



Three-Year Work Plan FY2015-FY2017

Mapping & Geographic Information System (MGIS) & Land Survey Group



Legend

- | | | |
|---------------------|--------------------------------------|--|
| Water Bodies | Water Management Districts | City Population* |
| Major Hydrography | Salt Flats | 10,000 or less |
| Transboundary Lines | St. Johns River | 10,001 - 50,000 |
| County Boundaries | Silvercreek River | 50,001 - 100,000 |
| SWFWMD Boundaries | Southwest Florida | More Than 100,000 |
| Interstate Highways | SWFWMD Offices | <small>*Source: US Census Bureau, 2000</small> |
| Toll Highways | Water Management District Boundaries | |
| Federal/State Roads | | |

Mapping & GIS

Overview

Mapping and GIS supports a wide range of initiatives, programs and projects at the District in support of the four goals which form the District's core mission: water supply, water quality, natural systems and flood protection. The District is implementing a wide array of programs and projects to meet these four goals. These activities are grouped under ten Strategic Initiatives:

- Regional Water Supply Planning
- Alternative Water Supplies
- Reclaimed Water
- Conservation
- Water Quality Assessment and Planning
- Water Quality Maintenance and Improvement
- Minimum Flows and Levels Establishment and Recovery
- Natural Systems Conservation and Restoration
- Floodplain Management
- Emergency Flood Response

This three-year work plan is a planning document to be used as a guide for allocating staff resources and developing budgets to support the strategic initiatives, regional priorities and core business process identified in the District's Strategic Plan.

Long-term operational and short-term contracted projects are detailed in the MGIS FY2015-17 Work Plan - <L:\Mapping-GIS\Three-Year Work Plans\MGIS FY2015-17 Work Plan.xlsx>. The long-term operational and short-term contracted projects that have been identified for the three year planning period are described below.

FY2015 Long-Term Operational

B219 - Land Use/Land Cover Mapping	District wide LULC mapping using the 2014 orthoimagery.
P289 - Central Florida Water Initiative Support	GIS support for the CFWI which involves coordination between the St. Johns River and South Florida water management districts, the Florida Department of Environmental Protection and Department of Agriculture and Consumer Services, public water supply utilities, and the District on the assessment of groundwater sustainability and development of water supply solutions, including regulation, for the CFWI area.
P394 - IT Support & Maintenance - WMIS	GIS support for Water Management Information System development.
P466 - Planning - Dev 2010-2030 District Regional Water Supply Plan	GIS support for a District-wide water supply assessment (in accordance with Chapter 373, Florida statutes) that describes water demands and identifies sources of water available over a 20-year planning horizon.
P621 - Resource Regulation Support	Resource Regulation GIS Support involves the editing, management, publication and analysis of spatial data supporting Water Use (WUP), Environmental Resource (ERP) and Well Construction Permitting (WCP) activities. Support is also provided for WMIS and EPermitting.
P890 - Public Supply Utility Service Area Layer Maintenance	Maintenance of District-wide GIS Public Supply Service Area layer which consists of boundaries that represent retail water utility service areas. By rule, the service areas must be maintained for calculating population and demand projections for water supply planning purposes.
S099 - Save Our Rivers (SOR) Land Management and Use	GIS support for land management and land use project and activities.
D999 - FDOT Mitigation Support	GIS support for FDOT Mitigation Program which requires the District to implement mitigation projects for FDOT wetland impacts
B696 - GIS Support	This project provides administrative and management support for Mapping and GIS (MGIS) and Survey. This is a continuing initiative with the goal of providing Geographic Information System (GIS), aerial photo interpretation and photogrammetric mapping services to support Governing Board activities. GIS support includes the input, management, analysis and distribution of spatial data, the design and implementation of databases, software training and map production.
ArcGIS Online Management and Map and Application Development	AGO provides a COTS solution for developing, publishing and managing web maps
<ul style="list-style-type: none"> ArcGIS Server Administration and Management 	ArcGIS Server includes development, maintenance, management and publication of map and spatial web services; development, maintenance, and management of enterprise geodatabases and imagery including ETL processes.
<ul style="list-style-type: none"> Data Distribution 	Distribution of digital data sets (LiDAR and derived elevation data, imagery, and shapefiles) primarily to consultants and local governments.
<ul style="list-style-type: none"> GIS Help Desk 	Support for all ArcGIS users including Citrix support and Wiki page maintenance
<ul style="list-style-type: none"> GPS Support/Training 	Support for resource grade GPS including District-developed training
<ul style="list-style-type: none"> GIS Training 	Customized ArcGIS training
<ul style="list-style-type: none"> LP360 support/training 	User support for LP360 extension and District-developed training
<ul style="list-style-type: none"> ArcWAM support/training 	User support for ArcWAM and District-developed training

<ul style="list-style-type: none"> • Work Request System maintenance and reporting 	Manage GIS Work Request system, maintenance and reporting of metrics
<ul style="list-style-type: none"> • ArcGIS Facilities Management project (new in FY2015) 	Project to capture all District facilities and structures in ArcGIS to facilitate management and publication of data in coordination with GSB and OPS.
<ul style="list-style-type: none"> • GIS Metadata QC and Conversion Project 	Review of all metadata to ensure it meets current standards. Conversion of metadata from current FGDC standard to new ISO standard.
<ul style="list-style-type: none"> • SOP Maintenance 	Annual review of MGIS SOPs.
<ul style="list-style-type: none"> • License Agreement Geodatabase Development and Maintenance 	Development of license agreement geodatabase and ongoing maintenance
<ul style="list-style-type: none"> • MFL Support 	Updates to MFL layers in enterprise geodatabase
<ul style="list-style-type: none"> • High Water Mark Database support 	Update high water mark database as required
<ul style="list-style-type: none"> • Reclaimed Water Support 	Update to reclaimed water GIS layers and service ad hoc map and data requests
<ul style="list-style-type: none"> • NHD Map Updates 	Update of National Hydrologic Dataset features maintained by the District.
<ul style="list-style-type: none"> • Lake Hancock Litigation 	Expert witness support for Lake Hancock litigation.
<ul style="list-style-type: none"> • B696 - GIS Support - other 	Ad hoc map requests, modeling and analysis, etc.
<ul style="list-style-type: none"> • P283 - Professional Engineering and Scientific Services 	Public meeting support. GIS support includes support of MGIS-developed program to generate mailing lists, map production for public meetings, open house assistance, and post-meeting requests for maps. Thirteen meetings are scheduled for FY2015.
<ul style="list-style-type: none"> • B314 - Upper Peace River - Homeland 	
<ul style="list-style-type: none"> • N367 - WMPlan West Marion Watersheds 	
<ul style="list-style-type: none"> • N414 - WMP - Town of Bronson WMP 	
<ul style="list-style-type: none"> • N290/N313 - WMPlan Lk Stafford East/Priest Prairie 	
<ul style="list-style-type: none"> • P324 - WMPlan Peck Sink 	
<ul style="list-style-type: none"> • N441 - WMPlan Bushnell 	
<ul style="list-style-type: none"> • N487 - WMPlan Jumper Creek 	
<ul style="list-style-type: none"> • L737 - WMPlan Duck Lake Watershed 	
<ul style="list-style-type: none"> • L841 - WMPlan Double Hammock Creek 	
<ul style="list-style-type: none"> • L842 - WMPlan Lower Coastal 	
<ul style="list-style-type: none"> • H066 - Withlacoochee Rvr Wtrshed Initiative 	
<ul style="list-style-type: none"> • L738 - Pithlachascotee-Anclote WMP 	
<ul style="list-style-type: none"> • B305/K751 - Squirrel Prairie WMP 	

FY2015 Short-Term Contracted

P081/H008 - Peace River LiDAR Mapping	B081 - LiDAR mapping support for project to re-evaluate minimum flows and levels for the Lower Peace River. H008 - LiDAR mapping support for Lake Hancock Lake Level Modification Project which is part of the proposed strategy for achieving minimum flows and levels recovery for the upper Peace River established by the District.
N588 - Alafia River Watershed LiDAR Mapping	LiDAR mapping support for Alafia River Watershed Management Plan (WMP) and model update, floodplain delineation and Best Management Practices (BMP) alternative analysis.
N590 - City of Williston WMP LiDAR Mapping	LiDAR mapping support for completion of watershed management plan for the Williston Watershed in Levy County.
N619 - Mill Creek Watershed WMP LiDAR Mapping	LiDAR mapping support to complete a Watershed Management Plan (WMP), through and including floodplain analysis, for the Mill Creek Watershed in Manatee County.
B017 - SWIM - Springs Coast	This District initiative involves the mapping and monitoring of the expansive Springs Coast seagrass area from Tarpon Springs to Waccasassa Bay and out over 20 miles offshore.
W331 - SWIM - Tampa Bay, Sarasota Bay, and Charlotte Harbor	This SWIM initiative project involves mapping and monitoring seagrass within three SWIM priority waterbodies: Tampa Bay, Sarasota Bay, and Charlotte Harbor (including Lemon Bay).
W350 - SWIM - Tampa Bay hard bottom mapping	GIS support for development of a comprehensive inventory and map product of Tampa Bay estuarine hard bottom (including oyster), an essential fish habitat. Successful completion of a bay-wide comprehensive geographic information systems (GIS) survey will require several phases of mapping and an integrated approach using side scan sonar, aerial and LIDAR interpretation.
Z692 - Parcel Data Updates	Project management and publication of quarterly updates of county parcel data compiled under contract by consultant. FY2015 funding in 6920/Z692/5401 (Books, Subscriptions and Data). Will be moved to project P610 under 6960 consulting services in FY2016.
B125 - Watershed Modeling Database	This project uses consultant services to enhance the Geographic Watershed Information System (GWIS) to improve the efficiency of exchanging data and model updates between the District and Watershed Management Program contractors, and the publication of watershed data to the public through web mapping applications.
M009 - Five WMDs Regulatory Web Portal Contract	FY2015 funding provides for ongoing maintenance of the Web Permitting Portal hosted by St. Johns River Water Management District (SJRWMD). Each year, Florida's five Water Management Districts (WMDs) and the Department of Environmental Protection (DEP) combine efforts to offer one Web Permitting Portal for consistent publishing of permit information across the State.

P910 - Planning - Utility Population Estimation Model & Demographic Analysis	Project management for and implementation of consultant developed GIS-based model used for allocating county-level, functionalized BEBR population projections to areas of interest to the District, such as utility service areas, water supply planning areas, counties split by the District boundaries, watersheds, and Water Use Caution Areas (WUCAs).
P696 - ArcWAM Model Maintenance	Maintenance to keep software and models current with latest version of ArcGIS software.

FY2016 Long-Term Operational

B219 - Land Use/Land Cover Mapping	Complete District wide LULC mapping using the 2014 orthoimagery and back-edits on historic LULC.
P289 - Central Florida Water Initiative	GIS support for the CFWI which involves coordination between the St. Johns River and South Florida water management districts, the Florida Department of Environmental Protection and Department of Agriculture and Consumer Services, public water supply utilities, and the District on the assessment of groundwater sustainability and development of water supply solutions, including regulation, for the CFWI area.
P394 - IT Support & Maintenance - WMIS	GIS support for Water Management Information System development.
P466 - Planning - Dev 2010-2030 District Regional Water Supply Plan	GIS support for a District-wide water supply assessment (in accordance with Chapter 373, Florida statutes) that describes water demands and identifies sources of water available over a 20-year planning horizon.
P621 - Resource Regulation Support	Resource Regulation GIS Support involves the editing, management, publication and analysis of spatial data supporting Water Use (WUP), Environmental Resource (ERP) and Well Construction Permitting (WCP) activities. Support is also provided for WMIS and EPermitting.
P890 - Public Supply Utility Service Area Layer Maintenance	Maintenance of District-wide GIS Public Supply Service Area layer which consists of boundaries that represent retail water utility service areas. By rule, the service areas must be maintained for calculating population and demand projections for water supply planning purposes.
S099 - Save Our Rivers (SOR) Land Management and Use	GIS support for land management and land use project and activities.
D999 - FDOT Mitigation Support	GIS support for FDOT Mitigation Program which requires the District to implement mitigation projects for FDOT wetland impacts
P283 - Professional Engineering and Scientific Services	Public meeting support. GIS support includes support of MGIS-developed program to generate mailing lists, map production for public meetings, open house assistance, and post-meeting requests for maps. There are twelve public meetings anticipated in FY2016
B696 - GIS Support - Total	This project provides administrative and management support for Mapping and GIS (MGIS) and Survey. This is a continuing initiative with the goal of providing Geographic Information System (GIS), aerial photo interpretation and photogrammetric mapping services to support Governing Board activities. GIS support includes the input, management, analysis and distribution of spatial data, the design and implementation of databases, software training and map production.
<ul style="list-style-type: none"> ArcGIS Online Management and Map and Application Development 	AGO provides a COTS solution for developing, publishing and managing web maps
<ul style="list-style-type: none"> ArcGIS Server Administration and Management 	ArcGIS Server includes development, maintenance, management and publication of map and spatial web services; development, maintenance, and management of enterprise geodatabases and imagery including ETL processes.

<ul style="list-style-type: none"> Data Distribution 	Distribution of digital data sets (LiDAR and derived elevation data, imagery, and Shapefiles) primarily to consultants and local governments.
<ul style="list-style-type: none"> GIS Data Download system upgrade project (new in FY2016) 	Modernize processes for selecting downloading data. Review and update download packages.
<ul style="list-style-type: none"> GIS Help Desk 	Support for all ArcGIS users including Citrix support and Wiki page maintenance
<ul style="list-style-type: none"> GPS Support/Training 	Support for resource grade GPS including District-developed training
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<ul style="list-style-type: none"> SOP Maintenance 	Annual review of MGIS SOPs.
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<ul style="list-style-type: none"> NHD Map Updates 	Update of National Hydrologic Dataset features maintained by the District.
B696 - GIS Support - other	Ad hoc map requests, modeling and analysis, etc.

FY2016 Short-Term Contracted

Peace Creek Watershed LiDAR Mapping	LiDAR mapping support for Peace Creek Watershed Management Plan (WMP). Funding is in the WRB budget.
Braden River Watershed LiDAR Mapping	LiDAR mapping support for Braden River Watershed Management Plan (WMP). Funding is in the WRB budget.
B017 - SWIM - Springs Coast (Imagery acquisition) Support	This District initiative involves the mapping and monitoring of the expansive Springs Coast seagrass area from Tarpon Springs to Waccasassa Bay and out over 20 miles offshore. Funding is in the NSR budget.
W331 - SWIM - Tampa Bay, Sarasota Bay, and Charlotte Harbor (Imagery acquisition) Support	This SWIM initiative project involves mapping and monitoring seagrass within three SWIM priority waterbodies: Tampa Bay, Sarasota Bay, and Charlotte Harbor (including Lemon Bay). Funding is in the NSR budget.
W350 - SWIM - Tampa Bay hard bottom mapping	GIS support for development of a comprehensive inventory and map product of Tampa Bay estuarine hard bottom (including oyster), an essential fish habitat. Successful completion of a bay-wide comprehensive geographic information systems (GIS) survey will require several phases of mapping and an integrated approach using side scan sonar, aerial and LIDAR interpretation. Funding is in the NSR budget.
B125 - Watershed Modeling Database	This project uses consultant services to enhance the Geographic Watershed Information System (GWIS) to improve the efficiency of exchanging data and model updates between the District and Watershed Management Program contractors, and the publication of watershed data to the public through web mapping applications.
M009 - Five WMDs Regulatory Web Portal Contract	FY2016 funding provides for ongoing maintenance of the Web Permitting Portal hosted by St. Johns River Water Management District (SJRWMD). Each year, Florida's five Water Management Districts (WMDs) and the Department of Environmental Protection (DEP) combine efforts to offer one Web Permitting Portal for consistent publishing of permit information across the State
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P610 - Parcel Data Updates	Project management and publication of quarterly updates of county parcel data compiled under contract by consultant.
P696 - ArcWAM Model Maintenance	Maintenance to keep software and models current with latest version of ArcGIS software.

FY2017 Long-Term Operational

B219 - Land Use/Land Cover Mapping	Back edits on historic LULC layers and begin District wide LULC mapping using the 2017 orthoimagery.
P289 - Central Florida Water Initiative Support	GIS support for the CFWI which involves coordination between the St. Johns River and South Florida water management districts, the Florida Department of Environmental Protection and Department of Agriculture and Consumer Services, public water supply utilities, and the District on the assessment of groundwater sustainability and development of water supply solutions, including regulation, for the CFWI area.
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P466 - Planning - Dev 2010-2030 District Regional Water Supply Plan	GIS support for a District-wide water supply assessment (in accordance with Chapter 373, Florida statutes) that describes water demands and identifies sources of water available over a 20-year planning horizon.
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S099 - Save Our Rivers (SOR) Land Management and Use	GIS support for land management and land use project and activities.
D999 - FDOT Mitigation Support	GIS support for FDOT Mitigation Program which requires the District to implement mitigation projects for FDOT wetland impacts
P283 - Professional Engineering and Scientific Services	Public meeting support. GIS support includes support of MGIS-developed program to generate mailing lists, map production for public meetings, open house assistance, and post-meeting requests for maps. There are twelve public meetings anticipated for FY2017.
B696 - GIS Support	This project provides administrative and management support for Mapping and GIS (MGIS) and Survey. This is a continuing initiative with the goal of providing Geographic Information System (GIS), aerial photo interpretation and photogrammetric mapping services to support Governing Board activities. GIS support includes the input, management, analysis and distribution of spatial data, the design and implementation of databases, software training and map production.
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<ul style="list-style-type: none"> • Work Request System maintenance and reporting 	Manage GIS Work Request system, maintenance and reporting of metrics
<ul style="list-style-type: none"> • ArcGIS Facilities Management maintenance 	Project to capture all District facilities and structures in ArcGIS to facilitate management and publication of data in coordination with GSB and OPS.
<ul style="list-style-type: none"> • SOP Maintenance 	Annual review of MGIS SOPs.
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<ul style="list-style-type: none"> • MFL Support 	Updates to MFL layers in enterprise geodatabase
<ul style="list-style-type: none"> • High Water Mark Database support 	Update high water mark database as required
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<ul style="list-style-type: none"> • NHD Map Updates 	Update of National Hydrologic Dataset features maintained by the District.
<ul style="list-style-type: none"> • B696 - GIS Support - other 	Ad hoc map requests, modeling and analysis, etc.

FY2017 Short-Term Contracted

Marion County Watershed WMP	LiDAR mapping support for Watershed Management Plan (WMP) and model update. Funding is in the WRB budget.
Marion County Watershed WMP	LiDAR mapping support for Watershed Management Plan (WMP) and model update. Funding is in the WRB budget.
Chassahowitzka River WMP	LiDAR mapping support for completion of watershed management plan for the Chassahowitzka River. Funding is in the WRB budget.
B017 - SWIM - Springs Coast	This District initiative involves the mapping and monitoring of the expansive Springs Coast seagrass area from Tarpon Springs to Waccasassa Bay and out over 20 miles offshore. Funding is in the NSR budget.
W331 - SWIM - Tampa Bay, Sarasota Bay, and Charlotte Harbor	This SWIM initiative project involves mapping and monitoring seagrass within three SWIM priority waterbodies: Tampa Bay, Sarasota Bay, and Charlotte Harbor (including Lemon Bay). Funding is in the NSR budget.
B125 - Watershed Modeling Database	This project uses consultant services to enhance the Geographic Watershed Information System (GWIS) to improve the efficiency of exchanging data and model updates between the District and Watershed Management Program contractors, and the publication of watershed data to the public through web mapping applications. Consulting services (\$100,000) will move to the WRB budget in FY2017.
B089 - Aerial Orthophoto Mapping	District-wide acquisition of digital orthoimagery which is used in support of all of the District's Strategic Initiatives and Regional Priorities.
P910 - Planning - Utility Population Estimation Model & Demographic Analysis	Project management for and implementation of consultant developed GIS-based model used for allocating county-level, functionalized BEBR population projections to areas of interest to the District, such as utility service areas, water supply planning areas, counties split by the District boundaries, watersheds, and Water Use Caution Areas (WUCAs).
M009 - Five WMDs Regulatory Web Portal Contract	FY2017 funding provides for ongoing maintenance of the Web Permitting Portal hosted by St. Johns River Water Management District (SJRWMD). Each year, Florida's five Water Management Districts (WMDs) and the Department of Environmental Protection (DEP) combine efforts to offer one Web Permitting Portal for consistent publishing of permit information across the State.
P610 - Parcel Data Updates	Project management and publication of quarterly updates of county parcel data compiled under contract by consultant.
P696 - ArcWAM Model Maintenance	Maintenance to keep software and models current with latest version of ArcGIS software.

SWIM - W350 - Tampa Bay hard bottom mapping	GIS support for development of a comprehensive inventory and map product of Tampa Bay estuarine hard bottom (including oyster), an essential fish habitat. Successful completion of a bay-wide comprehensive geographic information systems (GIS) survey will require several phases of mapping and an integrated approach using side scan sonar, aerial and LIDAR interpretation.	Water Quality Maintenance and Improvement, Natural Systems Conservation and Restoration	160										
Lake Hancock Litigation	Expert witness support for Lake Hancock litigation.	Water Quality Maintenance and Improvement, Natural Systems Conservation and Restoration	80										
NHD Map Updates	Update of National Hydrologic Dataset features maintained by the District.							80					
Parcel Data Updates	Project management and publication of quarterly updates of county parcel data compiled under contract by consultant. Current funding in 6920/Z692/5401 (Books, Subscriptions and Data). Will be moved to project P610 under 6960 consulting services in FY2016.	All						560		560			\$21,000
B696 - GIS Support - other (ad hoc map requests, modeling and analysis, etc.)		All	352			1374	268	1336		3330			
P283 - Professional Engineering and Scientific Services	Public meeting support. GIS support includes support of MGIS-developed program to generate mailing lists, map production for public meetings, open house assistance, and post-meeting requests for maps. Thirteen meetings are scheduled for FY2015.	Floodplain Management				84			520	604			\$11,977
B314 - Upper Peace River - Homeland													
N367 - WMPlan West Marion Watersheds													
N414 - WMP - Town of Bronson WMP													
N290/N313 - WMPlan Lk Stafford East/Priest Prairie													
P324 - WMPlan Peck Sink													
N441 - WMPlan Bushnell													
N487 - WMPlan Jumper Creek													
L737 - WMPlan Duck Lake Watershed													
L841 - WMPlan Double Hammock Creek													
L842 - WMPlan Lower Coastal													
H066 - Withlacoochee Rvr Wtrshed Initiative													
L738 - Pithlachascotee-Anclote WMP													
B305/K751 - Squirrel Prairie WMP													
TOTALS			2080		2080	2080	6240	2080	4160	4160	22880	\$663,336	\$246,000
CHECKS			2080		2080	2080	6240	2080	4160	4160	22880		

Short-term contracted

FY2016

PROJECT/TASK	DESCRIPTION	STRATEGIC INITIATIVES SUPPORTED	Senior GIS Scientist	GIS Database and Server Administrator	GIS Database and Server Analyst	Senior GIS Analyst (3)	GIS Team Lead	Staff GIS Analyst (2)	GIS Analyst (2)	TOTAL HOURS	SALARIES	CONSULTANT SERVICES
B125 - WMP			1248			350		350		1948	\$60,337	\$100,000
B125 - Watershed Modeling Database	This project uses consultant services to enhance the Geographic Watershed Information System (GWIS) to improve the efficiency of exchanging data and model updates between the District and Watershed Management Program contractors, and the publication of watershed data to the public through web mapping applications.	Floodplain Management	808									
Peace Creek Watershed LiDAR Mapping	LiDAR mapping support for Peace Creek Watershed Management Plan (WMP)	Floodplain Management	200			150		150		500		
Braden River Watershed LiDAR Mapping	LiDAR mapping support for Braden River Watershed Management Plan (WMP)	Floodplain Management	240			200		200		640		
B219 - Land Use/Land Cover Mapping	Complete District wide LULC mapping using the 2014 orthoimagery and back-edits on historic LULC.	All				600		1200		1800	\$45,986	
M009 - Five WMDs Regulatory Web Portal Contract	FY2016 funding provides for ongoing maintenance of the Web Permitting Portal hosted by St. Johns River Water Management District (SJRWMD). Each year, Florida's five Water Management Districts (WMDs) and the Department of Environmental Protection (DEP) combine efforts to offer one Web Permitting Portal for consistent publishing of permit information across the State.	Regional Water Supply Planning		83	83					166	\$4,612	\$5,000
P289 - Central Florida Water Initiative	GIS support for the CFWI which involves coordination between the St. Johns River and South Florida water management districts, the Florida Department of Environmental Protection and Department of Agriculture and Consumer Services, public water supply utilities, and the District on the assessment of groundwater sustainability and development of water supply solutions, including regulation, for the CFWI area.	Regional Water Supply Planning				478				478	\$12,440	
P394 - IT Support & Maint - Water Mgmt Information System	GIS support for Water Management Information System development	Regional Water Supply Planning		437	437					874	\$24,211	
P466 - Planning - Dev 2010-2030 District Reg Wtr Sply Pln	GIS support for a District-wide water supply assessment (in accordance with Chapter 373, Florida statutes) that describes water demands and identifies sources of water available over a 20-year planning horizon.	Regional Water Supply Planning				229				229	\$5,910	
P621 - Resource Regulation Support	Resource Regulation GIS Support involves the editing, management, publication and analysis of spatial data supporting Water Use (WUP), Environmental Resource (ERP) and Well Construction Permitting (WCP) activities. Support is also provided for WMIS and EPermitting.	Regional Water Supply Planning			104		1248		2808	4160	\$85,986	
P890 - Public Supply Utility Service Area Layer Maintenance	Maintenance of District-wide GIS Public Supply Service Area layer which consists of boundaries that represent retail water utility service areas. By rule, the service areas must be maintained for calculating population and demand projections for water supply planning purposes.	Regional Water Supply Planning				125				125	\$3,224	
P910 - Planning - Utility Population Estimation Model & Demogr	Project management for and implementation of consultant developed GIS-based model used for allocating county-level, functionalized BEBR population projections to areas of interest to the District, such as utility service areas, water supply planning areas, counties split by the District boundaries, watersheds, and Water Use Caution Areas (WUCAs).	Regional Water Supply Planning				374				374	\$9,671	\$115,000
S099 - Save Our Rivers (SOR) Land Management and Use	GIS support for land management and land use project and activities	Natural Systems Conservation and Restoration				1456				1456	\$41,117	
D999 - FDOT Mitigation Support	GIS support for FDOT Mitigation Program which requires the District to implement mitigation	Natural Systems Conservation and Restoration					104		104		\$4,485	
P610 - Parcel Data Updates	Project management and publication of quarterly updates of county parcel data compiled under contract by consultant. \$2,000 increase for consulting services over FY2015 funding.	All						560		560	\$13,423	\$23,000
B696 - GIS Support - Total	This project provides administrative and management support for Mapping and GIS (MGIS) and Survey. This is a continuing initiative with the goal of providing Geographic Information System (GIS), aerial photo interpretation and photogrammetric mapping services to support Governing Board activities. GIS support includes the input, management, analysis and distribution of spatial data, the design and implementation of databases, software training and map production.		832	1560	1456	2544	728	2050	728	9898	\$339,957	
ArcGIS Online Management and Map and Application Development	AGO provides a COTS solution for developing, publishing and managing web map	All		800	920					1720		
ArcGIS Server Administration and Management	ArcGIS Server includes development, maintenance, management and publication of map and spatial web services; development, maintenance, and management of enterprise geodatabases and imagery including ETL processes	All		760	536					1296		
Data Distribution	Distribution of digital data sets (LiDAR and derived elevation data, imagery, and Shapefiles) primarily to consultants and local governments	All							300	300		
GIS Data Download system upgrade project	Update download packages and modernize processes for selecting downloadable data	All				160		160				
GIS Help Desk	Support for all ArcGIS users including Citrix support and Wiki page maintenance	All					260	260	408	928		
GPS Support/Training	Support for resource grade GPS including District-developed training	All						80		80		
GIS Training	Customized ArcGIS training	All							20	60		
LP360 support/training	User support for LP360 extension and District-developed training	All	40			40		40		120		
ArcWAM Updates, support, training	User support for ArcWAM and District-developed training. \$5,000 in consulting services for model and software upgrades.	Water Quality Assessment and Planning, Water Quality Maintenance and Improvement, Floodplain Management	40			40				80	\$5,000	
Work Request System maintenance and reporting	Manage GIS Work Request system, maintenance and reporting of metrics	All				40				40		
ArcGIS Facilities Management maintenance	Project to capture all District facilities and structures in ArcGIS to facilitate management and publication of data in coordination with GSB and OPS						40					
SOP Maintenance	Annual review of MGIS SOPs.	All				144				144		
License Agreement Geodatabase Maintenance	Development of license agreement geodatabase and ongoing maintenance	All				40						
MFL Support	Updates to MFL layers in enterprise geodatabase	Minimum Flows and Levels Establishment and Recovery				80				80		
High Water Mark Database support	Update high water mark database as required	Floodplain Management						40				
Reclaimed Water Support	Update to reclaimed water GIS layers and service ad hoc map and data request	Reclaimed Water						100				
SWIM - B017 - Springs Coast (Imagery acquisition)	This District initiative involves the mapping and monitoring of the expansive Springs Coast seagrass area from Tarpon Springs to Waccasassa Bay and out over 20 miles offshore.	Water Quality Maintenance and Improvement, Natural Systems Conservation and Restoration	80									
SWIM - W331 (Imagery acquisition)	This SWIM initiative project involves mapping and monitoring seagrass within three SWIM priority waterbodies: Tampa Bay, Sarasota Bay, and Charlotte Harbor (including Lemon Bay).	Water Quality Maintenance and Improvement, Natural Systems Conservation and Restoration	80									
SWIM - W350 - Tampa Bay hard bottom mapping	GIS support for development of a comprehensive inventory and map product of Tampa Bay estuarine hard bottom (including oyster), an essential fish habitat. Successful completion of a bay-wide comprehensive geographic information systems (GIS) survey will require several phases of mapping and an integrated approach using side scan sonar, aerial and LiDAR interpretation.	Water Quality Maintenance and Improvement, Natural Systems Conservation and Restoration	160									
Lake Hancock Litigation	Expert witness support for Lake Hancock litigation.	Water Quality Maintenance and Improvement, Natural Systems Conservation and Restoration	80									
NHD Map Updates	Update of National Hydrologic Dataset features maintained by the District	All						80				

B696 - GIS Support - other (ad hoc map requests, modeling and analysis, etc.)		All	352			2160	388	1450		4350		
P283 - Professional Engineering and Scientific Services	Public meeting support. GIS support includes support of MGIS-developed program to generate mailing lists, map production for public meetings, open house assistance, and post-meeting requests for maps. Twelve meetings are anticipated for FY2016	Floodplain Management				84			520	604	\$11,977	
TOTALS			2080	2080	2080	6240	2080	4160	4160	22880	\$663,336	\$248,000
CHECKS			2080	2080	2080	6240	2080	4160	4160	22880		

Short-term contracted

FY2017												
PROJECT/TASK	DESCRIPTION	STRATEGIC INITIATIVES SUPPORTED	Senior GIS Scientist	GIS Database and Server Administrator	GIS Database and Server Analyst	Senior GIS Analyst (3 FTEs)	GIS Team Lead	Staff GIS Analyst (2 FTEs)	GIS Analyst (2 FTEs)	TOTAL HOURS	SALARIES	CONSULTANT SERVICES
B125 - WMP	Consulting services (\$100,000) will move to the WRB budget in FY2017.		1248			480		420		2148	\$65,889	
B125 - Watershed Modeling Database	This project uses consultant services to enhance the Geographic Watershed Information System (GWIS) to improve the efficiency of exchanging data and model updates between	Floodplain Management	1008									
Marion County Watershed WMP	LiDAR mapping support for Watershed Management Plan (WMP) and model update	Floodplain Management	80			160		140		380		
Marion County Watershed WMP	LiDAR mapping support for Watershed Management Plan (WMP) and model update	Floodplain Management	80			160		140		380		
Chassahowitzka River WMP	LiDAR mapping support for completion of watershed management plan for the	Floodplain Management	80			160		140		380		
B219 - Land Use/Land Cover Mapping	Back edit son historic LULC layers and begin District wide LULC mapping using the 2017 FY2017 funding provides for ongoing maintenance of the Web Permitting Portal hosted by	All				400		800		1200	\$30,657	
M009 - Five WMDs Regulatory Web Portal Contract	St. Johns River Water Management District (SJRWMD). Each year, Florida's five Water Management Districts (WMDs) and the Department of Environmental Protection (DEP)	Regional Water Supply Planning		83	83					166	\$4,612	\$5,000
P289 - Central Florida Initiative	GIS support for the CFWI which involves coordination between the St. Johns River and South Florida water management districts, the Florida Department of Environmental Protection and Department of Agriculture and Consumer Services, public water supply	Regional Water Supply Planning				478				478	\$12,440	
P394 - IT Support & Maint - Water Mgmt Information System	GIS support for Water Management Information System development.	Regional Water Supply Planning		437	437					874	\$24,211	
P466 - Planning - Dev 2010-2030 District Reg Wtr Sply Pln	GIS support for a District-wide water supply assessment (in accordance with Chapter 373, Florida statutes) that describes water demands and identifies sources of water available	Regional Water Supply Planning				229				229	\$5,910	
P621 - Resource Regulation Support	Resource Regulation GIS Support involves the editing, management, publication and analysis of spatial data supporting Water Use (WUP), Environmental Resource (ERP) and	Regional Water Supply Planning			104		1248	2808		4160	\$85,986	
P890 - Public Supply Utility Service Area Layer Maintenance	Maintenance of District-wide GIS Public Supply Service Area layer which consists of boundaries that represent retail water utility service areas. By rule, the service areas mus	Regional Water Supply Planning				125				125	\$3,224	
P910 - Planning - Utility Population Estimation Model & Demog	Project management for and implementation of consultant developed GIS-based model used for allocating county-level, functionalized BEBR population projections to areas of interest to the District, such as utility service areas, water supply planning areas, countie	Regional Water Supply Planning				374				374	\$9,671	\$120,750
S099 - Save Our Rivers (SOR) Land Management and Use	GIS support for land management and land use project and activities.	Natural Systems Conservation and Restoration				1456				1456	\$41,117	
D999 - FDOT Mitigation Support	GIS support for FDOT Mitigation Program which requires the District to implement mitigati	Natural Systems Conservation and Restoration					104		104		\$4,485	
P610 - Parcel Data Updates	Project management and publication of quarterly updates of county parcel data compiled under contract by consultant. Consulting services includes 5% increase over FY2016.	All						560		560	\$13,423	\$24,150
B089 - Orthoimagery		All				720		1200		1920	\$48,460	\$500,000
B696 - GIS Support - Total	This project provides administrative and management support for Mapping and GIS (MGIS) and Survey. This is a continuing initiative with the goal of providing Geographic Information System (GIS), aerial photo interpretation and photogrammetric mappin		832	1560	1456	1894	728	1180	728	8378	\$301,274	
ArcGIS Online Management and Map and Application Deve	AGO provides a COTS solution for developing, publishing and managing web map	All		800	920					1720		
ArcGIS Server Administration and Management	ArcGIS Server includes development, maintenance, management and publication of map and spatial web services; development, maintenance, and management of enterprise	All		760	536					1296		
Data Distribution	Distribution of digital data sets (LiDAR and derived elevation data, imagery, and	All							300	300		
GIS Help Desk	Support for all ArcGIS users including Citrix support and Wiki page maintenanc	All					260	260	408	928		
GPS Support/Training	Support for resource grade GPS including District-developed training	All						80		80		
GIS Training	Customized ArcGIS training	All					40		20	60		
LP360 support/training	User support for LP360 extension and District-developed training	All	40			40		40		120		
ArcWAM Updates, support, training	User support for ArcWAM and District-developed training. \$5,000 in consulting services fo model and software upgrades.	Water Quality Assessment and Planning, Water Quality Maintenance and Improvement, Floodplain Management	40			40				80		\$5,000
Work Request System maintenance and reporting	Manage GIS Work Request system, maintenance and reporting of metric	All				40				40		
ArcGIS Facilities Management project	Project to capture all District facilities and structures in ArcGIS to facilitate managemen						160					
SOP Maintenance	Annual review of MGIS SOPs.	All				144				144		
License Agreement Geodatabase Maintenance	Development of license agreement geodatabase and ongoing maintenanc	All				40						
MFL Support	Updates to MFL layers in enterprise geodatabase	Minimum Flows and Levels Establishment and Recovery				80				80		
High Water Mark Database support	Update high water mark database as requirec	Floodplain Management						40				
Reclaimed Water Support	Update to reclaimed water GIS layers and service ad hoc map and data request	Reclaimed Water						100				
SWIM - B017 - Springs Coast	This District initiative involves the mapping and monitoring of the expansive Springs Coast seagrass area from Tarpon Springs to Waccasassa Bay and out over 20 miles offshore.	Water Quality Maintenance and Improvement, Natural Systems Conservation and Restoration	80									
SWIM - W331	This SWIM initiative project involves mapping and monitoring seagrass within three SWIM priority waterbodies: Tampa Bay, Sarasota Bay, and Charlotte Harbor (including Lemon Bay).	Water Quality Maintenance and Improvement, Natural Systems Conservation and Restoration	80									
NHD Map Updates	Update of National Hydrologic Dataset features maintained by the District	All						80				
B696 - GIS Support - other (ad hoc map requests, modeling and analysis, etc.)		All	352			1510	268	688		2818		
P283 - Professional Engineering and Scientific Services	Public meeting support. GIS support includes support of MGIS-developed program to generate mailing lists, map production for public meetings, open house assistance, and	Floodplain Management				84			520	604	\$11,977	
TOTALS			2080	2080	2080	6240	2080	4160	4160	22880	\$663,336	\$654,900
CHECKS			2080	2080	2080	6240	2080	4160	4160	22880		

Short-term contracted

Land Survey Group

Overview

The overall goal of the Mapping & GIS - Land Survey Group is to provide professional surveying & mapping services in support of the four general areas of responsibility which form the District's core mission: water supply, water quality, natural systems and flood protection.

The practice of professional surveying & mapping is regulated per Florida Statutes, Chapter 472: "Practice of surveying and mapping" means, among other things, any professional service or work, the adequate performance of which involves the application of special knowledge of the principles of mathematics, the related physical and applied sciences, and the relevant requirements of law for adequate evidence of the act of measuring, locating, establishing, or reestablishing lines, angles, elevations, natural and manmade features in the air, on the surface and immediate subsurface of the earth, within underground workings, and on the beds or surface of bodies of water, for the purpose of determining, establishing, describing, displaying, or interpreting the facts of size, shape, topography, tidal datum planes, legal or geodetic location or relocation, and orientation of improved or unimproved real property and appurtenances thereto, including acreage and condominiums. The practice of surveying and mapping also includes, but is not limited to, photogrammetric control; the monumentation and remonumentation of property boundaries and subdivisions; the measurement of and preparation of plans showing existing improvements after construction; the layout of proposed improvements; the preparation of descriptions for use in legal instruments of conveyance of real property and property rights; the preparation of subdivision planning maps and record plats, as provided for in chapter 177; the determination of, but not the design of, grades and elevations of roads and land in connection with subdivisions or divisions of land; and the creation and perpetuation of alignments related to maps, record plats, field note records, reports, property descriptions, and plans and drawings that represent them.

The current workflows for all projects are organized and managed via the Geomatics Services web application: <http://bkvvmdev03p/Geomatics/Default.aspx>. This application provides a system to coordinate work activities among the staff. The project workflow includes the following: Project Definition, Planning and Implementation, Data Acquisition and Data Collection, Data Processing, Analysis and Report Preparation, Quality Control and Quality Assurance, and Final Deliverable.

Using data gathered through the Geomatics Services System, staff analyzed the total number of job requests over the three year period from 1/1/2011 to 3/11/2014. The intent was to use the past three year's work to predict the next three years. Though the total number of jobs submitted by Bureau was relatively consistent over the three year period, due to the variability of the types of jobs and level of effort required, the number of jobs alone is not suitable for predicting future workload. Starting in FY13 and continuing into FY14, a much higher level of detail compared to previous years was captured using job tracking codes in Work Force Central. The data derived from FY2014 job tracking was used to project hours required for project support for FY2015-17.

The following table contains projected hours per project on an annual basis for the fiscal years 2015-2017:

MGIS, Land Survey Group ESTIMATED WORK PLAN FY15-17				
Projects	Work Description	3 PSIMs = 6,240 hours	3 Geomatics Technicians = 6,240 hours	4 Field Persons = 8,320 hours
B081/H008; FY2014 Peace River LiDAR and Conventional Topographic & Hydrographic Survey	Surveying & Mapping support provided for Peace River MFL establishment and Lake Hancock Modification, includes project management and QA/QC of deliverables. A portion of this work will be contracted to GES Consultants under three separate TWA work items.	400	400	400
B089; Aerial Orthophoto Mapping Support	Surveying & Mapping support provided as needed, includes QA/QC of deliverables. This work will be accomplished using internal staff and resources.	40	40	80
B134; Conversion of Districtwide Survey Data From NGVD29 to NAVD88	Surveying & Mapping support provided as needed for hydrologic data collection site surveys, includes project management and QA/QC of deliverables and vertical control surveying. This work will be accomplished using internal staff and resources.	1620	2840	3500
B142; MFL Technical Support - MFL Lakes Surveying & Mapping Support	Surveying & Mapping support provided for MFL establishment, includes hydrographic and topographic surveying. A portion of this work will be contracted to GES Consultants.	500	80	160
C005; Data - Aquifer Exploration and Monitor Well Drilling Program	Surveying & Mapping support provided as needed for well sites, includes land boundary and vertical control surveying. A portion of this work will be contracted to GES Consultants.	50	50	100
P373; Data - Wetlands Monitoring	Surveying & Mapping support provided as needed for wetlands monitoring, includes land boundary and vertical control surveying. A portion of this work will be contracted to GES Consultants.	50	50	100
SZ00; Surplus Lands Support	Surveying & Mapping support provided as needed for potential surplus of land, includes land boundary, legal description preparation and title review. A portion of this work will be contracted to GES Consultants.	40	40	80
SZ64; Peace Creek - Land Acquisition Support	Surveying & Mapping support provided as needed for acquisition of land, includes land boundary, legal description preparation and title review. A portion of this work will be contracted to GES Consultants.	100	100	100
Z696; Boundary/Topographic/Hydrographic Surveys for District wide Support	Surveying & Mapping support provided as needed for District projects, includes all types of surveying work.	1140	1140	1920
Data Collection Bureau - Hydrologic Data	Surveying & Mapping support provided as needed for District projects, includes all types of surveying work.	100	100	100
Data Collection Bureau - Geohydrologic Data	Surveying & Mapping support provided as needed for District projects, includes all types of surveying work.	100	100	100
Environmental Resource Permit - Compliance	Surveying & Mapping support provided as needed for District projects, includes topographic surveys as requested.	100	100	100
Natural Systems & Restoration - SWIM	Surveying & Mapping support provided as needed for District projects, includes hydrographic and/or topographic surveying work. A portion of this work could be contracted to GES Consultants.	100	100	100
Natural Systems & Restoration - Springs and Environmental Flows	Surveying & Mapping support provided as needed for District projects, includes hydrographic and/or topographic surveying work. A portion of this work could be contracted to GES Consultants.	600	400	800
Office of General Council / Executive / General Services	Surveying & Mapping support provided as needed for District projects.	100	100	100
Operations & Land Management - Field Operations	Surveying & Mapping support provided as needed for District projects. A portion of this work could be contracted to GES Consultants.	100	100	100
Operations & Land Management - Structure Operations	Surveying & Mapping support provided as needed for District projects. A portion of this work could be contracted to GES Consultants.	100	100	100
Operations & Land Management - Real Estate Services	Surveying & Mapping support provided as needed for District projects. A portion of this work could be contracted to GES Consultants.	100	100	80
Operations & Land Management - Field Operations	Surveying & Mapping support provided as needed for District projects. A portion of this work could be contracted to GES Consultants.	100	100	100
Water Resources - Engineering & Watershed Management	Surveying & Mapping support provided as needed for District LiDAR mapping projects. A portion of this work could be contracted to GES Consultants.	200	100	100
Water Resources - Resource Evaluation	Surveying & Mapping support provided as needed for District projects. A portion of this work could be contracted to GES Consultants.	600	100	100
TOTAL		6240	6240	8320

Projected budgets for contracted services FY2015-2017:

LAND SURVEY GROUP CONTRACTED SERVICES THREE YEAR PLAN					
Unit	Unit Name /Line Description	FY2015 Cost	FY2016 Cost	FY2017 Cost	Description
B142	MFL Tech Spt - Hydrographic/Topo Mapping	\$50,000	\$50,000	\$50,000	Topographic/Hydrographic Surveys for MFL Lakes
P280	Hydrogeological Investigation of the Lower Floridan Aquifer in Polk County	\$21,882	\$10,941	\$0	Boundary/Topographic Surveys for Water Supply Sites
C005	Data - Aquifer Expl & Monitor Well Drilling ROMP	\$10,000	\$153,174	\$164,115	Boundary/Topographic Surveys for ROMP Well Sites
P373	Data - Wetlands Monitoring	\$5,000	\$5,000	\$5,000	Boundary/Topographic Surveys for Wetland Monitoring Sites
SZ00	Surplus Lands Support	\$10,000	\$10,000	\$10,000	Boundary/Topographic Surveys for Surplus Lands
SZ64	Peace Creek - Preacquisition Support	\$10,000	\$10,000	\$10,000	Boundary/Topographic Surveys for Peace Creek Parcels
Z696	Data - Survey Support	\$35,000	\$35,000	\$35,000	Boundary/Topographic/Hydrographic Surveys for Distictwide Support
		\$141,882	\$274,115	\$274,115	