

NorthStar

2016 Company Overview

The World's Most Comprehensive Facility & Environmental Solutions Company
We Bring Answers.



Quick Facts

Founded	1986
US Office Locations	36
International Locations	15 Countries
Professional Staff	500
Trained Field Personnel	5,000 +
2015 Safety EMR	0.69
Average Annual Revenue	\$600 million +
Aggregate Bonding Capacity	\$350 million
Projects Completed	100,000+
Demo & Abatement Ranking	#1 (ENR and D&RI)
Local Corporate Office	Tampa, FL
Local Professional Staff	75

SELECT CLIENT LIST

SWFWMD Chapter A
(General Engineering and Professional Services
Master Agreement No. 14MA0000063)
SFWMD
SRWMD
SJRWMD
FDEP Petroleum Restoration Program
FDEP Division of State Land
FDOT
City of Tampa General Engineering Services
City of Tallahassee
City of St. Petersburg
Hillsborough County

Business Considerations

- Local corporate office
- Local professional staff
- Focused on public sector
- Design and construction services **in house**
- Chapter A contractor

Environmental Restoration & Water Resources

- *Design and Permitting*
- *Construction Management*
- *Wetlands Restoration and Mitigation*
- *Dredging*
- *Mitigation Bank Construction*
- *Sub-Aqueous Capping/ Sediment Remediation/ Stabilization*
- *Stream Channel and Basin Restoration*
- *Aquatic and Wildlife Habitat Construction*
- *Constructed Wetlands*
- *Water Quality Programs*
- *Hydrologic & Hydraulic (H&H) Modeling*

In-House Construction

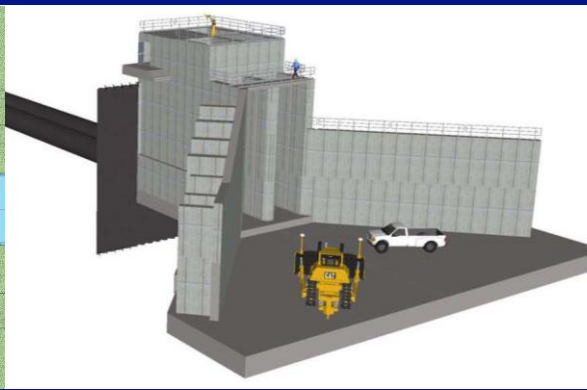
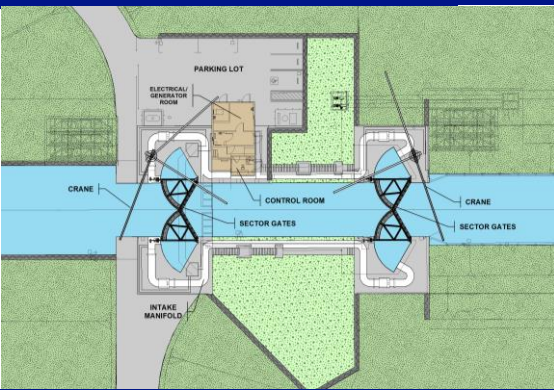
- *Levees, Reservoirs and Impoundments*
- *Pump Stations and Water Control Structures*
- *Design/Build*
- *Landfill & Impoundment Construction & Closure*
- *Slurry Walls & Hydraulic Containment*
- *Hydraulic Berm Construction*

Environmental Assessment

- *Contamination Assessment, Remediation & Management*
- *Environmental Site Assessment & Survey*
- *Conservation Easement Documentation and Monitoring*
- *Due Diligence Assessment*
- *Permitting and Compliance*
- *Geospatial (GIS & Mapping) Services*
- *Hydrology Assessment & Restoration*

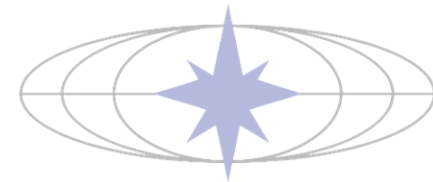
Environmental Remediation

- *Excavation and Disposal of Hazardous Materials*
- *Groundwater Containment, & Reactive Treatment Walls*
- *Groundwater Treatment Systems*
- *In-Situ and Ex-Situ Thermal Treatment (LTTD)*
- *In-Situ Soil Mixing-Treatment, ZVI & Oxidizer Introduction Stabilization/Solidification*
- *Civil/Mechanical Landfill Closure, Construction and Capping Bioremediation Coal Ash*
- *Impoundment/Landfill Construction and Management*



Engineering Design

- Water Resources Design including Reservoir, Levee, Water Control Structures and Pump Station Design
- Hydrologic and Hydraulic (H/H) Modeling and Analysis
- Drainage Master Planning
- Water Quality Improvement Programs
- Plans and Specifications: Clear, Concise and Correct
- Engineer's Opinion of Probable Construction Cost (OPCC)
 - Example: A-1 Flow Equalization Basin OPCC: \$65M, Awarded: \$60M, Final Cost: \$62M





EAA A-1 FLOW EQUALIZATION BASIN (FEB)



CLIENT	South Florida Water Management District
LOCATION	Palm Beach County, Florida
VALUE	Design: \$ 6 M Construction: \$60 M
DATE	Design: July 2013 - July 2013 Construction: July 2013 - July 2015
SAFETY	Zero OSHA Recordables

NorthStar provided engineering design services for the Everglades Agricultural Area (EAA) A-1 Flow Equalization Basin (FEB) from conceptual through Corrected Final / Ready to Advertise design as well as engineering during construction (EDC) services. The 15,000 acre EAA A-1 FEB temporarily detains up to 60,000 ac ft. of peak stormwater runoff flows for later controlled release. The concept and implementation of a flow equalization basin is a “first of its kind” project for SFWMD.

Key components of NorthStar’s services for this project include:

- *Geotechnical Investigation*
- *Land Surveying*
- *Hydrologic & Hydraulic Modeling*
- *Civil Design*
- *Structural Design*
- *Electrical Design*
- *Engineering During Construction*
- *Data Review*

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C-111 SPREADER CANAL



CLIENT South Florida Water Management District

LOCATION Homestead, Florida

VALUE Design: \$ 2 M
Construction: \$ 25 M

DATE Design: March 2008 - July 2009
Construction: January 2010 - February 2012

SAFETY Zero OSHA Recordables

NorthStar provided engineering design and engineering during construction (EDC) for the C-111 Spreader Canal project. The C-111 Spreader Canal Project created a nine-mile hydraulic ridge adjacent to Everglades National Park that restored water flows within Taylor Slough to patterns which resembled historic conditions prior to construction of the flood control canals throughout South Florida. The project included two (225 cfs) pump stations, a 590 acre detention area, 6 articulating concrete block weirs, two 8'x10' cast in place concrete culverts, 13 earthen canal plugs, 8,000 feet of 80' wide above grade concrete lined channel, 4 miles of above grade unlined channels and approximately 10 miles of earthen levees.

Key components of NorthStar's services for this project include:

- *Geotechnical Engineering*
- *Land Surveying*
- *Civil Design*
- *Structural Design*
- *Electrical Design*
- *Hydrologic and Hydraulic Modeling*
- *Engineering During Construction*

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Mosaic Riverview and Bartow Site Improvements



CLIENT	Mosaic
LOCATION	Riverview & Bartow, Florida
DATE	March 2009 - February 2012
SAFETY	Zero OSHA Recordables

Key components of NorthStar's services for this project include:

- *Cost Estimating*
- *Civil Design*
- *Construction Management*
- *Drainage Master Planning*
- *Design/Build*
- *Demolition*
- *Piping Design*
- *Pump Selection*

NorthStar provided engineering design and construction oversight services for various projects at the Mosaic Riverview and Bartow Phosphate Fertilizer production plants. The projects included the following:

Riverview Plant Port Facility Improvements: Design/build services for the demolition and reconstruction of various surface improvements including a new concrete dock surface, concrete curb installation, drainage system and conduits. The demolition included removal of the existing concrete and removal of abandoned tanks.

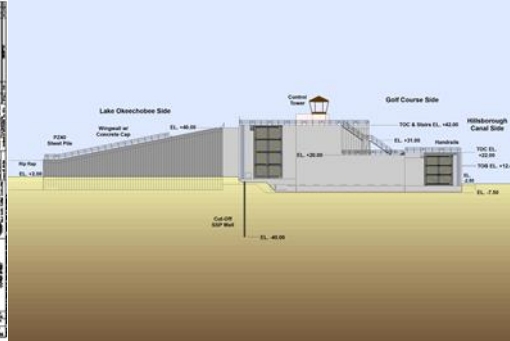
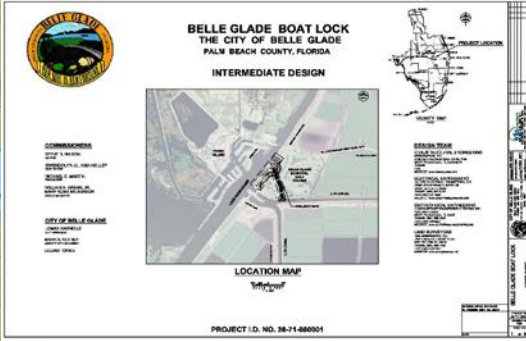
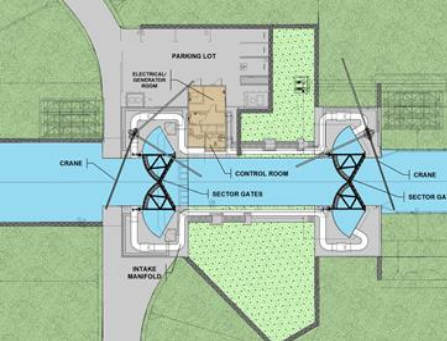
Riverview Plant FSA Loadout: Engineering design and construction oversight of the rail improvements, concrete surface work, spill containment and drainage system improvements associated with the plants Fluorosilicic Acid Loadout.

Bartow Plant Emergency Neutralization Unit (ENU): Engineering design for upgrades to the site master stormwater management system, spill containment, and ENU design including spill containment, piping systems, pump selection, and acid neutralization tanks.

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City of Belle Glade – Torry Island Navigation Lock



CLIENT	City of Belle Glade
LOCATION	Belle Glade, Florida
VALUE	\$ 1.3 M
DATE	June 2008 - September 2010
SAFETY	Zero OSHA Recordables

NorthStar provided design services to the City of Belle Glade for a navigation lock that would connect the Rim Canal of Lake Okeechobee to the Hillsboro and North New River Canals adjacent to spillway S351 located on the Herbert Hoover Dike (HHD). The navigation lock would be used primarily for recreational vessel traffic to gain access to Lake Okeechobee. The lock chamber was 80 foot by 30 foot chamber with 7 feet of draft and utilized sector gates. To facilitate construction, NorthStar's design located the lock chamber exterior to the HHD which also provided better operational control for the lock and Lake Ocheechobee.

Key components of NorthStar's services for this project include:

- *Bathymetric/Topographic surveys*
- *USACE, SFWMD and FDEP permit*
- *Environmental survey*
- *Contract document preparation*
- *Strategic consultation*
- *Project management*
- *Stakeholders Coordination*

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Design / Build

- Earthwork for water resources projects including levees, reservoirs and impoundments
- Structural design and construction for pump stations and water control structures
- Wetlands mitigation and banking
- Sediment remediation (dredging and in-situ capping)
- Stream channel and bank restoration
- Habitat construction/wetland cells





C-23 SECTION C WATER FARM ABOVE GRADE IMPOUNDMENT (AGI)



CLIENT	South Florida Water Management District
LOCATION	St. Lucie County, Florida
VALUE	Design: \$ 150 K Construction: \$ 2.1 M
DATE	June 2016 - Ongoing
SAFETY	Zero OSHA Recordables

NorthStar provided design/build services for the C-23 Section C Water Farm AGI project. The project, which was a component of the Indian River Lagoon South Reservoir, was fast-tracked as a design/build project in an emergency response effort to provide volume to store water being released from Lake Okeechobee during the 2016 Blue-Green Algae crisis which was polluting the St. Lucie Estuary and other portions of the Indian River Lagoon. The AGI was designed with perimeter levees to be constructed utilizing available onsite material and a customized water control structure to impound water to a depth of four feet over an area of 310 Acres, for a total of 1,240 Ac-Ft of storage.

Key components of NorthStar's services for this project include:

- *Geotechnical Analysis and Testing*
- *Earthwork/Levee Construction*
- *Engineering During Construction*
- *Land Surveying*
- *Design/Build*
- *Civil Design*
- *Emergency Response*

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AEROJET CANAL REMEDIATION



CLIENT	South Florida Water Management District
LOCATION	Miami-Dade County, Florida
VALUE	Design: \$ 50 K Construction: \$ 500 M
DATE	June 2010 - December 2011
SAFETY	Zero OSHA Recordables

NorthStar provided design/build services for the Aerojet Canal Remediation project. The objective of the Aerojet Canal remediation was to remove phosphorus laden sediment and phosphorus from the water column in the canal in order to use the canal as a conveyance for the C-111 Spreader Canal project. The engineering design portion of the scope included development of a conceptual engineering design, preparation of a corrective action plan and final engineering design. The construction scope included earthwork to build a sediment disposal area, hydraulic dredging, installation of a gravel cap and bank stabilization, weir construction and sediment disposal. Completion of this remediation allowed SFWMD to eliminate 1,300 feet of above grade canal from the C-111 Spreader Canal project, providing a savings of nearly \$600,000.

Key components of NorthStar's services for this project include:

- *Design/Build*
- *Civil Design*
- *Hydraulic Dredging*
- *Sediment Disposal*
- *Water Quality Testing*
- *Environmental Remediation*
- *Earthwork Construction*
- *Hydrologic and Hydraulic Modeling*

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Tampa Port Authority – Spoil Island 2D



CLIENT	Tampa Port Authority
LOCATION	Hillsborough County, Florida
VALUE	\$ 8 M
DATE	October 2006 - March 2008
SAFETY	Zero OSHA Recordables

NorthStar was contracted by the Tampa Port Authority (TPA) to perform construction management and levee improvements on their 2D Dredge Spoil Disposal Island. The 2D Dredge Spoil Island is a 500 acre island located in Hillsborough Bay in Tampa, Florida. The island is primarily used as an area for material that is generated from both maintenance dredge activities and from the construction of new facilities within the TPA theater of operations. The project involved the excavation and placement of over 1.2 million cubic yards of levee materials and design and construction of a large decant structure. The decant structure design was performed as value engineering option that reduced overall construction costs by \$850,000.

Key components of NorthStar's services for this project include:

- *Value Engineering Design of Decant Structure*
- *Marine Construction and Transportation*
- *Coordination on sensitive habitat*
- *Erosion and Sediment Control*
- *Sequencing work to accommodate bird nesting*

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Construction Management Services

- Proven ability to work well with team of other contractors and engineers
- Document management utilizing Expedition for submittals, RFI's and change orders
- Coordination and oversight of site QA/QC activities such as field density tests and concrete testing
- Construction/Field inspections
- Pay application reviews





PSRP MANATEE MITIGATION FEATURE



CLIENT	South Florida Water Management District
LOCATION	Collier County, Florida
VALUE	\$ 3.08 M
DATE	May 2015 - May 2016
SAFETY	Zero OSHA Recordables

NorthStar provided construction management services (CMS) for the Picayune Strand Restoration Project (PSRP), Manatee Mitigation Feature. The goal of the project was to construct a warm water refuge for manatees to utilize during colder winter months. This feature mitigates for the loss of such areas due to the future plugging of the Faka Union Canal, part of the overall PSRP project. The project was a “first of its kind” for SFWMD and its high profile attracted attention from many agencies and stakeholders. FWC and USFWS continue to monitor the feature post construction to assess its success.

Key components of NorthStar’s services for this project include:

- *Project Management*
- *Construction Inspection*
- *Communication*
- *Pay Application Review*
- *Quality Control*
- *Project Documentation*
- *Technical Review*
- *Project Coordination*

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SOUTHERN CORKSCREW REGIONAL ECOSYSTEM WATERSHED



CLIENT	South Florida Water Management District
LOCATION	Lee County, Florida
VALUE	\$ 2.9 M
DATE	February 2016 - December 2017 (Ongoing)
SAFETY	Zero OSHA Recordables

NorthStar provided construction management services (CMS) for the Southern Corkscrew Regional Ecosystem Watershed (CREW) Project. The goal of the project was to restore and improve the hydrology of the region without significant adverse impacts to the area within and surrounding the project boundary. Increasing the hydroperiod within the project boundary restored historic flow regimes and improved habitat. To achieve natural sheetflow, berms were degraded and canals were backfilled or plugged at natural grade. The project featured low water crossings on access roads, two culverts, and new wood stork foraging areas.

Key components of NorthStar's services for this project include:

- *Construction Inspection*
- *Project Management*
- *Pay Application Review*
- *Quality Control*
- *Project Documentation*
- *Technical Review*
- *Project Coordination*

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G-716 DIVIDE STRUCTURE



CLIENT	South Florida Water Management District
LOCATION	Palm Beach County, Florida
VALUE	Construction: \$ 5.6 M
DATE	Design: July 2015 Construction: January 2016 - June 2017
SAFETY	Zero OSHA Recordables

NorthStar provided construction management services (CMS) for the G-716 Divide Structure. The project includes the construction of a fully automated, electrically operated three (3) gate spillway with a peak capacity of 2,600 CFS to be built within the STA-1E Inflow Distribution Area. The structure's purpose is to increase the capacity of flow between the Eastern and Western Distribution Cells of the STA. Together with the other SFWMD facilities, this project will enable the transfer of up to 3,600 CFS of stormwater runoff from the Western C-51 Basin to STA-1W for treatment or to the L-8 Flow Equalization Basin for storage.

Key components of NorthStar's services for this project include:

- **Data Review**
- **Quality Control Verification of Construction**
- **Review of As-built Records**
- **Project Coordination**
- **Project Documentation**
- **Construction Inspection**
- **Field Inspections**
- **Daily Reports**
- **Punch List**

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C-139 ANNEX PHASE 1A



CLIENT	South Florida Water Management District
LOCATION	Hendry County, Florida
VALUE	\$ 1.46 M
DATE	January 2016 - December 2016 (Ongoing)
SAFETY	Zero OSHA Recordables

NorthStar provided construction management services (CMS) for the C-139 Annex Phase 1A project. The C-139 Annex Restoration Project included 14,427 acres of citrus grove restoration and included a 2,875 acre flow equalization basin (FEB) to provide additional stormwater retention, treatment and later controlled release. The goal of the project was to restore historic Everglades hydrologic conditions, improve water quality in the Everglades, and promote a self-sustaining ecosystem. The Phase 1A portion of the C-139 Annex Restoration Project included approximately 3,400 acres out of the 14,427 acres of citrus grove that was restored to enhance the historical microtopography and hydrology of the site.

Key components of NorthStar's services for this project include:

- **Project Management**
- **Communication**
- **Pay Application Review**
- **Construction Inspection**
- **Quality Control**
- **Project Documentation**

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G-341 CONVEYANCE IMPROVEMENTS



CLIENT	South Florida Water Management District
LOCATION	Palm Beach County, Florida
VALUE	\$ 3.8 M
DATE	September 2015 - November 2016
SAFETY	Zero OSHA Recordables

NorthStar provided construction management services (CMS) for G341 project. The project increased the conveyance capacity of the SFWMD Bolles East (L-16) Canal, through the excavation of rock, soil, and sediment; the construction of segmented spoil piles; and construction of replacement farm roads and ditches. The project improved water distribution between the adjacent stormwater treatment areas and also improved water supply and flood protection for the areas served by the canal.

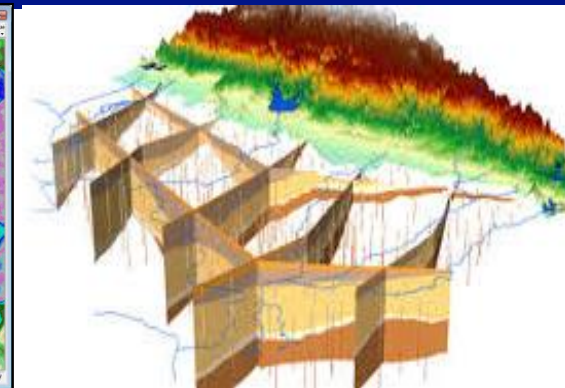
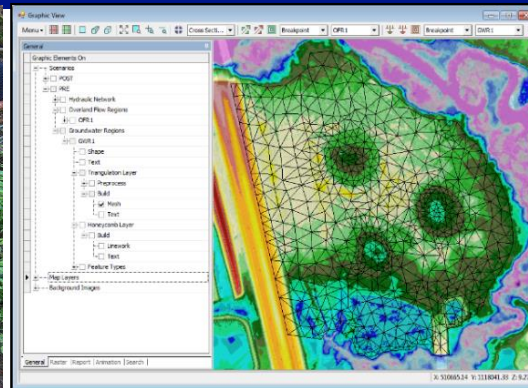
Key components of NorthStar's services for this project include:

- *Project Management*
- *Construction Inspection*
- *Communication*
- *Pay Application Review*
- *Quality Control*
- *Project Documentation*
- *Material Testing*
- *Land Surveying*
- *Technical Review*
- *Project Coordination*

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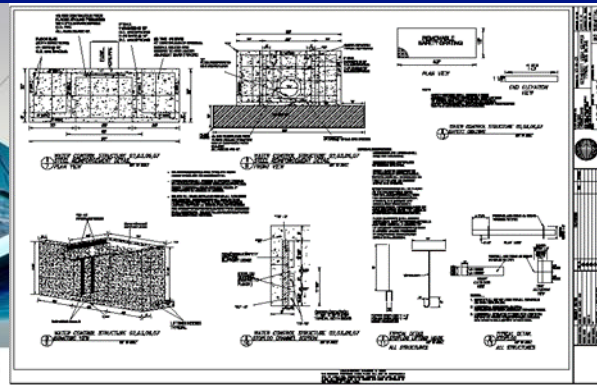
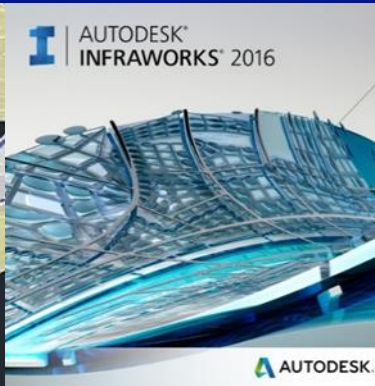
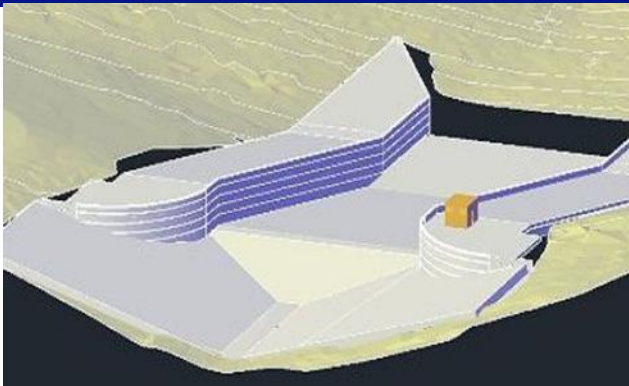
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Geographic Information Systems

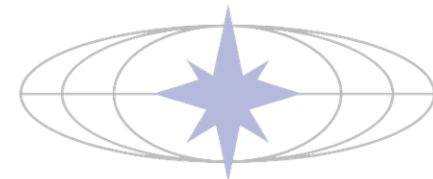
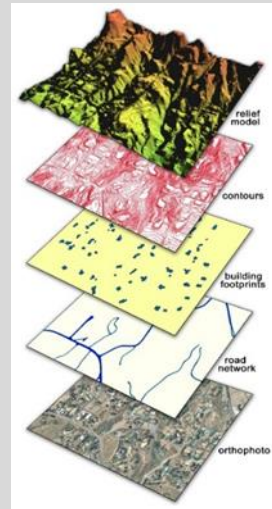
- Experts in the use of the ESRI products
 - ArcGIS desktop and mobile suites
 - Adhere to SWFWMD data standards
- Data Analysis and Modeling
 - Spatial, Geostatistical and 3D Analysis
 - Hydrologic Modeling (ArcHydro, ICPR)
- Data Representation and Mapping
 - 3D & 2D Visualizations
 - LiDAR derivatives (DEM, DTM, etc.)
 - Remote Sensing Applications & Processing (ERDAS)
- Custom Programming & Web-Mapping Applications
- Mapping and Survey-grade GPS Capabilities
 - Custom field data acquisition in native GIS environment

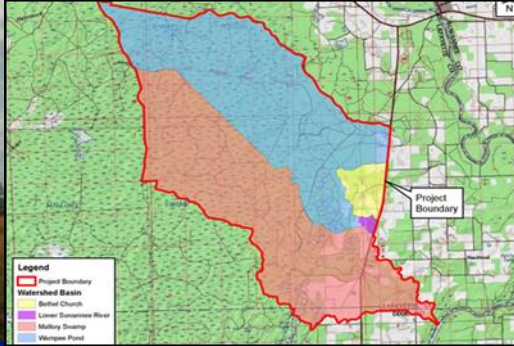
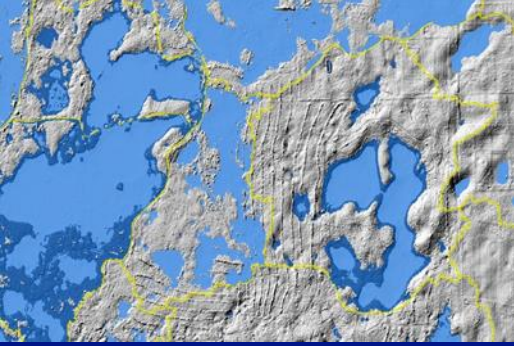




CAD Capabilities

- NorthStar currently employs AutoDesk's 2016 InfraWorks Design Suite for all engineering design
 - AutoCAD
 - AutoCAD Civil 3D
 - AutoCAD Map 3D
 - AutoDesk Storm and Sanitary Analysis
 - AutoDesk Revit Structure
- All designs and drawings produced will adhere to SWFWMD design standards and formats





Mallory Swamp



CLIENT	Suwannee River Water Management District
LOCATION	Lafayette County, Florida
VALUE	\$48,000
DATE	April 2014 - October 2014
SAFETY	Zero OSHA Recordables

NorthStar prepared a series of surface water model simulations that cover the 30,000+ acre Mallory Swamp area for the Suwannee River Water Management District. This project was the latest in a series of task orders requested by the SRWMD that began in 2010 with a conceptual hydrology restoration plan and baseline assessment. Both Geographic Information Systems (GIS) and the Interconnected Channel and Pond Routing (ICPR) Hydrologic-Hydraulic model platforms were utilized to prepare and conduct the simulations. The primary goals of the surface water model project are to maintain and enhance spring flows to Middle Suwannee River springs; rehydrate natural systems and augment groundwater supplies in the Project area by Modeling predicted inundation during various rainfall events.

Key components of NorthStar’s services for this project include:

- *Hydrology Assessment & Restoration*
- *Hydrologic & Hydraulic Modeling*
- *Data Review and Compilation*
- *LiDAR & 3D Digital Elevation Models*
- *GIS Analysis, Modeling & Mapping*
- *Custom Programming (Python)*

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Summary

- More than 25 years of experience in engineering/consulting services
- Exceptional safety record
- Local Presence
- Current Southwest Florida Water Management District Vendor
- NorthStar will provide value to Southwest Florida Water Management District through:
 - Capabilities: Design Build Capability/Diverse Services
 - Pricing: Distinctive Value in Rates
 - Safety: Industry Leading Safety
 - Quality: Proven Track Record on Water Resource Projects
 - Service: Responsiveness and Efficiency