

RFP Title: Request for Proposals for Civil Engineering Services, Continuing Supply
Proposal Number: BC-03-17-11-25
Opening Date: Thursday, March 17, 2011 at 2:00 PM

PROPOSAL RESPONSE COVER SHEET

THIS PAGE IS TO BE COMPLETED AND INCLUDED AS THE COVER SHEET FOR YOUR RESPONSE TO THE REQUEST FOR PROPOSALS.

The Board of County Commissioners, Leon County, reserves the right to accept or reject any and/or all bids in the best interest of Leon County.

Keith M. Roberts, Purchasing Director

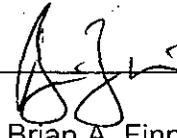
John Dailey, Chairman
Leon County Board of County Commissioners

This bid response is submitted by the below named firm/individual by the undersigned authorized representative.

WRS Infrastructure & Environment, Inc. d/b/a WRScompass

(Firm Name)

BY



(Authorized Representative)

Brian A. Finn

(Printed or Typed Name)

ADDRESS

508-A Capital Circle SE

CITY, STATE, ZIP

Tallahassee, FL 32301

TELEPHONE

850-531-9860

FAX

850-531-9866

ADDENDA ACKNOWLEDGMENTS: (IF APPLICABLE)

Addendum #1 dated 3/3/11 Initials AF Addendum #3 dated _____ Initials _____

Addendum #2 dated 3/8/11 Initials AF Addendum #4 dated _____ Initials _____

PLEASE MARK WHICH CATEGORIES FOR WHICH YOU WISH TO BE CONSIDERED:

- | | |
|---|---|
| <input checked="" type="checkbox"/> a. Stormwater Engineering | _____ h. Surveying |
| _____ b. Roadway Design | _____ i. Subdivision and Site Development Engineering |
| _____ c. Traffic and Intersection Engineering | _____ j. Parks and Recreational Facility Engineering |
| _____ d. Structural Engineering | _____ k. Utility Engineering |
| _____ e. Geotechnical Services | |
| <input checked="" type="checkbox"/> f. Environmental Support Services | |
| _____ g. Construction Engineering and Inspection Services | |



SECTION A

Contractor Information:

WRS Infrastructure & Environment d/b/a WRScompass

508 A-Capital Circle S.E.

Tallahassee, FL 32301

Phone: 850-531-9860

Fax: 850-531-9866

Contact: Andrew Frost – afrost@wrscompass.com

SECTION B

EXECUTIVE SUMMARY

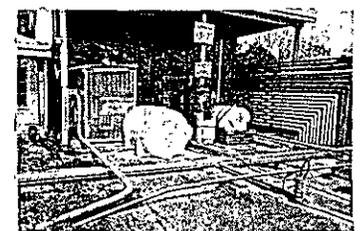
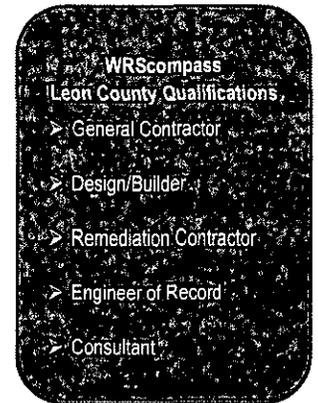
WRSScompass is a privately held company headquartered in Tampa, Florida, with over 500 employees in sixteen offices nationwide. Our presence in Florida is strong with over 150 personnel and five offices in the State, including Tallahassee. We are an established and respected provider of engineering, design, environmental assessment, and construction services / construction oversight services. During our 25 year history, we have completed more than 15,500 engineering, environmental consulting, and construction projects (over 4,500 have been performed in Florida alone). As a national, well-respected organization performing over \$1 billion of environmental and construction work, we have at our disposal the financial strength and other resources necessary to cost-effectively execute this contract with the highest degree of quality and reliability in the industry.

Because we are a Florida-based company with over 25 years of Florida experience, WRSScompass personnel are very familiar with the unique design challenges in Florida and regulatory agencies that govern within the boundaries of Leon County. WRSScompass personnel are very familiar with the geology, hydrogeology, natural resource issues, and regulatory frameworks that may be impacted under this contract. Additionally, WRSScompass is fully authorized and licensed to conduct business in the State of Florida and to perform the requested services. We also maintain licenses as a general contractor and are a prequalified by the Florida Department of Transportation for Construction and Design Work Categories.

Competitive Attributes:

Our experience and capabilities are broadly summarized below:

- Complete in-house capabilities and proven experience in all facets of civil engineering & design and construction services, particularly in Florida.
- Project Director and Engineer of Record located in Tallahassee, Florida
- Staff of well-trained and Florida-licensed civil engineering, stormwater, transportation and environmental professionals.
- Ample resources ready to support this contract.
- Proven track record in delivering quality services on time and within budget *for no less than seven (7) other municipal governments like Leon County.*
- Staff experience includes over 75 designs related to Capital Improvement Projects (CIP) and their related scope of work items.
- In-house capabilities to proceed with design directly into construction.
- Staff with experience working with the FDEP (including 6 current statewide contracts) as well as other state and federal regulatory agencies including the Florida Department of Transportation (FDOT), Florida Water Management Districts (WMD) and the U.S. Army Corps of Engineers (USACE). These relationships will insure all projects are permissible.



As the prime respondent, WRScompass will be the single point-of-contact for the County, manage all aspects of the contract, bear complete responsibility for quality performance, and perform the majority of services required using our Florida resources. The work will be guided by our well-defined and proven procedures and standards for project management, technical execution, documentation, health and safety, quality assurance, and regulatory compliance. The work will be managed from our Tallahassee, Florida office. A primary differentiator of WRScompass for the County to consider is that WRScompass has the engineering expertise to provide a wide variety of design services necessary to meet the needs of the County's CIP including; general civil, stormwater, transportation, and marine as well as provide services associated with various utilities, environmentally sensitive land management and design / build capabilities, all in house.

The table below identifies the variety of services we offer our clients.

Engineering/Technical Services

Site assessment and documentation (PCAP, PSAR, CAP, SAR, RJ)
Remedial alternative selection (Remedial Alternatives Evaluation (RAE),
Analyses of Brownfields Cleanup Alternatives (ABCA)
Remedial design/engineering (RAP, RD)
Risk assessment
Site-specific cleanup standards development
Environmental site assessments (ESAs)
Civil engineering design
Preparation of work plans and bid specifications
Field sampling and analysis
Treatability studies
Feasibility studies
Regulatory support and compliance
Expert witness testimony
Public relations support
Brownfields Site Rehabilitation Agreements (BSRAs)
Brownfields RAPs
Institutional controls

Construction Services

Site excavation, backfill, and grading
Trenching and subsurface wall installation
Large-diameter auger excavation
Installation, operation, and maintenance of remedial treatment systems
Removal/replacement of pavement systems
Utility installation and relocation
Site dewatering and groundwater control
Excavation shoring
Building demolition
Facility decontamination and demolition
Foundation construction
Engineering control installation
Site restoration

Ecological Services

Gopher Tortoise Surveys
Threatened and Endangered Species Surveys
Wetland Delineation
Vegetation Monitoring

Surface/Subsurface Remediation

Investigation-derived waste management
Soil excavation
In-situ soil mixing/stabilization/fixation
Ex-situ thermal treatment and/or desorption
In-situ thermal remediation
Drum and contaminated media removal
pH neutralization
Soil vapor/multi phase-actual phase-extraction
Bioremediation, and phytoremediation

Groundwater Remediation

Dewatering
Groundwater/surface water recovery
LNAPL/DNAPL recovery
Air sparging
Groundwater treatment system O&M
Contaminant plume control
Groundwater cutoff walls, tunnel-and-gate systems, and reactive barriers
In-situ chemical oxidation
Enhanced bioremediation and bioaugmentation
Monitored natural attenuation

Specialty Services

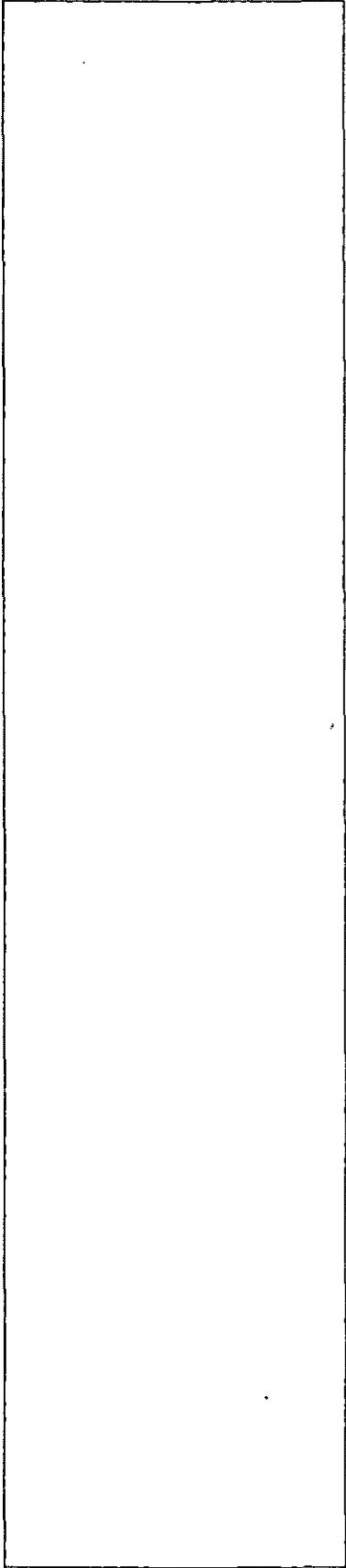
Hydrologic and Hydraulic Modeling
Emergency response services
Storage tank removal/replacement
Lead based paint assessment and abatement
Asbestos assessment and abatement
Stormwater Erosion Inspection
Historical and Cultural Resources Surveys
Industrial wastewater treatment
Indoor Air Quality and Mold Surveys
Mold Remediation
Fueling Facility Design and Construction

Project Manager – Andrew Frost
afrost@wrscompass.com

508 A-Capital Circle S.E.
Tallahassee, FL 32307
Phone: 850-531-9860
Fax: 850-531-9866

By signing below I Andrew Frost declare that our proposal was prepared in all respects fair and in good faith without collusion or fraud and I hereby confirm that I have the authority to bind the principal proponent.


MARCH 17, 2011



SECTION C – Required Forms

RFP Title: Request for Proposals for Civil Engineering Services, Continuing Supply

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AFFIDAVIT CERTIFICATION
IMMIGRATION LAWS

Leon County will not intentionally award County contracts to any contractor who knowingly employs unauthorized alien workers, constituting a violation of the employment provisions contained in 8 U.S.C. Section 1324 A(e) {Section 274a(e) of the Immigration and Nationality Act ("INA").

Leon County may consider the employment by any Contractor of Unauthorized Aliens a violation of Section 274A(e) of the INA. **Such violation by the Recipient of the employment provision contained in Section 274A(e) of the INA shall be ground for unilateral cancellation of the contract by Leon County.**

BIDDER ATTESTS THAT THEY ARE FULLY COMPLIANT WITH ALL APPLICABLE IMMIGRATION LAWS (SPECIFICALLY TO THE 1986 IMMIGRATION ACT AND SUBSEQUENT AMENDMENTS).

Company Name: WRS Infrastructure & Environment, Inc. d/b/a WRSccompass

Signature:  Title: Treasurer/Controll

STATE OF Florida
COUNTY OF Hillsborough

Sworn to and subscribed before me this 14th day of March, 2011

Personally known ✓


NOTARY PUBLIC

OR Produced identification _____

Notary Public - State of Florida

(Type of identification) **NOTARY PUBLIC-STATE OF FLORIDA**
 **Candace M. Hammons**
Commission # DD835097
Expires: DEC. 02, 2012
BONDED THRU ATLANTIC BONDING CO., INC.

My commission expires: 12/2/2012

Candace M. Hammons
Printed, typed, or stamped
commissioned name of notary public

The signee of this Affidavit guarantees, as evidenced by the sworn affidavit required herein, the truth and accuracy of this affidavit to interrogatories hereinafter made.

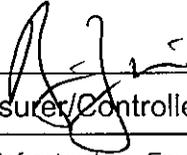
**LEON COUNTY RESERVES THE RIGHT TO REQUEST SUPPORTING DOCUMENTATION,
AS EVIDENCE OF SERVICES PROVIDED, AT ANY TIME.**

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EQUAL OPPORTUNITY/AFFIRMATIVE ACTION STATEMENT

1. The contractors and all subcontractors hereby agree to a commitment to the principles and practices of equal opportunity in employment and to comply with the letter and spirit of federal, state, and local laws and regulations prohibiting discrimination based on race, color, religion, national region, sex, age, handicap, marital status, and political affiliation or belief.
2. The contractor agrees to comply with Executive Order 11246, as amended, and to comply with specific affirmative action obligations contained therein.

Signed:



Title:

Treasurer/Controller

Firm:

WRS Infrastructure Environment, Inc. d/b/a WRScompass

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INSURANCE CERTIFICATION FORM

To indicate that Bidder/Respondent understands and is able to comply with the required insurance, as stated in the bid/RFP document, Bidder/Respondent shall submit this insurance sign-off form, signed by the company Risk Manager or authorized manager with risk authority.

A. Is/are the insurer(s) to be used for all required insurance (except Workers' Compensation) listed by Best with a rating of no less than A:VII?

YES NO

Commercial General
Liability:

Indicate Best Rating: A
Indicate Best Financial Classification: XV

Business Auto:

Indicate Best Rating: A
Indicate Best Financial Classification: XV

Professional Liability:

Indicate Best Rating: A
Indicate Best Financial Classification: XV

1. Is the insurer to be used for Workers' Compensation insurance listed by Best with a rating of no less than A:VII?

YES NO

Indicate Best Rating: A
Indicate Best Financial Classification: XV

If answer is NO, provide name and address of insurer:

2. Is the Respondent able to obtain insurance in the following limits (next page) for this professional services agreement?

YES NO

Insurance will be placed with Florida admitted insurers unless otherwise accepted by Leon County. Insurers will have A.M. Best ratings of no less than A:VII unless otherwise accepted by Leon County.

Required Coverage and Limits

The required types and limits of coverage for this bid/request for proposals are contained within the solicitation package. Be sure to carefully review and ascertain that bidder/proposer either has coverage or will place coverage at these or higher levels.

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Required Policy Endorsements and Documentation

Certificate of Insurance will be provided evidencing placement of each insurance policy responding to requirements of the contract.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the County. At the option of the County, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the County, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

Endorsements to insurance policies will be provided as follows:

Additional insured (Leon County, Florida, its Officers, employees and volunteers) -
General Liability & Automobile Liability

Primary and not contributing coverage-
General Liability & Automobile Liability

Waiver of Subrogation (Leon County, Florida, its officers, employees and volunteers)- General Liability, Automobile Liability, Workers' Compensation and Employer's Liability

Thirty days advance written notice of cancellation to County - General Liability, Automobile Liability, Worker's Compensation & Employer's Liability.

Professional Liability Policy Declaration sheet as well as claims procedures for each applicable policy to be provided

Please mark the appropriate box:

Coverage is in place

Coverage will be placed, without exception

The undersigned declares under penalty of perjury that all of the above insurer information is true and correct.

Name Brian A. Finn
Typed or Printed

Signature 

Date 14 MAR 2011

Title Brian A. Finn
(Company Risk Manager or Manager with Risk

Authority)

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**CERTIFICATION REGARDING DEBARMENT, SUSPENSION,
And OTHER RESPONSIBILITY MATTERS
PRIMARY COVERED TRANSACTIONS**

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - b) Have not within a three-year period preceding this been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of these offenses enumerated in paragraph (1)(b) of this certification; and
 - d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.
3. No subcontract will be issued for this project to any party which is debarred or suspended from eligibility to receive federally funded contracts.

Signature

Treasurer/Controller

Title

WRS Infrastructure & Environment, Inc. d/b/a WRScompass

Contractor/Firm

508-A Capital Circle SE; Tallahassee, Florida 32301

Address



Leon County Board of County Commissioners

Response to Request for Proposals for Civil Engineering Services, Continuing
Supply

Stormwater Engineering

Proposal Number BC-03-17-11-25

Submitted To:

Leon County Purchasing Division
1800-3 Blair Stone Road
Tallahassee, Florida 32308

Submitted By:

WRS Infrastructure & Environment, Inc. d/b/a WRS
508-A Capital Circle, S.E.
Tallahassee, Florida 32301
Phone: 850-531-9860
Fax: 850-531-9866

WRS Proposal No. 99-60-113202

March 17, 2011

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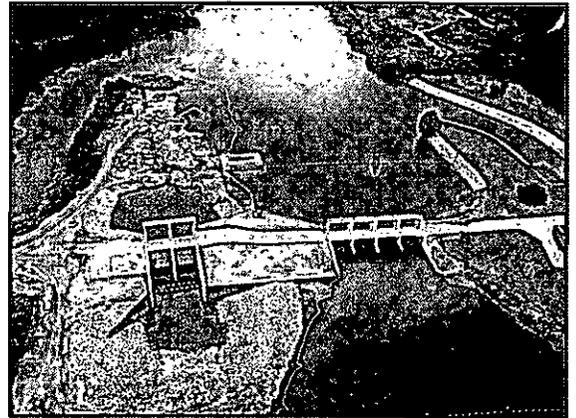
APPENDICES

APPENDIX A – Key Personnel Resumes

INTRODUCTION

WRScopass is a nationally recognized provider of turn-key civil engineering, environmental consulting and construction services. We have performed over 4,000 projects in Florida and over 15,500 projects nationally. These projects encompass the full range of services that may be required for this contract including: H&H modeling, civil design, environmental resource permitting, NPDES permitting, environmental habitat restoration design, watershed retrofit design, basin master plans, as well as other stormwater related restoration including, wetland mitigation design, wetland and upland vegetation species identification, ecological monitoring, threatened and endangered species assessments, environmental risk assessments, feasibility and pilot studies, data review and interpretation, and construction management.

WRScopass has considerable local and regional experience in successfully performing the services required for this program and we have conducted similar required services within the State of Florida and Leon County. We have worked in the full range of environmental regulatory arenas and other Federal programs and we are intimately familiar with compliance under State of Florida environmental regulations and ordinances. We are also quite familiar with the Save our Rivers Program, Preservation 2000, Florida Forever Program, and the numerous other programs associated with Surface Water Improvement and Management Plans. ***We can confidently offer the County cost-effective and timely engineering solutions.***



A. Ability of Professional Personnel

The WRScompass organizational structure allows flexibility in the use of personnel so that project individuals may be "custom tailored" to a particular project assignment. Field personnel will integrate their activities with management and support staff within well defined lines of communication to deliver project services in accordance with County requirements. A partnership approach between WRScompass and the County's Team will be established to identify and resolve the challenges presented by the project and to successfully complete project tasks. Open communication among members of the project team and the County oversight personnel are essential and will be fostered at all project levels.

WRScompass offers the County dedicated highly qualified people that will perform and manage all tasks that may be granted irrespective of project size. The availability of key personnel is critical to the proper implementation and successful completion of any project. All individuals identified in this proposal are available and committed to fulfilling their assigned roles or identified tasks. All of the listed key personnel are available to begin work on any assigned project immediately and are ready to accelerate projected schedules, as appropriate and necessary. The key project team discussed in the next section, including the Project Director, Mr. Mark White and Project Manager, Mr. Christopher Bauer, P.E. will be 100% available and dedicated to insuring the successful completion of projects granted. In addition WRScompass has available many Florida based, professional personnel available to assist with this contract. Our core team has been selected based on their availability and experience with similar work scopes and will be the first responders to assigned tasks. Our commitment of this dedicated core team will promote high quality services by ensuring consistency and continuity of all operations performed under the contract.

Mr. Mark E. White, PG, will serve as the Project Director for this contract. He will provide technical, construction, management, and regulatory oversight to the WRS Team. Mr. White has worked and lived within Leon County since joining WRS in 1994. He has served as WRScompass FDOT District Three Contract Manager from 1996 to 2005 when he relinquished day to day management to Mr. Andrew Frost, P.E. In this capacity, Mr. White will provide technical support and regulatory guidance and be a point of contact for the County. Mr. White has an excellent understanding of the various environmental scopes of work and will bring a practical, streamlined approach to resolving potential environmental issues.

Mr. Christopher K. Bauer, PE, PLS, LEED AP has been selected to serve as WRS's Project Manager for the County. Mr. Bauer has over 15 years of experience the fields of civil engineering and land surveying. He is a licensed professional civil engineer in Florida and California, a licensed professional land surveyor in California and is a LEED accredited professional. Mr. Bauer has a proven ability to lead and manage a team of junior engineers and engineering technicians for completion of multiple concurrent storm water engineering projects. His experience includes hydraulic/hydrologic analysis, storm water management system design, FIRM map modifications, permitting and associated technical report preparation. He has performed Hydraulic/Hydrologic modeling utilizing ICPR-3 and Modret

Mark White, PG
WRS Project Director
Phone: (850) 531-9860
Fax: (850) 531-9866
Cell: (850) 251-4510

Chris Bauer, PE, PLS, LEED, AP
WRS Project Manager
Phone: (813) 684-4400
Fax: (813) 684-9173
Cell: (561) 383-0112

software. This **extensive experience** will provide the County with **seamless coordination** on any challenging stormwater issues. This experience ensures successful completion of existing projects and rapid, cost-effective startup of new projects.

With WRS, there will be no learning curve during contract startup and project execution. The level of program experience that WRS provides will be advantageous to the County. Our experience within the area has allowed us to develop excellent personal and professional working relationships with regulatory agency personnel that is based on trust. These relationships give WRS an unsurpassed ability to represent the County while addressing permitting concerns in a timely and cost-effective manner, without impacting projects. Our experience will also allow us to optimize close-out procedures for on-going projects.

Highly Qualified Team

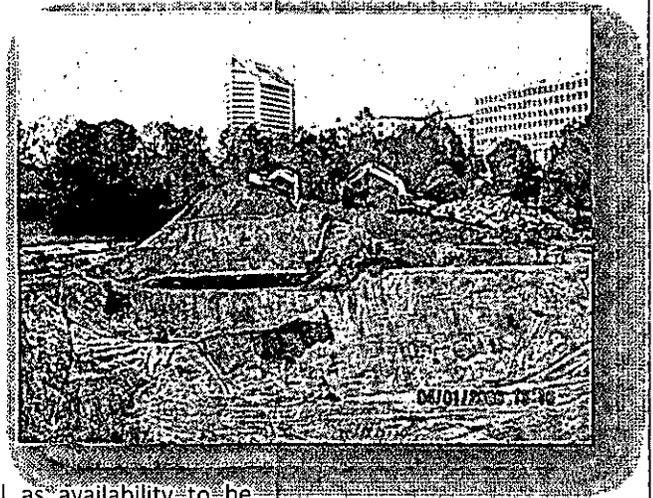
As you know, it is the people who are doing the work on your project that you want to have the relevant experience. A company can have the greatest experience in the world, but if the people who did that work are not assigned to your project, are you getting what you need? WRScompass will provide the engineers with the necessary direct related experience as presented in our proposal to the County.

The quality of the WRScompass Team personnel is the key to our consistent success in the work we do. Each member of the team has been selected based on proven experience and qualifications in his/her area of technical or operational responsibility, as well as availability to be dedicated to the County. The qualifications of these key personnel are summarized below and detailed resumes are contained in **Appendix A** of this proposal.

These key team members include Mr. Sean Kuang, PhD, PE, Mr. Deavon Uter, PE, and Mr. Patrick Keith, PE..

Sean Kuang, PhD, PE – Modeling/Feasibility Studies: Dr. Kuang, is a civil/hydraulic engineer with over 10 years of experience in the water resource engineering field. His specific professional experience includes extensive knowledge and skills with drainage, stormwater management, watershed modeling and general civil design. He has performed several feasibility studies for water resource and restoration projects, including long-term monitoring to assure the success of those projects. Dr. Kuang has served as a project engineer on many large-scale and complex hydrologic/hydraulic projects for such agencies as the, Florida Department of Transportation, Florida Water Management Districts, and other local agencies. His knowledge of environmental issues, regulations, and H&H modeling practices has enabled him to successfully design various projects throughout Florida and other areas of the United States and China.

Deavon Uter, PE – Stormwater System Design - Mr. Uter is a Florida-licensed Professional Engineer with over 16 years of experience in water resource engineering, land development, water and waste water utilities design, agricultural waste systems design, and project management.



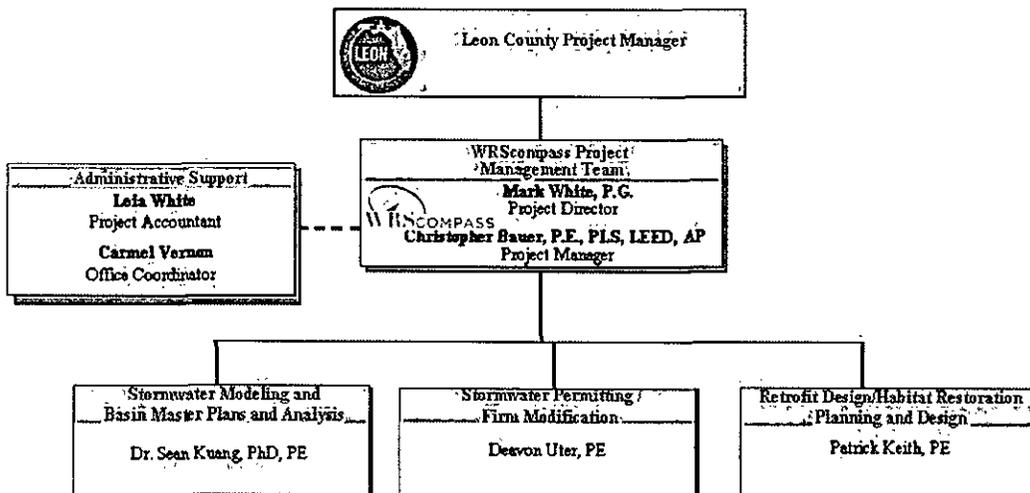
Patrick Keith, PE – Stormwater Design/Facility Retrofit Design: Mr. Keith is a civil engineer with 5 years experience primarily in geotechnical consulting, coastal, civil and structural engineering, and construction management and inspection. Mr. Keith is nationally certified and has performed top side, as well as, underwater inspections of bridges in Wisconsin, South Carolina, and Georgia. Since joining WRScompass, Mr. Keith has participated in the design of several water control structures for SFWMD that are part of the Everglades Restoration Project. Mr. Keith’s role in this project consisted of stormwater runoff analysis, hydraulic analysis, structural design, and computer modeling.

These key individuals will be supported by our highly trained team of engineers, geologists, environmental scientists, construction, and remediation personnel.

Our Team offers the County several important benefits:

- **Complete** in-house capabilities and proven experience – *This will ensure that we provide the County with cost effective services by eliminating any learning curves.*
- **Diverse** skill sets and experience – *Experience and knowledge of geography and hydrologic conditions ensures the County of quality investigation and designs that will be performed right the first time.*
- **Local** experience and facilities – *This will ensure the County that they are choosing a firm that is well versed in scope of work items and that knowledge of project area is well-known, translating into quality and effective approach and implementation. This also provides the County will a close knit team, working together side by side and within close proximity of the County.*
- **Competent** staff of well-trained, Florida-licensed engineering professionals – *Augments the County staff with additional quality, field tested and reliable professionals.*
- **Dedication** of key and support personnel for the duration of the contract

WRS has a strong corporate commitment to maintaining resources to meet and exceed the requirements of this contract. We will provide all resources necessary to perform work assigned under this contract. WRS has extensive resources at our Florida facilities to handle the concurrent, multi-site task authorizations anticipated under this contract. Our resources include appropriately qualified personnel and an impressive equipment inventory. A depiction of our proposed organizational structure is presented below:



B. Experience with Projects of Similar Type and Size

The WRScompass Team has an excellent performance history with various clients including the several Florida Counties, FDEP, Florida Water Management Districts and the FDOT. Our dedication to provide services and deliverables – both on-time and within budget – have helped us earn our excellent professional reputation. WRScompass has chosen the following projects with specific scope of work elements similar to the items requested in the RFP as examples of our experience with projects of similar type and size.

PROJECT EXAMPLE #1		
Project Name	Project Location	WRScompass Role
C-111 Spreader Canal Phase I Design	Homestead, Florida	Prime Contractor
Size of Project (physical)	Performance Period	Construction Costs
17,500 acres	March 2008 to July 2009	\$70 million (estimated)
Project Reference Information:		
Name/Role (relation to project)	Phone	Address
Mr. Jorge Jaramillo, P.E. SFWMD Project Manager	561-242-5520 x 4021	Everglades Restoration Resource Area 2301 Centre Park West Drive West Palm Beach, FL 33409
Description:		

PROJECT EXAMPLE #1

Project Name	Project Location	WRScompass Role
C-111 Spreader Canal Phase I Design	Homestead, Florida	Prime Contractor

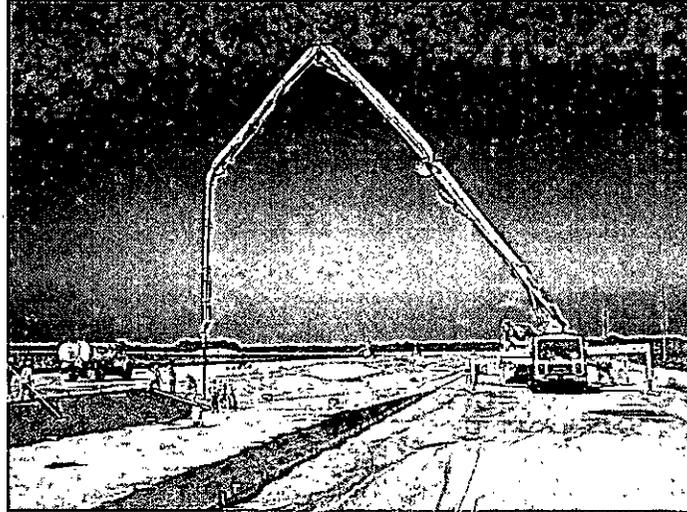
Under our General Engineering and Professional Services (GEPS) Indefinite Delivery / Indefinite Quantity (ID/IQ) contract, with the South Florida Water Management District (SFWMD), WRScompass has provided engineering design services for the C-111 Spreader Canal Phase I project and is currently providing Engineering During Construction (EDC) services throughout the duration of construction. This SFWMD Everglades Restoration Resource Area project is located in southern Miami-Dade County, Florida, in an area bounded by Everglades National Park, the Florida City-Homestead area, and Manatee Bay. The Project is being implemented under the South Florida Water Management District's Everglades Comprehensive Everglades Restoration Program, (CERP) in cooperation with the U.S. Army Corps of Engineers (USACE). As a component of the Comprehensive Everglades Restoration Program, (CERP), the C-111 Spreader Canal Project has a goal of improving the Everglades wetlands condition by establishing more natural water flows in Taylor Slough, which feeds flows from southeastern Florida to the Everglades. At present, floodwaters from the Miami/Dade County area are routed via manmade canals to Florida Bay, depriving the Everglades of needed water. The purpose of the C-111 Spreader Canal Project is to move this water west into the Everglades. This, in turn, will also improve the timing, distribution, salinity level and quality of water in Florida Bay. It is estimated that about 252,000 acres of wetlands and coastal habitat may be

PROJECT EXAMPLE #1

Project Name	Project Location	WRScompass Role
C-111 Spreader Canal Phase I Design	Homestead, Florida	Prime Contractor

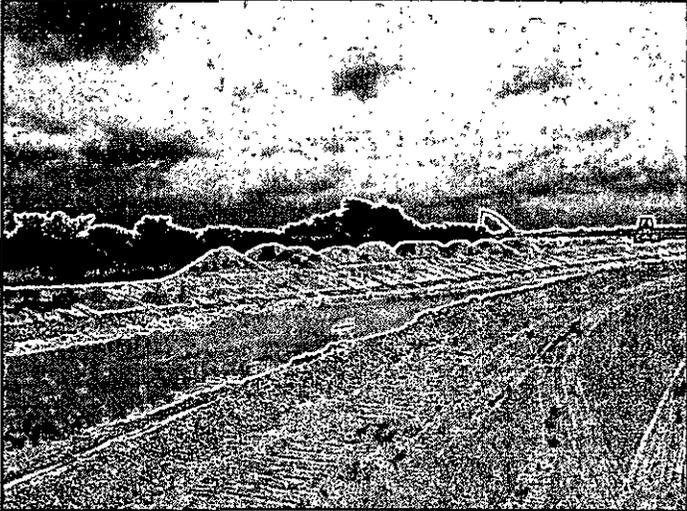
enhanced by the proposed project.

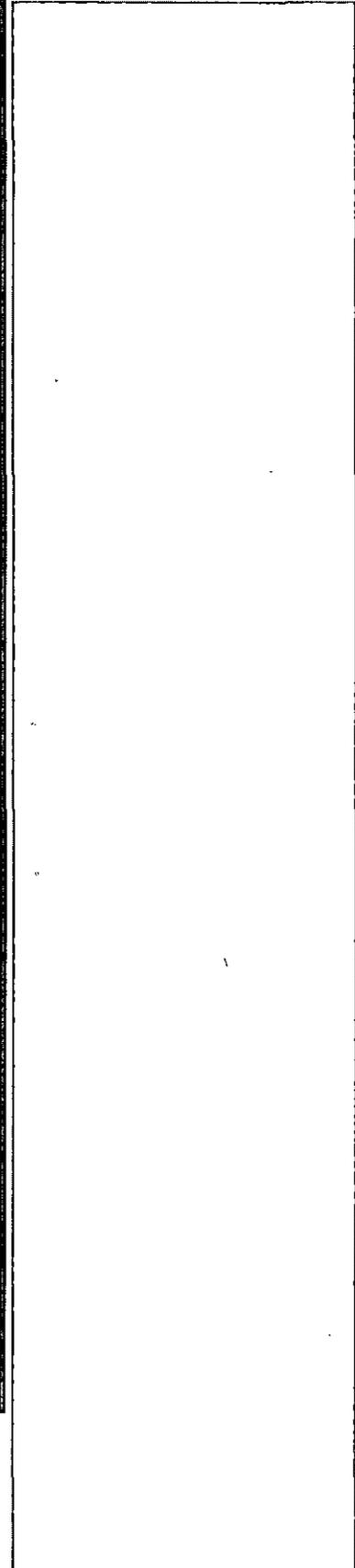
The C-111 Spreader Canal Project creates a nine-mile hydraulic ridge adjacent to Everglades National Park that will restore water flows within Taylor Slough to patterns which resemble historic conditions prior to construction of the flood control canals throughout South Florida.

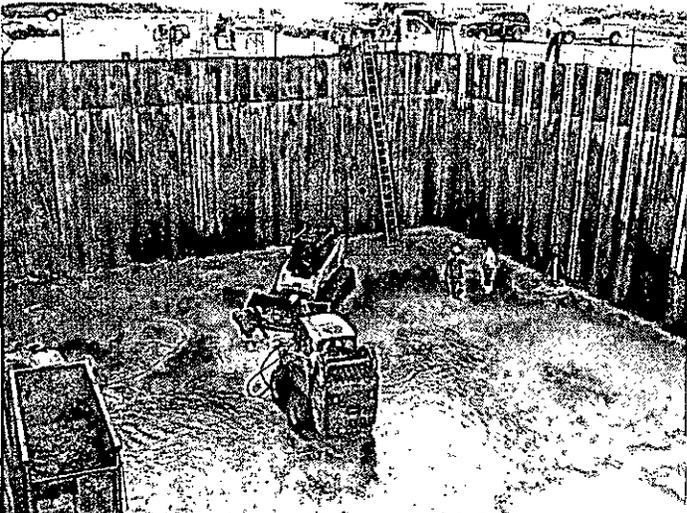


WRScompass was tasked with the design of key components of the project currently being constructed, including the following:

- 590-acre above-ground detention area in the Frog Pond Detention Area.
- Approximately 8,000 feet of 80 foot wide above grade concrete lined channels.
- Approximately 4 miles of 100 foot to 125 foot wide unlined, above grade, bermed channels.
- Approximately 10 miles of earthen levees ranging in width from 60 feet to 70 feet.
- Two 225 cubic feet per second pump stations to pump water out of the C-111 canal to the Aerojet Canal Extension and Frog Pond Detention Area.
- Six articulating concrete block (ARB) weirs ranging in width from 300 feet to 400 feet.
- Two 8'x10' cast-in-place concrete culverts.
- 13 earthen plugs in the C-110, Aerojet and L-31E canals.
- 3-gate spillway water control structure with 2,400 cfs flow capacity.

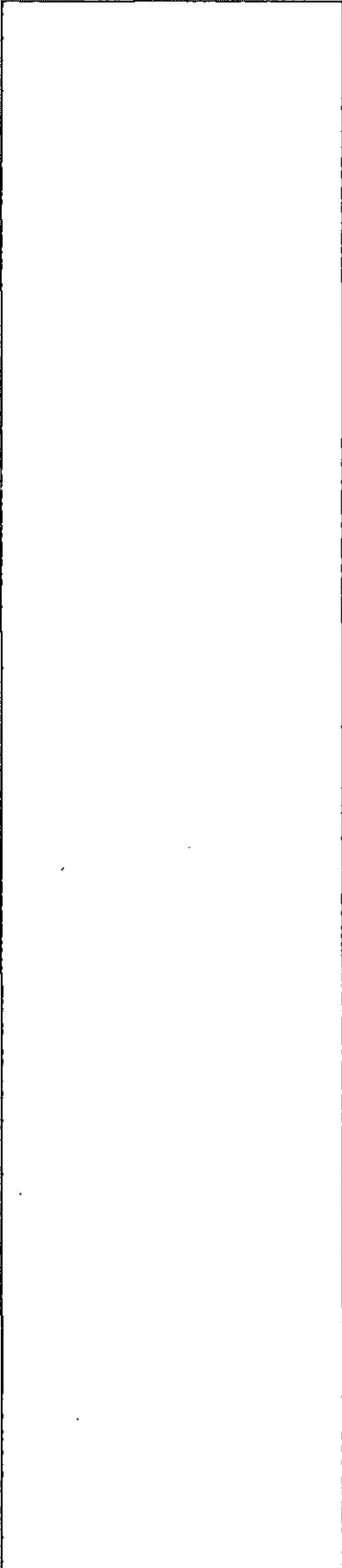
PROJECT EXAMPLE #1		
Project Name	Project Location	WRScompass Role
C-111 Spreader Canal Phase I Design	Homestead, Florida	Prime Contractor
		<p>In future phases, the project will also begin restoration of the Southern Glades and Model Lands with an operable flow control structure in the lower C-111 canal, incremental operational changes at the S-18C structure, a plug at S-20A, and operational changes at the S-20 structure.</p>
<p>During the engineering design phase WRScompass provided SFWMD with 30, 60, and 90 percent complete documents including drawings for the conceptual, preliminary, and final design phases. The design reports were reviewed by the SFWMD, Florida Department of Environmental Protection (FDEP), the U.S. Army Corps of Engineers (USACE), and various other stakeholders. All comments generated by public agency review were posted on the Dr. Checks electronic review system, which WRScompass provided responses to electronically via the Dr. Checks web portal.</p>		
<p>Key elements of the services that WRScompass has provided to SFWMD for the design and construction of the C-111 Spreader Canal Project include:</p> <ul style="list-style-type: none"> • Geotechnical investigation. Data of soil layers and classifications, gradation (to evaluate suitability for embankment materials), consolidation, percolation rate, hydraulic conductivity and ground water table were obtained. • Land Surveying work. Topography, ROW and Boundary survey were performed to provide necessary information for modeling and design purpose. • Hydrologic and hydraulic modeling using ICPR Percpack 3.1 software as well as HEC-RAS and SWMM. The modeling results were the basis for civil design. The modeling scenarios include storm water under different event (25-yr/24-hr, 100-yr/24-hr, 100-yr/72-hr and Possible Maximum Precipitation-PMP) coupled with pumped water in dry or wet season (reflecting different groundwater table). Water mounding analysis and seepage analysis were conducted as well. The model development such as basins and sub-basins, node-link diagram was presented in GIS map. 		



PROJECT EXAMPLE #1		
Project Name	Project Location	WRSScompass Role
C-111 Spreader Canal Phase I Design	Homestead, Florida	Prime Contractor
<ul style="list-style-type: none"> • Civil Design. Engineering design of the two 225 cubic foot per second pump stations for the Frog pond (North Component) and Aerojet Canal (South Component), associated conveyance channels, the 590 acre detention facility, box culverts, control weirs, water control structure, emergency spillways and plugs. WRSScompass provided all necessary plans and specifications for these structures. • Construction Management. WRSScompass is currently providing Engineer During Construction (EDC) support on the project. In this capacity we are overseeing the work of three (3) separate contractors whose combined bids totaled \$25M to build the project. We participated in pre-construction meetings, attend bi-weekly progress meetings, maintain two full time engineers on site for construction observation and review all submittals provided by the contractors to ensure all work conforms to the construction documents. • Engineering Design During Construction. WRSScompass has provided additional design during construction services to SFWMD to make modifications to the original accepted design in response to additional property that was acquired by SFWMD after the original contract had gone to bid. By providing the additional design during construction services, WRSScompass has been able to eliminate approximately 2,200 feet of levees and above grade unlined channel from the Aerojet Canal Extension contract while still meeting all of the projects objectives, resulting in an approximate \$700,000 savings to SFMWD as a contract deduct. Also associated with the modification to the original Aerojet Canal Extension design, WRSScompass has provided additional engineering analysis and modeling to prepare a corrective action plan to prevent phosphorous laden sediment present in the recently acquired segment of the project from being transported downstream to the C-111 canal and ultimately Manatee Bay. 		
		
<p>Functioning as an augmentation of SFWMD staff, this project and its work scope directly reflects the competence of WRSScompass personnel in our ability to successfully, accurately, economically and with utmost quality provide USFW with wetland habitat restoration services including Civil Design, Geotechnical, Environmental, Water Resources, Land</p>		

PROJECT EXAMPLE #1		
Project Name	Project Location	WRSScompass' Role
C-111 Spreader Canal Phase I Design	Homestead, Florida	Prime Contractor
Surveying, Mapping, Construction Management, Wetlands Ecology and Permitting. WRSScompass has completed all design tasks under this project within the timeframe and budget constraints established by the SFWMD.		

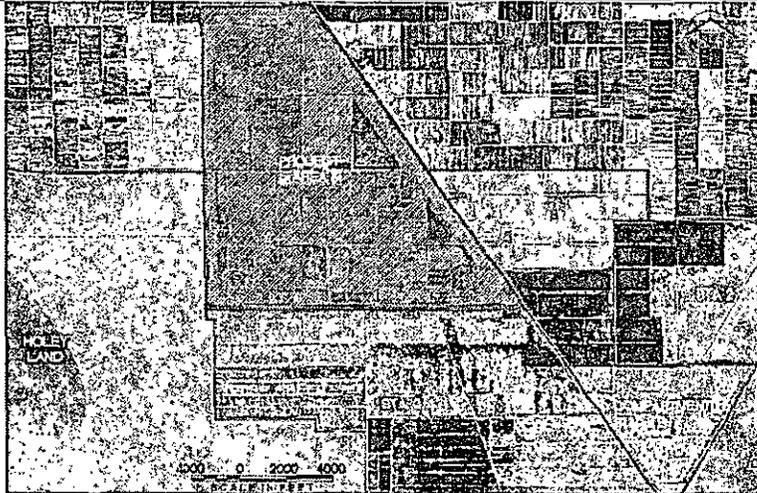
PROJECT EXAMPLE #2		
Project Name	Project Location	WRSScompass' Role
Everglades Agricultural Area (EAA) A-1 Flow Equalization Basin (FEB)	Unincorporated Southwest Palm Beach County, Florida	Prime Contractor
Size of Project (physical)	Performance Period	Construction Costs
16,000 acres	February 2011 to Present	\$45 million (estimated)
Project Reference Information:		
Name/Role (relation to project)	Phone	Address
Ms. Sara Sciotto, P.E. SFWMD Project Manager	561-242-5520 x 4077	Everglades Restoration Resource Area 2301 Centre Park West Drive West Palm Beach, FL 33409
Description:		



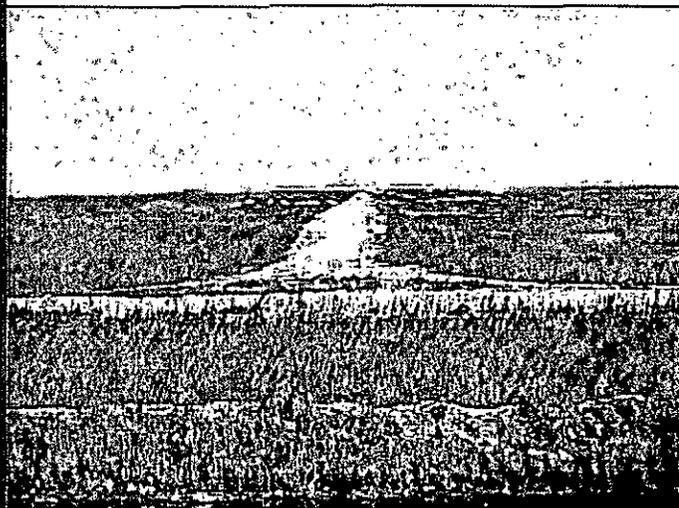
PROJECT EXAMPLE #2

Project Name	Project Location	WRSScompass' Role
Everglades Agricultural Area (EAA) A-1 Flow Equalization Basin (FEB)	Unincorporated Southwest Palm Beach County, Florida	Prime Contractor

Under our General Engineering and Professional Services (GEPS) Indefinite Delivery / Indefinite Quantity (ID/IQ) contract, with the South Florida Water Management District (SFWMD), WRSScompass is providing engineering services for the Everglades



Agricultural Area (EAA) A-1 Flow Equalization Basin (FEB) site layout and design. This SFWMD Everglades Restoration Resource Area project is located in southwestern unincorporated Palm Beach County, Florida, in the Everglades Agricultural Area immediately north of Storm Treatment Area (STA) 3/4. The project area is between the Miami and the North New River canals and is border to the east by U.S. Highway 27 and partially to the west by the Holey Land Tract Water Conservation Area (WCA). The Project is being implemented



under the South Florida Water Management District's Comprehensive Everglades Restoration Program (CERP) in cooperation with the U.S. Army Corps of Engineers (USACE). The SFWMD wants to make immediate use of the 16,000 acre land that they have in their possession to move closer to their goal of improved water quality releases to the WCA's while increasing

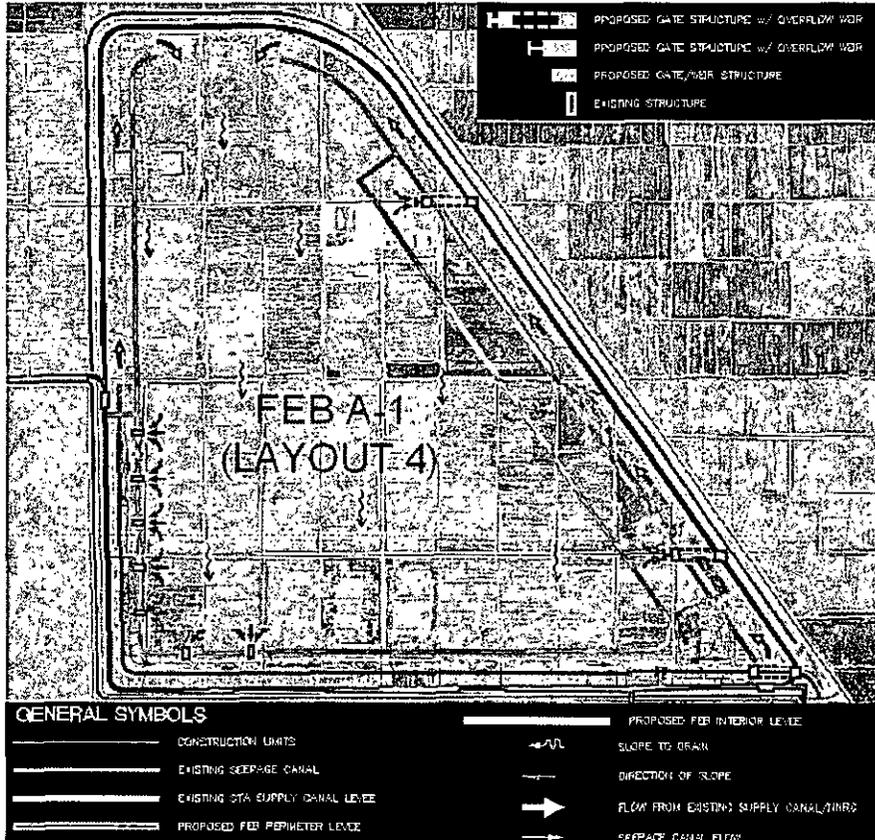
flood protection. However, as CERP progresses, its operational needs change. Therefore, part of the design criteria set by SFWMD, was to deliver a design that could be converted in the future to either a 190,000 ac-ft reservoir or an STA with the least amount of rework as possible and still meet their current needs. As a component of the Comprehensive Everglades Restoration Program, (CERP), the EAA A-1 FEB has a goal of attenuating peak flows from EAA basin runoff and Lake Okeechobee regulatory releases to improve the timing of releases

PROJECT EXAMPLE #2

Project Name	Project Location	WRSccompass' Role
Everglades Agricultural Area (EAA) A-1 Flow Equalization Basin (FEB)	Unincorporated Southwest Palm Beach County, Florida	Prime Contractor

to the WCA's through the STA's while adding to the flood protection of south Florida. At present,

the peak runoff flows from the EAA basin and Lake Okeechobee releases are being conveyed to Florida Bay via man made canals or to the WCA's via the STA's at rates too high for the STA's to properly



treat the water. This results in higher than acceptable concentrations of total phosphorous (TP) being introduced into south Florida estuaries. The purpose of the EAA A-1 FEB is to detain these flows for controlled release to the STA's to the south. This, in turn, will help reduce the water flow rates through the STA's to a more acceptable level for increased treatment. This increase treatment will result in lower TP concentrations being released into the WCA's. Over two million acres of Everglades wetlands and coastal areas could potentially benefit from the construction of the EAA A-1 FEB.

As the part of the design, WRSccompass will be incorporating ways to utilize the FEB for pretreatment of the detained water to improve the quality of the water being released to the STA's in order to help lower the TP concentrations being introduced to the WCA's even further.

The key components of the project currently being designed include, but are not limited to, the following:

PROJECT EXAMPLE #2

Project Name	Project Location	WRSScompass' Role
Everglades Agricultural Area (EAA) A-1 Flow Equalization Basin (FEB)	Unincorporated Southwest Palm Beach County, Florida	Prime Contractor

- 16,000 acre Flow Equalization Basin with a 70,500 ac-ft attenuation capacity
- 21 miles of 11ft tall earthen levees with 14ft crest
- Approximately 16 miles of 8ft tall interior stabilized muck levees for conveyance of water
- More than 8 miles of seepage canal, approximately 8ft deep with a channel bottom width of 13ft
- 4 to 7 multi-barrel water control gate structures
- Up to 1,500 feet of weirs
- Removal/Exclusion of 800,000 cubic yards of mined and sorted aggregate stockpiles.



WRSScompass's Key Design Services include:

- Review of all existing reports, studies, models, and databases that pertain to the project site, hydrology and hydraulics of the local area, and operations of connecting conveyance systems in order to maximize the design.
- Geotechnical investigation. Data of soil layers and classifications, gradation (to evaluate suitability for embankment materials), consolidation, percolation rate, hydraulic conductivity and ground water table were obtained.
- Land Surveying work. Topography, ROW and Boundary survey are being performed to provide necessary information for modeling and design purpose.
- Hydrologic and hydraulic modeling. H&H modeling results will be the basis for civil and structural designs.
- Civil Design. Engineering design of 21 miles perimeter levees with maintenance roads, approximately 16 miles of stabilized muck levees, at least 8 miles of 8ft deep seepage canal with a 13ft channel bottom, up to 1,500 feet of weirs, removal/exclusion of 800,000 cubic yards of mined and sorted aggregate stockpiles.
- Structural Design: Engineering design of 5 to 7 multi-barrel water control gate structures.

PROJECT EXAMPLE #2

Project Name	Project Location	WRSScompass Role
Everglades Agricultural Area (EAA) A-1 Flow Equalization Basin (FEB)	Unincorporated Southwest Palm Beach County, Florida	Prime Contractor



This project and its work scope is just another example of our willingness to work with clients to meet their needs and the competence of WRSScompass personnel in our ability to successfully, accurately, economically and with utmost quality provide SFWMD with Everglades restoration services including Civil Design, Geotechnical, Environmental, Water Resources, Land Surveying, Mapping, and Wetlands Ecology.

To date WRSScompass has completed all design tasks under this project within the timeframe and budget constraints established by the SFWMD.

PROJECT EXAMPLE #3

Project Name	Project Location	WRSScompass Role
Permitting for Eco Island Construction and Channel Dredging, Pahokee, FL	Pahokee, Florida	Prime Contractor

Estimated Manhours	Performance Period	Engineering Fees
1,675	June 2009 – May 2010	\$150,000

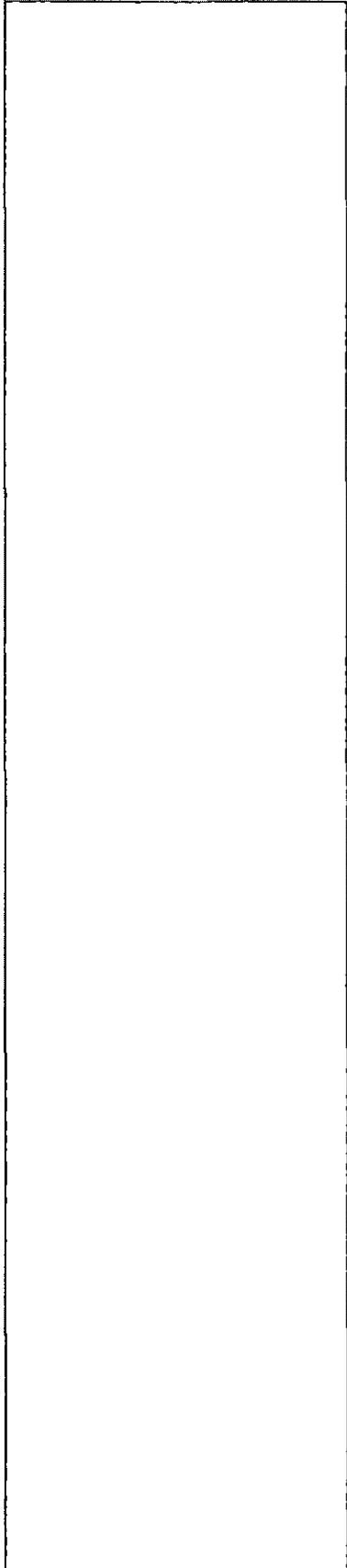
Project Reference Information:

Name/Role (relation to project)	Phone	Address
Kenneth A. Blair Seven Kings Holdings	561-625-9443	630 Maplewood Drive Jupiter, FL 33458

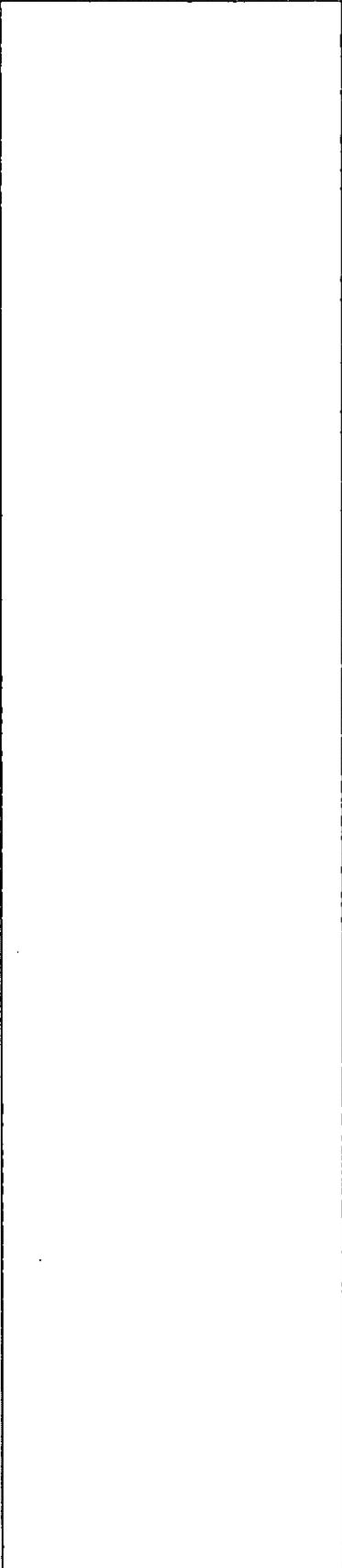
Description:

This project speaks to our understanding of complex permitting issues (including dealing with multiple agencies and RAIs) that may be required for this project. Under contract to the City

PROJECT EXAMPLE #3		
Project Name	Project Location	WRSScompass Role
Permitting for Eco Island Construction and Channel Dredging, Pahokee, FL	Pahokee, Florida	Prime Contractor
<p>of Pahokee, Florida, WRSScompass planned and prepared permit applications for four major permitting actions proposed for the waters of Lake Okeechobee near Pahokee State Park. One of the four permits is expected to be issued by March 20, 2010, and the rest within six months later. The projects require both Section 404 and FDEP Environmental Resource Permits. They also require Section 401a Water Quality Certification and, in some cases, Section 408 Permits when the proposed work modifies the existing Federal Project, the Herbert Hoover Dike.</p> <p>The first part of the project is to obtain permits for dredging the existing navigation channel to assure navigable depths and place the dredged sediments on part of the park lands to raise the grade and provide better quality parklands. This permit has been granted an exemption by the FDEP, but the USACE has requested a Section 408 Permit along with the Section 404 permit because the parklands are on the Herbert Hoover Dike lower slopes. The Section 404 Permit application has been submitted and the Section 408 Permit is in preparation.</p> <p>The second part of the project is a series of wave breaks parallel to the shoreline that are designed to break up the waves and reduce the amount of energy striking the shoreline in this area during winter storms. Every year, wetland plants begin to develop along the shoreline when the winds are from the SE or landward side of the area. When the winter fronts arrive with winds of up to 40 mph from across 30 miles of open water, the waves destroy all plant life along the shoreline. The wave breaks will create calm areas where the plants can survive, habitat can improve, fish spawning and nursery activities can increase, and recreation such as canoeing and fishing will be significantly improved. The permits for this are in processing at present, and only Section 404 and ERP permits are required. The FDEP has indicated no objection to the proposed project, as has the USACE, which has not requested a Section 408 permit for this part of the work.</p> <p>The State Park lands where the dredged materials will be placed are also subject to special permitting including the Section 408 permit. The FDEP has not indicated any objections to the proposed action of building up parklands in this area to match the similar parklands to the south along the shore. At present, this permit is in processing by the FDEP, but waiting the Section 408 permit for the USACE.</p> <p>The final proposed action is the largest part of the proposal and the most controversial. The 4th item is the creation of four 55 acre islands in the open waters of Lake Okeechobee approximately 3,000 feet offshore and parallel to the state park lands. These will require rip rap and armor stone breakwaters on the western side to control erosion from winter storms and will include fill dredged from the lake bottom to create the islands. The permit applications have been filed, but are not being processed by the State at present because the State has declared a moratorium on building new "eco islands" until more is known about the success of other, somewhat similar island construction projects in various locations around the state. The USACE has also requested a Section 408 permit for this proposed project.</p>		



PROJECT EXAMPLE #3		
Project Name	Project Location	WRSScompass' Role
Permitting for Eco Island Construction and Channel Dredging, Pahokee, FL	Pahokee, Florida	Prime Contractor
<p>WRSScompass's Key Design Services include:</p> <ul style="list-style-type: none"> Review of all existing reports, studies, models, and databases that pertain to the project site, hydrology and hydraulics of the local area, and operations of connecting conveyance systems in order to maximize the design. Geotechnical investigation. Data of soil layers and classifications, gradation (to evaluate suitability for embankment materials), consolidation, percolation rate, hydraulic conductivity and ground water table were obtained. Land Surveying work. Topography, ROW and Boundary survey are being performed to provide necessary information for modeling and design purpose. Hydrologic and hydraulic modeling. H&H modeling results will be the basis for civil and structural designs. Civil Design. Engineering design of 21 miles perimeter levees with maintenance roads, approximately 16 miles of stabilized muck levees, at least 8 miles of 8ft deep seepage canal with a 13ft channel bottom, up to 1,500 feet of weirs, removal/exclusion of 800,000 cubic yards of mined and sorted aggregate stockpiles. Structural Design: Engineering design of 5 to 7 multi-barrel water control gate structures. <p>This project and its work scope is just another example of our willingness to work with clients to meet their needs and the competence of WRSScompass personnel in our ability to successfully, accurately, economically and with utmost quality provide SFWMD with Everglades restoration services including Civil Design, Geotechnical, Environmental, Water Resources, Land Surveying, Mapping, and Wetlands Ecology. To date WRSScompass has completed all design tasks under this project within the timeframe and budget constraints established by the SFWMD.</p>		



PROJECT EXAMPLE #4		
Project Name	Project Location	WRSccompass' Role
General Chemical Stormwater Improvements	Macon, Georgia	Prime Contractor
Estimated Manhours	Performance Period	Engineering Fees
1,100	January 2009 – ongoing	\$110,000
Project Reference Information:		
Name/Role (relation to project)	Phone	Address
Mr. Franky Stuber Plant Manager	478.788.4292	4652 Mead Road Macon, Georgia, 31206

Description:

General Chemical Corporation required stormwater analysis services as a result of periodic inundation of several areas of their facility during typical storm events. Based on discussions between WRSccompass and General Chemical, WRSccompass prepared a general



scope to evaluate these issues and provide cost effective design recommendations. In order to address certain unknowns, WRSccompass proposed to implement a Scope of Services that would provide General Chemical with flexibility in prioritizing areas of concerns at the facility and then tasking WRSccompass appropriately. Additionally, as specific needs were largely unknown at this time this method also minimized costs for areas of concerns that did not require extensive evaluation.

WRSccompass proposed Planning and Pre-Design and Data Acquisition activities to allow ourselves to become better acquainted with the facility and existing stormwater issues. Activities associated with these scope items included a site visit to visually inspect the facility and identify areas of concern while assessing existing infrastructure and surroundings. Additionally, we meet with appropriate facility personnel to discuss areas of concerns, planned facility alterations and logistical issues associated with potential stormwater improvements. We also reviewed any available as-built drawing(s) associated with the existing stormwater system and pertinent regulatory information (permits, etc.) that existed for the facility.

PROJECT EXAMPLE #4		
Project Name	Project Location	WRSScompass Role
General Chemical Stormwater Improvements	Macon, Georgia	Prime Contractor
<p>During the planning activities we performed hydrologic and geotechnical data collection and analysis. Data collection included historical rainfall, groundwater, soil type, soil layer, soil grading, bulk density, porosity and permeability of site soils.</p> <p>During preliminary design phase we performed initial hydrologic and hydraulic calculations and modeling of a 25 year storm event to better ascertain the volume of potential stormwater that would require management. An ICPR model was developed for the existing condition. A spreadsheet based calculation was also conducted to show the volume and peak flow under a certain storm event for the existing condition. We also conducted a more thorough analysis of stormwater permit issues as they related to potential alterations of the facility and stormwater management and developed a limited feasibility analysis of up to three potential design approaches. Upon completion of these activities we prepared a letter report summarizing our findings on the existing drainage problems and presented recommendations including civil design elements such as upsizing pipe, upgrading the storage pond and drainage swales, and re-directing flow from offsite. We also provided revised design costs and order of magnitude construction pricing for each area of concern. In proceeding in this fashion General Chemical was able to prioritize areas of concerns and budget appropriately.</p>		

WRSScompass follows all applicable rules and regulations of all pertinent Federal, State and/or Local authorities. Additionally, we follow all Client specific processes and procedures from invoicing to report and plan preparation to construction support. Compliance with all applicable codes, permits, standards and regulations is an integral part of the WRSScompass project approach, and is achieved through a proven process which is summarized in **Table 1**.

Table 1. Project Compliance

Project Phase	Element	Description
Project Start	Evaluate requirements	Identify and develop relevant and appropriate requirements (i.e., Client Processes and Procedures, Local Leon County Requirements such as the Municipal Code and Storm water Standards, Northwest Florida Water Management District Requirements, FEMA map revision requirements, FDOT requirements, State Engineering and Federal Requirements, QA/QC Requirements, etc.); determine requirements for and obtain necessary permits, licenses, and approvals; determine any special field procedures for compliance; address regulatory aspects of design submittals.
Throughout project	Evaluate requirements	Perform quality control (QC) audits of design process to assure and document ongoing compliance; ensure project submittal compliance checks; perform submittal approval; conduct QC and regulatory compliance meetings; ensure testing is performed and prepare QC certificates and documentation; monitor regulatory requirements for changes, assess impact to project, communicate relevant information to team; re-evaluate regulatory requirements for any changes in approach or scope.
Project completion	Final compliance review	Ensure that final documentation is completed and submitted as required.
Ongoing	Training and support	Brief project personnel on compliance requirements of their tasks; provide ongoing training.

Project Phase	Element	Description
		materials, information, and guidance.

As an FDOT District 3 consultant, we are intimately aware of the standards and codes which projects in this region are subject to. We also leverage our existing relationships with regulating authorities to avoid permitting difficulties, thus minimizing impacts to project schedules and budgets. By utilizing regional standard drawings and specifications from permitting agencies such as FDOT and SWFWMD, we will provide a streamlined approach to construction drawing and specification preparation which will ultimately save time and cost to the County. The preparation of construction plans, consisting of drawing and specifications, are the culmination of the design process. The drawings are a graphical description and the specifications are the narrative description of the works to be constructed. Requirements are established in terms of a specified end product, not in terms of a method. Our staff has been preparing bid documents including construction plans and specifications for as long as 40 years in one case. Bid documents, drawings, and specifications are an engineering firm's "Stock in Trade." This is what the design engineer's work, in the final analysis, is all about.

Construction drawings, of course, usually are unique designs. Exceptions exist for large organizations such as water management districts, FDOT, USACE and large municipalities like the City of Tampa who have their own sets of standard drawing details, all of which we regularly use in getting our projects completed. The standard details usually cover such things as concrete thickness, rebar cover requirements, gate structures, precast building structures, road cross sections, gate hoists, pump station details, and more. Where available and appropriate, we use these standard details to reduce the effort we have to expend to get the job done.

In preparing typical drawings, we begin with the survey and create an overall project plan drawing. From there, we go on to create civil, structural, mechanical, fire protection, electrical, and instrumentation drawings as required for the construction. In each case, we work from the general to the specific with the first sheets in a set (structural, civil, etc.) illustrating the overall structure. Subsequent sheets provide more and more details until the entire required work is illustrated. Our goal in doing this is not to make certain the Contractor can understand what is wanted but rather to make certain the Contractor cannot misunderstand what is wanted.

WRSScompass routinely provides the requested plan set as described in the SOW. These plans will be prepared using Civil 3D and will be drafted in a manner to insure clarity and legibility of reproductions. WRSScompass develops all plans so that they are clearly legible and easy to read for construction purposes. Draftsmanship and format of the plans will comply with all Leon County standards. Further, the plan set will be prepared so that the Engineer of Record can affix his seal on the plans per Florida Statute 471 and Chapter 61G15. The plans will show existing right of way and easement lines, property lines, topographical features and existing facilities sufficient to permit evaluation of Project impacts on abutting lands and facilities. Vegetation (trees of 4" breast height or greater and diameter) will be noted as will all underground structures that would be affected or potentially affected by the project's construction will be shown on the plans. Additionally, ingress and egress routes to the project areas will also be clearly identified as well as construction limits on the



construction plans. All storm drain pipe from FDOT's roadways that will be modified or replaced will be replaced in accordance with FDOT Standard Specifications.

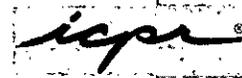
Our work will be in compliance with the Florida Building Code and other codes as appropriate. This is something we do every day, and we are well versed in construction drawing preparation work.

For specifications, there exist several standard "Guide Specifications" from which to choose. We don't "reinvent the wheel"



for specifications. We do the expedient and proven process of modifying the selected guide specifications to meet the project's needs. Guide specifications we regularly use, again at the client's choice, include the Federal SPECSINTACT system, water management district specifications, the FDOT guide specifications, City of Tampa specifications and, when appropriate, the specifications from the manufacturer of a specific product to be used in the work. Construction specifications include both materials and construction methods. The minimum requirements that WRScompass will adhere to are contained in Part 542 of the National Engineering Manual.

The WRScompass offices providing support for this contract are fully equipped with the staff and equipment essential to performing all services described in the RFP. This includes a variety of support resources including Geographic



Information Systems (GIS) staff and software (ArcView™), Computer Aided Design (CAD) staff and software (Autodesk Civil3D), hydrologic modeling staff and software (ICPR, HEC-RAS, SWMM, MODRET), Global Positioning System (GPS) trained staff and hardware (Trimble/ArcPad™), a variety of environmental media sampling equipment and the technicians who are familiar with the calibration, operation and maintenance of this equipment and larger equipment such as boats, 4-wheel drive vehicles, and off-road mules that might be required for the efficient execution of certain work elements on this project. The Tampa Office, identified as the program office for this contract, is equipped with all necessary staff and equipment to manage, coordinate and direct the anticipated company wide resources for the project.



We currently own and maintain a \$30 million equipment inventory of in-house assessment, design and remediation/restoration equipment. Access to this volume and variety of equipment insures that WRScompass can cost effectively deliver timely services to our clients.

Software:

WRScompass engineers are familiar with a variety of storm water modeling software and additional support software. Some of these applications include, but are not limited to:

- ICPR
- HEC-RAS
- SWMM
- RS Means
- Autopipe
- ArcGIS Arcview (version 9.2 & 9.3.1)
- ArcGIS ArcInfo (version 9.2 & 9.3.1)
- Trimble GPSCorrect (version 2.1)
- Autodesk Land Desktop 2005
- AutoCAD Civil 3D 2008
- AutoCAD LT 2009
- ERDAS IMAGINE (version 8.x & 9)

- ArcPad (version 7.x & 8.0)
- ArcPad Studio (version 7.0 & 8.0)
- ArcIMS (version 9.3.1)
- ArcGIS Server (version 9.3.1)
- ArcGIS Explorer
- ArcGIS Spatial Analyst
- ArcGIS Geostatistical Analyst
- Trimble GPS Pathfinder Office (version 4.00)
- Earthsoft EQUIS 5
- EQUIS for ArcGIS extension
- Google Earth
- Agtek Earthwork 3D
- Agtek Highway 3D
- Microsoft SQL Server 2005
- Sharepoint Designer 2007
- Adobe Photoshop

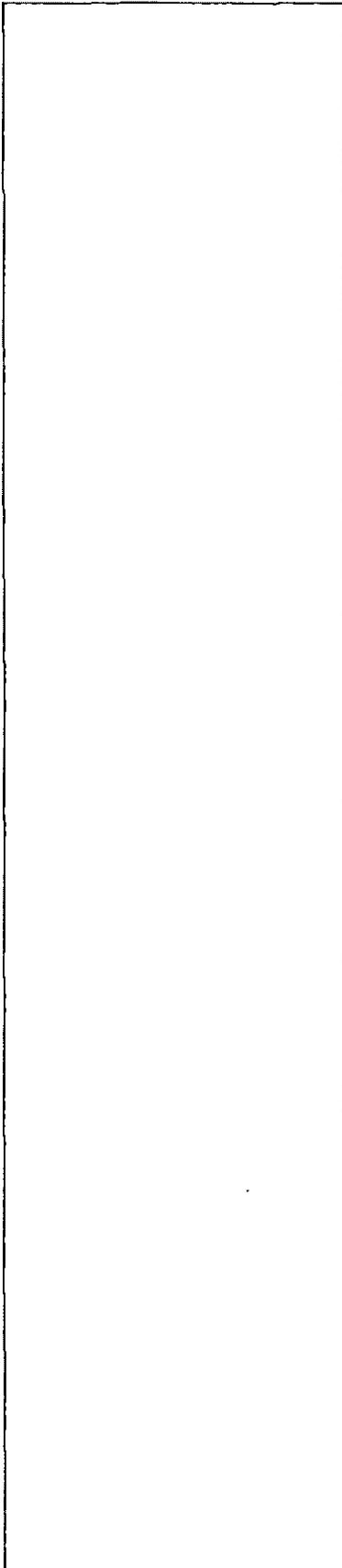
WRSScompass utilizes several models of data collection devices in order to assign the appropriate equipment based on individual project parameters. All mobile devices come equipped with Environmental System Research Institute's (ESRI's) ArcPad mobile GIS software and integrated Global Positioning System (GPS) receivers to locate and acquire field data. The current WRSScompass data collection system inventory includes:

Data Collection Equipment:

- 2 – TDS Recon units
- 1 – TDS Nomad unit
- 2 – Trimble GeoXT units
- 2 – Trimble GeoXH units
- 2 – TDS Ranger units
- 2 – Landmark Systems Differential Correction Receivers
- 1 – Trimble TSC2 Controller
- 3 – Trimble Differential Correction Receiver Beacon
- 2 – Garmin Bluetooth GPS Receivers
- 1 – Trimble Zephyr antenna
- 1 – Dedicated cellular telephone, equipped with Bluetooth functionality and unlimited data plan
- 1 – Trimble SPS850 Modular RTK GPS Receiver

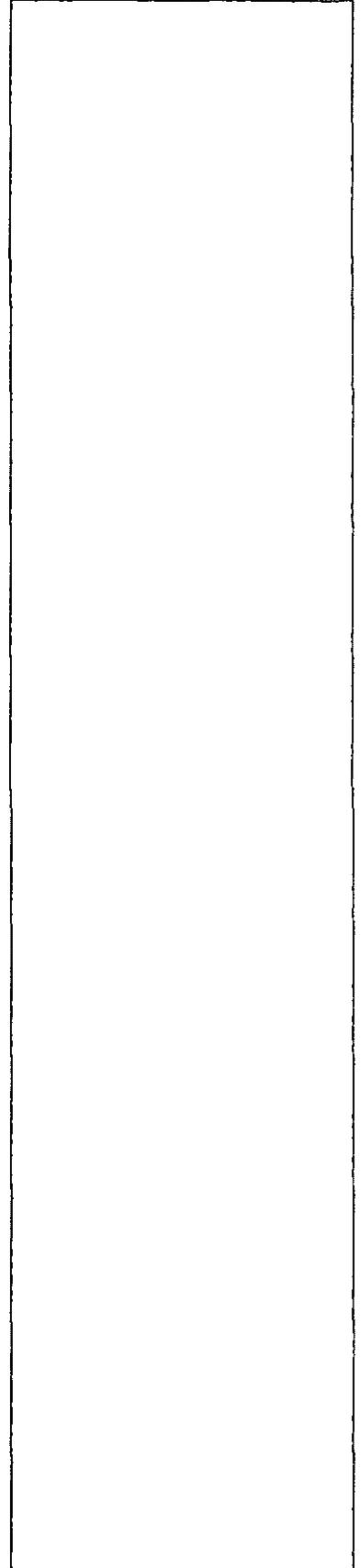
All units are equipped to receive differential correction signals to provide real-time sub-meter accuracy for navigation and GIS data collection. When project requirements dictate a higher degree of locational accuracy, WRSScompass has a variety of solutions based on individual site location and project characteristics. In these instances, our GIS/GPS professionals may choose to employ the capabilities of the Trimble Zephyr dual-frequency antenna or tether the mobile device to a Bluetooth-capable cellular telephone to receive real-time correction signals via the Internet from the Florida Permanent Reference Network (FPRN) Virtual Reference Stations (VRS). Both of these options provide sub-foot accuracy, with the FPRN VRS system in Florida providing four-inch, real-time accuracy when navigating and locating site features. If more processing and analytical power is required during field activities, WRSScompass makes use of a Panasonic Toughbook ruggedized tablet PCs that can be equipped with differential GPS capabilities.

The Geospatial Division at WRSScompass is prepared to deliver all GIS work products in a format consistent with the District's standards. All WRSScompass geospatial data assets are properly georeferenced and include FGDC-compliant metadata. Any work product delivered to the District will be referenced with a horizontal datum using the NAD 1983 in the State Plane West zone mapping plane, and a vertical datum using the NAVD of 1988. All project data will be stored in a secure geodatabase that is replicated nightly. All data delivered to the District for inclusion in their database server will be exported from said geodatabase and provided in ESRI shapefile format. All other spatial and mapping data will be provided in a format that is compatible with ArcGIS Desktop ArcView 9.2 SP6 and Windows XP operating system.



Field Sampling Equipment:

Additional sampling equipment that is available to WRScompass engineers for purposes of obtaining field samples for certain storm water and site assessment projects include: Trimble Pro XR DGPS units, dust monitors, peristaltic pumps, water level indicators, portable water quality monitors, meters for dissolved oxygen, conductivity, turbidity and pH, Ponar and Eckman sediment dredge units, automatic sequential sample collectors, borescopes, and mycometers.



C. Willingness to Meet Schedule and Budget Requirements

WRscompass recognizes that successful management of this any project requires proven procedures and techniques for planning, budgeting, scheduling, communicating, and controlling the work efforts. We have in place procedures and tools for controlling and tracking costs and schedules. This capability will provide Leon County with the up-to-date information and flexibility needed to manage assigned work tasks. The key features we use to track and manage project schedules include:

Project Initiation:

- Close communication with the County to understand the scope
- Develop a schedule that corresponds to the scope

Project Controls

- Critical Path Method
- Program Evaluation and Review Technique
- Earned Value Method
- Timberline®

Project Close-out

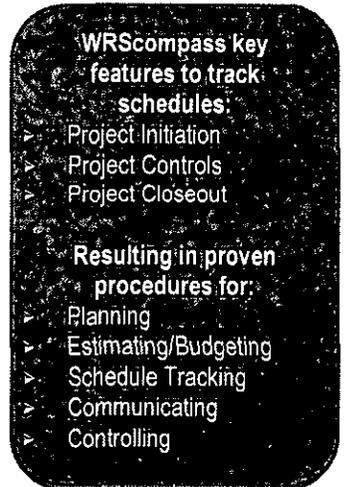
- Clear & Concise communication
- Quality Assurance & Quality Control on Deliverables

C.1 Project Initiation:

The WRscompass program management approach begins with a strong commitment to partnering, communications, and coordination with the County. We are committed to partnering with Leon County on environmental actions associated with transportation construction projects. Partnering will promote cooperative execution of each task order on time and within budget. Upon award of a Letter of Authorization (LOA) we will arrange a partnering workshop with our program and project personnel, the County, and any other stakeholders. Partnering will establish teamwork, identify team goals, open lines of communication, allow early identification of issues, expedite cooperative resolution, and fosters trust and cooperation. Our site managers are extensively trained on the fundamentals of partnering and sound project management. This includes communication and coordination with all stakeholders, critical path scheduling, earned value, cost and schedule variance analysis, contract interpretation, administration, health and safety, quality, labor relations, subcontract management, documentation, and contract close-out. In this regard, Project Managers are highly trained and fully capable of conducting detailed job analysis in a variety of areas.

We believe that an accurate project schedule begins from a solid understanding of the scope of work to be performed. We will utilize our team relationships to layout and clearly identify milestones that matter to the County, but may not be directly reflected in the project. Milestones that may need to be tracked include meeting the contract obligations or invoicing before the end of, or at the beginning of the County's fiscal year.

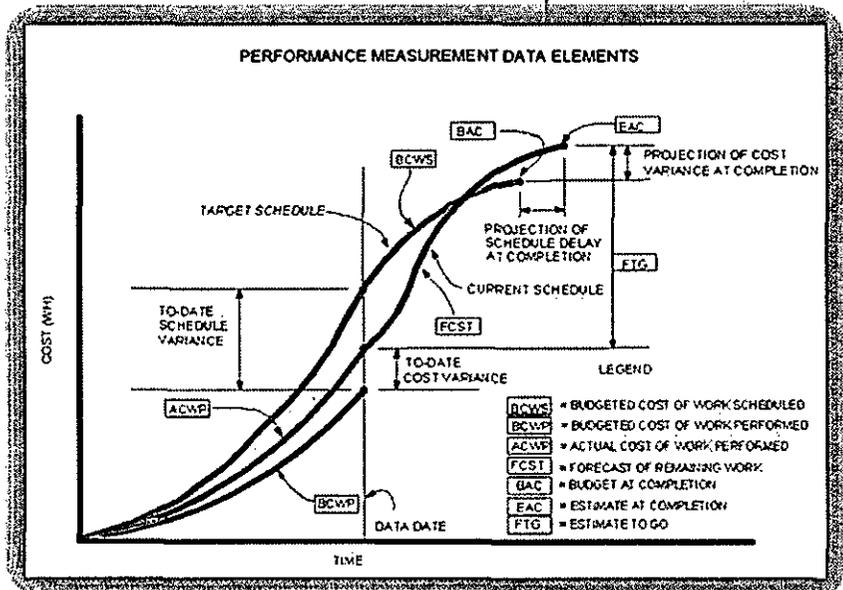
The second driver to developing accurate project schedules is leveraging our past environmental experience. WRscompass has been conducting environmental projects in



Leon County for nearly 20 years. During that time we have worked on projects ranging from contamination assessment & reporting to utility installation & civil construction to emergency response. Our experience allows us to anticipate potential challenges and accurately account for them within the project schedule. By identifying challenges during the development of the schedule, we are able to find resolutions early on to overcome these challenges, long before when they would otherwise be found. By tapping into our staff's past experience on other environmental projects we bring value to the County. This value is realized in the field through an always forward moving project.

Once we have worked with you to understand the scope and have discussed the project internally to leverage our past experience, we will then build the baseline schedule. WRScompass uses modern project management software to develop project schedules. We use two primary software packages to develop the schedule. One is Microsoft's Project® and the other is Primavera Project Planner®. Both software packages utilize Critical Path Method (CPM) and Program Evaluation and Review Technique (PERT) type scheduling systems.

CPM allows the project team to clearly identify the activities and milestones that are essential to maintaining the project schedule. Those activities that are not on the critical path may have either Free Float or Total Float. Free Float arises when an activity can be delayed without delaying its dependent activity. Total Float occurs when the activity can be delayed without delaying the overall project completion. Free Float and Total Float are typically measured in man-days. Once the draft of the schedule is complete it can then be modified by the Project Manager. Modifications could include resource-leveling, where the labor force is leveled to a constant size for certain activities during the project. Once the project is resource-leveled it will need to be recalculated to determine if there is a new critical path. This method can be iterated until mutually agreeable project duration and critical path is acceptable to the County and our Project Manager.



PERT scheduling allows us to run scenario analysis on the project schedule. We are able to use statistical analysis to determine how long and how likely a project activity and the overall project duration will be. PERT analyzes the most optimistic, the most pessimistic, and the most likely duration for each activity. These anticipated durations will be based on our historical experiences performing the activities. The duration for each activity is then produced by using a probability based calculation driven by the three inputs described. Like the CPM method the PERT scheduling can be iterated until mutually agreeable project duration and critical path is acceptable to District 7 and our Project Manager.

C.2 Project Controls

We create a detailed Work Breakdown Structure (WBS) commensurate with project size and complexity, closely monitor project performance, manage costs, report progress, and implement and track any necessary corrective action. We use a variety of software tools to model, evaluate, track, and present cost, schedule, and resource data including Gantt charts, CPM diagrams, logic diagrams, resource/cost curves, and resource leveling.

For each LOA, we maintain an up-to-date database of actual costs from the Work Plan/Cost Estimate through project close-out. It is a WRScompass corporate policy that all costs are tracked and recorded daily. We use our computerized cost system to accumulate and track costs, and we assure cost data control through a single point of data entry and multiple reviews for accuracy and compliance.

Our Project Managers will take quick action to communicate and correct problems that could lead to cost or schedule overruns. If the cost to complete is higher than the remaining budget, or if a schedule overrun is predicted, the PM will identify the source(s) of the potential overruns and take corrective actions, such as:

- evaluate individual tasks to determine if multi-tasking can be used to remain on schedule
- assign additional personnel to shorten the duration of remaining tasks
- determine if tasks can be accomplished more efficiently if conducted in a different manner
- change the labor category mix, while not compromising the performance of assignments

The Project Manager shares the baseline schedule with the project team. Our team will work together to understand what specific challenges must be managed and take greater priority during the project. For example, if a project requires that 40% of the work on the critical path must be performed by a subcontractor, we will need to dedicate additional WRScompass resources to coordinate and manage that subcontractor to ensure we stay on schedule and always moving forward.

After the baseline schedule has been agreed upon and once construction begins, we manage to the schedule. We do this by tracking progress with Daily Project Reports. These reports help us understand what scopes of work were performed that day. By tracking our progress on a daily basis we can monitor and manage our time more efficiently. The Daily Project Reports are then used to update our schedule weekly. We compare our progress to the baseline project. If there are any discrepancies we examine the differences. If we are ahead of schedule we will need to make other stakeholders aware. For example, subcontractors will need to be notified to advance their start date and order their materials, so that when their predecessor activity is completed they can begin work without delay. The County needs to be notified so they can verify our invoices match actual work performed, not the anticipated work performed.

Often unforeseen challenges arise which may negatively impact the schedule and put the project behind. These challenges may result in Negative Float. Negative Float occurs when the expected finish date is later than its successors start date. It is a key signal that a project is falling behind schedule. If this happens, the team must develop a plan to recover the



schedule. This can be done in a variety of ways: working overtime, adding resources, revisiting the activity sequencing, doubling the equipment, etc.

We also track our projects using the Earned Value Method (EVM). EVM allows us to track schedule variances as well as financial variances. Three main values are used under the Earned Value Method:

1. Planned Value or Budgeted Cost of Work Scheduled (BCWS)
2. Earned Value or Budgeted Cost of Work Performed (BCWP)
3. Actual Cost or Actual Cost of Work Performed (ACWP)

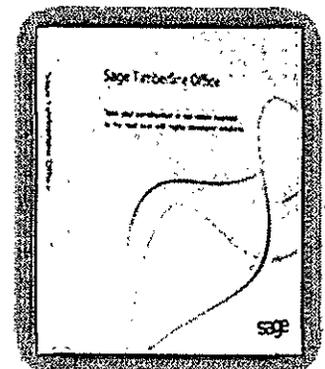
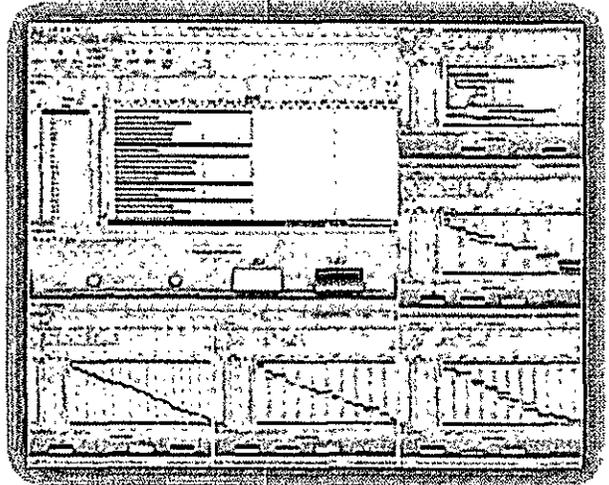
EVM's Work Breakdown Structures, schedule constructs, and Organizational Breakdown Structures provide a significant boost to the accuracy of scoping and estimating project budgets. EVM's variance reporting, monitoring of project performance, and ability to forecast project outcomes provides the best estimates at almost any point in a project of what it will ultimately cost to complete. WRScompass has learned that EVM provides significant insight to help hold our Project Managers accountable. This accountability, and a long positive track record on numerous large projects, has led WRScompass to absolutely mandate EVM use on all their projects both internal and external.

The BCWS assigns a dollar value to each of the activities on the project schedule. The Earned Value is the value of the work that has been performed to date. Finally, the Actual Cost is the actual cost to perform the work. When we review schedule variance we compare the Earned Value to the Planned Value. When the Earned Value is greater than the Planned Value we are ahead of schedule. When the Planned Value is greater than the Earned Value the project is behind schedule.

The Earned Value Method also allows us to track projects financially. If the Earned Value is greater than the Actual Cost the project is under budget. This can lead to cost savings for the County. One manner in which this can occur is through a Value Engineering solution. Typically we discuss Value Engineering approaches for all of our projects. For instance, on our recent water treatment plant and waste water treatment plant design for the Florida Turnpike Enterprise, **we provided Value Engineering concepts that would reduce project construction costs by over \$700,000, nearly 20%.**

When the Earned Value is less than the Actual Cost the project is coming in over budget. One way in which this can happen is due to Supplemental Agreements (SA). If an SA is approved, these new costs are not accounted for in the planned construction forecast. When this happens we need to make sure that we coordinate directly with the County. We understand that the County has financial constraints. We understand that by staying in constant direct communication with the County that we can mitigate any funding challenges.

At WRScompass, we utilize Timberline® to monitor project costs on a weekly basis. Each activity in the system can be checked in a timely manner for excessive costs before this becomes a serious problem. Each major task has a budget line in Timberline® and a statement of current costs and costs to date for both labor and direct expenses. Timberline®



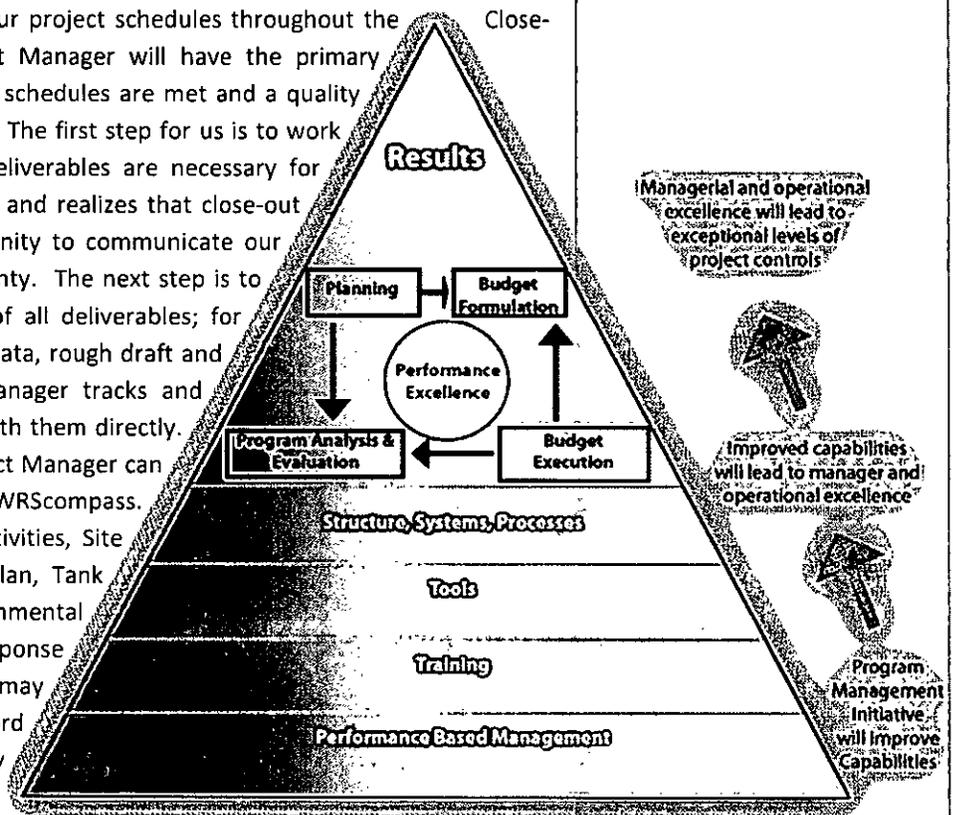
is initially given a project budget by assigning numbers to specific tasks that match the scheduled tasks in Microsoft Project. By assigning the budget numbers to the tasks we are utilizing the Earned Value method.

Charge numbers are assigned to major tasks only, but all tasks are covered. Timberline® then receives its cost data as direct computer based input from our weekly electronic timesheets. In this way, the project manager can review the data each week to determine where the expenditures are with regard to the budgets for each activity. If a discrepancy arises the Project Manager will know immediately that there is an issue that needs to be addressed.

The Earned Value method is not only monitored by our project managers but also by our operations staff which includes our Corporate Sponsors. We discuss the schedule and the budget for each project. When challenges arise in the field the Project Manager can utilize our Corporate Sponsors to find solutions to them. If a project's schedule should begin to slip due to equipment troubles the Project Manager can work with the operations staff to quickly find equipment in the nearby area that can be used to complete the project.

C.3 Project Close-Out

At WRScompass, we continue to track our project schedules throughout the Close-Out process. The WRScompass Project Manager will have the primary responsibility for making sure that these schedules are met and a quality deliverable is presented to Leon County. The first step for us is to work with you to clearly understand what deliverables are necessary for each project. WRScompass understands and realizes that close-out submittals are the most critical opportunity to communicate our findings and tasks completed to the County. The next step is to outline the milestones for completion of all deliverables; for example complete collection of all field data, rough draft and final draft milestones. The Project Manager tracks and supports their staff by communicating with them directly. If additional support is needed, the Project Manager can pull from our deep resource pool at WRScompass. Typical reports include: Summary of Activities, Site Assessment Reports, Remedial Action Plan, Tank Closure Report, Phase I and Phase Environmental Site Assessment, and Emergency Response Reports. Project Close-out deliverables may also include the submittal of record drawings and/or plans to design or utility engineering firms. The most important part of Project Close-Out is clear and concise communication as well as Close-Out schedule tracking. *With built in systems to control all tracking Standard Operating Procedures (SOPs), Leon County can be confident that WRScompass projects are tracked, scheduled and budgeted accordingly.*



D. Effect of Firm's Recent, Current and Projected Workload

The WRScompass Project Director and Project Manager for this project are located in our Tallahassee offices. Our streamlined organization is presented in the WRS Organizational Chart provided in the preceding pages. WRS typically manages more than 100 simultaneous, on-going projects throughout the State. These projects vary from simple site assessments to large remedial actions. Our success is attributable solely to our excellent record of performance in providing quality service and meeting project budgets and schedules on these simultaneous projects.

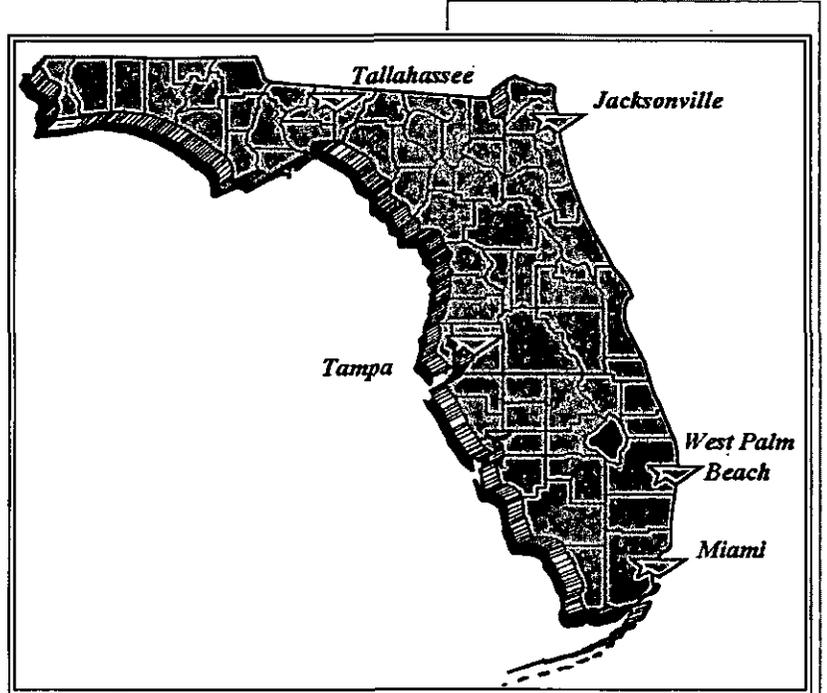
WRScompass has never failed to respond to any project assigned by any of its clients. Leon County can expect the same level of responsiveness.

We guarantee availability of any personnel or equipment that Leon County may require and commit to immediately increasing our resources as needed in direct proportion to the work assigned. We anticipate, based on the nature of the proposed work, that dedicated personnel will be assigned to this project if the assigned workload will support those personnel. The availability of the key personnel is specifically guaranteed and no key person will be replaced without the written consent of the County. A list of current government contracts currently being managed by WRS personnel is presented in the following table:

Project Owner	Contract Name/Description	Location	Contract Value	Completion Date
Florida DEP	FDEP-DRY	Florida	\$5,000,000	Apr-13
US Environmental Protection Agency Region 4	EPA 4 ERRS	Southeast US	\$100,000,000	Sep-12
Florida DEP	FDEP Equip	Florida	\$8,000,000	Jun-12
Florida DOT D1	FDOT District 1 (multiple contracts)	South central FL	\$14,000,000	Aug-11
US Environmental Protection Agency Region 3	EPA 3 ERRS - Full & Open	Mid Atlantic US	\$137,000,000	Jun-11
Florida DEP	FDEP-DSL	Florida	\$5,000,000	May-11
US Environmental Protection Agency Region 3	EPA 3 ERRS - Small Business	Mid Atlantic US	\$65,000,000	May-11
South Florida Water Management District	SFWMD ESA	South Florida	\$8,000,000	Feb-11
USACE, Jacksonville District	Picayunne Strand (HPA - Prime)	South Florida	\$7,248,000	Oct-11
Florida DOT	District 4 - FDOT Environmental Response Services Hazardous Materials	Southeast Florida	\$5,000,000	Sep-12
Michigan DEQ	State of Michigan Hazardous Material Removal Services - Statewide	Michigan	No Ceiling	Oct-14
Tampa Port Authority	Environmental Remediation Services	Tampa, Florida	No Ceiling	Dec-11
Florida DOT	District 2 - District Wide Environmental Site Restoration	Northeast Florida	\$1,370,760	Jun-15
Florida DEP	FDEP Petroleum (Team 5)	Florida	\$25,000,000	Jan-15
Florida DOT	District 3 - FDOT Environmental Response Services Hazardous Materials	Florida Panhandle	\$5,165,827	Aug-11
Florida DOT	District 3 - District Wide Contamination Assessment and Remediation Services	Florida Panhandle	\$5,000,000	Nov-13
Tennessee DEC	TDEC Division of Remediation	Tennessee	\$3,500,000	Feb-13
Florida DOT	District 6 - District Wide Contamination Assessment and Remediation Services	South Florida	\$3,000,000	May-11



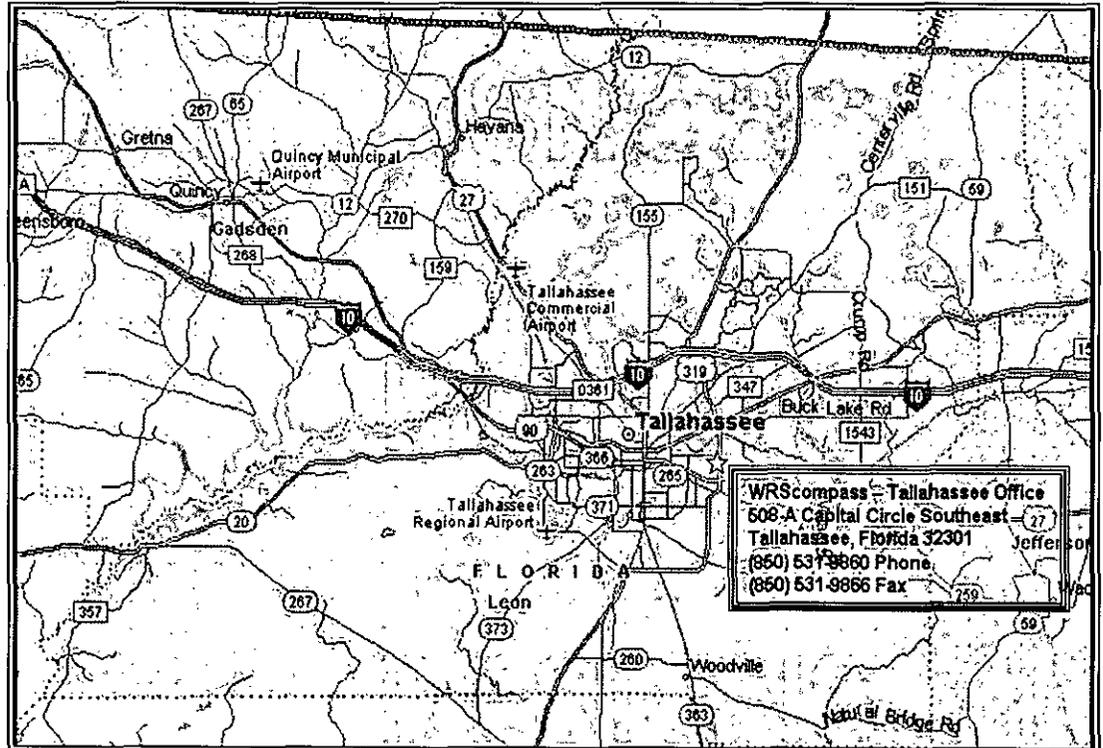
In addition to the key personnel proposed to work on this project, WRScompass has more experienced personnel, as outlined above, that will be available if and as needed. Within the state of Florida, WRS has five service centers from which personnel can support any needs that the County might have. We guarantee the availability of sufficient personnel to complete any assigned tasks under this contract.



E. Effect of Project Team Location

The WRScompass project team for this Leon County solicitation will be led from our Tallahassee, Leon County, Florida facility, providing the County with direct and immediate access to local WRScompass personnel and equipment resources. Our Tallahassee facility at 508-A Capital Circle Southeast is located within the heart of Leon County and within minutes

of any County office. WRS first established an office in Leon County in 1994 and the office has grown from 3 employees in 1994 to the current staff of 36. The WRS Tallahassee office will be focused on meeting the County's environmental needs. The equipment and personnel resources based out of our Tallahassee office should allow for quick response and strong local support for this contract. If additional project support is needed, then those necessary resources can be made readily available from our other Florida facilities.



In selecting WRS, the County will have access to a strong network of local technical staff who have chosen to make Leon County their home. This gives the County not only the commitment of a nationally recognized environmental firm in WRScompass, but also the dedication of local residents who wish to continue efforts to keep Leon County a preferred choice to live, breath, and raise a family.

F. Approach to Project

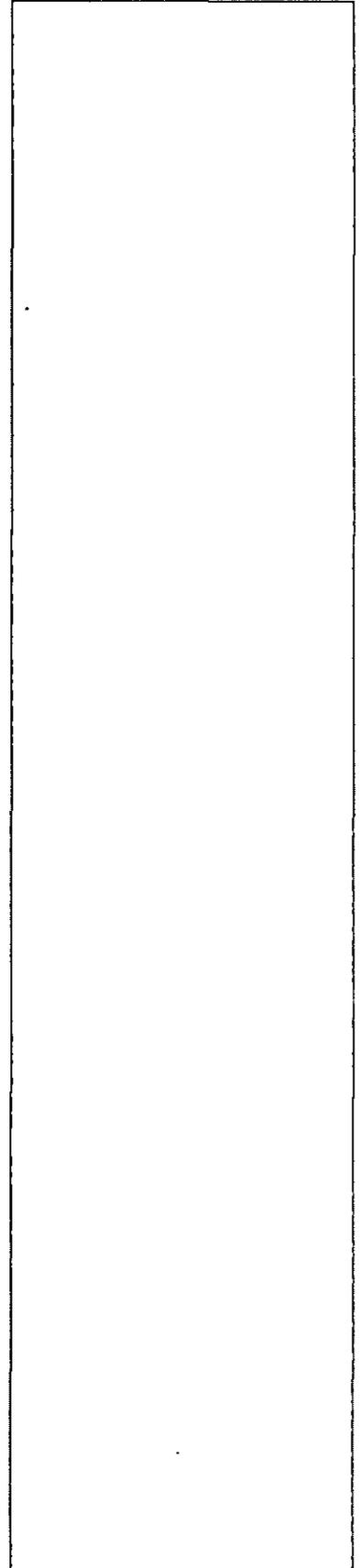
WRSScompass will work closely with the County to consistently deliver services and build relationships with County personnel. The County staff will be fully integrated in all phases of work as WRSScompass forms a collaborative team to ensure that the best solution that meets the County's objectives are identified. In an effort to be concise, an itemized list of how we anticipate workflow to occur is presented below:

WRS recognizes that accurate planning, estimating, tracking, reporting, schedule control, and invoicing are key issues for Leon County.

1. Leon County identifies a stormwater issue requiring expert consulting support and notifies WRSScompass.
2. WRSScompass meets with County personnel to discuss required services and expected objectives.
3. WRSScompass will prepare a Statement of Work and Cost Estimate and submit to the County for review.
4. After receipt of the Letter of Authorization from the County, personnel assignments will be made according to the complexity of the project and the desired schedule. WRSScompass has the capability to in-house design and construct any stormwater project needed in the County.
5. The County will be presented with an anticipated schedule of events to execute requested services.
6. If schedule is agreed, WRSScompass personnel will execute the design with the County Project Manager getting regular updates of our progress.
7. Milestone and final deliverables will be accompanied by design report for permitting by WRSScompass or the County, as the County chooses.
8. A status database identifying LOA's, project names and locations, LOA expiration dates, project status, billed and unbilled amounts, and remaining contract budget will be maintained and provided to the County for review.
9. After work scope completion, WRSScompass will notify the County of the Project Close-out.

Leon County Needs	Leon County Deserves
A highly competent stormwater consultant	WRSScompass' track record of successful performance of stormwater projects
A highly technical, capable consultant with a management team that guards the County interests	WRSScompass' Project Director and Project Manager and other technical staff will be your eyes and ears, watching for cost saving opportunities.
A consultant with technical experts	The County will have access to the WRSScompass' local and national experts

APPENDIX A – Key Personnel Resumes.



Mr. White has over 18 years of experience in the management of large scale environmental assessment and remediation activities at petroleum and hazardous waste contaminated sites. He coordinates, staffs, and manages field investigation activities. He also tracks job cost accounting including cost analysis, project tracking, budget evaluation, and value engineering analysis. Mr. White's experience includes program and project management; evaluation, assessment, source removal, cap construction, stormwater drainage improvements, and value engineering at manufactured gas plant sites; solidification and stabilization on USEPA Superfund sites; drainage canal restoration, stormwater drainage improvements, pipeline work, and source removal activities on US Naval Stations; and building demolition, source removal activities, remedial treatment system installation and implementation, site assessment, waste stream characterization and profiling, impact to construction assessments, stormwater drainage system and retention and detention pond construction, removal and closure of underground storage tanks (USTs), Level I and II assessments, asbestos abatement, and Phase I Environmental Site Assessments for the FDOT; and associated environmental activities such as monitor well installation, development, and abandonment; sampling of various media; aquifer testing; down hole and surface geophysics; formulation of technical special provisions; and data reduction and report generation.

Mr. White has supported and managed projects and programs for the United States Environmental Protection Agency (USEPA), the US Navy Environmental Multiple Award Remediation Contract (EMAC), the Florida Department of Transportation (FDOT) Site Assessment and Remediation Contract, the Florida Department of Environmental Protection (FDEP) Drycleaning and Hazardous Waste Program, the FDEP Division of State Lands Environmental and Baseline Assessment Programs, and other private client programs.

Representative Project Experience

***City of Tallahassee (COT) Cascades Park Remediation Project
Tallahassee, Florida***

Program Manager. Mr. White served as the Program Manager for the 11.1 million dollar COT Cascades Park Assessment and Remediation Project, which is a Brownfields site included within the COT Gaines Street Corridor. Remediation activities included the removal and disposal of approximately 85,000 tons of soil impacted by coal tar and coal tar by-products, removal of approximately 200-tons of sediment from Cascade Creek, removal of approximately 8,500 tons of soil impacts by polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), lead, arsenic, dioxins, and furans, installation of 450 lineal feet of 16" x 7' box culvert, installation of an impermeable cap over a former landfill, and geotechnical investigations. This work was undertaken in five different areas of concern (AOCs) over a 10-acre parcel. Work activities also included groundwater assessment and soil assessment in three of the AOCs. Assessment and remediation activities were performed under the purview of the United States Environmental Protection Agency and the FDEP and in accordance with CERCLA and 62-777 of the Florida Administrative Code. Mr. White's responsibilities included program management, financial management, oversight of all remediation activities, client liaison with COT personnel, technical support and oversight, regulatory and contractual compliance, and public relations (town hall meetings).

Project Director

*Large Project Management
Experience*

*Large Scale Remediation
and Source Removals*

*Solidification and
Stabilization*

*Large Diameter Auger
Source Removal*

*Stormwater Drainage
Construction*

Demolition

GIS/GPS

Health & Safety

Education:

B.S., Geology, Florida State University, 1992

Professional Registrations:

Florida PG, No. 2025
Alabama PG, No. 1209
Tennessee PG, No. 5575

Total Years Of Experience:

18

Years Of Experience with

WRS:

15

United Metals Phase 2

Marianna, Florida

Project Manager. Mr. White served as the Project Manager for the 3.4 million dollar soil stabilization and solidification project. The 180-acre UMI site is a former battery reclamation facility, of which approximately 24 acres were used for the facility operations. From 1979 to 1992, UMI recovered lead from batteries and sent the reclaimed lead off-site for smelting. The EPA identified lead, antimony, and arsenic in the site's soil and groundwater at elevated levels. WRScompass' work scope included the stabilization and solidification of over 61,000 tons of metals impacted soil and associated geotechnical testing and reporting. WRScompass was also responsible for Health and Safety in their work area and Quality Assurance and Quality Control of all performed work. Mr. White managed all staff personnel and site activities, conducted Quality Assurance and Quality Control reviews, managed schedule and budget, and negotiated changes in condition as applicable. The project was completed on time and budget to the complete satisfaction of the client.

**Naval Air Station Pensacola, Stormwater Drain Repairs
Pensacola Naval Air Station, Pensacola, Florida**

Project Manager: Mr. White served as the Project Manager for this 4.9 million dollar base-wide stormwater drainage restoration project. Site activities included the abandonment of a 54-inch stormwater drainage system; the design-build and rerouting (installation) of a 54-inch replacement stormwater drainage system; routine maintenance and restoration of over 6-miles of open stormwater drainage canals, some of which were effected by petroleum-impacted sediment; restoration of over 20 stormwater drainage systems using cured in place pipe; and the open cut replacement of over 30 sections of stormwater drainage pipe ranging in diameter from 12- to 42-inches. Mr. White was responsible for proposal and cost estimate production, project management of all WRS staff and subcontractors, technical oversight, cost analysis and control and change order negotiation, project implementation, waste characterization, transportation and disposal management; invoice preparation; preparation of project submittals, as-built review and approval, and project completion reporting. All project work was conducted in accordance with the FDOT Roadway and Traffic Design Standards and the FDOT Standard Specifications for Road and Bridge Construction.

**AVAGAS Pipeline Section E Project
Naval Air Station Whiting Field, Milton, Florida**

Mr. White served as the Project Manager for this 1.6 million dollar groundwater extraction and source removal project. Site activities included site demolition; monitor well abandonment and installation; recovery well installation and abandonment; groundwater treatment system design and installation; groundwater treatment system operation and maintenance; AVGAS pipeline abandonment and removal; shoring design oversight; value engineering; removal, transportation and disposal of over 10,000-tons of petroleum impacted soil; backfill placement; site restoration; and groundwater monitoring for Natural Attenuation. Mr. White was responsible for proposal and cost estimate production, project management, technical oversight of onsite activities and document preparation, cost control and change order negotiation, project implementation, project oversight during site activities, review of project submittals, and review of project completion and quarterly groundwater monitoring reporting.

Training

OSHA 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Training

OSHA 8-Hour Refresher Course (29 CFR 1910.120), annually

OSHA 8-Hour Supervisor/Management Training

OSHA 30-Hour Construction Safety & Health

USACE Construction Quality Management for Contractors

PD&E Chapter 22 Training

Lead Abatement Training for Supervisors & Contractors

Asbestos Site Supervisor Training

***Bronson Outstanding Landing Field and
Pensacola Naval Air Station, Pensacola, Florida***

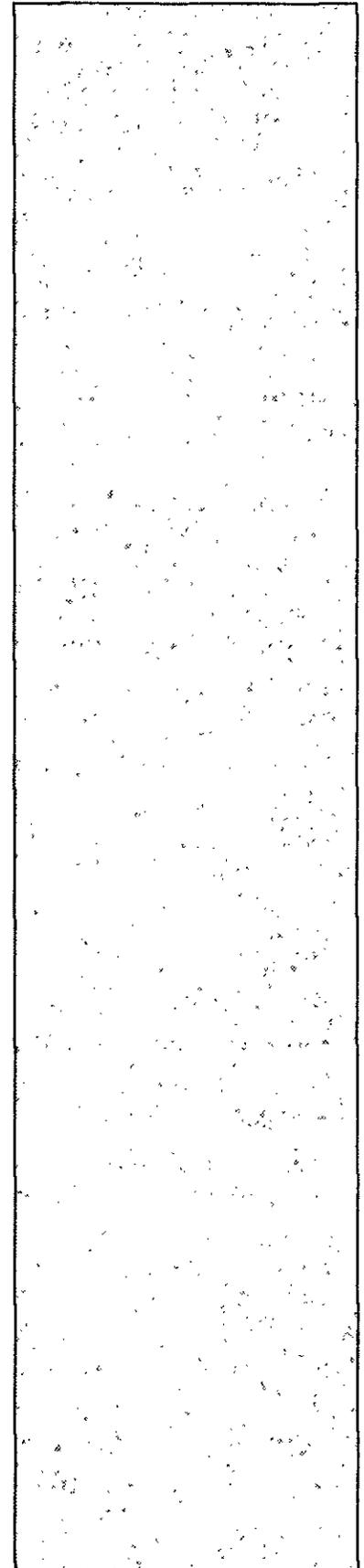
Project Manager. Mr. White served as the Project Manager for this \$500,000 dollar source removal and treatment system installation project. The project consisted of the source removal of soil and free product and the on-site treatment of groundwater impacted by Bunker C Fuel Oil. Source removal activities extended up to 20 feet below land surface and extended up to 10 feet into the static water table. Source removal activities were performed using standard excavation techniques as well as the use of large diameter augers (LDAs). Confirmatory soil samples were collected upon completion of excavation activities to ensure all of the impacted soil had been removed. After review of the soil analytical results and clearance of the excavation, backfilled and compacted the excavations in 1 foot lifts. Approximately 2,750 tons of contaminated soil was removed and disposed.

***Florida Department of Transportation District 3 Contracts.
Districtwide Locations***

Project Director. Mr. White has served at the Project Manager and Contract Manager, and is currently serving as the Project Director, for the FDOT District Three Maintenance and ROW/Construction Contracts. During his tenure, Mr. White has managed in excess of 20 million dollars of delivery orders. Mr. White's responsibilities include the oversight of the project management, site management, and technical staff, and conducting administrative and operational activities for the listed FDOT contracts. Mr. White's duties include technical support, evaluations of environmental impacts to the development of FDOT-purchased property, environmental impacts to future construction activities, oversight and preparation of work plans/cost estimates, preparation of value engineering estimates, cost tracking, personnel scheduling and management, project scheduling, regulatory liaison to the FDOT Environmental Management and Construction Offices, and other FDOT operational sectors. He also performs various project management duties for environmental services including: site assessment, remedial action, remedial action implementation, environmental site assessments, Level I and II assessments, environmental site audits, impact to construction, impact to construction remediation efforts; stormwater drainage system and pond construction; stormwater monitoring management, lead-based paint sampling, lead-based painted steel disposal, waste profiling, and transportation and disposal. Mr. White has managed over 200 projects, at varying locations in all sixteen counties within District Three.

***Cove Boulevard Construction Project
Panama City, Florida***

Project Manager. This 2.2 million dollar project included underground storage tanks removals, impact to construction assessment, source removal, remediation, and construction activities at 23 sites located along a two mile roadway corridor. Impact to Construction activities identified eight sites that were impacted by petroleum contamination. WRS personnel constructed two large stormwater detention ponds at sites that were heavily impacted by petroleum contamination. During construction of the ponds, WRS personnel extracted and treated over 720,000-gallons of petroleum contaminated groundwater and excavated and arranged transportation and disposal of over 17,000-tons of petroleum contaminated soil. WRS personnel also installed over 500 lineal feet of varying diameter (18- to 48-inch) reinforced concrete pipe and the



associated drainage structures through contaminated areas adjacent to the detention ponds.

WRS personnel conducted source removal activities at four additional sites that resulted in the excavation, transportation, and disposal of over 2,300-tons of petroleum contaminated soil. WRS personnel also assisted TECO Gas and the City of Panama with utility relocation activities through the contaminated work zones that included lowering a live, 8-inch gas main and placing a new 6-inch water main. WRS provided waste characterization services and management oversight for the transportation and disposal of hazardous and non-hazardous waste.





CHRISTOPHER K. BAUER, PE, PLS, LEED AP

SENIOR ENGINEER

EDUCATION

Bachelor of Science, Civil Engineering, 2003
University of Kansas

AREAS OF SPECIALIZATION

TECHNICAL SKILLS: Civil Engineering • Land Surveying • Construction Management • Hydraulic/Hydrologic Design and Modeling • Construction Inspection • Roadway Design • Utility Design

MANAGEMENT SKILLS: Client and Consultant Coordination • Subcontractor Coordination • Project Management • Scheduling

SUMMARY OF EXPERIENCE

Mr. Bauer has over 15 years of experience in the fields of civil engineering and land surveying. He is a licensed professional civil engineer in Florida and California, a licensed professional land surveyor in California and is a LEED accredited professional. Mr. Bauer has a proven ability to lead and manage a team of junior engineers and engineering technicians for completion of multiple concurrent storm water engineering projects. His experience includes hydraulic/hydrologic analysis, storm water management system design, permitting and associated technical report preparation. He has performed Hydraulic/Hydrologic modeling utilizing ICPR-3 and Modret software. Further, he has demonstrated the ability to develop strong working relationships with FDEP, FDOT, Florida Keys Aqueduct Authority, Key Largo Wastewater Treatment District, St. John's River Water Management District, South Florida Water Management District, Indian River County and Monroe County.

CONTINUING EDUCATION AND CERTIFICATIONS

California Licensed Professional Engineer, License Number C 72537, Exp. 6/30/2010
Florida Licensed Professional Engineer, License Number 68700, Exp. 2/28/2011
California Licensed Professional Land Surveyor, License Number 8677, Exp. 12/31/2009
LEED Accredited Professional. GBCI # 10391469.
Member of Treasure Coast Society for Marketing Professional Services.
American Society of Civil Engineers-Previously Indian River County Forum Chair.
Toastmasters International Member.
Completed Autodesk Land Desktop Advanced Roadway Design course March 2004.

SUMMARY OF RELEVANT EXPERIENCE

C-111 Spreader Canal, Comprehensive Everglades Restoration Plan – Engineering During Construction Homestead, FL

Mr. Bauer provided engineering during construction services to assist SFWMD and contractors in interpreting the construction documents and reviewing and responding to RFI's and submittals for the C-111 Spreader Canal project, which included two 225 cfs pump stations, 590 acres of above ground water detention areas, 8,000 feet of above grade lined concrete canals, 4 miles of above graded, unlined canals and approximately 10 miles of earthen levees. Construction cost for the C-111 spreader canal project is approximately \$70M, with approximately \$800k in engineering fees during the engineering during construction phase. Mr. Bauer attended Bi-weekly construction meetings in the capacity of engineer of record with SFWMD and contractors to discuss project progress, outstanding issues and coordination of schedule. Three separate contracts for construction of Aerojet Canal extension, Frog Pond Detention Area, and Storm Water Pump Stations S-199 and S-200. Additional engineering during construction included preparation of plans and specifications for the remediation of the closed loop section of the Aerojet Canal, which was utilized to replace construction of approximately 1,300 L.F. of above grade unlined canal. The remediation of the Aerojet Canal included dredging of existing sediment, plugging of side canals which are tributary to the Aerojet Canal, modification of an existing plug to a weir and capping and bank stabilization of the northern portion of the canal, all to prevent existing phosphorus laden sediment from being transported downstream along the Aerojet Canal upon connection to the proposed improvements of the C-111 Spreader Canal.

Atlantic Trash and Transfer Key Largo, FL

Mr. Bauer managed plan preparation and permitting of a one acre site for use as a C&D waste transfer station near MM 101 of the Overseas Highway (US-1) in Key Largo, FL. Close coordination was required with Monroe County staff to relocate an existing conservation easement from the site to enable best possible utilization of the land as a waste transfer station. Permitting with the Florida Department of Environmental Protection included both an application to operate a Waste Transfer Station and an Environmental Resource permit for an onsite storm water management system which could not discharge any runoff from the site for the design 25 year – 72 hour storm event. Construction costs for this project were estimated at approximately \$800,000.

CHRISTOPHER K. BAUER, P.E., P.L.S., LEED AP
SENIOR ENGINEER

43rd Avenue Roadway Improvement
Vero Beach, FL

Mr. Bauer provided design drawings and permitting for the improvement of a two mile section of existing two-lane roads with roadside swales to five lane paved county road with curb and gutter. Work included preparation of plan/profile construction documents, *drainage design* and report including hydraulic/hydrologic modeling for 8 separate detention lakes, and coordination with the Florida Dept. of Transportation for design of the intersection of 43rd Avenue with State Road 60. Engineering design fees for this project were approximately \$300,000.

Parkview Apartments
San Diego, CA

Mr. Bauer permitted grading and improvement plans, prepared a final map and provided construction coordination for a 289 unit apartment/condominium project with a 20,000 sf office building on a 4 acre site. Work included preparation of technical reports including Water Quality Technical Report, Drainage Report and Storm Water Pollution Prevention Plan. Site storm water design included use of a hydrodynamic separator and other BMP's. Design fees for this project were approximately \$200,000.

San Diego Technology Center
San Diego, CA

Mr. Bauer processed entitlement permits and completion of final engineering for onsite and offsite improvements to an existing 37 acre business campus. Managed preparation/permitting of horizontal control, finish grading and utility plans for two building permit packages including a thirteen story office tower and a six story parking structure. Managed preparation/permitting of grading and utility plans associated with the horizontal realignment of the main project entrance, and improvement plans to construct two new signalized intersections for access to project and widening of existing four lane collector road fronting property. Work included preparation of technical reports including Water Quality Technical Report, Drainage Report and Storm Water Pollution Prevention Plan. Mr. Bauer prepared a *final subdivision* map subdividing the existing parcel into 16 lots. Attended bi-weekly meetings with the client and design team throughout the design development and permitting phases of the project. Design fees for this project were approximately \$850,000.

Mission City Corporate Center
San Diego, CA

Mr. Bauer managed preparation/permitting of horizontal control, finish grading and utility plans for two building permit packages including a three story office tower and a two story parking structure. Managed preparation/permitting of grading, demolition and utility plans associated with construction of these structures over existing surface parking lots. Work included preparation of technical reports including Water Quality Technical Report, Drainage Report and Storm Water Pollution Prevention Plan. Attended bi-weekly construction meetings with the owner, contractor and design team throughout the design, permitting, and construction phases of the project. Design fees for this project were approximately \$250,000.

Employment History

WRScompass, Sr. Engineer, 2010 - present
W.F. McCAIN AND ASSOCIATES – Vero Beach, FL
Director of Engineering, 2008 to 2009
LATITUDE 33 PLANNING AND ENGINEERING – San Diego,
CA, *Project Manager*, 2005 to 2008
CARTER ASSOCIATES, INC – Vero Beach, FL
Civil Engineer, 2003 to 2005
LANDPLAN ENGINEERING, P.A. – Lawrence, KS
Civil Engineering Intern/Land Surveyor, 1999 to 2003
MARLER SURVEYING COMPANY – St. Louis, MO
Land Surveyor, 1997 to 1999



XUHENG KUANG, PHD, PE

SR. PROJECT ENGINEER

EDUCATION

PhD, Civil Engineering, 2005

University of Louisiana

MS, BS, Hydraulic Engineering, 1997, 1994

Wuhan University, China

AREAS OF SPECIALIZATION

TECHNICAL SKILLS: Stormwater Management • Drainage Watershed Master Plan • Hydrologic/Hydraulic Modeling • Low Impact Development • Water Resources Study • Transient Analysis for Pumping/Pipeline System • Water Resource Restoration • General Civil Design

MANAGEMENT SKILLS: Project Management

SUMMARY OF EXPERIENCE

Dr. Kuang has 14 years of experience in stormwater management, water resource study, hydrologic and hydraulic modeling, and low impact development and currently is a senior project engineer in WRScompass Tampa.

PROFESSIONAL REGISTRATIONS/ORGANIZATIONS

Professional Engineer, Florida (No. 68265)

CONTINUING EDUCATION

FDOT 8-Stormwater Management Training

NOTEWORTHY PROJECTS

Project Engineer: SFWMD Flow Equalization Basin Design, South Florida

The project is located at south central Florida. The project is to design a 15,000 ac FEB to attenuate and store high flows and excess runoff from the EAA region then deliver to STA 2/Compartment B and STA 3/4 before release to Everglade Protection Area improving water quality. This project will create the largest man-made wetland in the world. The project includes the following major elements:

Conceptual plan, alternatives to design the FEB area and make it flexible to be able to convert to a deep reservoir or STA facility.
Stormwater, seepage and water Balance modeling
Hydro-geology Study
Environment assessment
30%, 60%, 90% and final design
Permits

Dr. Kuang is in charge of Stormwater, seepage and water Balance modeling. Total engineering service fee: \$5M

Project Engineer: C-111 Canal Phase I for SFWMD

This project is a component of the Comprehensive Everglade Comprehensive Plan. Dr. Kuang served as a technical leader for hydrologic and hydraulic modeling and as project engineer for general civil design.

Project Engineer, North Fort Myers Surface Water Master

Plan Responsible for the overall technical aspects of the project

including data collection and development, GIS data acquisition and analysis, modeling and coordination with other agencies. The project area of 60 square miles is studied in detail to include trunk, tributary, and neighborhood level systems. Scope of services included data development, hydrologic/hydraulic modeling using ICPR V3, water quality modeling and level of service analysis.

Project Engineer, HMGP Application through FEMA for Siesta Heights Culvert Upgrade Project for Sarasota, FL

Responsible for all data collection, ICPR V2.2 hydrologic/hydraulic modeling, flooded structure analysis, project cost estimate, damage before and after project analysis using FEMA Damage Estimate Methodology, FEMA Cost/Benefit Analysis (BCA), HMGP application and RAI response.

Project Engineer, Preliminary Damage Assessment (PDA) Application through FEMA for Clark Road Evacuation Routine for Sarasota County, FL

Responsible for all data collection, ICPR 3.0 hydrologic/hydraulic modeling, flooded structure analysis, GIS mapping, project cost estimate, alternatives analysis, damage before and after project analysis using FEMA Damage Estimate Methodology, FEMA Cost/Benefit Analysis (BCA), PDA application and RAI response.

Project Engineer, South Pelican Stormwater Improvement, Sarasota County, FL

Responsible for survey information request, ICPR V3 hydrologic/hydraulic modeling, floodplain development, GIS mapping, improvement alternative analysis, pond design, cost estimate and reporting. This project included the determination of SHWT for pond design, land use and soil type for stormwater modeling, and permitting application through SWFWMD.

Project Engineer, The Wanjiashai Yellow River Diversion Project (WYRDP) Phase I, Shanxi, China

One of the most complicated water diversion projects in the world, with total length of 177 miles, including tunnels (98 miles), pipelines, culverts, aqueducts, and adjustment reservoirs; 5 serial pumping stations with 44 pumping units combined a total pumping head of 2087 ft, and flow rate of 1100 MGD. I was responsible for flow balance calculation and analysis between 5 pumping stations, pumping speed regulation modeling for balance control and system operation, hydraulic transient analysis and control and System operation and management proposal

XUHENG KUANG, PHD, PE

SR. PROJECT ENGINEER

PROFESSIONAL HISTORY

Senior Engineer, WRScompass, Tampa, FL, 2008 – current
Project Engineer, Boyle Engineering, Sarasota, FL, 2006-2008
Doctoral Researcher, Louisiana State University
Baton Rouge, LA, 2002-2005
Senior Engineer, China Institute of Water Resources Research
Beijing, China, 1997-2001

PUBLICATIONS

Xuheng Kuang, J. Sansalone, G. Ying, V. Ranieri, "Pore-Structure Models of Hydraulic Conductivity for Permeable Pavement", *Journal of Hydrology*, ASCE, accepted in 11/2010.

Xuheng Kuang, J. Sansalone, "Cementitious Porous Pavement in Stormwater Quality Control: pH and Alkalinity Elevation", *Water Science and Technology*, accepted in 12/2010.

Xuheng Kuang, "Wastewater Storage Pond Design and Mounding Analysis", *Proceeding of 2011 World Environmental & Water Resources Congress*, May 22- 26 - Palm Springs, CA. Accepted in 2011.

Xuheng Kuang, J. Kim, I. Gnecco, S. Raju, G. Garofalo, J.J. Sansalone, "Particle Separation and Hydrologic Control by Cementitious Permeable Pavement", *Transportation Research Record: Journal of the Transportation Research Board*, Volume 2025, 2007, pp111-117.

Xuheng Kuang, J. Sansalone, I. Gnecco, C. Berretta, and L. G. Lanza, "Cementitious Permeable Pavement as an LID Practice for Hydrologic and Particle In-situ Control", *Proceedings of the World Environmental and Water Resources Congress 2007*, 243, 37, pp 1-10.

Y. Fu, L. Wang and Xuheng Kuang, "Digital Specimen and Digital Test for Granular Material", Accepted by proceedings of the 17th International Conferences on Soil Mechanics and Geotechnical Engineering, Alexandria, Egypt, 2009

Y. Fu, L. Wang and Xuheng Kuang, "Clustering DEM simulation and non-invasive experimental validation of the Fabric Evolution and Fabric Tensor Relation of Irregular particles in 3D", accepted by *Journal of Engineering Mechanics*, ASCE, 2009.

G. Ying, Y. Xing, Xuheng Kuang, Z. Li, and F. Hua, Application of Psychrophiles in improving bio-treatment efficiency of constructed wetlands during cold weather, submitted to *Environment Process* in 2008

J. Sansalone, Xuheng Kuang, and V. Ranieri, Permeable Pavement as a Hydraulic and Filtration Interface for Urban Drainage, *Journal of Irrigation and Drainage Engineering*, ASCE, 134, 666 (2008)

J. Sansalone, Xuheng Kuang, & J. Ma, "An In-situ Permeable Pavement and Media System for Hydrologic, Particulate, and Phosphorus Management", *Proceeding of 2nd Biennial Stormwater Management Research Symposium*, Stormwater Management Academy, UCF, Orlando, FL, May, 2006, p261-282

Xuheng Kuang, Sansalone, J., "Hydraulic Properties of Cementitious Porous Pavement as a Filtration Interface for Rainfall-Runoff Treatment", *Proceedings of the 2005 World Water and Environmental Resources Congress*, Sponsored by

Environmental and Water Resources Institute (EWRI) of the ASCE, Anchorage, Alaska, May 15-19, 2005

Xuheng Kuang, and L. Li. "Hydraulic Modeling and Transient Analysis for Circulating Water System of Dry Cooling Tower (Heter Type)", *Journal of IWHR*, vol. 3, No. 1, 03/1999

G. Liu and Xuheng Kuang. "Transient with Air Release Due to Pump Stoppage Caused by Power Failure", *Engineering Journal of WUHEE*, vol. 31, No. 6, 1998, P1-6

X. Wen, Xuheng Kuang, Y. Song and J. Jiang, "Pressure Surge Preventive Characteristics of In-Out Air Valves", *China Rural Water and Hydropower*, vol. 177, No. 8, 08/1998, (Cited twice)

J. Jiang, Xuheng Kuang, "Study on Waterhammer Protection Characteristics of Air Vales in Water Supply Pipeline Systems", *Journal of Huazhong University of Science & Technology*, vol. 34, No. 1, 01/1998

Xuheng Kuang, "Pump Speed Regulation in Complex Water Supply Systems with Serial Pumping Stations." *Pumping Station Techniques*, vol. 15, No. 3, 03/1996

G. Liu, Xuheng Kuang, *Hydraulic Transients and Control in Water Supply Systems*, *Pumping Station Technique*, vol. 15, No. 3, 03/1996.

G. Liu, M. Liu, Xuheng Kuang, *Hydraulic Transient and Protection Study for Long Pipeline System*, *Journal of Wuhan University*, Vol. 5, 1996, p111-113

TECHNICAL CONFERENCE PRESENTATIONS (14 in total)

Xuheng Kuang and Steve Jonson, "Hydraulic/Hydrologic Modeling and Environmental Consideration for C-111 Spreader Cannel Phase I Project", Abstracted accepted by the 33rd IAHR 2009 Conference-Water Engineering for a sustainable Environment, 2009

Y. Fu, L. Wang and Xuheng Kuang, DEM Simulation for Pavement Particles, Accepted by the 17th International Conferences on Soil Mechanics and Geotechnical Engineering, Alexandria, Egypt, 2009

Xuheng Kuang, J. Sansalone, I. Gnecco, C. Berretta, and L. G. Lanza, "Cementitious Permeable Pavement as an LID Practice for Hydrologic and Particle In-situ Control", *World Environmental and Water Resources Congress 2007: Restoring our Natural Habitat*, Tampa, FL 5/2007

John Sansalone, Xuheng Kuang, *Filtration and Clogging of Cementitious Permeable Pavement (CPP)*, North America Surface Water Quality Conference (the World's Largest Stormwater Pollution Prevention Conference), Denver, CO, July 2006.

Xuheng Kuang and John Sansalone, "Filtration and Clogging of Permeable Pavement by Particles in Pavement Sheet Flow", *Conference on Stormwater and Urban Water Systems Modeling*, sponsored by ASCE, AWRA and EPA. Toronto, Ontario, Canada, Feb. 2006

EDUCATION

Bachelor of Science, Agricultural Engineer, 1995
University of Florida

AREAS OF SPECIALIZATION

Water Resources Engineering Design • Storm Water Modeling •
Municipal Water and Waste Water Systems Design • Land Development •
CERP/Acceler8 • Animal Waste Management System Design •
Construction Phase Services • Project Scheduling • Project Management

SUMMARY OF EXPERIENCE

Mr. Uter is a Florida-licensed Professional Engineer (No. PE66347) with over 16 years of experience in water resource engineering, land development, water and waste water utilities design, agricultural waste systems design, and project management.

NOTEWORTHY PROJECTS

Engineer of Record for the Everglades Agricultural Area (EAA) A-1 Flow Equalization Basin (FEB) Project. The EAA FEB is a 16,000 acre shallow storage reservoir system with the purpose of attenuating and storing high flows and excess run-off from the EAA region. The project includes over 21 miles of levee and multiple gated structures and or weirs. The estimated construction cost for the project is \$45 million.

Engineer of Record for the Florida Turnpike Enterprise Fort Drum Service Plaza Water and Wastewater Treatment Plant. This \$4.5 million Design Build project is a small part of the over all rehabilitation of the seven service plazas along the Florida Turnpike. The water plant included a two 500' wells, 260,000 gallon water storage tank, fire pump, high service pumps, green sand and carbon water filters, and chlorine disinfection system. The wastewater plant included a Membrane Bio Reactor, 28,000 gallon reuse tank, two lift stations, high service reuse pumps, 14' and 24" Jack and Bore under the Turnpike and a 12 acre effluent pond.

Senior Site Civil Engineer on the C-111 Spreader Canal, Phase I Project. The project was a 610 acres detention system (Frog Pond) to the north and a water diversion/conveyance system (Aerojet Canal) to the south. Responsibilities include designing to SFWMD specifications 13 miles of new levee, rip-rap reinforcement of 9,200 feet of existing levee, 1.6 miles of concrete channel with weep holes, 3-3'x11' and 1-9'x11' box culverts, and 14 canal weir plugs. Additional responsibilities included coordination of plans with the pump station team, preparing additional scope of work for surveying and geotechnical teams, drainage design for the gated structure and pump stations sites, plan preparation and production, and assist during EDC. Construction cost of the C-111 project is \$70 million.

Site Civil Engineer on the City of Belle Glade Torry Island Lock Design and Construction Management Contract. Responsibilities include paving, grading and drainage design for the lock site and approaching roads. Spearheaded the Opinion of Probable Construction Cost team which estimated the project at \$28 million. Participated in the report preparation and assisted in the permit process. The Lock is designed to transfer boats up to 80 ft long and a draft of 8 feet to and from Lake Okeechobee and the Hillsboro Canal.

Engineer of Record for Bunche and Rolling Oaks Park, Miami Gardens, FL. Responsible for the site civil work includes due diligence report of utilities, evaluation of pre and post development drainage needs, roadway design, paved and unpaved parking lot design with ADA compliant spaces and pavement marking plans, stormwater management including exfiltration trenches, soccer/football/baseball fields grading and drainage, water main through park, wastewater conveyance including lift stations, picnic areas, bike and hike path, and perimeter fencing.

Project Manager and Design Engineer for Riviera Beach and Fellsmere FPL Substations.

Site civil design engineer for the two substations and project coordination on a third substation. Activities included paved and unpaved stabilized access roads, grading of equipment yard, perimeter fencing, storm drainage, storm retention areas, and ERP permitting through FDEP.

Project Manager for Pollution Control Device, City of Ft. Lauderdale.

Project manager and design engineer for the procurement and installation of a CDS vortex type stormwater pollution control device. Elements of the project include rerouting of electrical duct and water main, cut-in a weir box into an existing 72 inches RCP storm line, and installing an eight (8) feet diameter by 23 feet deep well next to the New River Canal.

Project Manager for Public Parking ADA Compliance Project, City of Ft. Lauderdale.

Project manager and general civil design engineer for the pilot project which includes five (5) parking facilities. As a result, was asked to develop proposal and project schedule for refurbishing an additional 245 facilities throughout the City.

Comprehensive Everglades Restoration Projects (CERP)

ACME Basin B Discharge Project: Worked on the Basis of Design Report. The project is a 360+ acre wetland reservoir and is a collaboration of the SFWMD, USACE and The Village of Wellington.

Everglades Agricultural Area: Member of the project management team responsible for coordinating and facilitating communication with the SFWMD and the Hydrologic and Hydraulic modeler and the Surveying subcontractors.

USDA Agricultural Engineer. Analyzed and designed reinforced concrete structures, solid-waste settlement basins, retention ponds, pumping systems and water and waste-water irrigation systems for the Dairy Industry. Collaborated extensively with Water Management Districts, County Agency, and property owners to define needs and design appropriate systems and structures to support growth.

PROFESSIONAL HISTORY

WRScompass, Senior Project Engineer 06/08 – Present
Keith and Schnars, P.A. Senior Associate, 9/04 – 06/08
Calvin Giordano and Associates, Inc., 03/04 – 09/04
Kimley-Horn and Associates, 01/02 – 12/03
USDA: Natural Resources Conservation Service, 01/97 – 09/2

EDUCATION

Bachelor of Science, Civil Engineering, 2004
University of South Alabama

AREAS OF SPECIALIZATION

Structural, Coastal, Geotechnical, and Civil Engineering • Concrete & Steel Design • Shoreline Armament • Geotechnical Testing and Site Development Consulting • Topside and Underwater Bridge Inspection • Highway Luminary and Sign Inspection • Construction Management and Field Testing • Inspection Coordination • Subcontractor Coordination

SUMMARY OF EXPERIENCE

Mr. Keith is a civil engineer with 5 years experience primarily in geotechnical consulting, coastal, civil and structural engineering, and construction management and inspection. Mr. Keith is nationally certified and has performed top side, as well as, underwater inspections of bridges in Wisconsin, South Carolina, and Georgia.

Since joining WRScompass, Mr. Keith has participated in the design of several water control structures for SFWMD that are part of the Everglades Restoration Project. Mr. Keith's role in this project consisted of stormwater runoff analysis, hydraulic analysis, structural design, and computer modeling.

NOTEWORTHY PROJECTS

Everglades Agricultural Area (EAA) A-1 Flow Equalization Basin (FEB) Project. The EAA FEB is a 16,000 acre shallow storage reservoir system with a 70,500 ac-ft capacity for the purpose of attenuating high flows and excess run-off from the EAA region. The project includes over 21 miles of levee and multiple gate structures and weirs. The estimated construction cost for the project is \$45 million. Responsibilities include, but are not limited to, conceptual layout, freeboard analysis, hydraulic analysis, environmental data collection and design criteria determination, structural design of steel and reinforced concrete structures, cost analysis, Dr. Checks reviews, and assisting in the drafting of the basis of design report. Additional services include design workshops and meetings with the SFWMD to maximize the design.

C-111 Spreader Canal Phase Everglades Restoration Project, Homestead FL. The project was a 610 acres detention system (Frog Pond) to the north, a water diversion/conveyance system (Aerojet Canal) to the south, and an additional water control structure to be constructed on the C-111 canal. Work included stormwater runoff analysis, 3-D finite element analysis and QC review of the structural design of two 225cfs pump stations, 3-D finite element analysis of a canal flow control structure that contains 3 vertical lift gates each 14 feet by 26 feet in size, structural design of 3-3'x11' and 1-9'x11' box culverts. Design work has included ladders, gate hoist platforms, rip rap design, site planning, sheet pile walls, a control building, and all the additional site facilities such as fencing, roadways, boat barriers, design plans and specifications, and more.

Chatham County, GA., Emergency Erosion Control. Services included planning, design, and construction observation of a severe erosion problem that resulted from inadequate construction performed by another firm. Construction had created a situation in which water was pouring through a gap in a roadway at velocities approaching 15 feet per second. This was rapidly eroding the roadway and was creating a hole measured at 18 feet deep alongside the gap. Work included calculating the stone size required to handle the velocity, assisting the County Engineer's

office with negotiations with the contractor, and observing installation of the larger stone.

Proposed Navigation Lock, Belle Glade Island, Lake Okeechobee, FL. Work included planning and design of a small navigation lock to be constructed through the Herbert Hoover Dike along the south and east sides of Lake Okeechobee. Direct responsibilities included design team coordination, site layout, wave hindcasting and hydraulic analysis, structural design of the lock chamber and gates, sheet pile design, fill/drain systems design, electrical and mechanic engineering subcontractor coordination, survey and geotechnical exploration oversight, plan creation and QA/QC. Additional services included working with City Officials, SFWMD, and Army Corp on the permitting. This \$28 million lock would allow 80' boats with drafts up to 8' to pass from two large canals in the Belle Glade and South Bay areas in and out of Lake Okeechobee, which contains a Federal navigation channel.

Wal-Mart, Milton, FL, Served as the project manager/staff engineer on the geotechnical portion of this commercial development which included a single-story structure, associated paved parking and entrance, and storm water management system. Responsibilities included coordinating drilling, managing field/lab work, and rendering geotechnical recommendations for site preparation, foundations, pavements, and storm water management.

Lowes, Pensacola, FL. Served as the project manager/staff engineer on the geotechnical portion of this commercial development which included a single-story structure, associated paved parking and entrance, and storm water management system. Responsibilities included coordinating drilling, managing field/lab work, and rendering geotechnical recommendations for site preparations, foundations, pavements, and storm water management systems.

Horizons, Stone County, MS. Served as the project manager/staff engineer on the geotechnical portion of this residential/golf course development which was to include several single and multi-story homes along with a golf course. This phase of the project consisted of the roadways that would traverse the several thousand acre site and the storm water management systems. Responsibilities included coordinating drilling, managing field/lab work, and rendering geotechnical recommendations for the site preparation, roadways, and storm water management systems.

Deepwater Horizon Response, FL. WRScompass was one of several design firms working with local, state and federal agencies to respond to the Deepwater Horizon Platform oil spill in an effort to reduce the environment, social, and economical impacts. Responsibilities included wave hindcasting and current estimations across several counties in the panhandle for the installation of booms as well as the preparation of a response BMP for the City of Gulf Breeze that was then uploaded to the counties website and shared with other affected areas along the panhandle.

PROFESSIONAL HISTORY

WRScompass, Project Engineer 012/08 – Present
Collins Engineers, Staff Engineer, 11/07 – 12/08
Universal Engineering Sciences, 6/06 – 11/07



Leon County Board of County Commissioners

Response to Request for Proposals for Civil Engineering Services, Continuing
Supply

Environmental Support Services

Proposal Number BC-03-17-11-25

Submitted To:

Leon County Purchasing Division
1800-3 Blair Stone Road
Tallahassee, Florida 32308

Submitted By:

WRS Infrastructure & Environment, Inc. d/b/a WRS
508-A Capital Circle, S.E.
Tallahassee, Florida 32301
Phone: 850-531-9860
Fax: 850-531-9866

WRS Proposal No. 99-60-113202

March 17, 2011

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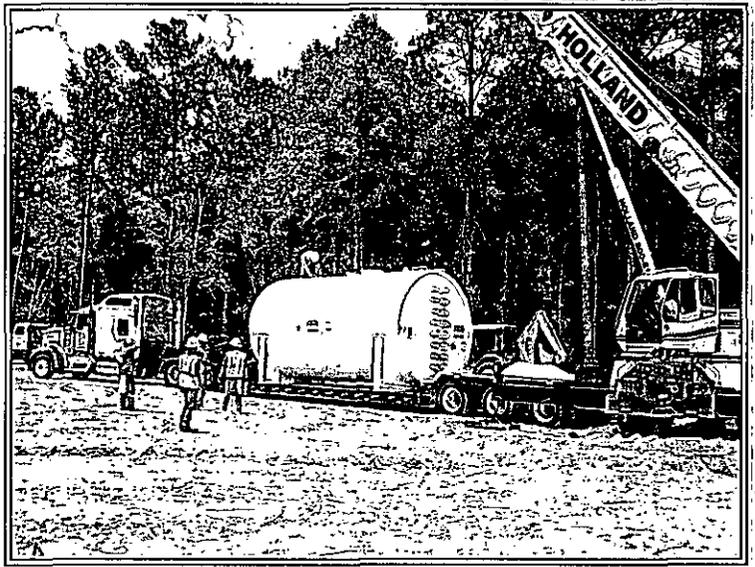
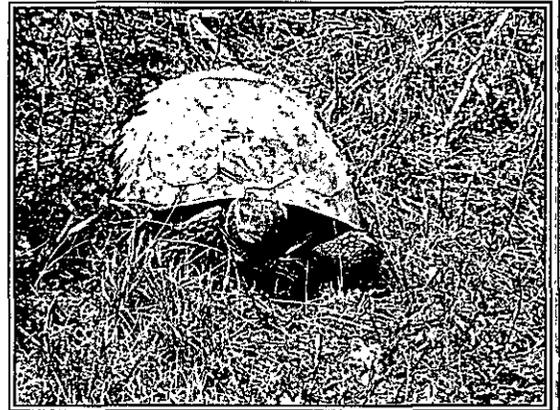
INTRODUCTION

WRScompass is a nationally recognized provider of turn-key environmental consulting and construction services. We have performed over 4,000 projects in Florida and over 15,500 projects nationally. These projects encompass the full range of services that may be required for this contract including: Phase I and Phase II environmental site assessments (ESAs) per American Society for Testing and Materials (ASTM) standards; threatened and endangered species surveys; historical and cultural resource surveys; archaeological assessments; site-specific risk assessments; writing generic and site-specific Quality Assurance Project Plans and Health & Safety Plans; preparing Analyses of Brownfields Cleanup Alternatives and Brownfields Site Rehabilitation Agreements; stormwater management system construction; stormwater quality monitoring; potable water systems; NPDES; wetland permitting; hazardous environmental assessments and audits; ambient air monitoring and air quality studies; storage tank removals, investigations, and retrofits; regulatory consulting; various forms of environmental testing; petroleum and hazardous waste contamination assessments, remediation, and treatment system design; landfill projects; and knowledge, experience and support with geographical information systems (GIS), AutoCAD, ArcView, and other data management programs.

WRS is a true turnkey environmental company. We self-perform site assessments, initial remedial measures, remedial investigations, feasibility studies, engineering design, site remediation, treatment system installation, operation, maintenance, and construction operations and oversight. WRS is licensed to practice both engineering and geological services in the State of Florida. We are also qualified as a Pollutant Storage Systems Specialty Contractor, an Underground Utility and Excavation Contractor, and a Class A General Contractor. All WRS personnel, except administrative support, are 40-hour HAZWOPER trained and undergo annual medical monitoring and drug testing. In addition to these common hazardous waste site activities, WRS

has performed the following project activities in Florida: Phase I and II environmental site assessments; petroleum and hazardous waste assessments and remediation; emergency response; underground utility installation; tank removal; fueling system installation; roadway and bridge construction; asbestos, mold, and lead-based paint abatements; and preparation and presentation of training manuals and training courses on environmental topics. WRS can also provide community relations support and has the expertise to prepare visual aids, conduct public meetings, and prepare media releases, if requested.

We will provide whatever resources are needed to serve any task order provided under the proposed contract within the requisite timeframe.



A. Ability of Professional Personnel

One of the secrets to WRScompass' success and growth over the years is our personal commitment to our clients and the relationships that are formed with our project managers. This success is borne from our organizational structure the provides clear lines of communications. WRScompass' organizational structure offers established capabilities and resources directed by strong project management. ***Our proposed project management team are diverse in their capabilities and are experienced in contamination assessment, site remediation, regulatory affairs, environmental site assessments, and many other environmentally related services.*** They are focused on executing the work right the first time, on time, and within budget while exceeding your expectations. Their collective experience should encompass the full range of services required for this contract.

WRScompass believes that excellence starts at the top and permeates throughout the organization. Using this criteria is how the project management team (Mr. Mark White, PG and Mr. Andrew Frost, PE) was selected to serve the County's needs. These individuals have proven leadership skills, backed by technical knowledge and experience to develop with the County, the right solutions to their environmental problems.

The following paragraphs will outline our key personnel in positions to serve you under this contract. Resumes for these key personnel, as well as, other project team members are provided in **Appendix A** of this submittal.

Mr. Mark E. White, PG, will serve as the Project Director for this contract. He will provide technical, construction, management, and regulatory oversight to the WRS Team. Mr. White has worked and lived within Leon County since joining WRS in 1994. He has the served as WRScompass FDOT District Three Contract Manager from 1996 to 2005 when he relinquished day to day management to Mr. Andrew Frost, P.E. In this capacity, Mr. White will provide technical support and regulatory guidance and be a point of contact for the County. Mr. White has an excellent understanding of the various environmental scopes of work and will bring a practical, streamlined approach to resolving potential environmental issues.

Mr. Andrew Frost, PE has been selected to serve as WRS's Project Manager for the County. Mr. Frost has worked extensively in the area on numerous environmental projects, providing inherent familiarity with local site logistics and regulatory pathways. This ***extensive experience*** will provide the County with ***seamless coordination*** on any challenging environmental issues. This experience ensures successful completion of existing projects and rapid, cost-effective startup of new projects.

With WRS, there will be no learning curve during contract startup and project execution. The level of program experience that WRS provides will be advantageous to the County. Our experience within the area has allowed us to develop excellent personal and professional working relationships with regulatory agency personnel that is based on trust. These relationships give WRS an unsurpassed ability to represent the County while addressing

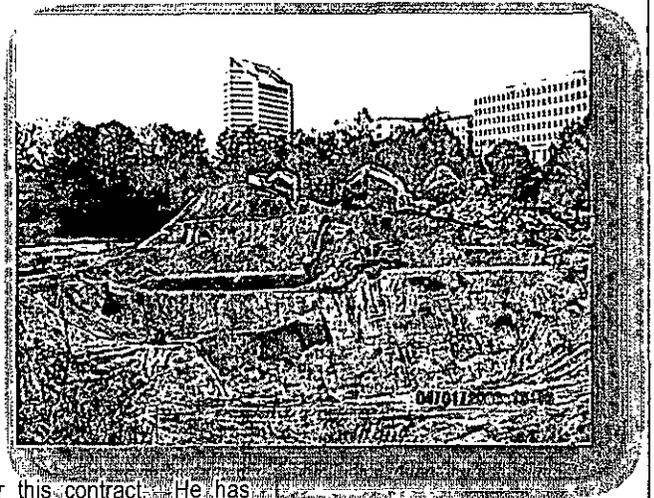
Mark White, PG
WRS Project Director
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Andrew Frost, PE
WRS Project Manager
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environmental concerns in a timely and cost-effective manner, without impacting projects. Our experience will also allow us to optimize close-out procedures for on-going projects.

Highly Qualified Team

Supporting the WRScompass project team will be a group of highly qualified, experienced technical personnel who have served extensively under several regulatory regimes. The other key team members have extensive experience in the County, with a strong understanding of state and local regulatory agency requirements and local working conditions. These key team members include Mr. Wes Leon, PG; Mr. David Rountree, PE; Mr. Craig Cowdery, PE; and Mr. Frank Powell, LEP.



- ❖ **Mr. Wes Leon, PG, PSSSC**, will provide management and technical support to Mr. Frost and Mr. White for Geological Services. Mr. Leon will also serve as the assessment services technical lead for this contract. He has conducted numerous Phase I and II assessments in the area and is committed to achieving your goals and objectives.
- ❖ **Mr. David Rountree, PE**, will be an Environmental Engineering Services technical lead and has provided numerous engineering designs for projects within the County.
- ❖ **Mr. Craig Cowdery, PE**, will also serve as an Environmental Engineering Services technical lead for this contract and has a broad scope of experience ranging from remediation of radioactive impacted media to restrictive covenants for impacted sites.
- ❖ **Mr. Frank Powell** will act as WRScompass Ecological Services lead. His detailed knowledge of conducting Phase I and Phase II Environmental Site Assessments will be an asset for the County when conducting real property transaction. Through our FDEP Division of State Lands contract, WRScompass has assessed over 1.1 million acres (3.1 % of Florida's land mass) including an assessment on one of the largest conservation property acquisitions east of the Mississippi River.

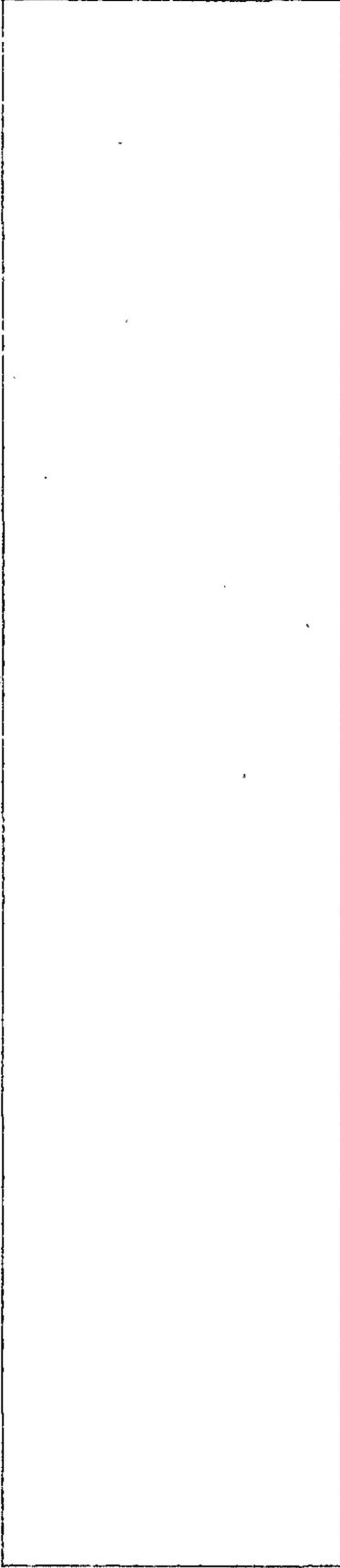
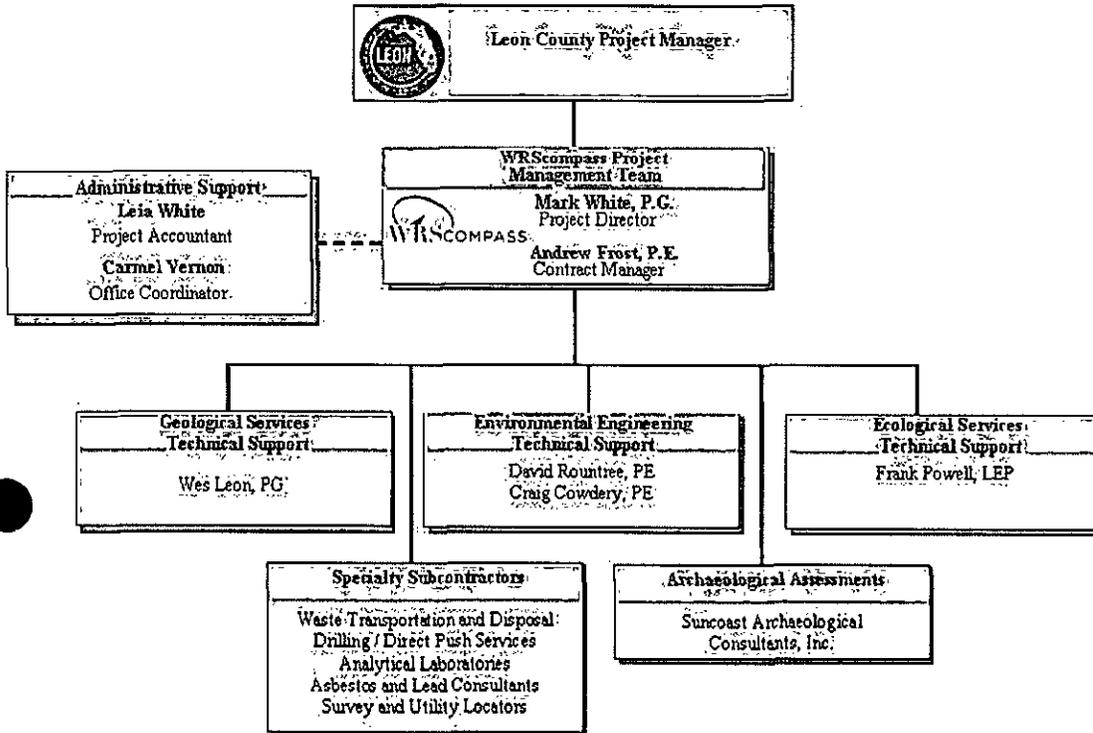
These key individuals will be supported by our highly trained team of engineers, geologists, environmental scientists, construction, and remediation personnel.

WRS has a strong corporate commitment to maintaining resources to meet and exceed the requirements of this contract. We will provide all resources necessary to perform work assigned under this contract. WRS has extensive resources at our Florida facilities to handle the concurrent, multi-site task authorizations anticipated under this contract. Our resources include appropriately qualified personnel and an impressive equipment inventory.

WRScompass being a true turn-key company, anticipates self-performing most of the work for this contract, expect for services performed by specialty contractors such as analytical laboratories, drillers, and waste disposal facilities. WRScompass has taken specific consideration when utilizing these contractors. Such considerations include past performance, internal QA/QC issues, and facility location. If selected for this contract, the project management team will ensure all applicable County guidelines for subcontractors will be met and will endeavor to select highly qualified, cost effective, and local businesses. We are committed to cost control, which becomes even more important with the budget challenges that the County is facing. As such, the selection of local (Leon County) vendors for specialty work will help ensure that the tax dollars of local residents stay in the County.

An example of WRScompass' commitment to utilizing local vendors is the inclusion of Suncoast Archaeological Consultants Inc. (SAC) within our organizational structure. SAC is a local contractor that specializes in archaeological assessments. They currently have an office in Tallahassee and have an extensive client list ranging from local municipalities to large engineering firms. Additional material on the history and services the SAC can provide is provided in Appendix B.

A depiction of our proposed organizational structure is presented below:



B. Experience with Projects of a Similar Type and Size

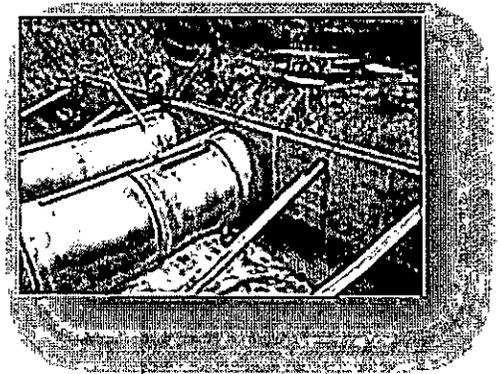
WRSScompass is a privately held transportation, environmental services, and construction company totally committed to providing Leon County with the highest quality contamination assessment, remediation, and environmental support services. As an engineering, consulting, and remediation contractor, we understand both environmental and civil construction. We are fully qualified, committed, and prepared to use our hands-on environmental and construction experience to provide all resources, equipment, and analysis to complete the environmental services specified within the scope of services for BC-03-17-11-25.

During our 25-year industry tenure, we have built a strong reputation as a competitive bidder on environmental transportation assessment & remediation, civil construction, water resource and transportation construction projects primarily for the public sector. We have been recognized for the last eight consecutive years for the company's Occupational Excellence and industry leadership by the National Safety Council, and awarded the "Excellence in Safety" Award from the Florida Transportation Builders Association also for the last eight years. We will continue to maintain this standard. WRSScompass is an industry leader and well known for our expertise in environmental assessment, civil construction, and groundwater & soil remediation for FDOT, USEPA, FDEP and Florida Water Management Districts.

WRSScompass will utilize the experience from these projects in combination with our extensive knowledge with Federal, State and Local clients to provide Leon County with an end product that is environmentally beneficial, cost-effective, timely, and that is of the utmost quality.

WRSScompass offers the unique and valuable capability to perform construction such as stormwater structure installation through contaminated areas with in-house personnel and equipment. We have extensive experience with roadway construction, installation of underground utilities and structures, placement of sub-base material, design and construction of fuel facilities and performance of all other civil construction related to constructing transportation facilities. We are also experienced in working under complex MOT phases. We hold the necessary Florida licenses (i.e., General Contractor, Underground Utility and Excavation Contractor and Pollutant Storage Systems Contractor) required to self-perform and/or manage all of the work required by this contract.

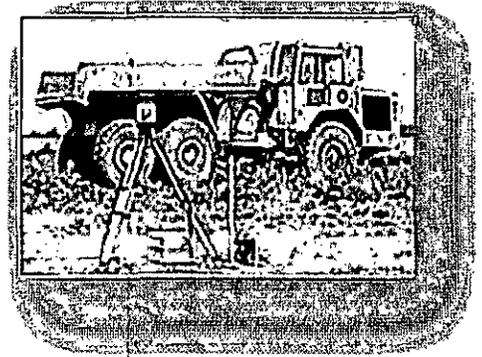
With almost 500 full-time professionals and skilled field remediation construction workers, WRSScompass has the experience, financial resources, and capabilities to meet our clients' needs by providing quality construction and project execution strategies that meet all regulatory, schedule, and performance goals.



WRSScompass has also implemented innovative technical solutions to minimize or eliminate construction downtime and limit long-term liabilities. We have applied innovative techniques for plume control during construction, including plume capture via counter-pumping, use of infiltration barriers and installation of sheet pile walls to restrict plume movement towards a construction zone.

Our experience encompasses the full range of services required for this contract, including all aspects of site assessment and screening, engineering design, remediation and associated transportation construction, operation & maintenance, emergency response and project documentation. This work history has covered a wide range of contaminants, contaminated media, site conditions and challenges, cleanup technologies, construction methods and regulatory frameworks.

WRSScompass has been involved with several of FDOT's largest, high-profile projects including the Crosstown Connector, I-4/I-275 Interchange, US 17 Corridor, Miami Intermodal Center, (MIC), Cove Boulevard Construction, Davie Boulevard Corridor Expansion, Fairbanks Disposal Pit Superfund Site and the Polk County Parkway. In addition to our District 7 and FDOT state-wide experience in transportation related construction and remediation, WRSScompass also plays a key role in the civil construction aspects of the Florida Everglades and work associated with the Water Management Districts across the state of Florida.



Below are summaries of local projects specifically relevant to this contract. Detailed project descriptions can be found in Appendix C.

Bronough Phase I and II Environmental Site Assessment (City of Tallahassee)

These Environmental Site Assessments were conducted on a time-critical basis due to a pending real-estate transaction. WRSScompass assessed two full city blocks totaling 5 acres with four office buildings in a matter of weeks. The ESAs included:

- A ground-penetrating radar survey to confirm underground storage tank removal;
- Direct-push and conventional borehole advancement for soil and groundwater sample collection;
- A complete lead-based paint survey of all four buildings;
- A complete asbestos-containing material survey of all four buildings; and,
- Identification of four recognized environmental conditions, including an underground storage tank, asbestos-containing material, and lead-based paint, on the property.

The results of the ESAs include a \$450,000 reduction in the price the City paid for the property, to allow for mitigation of the recognized environmental conditions.

Purdom Power Plant Source Removal and Soil-Bentonite Cutoff Wall (City of Tallahassee)

This was an innovative project involving the removal of dioxin-contaminated soil, and installation of a subsurface groundwater barrier, i.e., a soil-bentonite cutoff wall. The dioxin contamination was from an adjacent property. The groundwater barrier was installed to prevent re-contamination of site groundwater from the neighboring source property. Highlights of the project include:

- Use of a one-pass trenching machine to install the soil-bentonite slurry wall to depths of up to 15 feet, from land surface to the top of the Saint Marks limestone formation;
- An achieved permeability in the slurry wall of 10⁻⁷ centimeters per second, similar to a landfill liner; and,
- Excavation and proper disposal of 8,788 cubic yards of dioxin-contaminated soil from an area 2.76 acres in size.

Cascades Park Coal Gasification Plant and Landfill Remediation (City of Tallahassee)

In this project, WRScompass removed coal-waste contamination totaling 85,000 tons from depths of up to 57 feet below land surface. A former landfill was also capped as part of this project. Key elements of this project include:

- Installation of 356 feet of box culverts to prevent contamination of Saint Augustine Branch by landfill leachate;
- Installation of a clay liner underneath a large stormwater pond;
- Installation of a 6,844 square yard landfill cap;
- Removal of contaminated sediment; and,
- Removal and/or construction of engineering controls for several sites contaminated with TRPH, lead, dioxins, PAHs, and PCBs.

Gaines Street and Railroad Avenue Impact to Construction Assessment (Florida Department of Transportation, District 3)

In anticipation of a property transfer from FDOT to the City of Tallahassee, WRScompass performed an Impact to Construction Assessment, to determine what environmental conditions could affect future development construction on the subject property. Activities performed included:

- A ground-penetrating radar survey for underground utility location; and,



- Collection and screening of multiple soil samples at various depths to determine the extent of petroleum contamination from historical fueling facilities at the site.

Former Tallahassee Maintenance Yard (Florida Department of Transportation, District 3)

This project showcases the aggressive approaches WRScompass uses in remediating petroleum sites. Activities included:

- Removal of first- and second-generation underground storage tank systems;
- Assessment of soil and groundwater contamination;
- Excavation of 3,000 tons of contaminated soil, including underneath an in-service sewer line, which was supported in place; and,
- Application of an innovative bioremediation and air-sparging groundwater remedy for remaining groundwater contamination.

Former Hair Chevron (Florida Department of Transportation, District 3)

Another petroleum cleanup site, this project illustrates WRScompass' flexibility in dealing with a site with highly constraining surface features. Highlights included:

- Use of air-sparge / soil vapor extraction technology, with a remote equipment compound unobtrusively placed behind a shopping center;
- Monitored Natural Attenuation where appropriate in the downgradient portion of the groundwater plume; and,
- Careful monitoring which successfully distinguished between contamination that the client was responsible for and contamination due to offsite third parties, resulting in a faster site rehabilitation for the client.

United Metal Phase 2 Solidification and Stabilization (DNT Environmental LLC)

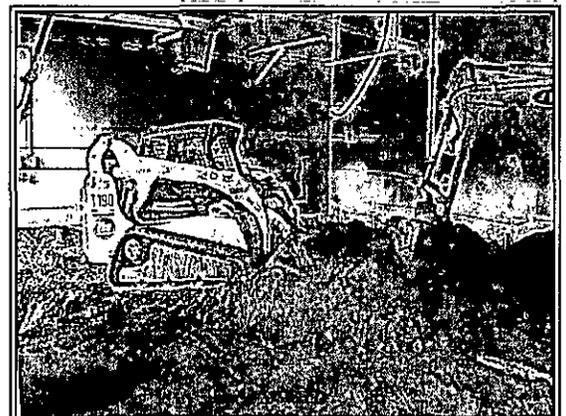
This project at a former lead-acid battery recycling facility shows WRScompass' impressive capabilities in addressing metal-contaminated sites. The project included:

- A 450-ton pilot study to test the solidification soil mix;
- A large pugmill treatment system including silos and stacking conveyor for soil handling and stabilization; and,
- Geotechnical and chemical analyses to verify the processed soil met cleanup specifications.

Concord Custom Cleaners #45 (Florida Department of Environmental Protection)

WRScompass is fully capable and very experienced at chlorinated solvent site remediation, as exemplified by this project.. Our construction and remediation experience led to innovative approaches for this site, such as:

- Video inspection of facility sewer lines for identification of leaks acting as source areas;



- An interim source removal performed inside the vacant former Concord Cleaners property. Helical piles were used for foundation support while excavating through the building floor;
- Removal and disposal of 250 tons of contaminated soil; and,
- Implementation of soil vapor extraction for remediation of soil that could not be excavated;

Naval Air Station Pensacola Stormwater Drainage Repairs (Naval Facilities Engineering Command, Southeast)

WRSScompass has extensive experience in stormwater structure installation through both contaminated and uncontaminated areas. This project shows that WRSScompass can perform complicated stormwater structure installations for the most exacting of clients. Highlights of this project include:

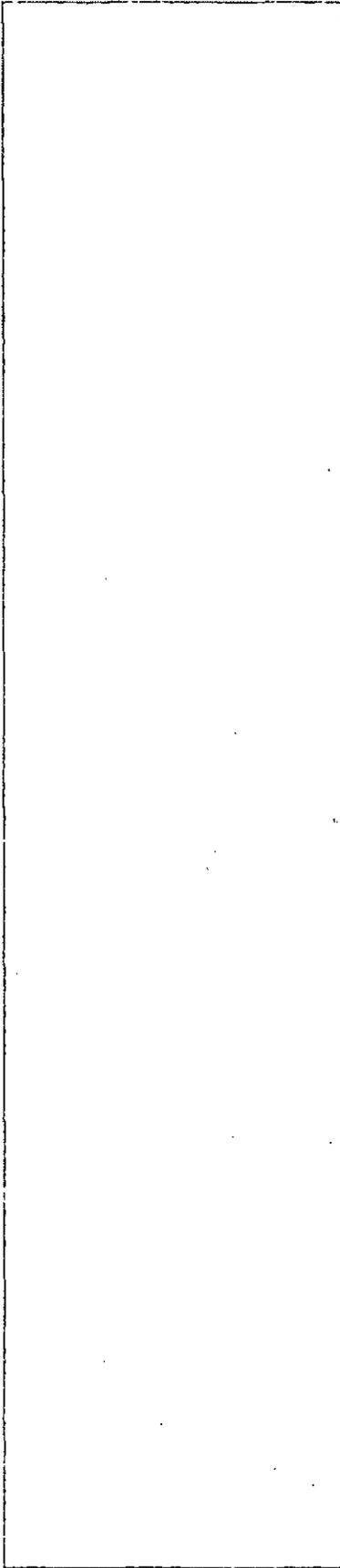
- Restoration of 13 miles of stormwater ditches;
- Replacement or repair of over 40 underground pipe segments;
- Rerouting and design-build of a 54-inch stormwater pipe system; and,
- Complete submittals from work plans to as-builts.

Whiting Field AVGAS Section E Pipeline Remedial Effort (Naval Facilities Engineering Command, Southeast)

WRSScompass is capable of responding to not only gas-station-sized petroleum cleanups, but large-scale fuel farm and refinery-sized cleanups. Key points associated with this project include:

- Design, installation, and operation of a groundwater treatment system;
- Treatment of over 369,000 gallons of petroleum-impacted groundwater;
- Design, installation and operation of a 72-point dewatering system;
- Pipeline abandonment of a greater than 7,000 foot pipeline; and,
- Excavation and disposal of 10,000 tons of petroleum-contaminated soil.

In conclusion, WRSScompass has the personnel, experience, the equipment, and more importantly, the dedication and commitment to serve Leon County by solving environmental and stormwater problems. As residents and fellow citizens, we will perform our services with the pride and care that characterizes all our work.



C. Willingness to Meet Schedule and Budget Requirements

WRScompass recognizes that successful management of this any project requires proven procedures and techniques for planning, budgeting, scheduling, communicating, and controlling the work efforts. We have in place procedures and tools for controlling and tracking costs and schedules. This capability will provide Leon County with the up-to-date information and flexibility needed to manage assigned work tasks. The key features we use to track and manage project schedules include:

Project Initiation:

- Close communication with the County to understand the scope
- Develop a schedule that corresponds to the scope

Project Controls

- Critical Path Method
- Program Evaluation and Review Technique
- Earned Value Method
- Timberline®

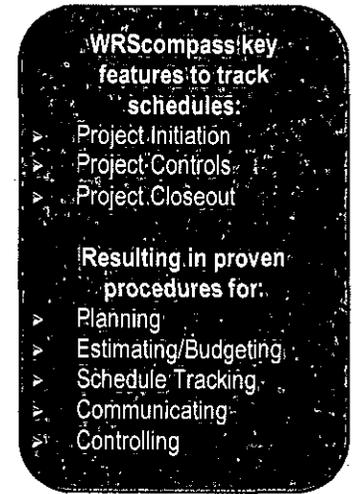
Project Close-out

- Clear & Concise communication
- Quality Assurance & Quality Control on Deliverables

C.1 Project Initiation:

The WRScompass program management approach begins with a strong commitment to partnering, communications, and coordination with the County. We are committed to partnering with Leon County on environmental actions associated with transportation construction projects. Partnering will promote cooperative execution of each task order on time and within budget. Upon award of a Letter of Authorization (LOA) we will arrange a partnering workshop with our program and project personnel, the County, and any other stakeholders. Partnering will establish teamwork, identify team goals, open lines of communication, allow early identification of issues, expedite cooperative resolution, and fosters trust and cooperation. Our site managers are extensively trained on the fundamentals of partnering and sound project management. This includes communication and coordination with all stakeholders, critical path scheduling, earned value, cost and schedule variance analysis, contract interpretation, administration, health and safety, quality, labor relations, subcontract management, documentation, and contract close-out. In this regard, Project Managers are highly trained and fully capable of conducting detailed job analysis in a variety of areas.

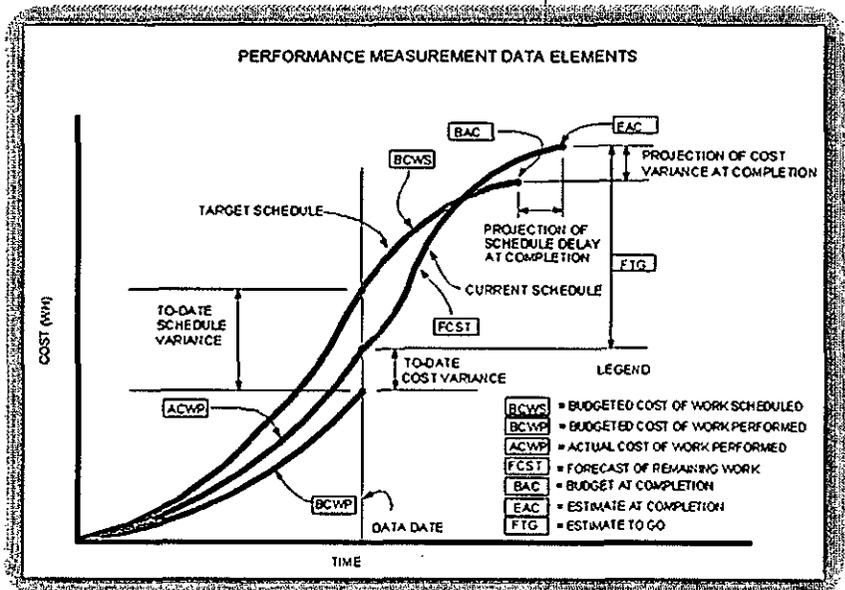
We believe that an accurate project schedule begins from a solid understanding of the scope of work to be performed. We will utilize our team relationships to layout and clearly identify milestones that matter to the County, but may not be directly reflected in the project. Milestones that may need to be tracked include meeting the contract obligations or invoicing before the end of, or at the beginning of the County's fiscal year.



The second driver to developing accurate project schedules is leveraging our past environmental experience. WRSScompass has been conducting environmental projects in Leon County for nearly 20 years. During that time we have worked on projects ranging from contamination assessment & reporting to utility installation & civil construction to emergency response. Our experience allows us to anticipate potential challenges and accurately account for them within the project schedule. By identifying challenges during the development of the schedule, we are able to find resolutions early on to overcome these challenges, long before when they would otherwise be found. By tapping into our staff's past experience on other environmental projects we bring value to the County. This value is realized in the field through an always forward moving project.

Once we have worked with you to understand the scope and have discussed the project internally to leverage our past experience, we will then build the baseline schedule. WRSScompass uses modern project management software to develop project schedules. We use two primary software packages to develop the schedule. One is Microsoft's Project® and the other is Primavera Project Planner®. Both software packages utilize Critical Path Method (CPM) and Program Evaluation and Review Technique (PERT) type scheduling systems.

CPM allows the project team to clearly identify the activities and milestones that are essential to maintaining the project schedule. Those activities that are not on the critical path may have either Free Float or Total Float. Free Float arises when an activity can be delayed without delaying its dependent activity. Total Float occurs when the activity can be delayed without delaying the overall project completion. Free Float and Total Float are typically measured in man-days. Once the draft of the schedule is complete it can then be modified by the Project Manager. Modifications could include resource-leveling, where the labor force is leveled to a constant size for certain activities during the project. Once the project is resource-leveled it will need to be recalculated to determine if there is a new critical path. This method can be iterated until mutually agreeable project duration and critical path is acceptable to the County and our Project Manager.



PERT scheduling allows us to run scenario analysis on the project schedule. We are able to use statistical analysis to determine how long and how likely a project activity and the overall project duration will be. PERT analyzes the most optimistic, the most pessimistic, and the most likely duration for each activity. These anticipated durations will be based on our historical experiences performing the activities. The duration for each activity is then produced by using a probability based calculation driven by the three inputs described. Like the CPM method the PERT scheduling

can be iterated until mutually agreeable project duration and critical path is acceptable to District 7 and our Project Manager.

C.2 Project Controls

We create a detailed Work Breakdown Structure (WBS) commensurate with project size and complexity, closely monitor project performance, manage costs, report progress, and implement and track any necessary corrective action. We use a variety of software tools to model, evaluate, track, and present cost, schedule, and resource data including Gantt charts, CPM diagrams, logic diagrams, resource/cost curves, and resource leveling.

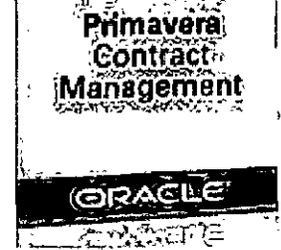
For each LOA, we maintain an up-to-date database of actual costs from the Work Plan/Cost Estimate through project close-out. It is a WRScompass corporate policy that all costs are tracked and recorded daily. We use our computerized cost system to accumulate and track costs, and we assure cost data control through a single point of data entry and multiple reviews for accuracy and compliance.

Our Project Managers will take quick action to communicate and correct problems that could lead to cost or schedule overruns. If the cost to complete is higher than the remaining budget, or if a schedule overrun is predicted, the PM will identify the source(s) of the potential overruns and take corrective actions, such as:

- evaluate individual tasks to determine if multi-tasking can be used to remain on schedule
- assign additional personnel to shorten the duration of remaining tasks
- determine if tasks can be accomplished more efficiently if conducted in a different manner
- change the labor category mix, while not compromising the performance of assignments

The Project Manager shares the baseline schedule with the project team. Our team will work together to understand what specific challenges must be managed and take greater priority during the project. For example, if a project requires that 40% of the work on the critical path must be performed by a subcontractor, we will need to dedicate additional WRScompass resources to coordinate and manage that subcontractor to ensure we stay on schedule and always moving forward.

After the baseline schedule has been agreed upon and once construction begins, we manage to the schedule. We do this by tracking progress with Daily Project Reports. These reports help us understand what scopes of work were performed that day. By tracking our progress on a daily basis we can monitor and manage our time more efficiently. The Daily Project Reports are then used to update our schedule weekly. We compare our progress to the baseline project. If there are any discrepancies we examine the differences. If we are ahead of schedule we will need to make other stakeholders aware. For example, subcontractors will need to be notified to advance their start date and order their materials, so that when their predecessor activity is completed they can begin work without delay. The County needs to be notified so they can verify our invoices match actual work performed, not the anticipated work performed.

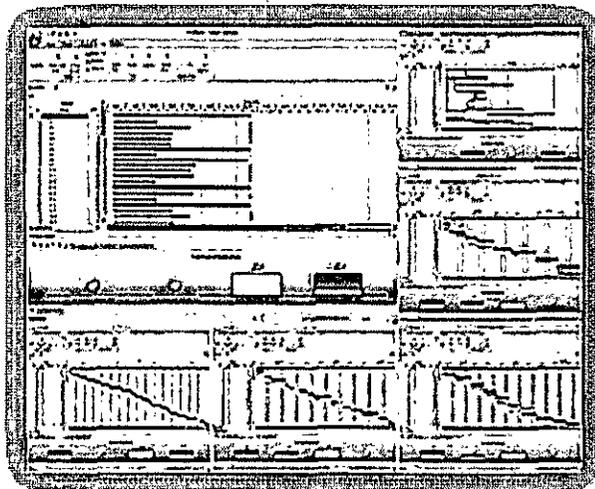


Often unforeseen challenges arise which may negatively impact the schedule and put the project behind. These challenges may result in Negative Float. Negative Float occurs when the expected finish date is later than its successors start date. It is a key signal that a project is falling behind schedule. If this happens, the team must develop a plan to recover the schedule. This can be done in a variety of ways: working overtime, adding resources, revisiting the activity sequencing, doubling the equipment, etc.

We also track our projects using the Earned Value Method (EVM). EVM allows us to track schedule variances as well as financial variances. Three main values are used under the Earned Value Method:

1. Planned Value or Budgeted Cost of Work Scheduled (BCWS)
2. Earned Value or Budgeted Cost of Work Performed (BCWP)
3. Actual Cost or Actual Cost of Work Performed (ACWP)

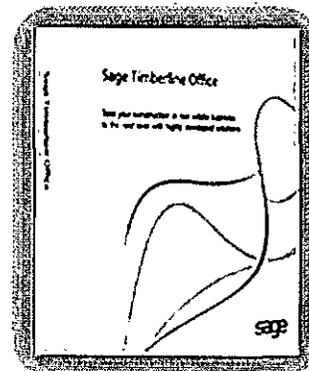
EVM's Work Breakdown Structures, schedule constructs, and Organizational Breakdown Structures provide a significant boost to the accuracy of scoping and estimating project budgets. EVM's variance reporting, monitoring of project performance, and ability to forecast project outcomes provides the best estimates at almost any point in a project of what it will ultimately cost to complete. WRScompass has learned that EVM provides significant insight to help hold our Project Managers accountable. This accountability, and a long positive track record on numerous large projects, has led WRScompass to absolutely mandate EVM use on all their projects both internal and external.



The BCWS assigns a dollar value to each of the activities on the project schedule. The Earned Value is the value of the work that has been performed to date. Finally, the Actual Cost is the actual cost to perform the work. When we review schedule variance we compare the Earned Value to the Planned Value. When the Earned Value is greater than the Planned Value we are ahead of schedule. When the Planned Value is greater than the Earned Value the project is behind schedule.

The Earned Value Method also allows us to track projects financially. If the Earned Value is greater than the Actual Cost the project is under budget. This can lead to cost savings for the County. One manner in which this can occur is through a Value Engineering solution. Typically we discuss Value Engineering approaches for all of our projects. For instance, on our recent water treatment plant and waste water treatment plant design for the Florida Turnpike Enterprise, **we provided Value Engineering concepts that would reduce project construction costs by over \$700,000, nearly 20%.**

When the Earned Value is less than the Actual Cost the project is coming in over budget. One way in which this can happen is due to Supplemental Agreements (SA). If an SA is approved, these new costs are not accounted for in the planned construction forecast. When this happens we need to make sure that we coordinate directly with the County. We understand that the County has financial constraints. We understand that by staying in constant direct communication with the County that we can mitigate any funding challenges.



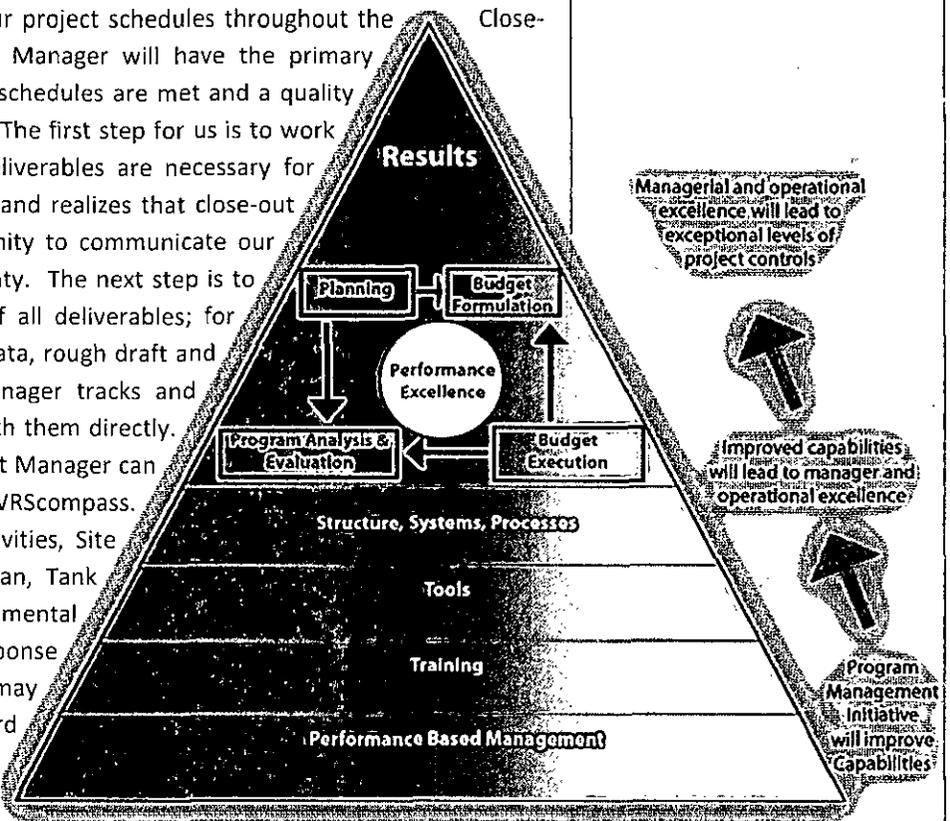
At WRScompass, we utilize Timberline® to monitor project costs on a weekly basis. Each activity in the system can be checked in a timely manner for excessive costs before this becomes a serious problem. Each major task has a budget line in Timberline® and a statement of current costs and costs to date for both labor and direct expenses. Timberline® is initially given a project budget by assigning numbers to specific tasks that match the scheduled tasks in Microsoft Project. By assigning the budget numbers to the tasks we are utilizing the Earned Value method.

Charge numbers are assigned to major tasks only, but all tasks are covered. Timberline® then receives its cost data as direct computer based input from our weekly electronic timesheets. In this way, the project manager can review the data each week to determine where the expenditures are with regard to the budgets for each activity. If a discrepancy arises the Project Manager will know immediately that there is an issue that needs to be addressed.

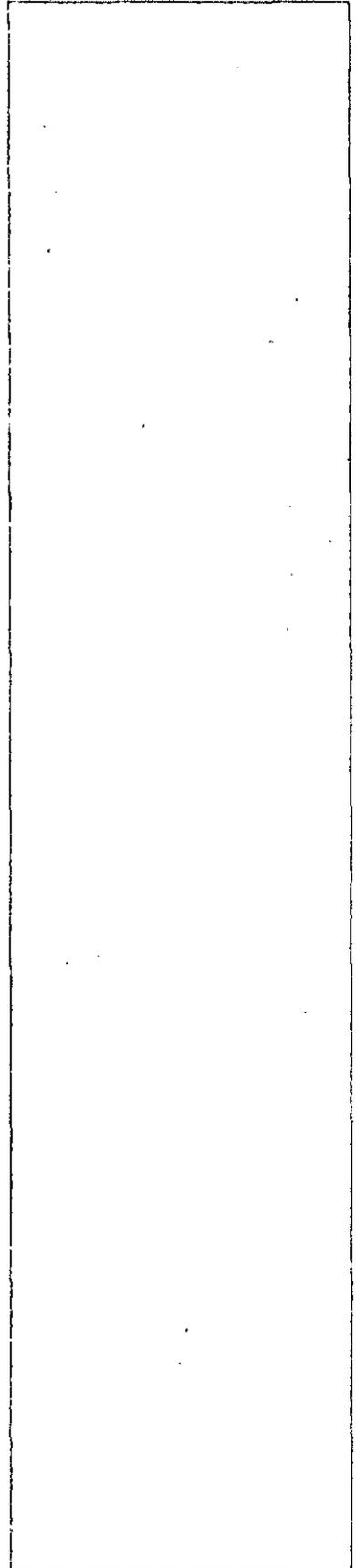
The Earned Value method is not only monitored by our project managers but also by our operations staff which includes our Corporate Sponsors. We discuss the schedule and the budget for each project. When challenges arise in the field the Project Manager can utilize our Corporate Sponsors to find solutions to them. If a project's schedule should begin to slip due to equipment troubles the Project Manager can work with the operations staff to quickly find equipment in the nearby area that can be used to complete the project.

C.3 Project Close-Out

At WRScompass, we continue to track our project schedules throughout the Close-Out process. The WRScompass Project Manager will have the primary responsibility for making sure that these schedules are met and a quality deliverable is presented to Leon County. The first step for us is to work with you to clearly understand what deliverables are necessary for each project. WRScompass understands and realizes that close-out submittals are the most critical opportunity to communicate our findings and tasks completed to the County. The next step is to outline the milestones for completion of all deliverables; for example complete collection of all field data, rough draft and final draft milestones. The Project Manager tracks and supports their staff by communicating with them directly. If additional support is needed, the Project Manager can pull from our deep resource pool at WRScompass. Typical reports include: Summary of Activities, Site Assessment Reports, Remedial Action Plan, Tank Closure Report, Phase I and Phase Environmental Site Assessment, and Emergency Response Reports. Project Close-out deliverables may also include the submittal of record drawings and/or plans to design or utility engineering firms. The most important part of Project Close-Out is clear and concise communication as well as Close-Out schedule



tracking. *With built in systems to control all tracking Standard Operating Procedures (SOPs), Leon County can be confident that WRSScompass projects are tracked, scheduled and budgeted accordingly.*



D. Effect of Firm's Recent, Current and Projected Workload

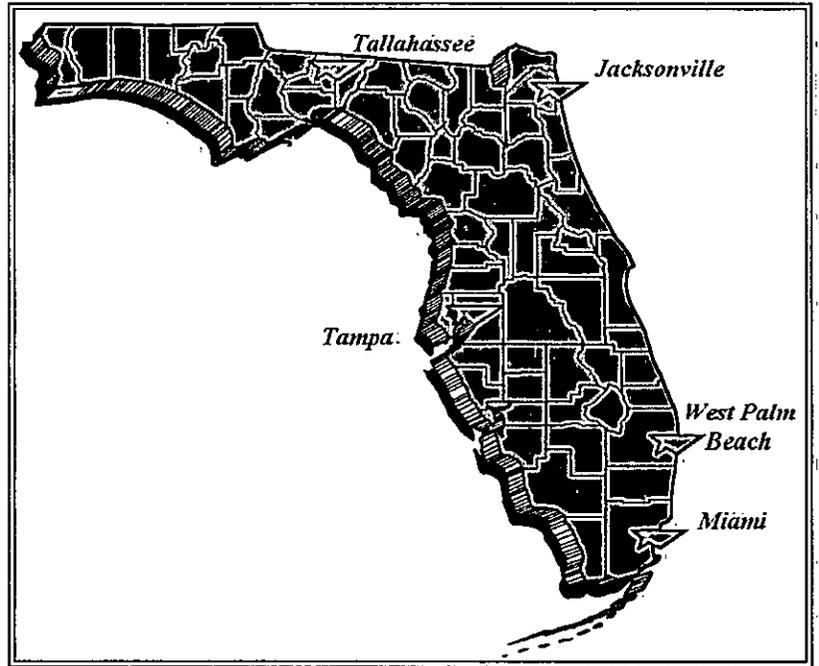
The WRScompass Project Director and Project Manager for this project are located in our Tallahassee offices. Our streamlined organization is presented in the WRS Organizational Chart provided in the preceding pages. WRS typically manages more than 100 simultaneous, on-going projects throughout the State. These projects vary from simple site assessments to large remedial actions. Our success is attributable solely to our excellent record of performance in providing quality service and meeting project budgets and schedules on these simultaneous projects.

We guarantee availability of any personnel or equipment that Leon County may require and commit to immediately increasing our resources as needed in direct proportion to the work assigned. We anticipate, based on the nature of the proposed work, that dedicated personnel will be assigned to this project if the assigned workload will support those personnel. The availability of the key personnel is specifically guaranteed and no key person will be replaced without the written consent of the County. A list of current government contracts currently being managed by WRS personnel is presented in the following table.

WRScompass has never failed to respond to any project assigned by any of its clients. Leon County can expect the same level of responsiveness.

Project Owner	Contract Name/Description	Location	Contract Value	Completion Date
Florida DEP	FDEP-DRY	Florida	\$5,000,000	Apr-13
US Environmental Protection Agency Region 4	EPA 4 ERRS	Southeast US	\$100,000,000	Sep-12
Florida DEP	FDEP Equip	Florida	\$8,000,000	Jun-12
Florida DOT D1	FDOT District 1 (multiple contracts)	South central FL	\$14,000,000	Aug-11
US Environmental Protection Agency Region 3	EPA 3 ERRS - Full & Open	Mid Atlantic US	\$137,000,000	Jun-11
Florida DEP	FDEP-DSL	Florida	\$5,000,000	May-11
US Environmental Protection Agency Region 3	EPA 3 ERRS - Small Business	Mid Atlantic US	\$65,000,000	May-11
South Florida Water Management District	SFWMD ESA	South Florida	\$8,000,000	Feb-11
USACE, Jacksonville District	Picayunne Strand (HPA - Prime)	South Florida	\$7,248,000	Oct-11
Florida DOT	District 4 - FDOT Environmental Response Services Hazardous Materials	Southeast Florida	\$5,000,000	Sep-12
Michigan DEQ	State of Michigan Hazardous Material Removal Services - Statewide	Michigan	No Ceiling	Oct-14
Tampa Port Authority	Environmental Remediation Services	Tampa, Florida	No Ceiling	Dec-11
Florida DOT	District 2 - District Wide Environmental Site Restoration	Northeast Florida	\$1,370,760	Jun-15
Florida DEP	FDEP Petroleum (Team 5)	Florida	\$25,000,000	Jan-15
Florida DOT	District 3 - FDOT Environmental Response Services Hazardous Materials	Florida Panhandle	\$5,165,827	Aug-11
Florida DOT	District 3 - District Wide Contamination Assessment and Remediation Services	Florida Panhandle	\$5,000,000	Nov-13
Tennessee DEC	TDEC Division of Remediation	Tennessee	\$3,500,000	Feb-13
Florida DOT	District 6 - District Wide Contamination Assessment and Remediation Services	South Florida	\$3,000,000	May-11

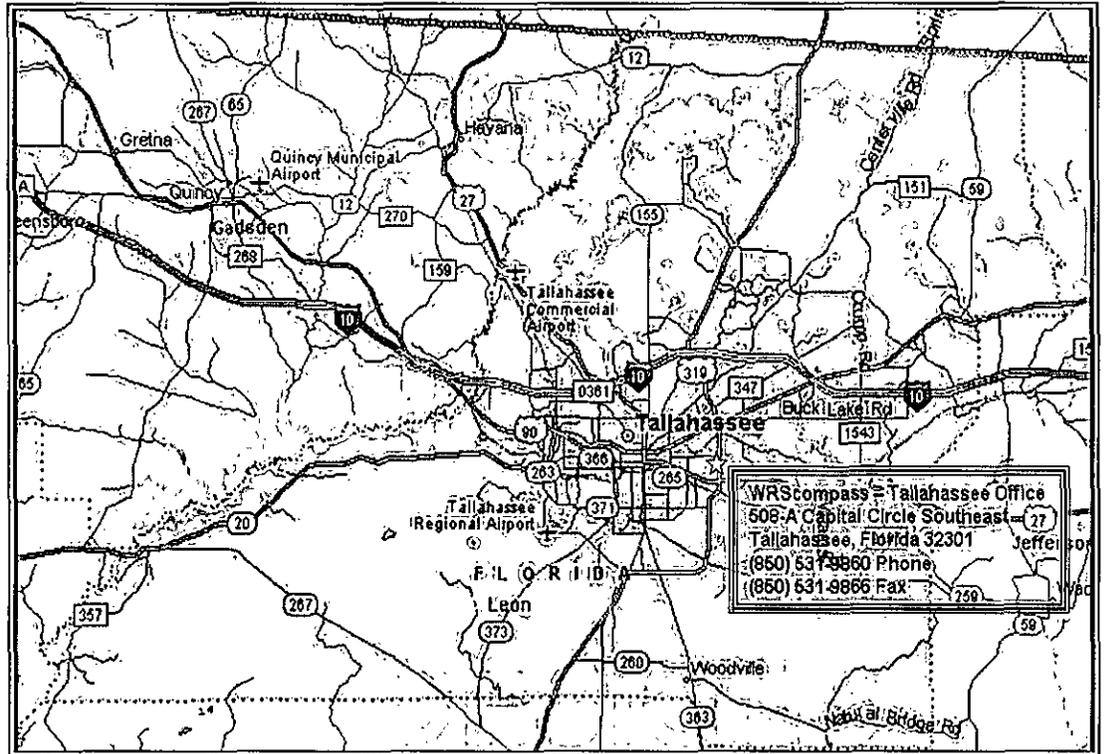
In addition to the key personnel proposed to work on this project, WRScompass has more experienced personnel, as outlined above, that will be available if and as needed. Within the state of Florida, WRS has five service centers from which personnel can support any needs that the County might have. We guarantee the availability of sufficient personnel to complete any assigned tasks under this contract.



E. Effect of Project Team Location

The WRScompass project team for this Leon County solicitation will be led from our Tallahassee, Leon County, Florida facility, providing the County with direct and immediate access to local WRScompass personnel and equipment resources. Our Tallahassee facility at 508-A Capital Circle Southeast is located within the heart of Leon County and within minutes

of any County office. WRS first established an office in Leon County in 1994 and the office has grown from 3 employees in 1994 to the current staff of 36. The WRS Tallahassee office will be focused on meeting the County's environmental needs. The equipment and personnel resources based out of our Tallahassee office should allow for quick response and strong local support for this contract. If additional project support is needed, then those necessary resources can be made readily available from our other Florida facilities.



In selecting WRS, the County will have access to a strong network of local technical staff who have chosen to make Leon County their home. This gives the County not only the commitment of a nationally recognized environmental firm in WRScompass, but also the dedication of local residents who wish to continue efforts to keep Leon County a preferred choice to live, breath, and raise a family.

F. Approach to Project

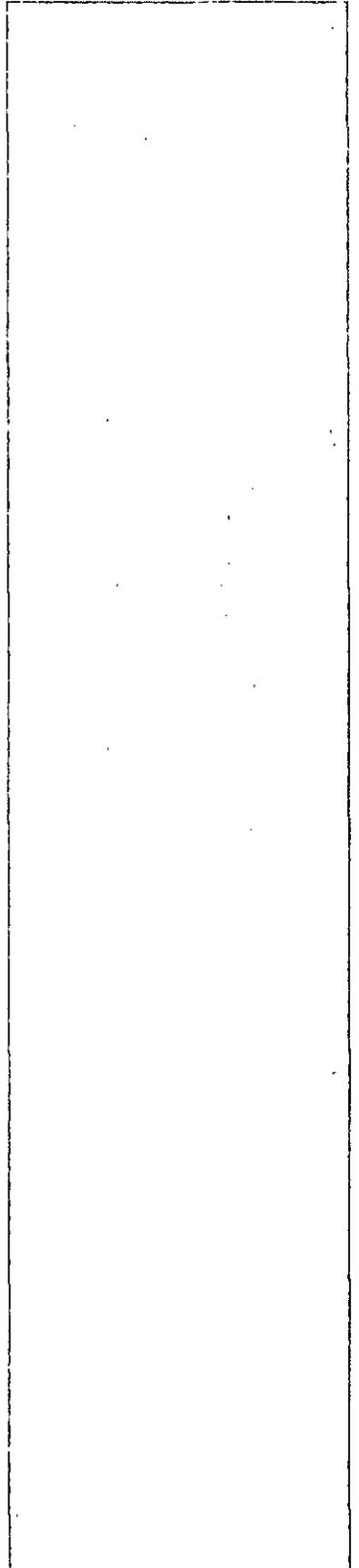
WRSScompass will work closely with the County to consistently deliver services and build relationships with County personnel. The County staff will be fully integrated all phases of work as WRSScompass forms a collaborative team to ensure that the best solution that meets the County's objectives are identified. In an effort to be concise, an itemized list of how we anticipate workflow to occur is presented below:

WRS recognizes that accurate planning, estimating, tracking, reporting, schedule control, and invoicing are key issues for Leon County.

1. Leon County identifies an environmental services requiring expert consulting support and notifies WRSScompass.
2. WRSScompass can meet with County personnel to discuss required services and expected objectives.
3. WRSScompass will prepare and Statement of Work and Cost Estimate and submit to the County for review.
4. After receipt of the Letter of Authorization from the County, personnel and equipment assignments will be made based on project type and location. Key subcontractors, if required, will be assigned and notified based on past performance, work quality, schedule/availability, and costs.
5. The County will be presented with an anticipated schedule of events to execute requested services.
6. If schedule is agreed, WRSScompass personnel will execute field work as directed, with County staff consistently updated of findings.
7. A detailed report of executed work will be prepared.
8. A status database identifying LOA's, project names and locations, LOA expiration dates, project status, billed and unbilled amounts, and remaining contract budget will be maintained and provided to the County for review.
9. After work scope completion, WRSScompass will notify the County of the Project Close-out.

Leon County Needs	Leon County Deserves
A highly competent environmental consultant	WRSScompass' decades of successful performance of environmental projects
A highly technical, capable consultant with a management team that guards the County interests	WRSScompass' Project Director and Project Manager and other technical staff will be your eyes and ears, watching for cost saving opportunities.
A consultant with technical experts	The County will have access to the WRSScompass' local and national technical experts.

APPENDIX A – Key Personnel Resumes



Mr. White has over 18 years of experience in the management of large scale environmental assessment and remediation activities at petroleum and hazardous waste contaminated sites. He coordinates, staffs, and manages field investigation activities. He also tracks job cost accounting including cost analysis, project tracking, budget evaluation, and value engineering analysis. Mr. White's experience includes program and project management; evaluation, assessment, source removal, cap construction, stormwater drainage improvements, and value engineering at manufactured gas plant sites; solidification and stabilization on USEPA Superfund sites; drainage canal restoration, stormwater drainage improvements, pipeline work, and source removal activities on US Naval Stations; and building demolition, source removal activities, remedial treatment system installation and implementation, site assessment, waste stream characterization and profiling, impact to construction assessments, stormwater drainage system and retention and detention pond construction, removal and closure of underground storage tanks (USTs), Level I and II assessments, asbestos abatement, and Phase I Environmental Site Assessments for the FDOT; and associated environmental activities such as monitor well installation, development, and abandonment; sampling of various media; aquifer testing; down hole and surface geophysics; formulation of technical special provisions; and data reduction and report generation.

Mr. White has supported and managed projects and programs for the United States Environmental Protection Agency (USEPA), the US Navy Environmental Multiple Award Remediation Contract (EMAC), the Florida Department of Transportation (FDOT) Site Assessment and Remediation Contract, the Florida Department of Environmental Protection (FDEP) Drycleaning and Hazardous Waste Program, the FDEP Division of State Lands Environmental and Baseline Assessment Programs, and other private client programs.

Representative Project Experience

**City of Tallahassee (COT) Cascades Park Remediation Project
Tallahassee, Florida**

Program Manager. Mr. White served as the Program Manager for the 11.1 million dollar COT Cascades Park Assessment and Remediation Project, which is a Brownfields site included within the COT Gaines Street Corridor. Remediation activities included the removal and disposal of approximately 85,000 tons of soil impacted by coal tar and coal tar by-products, removal of approximately 200-tons of sediment from Cascade Creek, removal of approximately 8,500 tons of soil impacts by polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), lead, arsenic, dioxins, and furans, installation of 450 lineal feet of 16" x 7' box culvert, installation of an impermeable cap over a former landfill, and geotechnical investigations. This work was undertaken in five different areas of concern (AOCs) over a 10-acre parcel. Work activities also included groundwater assessment and soil assessment in three of the AOCs. Assessment and remediation activities were performed under the purview of the United States Environmental Protection Agency and the FDEP and in accordance with CERCLA and 62-777 of the Florida Administrative Code. Mr. White's responsibilities included program management, financial management, oversight of all remediation activities, client liaison with COT personnel, technical support and oversight, regulatory and contractual compliance, and public relations (town hall meetings).

Project Director

*Large Project Management
Experience*

*Large Scale Remediation
(and Source Removals)*

*Solidification and
Stabilization*

*Large Diameter Auger
Source Removal*

*Stormwater Drainage
Construction*

Demolition

GIS/GPS

Health & Safety

Education:

B.S., Geology, Florida State
University, 1992.

Professional Registrations:

Florida PG, No. 2025
Alabama PG, No. 1209
Tennessee PG, No. 5575.

Total Years Of Experience:

18

Years Of Experience with

WRS:

15

United Metals Phase 2

Marianna, Florida

Project Manager. Mr. White served as the Project Manager for the 3.4 million dollar soil stabilization and solidification project. The 180-acre UMI site is a former battery reclamation facility, of which approximately 24 acres were used for the facility operations. From 1979 to 1992, UMI recovered lead from batteries and sent the reclaimed lead off-site for smelting. The EPA identified lead, antimony, and arsenic in the site's soil and groundwater at elevated levels. WRScompass' work scope included the stabilization and solidification of over 61,000 tons of metals impacted soil and associated geotechnical testing and reporting. WRScompass was also responsible for Health and Safety in their work area and Quality Assurance and Quality Control of all performed work. Mr. White managed all staff personnel and site activities, conducted Quality Assurance and Quality Control reviews, managed schedule and budget, and negotiated changes in condition as applicable. The project was completed on time and budget to the complete satisfaction of the client.

**Naval Air Station Pensacola, Stormwater Drain Repairs
Pensacola Naval Air Station, Pensacola, Florida**

Project Manager. Mr. White served as the Project Manager for this 4.9 million dollar base-wide stormwater drainage restoration project. Site activities included the abandonment of a 54-inch stormwater drainage system; the design-build and rerouting (installation) of a 54-inch replacement stormwater drainage system; routine maintenance and restoration of over 6-miles of open stormwater drainage canals, some of which were effected by petroleum-impacted sediment; restoration of over 20 stormwater drainage systems using cured in place pipe; and the open cut replacement of over 30 sections of stormwater drainage pipe ranging in diameter from 12- to 42-inches. Mr. White was responsible for proposal and cost estimate production, project management of all WRS staff and subcontractors, technical oversight, cost analysis and control and change order negotiation, project implementation, waste characterization, transportation and disposal management; invoice preparation; preparation of project submittals, as-built review and approval, and project completion reporting. All project work was conducted in accordance with the FDOT Roadway and Traffic Design Standards and the FDOT Standard Specifications for Road and Bridge Construction.

**AVAGAS Pipeline Section E Project
Naval Air Station Whiting Field, Milton, Florida**

Mr. White served as the Project Manager for this 1.6 million dollar groundwater extraction and source removal project. Site activities included site demolition; monitor well abandonment and installation; recovery well installation and abandonment; groundwater treatment system design and installation; groundwater treatment system operation and maintenance; AVGAS pipeline abandonment and removal; shoring design oversight; value engineering; removal, transportation and disposal of over 10,000-tons of petroleum impacted soil; backfill placement; site restoration; and groundwater monitoring for Natural Attenuation. Mr. White was responsible for proposal and cost estimate production, project management, technical oversight of onsite activities and document preparation, cost control and change order negotiation, project implementation, project oversight during site activities, review of project submittals, and review of project completion and quarterly groundwater monitoring reporting.

Training

- OSHA-40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Training
- OSHA 8-Hour Refresher Course (29 CFR 1910.120), annually
- OSHA 8-Hour Supervisor/Management Training
- OSHA 30-Hour Construction Safety & Health
- USACE, Construction Quality Management for Contractors
- PD&E Chapter 22 Training
- Lead Abatement Training for Supervisors & Contractors
- Asbestos Site Supervisor Training

***Bronson Outstanding Landing Field and
Pensacola Naval Air Station, Pensacola, Florida***

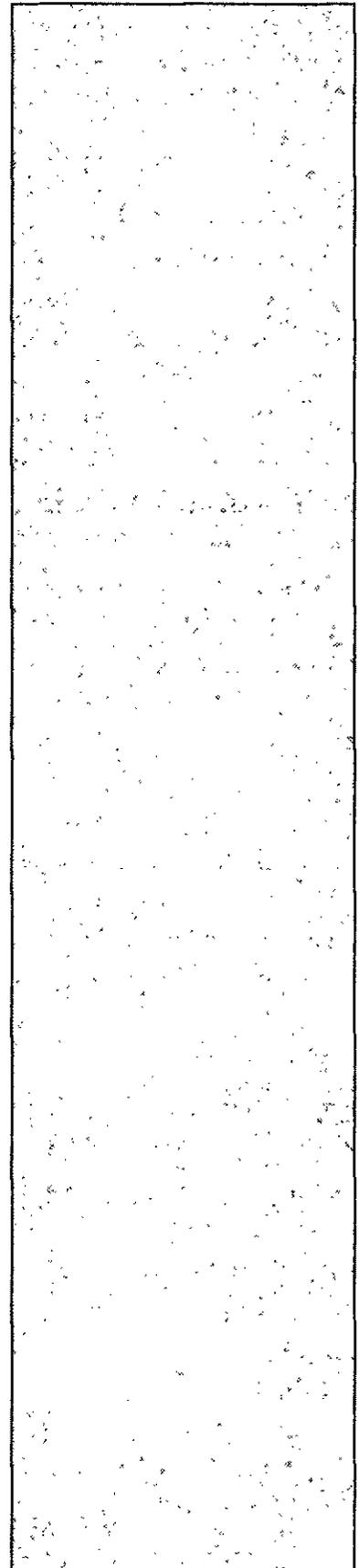
Project Manager. Mr. White served as the Project Manager for this \$500,000 dollar source removal and treatment system installation project. The project consisted of the source removal of soil and free product and the on-site treatment of groundwater impacted by Bunker C Fuel Oil. Source removal activities extended up to 20 feet below land surface and extended up to 10 feet into the static water table. Source removal activities were performed using standard excavation techniques as well as the use of large diameter augers (LDAs). Confirmatory soil samples were collected upon completion of excavation activities to ensure all of the impacted soil had been removed. After review of the soil analytical results and clearance of the excavation, backfilled and compacted the excavations in 1 foot lifts. Approximately 2,750 tons of contaminated soil was removed and disposed.

***Florida Department of Transportation District 3 Contracts.
Districtwide Locations***

Project Director. Mr. White has served at the Project Manager and Contract Manager, and is currently serving as the Project Director, for the FDOT District Three Maintenance and ROW/Construction Contracts. During his tenure, Mr. White has managed in excess of 20 million dollars of delivery orders. Mr. White's responsibilities include the oversight of the project management, site management, and technical staff, and conducting administrative and operational activities for the listed FDOT contracts. Mr. White's duties include technical support, evaluations of environmental impacts to the development of FDOT-purchased property, environmental impacts to future construction activities, oversight and preparation of work plans/cost estimates, preparation of value engineering estimates, cost tracking, personnel scheduling and management, project scheduling, regulatory liaison to the FDOT Environmental Management and Construction Offices, and other FDOT operational sectors. He also performs various project management duties for environmental services including: site assessment, remedial action, remedial action implementation, environmental site assessments, Level I and II assessments, environmental site audits, impact to construction, impact to construction remediation efforts; stormwater drainage system and pond construction; stormwater monitoring management, lead-based paint sampling, lead-based painted steel disposal, waste profiling, and transportation and disposal. Mr. White has managed over 200 projects, at varying locations in all sixteen counties within District Three.

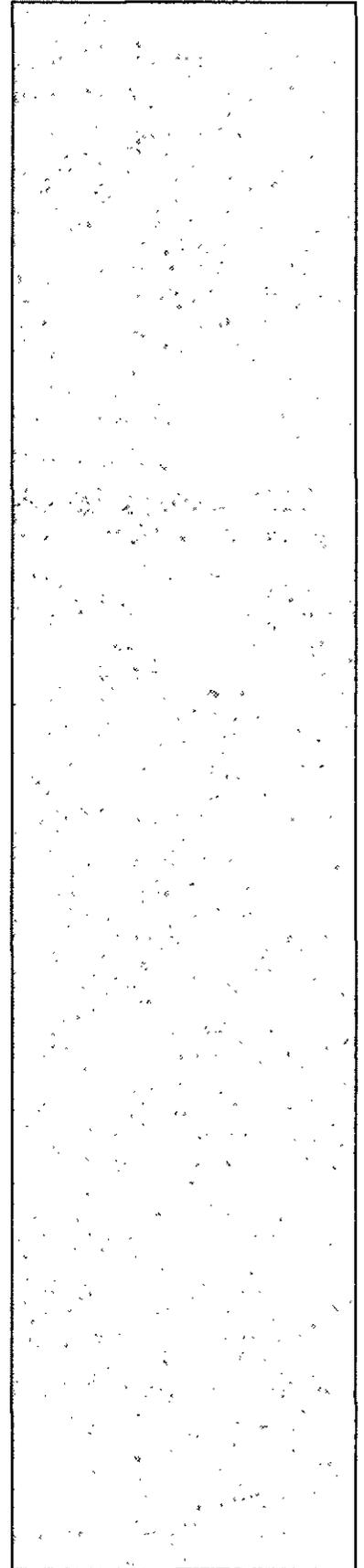
***Cove Boulevard Construction Project
Panama City, Florida***

Project Manager. This 2.2 million dollar project included underground storage tanks removals, impact to construction assessment, source removal, remediation, and construction activities at 23 sites located along a two mile roadway corridor. Impact to Construction activities identified eight sites that were impacted by petroleum contamination. WRS personnel constructed two large stormwater detention ponds at sites that were heavily impacted by petroleum contamination. During construction of the ponds, WRS personnel extracted and treated over 720,000-gallons of petroleum contaminated groundwater and excavated and arranged transportation and disposal of over 17,000-tons of petroleum contaminated soil. WRS personnel also installed over 500 lineal feet of varying diameter (18- to 48-inch) reinforced concrete pipe and the



associated drainage structures through contaminated areas adjacent to the detention ponds.

WRS personnel conducted source removal activities at four additional sites that resulted in the excavation, transportation, and disposal of over 2,300-tons of petroleum contaminated soil. WRS personnel also assisted TECO Gas and the City of Panama with utility relocation activities through the contaminated work zones that included lowering a live, 8-inch gas main and placing a new 6-inch water main. WRS provided waste characterization services and management oversight for the transportation and disposal of hazardous and non-hazardous waste.



Mr. Frost has over 15 years in the management and execution of multiple award indefinite delivery / indefinite quantity contracts and fixed price contracts, and the design and operation and maintenance of environmental remediation systems. Other environmental experience includes serving as an on-site technical lead and manager during treatment system installations, designing recalcitrant contaminant and inorganic remedial systems, developing work plans, project scheduling, implementing remedial actions, report preparation and review, conducting environmental audits, and project cost tracking and management. Mr. Frost's area of expertise includes the development and design of remedial action strategies that provide effective and efficient methods of achieving client's goals. In addition, Mr. Frost specializes in management of the construction and implementation of environmental remediation systems. In this capacity, Mr. Frost designed and/or directed the installation of three multi-phase extraction and treatment, two in-situ thermal treatment, one soil vapor extraction, one groundwater extraction, three air sparging treatment, and two bioaugmented attenuation systems. Mr. Frost, in addition, excels at the operation and maintenance of remedial systems and typically achieves a run-time percentage of 90 or greater.

Mr. Frost's work experience includes project management, cost estimation, cost control, remedial system construction oversight, environmental site assessments, monitor well installation, development and abandonment, sampling of various media, quiescent groundwater and surface water sampling, natural attenuation sampling, evaluation and design of various standard remedial technologies (i.e., soil vapor extraction, multi-phase extraction, air sparging, ion exchange, in-situ bioremediation, groundwater pump-and-treat, and in-situ chemical oxidation). Further, Mr. Frost remediation experience includes source removal technologies including excavation with large diameter auguring and in-situ electrical resistance heating (ERH).

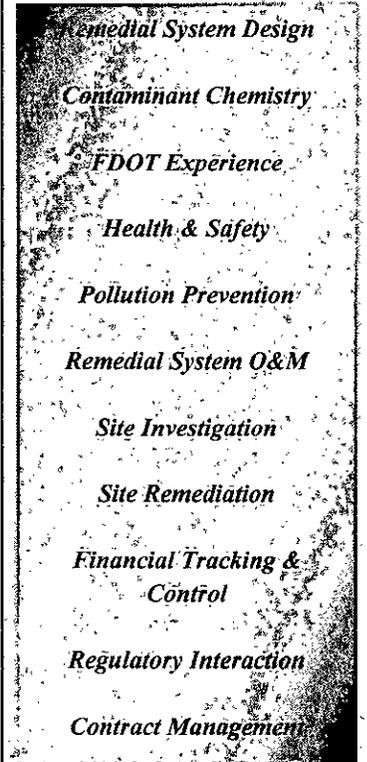
Mr. Frost currently presides as technical support and contract manager for the Florida Department of Transportation (FDOT), District Three Right-of-Way and Maintenance Yard Contamination Assessment and Remediation Contracts. As technical lead and manager he is responsible for the day-to-day management of all project sites, which includes coordination of site investigation events, remedial action development and design, innovative technology development and implementation, oversight of system installations, operation and maintenance of remedial systems, cost tracking, and project planning.

Representative Project Experience

FDOT District 3 Right of Way and Maintenance Yard Contamination Assessment and Remediation Contracts, Florida.

Contract Manager. Mr. Frost's responsibilities under this contract include preparation of work plans, cost estimates and project deliverables, supervision of all aspects of field work and personnel; including contamination assessments, impacts to construction, source removal activities, groundwater monitoring, remedial system operation and maintenance, remedial action development, investigative derived waste (IDW) characterization and profiling, waste transportation and disposal, quality assurance auditing, and data reduction and interpretation.

Technical Support



Education:

B.S., Chemical Engineering/
Mathematics (Minor), Florida
State University, 1997

Professional Registrations:

Registered Professional
Engineer, Florida (No. 59323)

Total Years Experience:

15

Years of Experience with WRS:

12

Bay Grove Service Center, Freeport, Walton County, Florida.

Project Manager. Mr. Frost was the project manager for the assessment and excavation of impacted soils along a FDOT Right-of-Way Construction project north of Choctawhatchee Bay in Freeport, Florida. Prior to construction of a turn-lane, the FDOT roadway construction contractor was mixing soils in front of a former fueling facility and encountered petroleum odors. FDOT tasked WRS to assess the impacts and clear the roadway construction limits if impacted soil was identified. WRS mobilized to the site to conduct an initial site reconnaissance and quickly submitted a workplan and cost estimate. Within a week after being notified. WRS personnel were at the site conducting assessment and excavation activities. The site was assessed and excavated in one day without delay to the roadway construction. WRS also coordinated FDEP to dispose of the contaminated stockpile, offsetting cost to FDOT.

**West Bay Mini Market
West Bay, Bay County, Florida**

On-site Technical Lead. Project included the design, installation, and operation and maintenance of a petroleum contaminated site. A pump and treat system had operated at the site for several years. The system was shutdown after the remedial progress had stagnated. Evaluated site conditions and designed and installed system modifications. The modified system was able to reduce contaminant concentrations to below FDEP GCTLs after 5 months of operation.

**Former Wood Treatment Plan
Perry, Taylor County, Florida**

On-site Technical Lead. Soil and groundwater at the sites were impacted by constituents used in the wood treating process. Responsibilities included the design, installation, and operation and maintenance of a remedial system designed to extract and remove chromium and arsenic contamination detected in the groundwater. Utilizing the data gathered during the system operation and subsequent monitoring, the facility received a RCRA Certificate of Clean Closure from FDEP.

**FDOT – District 2 and 3 and FDEP Drycleaning Program
Florida**

Site Manager. Oversees all site activities and is responsible for directing designs, installations, maintenance, data gathering, remedial progression, and authoring reports.

**Greensboro, Gadsden County, Florida and
Fayetteville, North Carolina**

Onsite Technical Lead. Provided onsite management during the installation of the innovative technology, Electro-Thermal Dynamic Stripping Process (ET-DSP). ET-DSP employs three-phase heating for thermal enhancement of soil and groundwater remediation. The installation at Greensboro was the first one in the state and the remedial system was able to remediate free-phase product from the site after only 1 year of operation. The installation in Fayetteville was at a former wood treatment facility that is heavily contaminated with free-phase creosote. After 6 months of operation, the system was successful in remediating contaminants within its design area.

Training

OSHA 40-Hour Hazardous Materials Health and Safety Training (29 CFR 1910.120)

Computer Modeling of Natural Attenuation and Bioremediation Systems, National Ground Water Association

Characterization of DNAPL Sites, Duke Engineering & Services, hosted by FDEP

Heart saver, First Aid and CPR Training

Introduction to Incident Command System, I-100 for Law Enforcement, Federal Emergency Management Agency.

Stormwater Design and Permitting: An Introduction in Using Computers to Solve Stormwater Problems, University of Florida, TREEO Center, February 23, 2007

Mr. Leon has over 13 years of experience in the supervision of environmental assessment and remediation activities at petroleum- and hazardous waste-contaminated sites. Mr. Leon can coordinate and manage all aspects of field investigative activities and prepare associated deliverables. His expertise includes cost estimation, cost control, construction management, subcontractor oversight and coordination, environmental site assessments, underground storage tank closure, source removal, in-situ soil stabilization, remedial system construction, system operation and maintenance, impact to construction investigation, monitor well installation, development and abandonment, sampling of various media, quiescent groundwater and surface water sampling, natural attenuation sampling, aquifer testing, downhole and surface geophysics, mold sampling and remediation, lead-based paint surveys, management of radon surveys, management of asbestos surveys and abatement, lead-based paint surveys and abatement, data reduction, and report generation.

Mr. Leon has served as Assistant Contract Manager for the Florida Department of Transportation (FDOT) District Three Right of Way Contamination Assessment and Remediation Contract and Project Scientist for the FDOT District Three Maintenance Yard Contamination Assessment and Remediation Contract. He has also served as Senior Project Geologist for the Florida Department of Environmental Protection's Drycleaning Solvent Cleanup and Hazardous Waste Cleanup Program Contracts as well as provided project management and technical support for other selected clients including FDOT, Texas Commission on Environmental Quality (TCEQ), City of Tallahassee, and Consolidated Edison Corporation.

Representative Project Experience

***VODA Petroleum Superfund Site, Texas Commission on Environmental Quality
Clarksville City, Texas***

Mr. Leon served as the onsite geoscientist and site manager on this \$865,000 TCEQ project during implementation of remedial activities and system construction at a State of Texas Superfund site in northeast Texas. He managed and coordinated all aspects of source removal, soil disposal, backfill, monitor well abandonment, monitor well and system well installation, system construction and startup activities. Specific challenges faced by the project team included extreme heat in excess of 105 degrees through the duration of the project as well as difficulty in coordinating subcontractors and vendors due to the remoteness of the site. Despite these challenges, the project was completed on time and under budget.

***Panama City-Bay County International Airport
Panama City, Florida***

Mr. Leon was the geologist of record on this \$100,000 project for a private client for initial assessment of various petroleum and potentially-hazardous waste sites throughout the airport facility. The work was initiated as part of closure of the airport in anticipation of construction of a new airport in western Bay County. He supervised the collection of soil samples, temporary monitor well installation and sampling, site and building surveying as well as the submittal of a report summarizing contamination and providing remedial recommendations and associated costs.

Consolidated Edison White Plains MGP Site

Mr. Leon was the Quality Control Officer and Technical Project Manager for an 18

Project Geologist

*Petroleum and Hazardous
Waste Assessments*

*Indoor Mold Sampling and
Remediation*

*Asbestos and Lead-Based
Paint Assessment*

*Large Diameter Auger
Source Removal*

Regulatory Compliance

*Phase I and II
Environmental Site
Assessments*

GIS/GPS

Health & Safety

Education:

B.S., Geology, Florida State
University, 1996

Professional Registrations:

Florida PG, No. 2270
Tennessee PG, No. 5515
Delaware PG, No. S4-0001196
Texas PG, No. 10572
Pollutant Storage Systems
Specialty Contractor, Florida,
No. FCC1256827

Total Years of Experience:
14

Years of Experience with
WRS:
13

million dollar Manufactured Gas Plant In-situ Soil Stabilization (ISS) project in White Plains, New York. The work included a marriage of three ISS technologies at a site smaller than one acre including excavator, large diameter auger, and jet grout mixing. The work was being conducted to protect the Bronx River, located within ¼ mile of the site and to which groundwater from the site drains.

***Purdom Power Plant Northern Property Area
St. Marks, Florida***

Mr. Leon was the geologist of record for the excavation of arsenic- and dioxin-contaminated soil at a site for the City of Tallahassee valued at over \$800,000. The property is located along the St. Marks River. The City's property was impacted by an adjacent oil refinery which also prompted the construction of a slurry wall to impede further contaminant migration. Mr. Leon supervised the installation of the slurry wall, collection of soil samples, groundwater samples, monitoring well installation and sampling. Following the remedial action, he led the post active remediation monitoring sampling team to ensure groundwater quality and the effectiveness of the slurry wall.

***Salie Property Brownfields Remediation
Tallahassee, Florida***

Mr. Leon is the geologist of record for an ongoing, federally-funded \$400,000 Brownfields Remediation project near downtown Tallahassee. The project includes remediation of soil impacted by multiple contaminants including arsenic, volatile organics, metals, and pesticides (dieldrin). The site has extensive historical industrial use spanning more than a century leading to challenging assessment conditions and multiple source areas that require precise and accurate data points.

Various Petroleum and Hazardous Waste Sites

Mr. Leon served as site geologist for the geologic assessments of petroleum- and hazardous waste-contaminated sites in Florida for clients including FDOT, FDEP, City of Tallahassee, and private companies valued at nearly 20 million dollars. He was responsible for on-site coordination and management of subcontracted field crews, soil boring and monitoring well installation, soil and groundwater sample collection and aquifer characterization, and permit acquisition for various aspects of job performance. He has prepared and reviewed various regulatory documents at petroleum sites, drycleaning sites and hazardous waste sites pursuant to Florida Administrative Code.

Training

OSHA 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Training

OSHA 8-Hour Refresher Course (29 CFR 1910.120), annually

Groundwater Pollution and Hydrology Course, Princeton Groundwater

Qualified Stormwater Management Inspector, FDPE ID# 13375

Mr. Rountree has over fifteen years of experience as an environmental engineer with experience in site investigation, remedial construction, site remediation, permitting, and project controls, for federal and state clients.

Mr. Rountree's areas of technical expertise include contaminant hydrogeology, remedial design, remediation construction, operations, and maintenance, natural attenuation remedial actions, project scheduling, and project cost/schedule reporting. This expertise has been applied to technically challenging projects requiring innovative or unique solutions. His work experience includes: designing and implementing groundwater recovery wells, groundwater recovery piping systems, earthwork activities such as source removal excavations, backfilling, and grading; designing and implementing various other remedial actions; designing and implementing treatability and pilot studies; report preparation and review; developing work plans and proposals; project scoping and scheduling; dewatering design; and collecting, processing, and reporting cost and schedule data for a large federal contract. Mr. Rountree's site remediation activities include the design and/or implementation of various remedial technologies including source removal excavation, contaminated groundwater dewatering, in-situ groundwater barrier construction, in-situ thermal treatment, soil vapor extraction utilizing horizontal wells, conventional air-sparging/soil vapor extraction, multi-phase extraction, product recovery, pump and treat, thermal evaporative concentration and residue solidification, containment, enhanced bioremediation, and institutional controls. Mr. Rountree has been responsible for implementing several natural attenuation monitoring remedial actions. Mr. Rountree coordinates and manages construction, operations, and maintenance activities and prepares associated deliverables. Mr. Rountree has served as the engineer of record on a number of petroleum, chlorinated solvent, heavy metals, polychlorinated biphenyls, and dioxin sites and provides support on an as needed basis on other projects.

Site assessment activities Mr. Rountree has been involved with include soil borings, groundwater monitoring, soil gas surveys, geotechnical borings, surveying, and records research. Impact to construction mitigation activities Mr. Rountree has been involved with include designing air-sparge, pump and treat, and soil vapor extraction remediation systems for petroleum- and chlorinated solvent-contaminated sites, designing assessment strategies for potentially contaminated properties, and performing dewatering calculations for subsurface structure installation.

Mr. Rountree's permitting experience includes overseeing historical and cultural clearance excavations and activities, obtaining natural resource inventory exemption, and ensuring compliance with erosion control and stormwater regulations.

Representative Project Experience

Confidential Site Source Removal Confidential Client

Senior Engineer. Mr. Rountree designed a source removal excavation in a coastal area. This type of earthwork required site dewatering. A total of 98 well points were advanced to depths of up to 16 feet below land surface. Groundwater was dewatered at a rate of approximately 220 gallons per minute, and discharged to the adjacent municipal wastewater plant for treatment. A 150-foot by 300-foot area was excavated

Technical Support

***Petroleum, Creosote,
Metals and Chlorinated
Solvent Site Investigation***

Remedial Design

Permitting

***Remedial Construction/
Remedial Action
Implementation***

Remedial Operation

Site Monitoring

Site Closure

***Quality Assurance/
Quality Control***

Health & Safety

to a depth of 6 to 6.5 feet. Soil was screened onsite and segregated based on the expected level of contamination. Approximately 10,000 cubic yards of soil was excavated. Of this, 4,450 cubic yards of soil were determined to be uncontaminated and were thus reused as backfill. 6,397.7 tons of contaminated soil were disposed of offsite. Site activities commenced with monitor well abandonment on October 15, 2009. The source removal excavation was complete by December 17, 2009.

**Former Tallahassee Maintenance Yard Source Removal
Florida Department of Transportation, District 3**

Senior Engineer. Mr. Rountree performed or provided oversight for several components of interest in this environmental remediation project. Utilizing data from Geoprobe borings, Rountree designed a source removal of contaminated soil at the former Tallahassee Maintenance Yard site. Geotechnical data were collected with a small auger drill rig, and used in a slope stability analysis to aid the excavation design. An excavation of approximately 20 feet of clean overburden was performed, followed by excavation, transport, and disposal of over 2100 cubic yards of contaminated soil to a depth of approximately 35 feet below land surface. Over 10,000 cubic yards of soil were moved; clean soil was stockpiled and used with backfill material to backfill the excavation to the original grade. Mr. Rountree oversaw the compaction of the excavation, including compaction testing. Mr. Rountree coordinated the permitting, including state historical resources clearance, natural resources inventory exemption, and local environmental permitting. Mr. Rountree also worked with City of Tallahassee sewer department engineers and a local shoring contractor to put in place a truss to support a 42-inch interior diameter reinforced concrete sewer pipe that ran through the subsurface across the excavation, so that contaminated soil could be removed from underneath the sewer pipe. As part of this effort, WRS maintained a constant sewer by-pass, staffed 24-hours a day for a week and a half, utilizing 3000 gallons per minute diesel-powered pumps and a line plug, so that the sewer pipe would be empty of sewage while the excavation took place. Mr. Rountree also coordinated and managed equipment, personnel, confirmatory sampling, dewatering activities, and dewatering water treatment and disposal. Finally, Mr. Rountree managed surface paving using recycled asphalt millings and the planting of several live oak trees as mitigation for previous tree removal.

**U.S. 98 Roadway Improvement
Florida Department of Transportation, District 3**

Technical Support. Mr. Rountree provided dewatering design support for subsurface structure installation for the Thomas Drive Roadway improvement project. Design elements required in this project dewatering project included avoiding exacerbating contaminated plumes, and treatment of contaminated produced water.

**Cascades Park AOCs 4 and 5
City of Tallahassee, Florida**

Project Engineer. Mr. Rountree completed a remedial action plan, site remediation, and site closure for a site with multiple source areas and a variety of contaminants, including metals, polynuclear aromatic hydrocarbons, petroleum hydrocarbons, polychlorinated biphenyls, and dioxins/furans. The remedial action plan included excavation, risk-assessment, and institutional control provisions. Permitting associated with this project

Training

- OSHA 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Training, 1995
- OSHA 8-Hour Site Supervisor Training, 1996
- Primavera Project Planner Training, Evans Technology Incorporated, 1996
- Microframe Project Manager Training, MPM Incorporated, 1996
- Natural Attenuation of Fuel Hydrocarbons and Chlorinated Solvents, National Ground Water Association, 1999
- Lead Safety, RedVector.com
= Online Education for Professionals, 2002
- OSHA 8-Hour Refresher Course (29 CFR 1910.120), annually
- Stormwater Design and Permitting: An Introduction in Using Computers to Solve Stormwater Problems, University of Florida TREEO Center, September 18, 2006
- Introduction to the Incident Command System, FEMA Emergency Management Institute, October 3, 2006

that Mr. Rountree coordinated included local environmental permitting and state historical resources clearance.

**STARMET Emergency Response
EPA Region IV**

Senior Engineer. Mr. Rountree designed and provided construction oversight for a remedial system for wastewater contaminated with depleted uranium, potassium fluoride salt, and several other contaminants. The remedial system used thermal evaporation concentration of the waste stream followed by solidification to greatly reduce the quantity and disposal costs of the radioactive waste, resulting in several millions of dollars in cost savings over direct disposal. Furthermore, the treatment system began operation approximately five months after WRScompass came to the site and approximately 2.5 months after completing bench-scale treatability tests.

**STAR Center Northeast Site Area B In-Situ Thermal Remediation
S.M. Stoller**

Senior Engineer. Mr. Rountree provided engineering, hydrogeology, and compliance support to the Young-Rainey STAR Center Northeast Site Area B remediation, one of the largest (almost 1 acre of treated area and 55,000 cubic yards) in-situ thermal treatment projects in the United States. This Guaranteed Fixed Price remediation project for the S. M. Stoller Corporation utilizes McMillan-McGee, Inc.'s ET-DSP™ in-situ thermal remediation technology. In addition, to meet the project requirements, the project team has implemented this technology in an innovative fashion to realize in-situ steam remediation using much less capital equipment than a typical steam injection project. As part of the multidisciplinary team working on the project, Mr. Rountree helped design a unique capping system that incorporates a shallow vertical barrier which enhances the recovery process of mobilized contaminants while simultaneously reducing the possibility of shallow steam migration outside the treatment area. Mr. Rountree was also involved the design and review of the extraction equipment which is critical to the success of the project.

**Former Hair Chevron Site
FDOT District 3**

Senior Engineer. Mr. Rountree successfully designed and performed construction oversight on a remediation system on a site with very limited site access, the Former Hair Chevron right-of-way property. Access at this site is very limited due to a widened road, an active shopping center parking lot, active retail gasoline facility, and underground utilities. These installation obstacles were overcome by designing an air-sparge/soil vapor extraction system utilizing a sparge-curtain arrangement and a high-vacuum soil vapor extraction blower for greater radius of capture.

**Navy CLEAN Program
SouthDiv NAVFAC, US Navy**

Project Controls Specialist. Mr. Rountree managed the monthly project controls data collection, processing, and cost/schedule reporting for a large federal contract with over 100 task assignments and a total actual cost of over \$100,000,000. This entailed

Training (continued):

Estimating Times of Remediation

Associated with Monitored

Natural Attenuation and

Contaminant Source

Removal, National

Groundwater Association,

March 23-24, 2009

Greenhouse Gas Accounting,

University of Florida TREEO

Center, May 13, 2010

Education:

M.S., Environmental

Engineering, with

Geohydrology Certificate,

Georgia Institute of

Technology, 1995

B.S., Environmental

Engineering, Physics, with

Philosophy Certificate.

preparing five technical and financial reports for each task assignment, each requiring extensive data processing.

Shortly after assuming full project controls data processing responsibilities, Mr. Rountree was given an assignment to speed up the data processing and reduce the work-in-progress. Mr. Rountree succeeded in cutting the processing time from approximately two weeks to less than one week.

Mr. Rountree designed and implemented a new project controls processing and reporting scheme when the remainder of the above contract moved from a time and materials contract to a fixed-price plus incentive fee contract.

Mr. Rountree has classroom training and/or extensive practical experience with Primavera Project Planner, Microsoft Project, and Microframe Project Manager (Business Engine Software).

***District-Wide Contamination Assessment Services
Florida Department of Transportation, District 3***

Senior Technical Resource. Mr. Rountree has prepared execution and invoicing schedules for Florida Department of Transportation task assignments, requiring determination of budgeted cost of work performed for invoicing milestones. Additionally, Mr. Rountree has completed four Remedial Action Plans (RAPs) and two limited-scope RAPs, overseen construction on four full-scale remediation systems, designed and implemented a source removal, overseen a site-specific risk assessment, provided dewatering and roadway construction support for three locations, and supported operations and maintenance efforts at seven remediation systems for District 3. Several of the remedial designs Mr. Rountree has consulted on are for properties acquired with right-of-way expansions.

**Publications and
Presentations**

"Mechanism of Particle Flocculation by Magnetic Seeding," Journal of Colloid and Interface Science, Volume 184, Number 2, December 25, 1996, pp. 477-488.

Environmental Protection Agency Optimization Conference, June 2004, In-Situ Thermal Remediation for Enhancement of Soil Vapor Extraction and Groundwater Recovery for Removal of Non-Aqueous Phase Liquids at a Former Florida DOT Maintenance Yard [poster presentation].

National Groundwater Association Petroleum Hydrocarbons Conference, August 2004, In-Situ Thermal Remediation for Enhancement of Soil Vapor Extraction and Groundwater Recovery for Removal of Non-Aqueous Phase Liquids at a Former Florida DOT Maintenance Yard [poster presentation].

National Institute of Storage Tank Management Underground Storage Tanks Conference, December 2004, In-Situ Thermal Remediation of a Petroleum Site in Greensboro, Florida.

International Conference on Contaminated Soil, Sediment, and Water, University of Massachusetts, October 2005, Urgent Removal of Uranium-Contaminated Wastewater

International Conference on Contaminated Soil, Sediment, and Water, University of Massachusetts, October 2005, Urgent Removal of Uranium-Contaminated Wastewater

International Conference on Contaminated Soil, Sediment, and Water, University of Massachusetts, October 2006, Cascades Park: Remediation and Beneficial Recreational Redevelopment of a Former Manufactured Gas Plant Site

Mr. Cowdery has worked in the environmental field for over twenty-three years as a remediation engineer, project manager, and geologist. His experience includes eleven years of environmental restoration project management experience including approximately five years of project management during remedial action and seven years during other phases including assessment, design, waste storage facilities, and treatability studies. His experience has been in both the government and private sector and includes RCRA/CERCLA projects, Department of Defense and Department of Energy projects, hazardous waste and sanitary sewer pipeline remediation, dry cleaning sites, and above and below ground storage tank projects. Mr. Cowdery experience in design, construction, and operation spans a large assortment of remediation technologies and techniques including aerobic and anaerobic bioremediation, bioventing, diffused aeration, air sparging, air stripping, excavation, ultraviolet/peroxidation, ion exchange, zero valent iron, soil gas monitoring, bioreactors, activated carbon systems, filtration systems, thermal desorption, soil vapor extraction, and liquid phase separators.

Representative Project Experience

***AVGAS Pipeline – Section E - Naval Air Station Whiting Field
Milton, Santa Rosa County, Florida***

Project Engineer. Mr. Cowdery was the Senior Engineer on the Remedial Action Plan Modifications; groundwater treatment system construction and installation; and contaminated soil excavation for this 1.6 million dollar project at Whiting Field Naval Air Station near Milton, Florida. Mr. Cowdery provided senior technical support during excavation, dewatering, site restoration, reporting, and monitoring activities. Approximately 317,000 gallons of contaminated water were recovered and treated. Each AVGAS pipeline was uncovered, tapped, and drained. Approximately 4,000 gallons of water and 140 gallons of AVGAS were recovered from the lines. AVGAS pipelines were cut into sections and sent off-site for disposal. In addition, approximately 10,000 tons of contaminated soil was successfully excavated from the site. Responsibilities included groundwater extraction system design, subsequent dewatering design and contracting, final report preparation, and all groundwater monitoring reports.

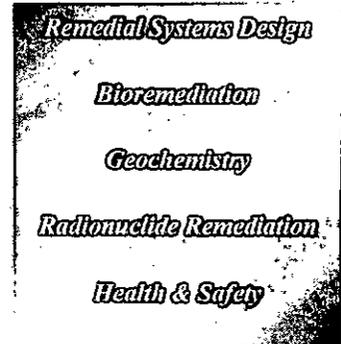
***Storm Drain Repairs – Naval Air Station Pensacola
Pensacola, Escambia County, Florida***

Senior Technical Support. WRS was tasked with repairs to the storm water infrastructure on this 4.9 million dollar project, which included select portions of pipe systems with major and intermediate deficiencies, rerouting the storm water pipe currently running under the historic Veterans Affairs Barrancas National Cemetery, and cleaning and repair of 22 drainage ditches. Open cut and cured in place pipe technologies were utilized in the repairs. Mr. Cowdery was responsible for the preparation of the dewatering plan and senior engineering support on the project completion reports.

***Fairfax St. Wood Treaters
Jacksonville, Duval County, Florida***

Project Engineer. Engineering and technical support is currently being provided on an expedited wastewater treatment project for the Environmental Protection Agency with

Technical Support



Education:

M.S., Chemical Engineering and Petroleum Refining, Colorado School of Mines, 1987

B.S., Chemical Engineering, University of Colorado, 1981

B.A., Geology, University of Colorado, 1980

Professional Registrations:

Florida PE, No. 64327

Colorado PE, No. 29802

Texas PE, No. 107090

Total Years Of Experience:

27

Years Of Experience with WRS:

5

current contract worth of approximately \$845,000. Water containing arsenic, chromium, and copper at extremely high concentrations is currently being treated with nano-scale titanium dioxide. Responsibilities include technology evaluation/selection and engineering support for treatment system installation and operation. Treatment system operation is currently ongoing. The current work scope includes performing bench-scale tests to compare different titanium dioxide treatments and evaluate material costs.

***Idaho National Engineering and Environmental Laboratory (INEEL)
Waste Area Group 3, Group 7 of SFE-20 Hot Waste Tanks
Idaho Falls, Bonneville County, Idaho***

Project Manager. This project consisted of the investigation/remediation of an underground storage tank that contained nuclear fuel rod cuttings and hazardous waste. Mr. Cowdery oversaw the development of sampling methods, the closure plan, and a sampling and analysis plan worth approximately \$200,000. Difficulties on the project included an asbestos laden access tunnel that lead to the underground tank, high levels of gamma radiation emitting from the tank, and hazardous waste mixed in with the high level radioactive waste. Sampling of the tank was made extremely difficult due to hazards it presented to sampling crews and because it was not possible to use robots due to the difficulty in navigating the access tunnel and opening the tank. As part of Mr. Cowdery's work on this project, a sampling method was developed involving the use of a pipeline inspection video camera and sampling pump to remove a sample through a vent, which would result in greatly reduced exposure of sampling personnel.

***Rocky Flats Environmental Technology Site
Golden, Jefferson County, Colorado***

Senior Engineer, Geologist, Operable Unit Manager. Mr. Cowdery worked for approximately thirteen years on the cleanup of the Rocky Flats, a former Department of Energy nuclear weapons facility in Colorado. The overall cleanup project of Rocky Flats was one of the largest and most complex cleanup projects to be completed in the United States with a budget of approximately six billion dollars. Mr. Cowdery served numerous functions as part of the cleanup process including project manager of approximately six miles of hazardous waste lines and 67 waste storage tanks which at that time had an estimated project cost of approximately 130 million dollars. In addition, Mr. Cowdery was the remediation engineer for most of the groundwater restoration projects. Responsibilities included treatability studies, design support or oversight, and technical support on these projects that included bioremediation, zero-valent iron treatment, UV/peroxidation, and ion exchange treatments. Treated contaminants included radionuclides, chlorinated and non-chlorinated solvents, metals, and nitrates.

***Florida Department of Environmental Protection Drycleaning Program
Various, Florida***

Senior Engineer. Mr. Cowdery currently provides senior engineering oversight on multiple dry cleaning sites with approximate value of 6.5 million dollars. Engineering responsibilities include designing soil and groundwater treatment systems, evaluating treatment system operation and making modifications to accelerate cleanup, developing innovative and cost effective technologies to address soil and groundwater contamination, and oversight or remedial action plans and closure plans.

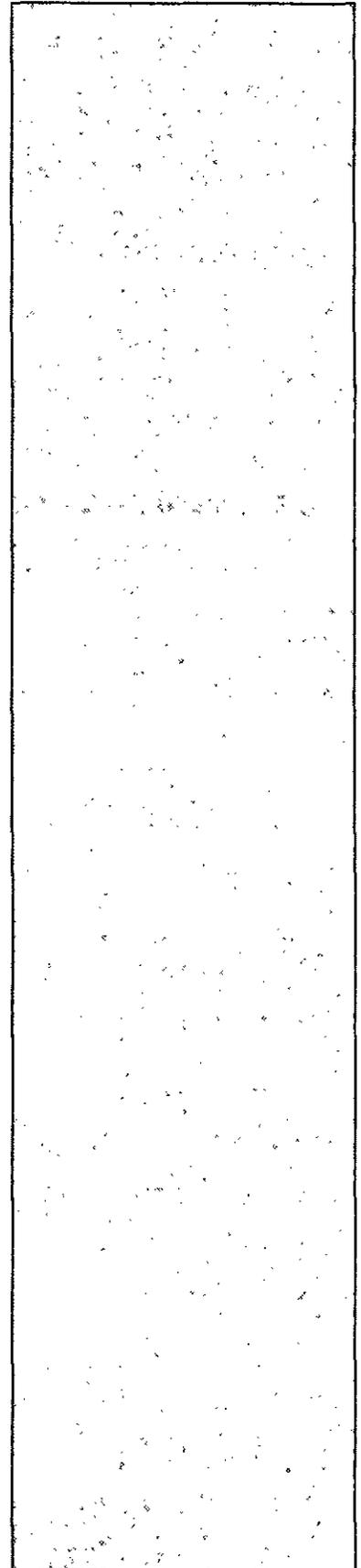
Training

- OSHA 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Training
- OSHA 8-Hour Refresher Course (29 CFR 1910.120), annually
- OSHA 8-Hour Supervisor Course (29 CFR 1910.120)
- Construction Safety Short Course
- Project Management Short Course
- Project Risk Assessment Short Course
- RCRA [Resource Conservation and Recovery Act]-Five Day

Ram Leather Care Superfund Site

Charlotte, Mecklenburg County, North Carolina

Remediation Engineer. Mr. Cowdery prepared groundwater treatment system design and other supporting documentation for a dry-cleaning/leather treatment facility on this 1.3 million dollar project. The treatment system used air-stripping, activated carbon and activated alumina to treat solvents and metal contaminants. The system was designed to treat 10 to 12 gallons per minute of groundwater and the project cost for just water treatment alone was about \$450,000. The treatment system discharged to surface water, which required that National Pollutant Discharge Elimination System (NPDES) requirements be met.



As a Contract Manager, Mr. Powell has over fourteen years of experience in the public and private environmental consulting field. He has worked within Florida Department of Environmental Protection (FDEP), Northwest Florida Water Management District (NFWFMD), Florida Department of Transportation (FDOT), Occupational Safety and Health Administration, and other State of Florida regulatory environmental agencies. As a Project Scientist, he has performed or managed over 5,000 Environmental Site Assessments (ESAs), Environmental Site Observations (ESOs), Baseline Inventory Documentation Reports, Conservation Easement Assessments, and Limited Phase II ESAs for such clients as the Florida Department of Environmental Protection (FDEP), Division of State Lands, Bureau of Land Management, the Florida Department of Transportation (FDOT), Department of Agriculture and Consumer Services (FDACS), the Florida Fish & Wildlife Conservation Commission (FFWCC), Division of Forestry (DOF), The Nature Conservancy (TNC), The Trust for Public Land (TPL), St. Johns Water Management District (SJWMD), Monroe County Land Authority, CSX Transportation Corp., and various state university's and county municipalities.

Mr. Powell has conducted or managed over 5,000 environmental property assessments with an estimated real estate appraisal value of over 400 million dollars. These investigations were conducted following the American Society for Testing and Materials (ASTM) Guidance Standards (E-1527) protocols and the "Environmental Audit Requirements for the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida. Mr. Powell is responsible for such Phase I related activities as site visits, proper photo-documentation, determining historical ownership and type of land use at a site, personal interviews, and report generation. Mr. Powell is also knowledgeable in the uses of aerial photography and hydrology to interpret land use and associated environmental impacts, and performs all aspects of field investigative activities relating to Phase I Site Assessments. Aerial fly-overs have been routinely utilized for the accurate completion of large scale Phase I ESA investigations. Global Positioning System (GPS) and Geographic Information Systems (GIS) technology are also routinely utilized during the environmental site assessments investigations to identify recognized environmental conditions and items of concern, verify property boundaries, and locate environmental sample locations.

He is responsible for such Phase II and Phase III related activities such as onsite communication with client and project management, supervision of site activities, and the coordination of sub-contractors the drilling, logging, installation, and sampling of ground water monitor wells, contaminated soil excavation and remediation, operation and maintenance of treatment systems, development and abandonment of wells, the collection of physical water quality parameters, data reduction, and report generation. Mr. Powell also assists in the characterization of site contaminants, delineates pollution migration pathways, participates in the daily supervision of field operations during ground water, soil, and sediment sampling events, interprets OVA readings, coordinates the procurement of materials and performs all aspects of field investigative activities relating to Phase II Site Assessments

Mr. Powell currently serves as Contract Manager for three FDEP-Division of State Lands Bureau of Land Management contracts, three FFWCC contracts, and two NFWFMD contracts. The five contracts between FDEP and NFWFMD provide Phase I and Phase II site assessments, baseline inventory, and monitoring for acquisitions and conservation easements. He is also responsible for creating proposals, client contacts and project management of other selected projects. The three contracts for FFWCC provide vegetation monitoring for three Wildlife Management Area (WMA) regions within the State of Florida (Northwest, North Central, and South Regions), the objective based vegetation monitoring provides FFWCC with land management data for future activities on WMAs and WEAs throughout Florida.

Contract Manager

*Phase I and II
Environmental Site
Assessments*

*Environmental Site
Observations/Transaction
Screens*

Vegetation Monitoring

*Conservation Easement
Baseline Documentation
and Inventory*

*Conservation Easement
Monitoring*

*Surficial Hydrology
Assessments*

Regulatory Compliance

*Financial Tracking and
Cost Control*

Education:

B.S., Environmental Studies,
University of West-Fla, 2000

A.S., Hazardous Materials
Management, Pensacola
Junior College, 1997

Professional Certifications:

Registered Env. Manager

Certified Florida Env. Assessor
No: CFEA 316

Registered Env. Property
Assessor No: REPA 6018

Total Years Of Experience:

14

**Years Of Experience with
WRS:**

10

Representative Project Experience

FDEP-Division of State Lands Environmental Site Assessment Contract - Florida

Contract/Project Manager: Mr. Powell currently serves as the Contract/Project Manager for this 10 million dollar statewide program. Through this contract he works with the FDEP-Division of State Lands on a routine basis. Under this contract he has been responsible for the successful completion of over 7,500 site assessments of varying size, type, and value throughout the entire State of Florida. Mr. Powell's responsibilities under this contract include:

- Development of Work Plan/Cost Estimates and coordination with the FDEP Contract Manager
- Receive all Task Assignments from the FDEP Contract Manager
- Assign, manage, and direct WRS staff to ensure responsive service
- Direct contract management and administrative functions, including cost and schedule tracking and reporting to the FDEP Contract Manager
- Ensure compliance with contract standard procedures
- Provide QA review of project reports
- Prepare contract status reports and attend all regular and specially scheduled meetings
- Participate in monthly contract evaluation with WRS senior management
- Provide weekly update reports and monthly status reports to the Department

FDEP-Division of State Lands Combination Environmental Site Assessment & Baseline Inventory Documentation - Florida

Contract/Project Manager: Mr. Powell currently serves as the Contract/Project Manager for this one million dollar statewide program. His responsibilities under this contract include the same responsibilities for the ESA contract, which includes site visits, proper photo-documentation, determining historical ownership and type of land use at a site, personal interviews, and report generation. In addition to those responsibilities he is responsible for identifying existing roads, culverts, surface water runoff systems, identifying existing structures, habitat mapping, wetland identification, identifying endangered species and exotic species.

NFWFMD Environmental Site Assessment Contract, Panhandle – Florida

Contract/Project Manager: Mr. Powell currently serves as the Contract/Project Manager for this \$100,000 districtwide program. Mr. Powell's responsibilities under this contract are to provide the NFWFMD with environmental assessments (Phase I ESAs and Phase II ESAs) on the proposed NFWFMD property prior to acquisition. The NFWFMD acquires property ranging in size from a few acres to many thousands of acres. Most of the projects are located in rural areas and contain environmentally sensitive wetlands or have environmentally sensitive water resources associated with the property. NFWFMD covers a 16-county area: Escambia, Santa Rosa, Okaloosa, Walton, Holmes, Washington, Bay, Jackson, Calhoun, Gulf, Gadsden, Liberty, Franklin, Leon, Wakulla, and the western half of Jefferson.

Objective-Based Vegetation Management (OBVM) Project

Contract/Project Manager: Mr. Powell currently serves as the Contract/Project Manager for this \$250,000 statewide program. Mr. Powell conducts objective-based vegetation management (OBVM) for the FFWCC in three regions of Florida: South Florida, Northwest Florida, and North Central Florida (over 675,000 acres). Our client has lead management responsibility for approximately 1.35 million acres on 42 Wildlife



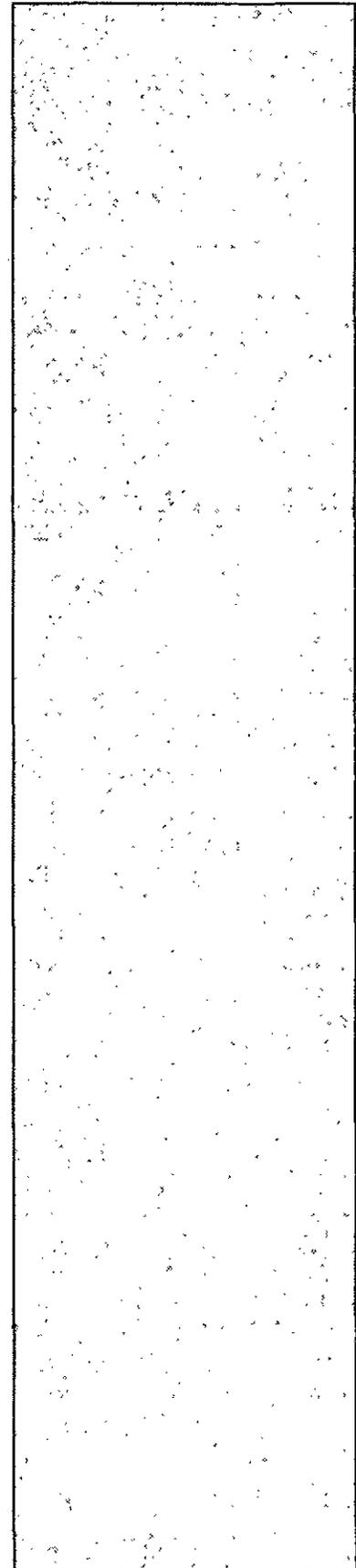
Management and Wildlife Environmental Areas (WMA/WEA) in Florida. FFWCC, in cooperation with the Florida Natural Areas Inventory (FNAI), have developed and implemented OBVM as a new method of resource management. This approach provides FFWCC with science-based land management tools, allowing land manager to set clear, measurable management priorities. These tools also allow managers to measure the results of their management efforts to retain and restore historic natural communities.

The goal of the OBVM program is to provide timely data to enable science-informed management of natural communities. Three main objectives relevant to this goal include: 1) provide decision-support data to managers, 2) provide an assessment of the conditions of certain plant communities and accountability that those select communities are within the bounds of vegetation structure and composition objectives, and 3) to learn how management activities influence plant community structure and composition. Sampling is conducted at two levels, the management unit level and the community level.

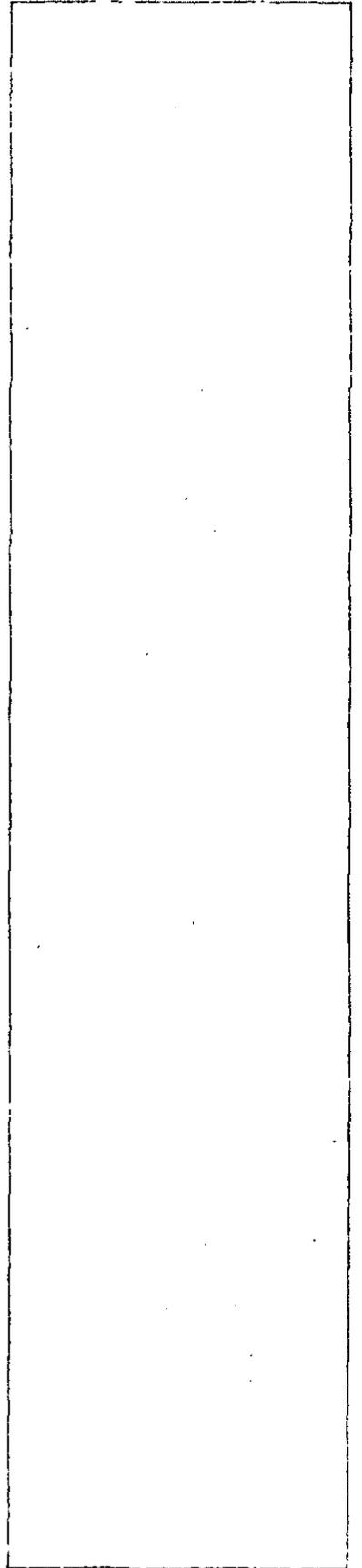
Undertaking this project, Mr. Powell has conducted OBVM data collection activities at 14 of FFWCC's WMA/WEA. He has worked cooperatively with our client to improve this cutting edge program and will continue to work with FFWCC as this program grows. Mr. Powell has collected data from 1,095 station points in the Northcentral region which includes Big Bend WMA, Branan Field WMA, Suwannee Ridge WMA, and Half Moon WMA. Data from 783 station points has been collected in the Northwest Region which includes Apalachicola River WEA, Box-R WMA, and Joe Budd WMA. In the South Region, data from 3,222 station points has been collected from J.W. Corbett WMA, Hungryland WMA, Okaloacoochee Slough WMA, and Spirit of the Wild WMA.

Big Bend WMA Hydrology Assessment and Conceptual Restoration Plan

Contract/Project Manager: Mr. Powell served as the Contract/Project Manager for this \$200,000 project. Mr. Powell performed hydrology assessments and produced hydrology restoration plans for the Big Bend WMA, which occupies over 60,000 acres within Dixie and Taylor Counties, Florida. The objective of the hydrology assessment and hydrology restoration plan is to provide site-specific information regarding the historical drainage pathways, drainage divide locations, current drainage pathways, existing drainage structures, and proposed drainage structures. To complete this task, Mr. Powell was required to assemble and utilize existing current and historic GIS data layers developed by FNAI, topographic maps, current and historic aerial photography and on-site surveys to determine the current hydrology for the area, the historic hydrology, and to make recommendations to restore the historic flow patterns. All existing water flow structures were mapped in the field utilizing GIS enabled data collectors equipped with differentially corrected GPS receivers. The final project deliverables included GIS data layers indicating basin and sub-basin delineations, natural drainage ways and flow directions, ditches and flow direction, historic flows, existing water control structures and recommended water control structures.



APPENDIX B – Suncoast Archaeological Consultants, Inc





Suncoast Archaeological Consultants, Inc.

DUNS #: 956697879

CAGE/NCAGE: 5MV58

Offices:

Central Florida Office

2632 Eagle Court
Lake Wales, Florida 33898
P: 863-227-2592
F: 863-678-1706

Panhandle Office

1400 Village Square Blvd., Suite 3-324
Tallahassee, Florida 32312
P: 850-210-4141
F: 850-668-3508

Suncoast@suncoast1.com
www.suncoast1.com



Introduction



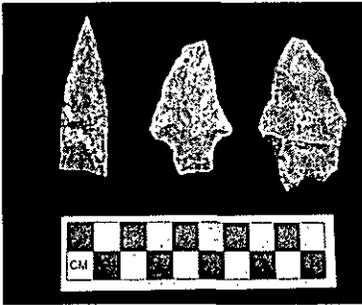
Suncoast Archaeological Consultants, Inc. was established in 2005 as a full service cultural resource management firm specializing in a full range of archaeological and historic preservation practices serving both private sector and government agencies. Through quality fieldwork, analysis, interpretation, reporting, and public education Suncoast has gained a reputation as one of the leading cultural resource firms in Florida. Suncoast currently maintains two offices across the state and has successfully served hundreds of clients.

It is our experience that, for our clients, cost and timely completion of cultural resource studies are often of equal importance. We work “smart” to keep our fees reasonable through cost-efficient methods. We also insure a “clean” review product by following established state and federal guidelines for archaeological and historical work. Our positive work relationship with state and municipal permitting agencies and our understanding of cultural resource law allows us to shepherd your project through the compliance process in a smooth and timely fashion.

Our consulting focus is identifying archaeological sites, historic buildings, and other cultural properties so that they can be considered under historic resource policy laws and regulations. We work with our clients to evaluate the significance of these properties, and then to develop the most effective plans for resource preservation or to mitigate impacts when necessary.

Suncoast is a member of the American Cultural Resource Association (ACRA), the leading national trade organization for the cultural resource management industry, on which our V.P. Matthew White is on the board of directors.

Services



Suncoast Archaeological Consultants, Inc. provides a wide range of cultural resource services. Much of our work involves assisting development companies in complying with historic preservation laws, such as Section 106 of the National Historic Preservation Act and/or various state historic preservation regulations. Suncoast also assists public sector agencies in meeting their regulatory requirements in managing cultural resources. A list of all services provided by Suncoast is presented below.

Services Include:

Reconnaissance Level Archaeological Survey- Designed to identify previously known archaeological or historical sites within a property and identify areas which may potentially contain sites.

Archaeological Inventory Survey (Phase I)- Thorough field surveys with subsurface testing designed to locate the archaeological, historical, or architectural resources within a property or APE.

Archaeological Excavation (Phases II)- Determine site integrity and demonstrate how recovered data could contribute to an understanding of the area's prehistory or history in terms of NRHP eligibility criteria.

Archaeological Excavation (Phase III)- Assuming that it is not prudent or feasible to avoid or otherwise minimize the adverse effects on significant archaeological resources a full-scale archaeological (Phase III) is conducted with the intention of realizing the resource's complete research potential.

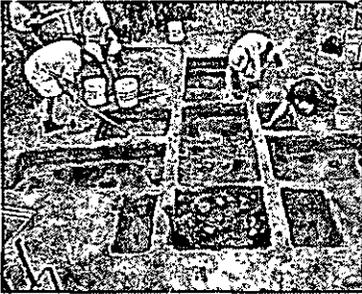
Archaeological Monitoring- On site monitoring of ground disturbing activities within archaeologically sensitive locations.

Section 106 Review for Cell Towers- Conducting appropriate cultural resource fieldwork and evaluation on proposed new cell tower locations and cellular antenna collocations in order to complete FCC form 620 or 621 as required by the Nationwide Programmatic Agreement.

Historic Architectural Assessment and Documentation- Historic analysis and documentation of historic structures in accordance with standards of Historic American Building Survey (HABS) and Historic American Engineering Record (HAER), as well as any required large format photography.

National Register of Historic Places (NRHP) Evaluation- Assessment of individual cultural resource eligibility status under the guidelines of NRHP criteria and completion of nomination forms for listing on the NRHP.

Suncoast Staff



The key personnel on Suncoast's team are identified below. Suncoast Archaeological Consultants, Inc.'s professional staff has extensive experience in cultural resource consulting. Our key personnel meet or exceed the qualifications established in the Secretary of the Interior's "Standards and Guidelines for Archaeological and Historic Preservation (36 CFR Part 61). Suncoast's staff archaeologists have worked throughout the southeastern United States, with their primary focus being on the archaeology of Florida, Georgia and Alabama. Each member of Suncoast's team has an excellent record for carrying research projects to completion. The responsibilities assigned to key personnel are those that most effectively utilize each person's expertise and capabilities.

In addition to our full-time staff, Suncoast maintains an active and cooperative relationship with the anthropological programs of numerous state and private universities throughout Florida and the Southeast. For larger field projects Suncoast often takes on specialized part-time employees consisting of graduate students and occasionally faculty from these institutions.

Key Personal:

Andrea Hickman, M.A. - President Principal Investigator - Architectural History/Historian

Ms. Hickman is a specialist in Florida history and historic architecture. She has strong experience in the development and writing of historic contexts, National Register of Historic Places (NRHP) nominations, and field surveys. Ms. Hickman has completed architectural resource field surveys and reports for the Florida, Georgia, South Carolina, and Alabama Departments of Transportation, Florida Power & Light Company, Florida Army National Guard, and a number of private developers and environmental and engineering firms. Ms. Hickman earned a Masters of Arts degree from the College of Charleston and is currently completing her requirements for a Ph.D. in history at Florida State University.

Dr. Hickman meets the qualifications put forth within the Secretary of the Interior's "Standards and Guidelines for Archaeological and Historic Preservation (36 CFR Part 61).

Matthew White, M.A. RPA - Vice President Principal Investigator - Archaeology

Mr. White has been associated with cultural resource management since the early 1990s during which time he has directed numerous investigations throughout the Southeast. With degrees from both Appalachian State University and the University of Alabama Mr. White has specialized in late prehistoric settlement patterning and specifically prehistoric riverine and coastal adaptations. While he has both field and lab experience, as vice' president of Suncoast most

of Mr. White's time is now spent addressing project management, business capabilities, and organizational matters.

Mr. White meets the qualifications put forth within the Secretary of the Interior's "Standards and Guidelines for Archaeological and Historic Preservation (36 CFR Part 61).



Emilio Ancaya, M.A.
Principal Investigator

Mr. Ancaya has participated in cultural resource management projects for various firms in North Carolina, Tennessee, Mississippi, Alabama, Georgia, and Florida for the past 14 years. His responsibilities have included supervising, authoring and co-authoring reports for archaeological survey projects. He has experience with a wide range of projects from small-scale archaeological reconnaissance to larger Phase III archaeological excavations. Mr. Ancaya received his graduate degree from Wake Forest University.

Lauren Vaisman, M.A.
Project Archaeologist

Ms. Vaisman has over eight years experience in the field of archaeology and historic preservation. She has directed numerous cultural resource surveys and data recovery projects throughout Florida. Ms. Vaisman has seen over 100 survey projects to completion, many of which she directed and authored the resulting technical report. Her areas of expertise include Contact period, American Colonialism, as well as 19th and 20th century American history. Ms. Vaisman received her graduate degree from the University of Florida.

Experience and Reference



Suncoast has participated in the recording of hundreds of historic sites throughout Florida, Georgia and Alabama. We have recorded a wide range of resources including small prehistoric campsite, large prehistoric villages, historic roads, historic railways, Colonial period industrial sites, historic homesteads, military sites, historic structures, and cemeteries.

Suncoast's clients have included both private sector and governmental agencies. Our projects have ranged from small one acre retention pond installations to 1,000 plus acre DRIs. We have also conducted numerous transportation corridor surveys as well as municipal historic architecture inventories and Section 106 reviews for cell tower installation.

Provided below is a selected list of Suncoast Clients during 2009 and 2010. Also provided, are three client references.

Selected Suncoast Clients from 2009 and 2010:

Florida Army National Guard
St. Augustine, FL

Environmental Consulting & Design, Inc.
Gainesville, FL

DMA Engineering, Inc.
Lakeland, FL

City of Gainesville
Gainesville, FL

RGP Tower Group
Jupiter, FL

Volkert & Associates, Inc.
Tampa, FL

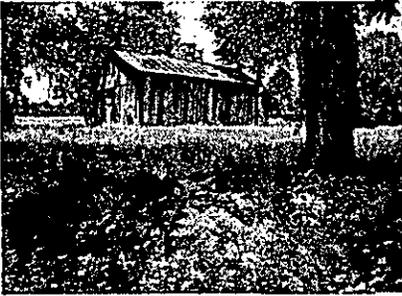
Florida Power & Light Company
Miami, FL

C&N Environmental Consulting, Inc.
Jupiter, FL

Pasco County,
Dade City, FL

TKW Consulting Engineers, Inc.
Fort Myers, FL

CAPTEC Engineering, Inc.
Stuart, FL



City of Tavares
Tavares, FL

Boylan Environmental Consulting, Inc.
Fort Myers, FL

AG Armstrong Development, LLC
Tampa, FL

LPG Environmental & Permitting Services, Inc.
Mount Dora, FL

Pope Environmental, Inc.
Tallahassee, FL

WilsonMiller, Inc.
Tampa, FL

CPH Engineers, Inc.
Deland, FL

Brown & Cullen, Inc.
Gainesville, FL

Bowen Civil Engineering, Inc.
Jacksonville, FL

Client References:

1. WilsonMiller Stantec
Attn: Neale Stralow
2205 North 20th Street
Tampa, Florida 33605
P: (813)-223-9500

2. Lee County Conservation 20/20 Program
Attn: Cathy Olsen
3410 Palm Beach Blvd.
Fort Myers, Florida 33916
P: (239) 533-7455

3. Ecological Resource Consultants, Inc.
Attn: Daniel Van Nostrand
120 Beckrich Road, Suite 140
Panama City Beach, Florida 32407
P: (850) 230-1882

Suncoast "Safety First"



Health & Safety:

Suncoast's policy is to provide and maintain a safe and healthy working environment for all employees. Suncoast has developed a comprehensive Corporate Health and Safety Plan (HASP) defining the minimum health and safety standards required for Suncoast projects. All Suncoast field personnel and subcontractors are required to follow the Suncoast HASP, as well as, the client's HASP, while performing field activities.

As part of the pre-employment screening process, all prospective Suncoast employees undergo a rigorous pre-employment drug and alcohol screening process. No prospective employee's application is accepted prior to testing negative for various analytes. Employees are randomly monitored for drugs and alcohol during their tenure at Suncoast.

Insurance:

Suncoast maintains full insurance coverage including comprehensive liability (both General and Professional), workman's compensation, and commercial auto insurance through Rogers, Gunter Vaughn Insurance, Inc. in Tallahassee, Florida. Suncoast can be bonded when necessary for most projects. Suncoast has the ability to modify insurance coverage when necessary to meet client needs.

Recent Suncoast Projects:



Camp Blanding Joint Training Center, Clay County, Florida:

Cultural Resource Survey of approximately 13,000 acres within the Florida National Guard Camp Blanding property. This project was conducted via contract with the Florida Department of Military Affairs. In addition to Phase I survey this project also included Phase II archaeological investigations of 16 previously recorded prehistoric and historic sites.



Clear Springs Research Corporate Park, Polk County, Florida:

Cultural Resource Survey of a proposed 980 acre research park and industrial development near Bartow, Florida. The project resulted in the identification of numerous prehistoric archaeological sites as well as the development of a preservation allowance zone to help mitigate impact to a significant prehistoric archaeological site while minimizing the required changes to the original proposed project plan.



Old Polk City Road, Polk County, Florida:

Archaeological and Historic Architectural Survey along approximately three miles of Old Polk City Road located to the north of Lakeland, Florida. The project included the identification and mitigation of impact to numerous archaeological sites and historic structures located within the proposed project's Area of Potential Effect (APE).



Heart Island Equestrian Estates, Volusia County, Florida:

Archaeological Survey of an 820 acre proposed mixed-use property west of Daytona Beach, Florida. Project plans proceeded on schedule with Suncoast's assistance in coordination between the St. Johns River Water Management District and the Florida Division of Historical Resources.



Tavares Wooton Park, Lake County, Florida:

Cultural Resource Assessment Survey in advance of proposed improvements to a municipal recreation park located adjacent to Lake Dora in Tavares, Florida. Innovative archaeological survey procedures were utilized to examine the property while producing a minimum of disturbance to existing park facilities.



Tramonto Estates, Polk County, Florida:

Archaeological Survey of a 1,840 acre mixed-use development property located in northern Polk County. As a result of an extensive land-use history investigation and Suncoast's consultations with the Southwest Florida Water Management District the project plan was approved without delay and without the need of additional time consuming and expensive cultural resource investigations.



Wild Turkey Strand Preserve, Lee County, Florida:

Historic Land Use Study for Lee County Parks and Recreations of a World War II period training facility associated with the Buckingham Army Air Field. Suncoast provided Lee County with recommendations for preservation and aided in the development of a public access and historic interpretive program.

Katherine "Katy" Hickman M.A.
President and Project Coordinator/Historian
Suncoast Archaeological Consultants, Inc.
2632 Eagle Court
Lake Wales, Florida 33898
(863) 227-2592
katy@suncoast1.com

Katy Hickman is the cofounder and President of Suncoast Archaeological Consultants, Inc. Ms. Hickman coordinates Suncoast operations from our Central Florida office and acts as Lead Historian for all Suncoast projects. Ms. Hickman also serves as Suncoast's Principal Architectural Historian. Ms. Hickman has had eight years experience in the Cultural Resource Management field and has conducted numerous cultural survey projects for federal, state and private clients. Ms. Hickman was formerly employed as a Professor of History at Tallahassee Community College and has conducted guest lectures at Florida State University, Department of History and for numerous local and regional historical societies.

EDUCATION

Currently completing doctoral dissertation for Florida State University, Department of History. Dissertation Topic: *Historical and Archaeological Evidence for the interplay of Power Relationships among Native American and Spanish Societies in 16th and 17th Century Spanish Florida.*

Master of Arts, History, University of Charleston, Charleston, May 2002.
Thesis: *Women in Propaganda During the Jacobite Rebellion of 1745: How Characterizations Explain Gender Roles in Eighteenth-Century Europe.*

Bachelor of Science, Political Science, Florida State University, Tallahassee, July, 1999.

University of London, Florida State University Semester Abroad Program in Comparative Politics, London, May 1999.

Cambridge University, Queen's College High School Exchange Program in British Culture, Cambridge, August 1994.

AREAS OF SPECIALIZATION

Native American and Colonial Relations, Florida History, Colonial and Early American Florida History, Late 19th and Early 20th century development in the Southern United States, 18th century Europe.

SELECTED PROJECT EXPERIENCE

Florida Army National Guard --- A comprehensive cultural resource survey of National Guard armories in Florida. During the survey Ms. Hickman conducted historical and historic architectural assessments of 32 National Guard armories.

Florida Department of Transportation --- Cultural Resource Survey of a 23 mile corridor along US 41. Ms Hickman conducted an architectural and historical assessment of hundreds of residential, industrial and commercial properties along the project corridor.

Lee County, Florida --- Cultural Resource Survey for the Prairie Pines Preserve. Ms. Hickman conducted a county and regional historical assessment associated with the cultural inventory of a 4,000 plus acre preserve in northern Lee County.

Pasco County, Florida --- Cultural Assessment for the construction of Chancey Parkway, a four lane highway running east to west through central Pasco County. Ms. Hickman performed a historic architecture survey for the project corridor and its APE and also produced a township and regional histories for all locations affected by the road construction.

Plum Creek DRI --- Cultural Resource Survey for 3,000 plus acres in Alachua County, Florida. Included the identification and recording of an early 20th century turpentine camp as well as the identification of two middle 19th century abandoned roadways.

Apalachicola National Forest – Historic site inventory and assessment in advance of a forest fireline construction project. Ms. Hickman lead the historic assessment and documentation effort for all cultural resources within the proposed project APE.

PROFESSIONAL AFFILIATIONS

Organization of American Historians (OAH)

American Historical Association (AHA)

Society of Architectural Historians (SAH)

Matthew P. White, M.A., RPA
Vice President and Principal Investigator
Suncoast Archaeological Consultants, Inc.
1400 Village Square Blvd., Suite 3-324
Tallahassee, Florida 32312
(850) 210-4141
matt@suncoast1.com

Matthew White is a cofounder of Suncoast Archaeological Consultants, Inc. and has since lead the execution of hundreds of cultural resource survey projects for a variety of governmental and private sector clients. Prior to starting Suncoast Mr. White has been involved in the cultural resource management field in Florida and the southeastern United States for the past 12 years. Mr. White is listed on the National Register of Professional Archaeologists and meets the qualifications put forth within the Secretary of the Interior's "Standards and Guidelines for Archaeological and Historic Preservation" (36 CFR Part 61).

EDUCATION

Master of Arts, Anthropology, University of Alabama, Tuscaloosa, AL 1999.
Thesis: *A Culture History Mystery along the Banks of the Tennessee River: Assessment of Culture Change within the Middle Tennessee Valley through Ceramic Assemblages of the Wheeler Basin.*

Bachelor of Art, Anthropology, Appalachian State University, Boone, NC
1995.

AREAS OF SPECIALIZATION

Cultural Resource Management Permitting, Native American Settlement Patterning, Prehistoric Riverine and Coastal Cultural Adaptations in Florida, Florida Prehistoric Ceramics Technologies.

SELECTED PROJECT EXPERIENCE

Florida Department of Transportation --- Cultural Resource Survey of a 23 mile corridor along US 41. Mr. White lead field operations for the survey and assessment of numerous cultural resources within the project APE.

Haines City Wastewater Department --- Archaeological survey and historical assessment for the expansion and improvements to the existing Haines City wastewater facilities.

Polk County, Florida --- Cultural Resource Survey in advance of proposed improvements to 18 miles of the county road systems in northwestern Polk County.

474 Independent Sand Mine --- Historical and Archaeological Assessment of 1,200 acres in southern Lake County prior to sand mine operations on the property.

Becks Lake Development --- Cultural Survey of 420 acres north of Pensacola, Florida that included the recording and assessment of one of the most complete Second Spanish Period water-powered sawmills in the United States.

River Springs Development Project --- This project, conducted along the western bank of the Withlacoochee River, included intensive excavations of two large prehistoric shell middens along with 14 smaller archaeological sites and the recording of an abandoned 19th century railroad corridor.

Valencia Lakes DRI --- Archaeological and Historical Survey of over 5,000 acres within northeastern Desoto County. Numerous archaeological and historic architectural resources were discovered and recorded during this survey.

City of Dundee --- Cultural Resource Survey in advance of the expansion of the City of Dundee Water Treatment facility.

Florida Power & Light Company --- Cultural Resource Survey of the proposed Clay and Putnam County Transmission Line. Included an archaeological survey of an 8 mile corridor crossing through both counties.

Palm Beach Equestrian Survey --- Archaeological Survey of 350 acres in Wellington, Florida. The survey utilized historic aerials to pinpoint the location of former Everglades tree island features within the project area.

PROFESSIONAL AFFILIATIONS

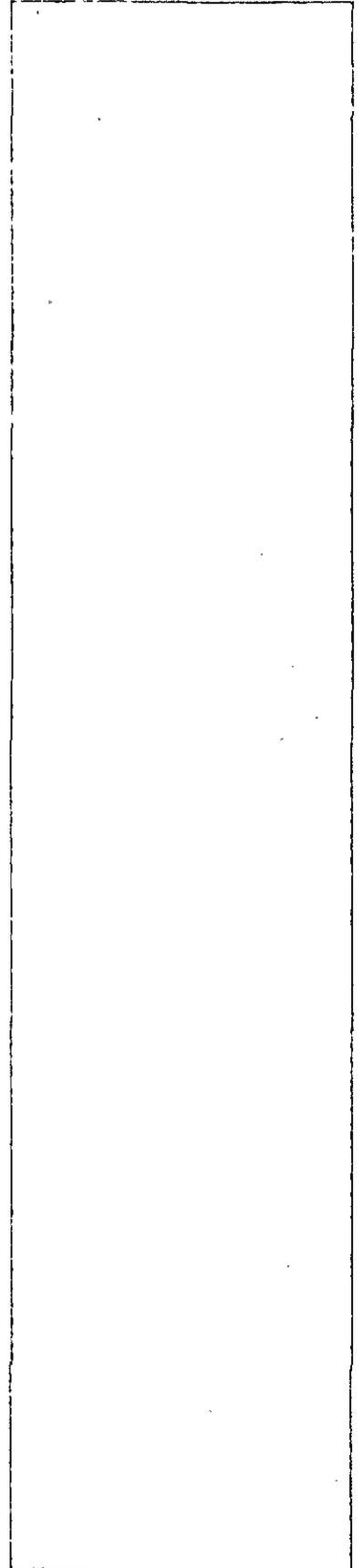
National Register of Professional Archaeologists (RPA)

Society for American Archaeology (SAA)

American Cultural Resource Association (ACRA)

Florida Anthropological Society (FAS)

APPENDIX C – Relevant Project Descriptions



Project Name: Bronough Property Phase I and II Environmental Site Assessment

PROJECT LOCATION: TALLAHASSEE, LEON COUNTY, FLORIDA

PROJECT OWNER

City of Tallahassee

PROJECT OWNER REPRESENTATIVE

Mrs. Jennette Curtis
Environmental Administrator
300 S. Adams St. BOX A-15
Tallahassee, FL 32301
Phone: (850) 891-8703

PROJECT USER AGENCY REPRESENTATIVE

Mrs. Jennette Curtis
Environmental Administrator
300 S. Adams St. BOX A-15
Tallahassee, FL 32301
Phone: (850) 891-8703

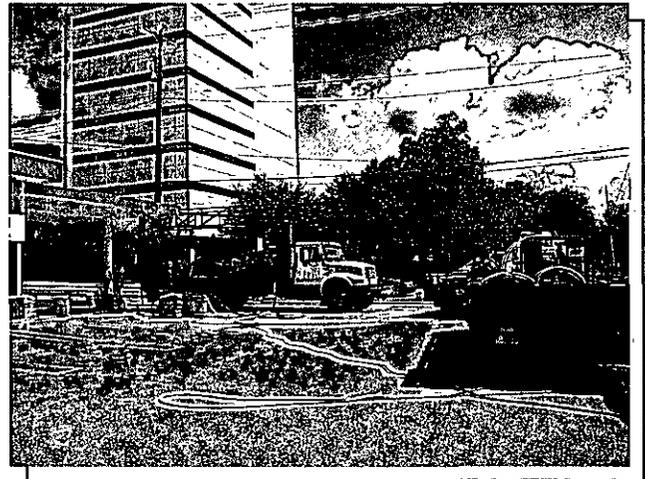
COMPLETION DATE

2006

KEY PERSONNEL

Contract Manager: Mark White, PG
Project Geologist: Wes Leon, PG

The City of Tallahassee (COT) tasked WRS Infrastructure & Environment, Inc. (WRS) with the performance of a rapid Phase I Environmental Site Assessment (ESA) for the Bronough Property (Subject Property) in Leon County, Florida. The purpose of the assessment was to collect and analyze sufficient data to identify recognized environmental conditions and, if necessary, provide a basis for a Phase II ESA investigation. The Subject Property was considered for purchase by the COT for its redevelopment of the Gaines Street corridor. The Subject Property consists of two entire city blocks (approximately 5 acres in area) in downtown Tallahassee. There are four existing buildings on the Subject Property. One



building is an active State office building of 44,000 square feet.

PROJECT APPROACH

In order to complete the ESA to meet the City's tight timeframe for scheduled acquisition negotiations, WRS rapidly implemented a Phase I to allow time for a Phase II, if needed:

A Phase I ESA is an investigation into the history of activity and land uses of a subject property and surrounding area. The Phase I ESA consisted of: (1) a review of historical sources for evidence of prior land uses that could result in soil and/or ground water contamination, (2) a review of regulatory agencies' enforcement and permitting records for indications of prior contamination at the Subject Property and/or surrounding properties, (3) a 50-year title search, (4) a review of current and historical aerial photographs of the Subject Property and surrounding area, and (5) a site investigation and, if available, field interviews with people possessing knowledge of the area and prior land usage.

Based on the findings of the Phase I, a Phase II ESA was recommended and conducted. Again, due to the tight timeframe of the scheduled acquisition

negotiations, field work was implemented quickly. Phase II activities included the following:

- The Subject Property had a former petroleum station. Because no substantial evidence of abandonment in-place or removal of the underground petroleum storage tanks that supported the service pump island was available, WRS implemented a ground penetrating radar (GPR) survey at the property to confirm tank removal.
- Additionally, both direct push technology (DPT) and conventional drilling techniques were implemented to determine if the soil and/or groundwater had been impacted with petroleum products.
- Lead-Based Paint (LBP) and Asbestos Containing Material (ACM) surveys were conducted for all four buildings, to determine the potential abatement costs, if needed, prior to planned demolition of the existing structures (following acquisition).
- Four areas of recognized environmental conditions were noted in Phase I including an active 3,000-gallon underground storage tank (UST). The four areas were field screened for volatile organic compounds (VOC) utilizing an Organic Vapor Analyzer (OVA) in the Phase II activities. The OVA screening was facilitated with exploratory soil borings that were advanced with stainless steel hand augers under Florida Department of Environmental Protection (FDEP) guidance. Following field screening of soils, confirmatory soil samples were collected for fixed-base laboratory analyses.
- An existing deep, groundwater chiller well was sampled for petroleum constituents to determine if the groundwater had been impacted by the 3,000-gallon UST.

support an approximate \$450,000 reduction in the asking price. The \$450,000 amount includes needed ACM/LBP abatement (prior to demolition) and proper abandonment of the existing UST and chiller water supply well.

RESULTS

Both the Phase I and Phase II ESAs were completed within the City's timeframe for property acquisition negotiations. The findings of the Phase II ESA

Project Name: Cascades Park Coal Gasification Plant and Landfill Remediation

PROJECT LOCATION: TALLAHASSEE, LEON COUNTY, FLORIDA

PROJECT OWNER

City of Tallahassee

PROJECT OWNER REPRESENTATIVE

Ms. Koren Taylor
300 S. Adams St.
Tallahassee, Florida 32301

PROJECT USER AGENCY REPRESENTATIVE

Ms. Koren Taylor
300 S. Adams St.
Tallahassee, Florida 32301

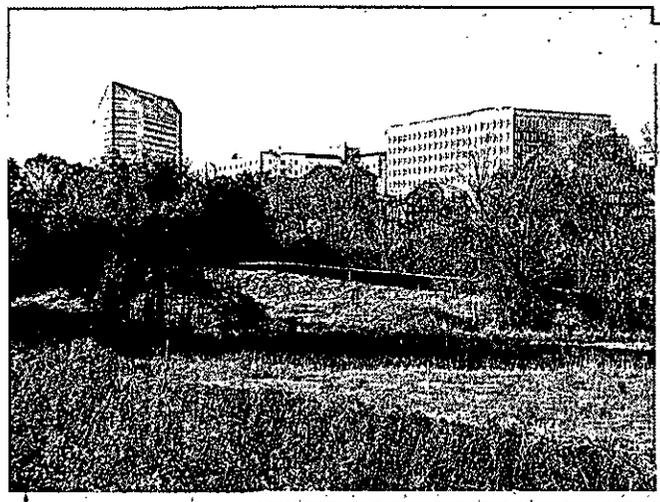
COMPLETION DATE

2007

KEY PERSONNEL

Contract Manager: Mark White, PG
Project Engineer: David Rountree, PE

The Cascades Park Project (the Site) consists of five Areas of Concern (AOCs) on three separate land parcels: 1) the former Cascade Park Coal Gasification Plant site; 2) the former Industrial Area, (East Cascades Park): and, 3) the former Cascade Landfill. The former Cascade Park Coal Gasification Plant (AOCs 2 and 3) is comprised of a former manufactured gas plant (MGP) that occupied 2.5 acres and operated between 1890 and the mid to late 1950s and the 5-acre Centennial Field, which was utilized for community sports activities between 1924 and the early 1970s. The former industrial area parcel (AOCs 4 and 5) included a lumber mill, an ice plant, two electrical plants, a concrete pipe factory, areas for coal and oil storage, a vehicle maintenance garage and a trash incinerator. Finally, a former landfill site (AOC 1), which operated between 1928



and 1936, occupies approximately 2.5 acres in the southern portion of the Site.

PROJECT APPROACH

Previous investigations indicated that hazardous substances associated with the MGP facility had been released into the soil, ground water, and sediment at the Site. The USEPA issued the Action Memorandum on May 29, 2003 that presented the selected removal actions for the Site. The USEPA and the City of Tallahassee (the City) entered into a Consent Order (CO), and the City retained WRS Infrastructure & Environment, Inc. (WRS) to conduct remedial activities under a Non-Time Critical Removal Action. The City assumed ownership of the industrial area and per the settlement agreement proceeded with remediation utilizing WRS's services in accordance with Florida law.

Proposed removal actions for the Site were initially recommended in the "Engineering Evaluation/Cost Analysis, Cascade Park Coal Gasification Plant and Cascade Landfill, Tallahassee, Florida" (EE/CA). The EE/CA included an evaluation of several removal actions for the AOCs 1, 2 and 3 at the Site to develop the most appropriate remedial strategy. An Action Memorandum was subsequently issued by the USEPA outlining the non-time critical removal action at the Site. The USEPA codified the specific removal actions

at the Site in the CO. A Site Investigation Report (SIR) was completed for the industrial area, labeled as AOCs 4 and 5, A Remedial Action Plan (RAP) was developed and approved by Florida Department of Environmental Protection (FDEP). To achieve the objectives of the CO and the RAP the following remedial activities were conducted at the Site:

- Installation of a soil cap and geosynthetic clay liner (GCL) over approximately 6,844 square yards of the former landfill and steep embankment to prevent direct exposure and further minimize the potential for soil leaching of chemicals of potential concern (COPCs) to ground water via infiltration, AOC 1.
- Installation of 356 linear feet of large concrete box culverts (16' wide by 7' high) to control stormwater flow and infiltration of the creek through the landfill, AOC 1.
- Removal and disposal of approximately 85,000 tons of source material ((soil impacted by benzene, toluene, ethylbenzene, and xylenes (BTEX) and polynuclear aromatic hydrocarbons (PAHs)) from the former Cascade Park Coal Gasification Plant site, AOCs 2 and 3.
- Installation of a clay liner and development of a large stormwater retention pond, AOCs 2 and 3.
- Removal of sediment from within the entire Cascades Creek channel at the Site, AOCs 1, 2 and 3.
- Removal of contaminated surface soil from designated areas, installation of engineering controls and backfill with clean soil, AOCs 4 and 5.
- Removal of PCB contaminated soil in accordance with TSCA (spell out) regulations, AOC 4.
- Installation of monitoring wells for monitoring natural attenuation (MNA) of ground water contaminants at the former Cascade Park Coal Gasification Plant site and the former landfill.

Establishment of institutional controls to limit the use of the Site, to ensure that the surface cap, creek liners (box culverts) and engineering controls are maintained in all AOCs, and ensure engineered barriers continue isolate residual contamination, prevent direct exposure, and permit unrestricted recreational land use.

ADDITIONAL PROJECT ACTIVITIES

Public Outreach

Because of the close proximity of the site to the State of Florida Capital buildings and residential communities, it was critical that WRS engage and inform the public of planned operations through a Community Outreach program. Critical to this program was the ability to explain the need to close a primary neighborhood road, address any potential noise and odor issues associated with the remedial activities and generally rally public support behind the project. To accomplish these objectives WRS arranged a groundbreaking ceremony prior to mobilization in which local elected officials the Governor and neighborhood leaders were invited to not only attend but to participate in the ceremony. The event was televised on local television news channels.

After mobilization, WRS continued public awareness with a "door to door" campaign canvassing over 250 homes in which brochures summarizing the project were distributed. Monthly news letters were posted on the city web site providing updates, factual information and pictures. WRS prepared a multi-media presentation which contained a project overview and included discussions on activities that had been performed to date. This presentation was presented at a Town Hall Meeting. The meeting was held in a room filled to near capacity and attended by local residents and the local press.

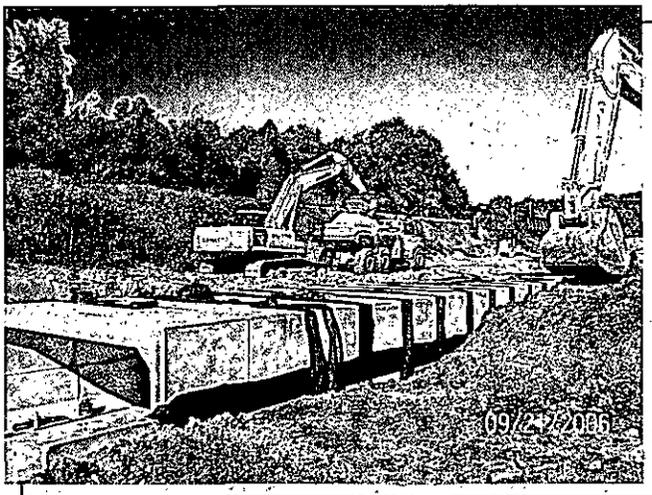
At the end of the major excavation WRS arranged a "Bottoming Out" event that again was attended by local elected officials, neighborhood leaders and the public. During this event we arranged site walking tours so the public could observe the work completed to date. This event was televised on the local news.

Schedule and Budget Adherence

WRS was able to negotiate initial price and contract terms for this \$7.8M contract in a 72 hour period through a focused effort with the City. After contract award, WRS prepared numerous contract required submittals including a Remedial Action Work Plans (RAWP) that detailed how WRS would execute the required remedial activities. Per the CO with USEPA, WRS was required to prepare and submit the RAWP within 28 days of executing the contract with the Client. WRS not only met this performance criterion, but was able to secure USEPA approval of the RAWP within three (3) weeks of submittal to USEPA.

Value Engineering

WRS also identified and successfully negotiated with the USEPA a more protective and yet more cost effective remedy for the creek channel. Based on our extensive remediation experience we identified that one of the remedies identified in the EE/CA was not constructible given the topography of the site. We recommended to the City that they consider replacing a formed and poured concrete liner with the installation of box culverts (designed to withstand a 100 year flood). Upon seeing the benefits and the additional park space that would become available upon completion (1.2 acres) the City agreed and the alternative remedy was written into the RAWP.

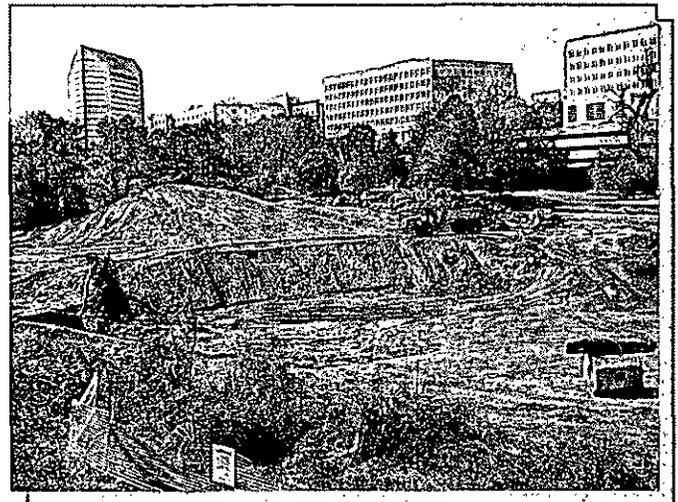


Installation of box culverts through the city landfill

Permitting

As part of our mobilization efforts WRS met the substantive requirements of all permits including negotiating access agreements with CSX railroad; EPA approval of a TSCA removal action and FDEP approval of the Remedial Action Plan for East Cascades Park.

With the successful completion of the Cascades Park Coal Gasification Site, the remedial activities have opened the way for beneficial reuse as a green space within downtown Tallahassee. The green space will commemorate the unique history of the Site as the founding of State of Florida's capital location and will be a significant resource for the residents of the State of Florida and Tallahassee from both a historical and recreational perspective.



Beginning stages of excavation of contaminated soil at the MGP site. Excavation continued to 55 feet below ground surface to bedrock with no engineered stabilization required.

Project Name: Concord Cleaners #45

PROJECT LOCATION: TALLAHASSEE, LEON COUNTY, FLORIDA

PROJECT OWNER

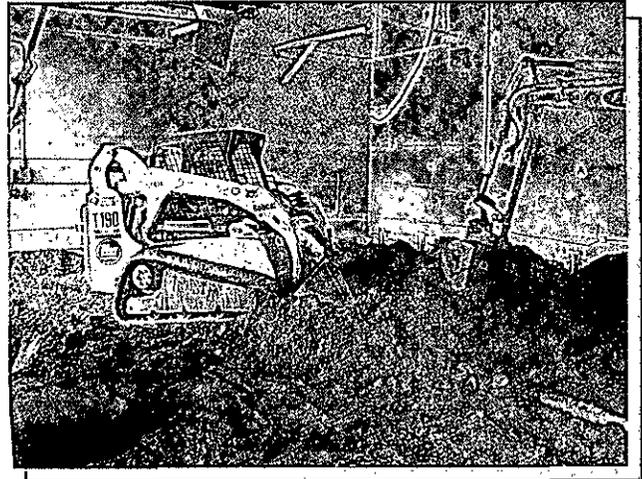
Florida Department of Environmental Protection

PROJECT OWNER REPRESENTATIVE

Mr. Christopher Pellegrino
 Florida Department of Environmental Protection
 2600 Blair Stone Road, M.S. 4520
 Tallahassee, Florida 32399-2400
 (850) 245-8972

PROJECT USER AGENCY REPRESENTATIVE

Mr. Christopher Pellegrino
 Florida Department of Environmental Protection
 2600 Blair Stone Road, M.S. 4520
 Tallahassee, Florida 32399-2400
 (850) 245-8972



(PCE) dry-to-dry machine, a spotting board, several steam presses, and a conventional washing machine and dryer. The facility floor drains were connected to the sanitary sewer line until abandonment in the early 1990's. Based on initial site scoring, assessment and remediation remained inactive while higher priority sites were addressed. In 2006, the site was reactivated and WRS was tasked with developing an assessment strategy for this site.

COMPLETION DATE

2011

KEY PERSONNEL

Project Geologist: Wes Leon, PG

WRS Infrastructure & Environment, Inc. d/b/a WRSCOMPASS (WRS) conducted site assessment activities, designed and implemented a limited source removal and installed a soil vapor extraction recovery and treatment system to address chlorinated solvent soil contamination at Concord Custom Cleaners #45 (Concord Cleaners) site in Tallahassee, Florida. All work was conducted under the Florida Department of Environmental Protection's (FDEP's) Hazardous Waste and Drycleaning Solvent Cleanup Program (DSCP).

The site occupies approximately 1,900 square feet of the southeast corner of the Northwood Mall (Now Northwoods Centre). The facility began operation in August 1969 and until its closing in November 2005, Concord Cleaners operated a tetrachloroethene

PROJECT APPROACH

Site Assessment: FDEP tasked WRS with the completion of a site assessment to identify site-specific geology, hydrology, identify the vertical and horizontal extent of chlorinated solvent contamination and determine if remedial actions were warranted. In 2006, WRS advanced seven hand-augered soil borings and 11 "direct-push" soil screening borings. Ninety-seven soil samples were collected for analysis by an on-site mobile laboratory. PCE was detected in 27 of the 95 samples. Of those detections, 24 samples exceeded the Soil Cleanup Target Level (SCTL). Three groundwater-screening samples were collected from three temporary piezometers, all of which had concentrations below groundwater treatment levels. Subsequent confirmation samples collected after implementation of an Interim Source Removal (ISR) indicated much higher concentrations were present at the site,

including one sample collected on the south wall of the facility that had a PCE concentration of 17,000 milligrams per kilogram (mg/kg).

Additional site assessment was performed in 2007 and 2008, which indicated that groundwater concentrations exceeded cleanup target levels. In addition, twenty-five soil samples exceeded the SCTL for PCE. PCE soil sample concentrations ranged from 0.01 mg/kg to 72,000 mg/kg. A passive soil gas survey using Gore-Sorber® was conducted on the south side of the facility in April 2008. Results of this survey indicated high concentrations of PCE and its degradation products were closely associated with a sanitary sewer line to the south of Concord Cleaners

Interim Source Removal: In May 2007, WRS submitted an ISR Design to excavate contaminated soil beneath Concord Cleaners. The ISR was approved on July 19, 2007 and tasked on September 11, 2007. Prior to excavation, interior walls and fixtures were demolished, asbestos inspection and abatement was conducted, utilities and the concrete flooring were removed, and structural support was installed. Thirteen vertical helical piers were installed. The vertical supports underpinned the footer of the west and south walls and the foundation of the north wall using steel brackets. Two-hundred and fifty tons of impacted soils were excavated and disposed of. In addition to soil excavation, 13 horizontal soil vapor extraction (SVE) lines were installed approximately seven to feet into the sides of the excavation and plumbed into a vault outside of the facility. These lines were installed to take advantage of the access that the excavation provided.

Limited Remedial Action: A Limited Remedial Action Plan (LRAP) to implement SVE utilizing the existing lines was submitted in June 2008. To reduce costs an existing SVE treatment system from the Former First Union site was relocated and retrofitted for use at Concord Cleaners, which included replacement of the blower and reprogramming. Activated carbon was added to treat recovered vapors. Individual extraction lines were installed below grade from the vault to treatment system and the site was restored. Approximately 30 tons of potentially impacted soils

in the eastern portion of the trench were excavated and disposed of. The treatment system was started on November 4, 2008.

Initial system operation was hampered by excess water recovery, which appears to be the result of perched groundwater. Additional investigation was conducted to identify the source of water. Pressure testing and sound listening devices were used to test water lines; however, no leaks were detected. Video inspection of the sewer lines revealed three leaks in sanitary sewer lines near the SVE lines. Several actions by the property owner have since mitigated the problem and significant progress has been made towards dewatering perched water. Currently the system is in operation and continues to remove contaminants from surrounding soil. In spite of significant downtime due to water intrusion, approximately 14 pounds of contaminants were removed in the first nine months of operation.

RESULTS

Overall, the project has been very successful to date at identifying and removing contamination in a relatively short period time. The SVE system has effectively recovered contaminants from areas that would be inaccessible or difficult to access had the recovery lines not been installed during excavation. Efforts to dewater perched groundwater have also exposed soil contamination that may have been inaccessible had vertical lines been used. In addition, recent groundwater samples were below Groundwater Cleanup Target Levels, which is likely attributable to the aggressive source removal already conducted at the site.

Project Name: Gaines Street and Railroad Avenue Impact to Construction Assessment

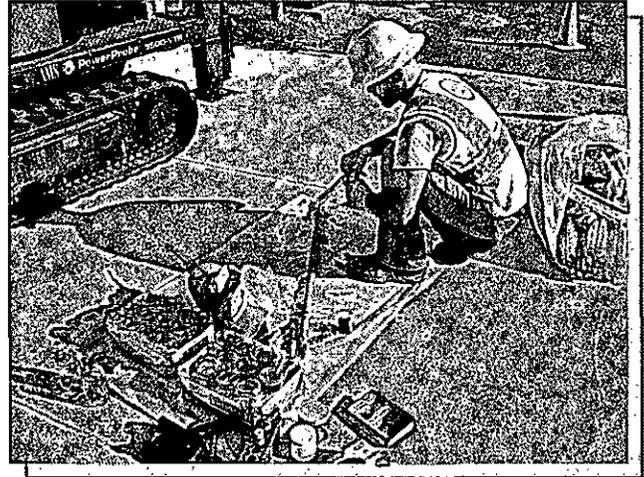
PROJECT LOCATION: TALLAHASSEE, LEON COUNTY, FLORIDA

PROJECT OWNER

City of Tallahassee

PROJECT OWNER REPRESENTATIVE

Mr. Alan Hagans
District Contamination Impact Coordinator
Florida Department of Transportation District III
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PROJECT USER AGENCY REPRESENTATIVE

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Phone: (850) 891-8703

COMPLETION DATE

2007

KEY PERSONNEL

Contract Manager: Mark White, PG
Project Manager: Andrew Frost, PE
Project Geologist: Wes Leon, PG

The Florida Department of Transportation District III (FDOT) working in conjunction with the City of Tallahassee (COT) tasked WRS Infrastructure & Environment, Inc. (WRS) with the performance of an Impact to Construction Assessment (ICA) for the Gaines Street and Railroad Avenue intersection (Subject Property) in Tallahassee, Leon County, Florida. The purpose of the assessment was to collect and analyze data from recognized environmental conditions to determine any potential impacts to future construction activities planned for the Subject Property.

The Subject Property consists of the intersection of Gaines Street, which is being considered for a transfer of ownership from FDOT to COT, Railroad Avenue, which is owned by COT, and four privately owned properties stationed at each corner of the intersection. Two of the properties located on the northeast and southwest corners of the intersection are gas stations. The gas station on the southwest corner of Gaines Street and Railroad Avenue is currently inactive. The property on the southeast corner of the intersection is currently undeveloped and exists as an empty lot. A Residence Inn exists at the northwest corner of the intersection.

PROJECT APPROACH

In order to complete the ICA and meet both the interests of FDOT and COT, WRS immediately contacted utility locating services and maintenance of traffic subcontractors as the congestion of both traffic and utilities on site were a major logistical challenge for the project. Utilities were located through Sunshine State One-Call and the COT. Additionally, WRS also solicited the services of a subcontractor to perform a ground penetrating radar (GPR) survey as a best management practice. The survey identified several unmarked utilities.

Once all utilities had been located, maintenance of traffic scheduled, and permits acquired, WRS then commenced with their ICA.

An ICA is an investigation that varies in scope based on the history of activity and land uses of a subject property and surrounding area, and the intended construction activities for the subject property. This particular ICA was concerned with the investigation of petroleum impacted soils in relationship to the Subject Property. Utilizing direct push technologies, WRS personnel advanced nine soil borings at locations chosen by WRS in cooperation with COT and FDOT. To protect health, safety, and infrastructure, utilities were cleared to 8 feet below land surface (bls) with a pre-cleaned, stainless steel hand auger. Using a dual tube coring system, cores were collected in four foot intervals from 8 feet to 24 feet bls. WRS personnel collected soil samples at two-foot intervals continuously to depth and screened soils for organic vapor content using an organic vapor analyzer (OVA) equipped with a flame ionization detector (FID). Based on data collected with the OVA, a second boring was advanced within a two foot radius of the first boring. After clearing utilities, the second boring was pre-probed to four feet above the sample depth that exhibited the highest reading of organic vapors, then a four foot core was advanced and a discreet sample was collected for laboratory analysis to confirm OVA results. WRS analyzed these data and reported the results to FDOT in an Impact to Construction Assessment Report (ICAR).

RESULTS

Based on WRS' findings, and data collected from a previous investigation of the Subject Property conducted by another consulting firm, WRS identified areas within the FDOT right-of-way that may pose a risk to human health should construction activities occur within the vicinity of the Subject Property.

These areas were segregated aerially and vertically. In accordance with these findings, WRS recommended one of two approaches be considered for planned construction through the Subject Property. The approaches are as follows:

- First, the main contractor awarded the contract for roadway improvements to the Gaines Street corridor should include in their bid a cost appropriate for a contamination contractor to perform the work in areas of concern noted by WRS, as well as any other areas of concern identified by investigations independent of the findings that were reported in the ICAR.
- The second option would be to have FDOT or COT (the current property owner would apply) employ a contamination contractor to either be on-site for the duration of activities taking place within the established areas of concern providing oversight, or having the said contamination contractor conduct the construction activities within the aforementioned areas of concern.

Mitigating potential construction impacts and delays related to environmental contamination are important. These ICAs are an invaluable tool that can be used to reduce overall project costs.

Project Name: Former Hair Chevron

PROJECT LOCATION: TALLAHASSEE, LEON COUNTY, FLORIDA

PROJECT OWNER

Florida Department of Transportation, District 3

PROJECT OWNER REPRESENTATIVE

Mr. Philip Deal

Florida Department of Transportation, District 3

PO Box 607

Chipley, FL 32428-0607

Telephone (850) 638-0250

PROJECT USER AGENCY REPRESENTATIVE

Not Applicable

COMPLETION DATE

December 2007

KEY PERSONNEL

Contract Manager: Mark White, PE

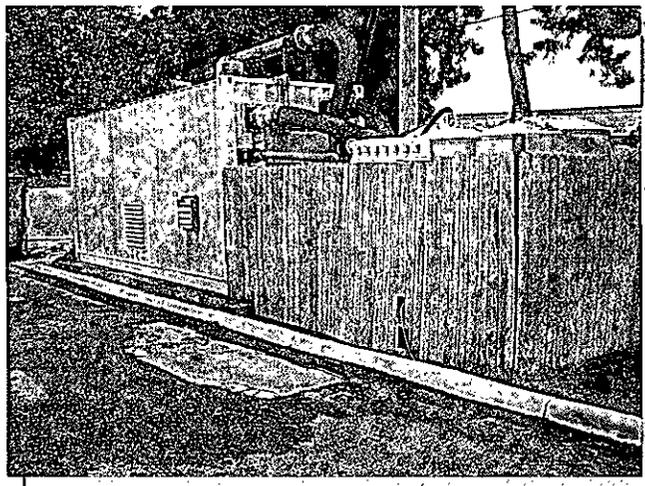
Project Manager: Andrew Frost, PE

Project Engineer: David Rountree, PE

Project Geologist: Wes Leon, PG

At this site, WRS Infrastructure & Environment, Inc. (WRS) performed underground storage tanks removal, source material removal, conducted a site assessment, and designed and implemented an Air-Sparge / Soil Vapor Extraction (AS/SVE) and Natural Attenuation Monitoring (NAM) remedial system at a site that was part of a Florida Department of Transportation, District 3 (FDOT) road-extension project.

The Former Hair Chevron site is located in the right-of-way of the Timberlane Road extension between State Road 61 and U.S. 319, and on the adjacent landscaped and parking areas of the Carriage Gate Shopping Center. A retail gasoline station, Hair Chevron, was formerly located in what is now the Timberlane Road extension. A right-of-way acquisition associated with the Timberlane road extension led to FDOT tasking WRS with removing



three underground storage tanks (USTs) and associated source material from the Former Hair Chevron site and three USTs and associated source material from the southern (tank pit) portion of the adjacent Northgate Shell site. Petroleum contamination was discovered during this UST removal operation. Assessment activities performed by WRS during the tank closure and source material removal indicated that soil and groundwater had been impacted at the site. Tank Closure Assessment (TCA) and Initial Remediation Action (IRA) Reports were submitted to FDEP in April 1995

PROJECT APPROACH

FDOT retained WRS to perform a Site Assessment, assess potential contaminant impacts to surrounding properties, identify remedial actions, and remediate the site. The following paragraphs summarize tasks that were completed during the site assessment.

WRS performed a potable well survey of the area to determine if any potable wells in the immediate area of the site could be impacted by the petroleum discharge. No public or private supply wells were identified within a half-mile of the site.

Twenty-six soil borings were advanced during the Site Assessment. Soil samples were collected for

screening using an Organic Vapor Analyzer (OVA), and groundwater samples were collected to assist in permanent monitor well placement.

Twenty-three permanent monitor wells (23 shallow and one deep) were installed based upon review of the data collected during the soil boring advancement phase. Additionally, two piezometers were installed to provide pumping test measuring points. These monitor wells were surveyed and sampled, and groundwater elevation measurements were taken from these wells, in order to provide more detailed site contamination and groundwater flow direction data. A short-term pump test was performed to accurately determine shallow aquifer characteristics. The Site Assessment Report (SAR) submitted to the Florida Department of Environmental Protection Northwest District Office in April 1999 concluded that site soil and surficial aquifer groundwater were impacted by contamination most likely from the UST and pump island areas of the former retail gasoline station. Additional site assessment activities resulted in the Site Assessment Report Addendum, submitted in July 2000.

Based on the results of the site assessment, WRS believed that the most cost-effective remedial strategy was active remediation utilizing an AS/SVE system for groundwater contamination in the source area zone, and NAM in the downgradient zone. Additionally, part of the SVE system would be devoted to removing soil contamination. A Remedial Action Plan (RAP) was prepared and submitted to FDEP. This RAP was approved on July 25, 2001.

RAP Implementation took place in 2002. Fourteen air-sparge wells arranged in two sparge curtains, four deep air-sparge capture SVE wells, and four shallow soil remediation SVE wells were installed, as well as additional passive vent wells. The AS/SVE system utilizes an efficient rotary-claw air-sparge blower, vapor-phase carbon adsorption for contaminant treatment, and an innovative jet-intake rotary-lobe vacuum blower. Soil moisture captured by the SVE system is treated by activated carbon before discharge to the sanitary sewer. WRS designed the treatment system, set the equipment, installed all of

the treatment system piping, and restored the parking lot and landscaping to their previous utility.

RESULTS

After approximately one and one-half years of operation of the remedial system, groundwater contaminant concentrations in samples collected from site monitor wells associated with the Former Hair Chevron site declined to below Groundwater Cleanup Target Levels (GCTLs) – i.e., final cleanup goals – for all contaminants of concern except MTBE. While some site monitor wells did have other sample contaminants above GCTLs, the contaminants in these wells were believed to be associated with the former Dixie Petroleum or former Vogue Cleaners sites, and thus not part of the Former Hair Chevron Remediation. After approximately 16 months of monitoring and confirmatory sampling, FDEP approved the site for an unconditional Site Rehabilitation Completion Order (SRCO) in July, 2007. The remedial system was fully decommissioned and removed by December, 2007.

Project Name: Pensacola Naval Air Station Stormwater Drainage Repairs

PROJECT LOCATION: PENSACOLA, ESCAMBIA COUNTY, FLORIDA

PROJECT OWNER

Naval Facilities Engineering Command, Southeast

PROJECT OWNER REPRESENTATIVE

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PROJECT USER AGENCY REPRESENTATIVE

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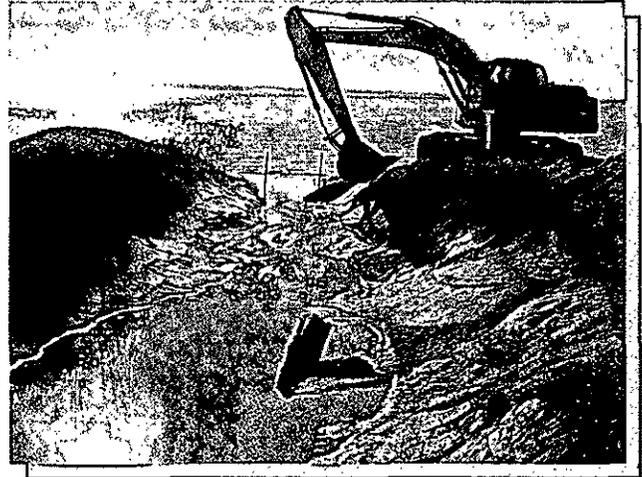
COMPLETION DATE

2010

KEY PERSONNEL

Contract Manager: Mark White, PG

Naval Air Station (NAS) Pensacola encompasses over 6,000 acres. It is composed of the airfield proper, the Naval Air Training Center, and associated support structure. The naval base is surrounded by Pensacola Bay, Bayou Grande, and the Intracoastal Waterway. WRSccompass (WRS) is tasked with maintaining and repairing portions of the entire existing stormwater drainage system on Naval Air Station (NAS) Pensacola, both piped and open ditch. The Project Program is composed of three scopes of work; clearing and grubbing, sediment removal, and restoration of over 13-miles of stromwater drainage ditches; the repair or replacement of over forty underground stromwater pipe segments; and the



complete rerouting and design-build of a 54-inch stormwater pipe system. WRS personnel also prepared all of the project associated documents to include: Work Plans; Health and Safety Plan; Quality Control Plan; Erosion and Sediment Control Plan; Construction Plan, Construction Plans and Specifications; Shop Drawings; and As-builts. All site work was conducted in accordance with Unified Facility Guidance Specification, Florida Department of Transportation Design Standards and Standard Specifications for Road and Bridge Construction, and the Army Corp of Engineers Quality Construction Management System.

PROJECT APPROACH

Routine maintenance is being conducted on twenty two stormwater drainage ditches to return them to their original design specification. The open ditches range in size from 15 85 feet in width, ¼-mile to over two miles in length, and 5 to 25 feet in depth. All ditches were surveyed to provide both topographic plan and profiles to assist with determining the original design. The survey data was used to prepare construction drawings and specifications that prescribed areas to be cleared and grubbed, sediment removal locations and quantities, check dam installations location, and headwall replacement

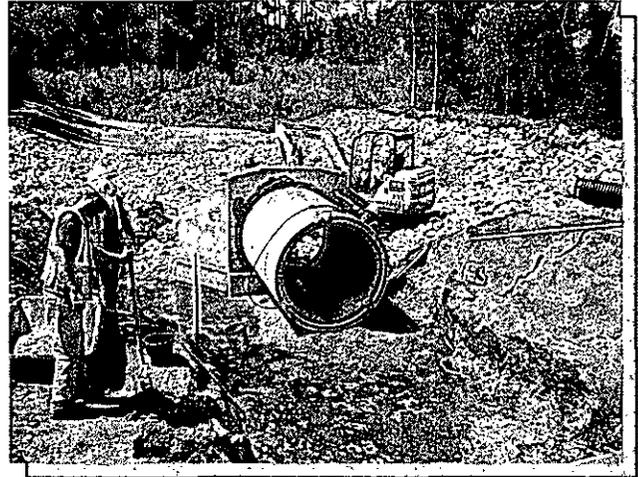
Pensacola Naval Air Station Stormwater Drainage Repairs WRSCOMPASS

locations. WRS personnel completed clearing and grubbing through forested areas and dense vegetation, vegetation and sediment removal from within the ditches, transportation and disposal of nonhazardous sediment, bank armoring, headwall replacement and construction, embankment stabilization and site restoration activities.

Underground stormwater drainage system restoration involved four major steps: site surveys and preparation of construction drawings and specifications; sediment cleaning and obstruction removal from various pipe segments; Cured-In-Place-Pipe (CIPP) installation, and open cut removal and replacement. Over 40 pipe segments with pipe diameters ranging from 12 to 42-inches were repaired to restore or improve the existing stormwater drainage system. WRS's work scope also included drainage structure relocation and refurbishment, curb and gutter removal and replacement, and asphalt removal and restoration.

The final scope of work included the abandonment of a failed 54-inch diameter Reinforced Concrete Pipe (RCP) running under the Department of Veterans Affairs (VA) Cemetery. WRS personnel conducted clearing and grubbing through forested areas and installed over 700 lineal feet of 54-inch RCP at depths averaging 17 feet below land surface. WRS personnel also completed the construction of associated headwall, installed eight-foot diameter manholes, and completed site restoration activities. After rerouting the 54-inch RCP, WRS personnel abandoned the 54-inch pipe running under the VA cemetery. Over 700 lineal feet of RCP was pressure grout with a specially designed mix of lowable fill.

All site work conducted has been completed on schedule and budget.



Project Name: Purdom Power Plant Source Removal and Soil-Bentonite Cutoff Wall Installation

PROJECT LOCATION: SAINT MARKS, WAKULLA COUNTY, FLORIDA

PROJECT OWNER

City of Tallahassee

PROJECT OWNER REPRESENTATIVE

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PROJECT USER AGENCY REPRESENTATIVE

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Tallahassee, FL 32301

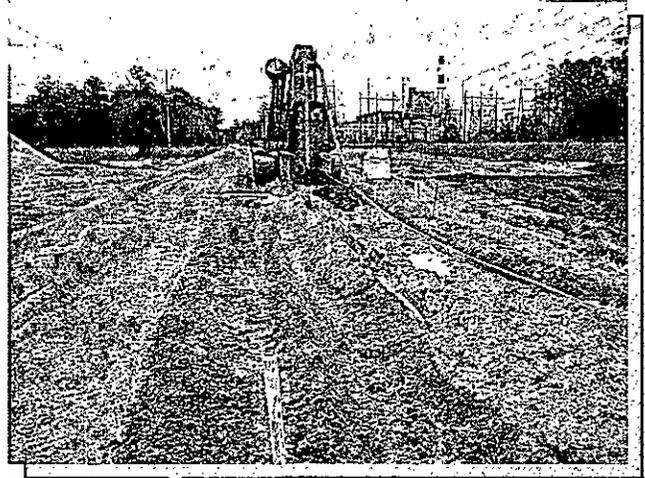
COMPLETION DATE

2006

KEY PERSONNEL

Contract Manager: Mark White, PG
Project Engineer: David Rountree, PE

The City of Tallahassee (COT) tasked WRS Infrastructure & Environment, Inc. (WRS) to implement an interim remedial action (IRA) at the Northern Property Area of the Purdom Power Plant in St. Marks, Wakulla County, Florida. The purpose of the IRA was to remove dioxin contaminated soil and install a preventative measure to mitigate on-site migration of contaminated groundwater from the adjacent contaminated site. The preventative measure involved the installation of a soil-bentonite cutoff wall (slurry wall) to impede groundwater flow on to the property.



PROJECT APPROACH

The area of contaminated soil on the site was approximately 2.76 acres, of which 2 acres are a jurisdictional wetland. Approximately 1.41 acres were excavated to a total depth of 1 foot bls and approximately 1.35 acres were excavated to a total depth of 3 feet bls. An estimated 8,788 cubic yards of dioxin contaminated soil was removed from the Site for proper disposal by the Florida Department of Environmental Protection. Following source removal excavation activities, the northern property line was returned to grade with clean backfill to facilitate the completion of the slurry wall. WRS subcontracted Dewind One-pass Trenching to conduct the slurry wall installation. WRS personnel supported the slurry wall installation and completed the post-construction protective cap over the slurry wall.

Soil-Bentonite Cutoff Wall (Slurry Wall) Installation

The slurry wall barrier was installed between October 10 and 14, 2005. The slurry wall extends approximately 1,450 feet along the Site's northern property boundary. The slurry wall was constructed with a permeability of 1×10^{-7} centimeters per second or less. This permeability corresponds to the requirements for landfill liners and is approximately four orders of magnitude less than the permeability of the native soils. The wall was approximately 1.5 feet thick and extended from the existing ground surface until the indurated, non-weathered portion of the St. Mark's Limestone was reached (approximately 12 feet bls). The completed wall was capped with a compacted clay cover to protect its integrity and to serve as the surface water barrier.

The slurry wall was installed using a trenching machine. The bentonite slurry was mixed and installed simultaneously. The trenching and delivery operation cut a nominal 18-inch wide trench, and in one pass installed the slurry wall barrier by continuously backfilling the trench with natural soils mixed with bentonite clay to form a bentonite slurry.

The soil-bentonite slurry mix design was provided by DeWind. Quality control test results for permeability, slump, density, and moisture content were completed to verify the design specifications.

Following installation of the slurry wall, twelve monitor well were installed (six on each side of the slurry wall) to monitor the potentiometric groundwater surface to assess the effectiveness of the slurry wall.

RESULTS

Both the source removal and the preventative slurry wall installation were completed on

schedule. All post-source removal confirmation soil samples indicate the successful removal of impacted soils. The wetland area was restored to previous grade and an annual rye grass was established for erosion control. The wetland permit monitoring of natural reseeding of wetland plants is on-going. The final project report is pending regulatory approval from the Florida Department of Environmental Protection.

Project Name: Tallahassee Maintenance Yard

PROJECT LOCATION: TALLAHASSEE, LEON COUNTY, FLORIDA

PROJECT OWNER

Florida Department of Transportation, District 3

PROJECT OWNER REPRESENTATIVE

Mr. John Smith
Florida Department of Transportation, District 3
PO Box 607
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PROJECT USER AGENCY REPRESENTATIVE

Mr. Howard Jemison
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COMPLETION DATE

Ongoing

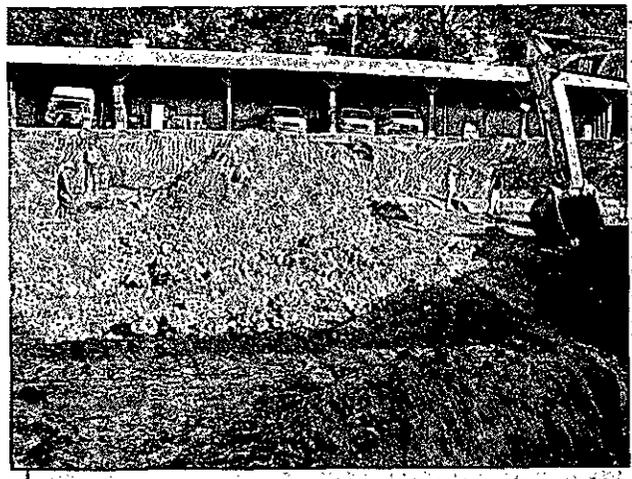
KEY PERSONNEL

Contract Manager: Mark White, PG
Project Manager: Andrew Frost, PE
Project Engineer: David Rountree, PE
Project Geologist: Wes Leon, PG

The Florida Department of Transportation (FDOT) assumed responsibility and liability for the cleanup of petroleum contamination associated with underground storage tank (UST) systems used to fuel state vehicles at the former Tallahassee Maintenance Yard. This contamination was identified by WRS during UST closure activities performed as the result of Maintenance Yard closure. WRS was subsequently retained to perform Site Assessment activities and provide remedial alternatives for site cleanup.

PROJECT APPROACH

Assessment and remediation at this site proceeded in two stages. Each stage was associated with two different former UST systems located on the site. I



Initial Site Assessment activities focused on the area near the second-generation UST system. Assessment results showed that the soil contamination was not present at the site. However, low concentrations of dissolved phase petroleum hydrocarbons were present in the groundwater near the former pump island area. WRS submitted a Site Assessment Report (SAR) in September 1998. Based on the concentrations of contaminants detected in collected groundwater samples, WRS recommended Natural Attenuation (NA) as the preferred remedial alternative.

The SAR was approved by the Florida Department of Environmental Protection (FDEP) in December 1998 with the recommendation to present supportive NA data and a NA monitoring plan.

NA supportive data was collected in March 1999. NA data such as carbon dioxide, dissolved ferric iron, dissolved nitrate, dissolved oxygen, and dissolved sulfate were collected and analyzed with a Hach DR-890 Colorimeter. This colorimeter utilizes color changes to determine concentrations of specific compounds, or chemicals, by reading light wavelengths in a prepared sample.

Review of the collected NA data in combination with current analytical results showed that remediation through NA could be a viable option for the site.

Tallahassee Maintenance Yard

WRS utilized the United States Environmental Protection Agency's *Bioscreen Natural Attenuation Decision Support System* (Bioscreen) to provide additional supportive evidence of NA. A Natural Attenuation Monitoring Plan was submitted to the FDEP in June 1999. A Natural Attenuation Monitoring Plan Approval Order was received by the FDEP in February 2000. Based on the approval order, FDOT tasked WRS with conducting quarterly sampling.

After a period of quarterly monitoring, WRS' review of collected data revealed that contaminant concentrations in site monitor wells were not attenuating. In an effort to expedite clean-up of the site, WRS submitted to FDEP a Limited Scope Remedial Action Plan (LSRAP) that recommended active remediation via short-term groundwater recovery from two monitor wells. The LSRAP was approved by FDEP on June 22, 2001.



The remedial system employed for the LSRAP was constructed by WRS and utilized equipment from previous remediated FDOT sites (Johnson's Beach and West Bay). The re-utilization of equipment saved FDOT approximately \$12,000 in capital costs.

Monitoring of the site from the remediation system startup on September 9, 2002 through December 2003 revealed that contaminant concentrations collected from one monitor well persisted above cleanup target levels and did not show a decreasing trend. The contaminant concentrations in the other

monitor wells were reduced to below cleanup target levels.

WRS discussed the site remediation efforts with FDOT in September 2003 and after analysis of site data, FDOT directed WRS to conduct additional site assessment activities to evaluate if additional source material was present in the vicinity of the former pump islands or associated piping, an area previously unavailable for site assessment activities.

In the first quarter of 2004, WRS initiated the second stage of assessment and remediation by conducting Site Assessment activities at the former pump island. During the initial stages of the assessment, WRS personnel discovered the location of additional, first-generation USTs.

Prior to completion of assessment activities, WRS recommended performing UST closure activities and also recommended the removal of the pump house building and foundation in order to assess soil below these areas. WRS personnel removed one, 2,000-gallon and two, 1,000-gallon fuel tanks from a location approximately 40 feet north of the previously removed tanks (April 1997).

The site assessment revealed that excessively contaminated soil present at the site in the vicinity of second UST abandonment. The contaminated soils were assessed to be the source of petroleum contamination observed in samples collected from site monitor wells.

WRS presented the assessment findings to FDOT. Based on the horizontal and vertical extent of the soil contamination, the surface features, and costs, WRS and FDOT agreed that excavating contaminated soils was the best remedy for the site.

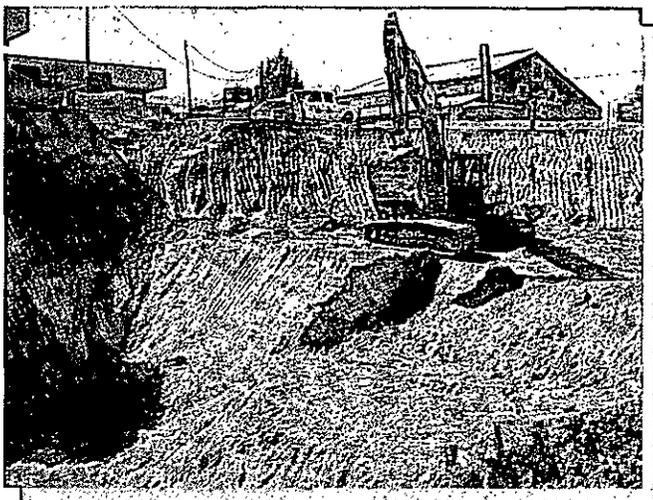
Ground breaking for the contaminated soil excavation took place on April 25, 2005. Prior to the initiation of the excavation, WRS personnel closely worked with City of Tallahassee personnel to secure approval for various plans and permits, such as an Environmental Permit which includes an Erosion Control Plan; a Tree Removal Mitigation Plan; a Natural Features Inventory Exemption; and a Cultural

Resource. In addition, WRS obtained a Slope Stability Analysis per OSHA requirements.

Also, in working with the City of Tallahassee (COT), COT personnel informed WRS and FDOT that a sewer main passes underneath the site and intersects a section of the planned excavation. WRS prepared and received approval from COT personnel for a sewer pump around plan, which provided a plan to pump sewer from one upgradient sewer manhole to a downgradient manhole and bypassing the section of piping that intersects the excavation.

The excavation was completed in the projected time of four weeks, despite the fact that contamination was deeper than projected and that more soil than projected was excavated. Approximately 3,000 tons of contaminated soil were disposed.

After reinstalling and sampling site monitoring wells, it became clear that a small area of groundwater contamination remained in the aquifer below the source removal excavation, particularly in a clay layer located beneath the water table. In order to address this contamination, WRS engineers designed a two-pronged treatment. ORC-Advanced™ injections into the clay layer were used to stimulate bioremediation of petroleum contamination there, while air-sparge wells installed in the same injection borehole, screened in the water-bearing zone, were used to remediate contaminated groundwater. This approach was approved by FDEP as a pilot study in 2008.



RESULTS

After approximately two years of implementation of the ORC-Advanced / air-sparge remediation, groundwater cleanup target levels were achieved, and FDEP gave permission for the remedial system to be shut down. Currently, the site is in post-active remediation monitoring, with site closure anticipated later this year.

Project Name: United Metal Phase 2 Solidification and Stabilization

PROJECT LOCATION: MARIANNA, JACKSON COUNTY, FLORIDA

PROJECT OWNER

DNT Environmental LLC

PROJECT OWNER REPRESENTATIVE

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650 Fairburn Road SW
Atlanta, Georgia 30331
Phone 251-269-8207

PROJECT USER AGENCY REPRESENTATIVE

Mr. John Teague
Vice President
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Atlanta, Georgia 30331
Phone 251-269-8207

COMPLETION DATE

2010

KEY PERSONNEL

Contract Manager: Mark White, PG

WRS Infrastructure & Environment, Inc. d/b/a WRSCOMPASS (WRS) was contracted by the DNT Environmental LLC (DNT) to conduct soil solidification and stabilization activities at the United Metals Inc. site (UMI). The UMI site is a United States Environmental Protection Agency (USEPA) National Priorities List site being managed by the Black & Veatch Federal Services Division (Black & Veatch). The approximately 180-acre UMI site is a former battery reclaiming facility, of which approximately 24 acres were used for the facility operations. From 1979 to 1992, UMI recovered lead from batteries and then sent the reclaimed lead off-site for smelting. EPA identified lead, antimony, and arsenic in the site's soil and groundwater at elevated levels. Ground water contamination above the Maximum



Contaminant Level for lead and cadmium has spread beyond the north property boundary.

The USEPA is using \$7.4 million in Recovery Act funds devoted to this site to support two phases of the site's long-term cleanup approach for contaminated soil, sediment, and groundwater. The USEPA began Phase I activities in October 2009, by contracting site clearing and grubbing. Phase I also included establishing an air monitoring system and installation of a new chain link fence. Phase I activities were completed in December 2009. USEPA Phase 2 activities include the excavation of contaminated soil and sediment followed by solidification and stabilization of both. The stabilized soil and sediment will be placed in an on-site containment cell with a cap. A contractor will then install groundwater wells to monitor contaminated groundwater. Site activities conducted by WRS are summarized below.

PROJECT APPROACH

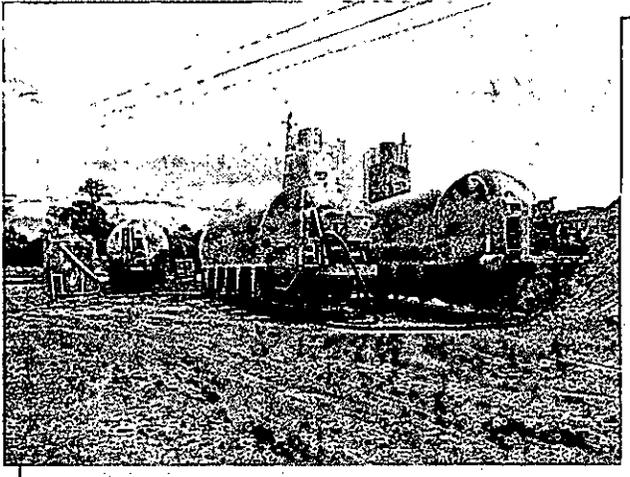
WRS personnel conducted the following site activities as part of remedial activities at the project site:

- Prepared and submitted of a Solidification and Stabilization Work Plan;

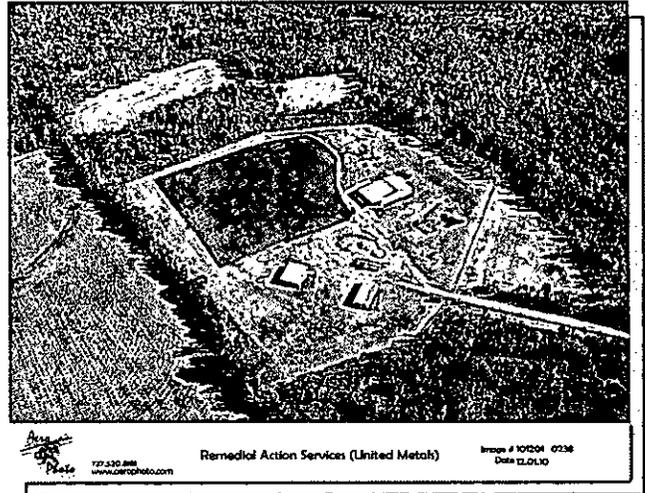
United Metal Phase 2 Stabilization and Solidification

WRSCOMPASS

- Prepared and submitted of a site-specific Health and Safety Plan;
- Setup the pugmill treatment system and associated equipment (silos, radial stacking conveyor, PIG storage units, water frac tank, and electrical);



the client. All geotechnical and analytical analyses met project specifications.



- Performed a one day, 450-ton pilot test to test the design mix prepared by Black & Veatch;
- Solidified and stabilized of over 61,00 tons metals impacted soil and sediment;
- Loaded treated soil into DNT-supplied off road dump trucks. WRS activities did not delay DNT's placement and compaction activities being conducted within the treatment cell;
- Prepared coupons for compressive strength, permeability, and analytical analyses;
- Conducted subcontractor oversight and review of geotechnical and analytical analyses;
- Performed Quality Assurance and Quality Control functions;
- Performed Health and Safety functions within the treatment system compound; and
- Conducted breakdown and decontamination activities.

RESULTS

WRS personnel completed all assigned activities in accordance with the project Work Plans and applicable regulatory guidance. The project was completed on time and budget and without delay to

Project Name: Whiting Field AVGAS Section E Pipeline Remedial Effort

PROJECT LOCATION: NAS WHITING FIELD, SANTA ROSA COUNTY, FLORIDA

PROJECT OWNER

Naval Facilities Engineering Command, Southeast

PROJECT OWNER REPRESENTATIVE

Mr. Michael Pattison
Remedial Project Manager
NAS Whiting Field
Public Work Department
7183 Langley St.
Milton, Florida 32570
Phone 850-623-7268 ext 3018

PROJECT USER AGENCY REPRESENTATIVE

Mr. Michael Pattison
Remedial Project Manager
NAS Whiting Field
Public Work Department
7183 Langley St.
Milton, Florida 32570
Phone 850-623-7268 ext 3018

COMPLETION DATE

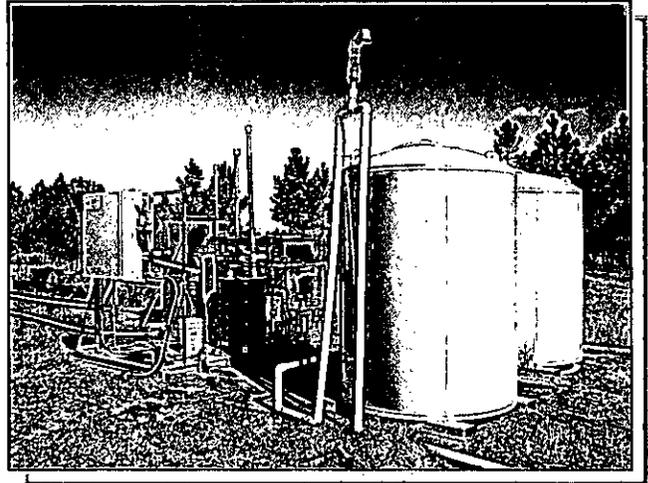
2010

KEY PERSONNEL

Contract Manager: Mark White, PG
Project Scheduler: David Rountree, PE

WRS Infrastructure & Environment, Inc. (WRS) was contracted by the Naval Facilities Engineering Command (NAVFAC) to remediate soil and groundwater at the AVGAS Pipeline Section E site.

Historical information and construction plans provided by NAS Whiting Field personnel indicated that the AVGAS Pipeline was installed for fuel distribution in approximately 1943 and continued operation until the late 1970s. The pipeline consists of one six-inch diameter steel pipe which divides into



two six-inch diameter steel pipes that run from a former pump house to the former North Field AVGAS Storage Tank Farm. The overall length of the AVGAS pipeline is approximately 7,050 feet.

A closure assessment was conducted on the AVGAS pipeline in October 2000. The field investigation included locating the buried portions of the AVGAS pipe using geophysical techniques, collection of soil samples for headspace screening analysis from borings located along the AVGAS pipeline, collection of confirmatory soil samples for fixed-based laboratory analysis, and groundwater sampling at locations where the depth to water was less than 20 feet bls. During the closure assessment, an area of product-saturated soil was detected at Section E of the pipeline. A Closure Assessment Report was submitted to the Florida Department of Environmental Protection (FDEP) and the Escambia County Health Department in April 2001 (TtNUS, 2001). The Closure Assessment Report recommended that a site assessment be conducted at the location where the product-saturated soil was detected.

A Site Assessment Report (SAR) was submitted by TtNUS in June 2003. The results of the SAR were summarized in a RAP also submitted by TtNUS in

December 2003. A RAPMod (WRS, 2008) summarized contaminated soil volumes as follows: 3,190 cubic yards (yd³) of petroleum impacted soil in the zero to 10-foot bls zone and 4,032 yd³ of petroleum impacted in the 10 to 20-foot bls zone. Remedial activities performed by WRS were conducted pursuant to the TtNUS RAP, the two WRS RAPMods, and the WRS Work Plan.

Project Approach

WRS personnel conducted the following sites activities as part of remedial activities at the project site:

- Geophysical investigation of the excavation area and geotechnical investigation for the structural engineering design.
- Baseline groundwater monitoring activities.
- Installation of five recovery wells fitted with eductor pumps.
- Installation and operation and maintenance of a groundwater treatment system.
- Treatment of over 369,000 gallons of petroleum impacted groundwater.
- Performance of a Supplemental Site Assessment.
- Abandonment of 11 monitor wells and recovery wells within the area of excavation.
- Clearing and grubbing of project site and 1,100 square feet of pine woodlands.
- Installation and operation of a 72 point groundwater dewatering treatment system.
- AVGAS pipeline abandonment which included the removal and disposal of 4,000 gallons of petroleum contact water and 140 gallons of AVGAS.
- Excavation and transportation and disposal of approximately 10,000-tons of petroleum impacted soil. Excavation depth extended to 20 feet bls.
- Excavations backfill and road, drainage, and vegetation restorations.
- Installation of three monitoring wells to 110 feet bls and,
- One year of post remediation groundwater monitoring and report preparation.
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RESULTS

All site activities were conducted in accordance with the project Work Plans and regulatory guidance. The project was completed on time and under budget. The final inspection for the project revealed no deficiencies and project performance was rated above-average by the client. The remediated areas are currently in use by the facility.