary. Management of water chemistry, hydrologic, and benthic sampling and monitoring efforts. Data interpretation, review, analysis, and management as well as quality assurance and control reviews.

**Ecological Baseline Study, Gulf Coast Desalination Facility, Pasco County, Florida.** Project scientist for \$350,000, two-year, water quality and biological monitoring project to establish baseline conditions in the Anclote Estuary prior to the construction and operation of a desalination facility. Management of water chemistry, hydrologic, and benthic sampling and monitoring efforts. Data interpretation, review, analysis, and management as well as quality assurance and control reviews.

**Peace River/Manasota Regional Water Supply Authority, Existing Scientific-Literature Review for the Peace River and Upper Charlotte Harbor, Southwest Florida.** Review existing literature and scientific studies regarding zooplankton and phytoplankton and their relationship to freshwater inflow. Produce existing-literature review document for Peace River Technical Advisory Committee.

**South Florida Water Management District (SFWMD), Estero Bay Watershed Assessment, Lee, Collier, and Hendry Counties, Florida.** Developed and wrote watershed management plan which included water quality management techniques, and wetland, habitat, wildlife evaluations as part of watershed evaluation project.

**Sanibel Causeway Seagrass Assessment, Lee County, Florida.** Seagrass mapping, assessment, and project damage impacts in San Carlos Bay for the proposed expansion of the Sanibel Causeway bridges.

**Cocohatchee Strand Wetland Restoration, Collier County, Florida.** Project scientist for three annual, four-week vegetation monitoring programs designed to test hydroperiod improvement hypotheses in a 130-acre wetland mitigation bank.

**Treeline Avenue Hydrologic Monitoring, Lee County, Florida.** Directed hydrologic monitoring program and conducted data analyses and comparisons designed to test hydroperiod improvement hypotheses following drainage in wetland mitigation area.

**Cattlemen Road Alignment, Sarasota, Florida.** Conducted wetland assessment, habitat mapping, land use mapping, and listed species survey for alternative road alignments.

**Sarasota Lakes Public Improvement District, Sarasota County, Florida.** Wetlands and listed species assessment for a road improvement and expansion project.

# James R. Wilt Jr., PE

## Environmental Permitting

Mr. Wilt has 40 years of experience including a 30-year career with the Florida Department of Transportation (FDOT). He has spent the last 31 years primarily involved in all types of permitting for transportation projects. While at FDOT, he served on a variety of permitting committees, helping to shape statewide permitting policy and procedures. His diversified background includes construction of roadway and bridge projects, giving him a unique perspective on the impact that design phase decisions have on the ability to obtain regulatory approvals. His specific permitting expertise includes management and storage of surface water (MSSW) permits, dredge and fill permits, National Pollutant Discharge Elimination System (NPDES) permits, and FDOT drainage connection permits.

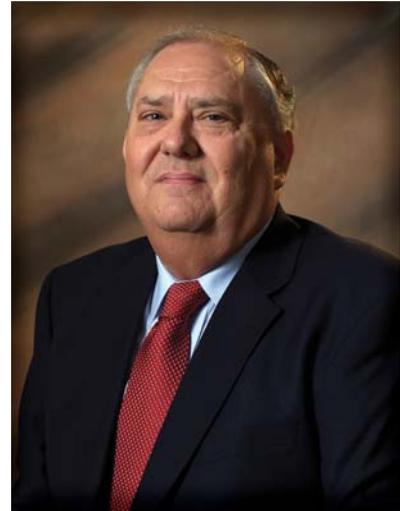
Mr. Wilt assists in the training and development of permitting for District One. In 2006, he was involved in the I-75 Mega project including work on joint use treatment ponds, the vacation of multiple conservation easements, and the acquisition of environmental permits for the southernmost section. He continues to be involved with statewide rule revisions to benefit the department and has led the efforts to purchase mitigation credits through the competitive bid process. He has been instrumental in developing the district constructability review process in District One, and he continues to be a resource person for both the central office and the other districts.

Mr. Wilt's work experience at FDOT included:

- ▶ Twelve years as the district permit coordinator obtaining all environmental permits for District One including the counties that eventually became District Seven.
- ▶ Ten years as the District One permit engineer, reporting directly to the District One production engineer.
- ▶ During the 22 years spent at FDOT, more than 1,600 permits were obtained under his direction.
- ▶ Two years as an engineer in the project development and environment (PDE) group, performing noise studies for Federal Highway Administration (FHWA) and obtaining complex air source permits from the Florida Department of Environmental Protection (FDEP).
- ▶ Graduate of FDOT two-year engineer trainee program.
- ▶ Four years as a survey party chief and roadway inspector.

## Selected Project Experience

**General Engineering Consultant (GEC) Services, West/Central Florida (FDOT District One).** As part of the general engineering services contract for FDOT District One, project assignments have consisted of project management, design reviews, traffic studies, project scheduling, cost



### ASSOCIATED FIRM

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### EDUCATION

A.A., General, Polk Community College, 1968

### REGISTRATIONS/LICENSES

Professional Engineer  
Florida 42809, 1990

### CERTIFICATIONS

Qualified Stormwater Management  
Advanced Inspector, FDEP, 2007  
Certified Florida Stormwater Erosion  
and Control Inspector, FDEP, 2000  
IFAS Extension, Certified Instructor,  
FDEP/University of Florida  
Florida Green Industries Best  
Management Practices for the Protec-  
tion of Water Resources, 2003

### OFFICE LOCATION

Bartow

## HIGHLIGHTS

- ▶ 12 years FDOT permit coordinator (over 1,600 permits)
- ▶ 22 years completing FDOT drainage permits
- ▶ Marine and wetland ecology experience



## James R. Wilt Jr., PE - Page 2

estimating, public information programs, construction sequencing, transportation planning, right-of-way acquisition, project development and environment (PD&E) studies, permitting assistance, intelligent transportation systems (ITS), value engineering, environmental services, constructability reviews, design-build support services, stormwater and wastewater permitting, and other specialized services on an as-needed basis.

**GEC Services, West Florida (FDOT District Seven).** This contract with FDOT District Seven consists of providing general engineering consultant services that include project management, plans and design review, traffic studies, design element updates, project scheduling, contractual services, right-of-way acquisition, permitting, and other specialized services on an as-needed basis for the District's five County area (Hillsborough, Pinellas, Pasco, Citrus, and Hernando). Some of the tasks have included the design of facility upgrades and improvements to the District's maintenance yards; providing assistance with project planning through reviews of archeological and historical issues; resolving air quality and noise issues; maintaining qualifications for federal funds by updating environmental impact statements and performing programmatic/Type 1 categorical exclusions; providing plans review of roadway and drainage elements of consultant-prepared plans and specifications for roadway resurfacing and rehabilitation, multilane reconstruction, and major interstate highway construction; and providing a supplemental technical work force.

**I-275 Section 2-A Design Services, Tampa, Florida (FDOT District Seven).** This 3-year project for FDOT District Seven involved the interstate design of the first major upgrades to I-275 (Section 2A, Himes Avenue to east of the Hillsborough River) since its construction in the early 1960s. This complex project, which provided for a future expansion in the median for an additional four to six expressway lanes, included eight to ten collector/distributor lanes, frontage roads, three interchanges, and 26 bridges in a 2.2-mile-long urban area in downtown Tampa. The scope of services included survey, roadway geometrics/design, structural design, drainage design, traffic design, noise barrier analysis, utility coordination, permitting, and landscaping.

**SR 679 (Pinellas Bayway) at Intracoastal Waterway Project Development and Environment (PD&E) Study, Pinellas County, Florida (FDOT District Seven).** This project for FDOT District Seven involved performing a PD&E study to determine the preferred

alternative (rehabilitation or replacement) of Structure E (Bridge Number 150049) of SR 679 (Pinellas Bayway) at the Intracoastal Waterway in Pinellas County. Elements of the work included engineering analysis and reports (including data collection and design analysis), comparison of alternatives, environmental analysis and reports (including social impacts and physical impacts), and public involvement.

**Blackburn Point Bridge PD&E Study, Sarasota, Florida (FDOT District One).** This project for FDOT District One included a PD&E study (with an option for design) to replace a 142-foot-long, historic, pony-truss swing bridge and a 300-foot low-level, fixed-span bridge and provide improvements to a 1-mile, two-lane roadway. Services included providing a corridor and alignment analysis, resulting in an environmentally sensitive and community-sensitive project alternative; developing reports involving design, hydraulic, traffic contamination, safety, noise, air quality, wetlands, threatened and endangered species, and documentation in accordance with Section 106 of the National Historic Preservation Act (NHPA) and Section 4(f) of the U.S. Department of Transportation Act; and regulatory agency coordination, cost estimates, and public presentations.

**East-West Connector Roads General Engineering Services, Polk County, Florida (North Ridge Community Redevelopment Agency [CRA]).** This project for the North Ridge Community Redevelopment Agency (CRA) involved an alignment study for east-west connector roads in Polk County. Services provided included a study of various roadway alignments through a high-growth area across environmentally sensitive lands along with an extensive public involvement program. Close coordination was maintained with landowners, the CRA advisory board, and local government staff to address all multimodal and economic development issues.

**Northeast Connector Alignment, Bartow, Florida (Polk County).** This project for Polk County involved a new alignment roadway that would connect US 27 and US 17 north of Davenport. The scope of services included traffic design, right-of-way estimates, a drainage study, preparation of geographic information system (GIS) maps and environmental documentation, completion of a contamination screening evaluation to identify the contamination potential within proposed right-of-way limits or from adjacent properties that could affect the proposed right-of-way, and quality assurance/project administration.



# Edward (Ed) Cronyn

## Environmental Permitting

A senior scientist with PBS&J's west Florida sciences division, Mr. Cronyn has 13 years of regulatory and private sector experience in wetlands ecology, mitigation banking, and the design of ecosystem-based surface water management systems. A recognized expert in wetlands permitting, mitigation, and functional assessment while at the South Florida Water Management District (SFWMD), he co-authored the statewide Uniform Mitigation Assessment Method (UMAM), implemented the Wetlands Rapid Assessment Procedure (WRAP), and performed thousands of regulatory and field reviews for Environmental Resource Permit (ERP) applications throughout southern Florida.

Mr. Cronyn's additional expertise includes habitat assessment, evaluation, and classification; dredge and fill permitting; aerial photo-interpretation; ecological assessments; threatened and endangered species permitting, and wetland mitigation design and monitoring. He also has extensive training and experience determining biological indicators of seasonal high water, normal pool elevations, and wetland jurisdictional delineation. His comprehensive regulatory permitting experience includes projects ranging from small out-parcels to large subdivisions, multi-service mitigation banks, marinas, and roadway and pipeline corridors. His roles in these projects have included field sampling, agency coordination, oversight of multidisciplinary technical staff, project management, and permit package/application preparation. Mr. Cronyn also served as the environmental sciences division director for Lee County, during which time he co-authored a local ordinance providing for review of bald eagle management plans. His general responsibilities with PBS&J include project management, technical assessments, permit preparation and coordination, and marketing. Mr. Cronyn has excellent problem-solving skills and is experienced at determining creative, cost-saving strategies benefitting clients and the environment.

### Selected Project Experience

**Florida Gas Transmission Phase 8 Wetland Impact and Mitigation Assessment, Hillsborough County, Florida (Florida Gas Transmission Company).** This project includes functional assessment of existing wetlands condition, anticipated impacts, and development of a mitigation strategy for a natural gas pipeline project with over 1,500 wetlands and other surface waters within the construction zone statewide. Mr. Cronyn's oversight of this task and inside knowledge of UMAM resulted in a 40 percent reduction in the amount of work necessary to complete the impact and mitigation assessment. Mr. Cronyn was responsible for coordinating scientists' UMAM and WRAP review on a statewide basis while at another firm, and is now managing the Hillsborough County permitting of this project.



**ASSOCIATED FIRM**  
PBS&J

**EDUCATION**  
M.S., Environmental Science, Indiana University, 1996  
M.P.A., Water Resources Management, Indiana University, 1996  
B.A., Economics, Trinity University, 1990

**OFFICE LOCATION**  
Tampa

### HIGHLIGHTS

- ▶ 13 years environmental experience
- ▶ Co-authored the statewide UMAM
- ▶ Marine and wetland experience



## Edward (Ed) Cronyn - Page 2

**Winter Haven Mitigation Strategy, Winter Haven, Florida (City of Winter Haven).** The surface and groundwater levels in the city of Winter Haven are approximately 12 feet lower today than historical levels due to drainage canals constructed in the 1940s and 1950s. As a result, the public water supply, recreational lakes, and wetland acreage are diminished. PBS&J was tasked with developing a broad strategy to restore water levels and quality in this community. Mr. Cronyn's role on the team included evaluating the feasibility of mitigation banking and other fee-supported wetland mitigation as a potential revenue source to implement the restoration activities.

**Withlapopka Causeway Slope Repair, Citrus County, Florida (Citrus County).** This stimulus-funded transportation project for Citrus County required quick turnaround on permitting, including coordination with regulatory agencies to ensure submittal of complete information and timely permit issuance. As a result of Mr. Cronyn's efforts, along with PBS&J's drainage engineers and teamwork with the Florida Department of Transportation (FDOT), the state and federal permits and Sovereign Submerged Lands authorization were issued within one month of application submittal.

Mr. Cronyn's prior work history included:

**UMAM Development.** In 2000, the state legislature audited the wetland mitigation programs at the Florida Department of Environmental Protection (FDEP) and the water management districts and determined that these programs did not adequately measure the ecological value of wetland impacts and mitigation. Subsequent legislation required FDEP and districts to develop an exclusive and consistent process for determining the amount of mitigation required to offset impacts to wetlands and other surface waters. Mr. Cronyn served as the lead technical representative from SFWMD, meeting regularly with other agencies tasked with developing this new methodology. The development team evaluated other existing methodologies for adaptation, including WRAP, Hydrogeomorphic (HGM) Approach (R.D. Smith et al, 1995), Wetland Evaluation Technique (P.R. Adamus, et al, 1987), and Habitat Evaluation Procedure (USFWS, 1980). Mr. Cronyn coordinated SFWMD's districtwide staff and field review throughout development. During and after the development of UMAM, Mr. Cronyn provided dozens of professional presentations throughout Florida and field-training exercises to ensure full participation, input, and appropriate implementation by affected individuals.

**Wetland Mitigation Bank Permitting.** While employed by SFWMD, Mr. Cronyn performed all aspects of regulatory review of several mitigation bank applications, including regulatory feasibility, wetland delineation, functional assessment, mitigation service area determination, and participation on the multi-agency state and federal mitigation bank review team. A sampling of the mitigation banks reviewed by Mr. Cronyn are:

**Bluefield Ranch Mitigation Bank, St. Lucie and Martin Counties, Florida.** A 2,675-acre parcel of land located in St. Lucie and Martin Counties that is being restored to its historic mosaic of wetland and upland systems from its then-current use as ranchland. Mr. Cronyn conducted the ecological and regulatory review for SFWMD, including determination of baseline and post-restoration ecological conditions using WRAP, participation in team meetings with other agencies to evaluate proposed ecosystem restoration plans, and determination of an appropriate mitigation service area (MSA) within which the credits could be sold.

**Treasure Coast Mitigation Bank, St. Lucie County, Florida.** A 2,800-acre parcel in St. Lucie County being converted from citrus groves to cypress strand and other forested wetlands. Issues on this project included: the extent of anticipated hydrological restoration resulting from the proposed removal of pumps and filling of ditches; the projected time lag and risk factors associated with the re-establishment of native, desirable vegetation; and the resolution of a permit challenge. Mr. Cronyn completed all ecological and regulatory evaluation of this project, including determination of mitigation bank credits using WRAP.

**Island Park Regional Mitigation Area, Lee County, Florida.** A 240-acre parcel owned by Lee County being restored via removal of exotic species; restoration of hydrology, and reconnection to the Estero Bay Buffer Preserve, as mitigation for short-term and longer-term Lee County public works projects. Due to changes in state regulations, this mitigation area was permitted in two phases, with Phase I credits assessed using mitigation ratios and Phase II credits determined with UMAM.



# Harvey H. Harper III, Ph.D., PE

## TMDL/BMAP Support

Dr. Harvey H. Harper is currently President of Environmental Research & Design, Inc. He has over 30 years of experience in hydrology, hydraulics, stormwater management, lake restoration, and water quality projects and has authored over 100 publications and conducted more than 115 seminars and short courses in the areas of water quality, water treatment, hydraulics, and stormwater management systems. His area of expertise includes water quality engineering exclusively in the areas of environmental chemistry, stormwater management systems, lake management and restoration, hydrology, use of alum for pollutant removal, groundwater pollutant studies, wetlands, and sediment chemistry.



### ASSOCIATED FIRM

Environmental Research &  
Design, Inc.

### EDUCATION

Ph.D., Environmental Engineering,  
University of Central Florida, 1985  
M.S., Environmental Sciences,  
University of Central Florida, 1979  
B.S., Biological Sciences (Limnology),  
Florida Technological University, 1977

### REGISTRATION

Professional Engineer:  
Florida 32595  
Washington 31061

### CERTIFICATIONS

Florida Engineering Society  
Certificate of Continued Professional  
Development, Certificate #1421

### OFFICE LOCATION

Orlando

## Sponsored Research Projects

“Characterization of Runoff Quality from Natural Undeveloped Land Uses in Florida,” Principal Investigator and Project Director, Florida Department of Environmental Protection, \$150,000, 4/07-12/08.

“Evaluation of the Performance Efficiency of a Modified Wet Detention Pond for Enhanced Nitrogen Removal,” Principal Investigator and Project Director, Florida Department of Environmental Protection, \$172,500, 8/03-12/08.

“Use of Liquefied Activated Carbon (LAC) for Sediment Reduction in Lakes,” Principal Investigator and Project Director, Lakeland Animal Nutrition, \$35,000, 4/04-4/05.

“Evaluation of Current Stormwater Design Criteria within the State of Florida,” Principal Investigator and Project Director, Florida Department of Environmental Protection, \$117,460, 8/03-12/04

“Lake Okeechobee Tributary Sediment Removal Demonstration Project,” Principal Investigator and Project Director, South Florida Water Management District, \$420,000, 9/00-6/04.

“Nonpoint Source Model Development and Basin Management Strategies for Lemon Bay,” Principal Investigator and Project Director, Southwest Florida Water Management District, \$99,945, 12/01-5/04.

“Evaluation of Alternative Stormwater Regulations for Southwest Florida,” Principal Investigator and Project Director, Water Enhancement and Restoration Coalition, Inc., \$40,000, 10/02-9/03.

“Effectiveness of Stormwater Treatment Systems in the Florida Keys,” Principal Investigator and Project Director, Florida Department of Environmental Protection, \$167,995, 5/01-12/02.

## HIGHLIGHTS

- ▶ 30 years of hydraulic and hydrology experience
- ▶ Performed research for Stormwater Retention/Detention Designs
- ▶ Written more than 100 publications regarding water quality





## Harvey H. Harper III, Ph.D., PE - Page 2

“Lake Morton Water Quality Diagnostic Evaluation,” Principal Investigator and Project Director, City of Lakeland, Florida, \$50,000, 3/01-12/02.

“Bradfordville Stormwater Study,” Principal Investigator and Project Director, Leon County Florida, \$227,922, 10/98-5/00.

### Presentations

“Statewide Stormwater Rule Revisions,” Presented at the 2009 Green Engineering Seminar: Engineering Florida’s Future, sponsored by the Florida Engineering Society, January 15, 2009.

“Irrigation with Recycled Wastewater – Good Intentions Gone Awry – Part II,” Presented at the Florida Stormwater Association Winter Conference, Tampa, FL, December 5, 2008.

“Limitations of the TSI Statistic – When the Data Lie.”, Presented at the North American Lake Management Society International Symposium, Lake Louise, Canada, November 13, 2008.

“Limitations of the TSI Statistic – When the Data Lie.”, Presented at the 19th Annual Conference of the Florida Lake Management Society, Sandestin, FL, June 3, 2008.

“Irrigation with Recycled Wastewater – Good Intentions Gone Awry?” Presented at the Florida Stormwater Association Winter Conference, Orlando, FL, December 7, 2007.

“Irrigation with Recycled Wastewater – Good Intentions Gone Awry?” presented at the North American Lake Management Society International Symposium, Orlando, FL, November 1, 2007

“Current Research and Trends in Alum Treatment of Stormwater Runoff,” Presented at the North American Lake Management Society International Symposium, Orlando, FL, November 1, 2007

“Stormwater Quality Treatment and Regulation: Where Do We Go From Here?” Presented at the Florida Water Law Conference, Tampa, FL, May 22, 2007.

“Current Research and Trends in Alum Treatment of Stormwater Runoff,” Presented at the Stormwater Academy Biennial Research Conference, Orlando, FL, May 2-3, 2007.

“Banana Lake Alum Treatment Project,” Presented at the LE/AD Lakes Management Conference on Managing Lakes in Polk County, Lakeland, FL, October 16, 2007.

“Sediment Removal Feasibility Study for Lakes May, Shipp, and Lulu,” Presented at the LE/AD Lakes Management Conference on Managing Lakes in Polk County, Lakeland, FL, October 16, 2007.

“Removal of Nutrients in Stormwater Runoff,” Presented at the 2006 FICE/FDOT Design Conference, Orlando, FL, August 2, 2006.

“Impacts of Boating Activities and Shoreline Vegetation on Water Quality in the Butler Chain-of-Lakes,” Presented at the 17th Annual Conference of the Florida Lake Management Society, St. Augustine, FL, June 8, 2006.

“Effects of Meteorological Variability on the Performance Efficiency of Dry Retention Systems in Florida,” Presented at the 2nd Biennial Stormwater Management Research Symposium, Orlando, FL, May 4-5, 2006.

### Publications

Harper, H.H. and Baker, D.M. (2007). “Evaluation of Current Stormwater Design Criteria within the State of Florida.” Final Report submitted to the Florida Department of Environmental Protection for Agreement SO108.

Harper, H.H. (2007). “Current Research and Trends in Alum Treatment of Stormwater Runoff.” In Proceedings of the 3rd Biennial Stormwater Management Research Symposium, Orlando, Florida, May 2-3, 2007.

Harper, H.H. and Baker, D.M. (2006). “Effects of Meteorological Variability on the Performance Efficiency of Dry Retention Systems in Florida,” In Proceedings of the 2nd Biennial Stormwater Management Research Symposium, Orlando, Florida, May 4-5, 2006.

Harper, H.H. (2005). “Use of Alum in Lake Management: Managing the Associated Risks,” Lakeline, Vol. 25, No. 3, pp. 13-16, Fall 2005.

Harper, H.H. (2005). “Evaluation of Dose Requirements for Alum Sediment Inactivation,” Proceedings of the 16th Annual Conference of the Florida Lake Management Society, Duck Key, Florida, June 6-9, 2005.



# Alphonse (Al) Stewart, PE

## Drainage Support

Mr. Stewart has 25 years of drainage and stormwater management experience, including 4.5 years for the Florida Department of Transportation (FDOT). While working for FDOT District One, he completed an intensive professional engineer training program. He worked several years in the District's drainage department providing a variety of drainage and stormwater management designs for roadway projects. Mr. Stewart has provided drainage-related services from the project's initial phase through the drainage design and construction plans preparation. He has also permitted projects throughout Florida and is very familiar with municipality, state, and federal agencies permitting requirements.



### ASSOCIATED FIRM

Analytical Engineering, Inc.

### EDUCATION

BCE, 1983, Civil Engineering,  
Georgia Tech  
B.S., Engineering, Morris  
Brown College

### REGISTRATION

Professional Engineer:  
Florida 38838  
Georgia 22378

### OFFICE LOCATION

Tampa

## Selected Project Experience

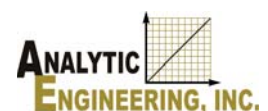
**District Wide Drainage Contract (Miscellaneous Tasks), FDOT District One.** Project manager for three two-year contracts performing various drainage-related tasks to assist the District with its work program. Prepared, reviewed, and updated numerous bridge hydraulics reports for the FDOT. Performed hydrologic and hydraulic computations, scour analysis, and coordinated with the Federal Emergency Management Agency (FEMA) on "No-Rise" certifications. Designed stormwater management facilities and roadway drainage systems for both urban and rural roadway projects. Prepared location hydraulic reports for project development and environment (PD&E) studies. Provided reviews of plans prepared by others. Prepared scopes of work, negotiated man-hours, prepared progress reports, approved invoices, directed subconsultant and in-house work activities, schedules, budgets, and manpower in the management of these three contracts.

**I-75 Design-Build Project, Collier and Lee Counties, FDOT District One.** Drainage discipline leader/drainage engineer-of-record for the design and stormwater management permitting for the widening from four to six lanes of 30.5 miles of interstate, with design consideration of future ultimate widening. Project involves design and construction and/or modification of 24 stormwater ponds including wet detention and dry detention facilities, cross drain extensions, stormdrains, conveyance ditches, as well as preparation and updates of bridge hydraulic reports and FEMA "No-Rise" certification. Extensive coordination with the South Florida Water Management District (SFWMD), FDOT, and Lee County was required to meet a compressed permitting schedule. This \$430 million project is currently under construction and scheduled to be completed in 2010.

**Ten Bridge Replacements in Glade and Highland Counties, FDOT District One.** Project involved the design of replacement structures for ten existing bridges in south-central Florida. These bridges are in a

## HIGHLIGHTS

- ▶ 25 years drainage experience
- ▶ Almost 5 years with FDOT District One Drainage Department
- ▶ Extensive knowledge of FDOT drainage program



## Alphonse (Al) Stewart, PE - Page 2

predominantly agricultural area and are located north of Lake Okeechobee and the Everglades. Supervised and provided hydrologic, hydraulic, and scour analysis for these bridge replacement projects.

**SR 400/I-4 from 50th Street to I-75 in Hillsborough County for FDOT District Seven.** Led drainage and stormwater permitting efforts for project which involved widening I-75 from four lanes to a six-lane facility with stormwater management facilities sized for future widening to eight-lanes.

**Districtwide Stormwater Program Management, FDOT District Seven.** Assisted with stormwater management studies, analyses and design in support of the District's work program and drainage unit. Services include preparation of drainage maps, location hydraulic report, stormwater analysis, contract plans, surfacewater management, bridge hydraulic report and recommendation sheet, FEMA "No-Rise" certification, stormwater management design, stormwater inventory, drainage connection permit reviews, and stormwater management design review.

**General Engineering Consultant (GEC), FDOT District Seven.** Assisted with drainage-related services for a five-year, \$20 million GEC contract. Responsibilities include providing support in the areas of plans reviews, scope development, manhour estimates, and manhour negotiations.

**Scour Evaluation, Turnpike North System Bridges, FDOT Florida's Turnpike Enterprise.** Scour project manager responsible for scour inspections and Phase I scour evaluation reports. Performed hydrologic and hydraulic calculations and scour analysis in support of Phase II scour evaluation reports. Coordinated with structural and geotechnical disciplines to prepare Phase III scour evaluation reports. Prepared scopes of work, negotiated man-hours, prepared progress reports, approved invoices, directed subconsultant and in-house work activities, schedules, budgets, and manpower in the management of scour evaluations efforts.

**Bunces Pass Bridge Replacement, Pinellas County, FDOT District Seven.** Performed hydraulic and scour analysis for the design of a 1,466-foot long replacement bridge for the existing SR 679 crossing of Bunces Pass, a tidal area with high velocities. Also prepared the Location Hydraulic Report for the project during the PD&E Phase.

**Districtwide Miscellaneous Drainage Design, FDOT District Five.** Assisted in providing drainage design,

drainage design reviews, report preparation in support of FDOT District Five's Drainage Department.

**Homestead Toll Plaza Express Lanes Design, Miami-Dade County, Florida's Turnpike Enterprise.** Drainage quality control reviewer of plans and calculations for the reconstruction of the existing toll plaza, construction of a new administration building and parking lot, and roadway improvements to the toll facility. Two additional mainline travel lanes (one in each direction) are required within the vicinity of the toll plaza to accommodate adequate traffic operations, and are proposed to be added to the inside of the existing travel lanes.

**Leisey Road Extension, Hillsborough County, Newland Communities.** Drainage engineer for the design and stormwater permitting of a two to four-lane urban facility on new alignment within a 102-foot wide right-of-way. The project includes a new intersection with US 41 (including left and right-turn lanes), stormwater management facilities and a bridge structure over the existing CSX Railroad tracks. The proposed project limits extend from west of US 41 to 1,000 feet east of the CSX Railroad and is located in the Waterset development in southeastern Hillsborough County.

**SR 93/I-275 Segment 1A, from Howard Frankland Bridge to Himes Avenue in Hillsborough County, FDOT District Seven.** Drainage design engineer for I-275, Segment 1A, a \$400 million project consisting of a five-level interchange, five 2-level interchanges and numerous overpasses. The project is located in an intensely-developed urban area with minimal land area available for stormwater management. Several storm sewer systems are required to drain the proposed roadway. The project includes seven wet detention ponds for treatment and attenuation and over 4,400 feet of 10-foot by 6-foot and 12-foot by 6-foot box culvert outfall. ICPR is used for the hydrologic and hydraulic calculations. Project responsibilities included drainage design and coordination stormwater permitting.

**Polk County Parkway, Polk County.** Provided and directed drainage, stormwater management, and bridge hydraulic efforts for a new expressway in Polk County. Project included preparation of a FEMA "No-Rise" Floodway certification and numerous wet detention stormwater ponds.

# Gregory S. Seidel, PE

## Drainage Support

Mr. Seidel, vice president and senior drainage engineer at The Balmoral Group, LLC, has more than 20 years experience in engineering, with a focus on stormwater management. His experience includes stormwater management design for limited access, major, and minor roadways; wet and dry systems; collection system design; permitting; reservoir design; flood mapping; roadway project management; roadway design; project development and environment (PD&E) studies; pond siting reports; site planning; and water distribution and wastewater collection design. Mr. Seidel's recent clients include the Florida Department of Transportation (FDOT) Districts One, Two, Three, and Five; Florida's Turnpike Enterprise; the Southwest Florida Water Management District (SWFWMD); and Clay, Orange, and Volusia Counties.



**ASSOCIATED FIRM**  
The Balmoral Group, LLC

### EDUCATION

M.S., Civil Engineering (Hydraulics and Hydrology), Lehigh University  
B.S., Civil Engineering, Lehigh University

### REGISTRATION

Professional Engineer:  
Florida 47571

### OFFICE LOCATION

Orlando

## Selected Project Experience

**SR 82 Drainage Design, Lee County, FDOT District One.** Project drainage engineer-of-record responsible for the drainage design for this 3.2 mile, six-lane SIS Typical Section Project. Tasks included all aspects of drainage design, total maximum daily load (TMDL) calculations, bridge hydraulics report (BHR), preparing drainage maps, pond detail sheets, and summary of drainage structures. Tailwater elevations for the project were established from gage data for Six Mile Cypress Slough taken from DBHydro. Additional work included preparation a the Federal Environmental Management Agency (FEMA) appeal document that was filed quickly by the Balmoral Group on behalf of the Florida Department of Transportation District One when it was determined that the new FEMA mapping would have a large negative impact on the proposed roadway project. The appeal requested a reevaluation of the flood stages and/or a remapping of the floodway at SR 82 and was based on a detailed review of the existing flood study.

**Daniels Parkway/I-75 Interchange Modifications, Lee County, FDOT District One.** Project drainage engineer responsible for drainage and permitting of this ramp widening project. Permitting included coordination with the Florida Fish and Wildlife Conservation Commission (FWC) and U.S. Fish & Wildlife Service (USFWS) for eagles nest LE-P1.

**Peer Review of Floodplain Results, SWFWMD.** Project manager responsible for providing a peer review technical document to accompany the detailed basin studies being completed utilizing ARCHydro. Tasks included a review of basin boundaries, modeling input and assumptions, flood shapes and evaluation of the 100-year 1-day storm versus 5 days storm. Additional tasks included evaluating the affect of the infiltration capacity thickness used in the modeling of the upper soil layers. The review of three basins in Hernando County has been completed.

## HIGHLIGHTS

- ▶ 20 years drainage experience
- ▶ Almost 5 years with FDOT District One Drainage Department
- ▶ Extensive knowledge of FDOT drainage program

**Suncoast Two, Section Two, Citrus County, Florida's Turnpike Enterprise.** Project drainage engineer-of-record on this 8.5-mile section of the proposed Suncoast Two Parkway that lies in the Coastal Rivers Basin of the SWFWMD. The unique conditions of this roadway segment required a detailed modeling of the existing conditions so that roadway impacts could be properly analyzed. The availability of Light Detection and Ranging (LiDAR) data for this project allowed for the use of the Hydrologic Software "CatchmentSIM." The software allowed for the efficient evaluation of over 100 basins comprising approximately 30 square miles. The dry closed basins were analyzed using the Green-Ampt method for runoff calculation and ICPR including percolation for peak stages. This project is in the final stormwater management design stages and is currently in the RAI process.

**Drainage Improvements to US 1 under the SR 44 Bridge, Volusia County, FDOT District Five.** Project drainage engineer-of-record for performing a detailed flood study for this area. This project required analysis of the existing storm sewer system with over 250 structures. The storm sewer system data was collected and stored in Microstation files and analyzed using ICPR. The drainage model is very complex, with many parallel pipe systems, existing stormwater facilities, existing exfiltration systems, and flooding issues. A detailed analysis of tide levels was included. The result of the study concluded that a parallel pipe system was necessary to alleviate flooding.

**I-95 New Interchange with the Pineda Causeway, Brevard County, FDOT District Five.** Project drainage engineer responsible for drainage design and permitting on new diamond interchange. The requirements for this project are based on the standards for the Florida Department of Transportation and Saint John River Water Management District. This project has been completed and submitted to SJRWMD for permits.

**CR 470 Interchange with Florida's Turnpike Drainage Design, Lake County, Florida's Turnpike Enterprise.** Project drainage engineer-of-record responsible for drainage design that included a 40-node ICPR model. The complex model was required due to the dendritic nature of the topography to account for historic storage in depressions in the pre-development condition. The model was then used along with compensatory treatment to eliminate the need for additional R/W outside the interchange footprint. The model included existing wetland areas outside the roadway footprint using the SHWT as the start point

for the model. Offsite runoff was bypassed through the interchange to help maintain hydraulic connection between the isolated wetland areas. Construction for this project is complete.

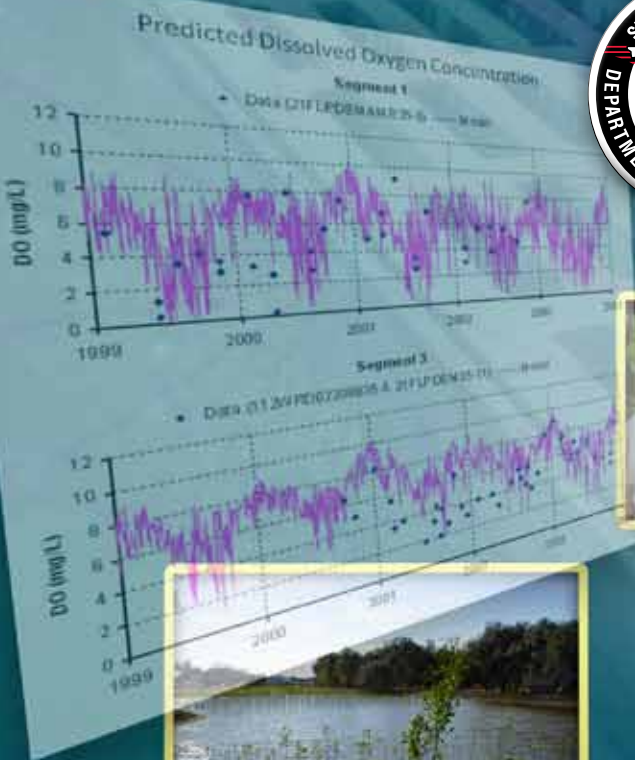
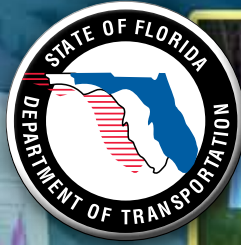
**Kissimmee Park Road Interchange with Florida's Turnpike, Osceola County, Florida's Turnpike Enterprise.** Assistant project manager as subconsultant to BSA on this PD&E and Design project. Responsibilities included overseeing and coordinating the drainage, lighting and pavement marking designs. The drainage documents included the Turnpike's new streamline document process. Involvement in this project was to the Phase II plans submittal.

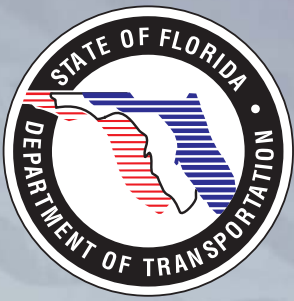
**CR 224 Regional Stormwater Management Facility, Clay County.** Project manager and drainage engineer-of-record responsible for the analysis, design and permitting of a regional stormwater management serving multiple roadway projects, providing flood relief to an existing subdivision and regarding of an existing borrow area to be used for a mitigation bank. A complex AdICPR model was used to help establish the grading for the mitigation area which was also used floodplain storage. Legal descriptions were developed for the floodplain area as part of the permitting process. This project was permitted through the SJRWMD.

**CR 220 Regional Stormwater Management Facility, Clay County.** Drainage engineer-or-record responsible for the analysis, design and permitting of a regional stormwater management serving multiple roadway projects. This project included a floodplain creation area adjacent to the cypress filled wetlands associated with Little Black Creek. A complex ICPR model was used to help establish the grading for the floodplain mitigation area while not impacting the wetlands and maintaining functionality of the stormwater management facility including the bleed down recovery time of the treatment volume. This project was permitted through the SJRWMD.

# District Wide Drainage Design Services

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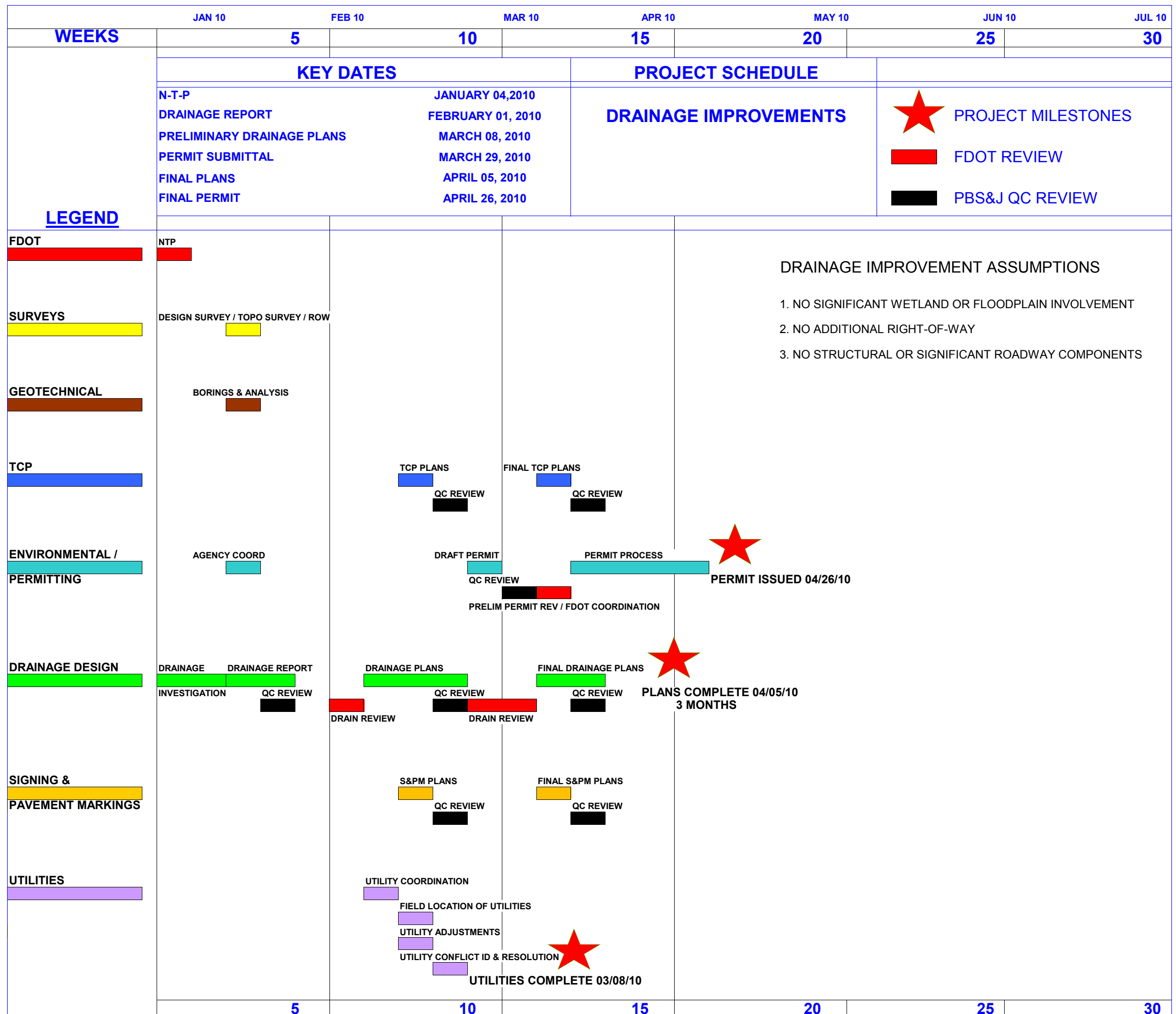


# Proposed Schedule of Events

*Effective work controls are essential to project success.  
PBS&J has in place proven project controls to  
maintain project cost, quality, and schedules.*

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**A**s requested in the Florida Department of Transportation District One's request for technical proposals, PBS&J's proposed schedule of events appears on the following page.







**PBSj<sup>®</sup>**

