



SUWANNEE RIVER

WATER MANAGEMENT DISTRICT

FEMA Risk MAP Program Multi-year Mapping Plan Update

FY26-FY30

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Prepared for Suwannee River Water Management District by



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Executive Summary

The Federal Emergency Management Agency's (FEMA) flood hazard mapping program provides essential tools for flood mitigation in the United States. FEMA has engaged in providing communities with flood information and tools they can use to enhance their mitigation plans and take action to better protect their citizens through the Risk Mapping, Assessment, and Planning (Risk MAP) program.

As part of a Cooperating Technical Partner (CTP) Agreement with FEMA, the Suwannee River Water Management District (the District) has accepted delegation and responsibility for the Risk MAP program for the areas it governs within North Florida. There are fifteen counties, including Alachua, Baker, Bradford, Columbia, Dixie, Gilchrist, Hamilton, Jefferson, Lafayette, Levy, Madison, Putnam, Suwannee, Taylor, and Union, which are partially or completely within the District's boundaries. Two of those counties -- Putnam and Baker -- only slightly overlap the District boundary and those two counties are covered under the national FEMA Production and Technical Services (PTS) program. As a result, Putnam and Baker counties do not participate in the District CTP Risk MAP program; however, the District shares any relevant findings with their FEMA PTS contractor to incorporate into their county maps. In addition to accepting the delegation for the FEMA Risk MAP program, the District previously accepted delegation and responsibility for the FEMA Map Modernization program for all of the area it governs. The District has been a CTP since 1999.

As part of the Risk MAP program, FEMA requested that the District update the Multi-year Mapping Plan. The plan presented here is the combined FEMA Business Plan and the Community Outreach and Mitigation Strategy (COMS) Engagement Plan. It details the District's approach to implementing these initiatives, including activities to date and how the activities will contribute to FEMA's Risk MAP goals and objectives. This FY26-FY30 Plan update provides District program highlights and funding requests for FY26 and beyond.

The vision for the 2000-2009 Map Modernization initiative was to develop a District-wide program that provides complete digital flood hazard information for counties and communities within the District. At the end of the Map Modernization process in 2009, counties within the District had updated Digital Flood Insurance Rate Maps (DFIRMs) that incorporated selected new detailed studies, approximate studies and/or existing FIRM maps converted to digital format.

To begin Risk MAP the District initially coordinated between FEMA and the communities to identify areas of greatest concern for an initial pass of updates to the models and flood risk maps. Initial Risk MAP funding was provided in FY10, and by FY16 all the watersheds of the District had received funding for the initial pass to identify areas of greatest concern and had been awarded funding to address them.

Starting in FY17 as the first of the initial studies were preparing to release new effective flood risk maps, the program entered a second phase by revisiting each watershed with a new round of Discovery and a plan to utilize newer LiDAR coverage to replace old or missing flood risk models with new LiDAR-based 2D models in each watershed. The plan is using 2-D modeling on LiDAR for broad areas of approximate Zone A and consolidating new detailed 1-D HEC-RAS models

with surveyed cross-sections and structures for major rivers where current detailed Zone AE mapping is based on unverified older models or multiple models. At the same time, SRWMD is coordinating closely with the communities, starting with the Discovery updates, to ensure their needs are met and they are included in the Risk MAP process from kick-off through to new effective maps. With these digital FIRMs and flood depth analyses, the District's ongoing emphasis on protection and acquisition of flood prone areas is further supported, and the flood protection goals and the non-structural floodplain management strategy of the SRWMD are being achieved.

Key drivers of this year's SRWMD FEMA business plan continue to be increasing outreach, community interaction, and mitigation support, in our Risk MAP program. But the heart of this plan is building a reliable and trusted flood risk model library that covers all land in the District. *As a key new element in the long-range business plan, the need to assess the influence of different groundwater conditions on short-term surface water flooding is being added, and FEMA agreed in principle to fund this pursuit under the FY25 Grant for a test case in the Waccasassa watershed.*

Note: under the new administration, the CTP program funding for FY25 was held back nationwide and has not been released. Fortunately, unlike many grants, the CTP funding allocation is not tied by law to a specific fiscal year and could still be awarded, or it could be rolled into the FY26 funding cycle. As a result, for this Business Plan, the FY25 funding that has not yet been awarded is designated FY25/FY26a. The FY26 funding is labeled as FY26 but references the possibility of being supplemented with the FY25 funding. In the event that FY25 funding replaces FY26 funding, instead of supplementing it, the District will have the opportunity to decide which projects from those two years to include and slip all the remaining projects out a year.

Completion of the Phase 2 projects referenced above, all of which have been funded and are underway, will provide a foundation including non-regulatory flood depth and flood risk rasters for all properties. This coverage will also support FEMA's future Risk Rating models which are planned to assess risk more accurately, providing graduated risk for each property rather than simply "in the flood zone" or out.

As part of the push to provide the best possible foundation, the newly awarded FY24 grant will support a focus on enhancing the 2D mapping in the Santa Fe watershed to characterize complex urbanized areas with enhanced 2D detailed mapping. At the same time, implementation of the recently awarded FY23 grant funds will support building and expanding the online model library as well as expanding and improving existing functions on the well-regarded District Flood Risk website (srwmdfloodreport.com). In addition, FY23 funded a special project focused on specifically helping communities in the District become more resilient through model-backed mitigation project support (expanded Mitigation Technical Assistance).

Strategic planning will continue identifying key influencers and use a broader footprint to include and reach out to a broader cross-section of stakeholders. In addition, future risks, identified from a study conducted for the District by the University of Florida, are funded to be integrated into the website, and will add another dimension to support community and citizens both for long-range thinking and planning in regard to flood risk. Seeking multiple paths to support community

mitigation actions include custom guidance for communities and making the data needed for grants and planning easily available. The net result intended is a broader network of stakeholders, users and influencers who are engaged and understand how and where to find what they need to plan for and mitigate flood risk for themselves and their communities, both near-term and long-term.

An important element of the plan is taking advantage of new LiDAR. New LiDAR covering the District became available February 2023. New watershed-wide studies that have been funded in the Econfina-Steinhatchee, Waccasassa, Withlacoochee, Aucilla and Alapaha watersheds. These studies were waiting on the new LiDAR and are all well underway. Current watershed-wide studies already underway in the Suwannee and Santa Fe watersheds reviewed their topo and were asked to incorporate any major changes introduced by the new LiDAR.

Additionally, the new LiDAR is providing one of the upgrades underway for the flood risk reporting site (<http://srwmdfloodreport.com>) The new LiDAR will be included as a page to the District's flood risk reporting tool, allowing property owners to also see the latest LiDAR topography for their property. Other additions to the website, including the new LiDAR as a page in each flood risk report, include the addition of ERP permits impacting a selected property are pending a system-wide revision required by esri that is nearing completion. The revision is expected to go live in early calendar year 2026 with the new features included.

At the same time, a District public relations campaign funded by FEMA and conducted by the District's communications office is underway in parallel with specific ongoing outreach to stakeholders in the current studies underway in all District watersheds (Suwannee River, Withlacoochee, Aucilla, Alapaha, Econfina-Steinhatchee, Santa Fe, and Waccasassa watersheds). The public relations campaign kicked off with a SRWMD Water Resources Symposium on January 28th, 2025. FEMA funding is being applied to increase public awareness, further engage with communities in mitigation planning during study reviews, and provide an enhanced digital platform for risk information.

By conducting Discovery in each of the District watersheds and performing the resulting studies, including resiliency outreach, panel revisions, and distribution of improved data; the District will both serve its own mission and help FEMA meet its Risk MAP objectives. The District has revisited Discovery in each watershed prior to initiating a watershed-wide 2D approximate mapping study. As the current studies reveal the areas needed for further study, each watershed will be assessed whether to extend the current study with additional funding, as in the Santa Fe, or begin a new Phase 3 study at completion of the current study. At the same time the currently funded studies are providing the foundational investment in Districtwide modeling that will need to be sustained and updated as newer LiDAR, new development, and new 100-yr rainfall standards are introduced over time. Additional funding will be sought on that basis.

The status of all the above projects is shown in Figure 3-1 of Chapter 3.

The District will facilitate the implementation of FEMA's Risk MAP Program through direct management and support of all regulatory engineering and mapping activities within the District's area. The District is committed to developing a fully integrated program that incorporates:

- engineering and mapping (watershed level updates)
- independent QA/QC
- community outreach with a focus on resilience
- outreach via websites and training
- public relations including the SRWMD Symposium, as well as social media, print and broadcast media
- mitigation planning support in collaboration with Florida Department of Emergency Management

The results of these efforts are an ongoing program that allows for delivery of quality data that increases public awareness and leads to action that reduces risk to life and property. This will continue to be accomplished primarily through the use of FEMA grants to hire qualified contractors retained and overseen by the District.

For its management plan to be effectively implemented, the District will need the full support and involvement of all user communities, including local governments. To ensure the full engagement of its partners, the District will commit significant resources to manage stakeholder expectations through up-front coordination, outreach, and customer service. Based upon our ongoing assessment, we anticipate that our current IT system will require ongoing upgrades to maintain and deliver products as 2D mapping and detailed LiDAR increase the level of detail and data storage requirements. The District is committed to providing the resources required to maintain the IT system within the District or make resources available as needed during program development and implementation.

Chapter 1 INTRODUCTION

1.1 SRWMD Risk MAP Program Description

This Cooperating Technical Partner (CTP) Business Plan and Community Engagement Plan describes District CTP multi-year flood risk mapping and outreach planning through the end of FY30 (September 30, 2030).

The Federal Emergency Management Agency's (FEMA) flood hazard maps are one of the essential tools for flood mitigation in the United States. Unfortunately, many of these maps have become outdated, especially in high growth and development areas including Florida. FEMA has established a broad goal of updating flood hazard maps nationwide. In addition, FEMA has engaged in providing communities with flood information and tools they can use to enhance their mitigation plans and take action to better protect their citizens through the Risk Mapping, Assessment, and Planning (Risk MAP) program. To achieve this goal, FEMA has acknowledged that collaborative partnerships with state, regional and local/organizations will be necessary.

As part of a Cooperating Technical Partner (CTP) Agreement with FEMA the Suwannee River Water Management District (the District) has accepted delegation and responsibility for the Risk MAP program for areas it governs within North Florida. . There are fifteen counties, including Alachua, Baker, Bradford, Columbia, Dixie, Gilchrist, Hamilton, Jefferson, Lafayette, Levy, Madison, Putnam, Suwannee, Taylor, and Union, , that are partially or completely within the District's boundaries. Prior to accepting the delegation for the Risk MAP program, the District had accepted delegation and responsibility for the Map Modernization program for all of the area it governs.

At this time, the small portions of Putnam County and Baker County within the District have not been included in the updates. Putnam and Baker Counties primarily fall within the Saint Johns River Water Management District, and their map updates are being managed by FEMA directly. Where small portions of these counties fall within District watersheds any relevant map updates are provided to FEMA for incorporation in their maps and studies.

The District transitioned from Map Modernization to the Risk Map initiative beginning with FY10 Mapping Activities. The District vision for the Risk MAP initiative was initially to address data gaps in flood hazard data, improve flood risk delineation as new LiDAR becomes available, increase public awareness, assist the Florida Department of Emergency Management in mitigation planning, provide an enhanced digital platform for risk information, and align risk analysis programs while improving the quality of Risk MAP products. The District has completed Discovery and all resulting studies in all 8 (eight) of the major FEMA HUC-8 Watersheds within the District; the District continued the Risk MAP cycle by returning to watersheds that have already completed their first round of Risk MAP updates and identifying any new community needs or data needs that have been revealed during subsequent mitigation actions, new growth, and/or flooding experience.

For this second cycle of Risk MAP, which is currently underway, 2-D watershed-wide models based on LiDAR are being funded and executed in order to provide all properties with model-backed flood risk reports. The District sought and received funding for Discovery and 2D studies in the Upper and Lower Suwannee Watersheds, the Santa Fe Watershed, the Withlacoochee, Econfina-Steinhatchee, Waccasassa, Aucilla and Alapaha watersheds.

2D Studies in the Suwannee, Santa Fe and Waccasassa watersheds are underway. With the release of newly updated District-wide LiDAR, provided to the District in February 2023, 2D studies are also getting underway in Econfina-Steinhatchee and Withlacoochee watersheds. Lastly, the Aucilla and Alapaha watershed were the last two watersheds studied during the first round of Risk MAP, and a portion of these watersheds were able to be studied with 2D mapping during round one (as well as a detailed study of the Little Aucilla). The initial Aucilla and Alapaha studies have achieved their Letters of Final Determination and went effective in FY25. They are already funded for the new LiDAR to be used to develop a comprehensive Aucilla River detailed flood model, and a watershed-wide 2D model, and these studies are underway.

The Risk MAP Multi-year Mapping Plan for FY26 through FY30 is based on extending the Risk MAP cycle into a third round of studies in each watershed focused on areas identified in the current approximate 2D studies. Since some of the phase 2 2D mapping was delayed waiting for new LiDAR, and the 2D mapping currently underway has revealed the greatly expanded impact of new maps that will cover the majority of the District, FY26 will focus on additional outreach to help communities understand and adopt the new mapping and wait for FY26 to continue funding the 3rd phase of study that ensure enhancements are made where needed and the mapping investment is maintained on a 5-year cycle of updates.

Key elements of the third cycle are:

- Based on the current 2D approximate studies in each watershed, identify and execute localized, more detailed flood risk modeling where needed;
- Support the current investment in watershed-wide 2D modeling by keeping the models up to date as development and mitigation projects alter the landscape;
- Address specific requests/needs identified by stakeholder communities during the outreach process and at resilience meetings when potential mitigation actions are discussed (based on the model results and the new flood risk maps, combined with stakeholder input).
- Integrate new NOAA rainfall estimates when Atlas 15 is released (integrating increases in rainfall over the last 30 years).

As new patterns of growth emerge, and outreach reveals any needs for additional funding, it is possible that one watershed may be swapped with another in future plans; but all watersheds will be revisited in the third cycle starting with Santa Fe in FY24 and continuing with Waccasassa in FY27, Upper and Lower Suwannee in FY28, Withlacoochee, Aucilla and Alapaha in FY29, and Econfina-Steinhatchee in FY30.

1.2 SRWMD Risk MAP Program History

A brief history of the District Cooperating Technical Partnership with FEMA could begin with completion of FY04 Mapping Activities Statement (MAS) projects (Dixie, Gilchrist and Lafayette Counties- total amount \$904,000- leverage amount \$180,800*), FY05 MAS projects (Suwannee and Columbia Counties – total amount \$1,060,000), FY06 MAS projects (Taylor and Union Counties – total amount \$1,000,000), and FY07 MAS projects (Hamilton, Levy and Madison Counties – total amount \$1,025,000). The District also completed management of the FY08 MAS project (Bradford County - total amount \$300,000), and the FY09 MAS for updating panels in Suwannee County in the vicinity of Live Oak total amount \$106,835. These map updates and conversion of paper maps to digital were accomplished under the FEMA Map Modernization Program, which ended in FY09 with the transition to Risk MAP in FY10. All work on these grants has been completed, and the grants have closed.

Note that Fiscal Year grants are awarded at the end of the Fiscal Year and become available in the following year. For instance, the FY20 grant became available in FY21.

Note – in the following discussion the Upper and Lower Suwannee River Watersheds are referring to two USGS HUC basins of that name spanning the entire Suwannee River in Florida and separated at the Withlacoochee confluence. These USGS HUC8 basin designations are what FEMA uses for grants and studies. Not to be confused with the SRWMD internal designations of upper, middle, and lower Suwannee River areas of responsibility.

At the conclusion of the MapMod program in FY09, the District integrated 3 FY09 Map Modernization projects (Dixie, Gilchrist and Lafayette Counties -- total \$810,000 – leverage amount \$20,000) into the FY10 Risk MAP project for the Lower Suwannee Watershed (HUC8-03110205) which included detailed studies and redelineation in portions of Dixie, Gilchrist, Lafayette, and Levy Counties with a total funded amount \$1,354,000 – leverage amount \$129,000*. The Lower Suwannee Risk MAP study completed the Physical Map Revisions for these counties, and the new panels are effective. All work on this grant has been completed, and the grant has been closed.

The District managed implementation of the FY11 FEMA Mapping Activities Statement (MAS) with detailed studies in the Santa Fe Watershed (HUC8 03110206) which includes portions of Union, Bradford, Columbia, Gilchrist, and Suwannee Counties (total amount \$1,022,920 – leverage \$347,920), as well as detailed studies for the Upper Suwannee Watershed (HUC8 03110201) which includes portions of Suwannee, Columbia, and Hamilton Counties (total amount \$1,043,799 – leverage \$246,467). The Upper Suwannee and Santa Fe watershed studies have also been completed, and the updated panels became effective in 2018. All work on the FY11 grant has been completed and the grant closed out.

*Risk MAP leverage amounts are based on District contributions of District and/or State-funded Orthophotos, LiDAR, GIS data, and staff time to the Risk MAP projects.

The FY12 MAS, consisting of Discovery for the Waccasassa Watershed and riverine studies in the Econfina-Steinhatchee Watershed (03110102) (total amount \$985,780; leverage amount \$285,780). Also funded under FY12 was integrating the Econfina-Steinhatchee riverine studies with Big Bend coastal modeling for a combined Preliminary map release and Post Preliminary Processing (\$420,000; leverage amount: \$0). The Big Bend coastal modeling was conducted by FEMA's Professional Services contractors -- the models and resulting coastal flood risk mapping include coastal portions of Econfina-Steinhatchee Watershed, Lower Suwannee Watershed and Waccasassa Watershed.

The resulting preliminary maps under the FY12 MAS merged coastal and riverine panel revisions in Econfina-Steinhatchee watershed with coastal panel revisions spanning Econfina-Steinhatchee, Lower Suwannee and Waccasassa watersheds. (Note the coastal panels in the Waccasassa watershed are distinct from the riverine studies recommended under the FY12 Waccasassa Discovery grant. The Waccasassa riverine studies were funded under the FY14 grant, see below). The combined panel revisions in the Econfina-Steinhatchee watershed include portions of Taylor, Dixie, Levy, Gilchrist, and Levy County, and went effective in FY18. All work on this grant has been completed and the grant closed out.

Managed under the FY13 MAS is the Withlacoochee Watershed (03110203), which includes portions of Madison and Hamilton Counties (total amount \$430,000 – leverage amount \$130,000); and funding for Discovery in the Alapaha watershed. The Withlacoochee is a split study, with funding for preliminary panels and post-preliminary processing approved under the FY14 MAS (\$175,000 – leverage amount \$75,000); and additional modeling on the Withlacoochee River funded under FY15 (\$65,000). A recent study undertaken by the District for minimum flows and levels in the Withlacoochee provided leverage allowing the FY15 Withlacoochee funds to be reallocated under a Special Problem Report (and MAS amendment) for conversion of this leverage study into Risk MAP, and the excess funds to help cover additional costs associated with the inclusion of FY09 Map Mod counties in the FY10 Lower Suwannee Risk MAP release. All work on the FY13 grant has been completed and the grant closed out.

The FY14 MAS funded the Waccasassa watershed studies as well (\$350,000 from FEMA plus leverage comprising LiDAR, aeriels, existing models of \$152,000). Waccasassa studies are complete and went effective January 28, 2022. Additional funding of \$45,000 to cover nineteen additional panels impacted by the Waccasassa river modeling was approved under the FY18 grant. All work on the FY14 grant has been completed.

The FY15 MAS funded Discovery in the Aucilla Watershed (\$85,500; leverage \$4,500); as well as additional panel updates in the Econfina-Steinhatchee watershed based on increased extent of the coastal risk mapping (\$60,000); and the additional modeling on the Withlacoochee River (\$65,000) referenced above. All work on this grant has been completed.

The FY16 MAS represents a milestone in the Risk MAP program. With the FY16 grant the District completed its goal for reviewing and updating flood risk studies in all the major watersheds in its jurisdiction. The final two watersheds being studied are the Alapaha and Aucilla watersheds. Both watersheds have been completed through Letters of Final Determination and are pending only Resilience meetings with communities to discuss the impact of the new maps that went effective April 25, 2025. Aucilla was the first watershed to include 2D mapping of a portion of the watershed and has been the test case for the best approaches to use for updating the existing Zone A (much of which is not model backed and has no depth data) with modern 2D modeled approximate Zone A which includes a depth grid. In addition, the District is leveraging the completion of these studies under Risk MAP and expanding its well-received flood risk reporting website to encompass many of the new Risk MAP digital products, such as depth grids, designed to improve community understanding of flood risk.

FY17 through FY22 grants provided the District with a 2nd cycle of studies and the opportunity to complete its goal of fully updating the modeling that was started in the 1st round watersheds: Upper and Lower Suwannee, Santa Fe, Econfina-Steinhatchee, Withlacoochee, Waccasassa, Alapaha and completion of 2D modeling in the Aucilla watershed – addressing all models that were identified by FEMA as unverified as well as any new community needs. FEMA also increased funding over this period for further public relations and outreach to accompany the new 2D watershed-wide modeling, as well as expansion of the website to incorporate the 2D depth grids and related products into the flood risk report.

FY23 funding focused on enhancing the outreach for all the ongoing Phase two studies, with special emphasis on helping communities become more resilient by identifying mitigation opportunities in the new studies.

FY24 funding introduced the first of the phase 3 funding-- to extend the phase two 2D modeling where needed in the Santa Fe watershed with detailed modeling-- as well as incorporate any changes due to new development. The funding also supports website updates to serve the models on which the new products are based.

The amounts funded under these new grants are: FY17-\$1,018,000; FY18-\$1,718,594; FY19-\$1,873,150; FY20-\$2,136,750; FY21-\$1,904,527; FY22-\$1,620,396; FY23-\$607,500; and FY24-\$1,043,000.

Additional funding is included in the FY20 grant for expanded public relations and outreach in collaboration with the District communications office and public relations firms selected by the District. The firm of BowStern supported the initial portion of the PR grant by helping to plan and support the first SRWMD Water Resources Symposium for local governments. The symposium was held on January 28th, 2025 and received positive feedback from all participants who responded to the post-symposium survey or spoke directly to staff.

The remainder of the FY20 Public Relations grant is aimed at a contract with another of the District's PR firms to fund a media blitz helping stakeholders and citizens to understand the importance of updating the maps and the opportunity for early feedback at the Flood Risk Review meetings. There will be a pre- and post- blitz survey conducted to measure the success of the campaign at raising awareness.

FEMA requested that all partners participating, including the District, update the Risk MAP Multi-year Mapping Plan (Business Plan) detailing their approach to implementing the initiative and how the activities will contribute to FEMA's Risk MAP goals and objectives. This Plan update provides District program highlights and funding requests through FY28. The broad objectives of the Risk MAP program as stated by FEMA and supported under this business plan are as follows:

- Flood Hazard Data. Address gaps in flood hazard data to form a solid foundation for risk assessment, floodplain management, and actuarial soundness of the [National Flood Insurance Program](#) (NFIP).
- Public Awareness/Outreach. Engage communities and ensure that a measurable increase of the public's awareness and understanding of risk results in a measurable reduction of current and future vulnerability.
- Hazard Mitigation Planning. Lead and support States, local, and Tribal communities to effectively engage in risk-based mitigation planning resulting in sustainable actions that reduce or eliminate risks to life and property from natural hazards.
- Enhanced Digital Platform. Provide an enhanced digital platform that improves management of Risk MAP, steward's information produced by Risk MAP, and improves communication and sharing of risk data and related products to all levels of government and the public.
- Alignment and Synergies. Align Risk Analysis programs and develop synergies to enhance decision-making capabilities through effective risk communication and management.
- Consideration of FEMA's strategic plan to consider climate change impacts and equity concerns in program delivery
- Consideration of Risk Rating 2.0 in the design and delivery of outreach and training
- Inclusion of program changes in reporting CTP performance measures

Chapter 2 VISION FOR SUPPORTING Risk MAP

2.1 Suwannee River Water Management District (SRWMD) Vision

The Suwannee River Water Management District was created by the Florida Legislature with the passage of the Water Resources Act of 1972, codified in Chapter 373 of the Florida Statutes. The District covers over 7,600 square miles of north central Florida. A listing of the Counties, population and flood insurance policy holders is shown in Table 2-1.

**Table 2-1
SRWMD Counties Population and Flood Insurance Policies**

County	Population**	# of Policies*
Alachua	278,468	2458
Baker	28,259	173
Bradford	28,303	443
Columbia	69,698	673
Dixie	16,759	439
Gilchrist	17,864	182
Hamilton	14,004	47
Jefferson	14,510	75
Lafayette	8,226	132
Levy	40,915	887
Madison	17,968	89
Suwannee	43,474	478
Taylor	21,796	582
Union	16,147	57

* Policy Information, August 31, 2022 <https://nfipservices.floodsmart.gov/reports-flood-insurance-data>

**Population estimates, 2020 Census – <http://Data.Census.gov>

2.1.1 Vision Overview

The District has been a cooperating technical partner with FEMA since 1999. Our vision from the outset is to build relationships with communities and community leaders that promote mutual understanding of flood risk, water quality risk and promote a common purpose of mitigating flood risk while protecting the waters of the District. We view steady improvement in flood risk forecasting and an equally steady improvement in the means to communicate risk as key. We are seeing improvement to community understanding and trust in our FEMA flood risk maps, as well as acknowledgment of the importance of flood risk insurance and recognition of opportunities to mitigate flood risk at local and regional levels. The District currently provides individual flood risk reports to constituents at the parcel level through srwmdfloodreport.com. Over the next five years, we look forward to a range of expanded capabilities to help fulfill our missions, including the improvement of digital flood risk modeling to encompass the entire District with model-backed flood risk data, robust Risk MAP data infrastructure; stronger links from Risk MAP to flood mitigation actions; better 3-dimensional depictions of flooding; deeper understanding of public perceptions and how best to communicate and motivate diverse segments of the public to learn their risk and take actions to mitigate it; GIS

integration of models and recorded flood elevations; and links to help property owners obtain elevation certificates and flood insurance, in complement to the goals and strategies that follow.

2.1.2 Flood Protection Goals

The mission of the District is to implement the provisions of Chapter 373, Water Resources, and chapter 403, Environmental Control, Florida Statutes, to ensure the continued welfare of the residents and natural systems of north central Florida. Two of the major goals of the District are to minimize harm from flooding and to enhance public awareness, understanding and participation in water resource management.

Per Florida Administrative Code 62-40.458, Floodplain Protection, related District objectives are:

- Coordination with local, State and Federal governments;
- Pursuing development of adequate floodplain protection information including flood level data;
- Jointly develop programs to acquire, protect, and enhance floodplain functions and associated natural systems;
- Minimize incompatible activities; and
- Provide available floodplain delineation information.

The District operates under a nonstructural floodplain management policy adopted in 1979¹. The policy was adopted to avoid the expense of constructing and maintaining flood control works as well as the environmental damage caused by such works. The nonstructural flood protection strategy is founded on accurate floodplain delineation and has been implemented through the following primary program activities:

- Mapping and modeling the floodplains and regulatory floodways of the five major rivers and tributaries;
- Regulating fill and development activity within designated regulatory floodways and floodplains;
- Acquiring and managing lands for floodwater storage, conveyance, and other conservation objectives;
- Assisting local governments with floodplain management responsibilities such as land use planning, development regulation, restoration activities, and public education and outreach;
- Providing Geographic Information System (GIS) data, technical assistance, and leadership within the region;
- Providing technical and funding assistance to local governments in addressing flooding and stormwater management problems.

¹ The District Water Management Plan describes the nonstructural flood protection policy and the approach used by the District to implement the policy.

The key elements of the nonstructural floodplain management policy have been highly successful to date in reducing and eliminating environmental harm and the threat of flood damage. These key elements are regulations, land acquisition, GIS development, and public outreach and assistance. The District's Vision includes a resolute 5-year public relations outreach campaign focused on flood awareness at every level. Funding for implementing this vision is addressed under the FY20 funding request underway for implementation over FY23-FY27.

2.1.3 District Water Management Regulations for Flood Protection

District regulations currently prohibit activities that diminish floodwater conveyance in designated Works of the District Rivers using an innovative approach to implement the authorities granted under Chapter 373, Florida Statutes. Instead of constructing physical works to address flood hazards, the District's program reserves from use that land area necessary to convey the highest velocity flood waters from a 100-year flood event. In addition, District stormwater management regulations require use of the 100-year critical duration storm event as the primary engineering and design criterion for stormwater management facilities.

The second component of the District's non-structural floodplain management strategy is land acquisition and management. The Save Our Rivers, Preservation 2000 and Florida Forever programs have protected over 300,000 acres and 384 miles of river corridor lands, much of it in the 100-year flood plain, protecting the region's river systems, the public, and the public water supply.

2.1.4 District and Other Public Conservation Lands

One of the major objectives of the District is to promote non-structural approaches to achieve flood protection and to protect and restore the natural features and functions of the 100-year floodplain. To that end, the District has undertaken acquisition of floodplain areas for the major rivers and natural storage areas throughout the District. Public ownership in perpetuity of these flood hazard areas assures the ability to retain and attenuate floodwaters, precludes inappropriate development or use of the flood hazard areas, and protects important environmental features of the lands.

The District acquires and manages lands for water management purposes, as authorized and directed by Chapter 373, Part V, Florida Statutes. Since 1983, the acquisition priority has been the voluntary sale of lands within the 100-year floodplain of the Suwannee River and its tributaries, and the floodplains of other rivers in the District. To date, the District has protected over 286,000 acres of land, most of which is floodplains, flood prone, hazardous, and/or environmentally sensitive. Figure 2-1 shows the public conservation lands in the District.

The public, through the District, is the single largest landowner of land along the Suwannee River and its tributaries. Many land tracts of significance have been acquired; current and future land acquisition priorities target in holdings, adjacent lands, and lands that enhance

or improve the management of current holdings. Future priorities will target specific areas to mitigate past flood damage and prevent inappropriate use or development of flood hazard areas.

Modernized flood hazard maps that use more detailed and accurate information are essential to the District’s continued future success in its land acquisition and management program. The updated and revised maps resulting from this project will allow the District to identify and target the most important flood hazard areas for public ownership and management.

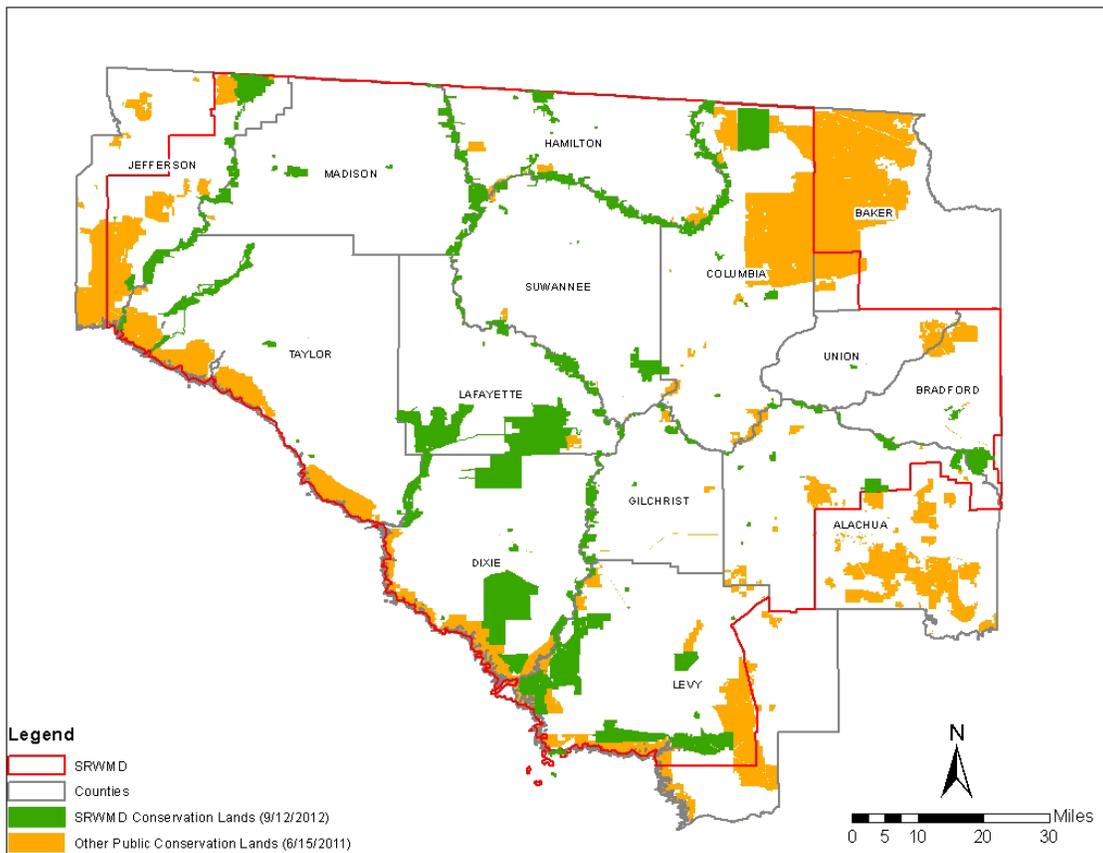


Figure 2-1 SRWMD Public Conservation Lands

2.1.5 Geographic Information Systems Development and Public Outreach, and Assistance

Providing maps and other information is a cornerstone of the District’s nonstructural flood protection policy. When landowners and local building officials are aware of the location and extent of flood hazard areas, preventive strategies can be more easily implemented. The District has been a regional leader in the development and application of Geographic Information Systems (GIS) since 1983, when the District was selected as a beta test site for ArcInfo, the industry standard GIS developed by Environmental Systems Research

Institute, Inc. (ESRI). Since that time, the District has developed an extensive geographic data inventory, developed in-house and external capabilities, and provides leadership and assistance to local units of government in the region. Through District efforts, many county property appraisers now have compatible GIS capabilities that will assist in disseminating flood hazard maps and data at the local level resulting from the map modernization and Risk MAP projects.

Public outreach and assistance are a key component of the nonstructural flood protection policy not just by providing flood maps, but in helping the public gain an understanding of flooding and flood hazards. The District has established a website (<http://www.srwmdfloodreport.com/>) with enhanced flood elevation data for the Suwannee River and its tributaries, Preliminary floodplains; Changes Since Last Firm, and linkage to FEMA. The website enables users to view, query, and analyze flood risk assessment data in an intuitive and user-friendly framework. End-users are able to easily locate any parcel of interest, view the Flood Insurance Study (FIS) and effective Flood Insurance Rate Map (FIRM), and create a Flood Risk Report that provides the user with flood zone data, including flood elevations; flood depth and 30-year flood risk where available; and descriptions of how to interpret the specific FEMA flood zones. All of this assists the user in determining if their property is affected by a flood zone, and how it is affected. The websites will continue to be updated and populated with information on Risk MAP and flood risk data generated during DFIRM studies produced in the course of the Risk MAP program. This interface is intended to be used by the general public, community officials, and Cooperating Technical Partner staff who may not be familiar with a typical GIS interface. A significant update to the Flood Risk Report was completed in FY20-21 with input from the District Communications Office, adding non-regulatory products such as 30-yr risk of flooding and flood depth maps in addition to the regulatory flood insurance zones. During FY22 the capability to search and download flood risk models was added, and in FY23 the ongoing population of a virtual meeting room where watershed outreach meetings are held in parallel with live in-person meetings (<https://srwmdfloodreport.com/virtual>). A major update to the website, both the model management system and the flood report, is underway to ensure the website remains compatible with a new esri programming interface that is scheduled by esri to replace the current interface in 2026. This update will also implement model storage for the 2D models being produced under the current phase 2 studies. These new 2D models can require up to 500 GB of storage or more for each model.

GIS partnerships with most of the local governments within the District have been established. The GIS partnerships provide local governments with environmental sensitive data such as special flood hazard areas. This outreach tool assists local governments in advising property owners and potential property owners about flood risks and other environmental features associated with a parcel of land.

Since a core mission area of the District is flood information, protection, and mitigation, the District is undertaking an expansion of its outreach beyond the tools and training

described above to engage in an active outreach campaign using a public relations firm. This is expanded in Section 2.2.4 below.

In addition, as of FY24 the District has joined with the Florida Chief Resilience Officer (CRO), the Army Corps of Engineers, and the other four water management districts to develop a statewide “Flood Hub” where an easily searchable geodatabase of flood risk models will be housed. The Flood Hub will include links to model data that is intended to be stored by the model owners. This effort is funded by the Florida CRO’s office.

2.2 SRWMD Risk MAP Level of Participation

The District vision for the Risk MAP initiative is to address data gaps in flood hazard data, increase public awareness, lead engagement in mitigation planning, provide enhanced digital platform for risk information, and align risk analysis programs while improving the quality of Risk MAP products. These goals are explained in further detail below.

- Goal 1: Address gaps in flood hazard data to form a solid foundation for risk assessment, floodplain management, and actuarial soundness of the National Flood Insurance Program
 - Initiate Risk MAP flood map update projects to address flood hazard data needs in high flood risk areas affected by coastal flooding, levees, and other riverine flood hazards
 - Develop flood depth grids based on updated or validated engineering flood studies for use in risk communication outreach products and flood risk assessments
- Goal 2: Ensure that a measurable increase of the public’s awareness and understanding of risk results in a measurable reduction of current and future vulnerability to flooding. Overarching outreach strategy will:
 - Convey risk in terms of consequences and probability, and conveys the social impacts of flood risk
 - Follow the entire Risk MAP life cycle from the continuous update of flood hazard data to the continuous update of a jurisdiction’s hazard mitigation plan
 - Establish a baseline of local understanding of local risk. Communities can use this baseline to measure progress annually
 - Keep the message simple so that the information is easily conveyed to the public
- Goal 3: Lead and support state, local and tribal communities to effectively engage in risk-based mitigation planning resulting in sustainable actions to reduce or eliminate risks to life and property from hazards
 - Assist state, local, and tribal entities to develop, adopt, and implement FEMA-approved hazard mitigation plans
 - Communicate the benefits of mitigation planning messages in an overarching Risk MAP outreach strategy
 - Promote the integration of mitigation planning into other state, local and tribal planning processes

- Goal 4: Provide an enhanced digital platform that improves management of Risk MAP, stewards the information produced by Risk MAP and improves the communication and sharing of risk data and related products with all levels of government and public
 - Improve tracking of state and local hazard mitigation plans
 - Improve map production tools
 - Find and invest in accurate digital geospatial data to support improved flood hazard and flood risk analysis
 - Provide simplified access to updated flood risk models emerging from the Risk MAP program
- Goal 5: Align Risk Analysis programs and develop synergies to enhance decision making capabilities through effective risk communication and management

It is the objective of the District to be the full-service provider for all engineering, mapping, and administrative requirements within the District boundaries. For its management plan to be effectively implemented, the District will need the full support and involvement of other CTPs and user communities. To ensure the full engagement of its partners, the District will commit a significant amount of resources to manage stakeholder expectations through upfront coordination, outreach, and customer service. In addition, the District will execute Memorandums of Agreement (MOA) with each County and participating community.

Through its three branches, technical management, IT systems, and customer service (see Figure 2-3); the District will satisfy its five goals outlined above. Furthermore, the District will continuously assess the effectiveness of its program and make the necessary changes to ensure the highest quality service and deliverables. Details of the District's level of participation follows.

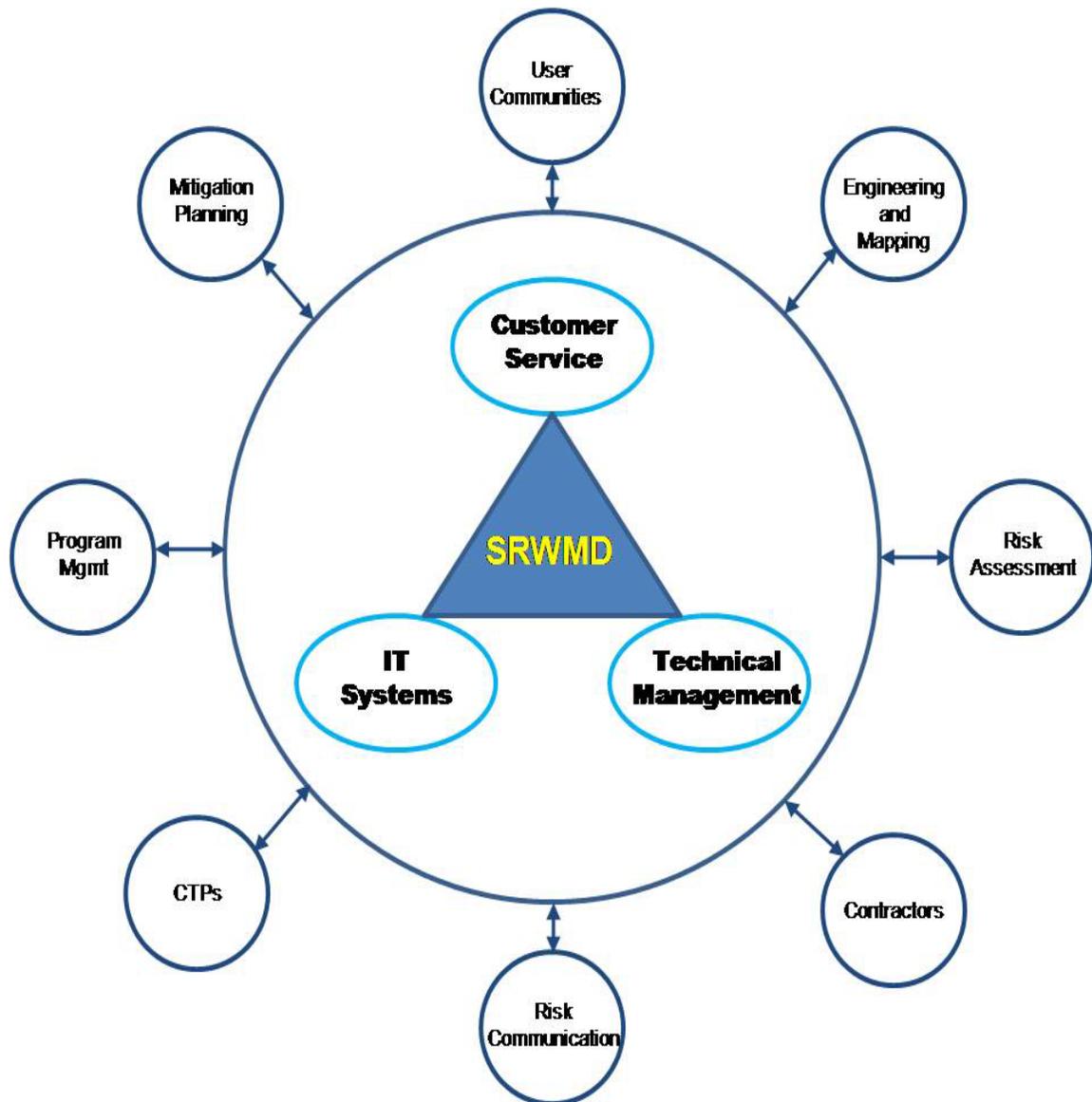


Figure 2-2 District Comprehensive Management Support of Risk MAP Needs

2.2.1 Engineering and Mapping

The District will continue to support all activities associated with identifying flood hazards and the technical production of accurate Digital Flood Insurance Rate Maps (DFIRM) and Flood Insurance Studies (FIS). Following the Risk MAP program, the District and its contractors propose to perform all the activities listed below:

- Discovery activities: field visits, CNMS updates, review mitigation plans, discovery reports and maps, conduct community interviews, coordination and attendance at County and community Discovery meetings, and development of project scope

- Data collection activities: field surveys, topographic data/LiDAR, existing H&H studies and digital basemaps;
- Engineering activities: 1D and 2D hydraulic, hydrologic, riverine analyses;
- Floodplain delineation activities: detailed and enhanced-approximate floodplain delineations
- Public outreach for feedback on initial flood maps and identification of areas that may require additional public outreach and communication for smooth map adoption
- DFIRM Production activities: Preliminary DFIRM, QA/QC, and database development; and
- Flood risk dataset activities: development of changes since last Flood Insurance Rate Map, flood depth and analysis grids, flood risk assessment data, areas of mitigation interest;
- Post Preliminary Processing: Community Meetings and Resilience Meetings prior to Map Adoption

The District's strategy to implement the engineering and mapping component will utilize the District's existing engineering, mapping, and GIS technical infrastructure along with outsourcing of the majority of the engineering and mapping to consultants. The District has extensive experience in water resource related activities, which provides an ideal staging point for the implementation of the District's mapping and engineering role. The District will also provide ongoing floodplain management coordination with the local communities participating in the NFIP to allow for a more local management of the issues that concern FEMA. As part of its management strategy, the District will manage and coordinate all consultants' activity in the District.

The District will use detailed topography (LiDAR) of the floodplain and coastal areas likely to experience significant development pressures in the coming years at it becomes available. As of FY18, the District completed LiDAR mapping of all areas. As of November 2022, LiDAR collected under a statewide initiative at higher resolution completed USGS Quality checks and was provided to the District in February 2023 for all new watershed studies initiating in 2023 and after (Econfina-Steinhatchee, Waccasassa, Withlacoochee, Aucilla, and Alapaha).

2.2.2 Risk Assessment and Risk Communication

The District will assess and communicate risk to ensure that a measurable increase of the public's awareness and understanding of risk results in a measurable reduction of current and future vulnerability to flooding.

Risk assessment data and analyses are defined as processes for analyzing or evaluating the risk associated with a hazard and using that information to make informed decisions on the appropriate ways to reduce the impacts of the hazard on people and property. As part of the Risk MAP Program, non-regulatory Flood Risk Products shall be developed for study

areas based upon the latest guidance available. Flood Risk Products that will be created include Flood Risk Reports and Flood Risk Maps.

Flood Risk Products serve as the delivery mechanisms for the Flood Risk Datasets and information developed within a flood risk study. Typically, these Flood Risk Datasets include but are not limited to:

- Changes Since Last FIRM
- Depth & Analysis
- Flood Risk Assessment

Although this program is conceived on a HUC-8 watershed flood hazard and flood risk analysis framework, it is also recognized that there will be occasions where a watershed approach is not appropriate. Examples include coastal analysis. As a result, Flood Risk Products and Flood Risk Datasets are intended to be scalable to support the variability of project requirements and available funding.

2.2.3 Mitigation Planning and Actions

The District will assist and support the state and local communities to effectively engage in risk-based mitigation planning resulting in sustainable actions to reduce or eliminate risks to life and property from hazards. FEMA considers mitigation planning to be critical, and mitigation planning technical assistance will be identified starting at Discovery. During initial plan development there are four phases of the planning process:

- Planning Process
- Risk Assessment
- Mitigation Strategy
- Plan Maintenance

Hazard Mitigation Planning technical assistance and training provided through Risk MAP will focus on building a community's capability to plan for and reduce risk. The following steps are to be emphasized:

- Incorporating new flood hazard and risk information;
- Updating and refining mitigation strategies, especially as related to new flood hazard/risk information;
- Training mitigation planning teams; and
- Incorporating mitigation into existing community plans, programs, and policies.

Throughout the Risk MAP cycle, the District will utilize Region IV best practice templates to track and report Actions.

2.2.4 Community Outreach and Mitigation Strategy

An essential component of the District Risk MAP program is community outreach and customer service to ensure stakeholder support and public awareness. Outreach begins during the Discovery phase of a watershed-level Risk MAP project and continues through final community meetings. The primary goals of the outreach component are to:

- Engage communities early and often of Risk MAP projects;
- Increase public awareness of risk and education of flood hazards;
- Communicate the benefits of the hazard mitigation planning process;
- Ensure stakeholder support and proper management of expectations;
- Establish two-way communication with stakeholders impacted by the floodplain remapping, as well as the NFIP in general;
- Ensure compliance with due process and other regulatory requirements;
- Minimize the number of technical appeals and protests;
- Ensure public understanding of the benefits of new maps;
- Interact with technical representatives to ensure production of quality maps;
- Enhance ownership and use by communities;
- Ensure that other users know how to use the new maps; and
- Track/monitor/evaluate outreach activities and adjust efforts according to feedback received and evolving project needs.

To accomplish these goals, the District provides: an interactive website for the public to view flood risk data and obtain DFIRMs, FIS reports and risk reports; the ability for the public to add comments to preliminary map layers under review; stakeholder notification to each County and community included in the Risk MAP project; public education and information through public meetings; informational brochures/newsletter article; PowerPoint presentations to interested organizations; press releases; flood risk products. With current FEMA funding, the District is coordinating a public relations campaign with spots on local stations and social media, and collaborated with a public relations firm to plan and execute the first District Flood Risk Conference on January 28, 2025.

Since a core mission of the District includes flood information, protection and mitigation, the District is undertaking an expansion of its outreach beyond the tools and training described above. Flooding and high-water events pose significant threats to communities throughout the District; and these threats are magnified as land use changes and development continues within the floodplain. To further serve our constituents, the District is planning to enlist a dedicated public relations company to develop an active outreach campaign with the goal of increasing knowledge and awareness of flooding impacts and risks. The desired result of this campaign will be a behavior change to increase flood knowledge, preparedness, and mitigation, as well as stop unlawful flooding impacts. The District plans to accomplish this behavior change through a multi-media campaign involving videography, photography, print materials, and advertising. Special additional funding of \$200,000 for this multi-year public relations initiative was obtained under the FY20 CTP grant awarded September 2020.

An initial pilot to develop the first public relations video and materials was completed in FY21 and is available at <https://www.srwmdfloodreport.com/virtual>. With the implementation of the Task Work Assignment for the FY20 grant in 2021 the stage was set, and the communications department developed an RFQ and brought multiple public relations firms on board for both the current Risk MAP PR project and District public relations in general. A public relations firm was selected from the RFQ selections and conducted a combined media campaign and District flood risk conference. At the board's request this event was rescheduled for January of 2025 to give the new 2D studies more time before the symposium.

2.2.5 Independent QA/QC

The District will continue to oversee all necessary QA/QC functions for both engineering and mapping products associated with the DFIRM projects in the District. QA/QC activities will be performed either by District personnel or one of the District's consultants. QA/QC reviews will be performed by qualified personnel other than those who performed the work. FEMA guidelines will be followed for all engineering and mapping reviews along with standard engineering QA/QC guidelines. QA/QC activities will be funded by FEMA to the District through the Risk MAP funding grant process.

2.3 Program Management

The District will provide a program management structure that will motivate partners to share responsibilities and align the District's, FEMA's, and the local community missions to reduce vulnerability to floods and other hazards and increase public awareness of risk and education of flood hazards. The objective of Program Management activities is to recognize the activities undertaken by CTPs as part of the active process of managing multiple projects for the District. All process and deliverables shall be completed in accordance with FEMA's Guidelines and Specifications for Flood Hazard Mapping Partners (G&S) and effective Procedure Memoranda (PMs).

Program management for the District's participation in Risk MAP program will be accomplished through the combined use of District staff and the use of contractors. The contractor will implement the following program management action items:

- Define program management goals including those associated with prioritization and execution of program elements;
- Assist in the annual update of the Risk MAP Business Plan;
- Assist in outreach activities (community meetings, media coordination, and mailings);
- Coordinate and/or administer training for Communities affected by the proposed DFIRM updates regarding Risk MAP, the Community Rating System, and Flood Insurance

- Continued development of website to provide widespread access to Risk MAP data, improved risk analysis reporting, and generation of reports consistent with Risk MAP goals and datasets
- Maintenance of the SharePoint site and calendars
- Identify roles and responsibilities for all entities contributing to the District's mapping efforts;
- Develop and manage data standards, product specifications, and quality of the products to be used by the communities and other end users;
- Manage and track the progress of the DFIRM projects against schedules and budgets;
- Develop monthly status reports for District and FEMA Region IV.
- Provide quarterly status reports that are to be supplied to FEMA Region 4; as of FY23 this will include participation in using the new CTP Performance measures tool.
- Evaluate program performance and recommend improvements;
- Promote partnerships with local communities through meetings and data mining;
- Provide for program management staff time;
- Development of continuous improvement strategies and innovative technical and building practices;
- Manage Risk MAP discovery and prioritization of projects in collaboration with the District;
- Track production of DFIRM products of District study contractors;
- Assist as needed with interpretation and implementation of Risk Map requirements;
- General support activities including those defined in 44CFR, Part 66;
- Risk MAP reviews;
- FEMA mapping coordination;
- CTP pre-discovery activities.

2.3.1 IT Management System

The IT management systems will be the foundation that the technical management and outreach service components will be built upon. The system is composed of three major modules: the public websites (mentioned in the outreach section), the data management system, and the data repository. Of the three modules, the data repository, accessible through FEMA's MIP, will be the core component. Figure 2-3 illustrates the relationship among the three modules.

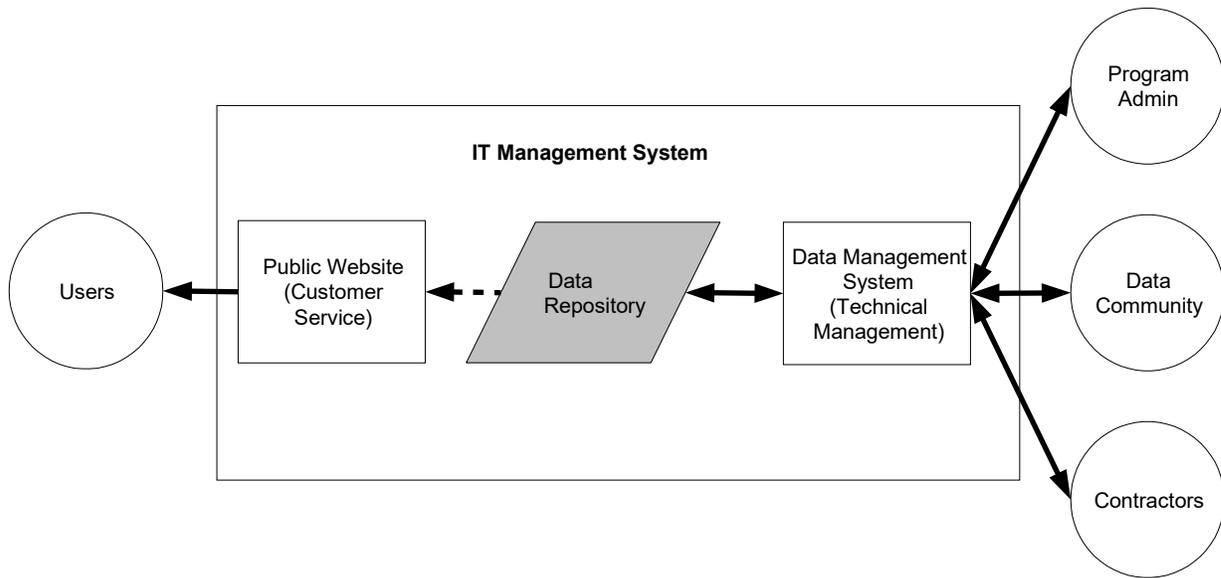


Figure 2-3 The IT Management System

Development of the public websites will continue to be updated for the duration of the Risk MAP program. Of the three modules the public websites have an immediate impact to generate public awareness and manage public expectations. Elements of the MIP data repository will be made available to the public by way of these websites. The District is using an offsite hosting service for the public website through a study consultant to store, disseminate and maintain DFIRM data, and Risk MAP products. In addition, the District website provides links to FEMA for electronic versions of the DFIRMs and Flood Insurance Studies.

2.3.2 Program Level Community Outreach

An essential component of the District Risk MAP program is community outreach and customer service to ensure stakeholder support and the proper management of expectations of the overall program. The District will focus its customer service activities through various mechanisms, including interactive websites with community information and status of ongoing projects, in-house and community training programs, and public outreach activities. The website (<http://www.srwmdfloodreport.com/>) is a GIS-enabled system that will allow users to review the current status of existing projects, announcements, complete informational tutorials, and download fact sheets, issue papers, news releases, and other documents. The site also includes a data viewer where DFIRM data is available for viewing and printing maps. All of this assists the user in determining if their property is affected by a flood zone, and descriptions of how to interpret the specific FEMA flood zones. An added feature of the site is the ability of the user to view preliminary flood data that is available. The goal of this site is to help the user identify their flood risk. The objectives for the site are to provide the user with flood zone data, identify risk, and assist the user in determining how far they are from the flood zone. The website will continue to be populated with flood risk data generated during DFIRM studies produced under the Risk MAP program.

In addition to the above activities that promote the ownership of FEMA's flood hazard maps by user communities, there will be additional activities by the District to raise public awareness and participation in the study process. These activities include such activities as a quarterly newsletter, you-tube videos, fact sheets, posts for the District Facebook page, updates to the FEMA material on the District website, advertisements, and outreach meetings with local government officials and the public at each stage of the mapping process. By providing more outreach opportunities directed toward local governments, the District leverages existing data and analyses from local levels. Furthermore, due to increased involvement of citizens and local officials, there is a reduction in the number of appeals and protests to DFIRM products.

The District also proposes continued outreach and coordination with the Northwest Florida Water Management District (NFWFMD) for Risk MAP activities that affect Jefferson County; with the Southwest Florida Water Management District (SWFWMD) for activities that affect Levy and Alachua Counties (these counties lie partially within the jurisdiction of the District). The District and its consultants will also continue coordination with FEMA's contractors assigned to study adjacent watersheds in shared counties with Saint Johns River Watershed Management District (SJRWMD) and continue coordination with the state of Georgia for watersheds that span state boundaries.

Chapter 3 RECOMMENDATIONS FOR MAPPING THROUGH FY30

Unmet needs continue to be documented throughout the Risk MAP Program Cycle. Status of recommendations and actions for each watershed are listed below in Figure 3-1.

Figure 3 -1 District Multi-year Plan showing studies in progress and planned studies.

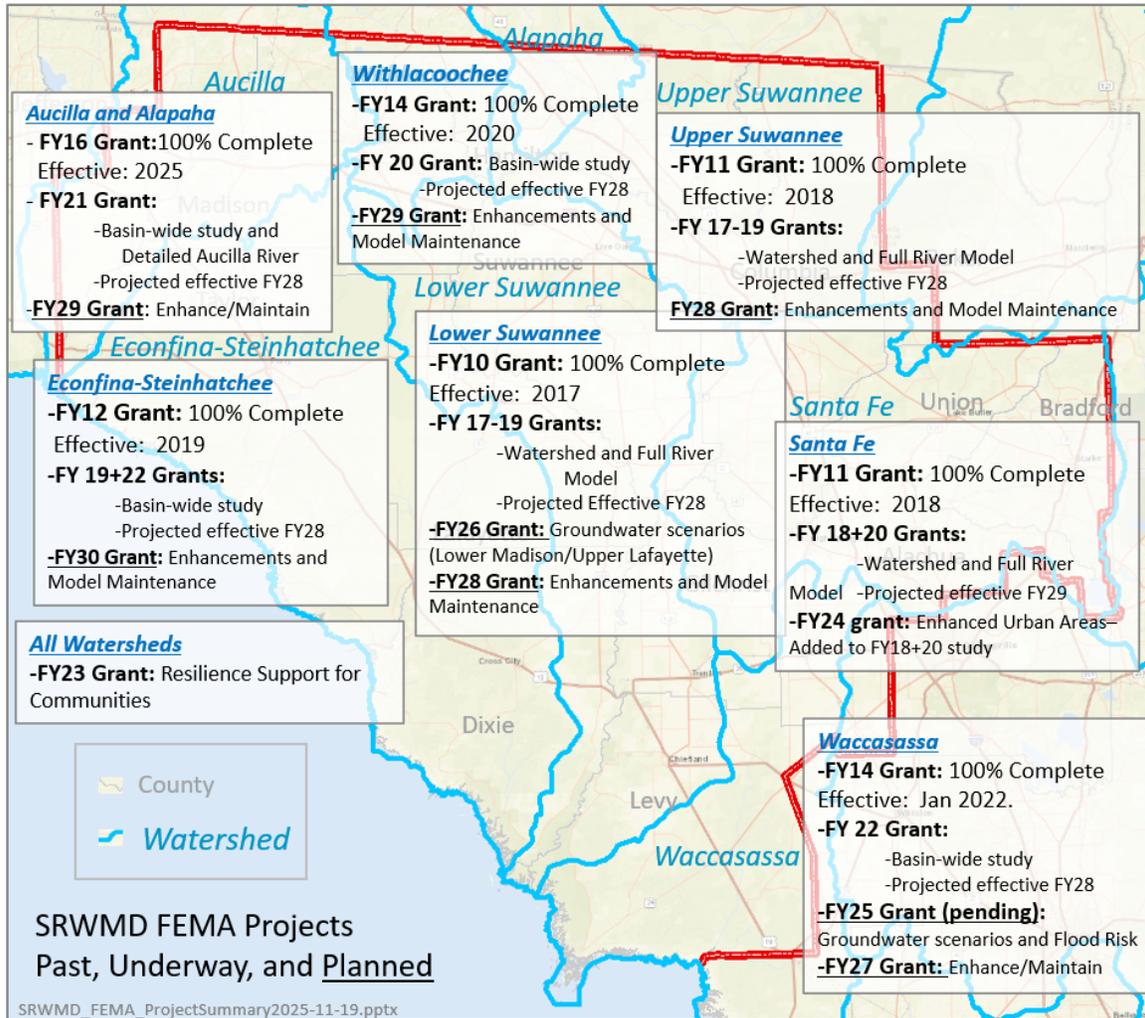


Figure 3-1 shows each watershed of the District. They are being studied for flood risk under Risk MAP in a cycle of 5-7 years per study. The initial cycle comprised smaller study areas, based on limited funding from FEMA, and was focused on community needs. These initial studies are now complete. For the second cycle in each watershed, a larger study is approved to do a basin-wide study combining approximate 2D modeling for the overall watershed and detailed 1D modeling of the major river(s) in that watershed if needed. This second cycle of studies is also shown in Figure 3-1. Upon completion of the second cycle already funded, a third cycle of Risk MAP is proposed, focusing on any new needs discovered with the basin-wide studies and maintenance of the new models. Maintenance of the models helps ensure

they are current and protects the initial investment, incorporating impacts of mitigation actions and development in the communities over the coming years, as well as incorporating new rainfall projections from the pending release in 2026 of NOAA Rainfall Atlas 15, and any new LiDAR.

Santa Fe watershed was approved for phase 3 under the FY24 grant. FY25 and FY26 are focusing on groundwater integration in key areas not yet under investigation. Over the coming years (FY27-FY30) this third cycle of study is proposed for the watersheds shown in Figure 3-1. The third cycle studies are described below for each coming fiscal year—these proposed studies play a critical role in maintaining the models with up-to-date conditions as well as refining specific areas as needed with more detailed modeling.

Aucilla and Alapaha are the last of the studies funded in cycle one, and as a result were able to incorporate 2D modeling in a portion of those watersheds. These watersheds went through preliminary map releases in 2023 and were well received. These two went effective in February 2025. The second phase is funded and underway, completing the 2D approximate modeling in the rest of the watershed and preparing a 1D detailed model covering the entire Aucilla River in the District.

Upper Suwannee, Lower Suwannee, Santa Fe, Econfinia-Steinhatchee, Waccasassa and Withlacoochee studies have also completed effective map releases under the initial cycle of Risk MAP. All these watersheds, covering the rest of the District, have been funded and studies are underway. It is notable that for these studies the District is also pursuing funding to measure groundwater modeling influences on surface water flooding to help exceed FEMA requirements and provide a more transparently integrated ground and surface water approach to the modeling.

The initiation of Phase 3 modeling began with the Santa Fe watershed under FY24. For the Santa Fe watershed, because of the sensitive nature of this widescale project, the urbanized areas identified as needing detailed 2D analysis were funded in FY24 as an add-on to the current project and both projects will be completed in parallel.

The current FY27-FY30 funding requests are proposed to support additional detailed studies and model maintenance as they are identified during the current phase 2 studies in each watershed. These future studies will protect the investment in 2D models by keeping them current, as well as providing additional detailed models where needed. They will account for changes in flooding due to mitigation actions recommended under cycle one, as well as changes due to growth and development, and also incorporate the planned update to the NOAA Rainfall atlas, accounting for anticipated revisions to the 100-year and 500-year rainfall amounts.

FY21-FY24 FUNDING ALREADY APPROVED
(included for reference)

FY21 Funding (approved) – Studies in Aucilla (03110103) and Alapaha (03110202) Watersheds

Studies and mapping in Aucilla HUC8 basin and Alapaha HUC8 basin in Florida.

1. As the current initial studies in Aucilla and Alapaha watersheds proceed through appeals to final effective release in early 2025, the scoping for completion of the last of the watershed-wide 2D studies in these two watersheds will commence. The funding, approved in FY21, is available and ready to go. These watershed-wide studies will have the advantage of learning from all the other watershed-wide 2D studies and the public relations that are ongoing. The new studies will be able to utilize new data such as the current statewide LiDAR update, new leverage, and will complete the unverified NVUE miles (387 mi) . (Aucilla \$1,282,750; Alapaha \$310,000)
2. Expiring CNMS/NVUE miles – 17-point updates to CNMS database for 438 total expiring miles was approved under the FY21 budget (\$36,777)

Enhanced Program Management and COMS to continue outreach activities and continue incorporating training, tracking and web-based map and model management capabilities into the District website; as well as PiMS training costs for District staff (Program Management \$75,000; COMS \$200,000).

Total Funding: \$1,904,527

FY22 Funding (approved) – Studies in the Waccasassa HUC8 Watershed (03110101) and additional funding for Econfina-Steinhatchee (03110102)

Waccasassa watershed’s first round of studies initiated in FY15 went effective in January 2022. FY22 funding was approved and awarded September 2022, allowing for governing board approval of contracts in early 2023 to initiate the new studies; giving the communities assurance that their voices are being heard and responded to in a timely manner.

1. In Waccasassa watershed additional study is underway for 2D approximate mapping of the watershed providing model-backed data for all approximate flood zones and all Tier 0 and Unverified NVUE miles (285 miles Waccasassa). (Waccasassa \$702,723).
2. Econfina-Steinhatchee funding was recognized as needing additional funds in order to complete 2D mapping of the watershed in addition to the previously

- funded 1D models updating Tier 0/unverified NVUE miles (additional funding of \$384,793).
3. Discovery was funded in the Santa Fe watershed to identify and scope any new detailed studies needed and perform model maintenance after the end of the watershed-wide 2D study currently underway. However, the current Santa Fe 2D study has shown that the approximate 2D model results obtained, as well as public meeting feedback, provide input that would be appropriate for requesting additional funding and expansion of the current study, rather than waiting until the current study is effective to perform Discovery and then identify the needs. As a result, this FY24 business plan and the Multi-year Flood Hazard Mapping Plan submitted in October 2023 propose incorporating the Discovery funds (\$82,864) into the FY24 study enhancements for Santa Fe.
 4. Expiring CNMS/NVUE miles – FY22 funding approval also included the 17-point reviews and updates to the CNMS database for a large number of expiring miles (550) across the District. (\$85,800)

Other FY22 funding approved included Enhanced Program Management (PM- \$78,000) and community outreach and mitigation strategy (COMS-\$200,000) to continue outreach activities and incorporate training, tracking and updates to the non-regulatory products, model management, maintenance and upgrades to digital infrastructure, as well as fund District staffing needs for attending flood conferences. In addition, the District is collaborating with University of Florida on a separate state grant for a Sea Level Rise vulnerability tool. Additional funds (\$86,216) are being provided by FEMA under the FY22 COMS grant to support integration of the vulnerability tool into the existing flood risk reporting and model management web infrastructure.

Total Funding: \$1,620,396

FY23 Funding (Approved) – Enhanced Current Studies Outreach to Under-Funded Communities

The FY22 Risk MAP grant (above) completed the funding for 2D watershed-wide modeling of all 8 HUC-8 watersheds in the District (Upper and Lower Suwannee, Santa Fe, Waccasassa, Econfina-Steinhatchee, Withlacoochee, Aucilla, Alapaha). FY23 funding focused on enhancements to those eight studies, as described in item 1:

1. Supplemental MAS funding for all eight watersheds currently being studied or pending study. Funding to cover enhanced project outreach with a deeper dive for Flood Risk Review(FRR) and/or Resilience meetings - matching mitigation opportunities to grants, linking resilience efforts to social vulnerability data, and including additional training for community flood plain managers and support staff. This deeper dive is to be added to all FRR and Resilience meetings during the next 3 years, at least one for each watershed. Ensure compliance with Justice40 Initiative (\$319,500).

Additionally, funds were approved for enhanced Program Management and Community Outreach and Mitigation Strategy (COMS) statements of work. These will fund continuation of district-wide outreach activities and incorporate training, tracking and web-based map and model management capabilities for 2D models into the District website. Funding also approved to partially fund District staff attending flood risk conference and training. (COMS: \$200,000; Program Management: \$88,000).

Total Funding: \$607,500

FY24 Funding – Santa Fe Watershed Studies (03110206)

The current FY18+FY20-funded studies in the Santa Fe Watershed would have resulted in preliminary maps in FY24. However, funding approval to continue the Risk MAP cycle of studies in Santa Fe Watershed was awarded to add funding to the current study, providing detailed 2D modeling of selected areas to both enhance the existing 2D models and keep them current.

1. Additional study, map updates, and mitigation action recommendations anticipated for map maintenance to keep studies current due to Risk MAP mitigation actions enacted to change flood risk during previous five years, plus substantial new growth, community needs, and any flooding experienced in the Santa Fe Watershed. (\$750,000)

Community Outreach and Mitigation Strategy (COMS) budget: in response to new FEMA directives addressing climate change, resilience, mitigation, and social equity, the following special project is proposed for inclusion in the FY24 COMS budget:

Additionally, the enhanced Program Management and COMS Statements of Work to continue program administration and planning, outreach activities, training, tracking and web-based map and model management capabilities and digital infrastructure for 2D models in the District website. Compatibility revisions to flood risk website to address new Esri Application Programming Interface (old API no longer supported after 2025). (COMS: \$250,000 + Special Project Phase 1 \$299,800 = \$549,800; Program Management: \$93,000).

Total Funding: \$1,392,800

FY25-FY30 FUNDING PROPOSED

FY25/FY26a Funding – Impact of varying groundwater conditions on surface water flood risk in the Waccasassa Watershed (HUC 03110101)

With the independently funded addition of a groundwater component to the current FEMA study in the Econfina-Steinhatchee Watershed, the District is pursuing opportunities to model the influence of groundwater conditions in other watersheds. FEMA had agreed in principle to collaborate on the addition of groundwater conditions into the current Waccasassa Watershed study. The proposed approach is described here.

Note: The FY25 CTP grant is currently on hold while FEMA reviews are underway. Because the funds were already approved it is anticipated that the FY25 funding will become available, with one possibility that the FY25 funds will be added to the FY26 allocation and a combined FY25/FY26 grant will become available in 2026. The District and its program management consultant, AtkinsRéalis, are tracking developments and will be ready to respond as needed. In the event only FY26 funding is available, the District will decide whether to delay all the proposed requests one year and proceed to seek the FY25 request under FY26 or pursue the FY26 grant as shown in the next section and postpone the FY25 request until FY27.

Proposed for FY25 Risk MAP funding: Given the District’s unique geographic and geologic characteristics, it is known that ground water fluctuations in the region can have a significant impact on surface water conditions, including severe flooding events. While FEMA’s National Risk MAP Program does not typically consider groundwater, its influence on communities in Florida’s Big Bend Region warrants a base level approach for mapping flood risk scenarios for varying groundwater conditions. The proposed effort will leverage the 2-D Flood Study modeling underway in the Waccasassa watershed. Ground water conditions will be assessed using the existing North Florida-Southeast Georgia (NFSEG) Regional Groundwater Flow Model. The NFSEG model will feed a statistical analysis of varying ground water levels throughout the project area. For each Risk MAP model frequency studied, the analysis of groundwater impact will be shown in GIS mapping layers associated with the following four groundwater level scenarios: 0 to 25th Percentile; 25th to 75th Percentile; 75th to 90th Percentile; and Greater than 90th Percentile.

The results of this study will be made available as a non-regulatory product. If the impact of groundwater levels on the FEMA flood risk model Base Flood Elevations (BFEs) is significant, the SRWMD will coordinate with Region IV to establish a precedent on integrating the results into regulatory flood elevations and the effective flood insurance study. Establishing a precedent for releasing flood risk models and model results that integrate a groundwater component will require time and communication and would be anticipated to take place under a

subsequent grant once the model results are available and the impact is shown to be significant enough to warrant the map revision. (\$333,100)

Enhanced Program Management and COMS to continue outreach activities and incorporate training, mitigation technical support, as well as maintenance and upgrades to the District's flood risk reporting website and virtual meeting platform and model management. The funding request this year was reduced due to limited availability under the FY25 grant (Program Management \$98,000; COMS \$155,000).

Total Funding: \$586,100

FY26 Funding – Impact of varying groundwater conditions on surface water flood risk in the Lower Suwannee Watershed (HUC 03110205) focusing on southern Madison and northern Lafayette Counties

Given the District’s unique geographic and geologic characteristics, it is known that ground water fluctuations in the region can have a significant impact on surface water conditions, including severe flooding events. While FEMA’s National Risk MAP Program does not typically consider groundwater, its influence on communities in Florida’s Big Bend Region warrants a base level approach for mapping flood risk scenarios for varying groundwater conditions. The proposed effort will leverage the 2-D Flood Study modeling underway in the Upper Suwannee watershed, with a focus area concentrating on southern Madison County and northern Lafayette County, within the watershed boundary.

Ground water conditions will be assessed using the existing North Florida-Southeast Georgia (NFSEG) Regional Groundwater Flow Model. The NFSEG model will feed a statistical analysis of varying ground water levels throughout the project area. For each Risk MAP model frequency studied, the analysis of groundwater impact will be shown in GIS mapping layers associated with the following four groundwater level scenarios: 0 to 25th Percentile; 25th to 75th Percentile; 75th to 90th Percentile; and Greater than 90th Percentile.

The results of this study will be made available as a non-regulatory product. If the impact of groundwater levels on the FEMA flood risk model Base Flood Elevations (BFEs) in this study area is significant, the SRWMD will coordinate with Region IV to establish a precedent on integrating the results into regulatory flood elevations and the effective flood insurance study. Establishing a precedent for releasing flood risk models and model results that integrate a groundwater component will require time and communication and would be anticipated to take place under a subsequent grant once the model results are available and the impact is shown to be significant enough to warrant the map revision. (\$336,900)

Enhanced Program Management and COMS to continue outreach activities and incorporate training, mitigation technical support, maintenance and upgrades to the District’s flood risk reporting website and virtual meeting platform, as well as model management (Program Management \$100,000; COMS \$200,000).

Total FY26 Funding Request: \$636,900

Potential additional FY25 funding: \$586,100

Potential combined request FY25 and FY26: \$1,223,000

FY27 Funding – Waccasassa Watershed (03110101) Physical Map Revision

FY22-funded studies in the Waccasassa Watershed should result in new effective maps at the end of FY27. A Waccasassa Physical Map Revision funded under the FY26 grant (Fall FY26 approval) will be ready to commence in FY27. The funding is requested for studies to begin updating the new effective models based on the findings of the FY22-funded study. It is intended to support the original investment by incorporating new data and changes in the watershed into the effective models described below:

1. Additional studies, map updates, and mitigation action recommendations anticipated for map maintenance due to mitigation actions enacted to change flood risk during previous five years, as well as new growth, community needs, any new flooding experienced in the Waccasassa Watershed, new LiDAR, and new design storm rainfall amounts in the latest NOAA flood atlas. (\$525,000)

Community Outreach and Mitigation Strategy (COMS) budget: In response to new 2D FEMA flood maps updating the majority of each watershed, there is an expanded opportunity for outreach and mitigation of flood risk.

Enhanced Program Management and COMS to continue outreach activities and incorporate training, mitigation technical support, tracking and web-based map and model management into the District website, as well as partially fund District staff to attend flood risk conference(s).

Total Funding: \$828,000

FY28 Funding – Upper Suwannee (03110201) and Lower Suwannee (03110205) Physical Map Revisions

Anticipating the completion of the FY17-19-funded studies in the Upper and Lower Suwannee watersheds in FY27, the Risk MAP cycle in these watersheds should circle back and be ready to model areas identified by communities as needing further study. FY27 funding would be approved and awarded by the end of FY27, allowing for governing board approval of contracts to initiate map revisions as needed based on the findings of the current study. This gives the communities assurance that their voices are being heard and responded to in a timely manner.

1. Upper Suwannee and Lower Suwannee Watersheds: Additional study of each watershed spanning 9 counties is anticipated for map maintenance due to any flood risk reduction attributable to mitigation actions over the previous 5 years, as well as new growth, other community needs, new design storm data from NOAA, new LiDAR, and/or new flooding experienced since last studies. (Upper Suwannee: \$405,000; Lower Suwannee: \$720,000).

Enhanced Program Management and the Community Outreach and Mitigation Strategy (COMS) to continue outreach activities and incorporate training; tracking; mitigation technical support; updates to the online regulatory and non-regulatory products; 2D model management; maintenance and upgrades to digital infrastructure; as well as fund District staffing needs for attending annual FEMA Partners training (COMS \$200,000); Program Management \$103,000).

Total Funding: \$1,428,000

FY29 Funding – Withlacoochee Watershed (03110203) and Aucilla/Alapaha Watersheds (03110202, 03110103)

Completion of currently funded studies in the Withlacoochee Watershed and the Alapaha and Aucilla Watersheds should result in new effective maps in late 2028. The findings of these studies will feed the funding request to continue the Risk MAP cycle (anticipating approval of the grant by September 2029, which would allow the project to commence in 2030 (FY30 Q2). The new cycle of studies, based on the findings of the phase 2 studies underway, and on new community needs, will allow for ongoing map and model maintenance based on changes to the watershed and to design storm rainfall projections over the preceding 5 years.

Additional studies, map updates, and mitigation action recommendations anticipated for map maintenance due to mitigation actions enacted to change flood risk during previous five years, new growth, community needs, new design storm data, new LiDAR, and/or any flooding experienced in the Withlacoochee Watershed (\$350,000) and Aucilla/Alapaha Watersheds (\$525,000)

Enhanced Program Management and COMS SOWs to continue outreach activities and incorporating training, tracking and web-based map and model management capabilities into the District website, as well as partially fund District staffing attendance at Risk MAP training programs (Program Management \$106,000; COMS \$200,000).

Total Funding: \$1,181,000

FY30 Funding – Econfina-Steinhatchee Watershed Studies (03110102)

Completion of FY19/FY22-funded studies in the Econfina-Steinhatchee Watershed should result in new effective maps by FY28-FY29. FY30 Funding approval is proposed to continue the Risk MAP cycle in the Watershed in late 2030.

1. Additional studies, map updates, and mitigation action recommendations are anticipated for map maintenance. Map maintenance is intended to incorporate mitigation actions enacted to change flood risk during previous five years, account for new growth and redevelopment, address new community needs, integrate the latest rainfall Atlas information on design storms, integrate any changes indicated by new LiDAR, and respond to any new flooding that has occurred in the previous 5 years to provide additional ground truth. Econfina-Steinhatchee Watershed. (\$600,000)

Enhanced Program Management and COMS MAS to continue outreach activities and incorporating training, tracking and web-based map and model management capabilities into the District website, as well as partially funding District staffing needs for Risk MAP programs (Program Management \$110,000; COMS \$200,000).

Total Funding: \$910,000

Chapter 4

GEOSPATIAL DATA COORDINATION

Through Circular A-16, the Office of Management and Budget (OMB) directs Federal agencies that produce, maintain, or use spatial data to participate in the development of the National Spatial Data Infrastructure (NSDI). The goal of the NSDI is to reduce duplication of effort among agencies; improve quality and reduce costs related to geographic information; make geographic data more accessible to the public; increase the benefits of using available data; and establish key partnerships with cities, counties, states, tribal nations, academia and the private sector to increase data availability.

To help realize this goal, FEMA has developed a Geospatial Data Coordination Policy and a plan for implementing that policy. In support of the policy, metadata catalogs and other tools will provide access to the data holdings of FEMA's flood mapping program through various portals of the NSDI.

4.1 SRWMD Geospatial Coordination

The District is currently implementing portions of the items contained in the Geospatial Data Coordination Policy. The District is acquiring existing data for use in the development of the DFIRM and ensuring that the data is FGDC compliant.

As part of the Map Modernization and Risk MAP process, the District is also developing digital database and metadata information for use by other agencies or the public. In addition to providing this information on the MIP, the District will also provide this information to the NSDI clearinghouse.

In accordance with FEMA's *Geospatial Data Coordination Policy*, dated August 23, 2005, and FEMA's current *Geospatial Data Coordination Implementation Guide*, all District geospatial data will be "coordinated, collected, documented and reported with standardized, complete and current information in compliance with Federal geospatial data reporting standards." This will entail the following:

- Posting planned projects to appropriate systems for coordination;
- Identifying existing data;
- Acquiring existing data;
- Building partnerships for the creation of new data; and
- Documenting and standardizing data.