



AGENDA

COMMITTEE OF THE WHOLE WORKSHOP BOARD OF COUNTY COMMISSIONERS

Board Chambers
Suite 100
Ernie Lee Magaha Government Building - First Floor
221 Palafox Place

August 13, 2015
9:02 a.m.

Notice: This meeting is televised live on ECTV and recorded for rebroadcast on the same channel. Refer to your cable provider's channel lineup to find ECTV.

1. Call to Order

(PLEASE TURN YOUR CELL PHONE TO THE SILENCE OR OFF SETTING.)
2. Was the meeting properly advertised?
3. Visit Pensacola
(Steve Hayes - 15 min)
 - A. Board Discussion
 - B. Board Direction
4. Storm Water Advisory Team (SWAT) County-Wide Stormwater Recommendation Report Presentation
(Colby Brown - 60 Minutes)
 - A. Board Discussion
 - B. Board Direction
5. Allocation of RESTORE Direct Component Funds
(Keith T. Wilkins - 30 min)
 - A. Board Discussion
 - B. Board Direction

6. Jail Update
(Jack Brown - 30 min)
 - A. Board Discussion
 - B. Board Direction

7. Interim Detention Facility (BACKUP TO BE DISTRIBUTED UNDER SEPARATE COVER.)
(Amy Lovoy/David Wheeler - 15 min)
 - A. Board Discussion
 - B. Board Direction

8. Direction from the Board on Outside Agencies
(Amy Lovoy - 60 min)
 - A. Board Discussion
 - B. Board Direction

9. Escambia County/Martin Mercy Bench and Shelter Contract Transition
(Colby Brown and Don Christian - 15 minutes)
 - A. Board Discussion
 - B. Board Direction

10. Land Development Code (LDC) - Savings Clause
(Alison Rogers - 10 min)
 - A. Board Discussion
 - B. Board Direction

11. Economic Development Ad Valorem Tax Exemption (EDATE) Update
(Amy Lovoy - 15 min)
 - A. Board Discussion
 - B. Board Direction

12. Brownsville Community Center
(Jack Brown/Tonya Gant - 20 min)
 - A. Board Discussion
 - B. Board Direction

13. Adjourn

Committee of the Whole

3.

Meeting Date: 08/13/2015

Issue: Visit Pensacola

From: Jack Brown, County Administrator

Information

Recommendation:

Visit Pensacola

(Steve Hayes - 15 min)

A. Board Discussion

B. Board Direction

Attachments

VP Unified Budget Update

Fiscal Year 2016 TDT

Visit Pensacola, PSA, ACE Unified Budget Update

1. ACE will join PSA and Visit Pensacola in presenting one unified Visit Pensacola budget request for fiscal year 2015/2016.
2. There will be a consolidated one sheet application on VP website that will triage/redirect the funding request to either:
 - a) ACE for Arts, Culture and Entertainment,
 - b) PSA for sports events/activities, or
 - c) VP for any request outside the bounds of ACE or PSA mission/criteria
 - The applicants will be vetted by the respective organizations under their processes and criteria and awards made from their respective sub-budgets.
 - Application process and criteria will be published on each agency's web site.
 - Each agency will have success metrics, and measurement tools to capture and report the data required to report results.
 - There will be an advertised meeting allowing for public education and comment as soon as conveniently possible.
 - There will be a formal, published process to advertise for prospective TDT applicants that will include application deadlines/processes and to direct them to web sites to gain necessary application information
3. The Visit Pensacola unified budget base amount request (the amount being awarded by BoCC now) will be for all of the 4 cents except for the following:
 - a) \$1.3 million for the Bay Center operations
 - b) \$250,000 for the Commissioners discretion
 - c) \$100,000 for the Naval Air Museum
 - d) \$161,850 for the County's Marine Resources Dept.
 - e) 5% holdback
 - f) 5% administrative fees
4. Visit Pensacola will provide a sub-contract with ACE and PSA consistent with the terms and conditions of the County's Miscellaneous Appropriation Agreement.
5. The estimated \$5,478,000 net base amount will be apportioned as follows among the three agencies (see attached spreadsheet).
 - a) ACE 12%
 - b) PSA 13%
 - c) VP 75%
 - The ACE amount includes African American Heritage Society and St. Michaels Cemetery.
 - The VP amount includes Historic Preservation and Sertoma July 4th.
 - Each of the 4 outside agencies will be grandfathered for their previous amount for this year only. They will be shown the criteria and metrics for subsequent awards and have the year to find any projected shortfall.

Visit Pensacola, PSA, ACE Unified Budget Update
Page Two

6. The Supplemental amount will be apportioned as follows among the 3 agencies based on estimated \$800,000 (see attached spreadsheet).
 - a) ACE/Foo Foo Fest 25%
 - b) PSA 0%
 - c) VP 75%
7. The supplemental budget percentage allocation will be net of any amount any agency had to return and only based on the actual growth above the County's forecast and the 5% holdback.
8. The 3 agencies will jointly report quarterly to the TDC and BoCC on the use of funds and success metrics achieved.

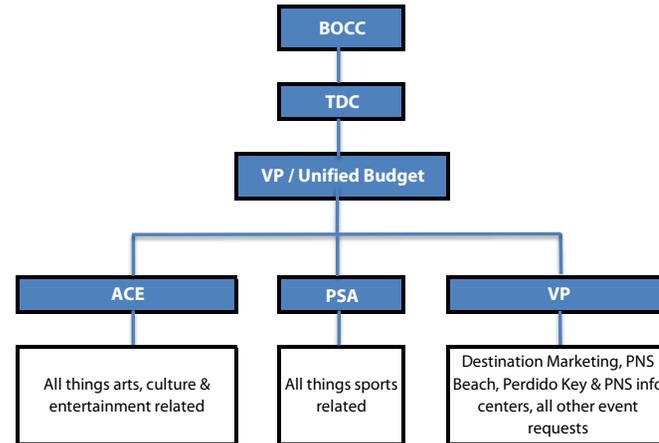
BASE TDT DOLLARS	TOTAL	% of Base TDT	% of BOCC	NOTES
BOCC				
Bay Center Operations	\$ 1,300,000	16.0%	49.6%	
Marine Resources	\$ 161,850	2.0%	6.2%	
BOCC Discretionary Fund	\$ 250,000	3.1%	9.5%	Option to include with Visit Pensacola / Unified Budget
Administrative Costs	\$ 405,000	5.0%	15.4%	
Holdback	\$ 405,000	5.0%	15.4%	Available for Supplemental in FY 2017
Naval Aviation Museum	\$ 100,000	1.2%	3.8%	
BOCC Total of Base TDT	\$ 2,621,850	32.4%		

Outside Agencies		% of Base TDT	% of Outside Agencies	NOTES
Historic Preservation	\$ -			\$70K Included with Visit Pensacola / Unified Base \$\$
African American Heritage	\$ -			\$25K Included with ACE Base \$\$
Sertoma July 4th	\$ -			\$75K Included with Visit Pensacola / Unified Base \$\$
St. Michael's	\$ -			\$25K Included with ACE Base \$\$
ACE	\$ 657,378	8.1%	12.0%	Includes two outside agencies listed above
PSA	\$ 712,160	8.8%	13.0%	
Visit Pensacola / Unified Budget	\$ 4,108,613	50.7%	75.0%	Includes two outside agencies listed above and info centers
Outside Total of Base TDT	\$ 5,478,150	67.6%		
TOTAL AVAILABLE :	\$ 8,100,000	100.0%		

SUPPLEMENTAL TDT DOLLARS **	TOTAL	% of Total	NOTES
ACE/Foo Foo Fest	\$ 434,750	25.0%	
Visit Pensacola / Unified Budget	\$ 1,304,250	75.0%	
Outside Total	\$ 1,739,000	100.0%	

Estimted Supplemental Dollars **	\$ 1,739,000	Est collections for FY 2015 at beginning of fiscal year	\$7,589,039
		Projected collections at YE if last two months are equal to last year	\$9,000,000
		Excess collections:	\$1,410,961

** Based on \$379,000 in holdback and estimated 11% increase over estimated 2015 collections



Success Measures	Description
Estimated Room Nights	Based on the number of visitors who spend one night in paid lodging (hotel, motel, condo, home, campground)
Length of Stay	How long the visitor stays in the community. Measured in days.
Per Party Spend	How much the visiting party spends while on this specific trip.
% New vs. % Repeat	Indicates whether it is a first time visitor or is a repeat visitor to the community and/or event
% Local vs. % out of Area	Percentage of visitors that are from the immediate area and those from outside the area.
% Overnight vs. % Day Trip	Percentage of visitors that spend at least one night in paid lodging vs. visiting for the day.
Awareness Level	How aware the visitor was of the community, event, program prior to visiting.

Committee of the Whole

4.

Meeting Date: 08/13/2015

Issue: Storm Water Advisory Team (SWAT) County-Wide Stormwater Recommendation Report Presentation

From: Joy D. Blackmon, P.E., Department Director

Information

Recommendation:

Storm Water Advisory Team (SWAT) County-Wide Stormwater Recommendation Report Presentation

(Colby Brown - 60 Minutes)

A. Board Discussion

B. Board Direction

Attachments

SWAT Presentation

SWAT Report

Needs Assessment



Stormwater Advisory Team (SWAT)

Stormwater Recommendation Report

Committee of the Whole - August 13, 2015

Presentation Outline

- SWAT Members
- Meeting History / Topics
- Stormwater Report Structure
- Report Recommendations
 - Needs Assessment List (Prioritization Tool)
 - Policy
- SWAT Member Comments
- Requests



Stormwater Advisory Team (SWAT) Members

- **SWAT CHAIR**

- **Mary Gutierrez, District 3**

- Exec. Dir. Earth Ethics, Inc.; Principle, Stella Maris Consortium, LLC*

- **SWAT VICE-CHAIR**

- **Phil Turner, City of Pensacola**

- Director, Arch. & Eng. Services, Inst. for Human and Machine Cognition*

- **Nathan White, District 1**

- Outside Sales Professional; former Escambia County employee*

- **Glenn Niblock, District 2**

- Mechanical Engineer (ret.); MBA, Business, Quantitative Analysis*

- **Garrett Walton, District 4**

- Attorney; Developer; Chief Executive Officer, Rebuild Northwest Florida*

- **John Cheney, District 5**

- Vice President, Mathes Electric Supply Co., Inc.; former Escambia County Engineering staff*

- **Dr. Elizabeth Benchley, City of Pensacola**

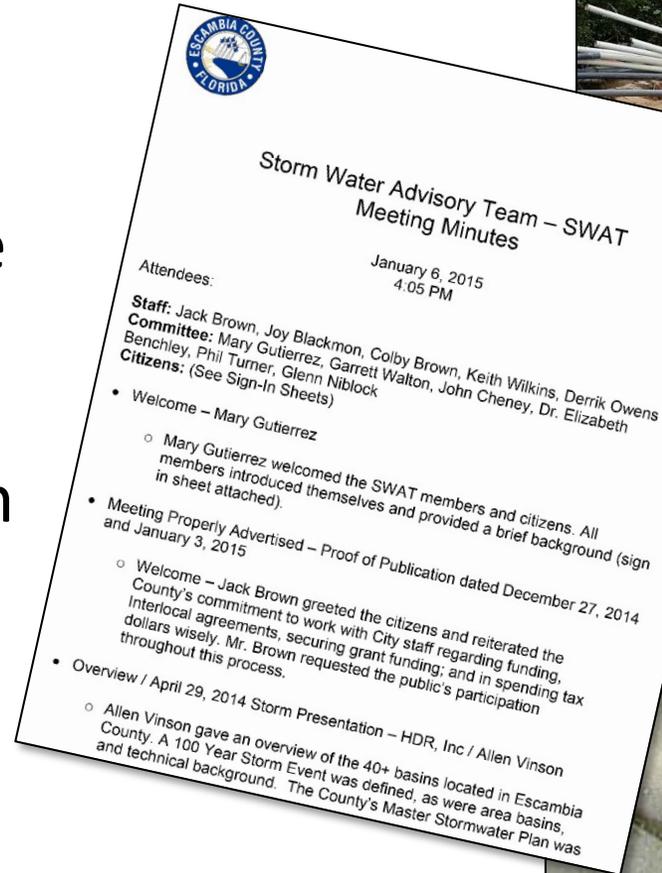
- Director Archaeology Dept. & Archaeology Institute, University of West Florida*

SWAT Meetings

7 Meetings: December 2014 – July 2015

Major Topics:

- April 2014 Storm Damage
- Precipitation Data
- Low Impact Design
- County / City Cooperation
- Pensacola Bay Basin
- S. Old Corry Bridge
- Lake Charlene



Stormwater Report Structure

Executive Summary

Introduction

Infrastructure Recommendations

- Stormwater Needs Assessment List (Prioritization Tool)

Policy Recommendations

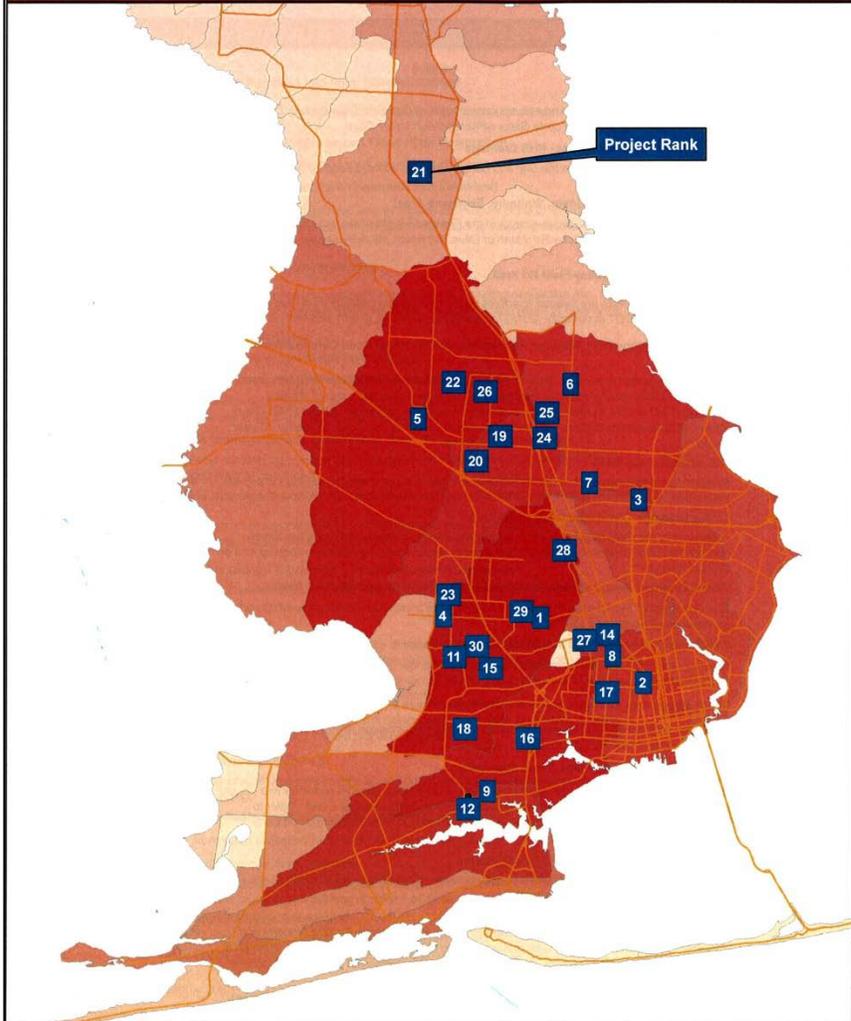
- Design Storms and Precipitation Frequency
- Low Impact Design
- Basin Studies
- Development Submittals

Appendicies



Stormwater Needs Assessment List (Prioritization Tool)

Top Priority Drainage Projects Page 3



Page 4 Ranked Needs Assessment List

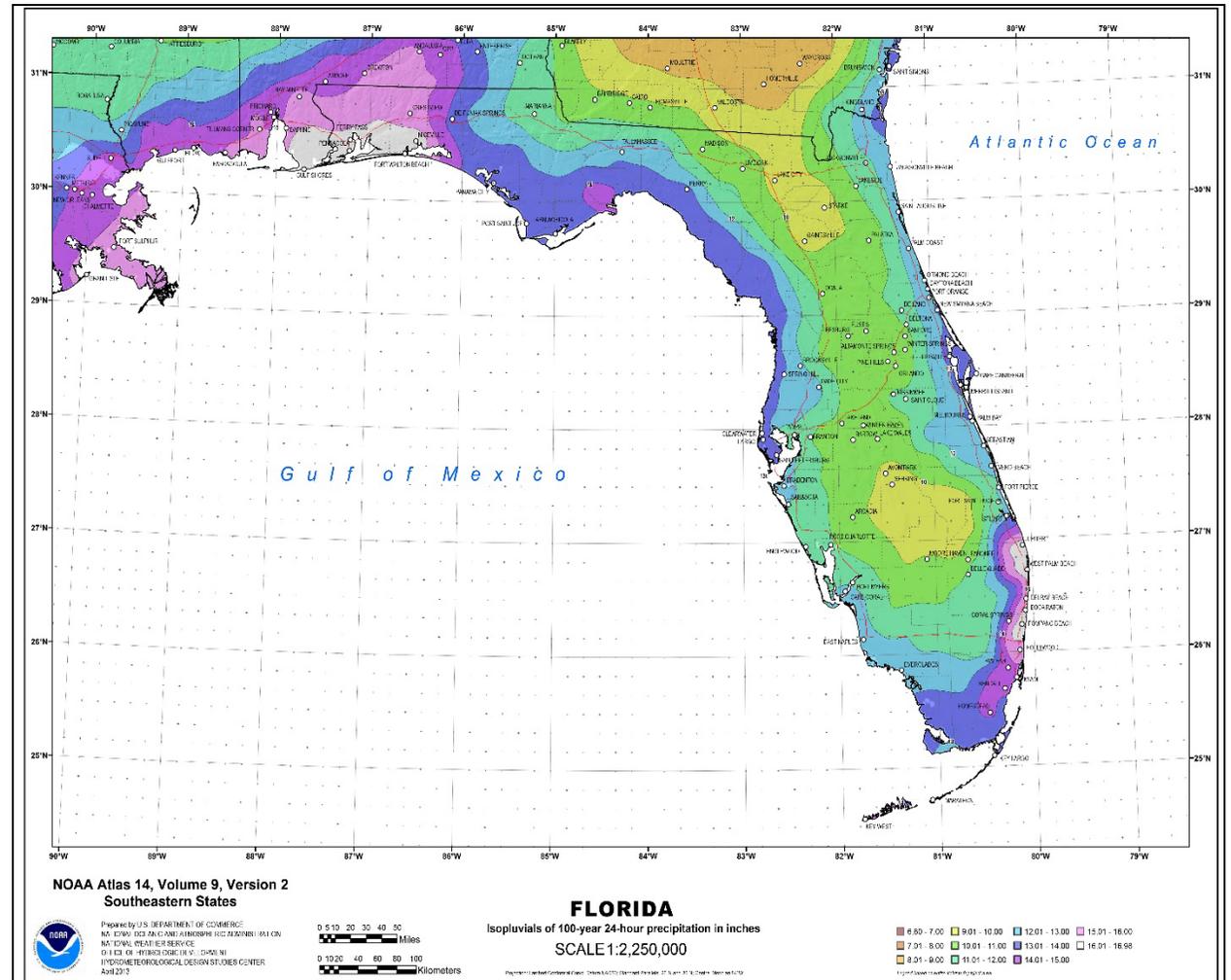
Rank	Project	Page
1	Crescent Lake <i>Construct drainage system and new ponds on east side of Crescent Lake through the Blue Springs Drive drainage system up to Glass Street and Sun valley Drive</i>	87 \$4,000,000
2	Spring Street - Leonard Street - PHS Drainage <i>Joint Drainage project between the City and School Board to address flooding on Spring Street and School Area.</i>	97 \$500,000
3	Frinchez Heights (Sabra, Erwin, Whitmire, Ernistene Area) <i>Proposed drainage capacity improvements in the Frinchez Heights area including Sabra Dr, Erwin Dr, Whitmire Dr, Ernistene Rd (North of Olive Rd) which will likely require a ditch conversion into a pond site</i>	65 \$400,000
4	Muldoon Road and Saufley Field Rd Area <i>Drainage improvements are needed to address existing drainage capacity from Blue Angel to Muldoon Road. FDOT is currently (2015) reviewing partial drainage with sidewalk projects.</i>	83 \$3,000,000
5	Flood Plain Management, Wetland Restoration, and Regional Pond Construction in 11-Mile Creek Basin <i>Roadway/drainage and sewer improvements; currently under design (NE of Fairfield and Gulf Beach Highway; Fairfield to Colbert)</i>	51 \$7,823,000

Design Storms and Precipitation Frequency

- Revise Standard Storm to 100 yr Storm (currently 25 yr storm)

The BOCC took action on this item at their April 16, 2015 meeting.

- Update Precipitation Data in conjunction with FDOT



Low Impact Design / Development

Develop a LID Manual

- LID Practices that Aid Development
- LID Incentives
- LDC Changes to Encourage LID



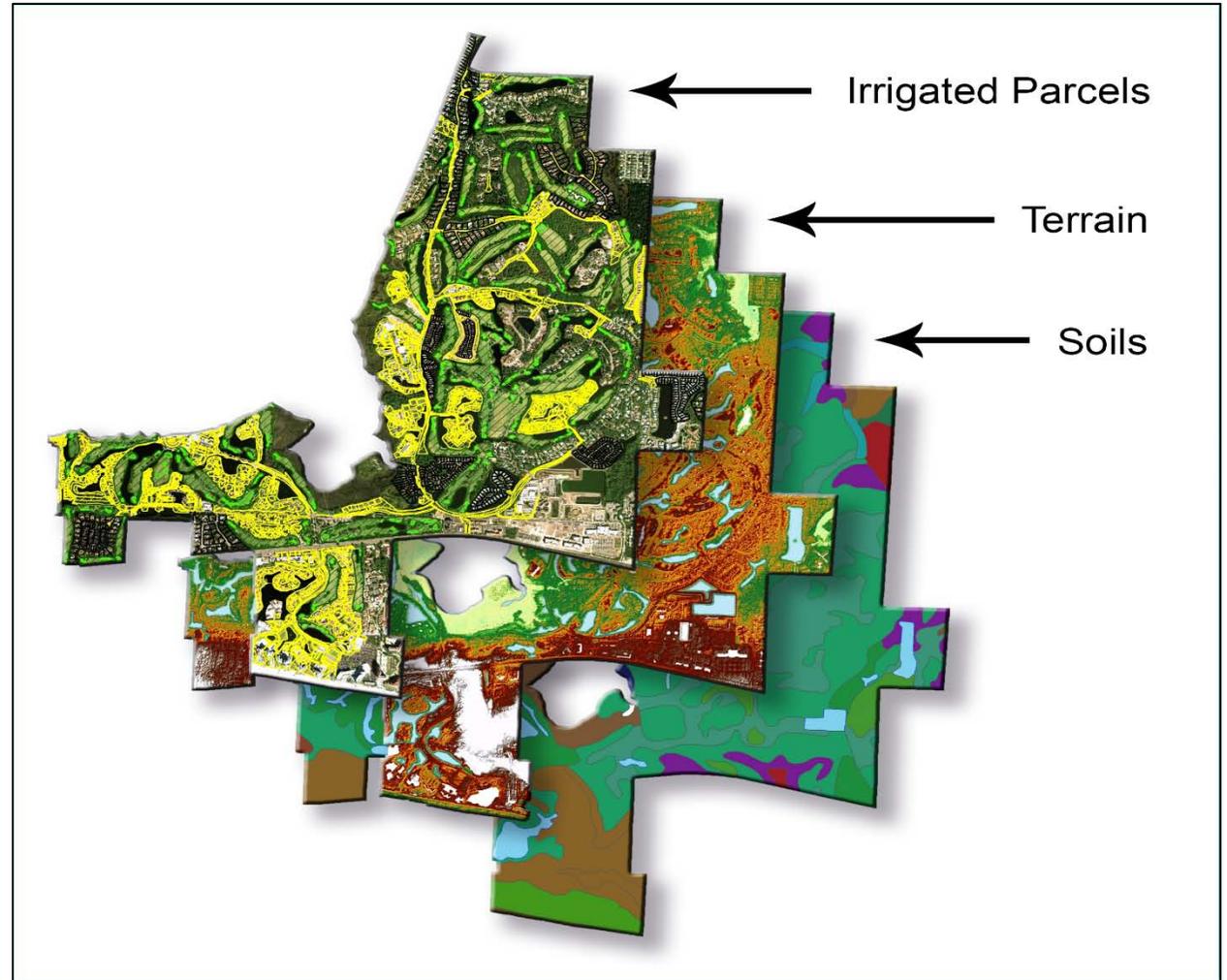
Update and Integrate Basin Studies

- Catholic High Basin
- Garcon Swamp
- Southeast Side
- Scenic Hills



Integrate and Coordinate Development Submittal

- GIS
- Asset Management
- Basin Studies



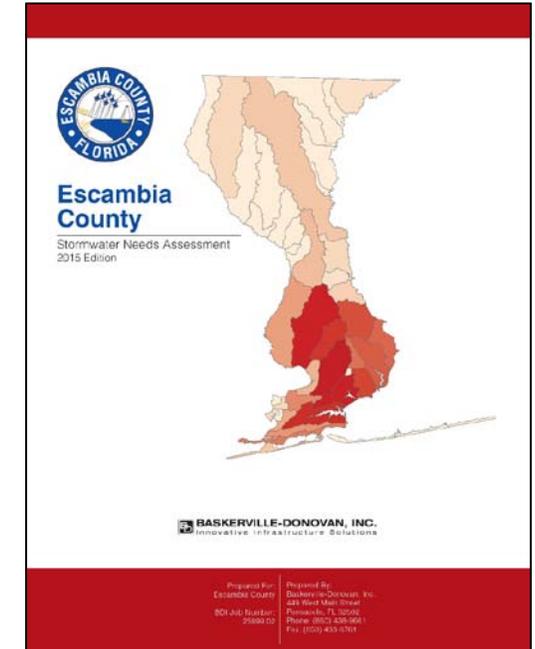
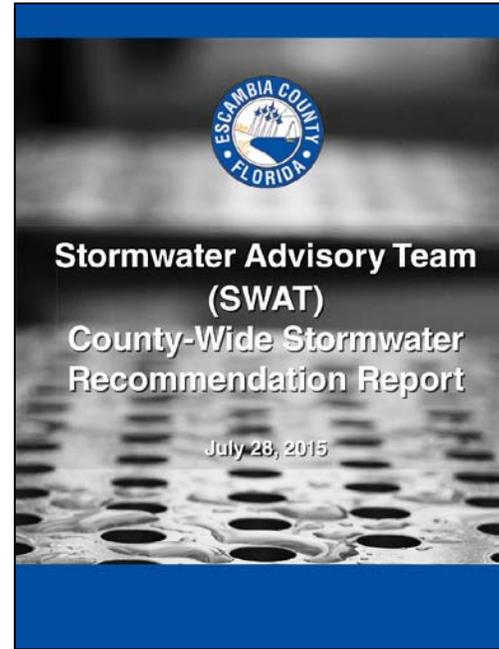
SWAT Comments



Requests

1. Approve and Accept
 - County-Wide Stormwater Recommendation Report
 - Stormwater Needs Assessment

2. Consider Sunsetting the Committee





**Stormwater Advisory Team
(SWAT)
County-Wide Stormwater
Recommendation Report**

July 28, 2015

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1.0 Executive Summary

The Stormwater Advisory Team (SWAT) was established by Escambia County after heavy rains and flooding in early 2014. The SWAT has been considering many of the challenges associated with stormwater management in Escambia County; this effort has resulted in two sets of recommendations:

1. Infrastructural Priorities that feature high-impact, cost effective projects
2. Policy Enhancements including more precise design requirements, updates to storm water basin data, GIS database upgrades and the adoption of new Low Impact Design Standards

As a collaborative effort, this report includes a wide range of public and stakeholder ideas and input. The resulting recommendations provide environmentally sound, comprehensive, cost effective solutions for many of our local stormwater challenges.

The SWAT has concluded that for stormwater repairs and upgrades to be effective and efficient, a County-wide approach must be taken. Escambia County contracted with Baskerville-Donovan, Inc. to create a Stormwater Needs Assessment, bringing together all known recommendations for stormwater improvement projects in one location, including the April 2014 Flood projects noted by SWAT. The Stormwater Needs Assessment, which is a stand-alone document and submitted with this paper, indicates all known stormwater infrastructure needs to-date along with their rankings (priority) and other critical information. The SWAT intends this document to be a planning tool which will form the structure of future improvement and funding priorities as the County moves forward with a Storm water Infrastructure Improvement Program.

In addition to the physical improvements that can be made to the County's stormwater system, there are also improvements that can be made to the stormwater policies and Land Code of Escambia County.



The SWAT's recommendations seek to ensure the safety and protection of public and private property with future .

First, the County should consider updating its precipitation frequency estimates to reflect the latest available research from NOAA's National Weather Service. This should be done in conjunction with the Florida Department of Transportation to obtain a broadly acceptable standard.

Secondly, the County should produce a Low Impact Design Manual for use in the County and provide incentives for its implementation.

Thirdly, continue to develop basin studies for more areas of the County as well as updating older studies.

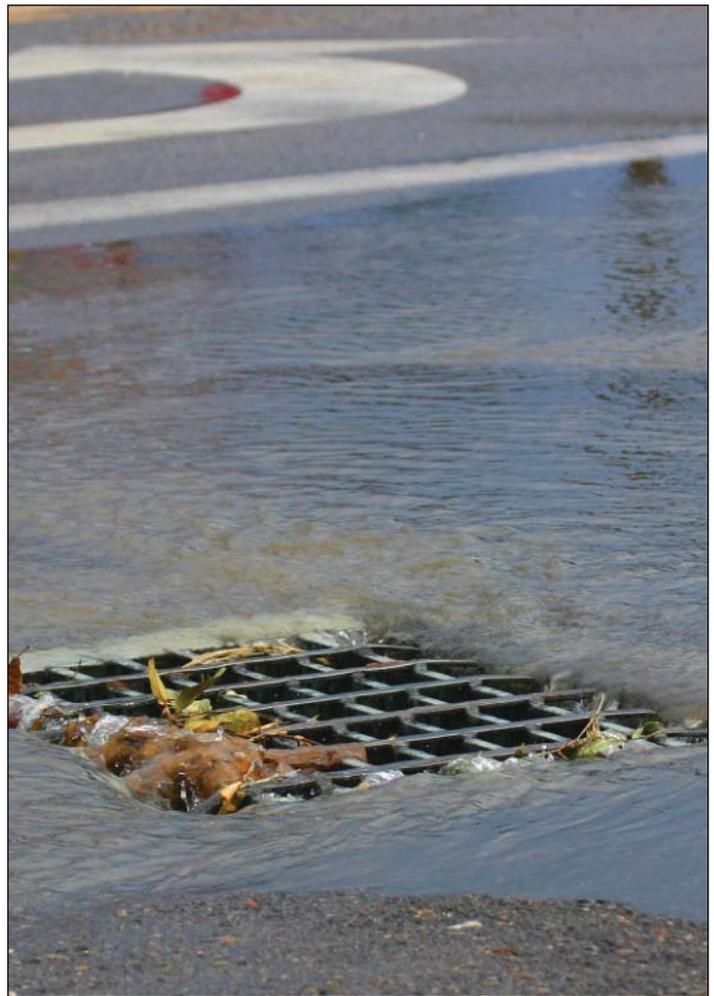
Lastly, the County should seek to further integrate and coordinate GIS, asset management, and stormwater infrastructure through the Review Committee's as-built certification process.

2.0 Introduction

2.1 Background

On the night of April 29, 2014, a historic rain event occurred in Pensacola and its surrounding regions. By some accounts the rainfall exceeded 20 inches overnight. The previous day the area had already experienced a relatively large storm event which had produced some minor flooding itself. The unnoticed effect of the early storm event was that the ground had become saturated as the rainfall infiltrated the topmost layers of soil. When the record rainstorm of the 29th finally reached the Pensacola area, the ground was already nearly incapable of accepting stormwater and practically all of the rainfall was converted to runoff. These conditions combined to produce historic flooding in the Pensacola and surrounding areas. The rainfall itself would later be described as approaching the 500-yr storm and the flooding may have been of an even greater degree due to the compounding factors.

The flooding resulting from the storm affected all types of infrastructure. Most privately owned infrastructure, typically being designed for a 25-yr storm, was quickly overwhelmed and began discharging the runoff with little to no attenuation (decrease) of the peak intensity.



All of this stormwater entered the public infrastructure system which was also overwhelmed in many areas. Throughout Escambia County, stormwater overtopped roads where culverts and stormwater collection systems lacked the capacity to carry the historic runoff. The stresses involved in roadway overtoppings caused erosion of surrounding soils which in the most severe cases caused failure of the roadways rendering them incapable of carrying traffic.

As the stormwater met these systems with insufficient capacity, the depth of flooding increased. Where there was no relief for the increasing depths, floodwaters began flooding homes as well as public and private buildings alike. By the time the flooding receded, Escambia County was left with displaced residents, washed out roadways and in excess of \$25M in damage to public facilities alone (*Escambia County Flood Recover: 1-year Anniversary Report*).



Blue Springs Drive

As local governments began to assess the damage and attempt to repair and reopen necessary facilities, the needs of the existing stormwater infrastructure began to become apparent. It also became apparent to most of those affected that the stormwater system should be upgraded while repairs were taking place.

In order to efficiently and effectively make repairs and upgrades to its stormwater system, Escambia County sought to develop recommendations for public stormwater infrastructure from both technical and community sources. To that end the Board of County Commissioners established the Stormwater Advisory Team (SWAT) consisting of seven members of the professional community: five (5) members appointed by the Escambia County Commission and two (2) members appointed by the City of Pensacola. Specifically, Escambia County Resolution R2014-110 (provided in Appendix A) sets forth the purpose of SWAT in the following directives:

- Assist the staff in identifying conditions associated with the April flooding event
- Review and comment on staff's recommendations prior to the staff's presentation to the Board of County Commissioners for its review

The following representatives were appointed to the SWAT:

- Mary Gutierrez, District 3 – SWAT Chair; Exec. Dir. Earth Ethics, Inc.; Principle, Stella Maris Consortium, LLC
- Phil Turner, City of Pensacola – SWAT Vice-Chair; Director, Arch. & Eng. Services, Inst. for Human and Machine Cognition

- Dr. Elizabeth Benchley, City of Pensacola – Director, Archaeology Dept. & Archaeology Institute, University of West Florida
- John Cheney, District 5 – Vice President, Mathes Electric Supply Co., Inc.; former Escambia County Engineering staff
- Glenn Niblock, District 2 – Mechanical Engineer (ret.); MBA, Business, Quantitative Analysis
- Garrett Walton, District 4 – Attorney; Developer; Chief Executive Officer, Rebuild Northwest Florida
- Nathan White, District 1 – Outside Sales Professional; former Escambia County employee

The Stormwater Advisory Team began meeting with Escambia County and City of Pensacola staff in December of 2014. Since that time monthly meetings have been held to review the current state of the City and County's stormwater infrastructure.

Discussions have focused on those locations that received the most severe damage during the April storm and has included funding, alternatives, and current status. In addition to the current state of the area's infrastructure the SWAT has discussed and reviewed important stormwater issues affecting . Several of these discussions have resulted in recommendations that will be explained herein. Meeting minutes from the SWAT meetings have been provided in Appendix H.

For technical and administrative support, Baskerville-Donovan, Inc. was contracted to assist the SWAT in the directives established by the Commission. Specifically, Baskerville-Donovan was tasked with providing the following:

- Stormwater Needs Assessment List with Rankings
- White Paper on the Countywide Stormwater System Program

As a parallel activity, the City of Pensacola commissioned several studies to suggest improvements within its own drainage basins. Results of these studies have been published on the City of Pensacola's website (<http://cityofpensacola.com/recovery>) and cover such areas as Piedmont Road Area, Aragon Court, Downtown Pensacola, Long Hollow Basin, and others. These studies along with the recommendations that they produced have been discussed by the SWAT team in cooperation with Escambia County and City of Pensacola staff. These discussions have taken place in context of County-wide drainage issues. A compilation of the City's recommended improvements has been included in summary in Appendix C and can be reviewed in detail on their website referenced above.

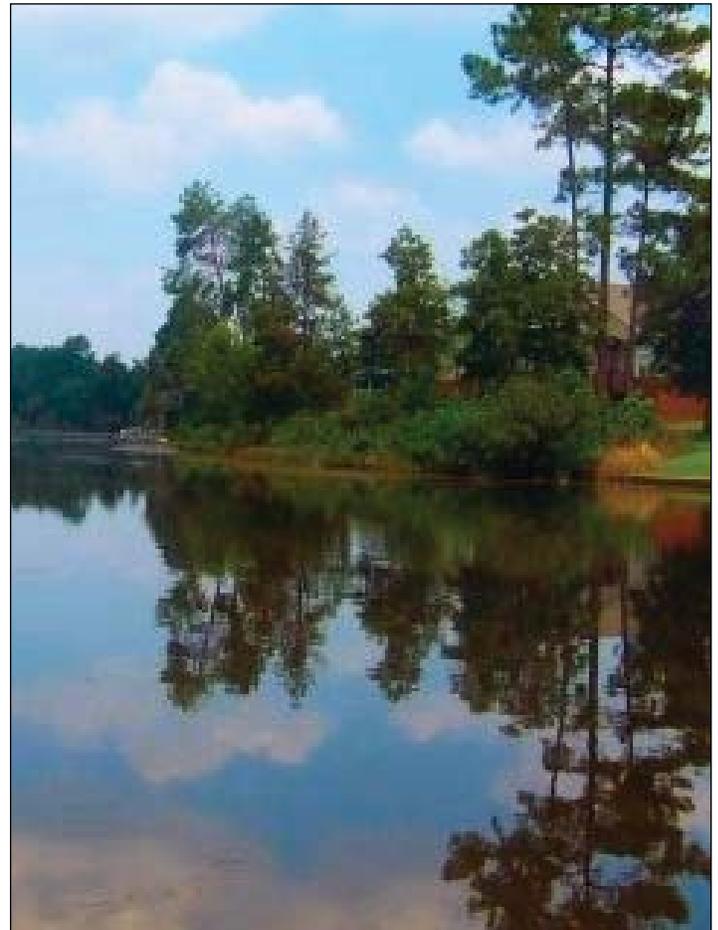
Cooperation between Escambia County and the City of Pensacola began soon after the April 2014 storm events. Specifically the cooperation focused on one specific basin shared with the City of Pensacola, the Pensacola Bay Basin which includes the Long Hollow Basin, Aragon, and the majority of the downtown area. The northern portion of this basin is the "Delano" Basin, which "pops off" into the Long Hollow Pond. There have been multiple studies by the City for the City portion of the Basin and multiple studies / updates by the County for the Delano Area (Herman Street, Fairfield, L Street, and Leonard Street) to consider downstream impacts as a supplement to the Pensacola Bay Basin Study.

The City teamed up with the County to compete for the National Disaster Resilience Competition (NDRC) Ph1 funds to address flooding issues in the Pensacola Bay Basin. Though our area did not make the cut for Phase 1, County and City are continuing to work together to put together a package, to include a holistic basin model / study, for the Phase 2 submittal. As the City and County continue to work together, multiple coordination meetings have taken place and will take place as needed. Currently, the City is attempting to acquire a consultant to assist in the Phase 2 submittal which will include this holistic model of the subject basin.

Another funding source is FEMA's Local Mitigation Strategy (LMS), in which, the #3 project is the Delano Basin for Escambia County. This was required for subsequent submittal, for Hazard Mitigation Grant

Program (HMGP), to Florida Division of Emergency Management (FDEM).

Coordination of this type has its challenges. In the Delano area, the County needs the appropriate properties for pond sites, and acquiring the properties has been challenging. A potential coordinated effort is the Spring Street - Leonard Street - Pensacola High School Drainage, which would be a Joint Drainage project between the City, the County, and School Board to address flooding on Spring Street and Pensacola High School. The School Board requested the County to work together on a project for this area. There is difficulty in the City portion of the Basin, with many split upon the type of design approach to be used to begin a remedy to the downtown flooding issues. However, the partnership between the City and the County is strong and hopes are high that the Phase 2 Grant will prove financially beneficial to the City and the County. In the future, the cooperative efforts intend to continue so that the Pensacola Bay Basin stormwater issues can be accessed, prioritized, funded, and constructed.

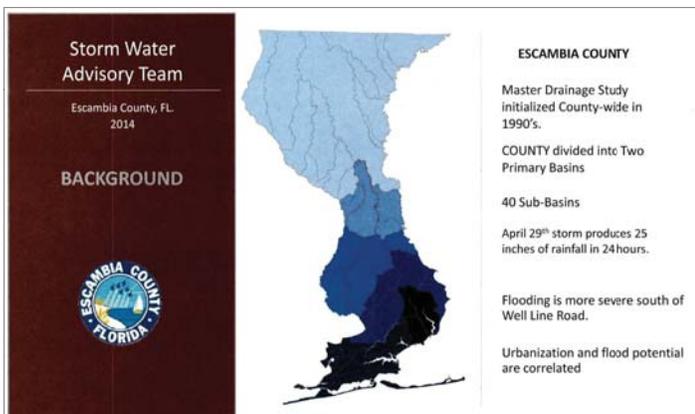


2.2 SWAT Overview

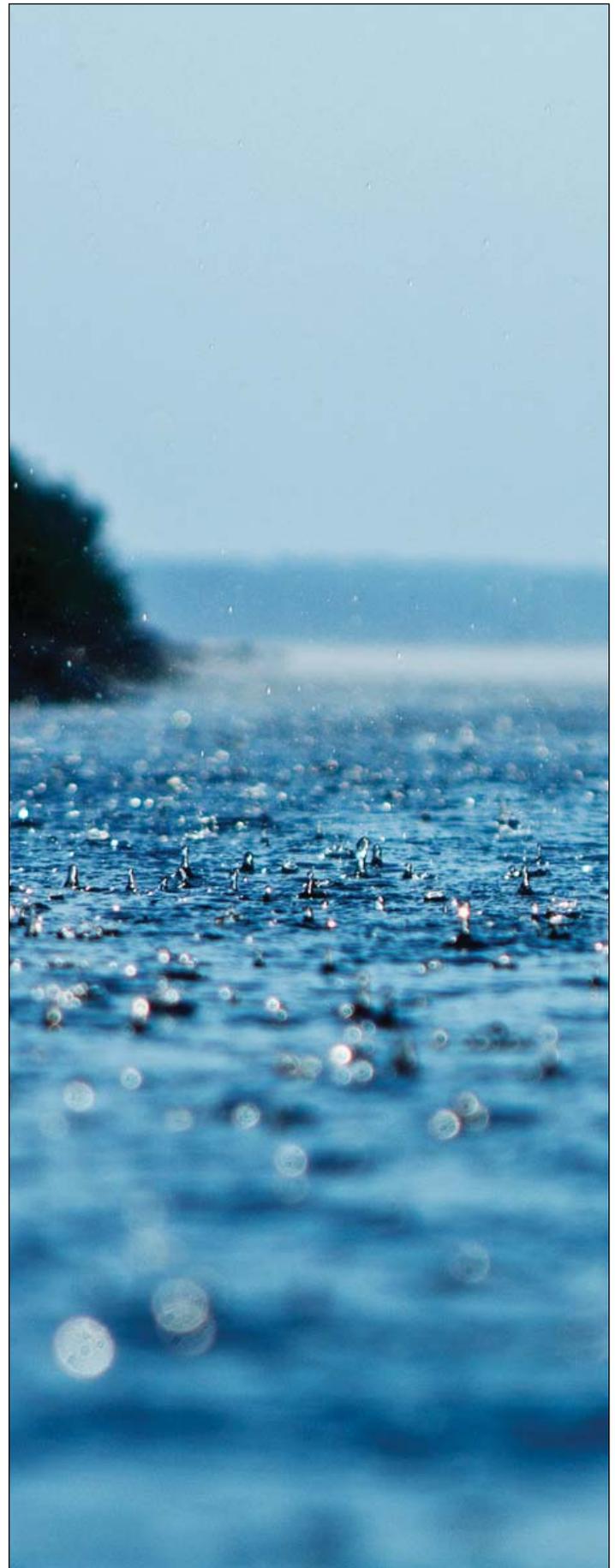
The Stormwater Advisory Team first met in December 2014 and has held seven public meetings. A summary of stormwater topics from the meetings is provided below and the minutes of each meeting may be reviewed in Appendix H.

December 2014 SWAT Meeting:

The December meeting was SWAT's first meeting and included much dealing with the nature and process of public meetings. The main stormwater focus of the meeting was a stormwater presentation provided by Escambia County staff. The presentation described the background and current state of the county's stormwater infrastructure. The county is divided into two primary basins corresponding to the Escambia and Perdido River basins. These can be further subdivided into smaller drainage basins typically corresponding to a single outfall to one of these rivers. The County contains 40 of these drainage basins, many of which have already been studied with the intention of completing studies for the entire county.



The presentation also included information regarding Sustainable Drainage which is closely associated with Low Impact Design. The purpose is to develop drainage features that imitate natural drainage as closely as possible. Basic principles include managing runoff close to its source and managing it on the surface with natural features. Some examples of design features include green roofs, bioretention, and permeable pavement. Developing in this manner can provide multiple benefits including water quality, groundwater recharge, and aesthetics.





Among the other topics discussed were:

- Low Impact Design
- Funding opportunities
- Public information
- Storm repair and mitigation
- Possibilities of revising the Land Development Code

January 2015 SWAT Meeting:

The January meeting began with a presentation providing an overview of the April 2014 storm event. A graphic was presented of rainfall totals across the county showing that some locations received more than 21" of rainfall. The rainfall caused damage to public and private facilities across the county, but mostly in the southern area. County teams recorded 2,318 infrastructure damage sites, most of which occurred south of Muscogee Road in Cantonment.

Some drainage background was also provided with the presentation. The terms associated with drainage design were defined, focusing on the 100-year design storm. The 100-year storm is defined as a storm with a 1% chance of occurring in any given year.

Several locations of specific concern were discussed. For each location an overview of the damage and current status was given. The Lake Charlene area had over 100 properties that flooded. This area is under review for improvements to the drainage system and \$2 million in funding has already been applied for. The Crescent Lake dam is another area of concern. The dam forming the lake washed out during the storm leading to more than 40 properties with flooding or access problems. The County already has a study underway to recommend improvements for both repair and mitigation of this area.

Lastly the Delano Area of the Pensacola Bay Basin received large scale flooding, which affected several government facilities including the Escambia Central Office Complex. A study is underway for this area and \$4.4 million has been applied for in funding.



Among the other topics discussed were:

- Low Impact Design
- Storm readiness
- Maintenance of existing drainage system
- City and County cooperation
- Long Hollow pond
- Carpenter’s Creek

February 2015 SWAT Meeting:

At the February SWAT meeting an update was given by staff on the South Old Corry Road Bridge project. The road was completely washed out during the storm after its multiple barrel culvert was overcome. Initial concepts were to replace the culvert with a bridge while repairing the roadway. Issues related to relocating utilities threatened to slow the plan so the decision was made to rebuild the road in a temporary fashion while the utility issues are reconciled. The County will give notice when the project is ready to continue with final construction.

A report of the status of the Lake Charlene area was also given. As noted above in the January Meeting section, this area received severe damage. Items discussed included the following:

- Canal dredging
- Alternatives and cost estimates
- Available funding
- Flood mitigation eligibility



Damage to South Old Corry Road

A member of the SWAT presented the team with a review of research regarding the County's standards for precipitation frequency. Presently the County's standard follows that of the Florida Department of Transportation (FDOT). FDOT's standards are derived from research during the 1950's which was based on data from the previous 50 years (approx.). A brief review of rainfall records since that time indicates that what was considered a 100-year storm in those studies has now been experienced by the Escambia County area four times in the last 80 years. The suggestion was made that the County should work towards updating the research with the last 50 years of data to create a standard that is specific to the area.

accepted by the Planning Board, which suggested a 50-year standard instead. Staff will still submit the requested revisions to the BOCC with the 100-year standard. Discussion then turned to the ways that SWAT could aid staff in supporting the revision.

Low Impact Design was discussed by SWAT and it was suggested that one of the members would give a presentation at the following meeting. The presentation would be in support of two changes that will be requested of the BOCC:

- Incorporate Low Impact Design into the Land Development Code (LID)
- Provide incentives in the LDC to encourage the use of LID

Among the other topics discussed were:

- Executive Order for the Federal Flood Risk Management
- Pensacola Basin simulator
- Basin Studies



Provided to Escambia County by a community member

Among the other topics discussed were:

- Community involvement
- Grant funding opportunities
- Non-construction areas
- LDC environmental standards

March 2015 SWAT Meeting:

During the March SWAT meeting, staff and SWAT discussed the progress of the new design storm standards. Staff is planning on submitting Land Development Code revisions to the Board of County Commissioners (BOCC) that would increase the required attenuation (peak runoff decrease) from the 25-year storm to the 100-year storm. Unfortunately the recommendation was not



April 2015 SWAT Meeting:

At the April meeting the SWAT heard a presentation from City of Pensacola staff on the findings of the City's Drainage Study. The city has had four studies produced which focus on the following areas: Piedmont Road, Aragon, Long Hollow, and Downtown. These studies are being used to produce a City-wide Master Plan. In addition the City has increased its design storm standard to the 100-year event.

A SWAT member made a presentation on LID measures and possible revisions to the Land Development Code. The presentation focused on how LID could be incorporated into the LDC. In addition the topic of how to encourage LID usage with incentives was discussed. The presenter made a motion that the SWAT approve a recommendation to the BOCC that a review be made of LID and LDC for stormwater issues. SWAT passed the recommendation and staff indicated that the County is currently moving forward with creating a Technical Advisory Committee to address LID priorities.

Among the other topics discussed were:

- Floodplain management
- Capital improvement projects

3.0 Infrastructure Recommendations

Escambia County is continually assessing and upgrading its stormwater infrastructure system. For two decades it has been developing formal basin studies for that exact purpose. The studies take a global approach to stormwater within a given basin or watershed and each provides recommendations for improvements within that basin. However, these recommendations remain on separate lists and separate from other basin improvement needs and areas of importance.

As Escambia County assesses and upgrades its stormwater infrastructure in light of the April 2014 flooding, it is necessary to view stormwater on a countywide scale. For this reason, staff and SWAT have sought to provide one location for all stormwater recommendations within the county, the Stormwater Needs Assessment. The development of the Stormwater Needs Assessment List is enclosed with this paper.



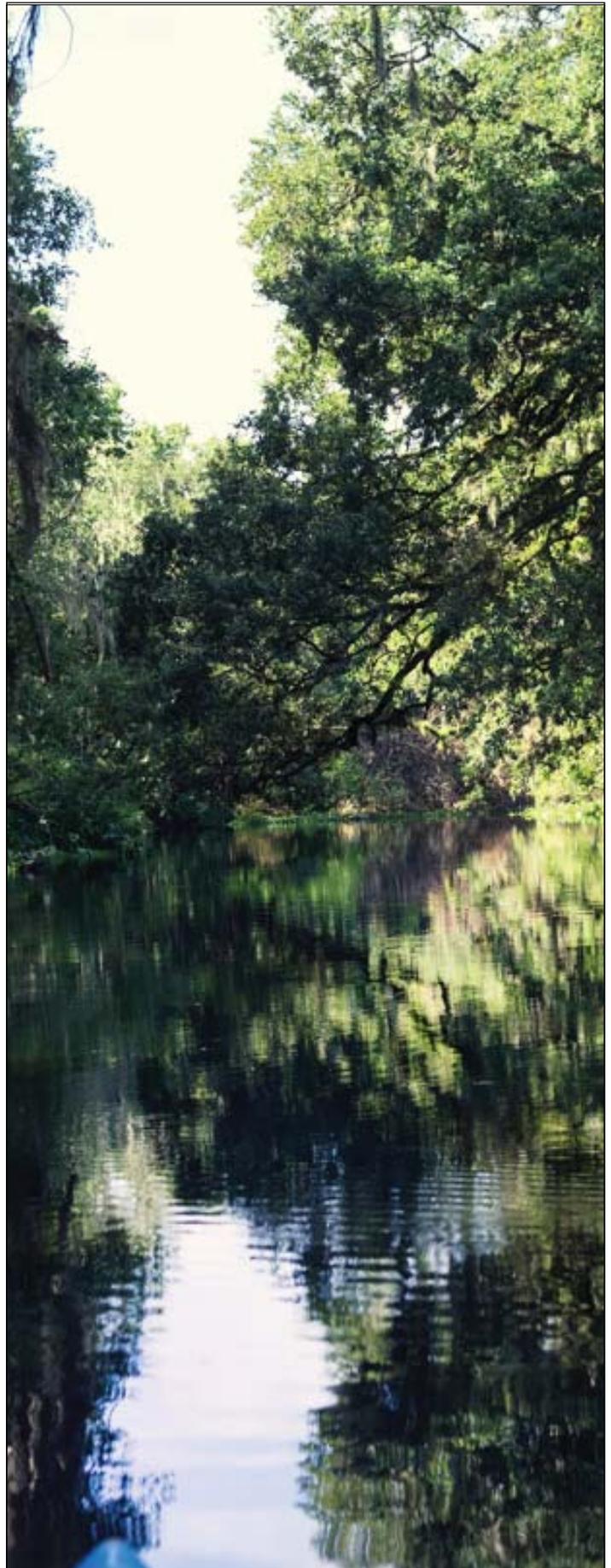
3.1 Stormwater Needs Assessment List

The Stormwater Needs Assessment seeks to bring together all of the known stormwater needs (projects) within Escambia County along with the most pertinent information of each (Refer to Appendix B). Each of the projects needs ranking so overall comparisons can be made and priorities can be set.

To begin, working with Escambia County Engineering staff, recommendations were taken from each of the basin studies as well as those needs highlighted during the April storm. In addition, recommendations from other smaller studies were taken as suggested by County staff. The following is a list of the reports and previous lists that have been compiled:

- 13 Basin Studies covering mostly the south end of the county
- Project list developed from April 2014 storm damage assessment and pre-storm drainage priorities
- Delano Area Study
- Pensacola Beach (Stormwater) Infrastructure Improvement Program

Each of the projects produced by these reports was reviewed and described individually. The individual reports were consulted to gain an understanding of the nature and scope of each project, which was summarized with a short description. The basin study was also used to determine the location of each project which was then shown on a map indicating its location in the county and in relation to the other projects.





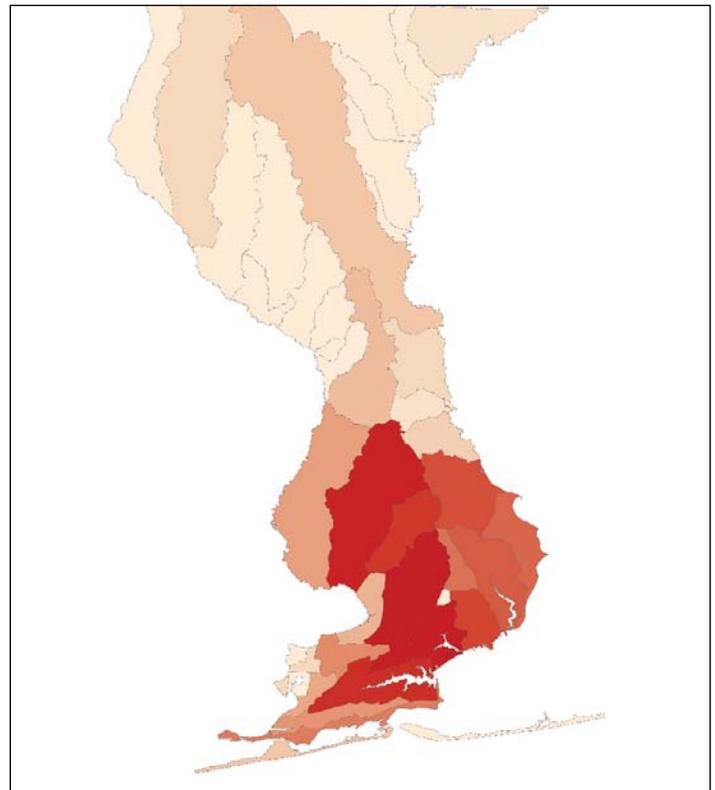
Project costs are needed to determine costs versus benefits. For this reason, construction costs have been added to the project information when provided in the original studies. Because the original studies were completed over the last twenty years the costs needed to be converted to estimates of current construction costs.

This was accomplished by correcting for inflation using factors published by RS Means, an organization which carefully tracks construction costs nationwide.

When Escambia County produces a new basin study, it is required of the study to score and rank projects to determine priorities. The scoring uses criteria established in the Basin Study Guidelines which consists of several categories listed below:

- Improves Flooding Conditions (20 pts)
- Improves Water Quality (10 pts)
- Provides for Future Growth / Development (10 pts)
- Construct-ability (10 pts)
- Permit-ability (10 pts)
- Impacts Environmentally Sensitive Areas (10 pts)
- Dependent/Independent (10 pts)
- Cost vs. Benefit (20 pts)

Scores given to each project in the original study were added to the information provided in the Stormwater Needs Assessment list. Most of the basins studies had scorings using the above criteria. In general, the most recent studies used this criteria while older studies, some completed in 1994, used a different criteria.



Damage Heat Map by Drainage Basin

Projects from the older studies as well as any other studies lacking scores were scored by Baskerville-Donovan and staff while attempting to remain as consistent as possible with their original scores where applicable. With the projects scored, they were then ranked with the highest scoring project receiving the highest rank (No. 1). The Stormwater Needs Assessment list and map book denotes each project by its overall rank.

All of the data described above was placed in a series of maps (map book) covering those areas where projects have been recommended. Each page of the map book has an associated page with the information described above.

Review of the map book will show that nearly all of the projects on the needs list are located on the south end of the county. While the south end could rationally have more needs since it contains most of the development, a greater population density and receives greater rainfall, this is also where the majority of the basin studies have focused.

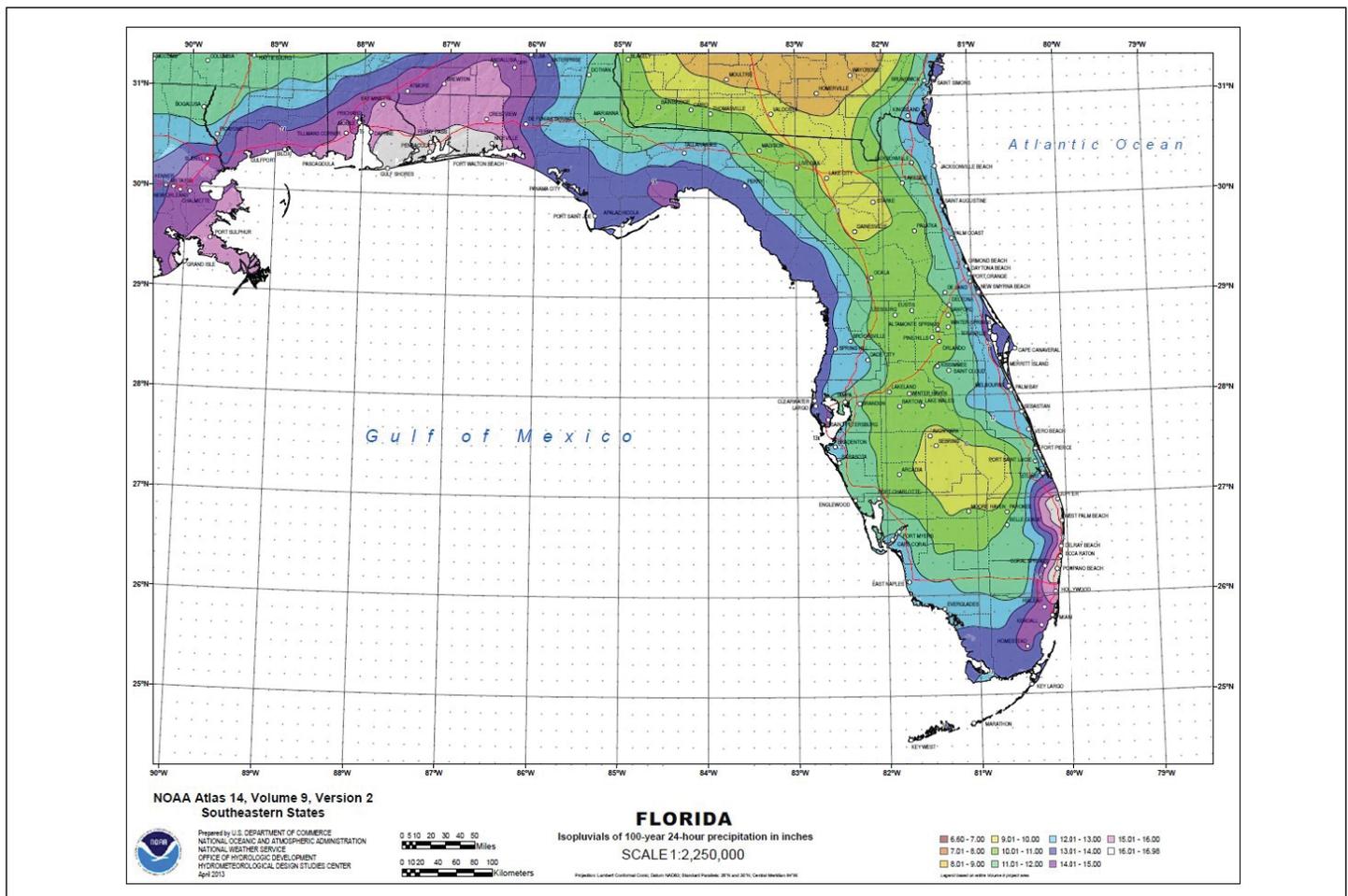
The top thirty ranking projects have been mapped by themselves and can be reviewed in the first pages of the Stormwater Needs Assessment List, included with this document. They have been placed on a “damage heat map” which indicates highest occurrences of flooding reports and damage received by the county per stormwater basin. These are the projects which by the County’s established criteria should have the greatest priority. In addition, while creating the needs list it was determined that many of the projects recommended in the past have been completed. These projects were removed from the needs list, but have been retained for documentation.

By its nature the Stormwater Needs Assessment should be considered a living document. It will need to be revised on a regular basis in order to serve the purpose for which it’s intended. As basin studies are completed the list should be updated and when projects are completed they should be removed.

Revision should take place on a yearly or semi-yearly basis as even without additions to the project list, the costs will not remain current.

4.0 Policy Recommendations

To this point, the discussion has focused on what can physically be done to reduce and prevent flooding problems. However, it is recommended that the County should be proactive in adopting new policies and procedures that will help reduce the creation of infrastructure flooding problems in the future. The remainder of this paper will discuss recommended steps that can be taken to reduce the number of flooding problems created by further development such as developments submitting 100 yr flood elevations to show structures are outside the floodplain, working with the state to impliment updated rainfall estimates, and determining what LID practices aid development.



Isopluvial Map published in NOAA Atlas 14, Vol. 9 (Also included in Appendix D)

4.1 Design Storms and Precipitation Frequency

Any discussion to reduce the potential for flooding problems from future development must start with design storms. The requirement for development to attenuate the 25 year storm did not match the expectation for protection of homes and commercial structures. The adoption of the 100 year attenuation requirement will help to match the performance of the infrastructure with expectations.

The development should submit 100 year flood elevations for the entire system, showing that all planned structures are outside of this floodplain. In addition to the requirement to estimate the 100 year floodplain internal to the development, the plans should contain contingencies if certain facilities were to fail. For example, ponds with berms should be designed with a hardened emergency overflow that will allow flows in excess of the 100 year flood to discharge without compromising the berm of the pond. By adding additional protection for the retaining structure of the pond, extreme flooding downstream caused by failure of the pond can be reduced.

Designing with contingencies for record rainfall events also helps as our climate changes. Although it is not certain how and to what degree changes in the climate will affect runoff, the general trend in our area has been to have higher intensity storms and more rainfall. Because runoff can increase from climate change, it is more important now to work with the State to update rainfall estimates as new data becomes available.

SWAT meetings have included discussions and recommendations regarding hydrologic data on several occasions. Generally, the consensus has been that the current precipitation frequency estimates for our area (FDOT Zone 1 IDF curves) do not seem to accurately reflect the amounts of rainfall that is currently being experienced. In addition, NOAA's National Weather Service has recently updated rainfall depths and frequencies for the southeastern United States. Escambia County should begin using these rainfall totals on all county projects and implement FDOT's new Intensity-Duration-Frequency (IDF) curves in the Land Development Code as soon as they are released, which could occur as soon as the release of the 2016 Drainage Manual.

Additionally, changes in meteorological data should be tracked and any new studies affecting changes to rainfall in our area should be reviewed. The background to these recommendations has been explained in a document produced by the SWAT and may be reviewed in Appendix E.



4.2 Low Impact Design

Low Impact Design (LID) has been a priority in discussions among the SWAT members and with County staff. Among the issues discussed have been: what LID practices would aid development in Escambia County, how to incentivize the use of LID practices, and what changes could be made to the Land Development Code to encourage LID. Several presentations were made to the SWAT during the April meeting that summarize these issues. The presentations can be reviewed included with the meeting minutes in Appendix H.

A Low-Impact Design Manual addressing these concerns should be developed for Escambia County to work with the Land Development Code. A Low-Impact Design (LID) Manual would encourage an approach to development that emphasizes conservation and use of a site's natural features

to manage the quality of stormwater runoff and protect downstream water bodies. The SWAT also recommends that all suggested LID measures be reviewed for stormwater benefits/impacts prior to incorporation in the LDC.

On an LID site, stormwater controls and stormwater treatment processes could be located throughout the site, and importance be placed on reducing impervious surfaces and minimizing changes to the site's natural hydrology. This can be accomplished through use of pervious pavements, swale systems, multi-functional landscape areas, and infiltration trenches, among other alternatives. On sites that require a storage area, water reuse systems can be installed to use the stormwater for irrigation. Instead of routing all stormwater runoff to a central location, stormwater runoff is controlled and treated in smaller areas throughout the site. This reduces negative impacts from runoff accumulation.

Additionally, some LID measures improve water quality, and allow for a greater percentage of the site's groundwater to be recharged than traditional development methods.

Incentives should be provided for voluntary implementation of LID practices in new development and redevelopment projects. Leaving LID implementation voluntary will allow for improvements without impeding development, since implementation of any measures with higher up-front cost will be at the discretion of the developer. LID incentives can help offset those costs, as well as encouraging more thoughtful site design. Some of the incentives currently used in other areas include waiving plan review fees, reducing stormwater detention requirements, grants, recognition programs, and zoning density upgrades.

Incentives should also be considered with respect to encouraging timely maintenance of LID stormwater systems (especially the alternatives with more intensive long-term maintenance), or to encourage retrofitting of existing systems. Incentives are especially important for redevelopment of existing sites. Currently, post-development stormwater runoff rates are required to be less than pre-development rates.

For the redevelopment of a site with a large amount of existing impervious area, the only change necessary to fulfill this requirement is the removal of a small portion of the existing impervious area. Instead,



voluntary LID incentives can encourage a developer to change a larger portion of the site back to pervious or semi-pervious area, further decreasing the storm-water runoff rate and allowing replenishment of the site's groundwater.

In addition to LID, the County should consider green infrastructure and smart growth principles for future LDC revisions. Whereas LID covers development and design, these principles relate to land use as a whole.

"Green Infrastructure is the strategically planned and managed networks of natural lands, working landscapes and other open spaces that conserve ecosystem values and functions and provide associated benefits to human populations. Green infrastructure allows for numerous social components including economic development, establishment of transportation corridors and active agricultural and silvicultural operations. In the process, provisions are made for retaining green spaces of various types, protecting water quality, and promoting tourism by providing both active and passive recreational activities. Management activities result in healthy ecosystems with high quality habitat for both terrestrial and aquatic wildlife species. Green infrastructure networks enhance the effectiveness of existing comprehensive planning efforts by promoting smart growth principles and healthy community practices." (*Benedict, Z. Mark A., "Green Infrastructure: A Strategic Approach to Land Conservation," American Planning Association PAS Memo, October 2000*).

Following some of these principles, there are local groups that have suggested the daylighting of existing streams in areas of downtown Pensacola where they have been hardened or covered over. Daylighting would expose/uncover these streams in order to restore the movement/flow of water back to its more natural state. In addition, daylighting would allow for the reestablishment of the streams riparian areas. This methodology allows for a more natural way of addressing storm water and water quality issues.

Smart growth is a collection of land use and development principles that aim to enhance our quality of life, preserve the natural environment, and save money over time. Smart growth principles ensure that growth is fiscally, environmentally, and socially responsible and recognizes the connections between development and quality of life. Smart

growth enhances and completes communities by placing a priority on infill, redevelopment, and densification strategies.

4.3 Basin Studies

Most of the area that was devastated by the flooding in April of 2014 had been previously studied. However, in some of the areas the studies need to be updated. The areas that need to be studied or updated include:

- Catholic High Basin
- Garcon Swamp
- Southwest Side
- Scenic Hills

The remainder of the County should be studied in the future. While the majority of flooding problems occur in the south end of the County, the majority of the growth for Escambia County will occur in the north end. Problem areas should be identified prior to development occurring in these flood prone areas. These studies will allow the County to use more stringent discharge requirements to keep future development from exacerbating existing flooding problems.

Consideration should be given to reevaluating the evaluation criteria. The current criteria tends to favor projects that are easier to permit and construct, leaving problems that could affect large areas lower in the list. New criteria could add factors and/or current factors may need to be reweighted.

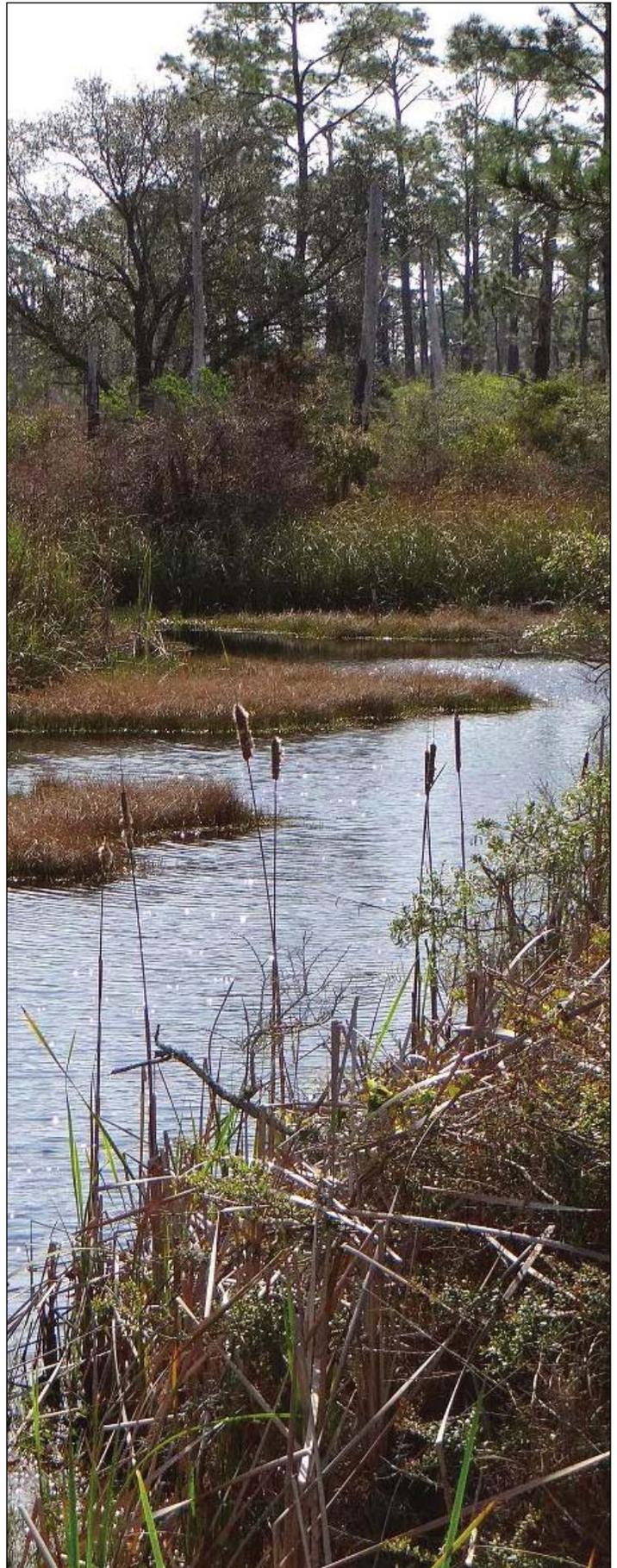


Ultimately, the basin studies could be used to incorporate models of proposed developments to view their impact on downstream drainage systems during the Development Review process. Use of the models from the basin studies to estimate impacts from proposed development will require additional information and processes to keep the models current.

4.4 Development Submittals

Asset management systems and large-scale modeling are increasingly interfacing with GIS. The Development Review Committee (DRC) process could be modified to include submittal of as-builts for stormwater infrastructure in a County approved GIS format. Ideally the data would also integrate with the County's asset management system, so new ponds, inlets, channels, and pipes could immediately be included in any routine maintenance or easily accounted for in the event of a disaster.

The GIS data would also streamline the process of updating basin studies. Initially a consultant could be given the data for the watershed they are studying, but the County could eventually update the model in order to determine how new developments would affect drainage patterns prior to construction. To aid in this effort, the County could pursue grant funding to take all existing as-builts (paper and AutoCAD) and convert/georeference them into the County's GIS system. Developing and maintaining a program of this nature could require training of staff in order to provide continual updates to the County's data.



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Appendix A

Escambia County SWAT Resolution

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9/25/2014 CAR I-15

RESOLUTION NUMBER R2014 - 110

**A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF
ESCAMBIA COUNTY, FLORIDA, ESTABLISHING THE STORM-WATER
ADVISORY TEAM (SWAT); PROVIDING FOR AN EFFECTIVE DATE.**

WHEREAS, during April 2014, Escambia County suffered a catastrophic rain and flooding event that caused substantial and widespread damage to private and public property and infrastructure; and

WHEREAS, as a result of this disaster, the Escambia County Board of County Commissioners, with the concurrence of state, local, and private agencies, has concluded that it should conduct a comprehensive, countywide assessment of current storm water capabilities; and

WHEREAS, the Board of County Commissioners through the County Administrator, the County Engineer, and other appropriate county staff will conduct an assessment of current storm water capabilities, review and propose alternatives and solutions to alleviate current and future storm water issue in consultation and collaboration with subject matter experts from FEMA, FDEM, FDEP, NFWFMD, UWF, as well as staff from the City of Pensacola and ECUA; and

WHEREAS, the Board of County Commissioners finds that an advisory group reviewing the staff's proposed alternatives and solutions would provide a valuable

S. Casew
Date: 10/16/2014 Verified By:

service to our community and be helpful to the Board therefore advancing the public health, safety, and welfare of community.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF ESCAMBIA COUNTY, FLORIDA, AS FOLLOWS:

SECTION 1. RECITALS.

The aforementioned recital clauses are hereby incorporated into this Resolution.

SECTION 2. ESTABLISHMENT.

The Escambia County Board of County Commissioners hereby establishes the Storm Water Advisory Team.

SECTION 3. DUTIES OF STAFF.

Staff shall have the following duties and responsibilities:

- A. Conduct an assessment of current storm water capabilities, review and propose alternatives and solutions to alleviate current and future storm water issue in consultation and collaboration with subject matter experts from FEMA, FDEM, FDEP, NFWFMD, UWF, as well as staff from the City of Pensacola and ECUA
- B. Evaluate alternatives for future action based on goal-driven objectives with consideration given to alignment to needs and proposed funding mechanisms and the comprehensive plan.
- C. Identify preferred alternatives and further develop these alternatives with appropriate technical research.

D. Prepare and submit a final report and recommendations to the Escambia County Storm Water Advisory Team (SWAT) and Board of County Commissioners for its review.

SECTION 4. DUTIES OF THE STORM-WATER ADVISORY TEAM.

A. Assist the staff in identifying conditions associated with the April flooding event.

B. Review and comment on staff's recommendations prior to the staff's presentation to the Board of County Commissioners for its review.

SECTION 4. COMPOSITION OF THE TEAM.

The Group shall consist of Seven (7) members who shall be appointed by the Board of County Commissioners as follows:

A. Each County Commissioner shall appoint one (1) civilian representative to the Group.

B. Two (2) civilian representatives appointed by the City of Pensacola, Florida.

SECTION 5. TERMS OF TEAM MEMBERS.

Team members shall serve on the Team until recommendations are completed as determined by the Board of County Commissioners. The Team may recommend to the Board of County Commissioners the removal of a Group member who accrues three

unexcused absences from regularly-scheduled meetings of the Team during the calendar year.

SECTION 6. **OFFICERS.**

A. Chairperson. The Team shall elect a Chairperson to preside at all meetings. The Chairperson shall be elected at its first meeting and shall serve for the following year or until resignation, whichever occurs sooner. There shall be no term limits for a member to serve as Chairperson.

B. Vice-Chairperson. The Team shall elect a Vice-Chairperson to preside and act on behalf of the Chairperson during his or her absence. The term of office and method of election for the Vice-Chairperson shall be the same as the Chairperson.

SECTION 7. **QUORUM AND VOTING.**

Four (4) Team members shall constitute a quorum for the purpose of conducting business. Each member shall exercise one vote on all matters subject to a vote of the Group. All matters shall be decided by a majority vote of the members present. No member shall abstain from voting unless the member has a conflict of interest.

SECTION 8. **SPECIAL MEETINGS.**

The Chairperson may call a special meeting of the Team on his or her initiative and shall call a special meeting at the request of any of the seven (7) members.

SECTION 9. **LOCATION OF MEETING.**

Team meetings shall be held in a public facility of sufficient size to accommodate those present and at such locations as the Team may determine from time to time.

SECTION 10. **RULES OF PROCEDURE.**

To the extent practicable, the Team shall conduct its meeting in accordance with the current edition of Robert's Rules of Order, except to the extent that the provision thereof is inconsistent with this Resolution.

SECTION 11. **SUNSHINE LAW.**

The Team shall be subject to and each member shall be responsible for compliance with the Florida Sunshine Law and the Florida Public Records Act.

SECTION 12. **AGENDA.**

The Chairperson shall prepare an agenda for all meetings. Any Team member may request that a matter be placed on the agenda during any public meeting of the Team. The agenda and related materials shall be distributed at least one day prior to the meeting date.

SECTION 13. **MINUTES.**

Minutes shall be kept at each Group meeting. The written summary of each meeting shall be submitted for approval of the members at the next regular meeting. Each written summary shall reflect the persons in attendance, items discussed, each

action taken at the meeting, and the vote of the members on each item presented at the meeting.

SECTION 14. NOTICE OF PUBLIC MEETING.

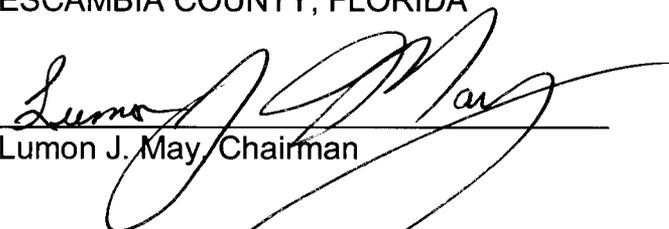
Notice of regular or special meetings of the Group and the time and location of each meeting shall be published to the public.

SECTION 15. EFFECTIVE DATE.

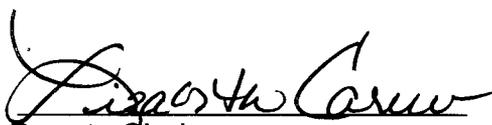
That this Resolution shall become effective immediately upon adoption by the Board of County Commissioners.

ADOPTED this 25th day of September 2014

BOARD OF COUNTY COMMISSIONERS
ESCAMBIA COUNTY, FLORIDA


Lumon J. May, Chairman

ATTEST: Pam Childers
Clerk of the Circuit Court


Deputy Clerk

Date Executed
10/16/2014



This document approved as to form and legal sufficiency.

By: 
Title: County Attorney
Date: 10/10/14

Appendix B

Escambia County Needs Assessment List

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Escambia County Stormwater Needs Assessment List

Rank	Project Name	Construction Estimate
1	Crescent Lake <i>Construct drainage system and new ponds on east side of Crescent Lake through the Blue Springs Drive drainage system up to Glass Street and Sun valley Drive</i>	\$4,000,000
2	Spring Street - Leonard Street - PHS Drainage <i>Joint Drainage project between the City and School Board to address flooding on Spring Street and School Area.</i>	\$500,000
3	Frinchez Heights (Sabra, Erwin, Whitmire, Ernestene Area) <i>Proposed drainage capacity improvements in the Frinchez Heights area including Sabra Dr, Erwin Dr, Whitmire Dr, Ernestene Rd (North of Olive Rd) which will likely require a ditch conversion into a pond site</i>	\$400,000
4	Muldoon Road and Saufley Field Rd Area <i>Drainage improvements are needed to address existing drainage capacity from Blue Angel to Muldoon Road. FDOT is currently (2015) reviewing partial drainage with sidewalk projects.</i>	\$3,000,000
5	Flood Plain Management, Wetland Restoration, and Regional Pond Construction in 11-Mile Creek Basin <i>A large scale project to provide channel, stream, and flood plain restoration improvements, including at minimum of 9 regional stormwater management faculties (ponds). Project completion will require multiple grants to provide a complete realization of the 11-Mile Creek Basin Study Recommendations. The total estimated project costs is over at least a 10-year period.</i>	\$46,538,265
6	Willowbrook Lake Dam <i>Restore dam and overflow structure at Willowbrook dam East of Chemstrand Road to provide Water Quality</i>	\$500,000
7	Ensley Drairage - Caro-Mayflower Pond Area <i>Expansion of the Caro-Mayflower pond, to address drainage issues south of Caro Street, north of Johnson Ave between Hwy 29 and Palafox Street, including repetitive flooding loss on Orange Avenue.</i>	\$1,300,000
8	Delano Drainage Area (L Street, Leonard, Fairfield, Herman, and Fairfield Area) <i>Drainage System Improvements to include new regional pond(s) and rehab of existing ponds for water quality and flood control</i>	\$6,488,476
9	Beach Haven Area Drainage and Sewer Northeast Phase 1 <i>Roadway/drainage and sewer improvements; currently under design (NE of Decatur Ave to Gulf Beach Highway; from Mills Ave to Decatur Ave including ponds for Phase 1 & 2)</i>	\$10,887,839
10	Beach Haven Area Drainage and Sewer Northeast Phase 2 <i>Roadway/drainage and sewer improvements; currently under design (NE of Fairfield and Gulf Beach Highway; Fairfield Dr to Colbert)</i>	\$7,823,000
11	Muldoon-Saufley Field-Velma (Pond Expansion) <i>Property purchase and drainage improvement design to provide positive outfall for two County ponds, expand the Velma St Pond, and provide outfall to Bayou Marcus Creek. Refer to Bayou Marcus Basin Study -Velma Dr Pond Outfall Branch C to be modified by property acquisition and Velma pond expansion.</i>	\$3,450,000
12	Beach Haven Area Drainage and Sewer (South) <i>Roadway/drainage and sewer improvements; currently under design (NE of Fairfield and Gulf Beach Highway; Fairfield Dr to Colbert)</i>	\$12,000,000
13	Bristol Creek Property Acquisition <i>A large scale project, with a Property Acquisition Plan for repeatedly flooded property and easement acquisition. Project will be partially funded by HMGP grant if approved. Related to project "Flood Plain Management, Wetland Restoration, and Regional Pond Construction in 11-Mile Creek Basin."</i>	\$6,189,380
14	Beverly Parkway Basin Zone H- Loretta Street, between Kelly Ave and North "P" Street <i>Construct new ponds and expand the stormwater collection system in the area around Loretta Street.</i>	\$6,499,810
15	North 61st Property Purchase and flood plain restoration <i>Purchase of 10 properties for the purposes of flood plain restoration, and stream restoration</i>	\$700,000
16	Old Corry Outfall Property Purchase and Flood Plain Restoration <i>Pete Moore ditch- Jackson Creek flood plain and habitat restoration.</i>	\$978,881
17	Avery Street Drainage (Kupfrian Park/Hernandez and Lakeview) <i>Continued drainage for the Kupfrian Park area to include stormwater pond(s) for flood control/water quality, and conveyance system to address flooding issues on Hernandez and Lakeview between Pace and J Street.</i>	\$998,563
18	Myrtle Grove System A (remaining portion) <i>Completion of System A to included drainage improvements including acquisition for easement and pond site on 72nd and 73rd Ave, South of Jackson, and North of Harvey St</i>	\$450,000
19	Ponderosa Drive Area Drainage <i>Expand existing pond to accommodate contributing basin</i>	\$2,243,000

Escambia County Stormwater Needs Assessment List

Rank	Project Name	Construction Estimate
20	Kingfisher, Bush Street, and Interstate Circle Drainage <i>Eight Mile Creek Priority 5 Drainage to construct a regional pond to address flooding for Kingfisher, Blue Jay Way, Bush Street, and Interstate Circle</i>	\$2,500,000
21	Pin Oak Lane Drainage (Phase 1) and Flood Plain Restoration Project (Phase 2) <i>Construct a new roadway connection to Quintette Road at North end. Also purchase property to restore flood plain at South end.</i>	\$725,277
22	West Roberts Drainage Improvements and Regional Pond (Regional Pond in 11-Mile Creek Basin) <i>Regional pond and conveyance system on West Roberts Road utilizing on FDOT pit (Part of 11 Mile Creek Basin Plan to reduce flood stage in Bristol Creek/Bristol Park/Ashbury Hills)</i>	\$1,500,000
23	Bellview Avenue Branch E Drainage Chestnut-Hogan Pit expansion <i>Bellview between Rosewood Estates and Hogan Road, includes expansion of the Chestnut-Hogan Pit</i>	\$1,500,000
24	Chandler Road Drainage <i>Alleviate lot flooding by installing a conveyance system in the area connected to the main trunk line currently being installed by FDOT. This line drains to the Holsberry pond, part of the Hwy 29 lane widening project</i>	\$600,000
25	Ten Mile Road Drainage and Roadway Improvements <i>Address capacity and drainage problems from Chemstrand to Palafox to address flooding in the area of Holsberry Lane. May involve property acquisition.</i>	\$5,000,000
26	11 Mile Creek Basin Study Zone 5 <i>Increase capacity of pipe under green hills rd. and construct a pond near urban drive to alleviate area flooding</i>	\$3,619,643
27	Beverly Parkway Basin Branch G- Andrew Ave and Coons Ave <i>Extend the stormwater collection system along Andrew Avenue and Coons Avenue.</i>	\$1,319,873
28	Dorothy & Lydia Avenue Area Drainage <i>Improve existing drainage system causing lot flooding. The surrounding area drains to private Rolling Hills borrow pit, causing sediment problems at Crescent Lake</i>	\$400,000
29	South Gulf Manor Private Pond Rehab <i>Upgrade to county standards a private pond that has failed to accommodate flow from South Gulf Manor Phase 1 on numerous occasions. This has resulted in flooding of around 15 homes.</i>	\$200,000
30	Avondale Estates - Bayou Marcus Branch E <i>Roadway/drainage improvements for Cerny Road area and area North of Cerny to provide possible pond outfall solutions for Saufley Field -Muldoon Area Ponds. Concept plans requires further study for alternate pond outfall options considering Velma Pond.</i>	\$3,300,000
31	Palafox Street @ Oakfield/Kenmore/Pacific/Majors/Pinestead Drainage <i>Drainage Project currently under design to address Beverly Parkway Basin Study Improvements Branches N, O, P, & Q</i>	\$4,900,000
32	Old Corry Field Area Drainage <i>Construct a new stormwater collection system along Old Corry Field Road from Border Street to Jackson Creek.</i>	\$2,000,000
33	Catholic High Basin Zone A North - North end of the basin around Mission Street <i>Expand pond storage by expanding existing pond and constructing a new pond as well as expanding and increasing existing collection to prevent home and street flooding. This improvement will not have negative impacts on downstream properties.</i>	\$3,330,648
34	Intersection of Hwy 29 and Hwy 97 <i>Construct a dry pond and conveyance pipes at the corner of Highway 97 and Crabtree Church Road to contain and control downstream stormwater runoff. Increase the capacity of culverts running under Highway 29 to reduce roadway flooding.</i>	\$558,137
35	Helms/Beulah School Road <i>Increase capacity of drainage structures crossing Helms Road to prevent roadway overtopping and decrease upstream flood stages.</i>	\$207,509
36	Carver Park Area Drainage Improvements West of 297A <i>Four-phase roadway and drainage improvement project for the area south of Muscogee Road, north of the Road Camp, east of Booker, and west of Ransom, requiring property pond acquisition and drainage conveyance improvements.</i>	\$2,250,000
37	Haley Lane and Eagle Street <i>Reconstruct the Brookhollow collection system and construct a new collection system along 10 Mile Road to reduce roadway flooding. Improvements may have a negative effect on downstream properties.</i>	\$584,279
38	Raise berm east of landfill (Perdido River South Basin) <i>Raise the berm east of the landfill to prevent an existing pond from overtopping.</i>	\$623,519

Escambia County Stormwater Needs Assessment List

Rank	Project Name	Construction Estimate
39	West Highlands (Green and Lloyd) and Lloyd up to Mallory Street <i>Address property flooding in an area North of Mobile Hwy West of Dominguez Street, and at Green St</i>	\$650,000
40	Carver Park/West Booker Road <i>Reduce area flooding by increasing the capacity of area conveyance structures as well as constructing a new pond.</i>	\$1,327,654
41	Ferry Pass Drainage Zone 5 <i>Drainage System Improvements on Boyd Ave and adjoining Beagles St, Geeker St, De Loach St, and Raines St; dependent upon Olive Rd drainage system upgrades</i>	\$950,000
42	Delano Area North Kelly Avenue Basin <i>Drainage System Conveyance Improvements for area between Pace Blvd, Massachusetts Av, W" St., and Truman to improve conveyance to Kelly Avenue pond, as well as provide for an improved outfall system. Project requires coordination with CRA improvements on Massachusetts Avenue for sidewalks and drainage improvements</i>	\$400,000
43	Nims Lane Drainage Project <i>Nims Lane receives stormwater from a basin of approximately 29 acres. This basin extends just east of Holsberry Road and just north of Holsberry Lane. This area is prone to flooding due a lack of a positive outfall or stormwater conveyance system. Discharge from this conveyance system is expected to be routed to the Holsberry Pond</i>	\$400,000
44	Lake Charlene Area Drainage (including future phases not covered by grant) <i>Increase outfall capacity of Lake Charlene by implementing some of the drainage system improvements from the 2007 Warrington Master Plan and the 2015 Lake Charlene Warrington Study.</i>	\$1,992,309
45	Treasure Hills Drainage <i>Install drainage upgrades, stormwater pond w/pond site purchase, and drainage rehabilitation in area of Avon, Medina, and Gulf Beach Hwy</i>	\$760,000
46	Beverly Parkway Basin Branch C- Twelve Oaks Area <i>Construct a new collection system for the Twelve Oaks Area with a discharge to the FDOT system. Connection to the FDOT system will limit design to the 3 year event.</i>	\$2,522,301
47	Beverly Parkway Basin Zone D-Brentwood <i>Expand the stormwater systems on Cary Memorial Drive and Armenia Drive to Carolyn Way, Jacquelyn Way, Virginia Way, Palm Court, Concordia Street, and Chimes Way and tie into the existing system on Hardy Place. Connection to the FDOT system will limit design to the 3 year event.</i>	\$3,596,439
48	Dogtrack South –Coral Creek – Mariners Village-Hampton Lakes <i>Stream and wetland restoration and construction of an attenuation pond. Two creeks merge north of Coral Creek, resulting in upstream flooding the affects Mariners Village to the northwest and a creek along Dog Track Road to the northeast.</i>	\$3,400,000
49	Westview Lane & Lewis St Area Drainage <i>Drainage improvements to address stormwater and groundwater from Lewis Street and Moose Lodge 557 impacting lots along Westview Lane</i>	\$200,000
50	Klondike Road North of Mobile Highway <i>Increase capacity of structure under Klondike Road to prevent roadway overtopping.</i>	\$22,571
51	Catholic High Basin Zone A South - South of Avery Street <i>Construct new collection system to prevent street flooding. This improvement will not have negative impacts on downstream improvements.</i>	\$1,440,259
52	N 69th Ave- Bayou Marcus/Millview Study Branch D <i>Expand the stormwater collection system along 69th Avenue to reduce flooding in the area.</i>	\$1,963,878
53	Well Line Rd Home Flooding <i>Increase the capacity of the culvert under Well Line Road to reduce roadway and home flooding. Connect the Well Line Road culvert to the culvert running under Forrest Street to minimize water flowing across the property (this will require permission or easements from two property owners).</i>	\$67,472
54	Hwy 29 (North of Bet Raines Rd) <i>Increase the capacity of culverts under Highway 29 and modify the surrounding ditch area to reduce roadway flooding.</i>	\$323,506
55	Willowside Drive and Westlake Subdivision Drainage <i>Address home, yard, and street flooding on 72nd Avenue and Willowside Drive through the Westlake Subdivision: Reference Warrington Basin Study-St James Branch C. May require modifications.</i>	\$750,000
56	Elsa Area Drainage <i>Drainage project to address flooding in the area of Elsa Avenue South of Lillian from 48th Avenue over to Feldor Avenue including 49th, 50th, 52nd, State Street, Kinear Avenue, and Martha Ave</i>	\$2,600,000

Escambia County Stormwater Needs Assessment List

Rank	Project Name	Construction Estimate
57	Ranch Lands - Sagebrush Trail <i>Repetitive loss flooding along Sagebrush Trail (Ranch Lands Subdivision) requires purchase of a pond site and improved drainage conveyance to address FDOT channel capacity. Refer to 8 Mile Creek basin Study Priority 3 for detailed information.</i>	\$500,000
58	International Paper Area <i>Increase capacity of drainage system in order to reduce roadway overtopping and upstream flood stages.</i>	\$367,980
59	Sunset/Patton/Elite/Gulf Beach Hwy Drainage Outfall <i>Realign the drainage outfall line beginning at Gulf Beach Hwy and Elite Drive to flow down Sunset St. in order to correct non-functioning sections and routing beneath homes.</i>	\$220,000
60	Velma Pond Outfall <i>Construct outfall for the Velma Pond to prevent overtopping during a 100 year event.</i>	\$905,319
61	Beverly Parkway Basin Branch B- South Portion- Michael Drive <i>Construct a stormwater pond on Michael Drive.</i>	\$623,567
62	System improvements between Interstate 10 and Hwy 297A <i>Reconstruct Eleven Mile Creek in this area to incorporate more volume for flood control within the stream in lieu of constructing detention ponds to prevent flooding of homes between I-10 and Hwy 297A. Report also suggests requiring attenuation of the 100 year event upstream of this area.</i>	\$48,315,410
63	Ten Mile Road at Stefani Dr. <i>Increase the collection system size along Stefani Drive and Ten Mile Road and increase the capacity of the culverts under Midway Drive to reduce extensive flooding in the area. Improvement may have a negative effect on downstream properties.</i>	\$393,265
64	Ten Mile Creek from Pine Forest to Stefani Dr. <i>Reconstruct Ten Mile Creek from Pine Forest to Stefani Drive to provide additional storage capacity to reduce extensive flooding in the area. Improvement may have a negative effect on downstream properties</i>	\$8,988,914
65	Ten Mile Creek from Stefani Drive to Roberts Rd. <i>Reconstruct Ten Mile Creek from Stefani Drive to Roberts Road to provide additional storage capacity to reduce extensive flooding in the area. Improvement may have a negative effect on downstream properties.</i>	\$10,674,335
65	Ten Mile Creek from Stefani Drive to Roberts Rd. <i>Reconstruct Ten Mile Creek from Stefani Drive to Roberts Road to provide additional storage capacity to reduce extensive flooding in the area. Improvement may have a negative effect on downstream properties.</i>	\$10,674,335
66	Jamison Street Branch F -Warrington Basin Study <i>Construct new stormwater system along Jamison Street and Rue Max Street with direct discharge to Bayou Chico to reduce discharges to the Barrancas Avenue System. Connect to Lexington Terrace stormwater ponds to provide water quality improvement prior to discharge to the wetlands.</i>	\$2,000,000
67	Beach Haven Area Drainage and Sewer Northwest <i>Roadway/drainage and sewer improvements (NW of Fairfield to Gulf Beach Highway)</i>	\$4,000,000
68	Tate Road North of Petty St <i>Increase capacity of roadway culvert crossings to prevent overtopping of Tate Road</i>	\$13,269
69	Filley Rd <i>Increase capacity of culvert crossing to prevent overtopping of Filley Rd</i>	\$4,283
70	Amanda Rd <i>Increase capacity of culvert at Creekwood Drive to prevent roadway overtopping</i>	\$6,896
71	Chestnut Rd to Hwy 29 <i>Remove accumulated sediment from the upstream side of the Chestnut Road bridge in order to lower downstream velocities. Replace the culverts under Molino Road and Chestnut Road with bridges to prevent roadway overtopping and increase flow capacity.</i>	\$1,027,014
72	Ashland Park Joint ECUA funded sewer and driange <i>Improve Box Culverts at Rodney, Joel and Childers Streets.</i>	\$100,000
73	Yupon/Pebble Creek/Deerfield <i>Reduce area flooding by enlarging existing ponds and increasing area culvert capacities.</i>	\$663,784
74	Stagecoach/Wilshire/Mobile Highway <i>Increase capacity of drainage structure at Mobile Highway and improve downstream channel to prevent roadway overtopping and residential flooding.</i>	\$70,698
75	Bayou Grande Basin K1- Gulf Beach to Winthrop SS <i>Replace the outfall trunk line from Gulf Beach Hwy through Winthrop Ave. to prevent roadway flooding.</i>	\$174,160

Escambia County Stormwater Needs Assessment List

Rank	Project Name	Construction Estimate
76	Beverly Parkway Basin Branch E- west side of Hwy 29 on Mason Lane <i>Construct a new collection system along Hwy 29 and Mason Lane along with a new pond for the system to connect to.</i>	\$1,077,800
77	Navy Point Drainage North <i>Construct treatment swales within Navy Point to treat stormwater as it flows to the discharge point per Bayou Grande Basin Study.</i>	\$20,000
78	Navy Point Drainage South <i>Construct treatment swales within Navy Point to treat stormwater as it flows to the discharge point per Bayou Grande Basin Study.</i>	\$25,000
79	Beverly Parkway Basin Branch I- Moss Lane tie in at Van Pelt Lane <i>Construct new stormwater system along Moss Lane.</i>	\$237,810
80	Frank Reeder Rd & Rebel Rd <i>Reconstruct the swale in the area near Rebel Road and construct a culvert under Frank Reeder Road.</i>	\$49,521
81	Emory Drive- Warrington Basin Study Branch K <i>Construct a new stormwater system along Emory Drive, Stanford Road, Stetson Road, and Vanderbilt Road with a new stormwater pond at the eastern end of Tulip Drive.</i>	\$637,509
82	Navy Point Drainage and Sanitary Sewer <i>Roadway/drainage and sewer improvements; currently under design (NE of Fairfield and Gulf Beach Highway; Fairfield Dr to Colbert)</i>	\$300,000
83	Bayou Grande Basin Study P1- Bainbridge Culvert <i>Replace existing culvert on Bainbridge with a larger pipe to prevent road overtopping.</i>	\$44,945
84	Hwy 97 (East of Hwy 29) <i>Increase the capacity of the culverts under Highway 97 to decrease likelihood of roadway flooding.</i>	\$201,759
85	Lake Charlene/Querido Heights- Warrington Basin Branch B <i>Reconstruct Lake Charlene overflow structure and outfall ditch. Reconstruction of the 69th Avenue drainage system to reduce discharges to Lake Charlene, increase the capacity of the 61st Avenue drainage system, and increase the capacity of the 61st Ave, Kittyhawk Drive, Lake Charlene Lane, and Myrtle Hill Circle drainage system. Solutions are currently under evaluation.</i>	\$6,765,919
86	Johnson Ave Drainage (East of Briese Ln) <i>Remove/Replace faulty storm pipe from Pine Ridge Lane to Johnson Ave, Address pipe flow Crystal Wells pond, Address two 24" pipe feeding one 24" pipe down to outfall in Gulf Power Easement.</i>	\$400,000
87	Olive Manor & Lincoln Park Drainage <i>Drainage System Improvements with a creek restoration/preservation</i>	\$1,200,000
88	Shadow Ridge Drive - Meadowview Lane <i>Drainage Improvements proposed within unopened County right-of-way in coordination with adjacent property to address property damage and erosion for the accumulation of development.</i>	\$30,000
89	Hwy 29 (North of Quintette Rd.) <i>Replace the existing culverts under (divided) Highway 29 north of Quintette Road with two bridge structures to increase flow capacity and prevent roadway overtopping.</i>	\$2,412,936
90	Hwy 29 (Jack's Branch Q13) <i>Replace the existing culverts under (divided) Highway 29 with two bridge structures to increase flow capacity and prevent roadway overtopping.</i>	\$2,410,815
91	Hwy 29 (South of Omega Drive) <i>Increase the capacity of the culverts under Highway 29 south of Omega Drive to reduce roadway flooding.</i>	\$331,272
92	Hwy 29 (North of Hwy 97) <i>Increase the capacity of the culverts under Highway 29 near North Highway 95A to prevent flooding.</i>	\$283,017
92	Hwy 29 (North of Hwy 97) <i>Increase the capacity of the culverts under Highway 29 near North Highway 95A to prevent flooding.</i>	\$283,017
93	Hwy 97 at Elementary School <i>Increase the capacity of the two culverts under Highway 97 near the Molino School and connect them with an earthen ditch. This will prevent roadway flooding.</i>	\$297,927
94	Old Corry Field Rd- Warrington Basin Branch H <i>Construct a new stormwater collection system along Old Corry Field Road from Border Street to Jackson Creek.</i>	\$2,126,280
95	Midas- Muldoon Area including West side of Green Acres <i>Miscellaneous drainage improvements in this area to address flooding, including a small pond and conveyance improvements</i>	\$250,000

Escambia County Stormwater Needs Assessment List

Rank	Project Name	Construction Estimate
96	Frank Reeder Rd & Beulah Rd <i>Reconstruction of the ditch and installation of culverts where necessary to provide a defined drainage path.</i>	\$64,153
97	Helms Rd & Woods Lane <i>Construct a new culvert under Woods Lane and reconstruct the ditch feeding to the existing culvert.</i>	\$69,780
98	Lakewood/Millwood Terrace- Warrington Basin Branch F <i>Construct new stormwater collection system in the Lakewood Road area with a stormwater pond at Lakewood Road and Addison Avenue with an outfall under Lakewood Drive to Bayou Chico.</i>	\$4,510,975
99	Shoshone and Doug Ford Drive Drainage <i>Evaluate pipe system and obtain permits to restore flow the wetlands and alleviate home flooding along Shoshone Drive.</i>	\$240,000
100	Lanette Drive <i>Construct new stormwater system for the area around Lanett Drive to reduce flooding in the area.</i>	\$1,000,000
101	Hwy 29/Tate School Road <i>Increase capacity of culverts to prevent overtopping of Tate Road</i>	\$187,331
102	Bayou Grande Basin Study P7- Bay Meadows Treatment Pond <i>Provide treatment pond for existing residential development north of Bay Meadows Dr. This will not affect downstream properties.</i>	\$112,361
103	Ten Mile Creek from Roberts Rd North to Kingsfield Rd <i>Reconstruct the creek to provide additional storage volume and increase the culvert capacity under Roberts Road, Dolphin Street, Tate Road, and Kingsfield Road to prevent flooding to structures. Improvements may have a negative effect on downstream properties.</i>	\$4,494,457
104	Pine Forest/Klondike Road <i>Construct two new retention/detention ponds and increase capacity of driveway culverts along Klondike Rd to reduce peak flows downstream, and reduce scour.</i>	\$2,116,233
105	Bayou Grande Basin Study S2- Athens Ave Culvert <i>Enlarge the existing culvert on Athens in order to prevent road flooding. This improvement will not negatively impact downstream properties or other improvements.</i>	\$18,000
106	Bayou Grande Basin Study S1- Americus Ave Culvert <i>Enlarge the existing culvert on Americus in order to prevent road flooding. This improvement may impact other improvements.</i>	\$12,000
107	Carrington Lakes <i>Repair outfall erosion at the private subdivision pond to prevent further erosion and possible wetland impacts.</i>	\$276,893
108	Ashton Brosnaham Park <i>Construct a new stormwater pond at the end of Bet mark Lane with a ditch connecting runoff from the recreational center to the pond.</i>	\$1,568,145
109	Myrtle Grove System E (McNair Ln and 57th) <i>Decrease drainage impacts on Lake Charlene through drainage improvements on 72nd and 73rd Ave, South of Jackson and North of Harvey St.</i>	\$100,000
110	Northcreek and Valley Ridge Area Drainage Joint Sanitary Sewer Project <i>Drainage and sanitary sewer improvements in Northcreek Subdivision and in the adjacent Deer Run and Valley Ridge subdivisions, as well as on Bison Road and Motley Court</i>	\$250,000
111	Tributary 10-A of Eight Mile Creek Basin Study <i>Increase the capacity of the culvert under Pine Forest Road at Lake Francis to decrease roadway flooding and accommodate the improved secondary sewer system.</i>	\$58,307
112	Rittenberry Drive <i>Increase the capacity of the culverts under Rittenberry Drive and Madrid Road and deepen the roadside ditches to prevent home flooding.</i>	\$70,597
113	Well Line Rd <i>Increase the capacity of the culverts under Well Line Road to reduce roadway flooding. Clear debris and large pieces of concrete pipe from the downstream channel to facilitate stormwater flow.</i>	\$58,461
114	Stacey Rd (at the bridge) <i>Clear and grade the existing channel area and construct an improved concrete outfall channel to provide adequate stormwater conveyance and reduce yard and building flooding.</i>	\$45,289
115	Stacey Rd at Quintette Rd <i>Increase the capacity of the culverts under Stacey Road and Quinette Road and construct a ditch that connects them to prevent roadway and home flooding.</i>	\$127,811

Escambia County Stormwater Needs Assessment List

Rank	Project Name	Construction Estimate
116	Quintette Rd (North of Welcome Circle) <i>Increase the capacity of the culverts under West Quinette Road and replace the existing grate inlet to decrease roadway flooding. These improvements may have a negative impact on downstream properties.</i>	\$59,474
117	Muldoon-Cerney-Velma-Fresno Area Drainage <i>Drainage System Improvements including Velma pond expansion, outfall, and drainage conveyance to Velma Pond; better outfall for Muldoon Area Ponds</i>	\$2,200,000
118	St Johns North of PCC <i>Purchase property for pond site and connect to 48" pipe across PCA. Add conveyance from system to the North per Beverly Parkway Basin Study Zone F including upgrades to system from Oleander drive to Cummings Street. This will address flooding problems at Cummings Street and St. John's before tying into the PCA Campus.</i>	\$450,000
119	West Highlands <i>Proposed new system located on Kirk Street and extend from West Avery Street to West Gonzalez Street and the surrounding area. This new system requires the acquisition and construction of a new retention/detention pond. (see Branch I in Warrington Master Plan)</i>	\$2,700,000
120	Breise Lane between Jeffry and Olive Road <i>Extend existing Johnson Ave drainage system to relieve roadway and yard flooding.</i>	\$100,000
121	Ellyson Industrial Park Drianage <i>Miscellaneous Infrastructure drainage improvements to address roadway flooding at Grow Road, Copter Road, and East pond expansion</i>	\$1,000,000
122	Bayou Grande Basin Study E1 - Gulf Beach Hwy Outfall Improvement <i>Increase the culvert size along Gulf Beach Hwy culvert between Brigadier and Richmond. The downstream channel to Winthrop St will be regraded and shaped to provide positive flow to the Winthrop culvert. This improvement will not affect downstream properties.</i>	\$73,035
123	Bronson Airfield design 3 (entire) <i>Construct a pond over the entire Bronson Airfield property.</i>	\$27,631,968
124	Edgewater Drive - Warrington Basin Study Branch F <i>Extend and increase the capacity of the stormwater system on Edgewater and Chaseville Streets. Construct an outfall ditch and discharge pipe into Bayou Chico.</i>	\$1,572,096
125	Bayou Grande Basin Study CC1- Sidney Culvert <i>Enlarge existing culvert to prevent road flooding along Sidney Rd.</i>	\$10,000
126	Bayou Grande Basin Study R1- Weller Dr. Culvert <i>Replace and increase the existing culvert along Weller Dr. to prevent road overtopping. This improvement will not negatively impact downstream properties.</i>	\$55,000
127	Muldoon R. Improvements <i>Improve the drainage system along Muldoon road.</i>	\$386,830
128	Tributary 16-A of Eight Mile Creek begins at Belgium Rd south of Holly Hill Rd and enters the main channel north of Pine Forest Rd <i>Increase the capacity of the structures at Belgium Road and Lillie Lane to minimize roadway flooding.</i>	\$50,273
129	Beulah Road Ditch <i>Clean out existing culvert and construct a new ditch to convey stormwater to the culvert.</i>	\$90,039
130	Bridlewood Rd (at Mobile Hwy) <i>Construct two stormwater ponds, remove the culvert under Bridlewood and construct a new culvert under Nine Mile Road to prevent yard and road flooding.</i>	\$929,651
131	West Cervantes at Westworth <i>Correct road flooding in area with no drainage system</i>	\$600,000
132	Magaha Area/Nine Mile Road <i>Improve channel and increase capacity of the upstream structure along Nine Mile Road to prevent roadway overtopping and yard flooding.</i>	\$1,240,677
133	11 Mile Creek Basin Study Zone 6 <i>increase culvert capacity under Amanda lane and 9 1/2 mile road (seems to be partial overlap with 94 priority 19)</i>	\$258,586
134	11 Mile Creek Basin Study Zone 8 <i>Increase culvert capacity to reduce area flooding.</i>	\$99,466
135	Godwin Lane - bayou Marcus/Millview Study Branch F <i>Construct new stormwater system for the area around Godwin Lane including two stormwater ponds.</i>	\$5,320,591
136	Pensacola Heights- Branch F <i>Modify the existing collection system serving Pensacola Heights and construct a new detention pond.</i>	\$4,352,877

Escambia County Stormwater Needs Assessment List

Rank	Project Name	Construction Estimate
137	South Bronson Airfield Ditch Block <i>Construct ditch blocks in the ditch south of Bronson Airfield. (Treatment only)</i>	\$142,730
138	Citrus Street Area Drainage <i>Drainage System Improvements on Citrus per Warrington Basin Study Branch G (Study modification required to consider existing County parcel for pond site and conveyance system).</i>	\$1,300,000
139	Bayou Grande Basin Study P3- Fairfield Storm Sewer at Gulf Beach <i>Replace existing storm collection with a larger system to prevent road overtopping.</i>	\$106,743
140	Bayou Grande Basin Study BB9- Carrier Dr Channel Improvements <i>Clear and regrade channel downstream of the culvert on Carrier Dr. to alleviate road flooding.</i>	\$8,427
141	Brookshill Drive <i>Replace the existing culverts under Brookshills Drive with a bridge span to increase flow capacity under the road and decrease roadway, yard, and home flooding. Set a minimum finished floor elevation for any new homes built along the road in order to prevent structure flooding.</i>	\$409,429
142	Piney Lane <i>Construct a ditch along the road and a culvert under Piney Lane.</i>	\$101,294
143	Frank Reeder Rd culvert and swales <i>Construct drainage swale adjacent to roadway and culvert under Frank Reeder Road.</i>	\$100,168
144	Shelby Lane <i>Construct a ditch along the road and a culvert under Shelby Lane.</i>	\$95,666
145	Bayou Grande Basin Study Y2- Kinard Drainage System <i>Increase and extend existing roadside ditch system along Kinard Ave. and Robertson Rd. to control road and yard flooding.</i>	\$179,778
146	Perdido Rd West of Balboa Road <i>Increase the capacity of the culverts under Perdido Road to decrease roadway and yard flooding. This will negatively effect downstream properties and should be performed in conjunction with other Balboa Road improvements.</i>	\$43,814
147	Daylilly Road <i>Increase the capacity of the culverts under Daylilly Road to decrease roadway overtopping. This improvement may have a negative effect on downstream homes, so the downstream ditch should be considered in construction plans.</i>	\$49,488
148	Stacey Rd (at the bend) <i>Regrade the right-of-way and increase the capacity of the culverts under Stacey Road to prevent roadway and yard flooding.</i>	\$93,335
149	Schaag Rd at Stokes Pond <i>Place riprap along the channel from Stokes Pond to the cross drain inlet to prevent channel erosion. Replace the upstream headwall to prevent headwall failure and roadway undermining.</i>	\$98,040
150	Crabtree Church Rd at Abbott Lane <i>Replace the existing culverts under Crabtree Church Road with a bridge to reduce roadway flooding.</i>	\$927,730
151	Bet Raines Rd (East of Bridge) <i>Increase the capacity of the culverts underneath Bet Raines Road and construct an earthen ditch to improve flows and reduce yard flooding.</i>	\$75,991
152	Bridge on Bet Raines Rd <i>Improve flow conditions through the bridge area by removing trees and brush from the flow path and ensuring a 6 foot clearance below the bottom of the bridge.</i>	\$17,001
153	Chestnut Rd South <i>Increase the capacity of the culverts under Chestnut Road to decrease roadway flooding and possible home flooding.</i>	\$101,837
154	Bronson Airfield design 2 (Eastern Side) <i>Construct a pond on the eastern side of the Bronson Airfield property.</i>	\$9,767,981
155	Quintette Rd (at Welcome Rd) <i>Increase the capacity of the culverts under Quinette Road and improve the downstream channel in order to reduce roadway flooding.</i>	\$51,489
156	Schaag Rd Bridge at Jack's Branch Tributary P <i>Replace the existing bridge with a new bridge that has sufficient hydraulic capacity to prevent roadway overtopping.</i>	\$695,188
157	Bayou Grande Basin Study P2- Gulf Beach Storm Sewer at Fairfield <i>Replace existing storm collection with a larger system to prevent road overtopping.</i>	\$78,653

Escambia County Stormwater Needs Assessment List

Rank	Project Name	Construction Estimate
158	Chestnut Rd North <i>Raise the elevation of Chestnut Road increase the flow capacity of the culverts to decrease roadway flooding.</i>	\$271,465
159	Via DeLuna Drainage at Pensacola Beach RV Resort <i>System should be cleaned of sediment and checked regularly. Increased system capacity should be considered.</i>	\$287,470
160	Corto, Largo, and Rio Vista Drives Drainage <i>Repaving at Corto Drive and Rio Vista Drive. Regrading at Largo Drive from Avenida 17 to the sound. Stabilizing along Rio Vista Drive south of Largo Drive.</i>	\$735,389
161	Isaacs Rd <i>Construct a ditch along Isaacs Road and a new culvert under Beulah Road.</i>	\$114,800
162	Muscogee Rd & Beulah Rd <i>Reconstruct the ditches in the area of the intersection and construction of a culvert under Beulah Road.</i>	\$59,651
163	Thompson Bayou - Scenic Hills Basin Study Tributary A <i>Construct a new stormwater pond between University Parkway and Shoal Creek Drive.</i>	\$1,736,479
164	Thompson Bayou Main Channel <i>Construct new stormwater pond at Airway Drive near the end of the Thompson Bayou main channel and increase the capacity of the existing culvert at Airway Drive.</i>	\$2,009,815
165	Eaton Rd - Warrington Basin Study Branch K <i>Construct a new stormwater system along Eaton Road from Feldor to Adkinson Drive with a discharge to an existing county pond per Warrington Basin Study Branch K.</i>	\$1,219,351
166	Coral Village Storm Drainage Replacement <i>Reduce flooding by replacing failing storm pipe within drainage easement.</i>	\$300,000
167	Royal Pines - Bayou Marcus/Millview Study Branch B <i>Construct new stormwater system for the Royal Pines subdivision to reduce flooding in the area.</i>	\$2,908,721
168	Tributary 21-A of Eight Mile Creek (south of Site 6, through the pit at Bush Street and enters the main channel south of Detroit Blvd) <i>Increase the capacity of the pond south of Bush Street. Increase the capacity of the culvert at Bush Street to prevent roadway flooding. Expand the channel in this area to increase capacity and prevent out-of-bank flooding. Relocate and increase the capacity of the structure at Nine Mile Road to line up with the improved channel.</i>	\$1,628,083
169	Main channel crossing at Mobile Hwy <i>Raise the elevation of the Mobile Highway Bridge 2.5 feet to prevent over-topping.</i>	\$2,539,817
170	Bayou Grande Basin Study BB4- Windward Ct Outfall Improvements <i>Clean and grade ditch outfall from Windward Court in Coral Creek.</i>	\$13,483
171	Bayou Grande Basin Study BB3- Coral Island Dr. Outfall Improvements <i>Provide stormwater collection along Coral Island Dr. in order to alleviate flooding along the roadway.</i>	\$36,517
172	Ridgewood Park - bayou Marcus/Millview Study Branch B <i>Construct new stormwater system for the Ridgewood Park subdivision to reduce flooding in the area.</i>	\$2,524,333
173	Riola Place - Bridge Creek/Heron Bayou Study Branch E <i>Lower pipe inverts and increase the capacity of the culvert under Riola Place to decrease out-of-bank channel flooding.</i>	\$189,379
174	Risen Drive and Bonanza Drive <i>Upgrade the culvert under Bonanza Drive and obtain drainage easement over downstream ditch to reduce roadway flooding at the intersection. Improvement may have a negative effect on downstream properties.</i>	\$101,125
175	Pensacola Beach Blvd Stormwater Outfall Upgrades <i>Installing stormwater treatment on the outfall in the vicinity of the marina within the existing stormwater easement</i>	\$401,121
176	River Annex Road bridge <i>Reconstruct the bridge over River Annex Road to a higher elevation.</i>	\$623,519
177	Roosevelt - Warrington Basin Study Branch K <i>Construct a new stormwater system along 61st, 59th, 60th, 63rd, and 65th streets with a new stormwater pond west of 61st street.</i>	\$4,512,150
178	SR 297-A/Meander Road <i>Increase capacity of culverts to prevent overtopping of State Road 297-A</i>	\$61,024
179	Bayou Grande Basin Study P6- Athens St. Ditch Improvements <i>Improve and regrade existing ditch along Athens and Gulf Beach Hwy to decrease road flooding.</i>	\$8,427

Escambia County Stormwater Needs Assessment List

Rank	Project Name	Construction Estimate
180	Bayou Grande Basin Study Y1- Robertson Channel Improvements <i>Increase and extend existing roadside ditch system along Robertson Rd to control road and yard flooding.</i>	\$106,743
181	Deerwood Drive - Bayou Marcus/Millview Study Branch F <i>Increase the capacity of the Deerwood Drive stormwater system and outfall pipe.</i>	\$1,971,838
182	Perdido Rd at Saverna Park <i>Increase the capacity of the culverts near Perdido Road to prevent roadway overtopping.</i>	\$166,774
183	Cedar Tree Lane (Hwy 29 Side Drain) <i>Lower and increase the capacity of the culverts under Cedar Tree Lane to prevent roadway flooding. Rebuild the downstream ditch in order to provide a positive grade away from the cross drain.</i>	\$137,132
184	Cedar Tree Lane (at Cedar Point Rd) <i>Increase the capacity of the culverts under Cedar Tree Lane to prevent roadway flooding. The roadway in this area should also be paved to decrease sediment buildup in the culverts.</i>	\$85,872
185	Welcome Rd (at the bend) <i>Increase the capacity of the culvert under Welcome Road to prevent roadway overtopping and add end treatments and riprap to prevent erosion.</i>	\$47,062
186	Hernandez Street pond site 3 <i>Construct a new pond on Hernandez St. to reduce flood staging in surrounding and downstream. This improvement will not negatively impact downstream properties/impacts.</i>	\$1,195,738
187	New 36 Inch Pipe Outlet Along Hernandez Street <i>Construct a new collection system and outfall connection to the existing system to decrease flood stages in the surrounding areas. This improvement could have impacts on all downstream properties.</i>	\$2,232,399
188	Serenity Circle (pond) <i>Construction of stormwater pond adjacent to Serenity Circle.</i>	\$113,944
189	Beverly Parkway Basin Branch B- North Portion- Lookout Drive <i>Construct a stormwater system along Lookout Drive West Michigan Avenue, and Rock Island Place with a discharge to the FDOT pit.</i>	\$1,128,009
190	Bayou Grande Basin Study L1- Cousineau Rd. Outfall <i>Replace the outfall from Cousineau Rd. to Bayou Grade by an outfall ditch in order to prevent street flooding.</i>	\$25,281
191	Bayou Grande Basin Study BB10- Liberty Church Discharge Structure <i>Provide stormwater pond at Liberty Church with a discharge structure to control the water level and time of detention.</i>	\$14,045
192	Bayou Grande Basin Study CC2- Sidney Culvert <i>Enlarge existing culvert to prevent road flooding along Sidney Rd.</i>	\$16,854
193	Bayou Grande B1- New Storm Drainage System <i>Construct a new street collection system consisting of roadside swales and culverts along 1st and 2nd streets to reduce roadway flooding. Improvement is an independent project and will not affect downstream properties.</i>	\$308,994
194	Calle Juela Drainage at Via DeLuna <i>Regrade to a grate inlet with outfall through an exfiltration pipe</i>	\$93,595
195	Calle Traviesa Drainage at Via DeLuna <i>Regrade to a grate inlet with outfall through an exfiltration pipe</i>	\$93,595
196	Siguenza Drive Drainage <i>Construct a small retention area at the bend adding a new inlet at the location of the flooding</i>	\$93,595
197	Frank Reeder Rd ditch <i>Construct a ditch along Frank Reeder Road.</i>	\$68,655
198	Hurst Hammock <i>Construct an additional culvert under Hurst Hammock and install flap valves on the downstream side of the culverts to prevent the propagation of seawater from tidal action.</i>	\$61,902
199	Bayou Grande Basin Study P5- Grundy Culvert <i>Enlarge the existing culvert on Grundy in order to prevent road flooding. This improvement may impact other improvements.</i>	\$25,843
200	Sal Tillo - Bayou Marcus/Millview Study Branch C <i>Improve the stormwater collection system serving the area around Sal Tillo Street.</i>	\$188,068
201	Perdido Bay Country Club Estates Unit 7 <i>Drainage and resurfacing projects to address flooding and groundwater problems</i>	\$170,000

Escambia County Stormwater Needs Assessment List

Rank	Project Name	Construction Estimate
202	Bayou Grande Basin Study E2-Brigadier St. Culvert <i>Increase the culvert size on Brigadier St. to prevent road flooding. This Improvement may have a negative impact on downstream roadway flooding.</i>	\$33,708
203	Bayou Grande Basin Study P4- Bay Meadows Dr. Culvert <i>Replace the existing culvert on Bay Meadows Dr. with larger pipes to prevent road flooding.</i>	\$56,181
204	Bayou Grande Basin Study BB8- Vonna Jo Discharge Structure <i>Provide stormwater pond on Vonna Jo Circle with a discharge structure to control the water level and time of detention.</i>	\$14,045
205	Imperial Drive - Bayou Marcus/Millview Study Branch B <i>Construct new stormwater system for the area around Imperial Drive to reduce flooding in the area.</i>	\$526,033
206	49th Av - Warrington Basin Study Branch K <i>Construct a new stormwater system along 49 the Ave with a discharge to the existing county pond on Lillian Highway.</i>	\$1,648,952
207	Carrollwood Subdivision Resurfacing & Drainage Rehabilitation <i>Replace older cross drain at Stillbrook Road and repair existing drainage system on Pickwood including grading/resurfacing on Candlewood Circle</i>	\$1,200,000
208	Crabtree Church Rd (East of Chestnut Rd) <i>Increase the capacity of the culverts under Crabtree Church Road to decrease roadway flooding.</i>	\$51,767
209	Saint James Place-Warrington Basin Study Branch C <i>Construct a new stormwater system for the St James Place/Dowdy Drive area.</i>	\$902,785
210	Bayou Grande Villas <i>Roadway/drainage and sewer improvements; currently under design (NE of Fairfield and Gulf Beach Highway; Fairfield Dr to Colbert)</i>	\$200,000
211	Aileron Ave - Bridge Creek/Heron Bayou Basin Branch B <i>Install a new storm sewer system along Aileron Avenue and increase the capacity of the existing culvert under Dog Track Road to reduce roadway flooding.</i>	\$189,379
212	Tatnall Street - Bridge Creek/Heron Bayou Basin Branch D <i>Extend the existing ditch northward into the bayou to reduce flooding.</i>	\$163,750
213	Main channel crossing at a private driveway located between Asland Rd and Interstate 10 <i>Raise the road height by constructing a bridge at the private driveway crossing of the main channel to prevent road overtopping and reduce flooding.</i>	\$92,885
214	Schaag Rd (North of Hwy 196) <i>Raise the surface elevation of a portion of Schaag Road and increase the capacity of the culverts underneath to prevent roadway overtopping.</i>	\$351,943
215	Catholic High Zone C Drainage <i>Re-evaluate previous basin study solution (a new discharge trunk line with storm sewer extensions, treatment swales, and underground vaults) to determine whether ponds or direct piping produces the greatest impact.</i>	\$9,000,000
216	Via DeLuna Side road Connection Drainage Improvements <i>Drainage Improvements</i>	\$334,268
217	Visitor Information Center Access Road Drainage <i>Regrading and repaved roadway to add slope and positive outfall to drainage inlets</i>	\$93,595
218	Beulah Rd sag near bridge <i>Regrade Beulah Road to prevent overtopping. Improvement may have a negative effect on downstream properties.</i>	\$248,732
219	Windham Pond Outfall <i>Construct an outfall for the Windham Pond. This improvement could cause negative effects to other properties.</i>	\$293,987
220	Felton Pond Outfall <i>Construct an outfall to connect the Felton Pond to the Windham Pond. This improvement could cause negative effects to other properties.</i>	\$342,660
221	Catholic High Basin Zone B - Intersection of "S" Street and Avery Street and consist of a large storm sewer system running up "S" Street to Leonard Street <i>Increase and expand existing storm collection system and provide stormwater treatment. Provide tie-ins to outfall proposed in "Begins at the intersection of Avery Street and run south to Gonzalez Street, west to "U" Street and south on "U" Street to its discharge point to Maggie's Ditch." This improvement can only be constructed after the completion of the proposed outfall trunk line.</i>	\$3,850,727
222	Pearson Rd- Bayou Marcus/Millview Basin Branch C <i>Construct new stormwater system for the area around Pearson Road to reduce flooding in the area.</i>	\$1,364,488

Escambia County Stormwater Needs Assessment List

Rank	Project Name	Construction Estimate
223	Improve Open Ditch Outlet Terminating at Fairfield Drive <i>Enlarge outlet orifice for open ditch flowing to Fairfield Drive. This will not negatively impact downstream properties/improvements.</i>	\$20,990
224	Ailanthus Drive and Bauer Drive (culverts) <i>Upgrade culvert near intersection of Ailanthus Drive and Bauer Drive.</i>	\$301,051
225	Monroe Avenue <i>Increase the capacity of the culverts under Monroe Avenue to decrease roadway flooding. This may have negative impacts on downstream properties.</i>	\$90,647
226	Bronson Airfield design 1 (northeast corner) <i>Construct a pond in the northeast corner of the Bronson Airfield property.</i>	\$1,017,098
227	Bellview and East Fence/Saufley Road <i>Provide conveyance system to Saufley Field C&D Pond from Bellview</i>	\$1,500,000
228	61st Ave - Bayou Marcus/Millview Basin Branch D <i>Increase the capacity of the 61st Avenue stormwater system to reduce flooding in the area.</i>	\$374,139

Appendix C

City of Pensacola Stormwater Needs List

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City of Pensacola Stormwater Primary Needs Assessment List

Fisher Street and 11th Avenue (12th Ave. and Cross St.) Pond Rehab

Stormwater enhancement project to rehab and potentially expand existing stormwater pond at this location to help abate flooding issues in this area.

Const. Estimate: \$1,300,000

Lee Street Pond Rehab

Stormwater enhancement project to rehab and potentially expand existing stormwater pond at this location. Rehab work would include expansion of pond sand chimney to facilitate more effective pond percolation and increased pond retention volume to address flooding issues in this area.

Const. Estimate: \$700,000

“L” Street Pond Construction

Stormwater enhancement project to construct new stormwater pond at this location to address flooding issues in this area.

Const. Estimate: \$2,225,000

Hollis T. Williams Stormwater Park

Project to create a public stormwater management facility within the existing park beneath I-110 to serve the subject stormwater basin pollution reduction goals and assist in the abatement of downstream flooding

Const. Estimate: \$3,750,000

Government Street at Corinne Jones Park

Project will create a public stormwater management facility within the existing park to serve the subject stormwater basin pollution reduction goals, which currently has no stormwater treatment prior to discharge directly into Pensacola Bay.

Const. Estimate: \$3,000,000

“R” Street Outfall at Maggie’s Ditch

Proposed project would use stormwater treatment units to reduce pollution loading into Maggie’s Ditch.

Const. Estimate: \$750,000

Bill Gregory Park Stormwater Outfall at Bayou Chico

Project will create a public stormwater management facility within the existing park to serve the subject stormwater basin pollution reduction goals, which currently has no stormwater treatment prior to discharge directly into the eastern branch of Bayou Chico.

Const. Estimate: \$2,300,000

Downtown Stormwater Outfall to Pensacola Bay

Project will create a new stormwater conveyance and subsequent outfall to Pensacola Bay to help alleviate flooding issues in the Palafox corridor area of downtown.

Const. Estimate: \$31,000,000

Aragon Court Drainage Rehab

Stormwater enhancement project to construct additional stormwater drainage conveyance and outfall to Pensacola Bay to address flooding issues in this area.

Const. Estimate: \$2,500,000

Old Blount School Site Stormwater Park

Project to create a public stormwater management facility within the existing block of the former Blount School site to serve the subject stormwater basin pollution reduction goals and assist in the abatement of downstream flooding

Const. Estimate: \$2,300,000

Bayou Drive Outfall at Bayou Chico

Stormwater enhancement project to decrease pollution loading from subject area into Bayou Chico and Pensacola Bay.

Const. Estimate: \$325,000

Woodcliff Drive at Livingston Outfall to Escambia Bay

Subject residential area currently discharges to Escambia Bay untreated. Proposed project would address current storm sewer issues and provide stormwater treatment for this area by the construction of an underground treatment unit.

Const. Estimate: \$800,000

19th Ave. and Blackshear Outfall at Bayou Texar

Proposed project would use a stormwater treatment unit to reduce pollution into Bayou Texar and provide standard piping and inlet replacements to help eliminate nuisance flooding issues.

Const. Estimate: \$550,000

Bayou Chico Stormwater Outfall Retrofits

Various smaller stormwater outfalls have been identified as contributors of sediment into Bayou Chico and this project would help to address the sedimentation and localized flooding issues.

Const. Estimate: \$1,500,000

E. Cross Street and Yates Ave. Outfall at Bayou Texar

Proposed project would use a stormwater treatment unit to reduce pollution into Bayou Texar and help to abate nominal flooding issues.

Const. Estimate: \$450,000

Clematis Street at Carpenter Creek

Proposed project would use stormwater treatment units to reduce pollution into Carpenter's Creek and would help abate nominal flooding issues.

Const. Estimate: \$767,400

Scenic Heights Discharge at Gaberonne Swamp (Langley Ave. Outfall into Escambia Bay)

The project will serve as a major pollutant reduction mechanism for Escambia Bay and help restore the ecology of Gaberonne Swamp.

Const. Estimate: \$3,500,000

Davis Highway @ Carpenter's Creek (North side)

Proposed project would use stormwater treatment units to reduce pollution loading into Carpenter's Creek.

Const. Estimate: \$500,000

Alcaniz Street Outfall to Pensacola Bay

Proposed project would use stormwater treatment units to reduce pollution into Pensacola Bay and would help eliminate nominal flooding issues in the area.

Const. Estimate: \$1,200,000

Bayou Blvd at Tyler Street discharge

Proposed project would use stormwater treatment units to reduce pollution into Bayou Texar and help to abate nominal flooding in the area.

Const. Estimate: \$700,000

Cordova Square Pond at 12th Avenue Pond Rehab

Stormwater enhancement project to rehab and potentially expand existing stormwater pond at this location to help abate area flooding issues.

Const. Estimate: \$600,000

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Appendix D

City of Pensacola Land Development Code Revisions

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SECTION 2. Section 12-9-6 of the Code of the City of Pensacola, Florida, is hereby amended to read as follows:

Sec. 12-9-6. - Design standards for stormwater management system.

- (A) General.
- (a) The design of stormwater management facilities including all water retention or detention structures and flow attenuation devices shall comply with applicable state regulations (i.e., Chapter 62-25 62-330, Florida Administrative Code) and shall be subject to approval of the city engineer pursuant to the following requirements. In the event of conflict between the provisions of this chapter and the provisions of the applicable state regulations, the more strict requirements shall prevail.
 - (b) All stormwater management facilities shall be designed for a minimum of fifty-year life, have low maintenance cost and easy legal access for periodic maintenance.
 - (c) All proposed stormwater management facilities shall be designed to prevent flooding, safety or health hazards and shall not contribute to the breeding of mosquitoes and arthropods.
 - (d) The use of drainage facilities and vegetated buffer zones for open space, recreation, and conservation areas shall be encouraged.
 - (e) The use of alternative permeable surface materials are encouraged for private parking lots will be given due consideration in drainage plan review.
- (B) Water quality.
- (a) The first one (1) inch of runoff shall be retained on the development site. At the discretion of the city engineer, retention standards may be increased beyond the one-inch minimum standard on a site-specific basis to prevent flooding and drainage problems, and to protect environmentally sensitive water bodies.
 - (b) Stormwater management facilities that receive stormwater runoff from areas containing a potential source of oil and grease contamination including, but not limited to, any land use involving the sale or handling of petroleum products or any land use involving the repair, maintenance or cleaning of motor vehicles shall include a baffle, skimmer, grease trap, or other suitable oil and grease separation mechanism.
 - (c) Channeling runoff directly into water bodies is prohibited. Runoff shall be routed through stormwater management systems designed to increase time of concentration, decrease velocity, increase infiltration, allow suspended solids to settle, and remove pollutants.
- (C) Erosion and sedimentation.
- (a) Erosion and sediment control best management practices shall be used during construction to retain sediment on-site. These management practices shall be designed by an engineer or other competent professional experienced in the fields of soil conservation or sediment control according to specific site conditions and shall be shown or noted on the plans of the stormwater management system. The engineer or designer shall furnish the contractor with information pertaining to

the construction, operation and maintenance of the erosion and sediment control practices.

(b) The area of land disturbed by development shall be as small as practicable. Those areas that are not to be disturbed shall be protected by an adequate barrier from construction activity. Whenever possible, natural vegetation shall be retained and protected.

(c) No clearing, grading, cutting, filling or alteration to the site of any kind shall be commenced until adequate erosion and sedimentation structural controls have been installed as per plan between the disturbed area and waterbodies, watercourses, and wetlands and inspected by the building official. Limited clearing shall be permitted as necessary to allow the installation of the structural controls.

(d) Land that has been cleared for development and upon which construction has not commenced shall be protected from erosion by appropriate techniques designed to temporarily stabilize the areas.

(e) Sediment shall be retained on the site of the development, unless discharged into an approved off-site drainage facility as provided for in section 12-9-7

(f) Erosion and sedimentation facilities shall receive regular maintenance during construction to ensure that they continue to function properly.

(g) Vegetated buffer strips shall be created or, where practicable, retained in their natural state along the banks of all watercourses, waterbodies, or wetlands. The width of the buffer shall be sufficient to prevent erosion, trap the sediment in overland runoff, maintain natural drainage patterns to the waterbody, and allow for periodic flooding without damage to structures.

(D) Design frequency.

(a) Stormwater management facilities with approved positive outfall shall be designed to attenuate the ~~twenty-five (25)~~ one-hundred (100) year/critical duration storm event. The city engineer may waive or reduce this requirement if the stormwater management facility discharges directly into a natural outfall after treatment, does not contribute to potential or existing flooding conditions and does not increase pollutant loading.

(b) Retention facilities that fall within a closed drainage basin and have no positive outfall shall retain the entire runoff volume from a one-hundred (100) year storm event and shall include all storm durations up to and including the twenty-four-hour duration. This retention volume must be recovered within seventy-two (72) hours of the contributing storm event by natural percolation or other approved means.

(c) Detention and/or retention facilities that connect directly to the city's storm drainage system shall be designed so that the post-development discharge rate does not exceed the pre-development discharge rate for a ten (10) year/critical duration storm event. Where the existing capacity of the city storm drainage system is not adequate to accept the discharge from a ten (10) year storm event, the city engineer may reduce the allowable post-development discharge rate from the detention facility to an acceptable level. Detention and/or retention facilities which do not connect directly to the city storm system or have a direct impact on the system shall be allowed to discharge up to the pre-development rate for the ~~twenty-five (25)~~ one-

hundred (100) year/critical duration storm event or as otherwise approved by the city engineer.

(d) The drainage area used in runoff calculations shall be the total natural watershed area including areas beyond proposed site limits (offsite runoff).

(E) Stormwater retention and/or detention facilities.

(a) General requirements.

1. Recovery time for treatment/retention volume shall be a maximum of seventy-two (72) hours. Recovery time for facilities that are underdrained or side drained shall be thirty-six (36) hours.

2. Minimum freeboard for retention and/or detention facilities shall be one (1) foot between design high water and top of facility. The city engineer may waive or reduce this requirement for shallow ponds and swales.

3. Stormwater retention and/or detention facilities shall include appropriate access for periodic maintenance as approved by the city engineer.

4. Stormwater retention and/or detention facilities located adjacent to a public right-of-way shall be landscaped with a visual screen installed in accordance with the provisions of section 12-2-32(D) through (G) or landscaped as a part of the overall landscaping for the development with plant species that are suitable for individual pond characteristics and that provide an effective and visually pleasing screen for the retention and/or detention facility. All landscaping shall be maintained in accordance with the provisions of section 12-6-5

5. Designs for stormwater detention and/or retention facilities that use predominantly non-angular, freeform, curvilinear contouring that functions to visually integrate the facility into the overall design and landscaping of the development shall be encouraged.

(b) Public facilities. Stormwater retention and/or detention facilities to be dedicated to the city for maintenance shall comply with the following requirements in addition to the general requirement specified in section 12-9-6(E)(a) above.

1. Slide slopes of facilities shall be no steeper than four (4) horizontal feet for every one (1) vertical foot (4:1) out to a depth of two (2) feet below the control elevation. Grades steeper than 4:1 may be allowed where unique circumstances exist as approved by the city engineer.

2. Side slopes shall be stabilized with sod or other materials as approved by the city engineer.

3. Dry stormwater retention and/or detention facilities that contain side slopes that are steeper than 4:1 and have a retention depth greater than thirty (30) inches shall be completely enclosed by a six-foot fence constructed of chain link, wrought iron or other material as approved by the city engineer. Chain link fences and related appurtenances (posts, gates, etc.) shall be vinyl-coated (dark green or black). The fence shall have a minimum twelve (12) foot wide (fifteen (15) foot maximum) gate opening. The maximum clearance from the bottom of the fence to existing grade shall be no more

than three (3) inches. This provision does not apply to shallow swales with a retention depth of thirty (30) inches or less.

4. Permanently wet retention and/or detention facilities that contain side slopes that are steeper than 4:1 shall be fenced or otherwise restricted from public access in accordance with Chapter Chapter ~~62-25~~ 62-330 of the Florida Administrative Code. Where a fence is proposed it shall be constructed according to the provisions of section 6(E)(b)3. above.

(c) Private facilities. Stormwater retention and/or detention facilities to be maintained shall comply with the following requirements in addition to the general requirement specified in section 12-9-6(E)(a) above.

1. Side slopes of facilities with earthen slopes shall be no steeper than two (2) horizontal feet for every one (1) vertical foot (2:1). Grades steeper than 2:1 may be allowed where unique circumstances exist as approved by the city engineer.

2. Side slopes shall be stabilized with sod or other material as approved by the city engineer.

3. Private facilities with side slopes that are steeper than 4:1 shall be fenced or otherwise restricted from public access in accordance with Chapter 62-330 of the Florida Administrative Code. Private stormwater retention and detention facilities that are located adjacent to a public right-of-way or easement shall be fenced in accordance with section 12-9-6(E)(b)3. above.

SECTION 3. If any word, phrase, clause, paragraph, section or provision of this ordinance or the application thereof to any person or circumstance is held invalid or unconstitutional, such finding shall not affect the other provision or applications of the ordinance which can be given effect without the invalid or unconstitutional provisions or application, and to this end the provisions of this ordinance are declared severable.

SECTION 3. All ordinances or parts of ordinances in conflict herewith are hereby repealed to the extent of such conflict.

SECTION 4. This ordinance shall become effective on the fifth business day after adoption, unless otherwise provided pursuant to Section 4.03(d) of the City Charter of the City of Pensacola.

Adopted: _____

Approved: _____
President of City Council

Attest:

City Clerk

Appendix E

SWAT Design Storm and Precipitation Frequency Paper

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STORM WATER ADVISORY TEAM REPORT

MARCH 2015

EXECUTIVE SUMMARY

The design basis rainfall amount for Escambia County has been specified as the 25-year storm rainfall of critical duration. Specifically, it is the rainfall amount given in the Florida Department of Transportation Drainage Manual. The 24-hour rainfall level (11 inches) was exceeded four times during the last 100 years, including the most recent rainfall and the previous County record rainfall. In fact a rainfall level of 13 inches was equaled or exceeded four times in the last 100 years. The empirical 25-year rainfall exceeds 13 inches.

The 24-hour, 100-year rainfall for storm water design is given as 14 inches. It has been exceeded twice in the last 100 years. The storm last April 29-30 was officially reported as 19.56 inches, a record 24-hour 100-year rainfall. The rainfall profile (intensity vs. time) is a significant factor in producing flooding and was especially intense in the evening of April 29 – considered by the National Weather Service to be a 200 to 500-year event.

The design rainfall for Florida storms is given by a U.S. Department of Agriculture (USDA) paper published in 1961 that did not use data gathered after 1958. The data recorded after 1958 indicate that the design rainfall probably should be higher.

It seems prudent to the Team that the County adopt the 24-hour 100-year storm from the Drainage Manual as the current design basis rainfall. The County relied upon the Federal and State documents for storm water design and those documents may

have understated the rainfall amounts associated with risk levels that could be expected.

DISCUSSION

None of us can know with certainty when the next intense storm will arrive. Nor can we know how hard it will rain and how long it will rain. Those aspects of the next intense storm are uncertain.

Uncertainty makes decisions difficult. The goal of the Storm Water Advisory Team (Team), according to the resolution, is to “assist the staff in identifying conditions associated with the April flooding and review and comment on staff’s recommendations prior to the staff’s presentation to the Board of County Commissioners for its review.” The type design storm is a condition to be identified as it had direct effects on the resulting flooding associated with the Apr. 29/30th event.

We may not know future events with certainty but we can use probabilities to aid in judging the risk associated with the decisions regarding how to proceed with storm water management. This judgment of the appropriate level of risk is one of the early steps in defining the response for the County to take.

The risk level is generally implied in what is called the return period of the storm. What is called a 25-year storm has a rate of one storm per 25 years. A 100-year storm has a rate of one storm per 100 years. In fact, though, that is shorthand for saying a 25-year storm has a 4% probability of occurring each year; a 100-year storm has a 1% probability of occurring each year.

At present the Escambia County Code of Ordinances Land Development Code (LDC)¹ specifies the design basis rainfall as a 25-year storm; an annual probability of 4%. Given the April 29-30 intense rainfall event there is some question about whether the design basis should be a 24-hour 100-year storm; one having an annual probability of 1%.

The current design guidance is based on the 2015 Florida Department of Transportation Drainage Manual. We believe it will be helpful for you to know how the data in that manual was developed.

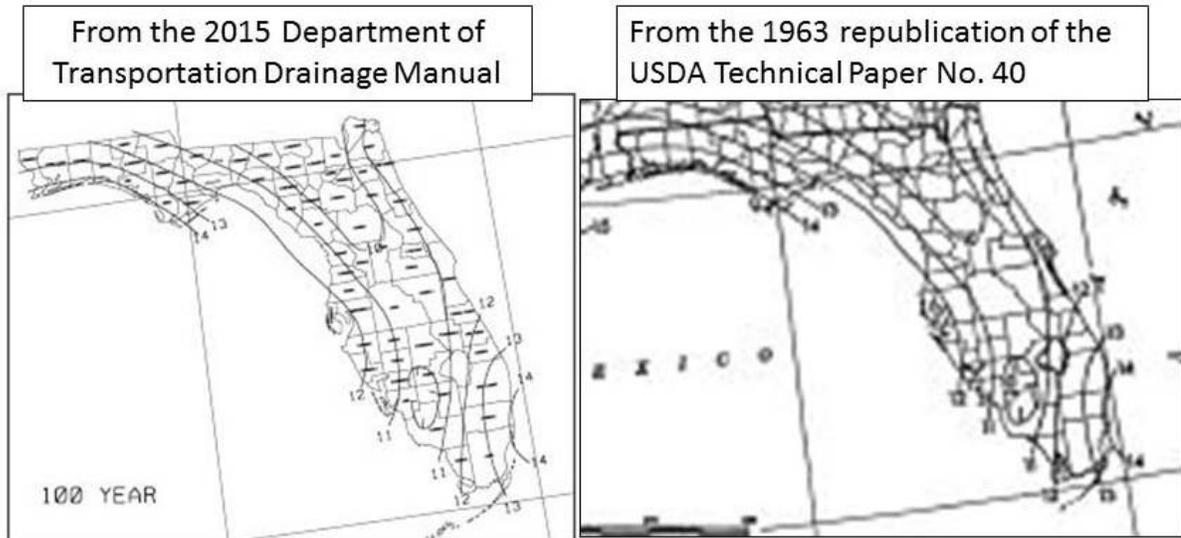
In May 1961 the U.S. Department of Agriculture published Technical Paper No. 40², with charts showing constant rainfall (isopluvial) lines for various return periods (probabilities), and specified rainfall durations. The work reported in Technical Paper No. 40 relied on rainfall data processed from the earliest available data through 1958. The data sample was large but the average time spans for recording stations ranged from 14 to 47 years. The data was recorded through 1958.

The charts in Technical Paper No. 40 were intended to provide the design basis for hydrological analysis of the entire United States. This paper was repaginated and republished in 1963. It is a monumental work, and excellent in every regard. As good as it is, though, Technical Paper No. 40 has the limitation of being based on rainfall data taken before 1959.

The rainfall isopluvial lines were published again in 1975 and 1986 as Technical Report No. 55. That report was referenced in the 2015 Department of Transportation Drainage Manual with the charts made available on-line as a separate document. The charts can be found in the on-line document linked to Appendix B of the manual. Charts

with the 24-hour 100-year isopluvial lines are shown below and it is evident that those from Technical Paper No. 40 are indistinguishable from those in the 2015 DOT Drainage Manual. This is true also of the 24-hour 25-year rainfall.

The conclusion we may draw from this is that the charts currently approved for storm water management design in Florida are based on data that was gathered before



1959. That data has not been updated since then, some 55 years.

The previous Escambia County record 24-hour rainfall of 15.29 inches was set in 1934. This was exceeded in 2014 with a 19.56 inch rainfall that the National Weather service lists as the full day rainfall for April 29-30, 2014³.

The 24-hour 25-year rainfall shown on the design manual charts is approximately 11 inches, and the 24-hour 100-year rainfall on the same isopluvial line is 14 inches.

Looking back 100 years there have been four rainfall events equaling or exceeding the 25-year design basis (11 inches). Worse than that, those four rainfall events equaled or exceeded a 13-inch rainfall. Using the 24-hour 25-year rainfall as the Storm Water management design basis has been shown by experience to be inadequate.

In that same 100 year period the County experienced 24-hour rainfalls of 15.29 inches and 19.56 inches, yielding a 24-hour 50-year storm rainfall greater than 15.29 inches; an annual probability of 2% .

The storm of last April 29-30 had the greatest 24-hour rainfall. It was the largest 24-hour storm in the last 100-years, officially reported as 19.56 inches. This storm was unusual in several respects, it was a large total rainfall and the rainfall intensity for a 1-hour period was 5.68 inches, estimated to be a 200 to 500 year event.

Considering only this limited sample of empirical evidence one could conclude that neither the current 25-year design basis (11 inches) nor the potential 100-year design basis (14 inches) are sufficient for the long term. It appears that both would fall short of the design basis needed to prevent surprises from intense rainfalls in the future.

It is little consolation to know that neighboring communities also suffered damage from flooding

because of similarly high rainfalls.

Rainfall totals are shown in the table alongside for

Station ¹ Number	Station Name	Daily Precip Sum (in)
AL-MB-50	Mobile 5.1 S	17.20
AL-BW-45	Silverhill 5.0 SW	21.80
AL-BW-9	Foley 0.5 ESE	20.76
AL-BW-27	Orange Beach 2.1 NE	20.53
FL-ES-21	Pensacola 9.2 NW	19.56
FL-SR-9	Milton 10.9 SSW	20.39

communities from Mobile to Milton. This does illustrate, however that storms of this magnitude are not just a problem for the City of Pensacola but are a County-wide, even area-wide problem.

The extreme rainfall from the April 29-30 storm was caused by a cold front that slowed the progress of the storm inland. Storms slowed in their passage inland are most unusual but have accounted for other even larger rainfall events. The record rainfall for Florida of 38.7 inches occurred in 1950 when Hurricane Easy was stalled by a front to the North of Yankeetown. Tropical storm Claudette's passage was also hindered by a blocking front. Claudette produced the one-day record rainfall for the contiguous United States of 42 inches at Alvin, Texas (near Houston) in 1979.

One of the Team members prepared an evaluation of the last 50 years of the maximum daily rainfall at the Pensacola Airport. The data appeared to be represented fairly well by a lognormal probability distribution. The evaluation indicates that considering the data missing from the charts referenced in the design basis could produce significantly different results, and more difficult design criteria.

The results of that evaluation are based on a relatively small sample, though, and other probability distributions (e.g., Gumbel, Extreme Value) may be more appropriate. A more practical consideration is that it may differ from the rainfall used in FEMA flood analysis. It seems advisable to have the County's basis for flood analysis consistent with that used by FEMA. As yet the Storm Water Advisory Team has not been able to determine the rainfall values used by FEMA.

CONCLUSIONS/RECOMMENDATIONS

It was reasonable for the County to rely on the design guidance related to rainfall amounts provided by the State and Federal governments. Certainly, in the past, the County could not have been expected to supplant the agencies of the Federal government. It does seem, though, that the County must treat the present design guidance with some skepticism and if necessary use the data from state/federal agencies to develop more location specific design criteria.

The Team recommends that Escambia County adopt the 100-year storm defined by the FDOT in the Drainage Manual as the current basis for the design of storm water management facilities. The Team also recommends that the Board of County Commissioners pursue a scientific study to aid the BCC in judging the probability of the time between extreme storms of various intensities as an aid in planning and prioritizing mitigation work.

End Notes:

¹¹ 7.15.06. *Design and performance standards for stormwater management plans.* Stormwater management plans shall ...meet the following standards:

A. The hydrography for the developed or redeveloped site shall not exceed the rate of flow of runoff procured by conditions existing before development or redevelopment for the 25-year storm of critical duration. [emphasis added] ...

² Technical Paper No. 40. Rainfall Frequency Atlas of The United States, for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years. Prepared by David M. Hershfield, Cooperative Studies Section, Hydrologic Services Division for Engineering Division, Soil Conservation Service, U.S. Department of Agriculture

³ National Weather Service. North Central Gulf Coast Historic Flash Flood Event – 29-30 April 2014. http://www.srh.noaa.gov/mob/?n=flashflood_04292014

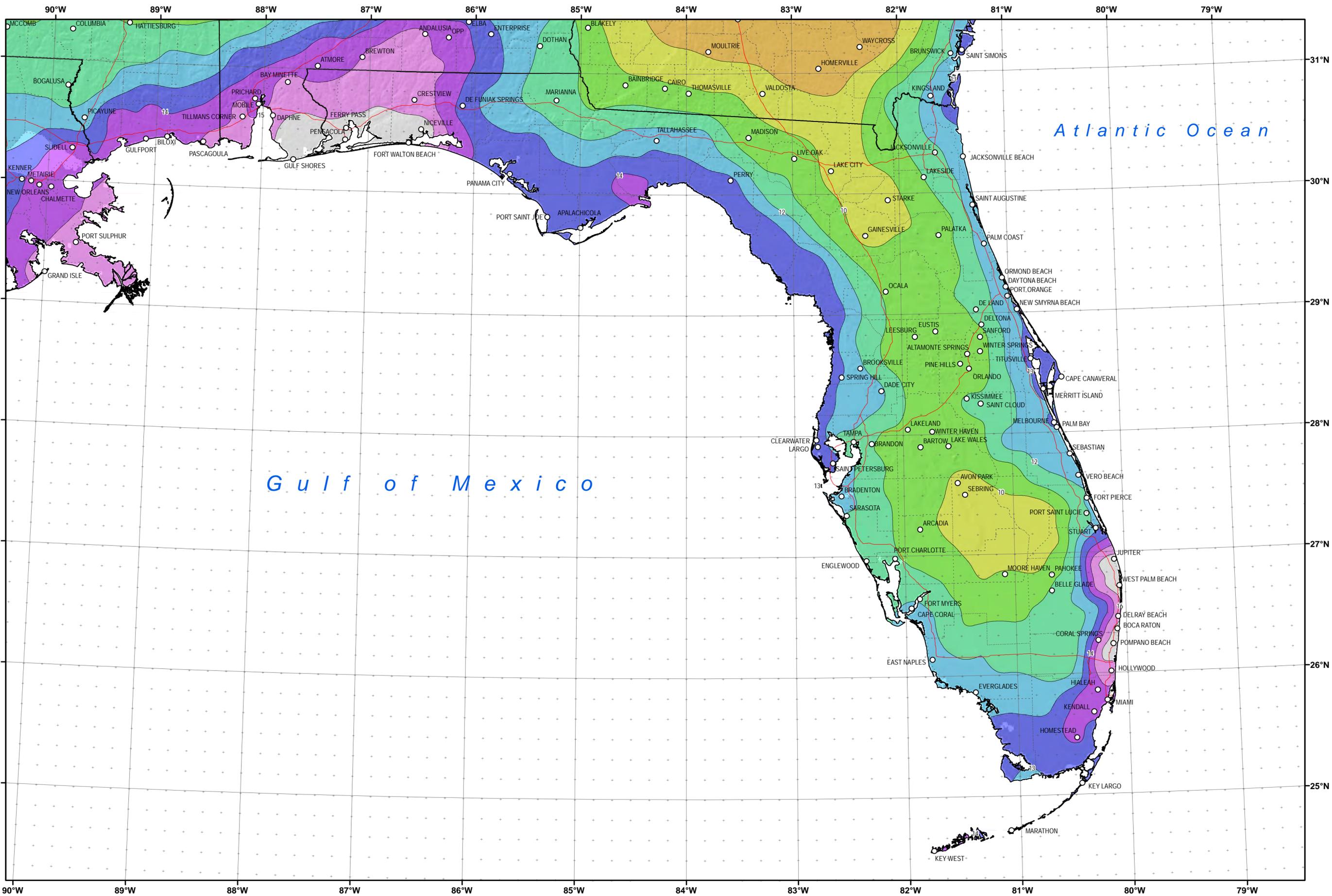
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Appendix F

NOAA Atlas 14, Vol. 9 Isopluvial Map

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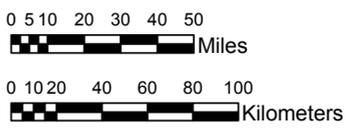




NOAA Atlas 14, Volume 9, Version 2
Southeastern States



Prepared by U.S. DEPARTMENT OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 NATIONAL WEATHER SERVICE
 OFFICE OF HYDROLOGIC DEVELOPMENT
 HYDROMETEOROLOGICAL DESIGN STUDIES CENTER
 April 2013



FLORIDA
Isopluvials of 100-year 24-hour precipitation in inches
SCALE 1:2,250,000

6.60 - 7.00	9.01 - 10.00	12.01 - 13.00	15.01 - 16.00
7.01 - 8.00	10.01 - 11.00	13.01 - 14.00	16.01 - 16.98
8.01 - 9.00	11.01 - 12.00	14.01 - 15.00	

Projection: Lambert Conformal Conic; Datum NAD83; Standard Parallels: 26°N and 30°N; Central Meridian 84°W.

Legend based on entire Volume 9 project area.

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Appendix G

Archeology Policies

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**SECTION III: Policies and Procedures Relating to Operations of Certain
Departments Under the Board of County Commissioners**

POLICY NUMBER: E.1

TITLE: Archaeological Review Procedure

ADOPTED: December 7, 2000

DEPARTMENT: Neighborhood and Environmental Services

1. Intent

The following archaeological review procedure shall apply to all proposed construction projects on property owned or developed by Escambia County or in rights-of-way. This procedure is patterned after the Federal archaeological review procedure established in Section 106 of the National Historic Preservation Act of 1966 as amended. The procedure is designed to identify, evaluate and preserve the limited non-renewable archaeological remains and artifacts on County-owned or developed property or in rights-of-way. Where possible, the intent of this policy is to undertake the review procedure in early stages of project planning so that no construction delays occur.

2. Responsibility

The Neighborhood and Environmental Services Department shall be responsible for coordinating the archaeological review procedure for County-owned or developed property. Technical assistance in the review procedure shall be provided by a professional archaeologist meeting the standards of the Register of Professional Archaeologists and having substantial experience in the archaeology and history of Pensacola.

3. Procedure

A. **Initial Determination.** Prior to the development of preliminary plans for proposed County projects, the Director of the Neighborhood and Environmental Services Department, the County Department Head responsible for the proposed project, the County Administrator and the appointed Professional Archaeologist shall confer to review the nature and extent of the ground disturbance associated with the project. Proposed construction projects include but are not limited to building construction, renovation, additions, landscaping, underground utility activities, stormwater management facilities, sanitary sewers, road construction and maintenance and disturbances within street rights-of-way.

Section III
E.1

- B. Review of Project Impact.** Based on the preliminary review required in Section III. A. above, if the proposed project is determined not to cause ground disturbance to the property, or there is no potential for archaeological deposits, then the archaeological review procedure will cease. If the proposed project is determined to cause ground disturbance to the property and there is a potential for archaeological deposits, then the following review procedure shall be initiated:
1. The Department Head responsible for the proposed project shall work with the Professional Archaeologist to determine if the site proposed for development contains significant archaeological resources. The criteria used to make this determination shall include, but not be limited to:
 - a) National Register of Historic Places Criteria set forth in 36CFR800.10 which include sites:
 - (1) That are associated with events that have made a significant contribution to the broad patterns of our history; or
 - (2) That are associated with the lives of persons significant in our past; or
 - (3) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
 - (4) That have yielded, or may be likely to yield, information important in prehistory or history.
 - b) Listing on the Florida Master Site File the Florida Bureau of Historical Archaeological Research; and
 - c) The results of the archaeological field survey of County-owned properties prepared by the University of West Florida Archaeology Institute or other accredited public or private archeological organizations.
 2. If the presence of archaeological deposits is unknown and the location is at least of moderate potential for archaeological sites, a field assessment survey and possible testing (limited exploratory excavation) of that property shall be conducted, subject to the approval of the County Administrator.
 3. Determination of Effect. For each property determined to contain significant

Section III
E.1

or potentially significant archaeological resources, the Professional Archaeologist and the applicable Department Head shall determine if the proposed project will affect the archaeological resources. The findings of effect shall include: 1) no adverse effect, or 2) adverse effect. If the findings indicate no adverse effect, then the archaeological review procedure stops. If the findings indicate an adverse effect, then a preliminary case report stating such findings shall be prepared.

4. Preliminary Case Report. The Professional Archaeologist shall prepare a written preliminary report presenting the archaeological significance of the site, the determination of effect findings and the recommended archaeological activity, if any, to preserve the archaeological resources. This report shall be forwarded to the Neighborhood and Environmental Services Department, the applicable Department Head, the County Administrator and the State Historic Preservation Office for comments.
 - a) Contents of the report shall address: a verification of the legal and historical status of the property; an assessment of the historical, architectural, archaeological, or cultural significance of the property; a statement indicating the special value of features to be most affected by the undertaking; an evaluation of the total effect of the undertaking upon the property; a critical review for any known feasible and prudent alternatives and recommendations to remove or mitigate the adverse effect.
5. Memorandum of Agreement. In consultation with the Director of the Neighborhood and Environmental Services Department, the applicable Department Head, the County Administrator and the Professional Archaeologist, a proposed memorandum of agreement shall be prepared specifying actions to be taken to avoid or mitigate any adverse effects. Estimates of costs for such actions proposed to avoid or mitigate adverse effects shall be addressed in the memorandum. The proposed memorandum of agreement will be presented to the Board of County Commissioners or Administrator for review and approval.

4. Funding

- A. Public Lands. All archaeological activities established in this policy may be funded by the County, by private or other public entities or in the case of a lease site or franchise holder, the assigned lessee.
 1. Initial determination, review of project impact and preliminary case report

Section III

E.1

activities performed by the Professional Archaeologist will be compensated through a limited work-as-needed contract approved by the Board of County Commissioners.

2. Funding for implementing memorandums of agreement shall be decided on a case by case basis by the Board of County Commissioners.
3. Funding from other sources, such as the State of Florida and private sources to undertake archaeological activities will also be pursued by the County and the Professional Archaeologist.

5. Prohibitions

It shall be the policy of the Board of County Commissioners to prohibit the search for and/or removal of any archaeological material greater than 50 years old on County property except with the explicit permission of the Board of County Commissioners. If such removal occurs, it would be considered a theft of County property which shall be referred to the Escambia County Sheriff's Department for investigation and the State Attorney's Office for prosecution.

6. Disposition of Archaeological Materials

All archaeological materials excavated under this policy shall become the property of Escambia County. Such materials shall be housed by the County, its agent or other approved archeological organization in facilities which meet the standards set forth by the federal government in 36CFR79. While such materials cannot be sold, the materials may be loaned or donated to appropriate State or non-profit associations with standard curatorial facilities.

7. Archaeological Review of Private Property

The Professional Archaeologist shall be informed of all meetings of the Development Review Committee in order to monitor the sub-surface impact of proposed private construction projects and make suggestions to the owners and/or developers of the project site to perform voluntary archaeological activities. All archaeological activities suggested by the Professional Archaeologist and agreed to by the private property owner shall be funded by the private property owner.

Section III

E.1

8. Definitions

- A. **Impact area** - the land area, or areas, where land may be disturbed or the environment changed in such a way as to effect their historic value.
- B. **Significant data** - data that can be used to answer research questions, including questions of present importance to scholars and questions that may be posed in the future.
- C. **Archaeological material** - material remains (artifacts, refuse, etc.) produced purposely or accidentally by human beings, and the spatial relationships among such remains.
- D. **Archaeological artifacts** - objects made or used by humans in historic or prehistoric times greater than 50 years old.
- E. **Ecofacts** - plant and animal remains associated with past human activities.

CITY OF PENSACOLA

**POLICIES
OF THE
CITY COUNCIL**

**Adopted by Resolution 21-10
Effective Noon, January 10, 2011
Amended by Resolution 30-10, 31-10, 41-10, 42-10
Effective Noon, January 10, 2011
Amended by Resolution 24-11**

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I. CONSTRUCTION PROJECTS

ARCHAEOLOGICAL REVIEW PROCEDURE

Adopted by Resolution November 14, 1985, Amended by Resolution August 21, 2010 effective Noon, January 10, 2011

I Intent

The following archaeological review procedure shall apply to all proposed construction projects on property owned by the City of Pensacola and identified on the attached map. This procedure is patterned after the Federal archaeological review procedure established in Section 106 of the national Historic Preservation Act of 1966. The procedure is designed to identify, evaluate and preserve the limited non-renewable archaeological remains and artifacts on City-owned property. Where possible, the intent of this policy is to undertake the review procedure in early stages of project planning so that no construction delays occur.

II Responsibility

The Mayor shall be responsible for coordinating the archaeological review procedure for City-owned property. Technical assistance in the review procedure shall be provided by a professional archaeologist meeting the standards of the Society of Professional Archaeology and having substantial experience in the archaeology and history of Pensacola. Said archaeologist will be appointed by the City Council to serve in this capacity.

III Procedure

A. Initial Determination. Prior to the development of preliminary plans for proposed construction projects on City-owned property, the Mayor and the appointed Archaeologist shall confer to review the nature and extent of the ground disturbance associated with the project. Proposed construction projects include but are not limited to building construction, renovation, additions, landscaping underground utility activities, and disturbances within street rights-of-way.

B. Review of Project Impact. Based on the preliminary review required in III.A. above, if the proposed project is determined not to cause ground disturbance to the property, or there is no potential for archaeological deposits, then the archaeological review procedure will not be undertaken. If the proposed project is determined to cause ground disturbance to the property and there is a potential for archaeological deposits then the following review procedure shall be initiated.

1. The Mayor shall work with the appointed Archaeologist to determine if the site proposed for development contains significant archaeological resources. The criteria used to make this determination shall include, but not be limited to:

- a) National Register of Historic Places Criteria set forth in 36CFR800.10 which include sites:
 - (1) That are associated with events that have made a significant contribution to the broad patterns of our history; or
 - (2) That are associated with the lives of persons significant in our past; or
 - (3) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
 - (4) That have yielded, or may be likely to yield, information important in prehistory or history
 - b) Inventory of significant archaeological sites identified by the Florida Bureau of Archaeological Research; and
 - c) Field survey of City-owned properties for possible archaeological potential prepared by UWF Archaeology Department.
2. If the presence of archaeological deposits is unknown and the location is at least of moderate potential for archaeological sites, a field assessment survey and possible testing (limited exploratory excavation) of that property shall be conducted, subject to the approval of the Mayor.
3. Determination of Effect. For each property determined to contain significant archaeological resources, the appointed Archaeologist and the Mayor shall determine if the proposed project will affect the archaeological resources. The findings of effect shall include: 1) no adverse effect, or 2) adverse effect. If the findings indicate no adverse effect, then the archaeological review procedure stops. If the findings indicate an adverse effect, then a preliminary case report stating such findings shall be prepared.

4. Preliminary Case Report. The appointed Archaeologist shall prepare a written preliminary report presenting the archaeological significance of the site, the determination of effect findings and the recommended archaeological activity, if any, to preserve the archaeological resources. This report shall be forwarded to the Mayor and the State Historic Preservation Office for comments.
 - a) Contents of the report shall address: a verification of the legal and historical status of the property; an assessment of the historical, architectural, archaeological, or cultural significance of the property; a statement indicating the special value of features to be most affected by the undertaking; an evaluation of the total effect of the undertaking upon the property; a critical review of any known feasible and prudent alternatives and recommendations to remove or mitigate the adverse effect.
5. Memorandum of Agreement. In consultation with Mayor and the appointed Archaeologist, a proposed memorandum of agreement shall be prepared specifying actions to be taken to avoid or mitigate any adverse effects. Estimates of costs for such actions proposed to avoid or mitigate adverse effects shall be addressed in the memorandum. The proposed memorandum of agreement will be presented to the City Council for review and approval.

IV. Funding

- A. Public Lands. All archaeological activities established in this policy shall be funded by the City, or in the case of a leased site, the assigned leasee
 1. Initial determination, review of project impact and preliminary case report activities performed by the appointed Archaeologist will be compensated through a limited work-as-needed contract approved by the Mayor.
 2. Funding for implementing memorandums of agreement shall be decided on a case-by-case basis by the City Council.
 3. Funding from other sources, such as the State of Florida and private sources to undertake archaeological activities will also be pursued by the City and appointed Archaeologist.

V. Prohibitions

It shall be the policy of the City Council to prohibit the search for and/or removal of any archaeological material greater than 50 years old on City property. If such removal occurs, it will be considered a theft. This prohibition includes employees of the City and contractors working on City-owned property.

VI. Disposition of Archaeological Materials

All archaeological materials excavated under this policy shall become the property of the City of Pensacola. Such materials shall be housed in facilities that meet the standards set forth in the Society for American Archaeology Standards for Quality Control. While such materials cannot be sold, the materials may be loaned or donated to appropriate State or non-profit associations with standard curatorial facilities.

VII. Archaeological Review of Private Property

The appointed Archaeologist shall be informed of all meetings of the Architectural Review Board and the Planning Board in order to monitor the sub-surface impact of proposed private construction projects and make suggestions to the owners and/or developers of the project site to perform voluntary archaeological activities. All archaeological activities suggested by the appointed Archaeologist and agreed to by the private property owner shall be funded by the private property owner.

VIII Definitions

- A. **Impacted area** – the land area, or areas, where land may be disturbed or the environment changed in such a way as to effect their historic value.
- B. **Significant date** – data that can be used to answer research questions, including questions of present importance to scholars and questions that may be posted in the future.
- C. **Archaeological data** – material remains (artifacts, refuse, etc.) produced purposely or accidentally by human beings, and in the spatial relationships among such remains.
- D. **Archaeological artifacts** – objects made or used by humans in historic or prehistoric times greater than 50 years old.
- E. **Ecofacts** – plant and animal remains associated with past human activities.

NOTE: This procedure was amended by adoption of Resolution No. 3-88 on January 14, 1988 so as to extend the application of such procedures to all public rights-of-way within the boundaries of the City of Pensacola which are maintained by the City government.

Appendix H

Swat Meeting Minutes

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Storm Water Advisory Team – SWAT Meeting Minutes

December 2, 2014
3:30 PM

Attendees:

Staff: Jack Brown, Kristin Hual, Colby Brown, Keith Wilkins

Committee: Mike Whitehead, Mary Gutierrez, Garrett Walton, John Cheney,
Dr. Elizabeth Benchley, Phil Turner, Glenn Niblock

Citizens: Barbara Albrecht

- Sunshine Presentation – Kristin Hual
 - Kristin Hual gave a presentation and distributed a handout on the Sunshine Law (see attached).
- Welcome – Colby Brown
 - Colby Brown welcomed the SWAT Team. All members introduced themselves and provided a brief background (sign in sheet attached).
- Meeting Properly Advertised – Proof of Publication dated November 22, 2014
- Review Resolution – Colby Brown
 - Colby reviewed the Resolution with the Committee
- SWAT Presentation – Jack Brown / Colby Brown (see attached)

- Discussion
 - Jack Brown gave an overview of the Delano area – County and City collaboration
 - It was noted that for additional dollars, work with CERTS / Restore / LOST / Grant Mitigation Funds (available for wind, what about flood)
 - Mary Gutierrez encouraged Low Impact Development (LID) Incentives
 - Mike Whitehead would like SWAT to be more Proactive and Project Oriented and not just a review of a White Paper Report
 - Jack Brown stated that the white paper is only part of the picture and that there will be specific projects discussed
 - Look at County-wide storm water system
 - County is buying property
 - Would like SWAT to get project specific
 - Mike Whitehead would like to use SWAT as public information / outreach
 - Mike Whitehead noted that all seems to be repair and we need to focus on mitigation
 - Jack Brown noted that the first effort is to repair while planning to mitigate
 - Phil Turner would like to have access to all Drainage Basin Studies.
 - Mike Whitehead –
 - Something we can do now - Change Development Guidelines – Redevelopment Guidelines to address amount of storm water in that area. Offer Commercial Incentive, Property Tax Credits, Grant mitigation, etc.
 - FDOT Pit at Rambler & Pipeline should become a County pond
 - Garret Walton would like a large scale overview of the flood and its impacts

- Action Items / Agenda Items
 - Staff to provide SWAT detailed information regarding the April Storm.
 - Largest impact areas and associated costs
 - What happened in the devastated areas
 - How we intend to move forward
 - What is staff direction
 - Explain storm events (25 year, 100 year, etc.)
 - Staff to bring SWAT Projects (mitigation)
 - Including properties acquired or attempting to acquire
 - Provide access to Drainage Basin Studies

- Election of Chairperson – Colby Brown
 - Mary Gutierrez nominated herself for Chair
 - John Cheney nominated Phil Turner
 - Motion to close nomination by Mike Whitehead and Seconded by Garrett Walton, All in favor
 - Motion by Mike Whitehead to accept Mary Gutierrez as Chair and Phil Turner as Vice Chair. Seconded by Phil Turner, All in favor

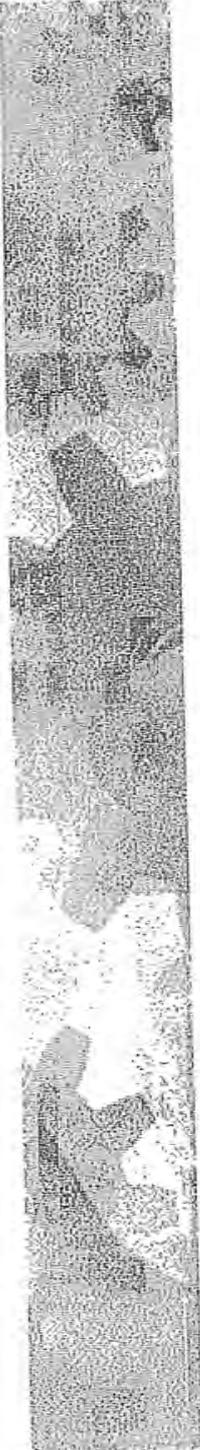
- Scheduling of Next Meeting
 - Next meeting scheduled for Tuesday Jan 6th at 10:30 AM in the 4th Floor Training Room

- Adjourn
 - Mary Gutierrez made a motion
 - Seconded by Elizabeth Benchley
 - All in favor
 - Meeting adjourned

Florida's Government in the Sunshine Law

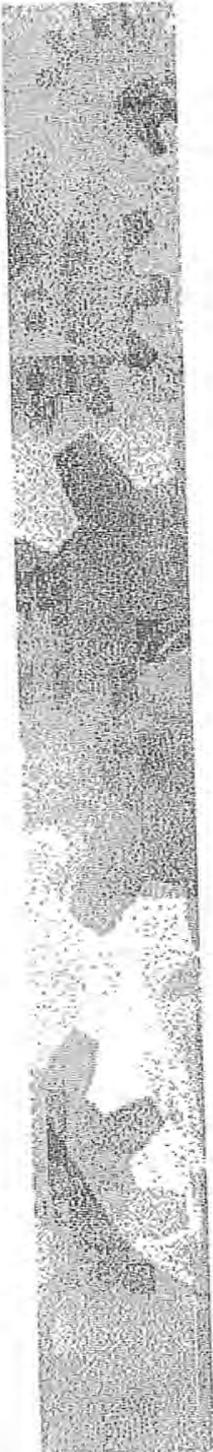
Article I, section 24, Florida Constitution and
Section 286.011, Florida Statutes





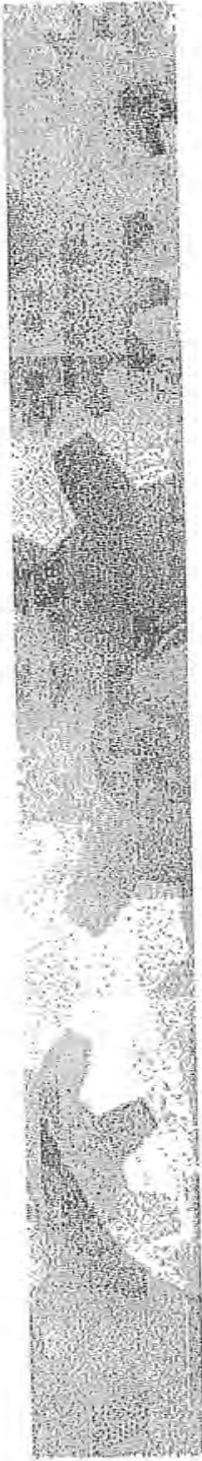
What is the purpose of Florida's Sunshine Law?

- ✿ To give citizens a right of access to governmental proceedings



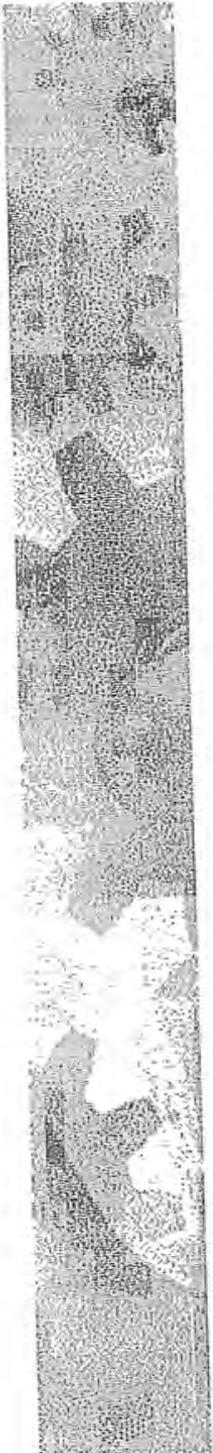
How does the Sunshine Law give citizens access to governmental proceedings?

- ✿ Meetings of public boards or commissions must be open to the public
- ✿ Reasonable notice of such meetings must be given
- ✿ Minutes must be taken



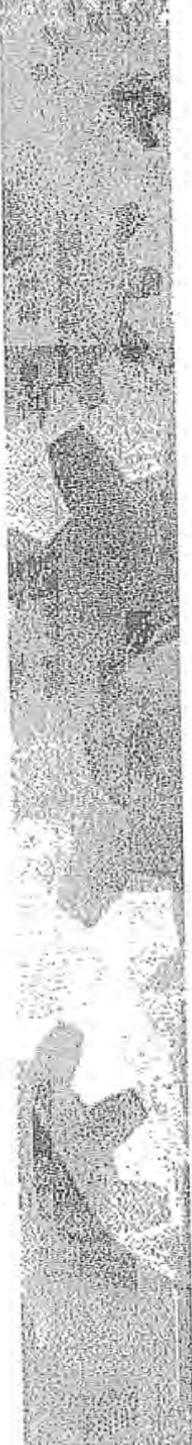
Why is public access to governmental proceedings so important?

- ✿ Citizens have the right to know the entire decision-making process
- ✿ Every expressed thought or affirmative act of a public official as it relates to official duties is a matter of public concern
- ✿ In 1992, the Florida Constitution was amended to include the open meetings requirement



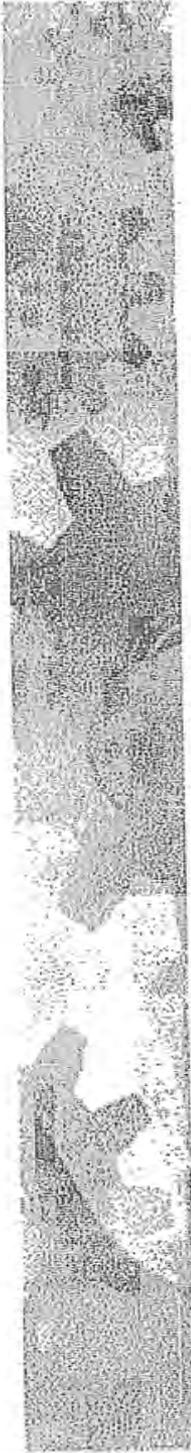
What is “a meeting subject to the Sunshine Law?”

- ✱ **Any gathering or interaction**, formal or casual, of **two or more members** of the **same** public board, commission, or committee to discuss a matter on which **foreseeable** action will be taken by such public board, commission, or committee



What entities are subject to the Sunshine Law?

- ✿ Any board, commission, agency, authority, or advisory committee of the County
 - ✿ This applies to both elected officials and appointed members
 - ✿ This applies to both permanent and temporary or ad hoc committees such as a task force



Are there any exemptions?

- ✿ Yes—exemptions are created by general law or caselaw
- ✿ An advisory body established for *fact finding or information gathering which has no decision-making authority* is not subject to the Sunshine Law



How do you determine if an advisory body is exempt?

- ✱ An advisory committee or board is participating in a decision-making process and is not exempt when it has the **discretion to accept or reject options** to be presented to the final decision-making authority
- ✱ Where a committee is formed to report facts back to the public entity, it is exempt

Does the Sunshine Law apply to staff?

- ✱ Not unless the staff member has been delegated decision-making functions outside his or her normal staff functions
- ✱ The focus is on the *nature of the act performed*: a staff committee making non-binding recommendations or assisting in evaluating proposals **would** be subject; a staff committee relaying facts **would not** be subject



☀ The law is not violated when:

- ☀ a government executive uses staff for a fact-finding and advisory function in fulfilling his or her *executive* duties
- ☀ informal meetings are held between a county commissioner and staff,
 - ☀ where the discussions are merely informational
 - ☀ where no one has the authority to make a final decision during that meeting, and
 - ☀ no formal action is or could be taken



May members of the same board or committee provide written position statements to each other on subjects that will be discussed at a public meeting?



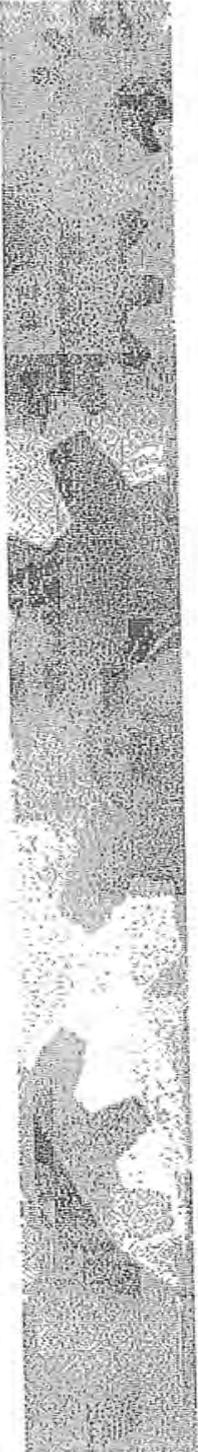
- ☀ Yes, so long as

- ☀ There is no interaction related to the report among the members
 - ☀ The report is not used as a substitute for action at a public meeting, and
 - ☀ The written report is maintained by the records custodian as a public record
- ☀ The circulation of a written report which does not result in an exchange of comments or responses on subjects requiring board action is not a *meeting* subject to the Sunshine Law



Are telephone conversations and e-mails subject to the Sunshine Law?

- ✿ Yes! Members of the *same board or committee* should not call or e-mail each other on matters which may *foreseeably* come before that board or committee



What are the consequences for noncompliance?

- ✿ Any member of a board, commission, committee or agency of the county who **knowingly** violates the Sunshine Law is guilty of a misdemeanor of the second degree
- ✿ Persons convicted of this may be sentenced to jail for up to 60 days and/or fined up to \$500

- 
- ✿ **Knowing** violation of the Sunshine Law may also result in suspension of an elected or appointed public officer by the Governor
 - ✿ Where an inadvertent violation occurs, such public officer is guilty of a **non-criminal infraction**, punishable by a fine not to exceed \$500
 - ✿ Any citizen of this County may apply to the Circuit Court for issuance of an injunction to remedy past and future violations



How does a violation of the
Sunshine Law affect the
validity of the action taken?

- 
- ✿ Any official action of a public board, agency or committee, which does not comply with the requirements of the Sunshine Law is *void*
 - ✿ The public board, agency or committee must hold a full, open public meeting and take independent final action to cure the violation
 - ✿ Curing the violation does not shield the individuals who violated the Sunshine Law from liability



What are the guidelines for complying with the notice requirement?

- ✱ The notice should contain the time, date and place of the meeting *and*, if available, an agenda or subject matter summation
- ✱ It should be prominently displayed in the area the County sets aside for that purpose

- 
- ☀ Emergency sessions should be afforded the most appropriate and effective notice under the circumstances
 - ☀ Special meetings should have at least 24 hours reasonable notice to the public
 - ☀ The use of press releases and/or phone calls to the wire services is effective
 - ☀ Advertising in the local newspapers of general circulation would be appropriate

- 
- ✱ There are additional notice requirements when a public board or committee acts as a quasi-judicial body or takes action on matters that affect the individual rights of citizens:
 - ✱ If notice is required, there should be advice as to the requirements for appealing the decision:
 - ✱ Individual must ensure that a verbatim record of the proceeding is made
 - ✱ The record must include the testimony and evidence upon which the appeal is based



How can members of public boards or committees avoid liability for Sunshine violations relating to notice and access to the public?



☀ If a board or committee member cannot determine whether a meeting is subject to the Sunshine Law:

☀ Leave the meeting, or make sure:

☀ That the meeting was properly noticed or advertised

☀ There are no barriers to public access or ADA access to the meeting place

☀ Minutes of the meeting are taken



StormWater Advisory Team – SWAT

Sign-in Sheet

December 2, 2014

Name	Signature	Phone #/Email Address
Mike Whitehead		324 3129 mike.whitehead@cox.net 549 7472
Mary Gutierrez		mary.earthethics@cox.net
Garrett Walton	✓	✓ 479-4450
John Cheney		John@MATHSELECTRICAL.COM 850 474-3015
Dr. Elizabeth Benchley		ebenchle@uwf.edu 202-4407
Phil Turner		PTURNER@IHMC.US (850) 490-5905
Jack Brown		jrbrown@myescambia.com
Colby Brown		595-3433 csbrown@myescambia.com
Kristin Hual		
Glenn Niblock		455-8133 gnib@att.net Barbara@
Barbara Albrecht		384-6696 Barbara@watershed.org
Keith Wilkins		595-4958 ESC.COM

Storm Water Advisory Team

Escambia County, FL.
2014



Order of Discussion:

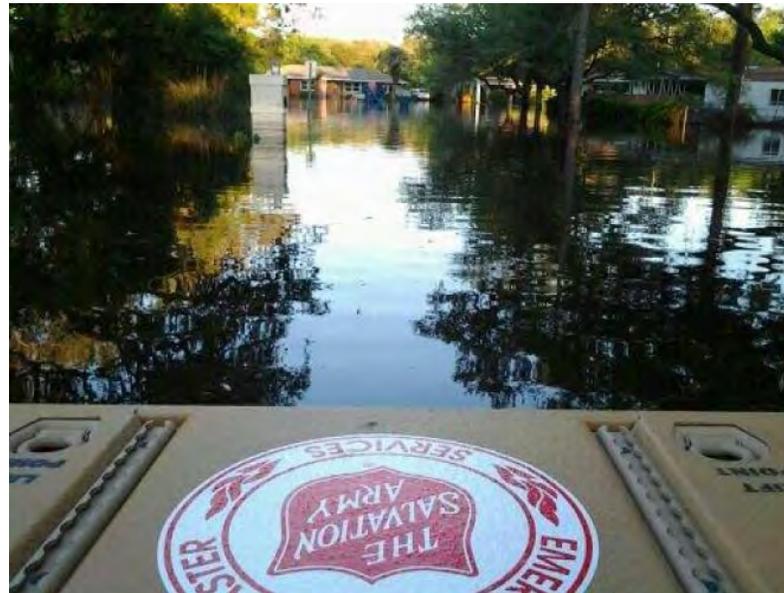
1. BACKGROUND
2. METHODS
3. S.W.A.T. OBJECTIVES



Storm Water Advisory Team

Escambia County, FL.
2014

BACKGROUND



**Massive capital damage to
business, private residences,
infrastructure, public
facilities, non-profits and
institutional facilities.**

**Substantial Point and non-
point impacts to local
environment.**

April 29, 2014

Storm Water Advisory Team

Escambia County, FL.
2014

BACKGROUND



ESCAMBIA COUNTY

Master Drainage Study
initialized County-wide in
1990's.

Storm Water Advisory Team

Escambia County, FL.
2014

BACKGROUND



ESCAMBIA COUNTY

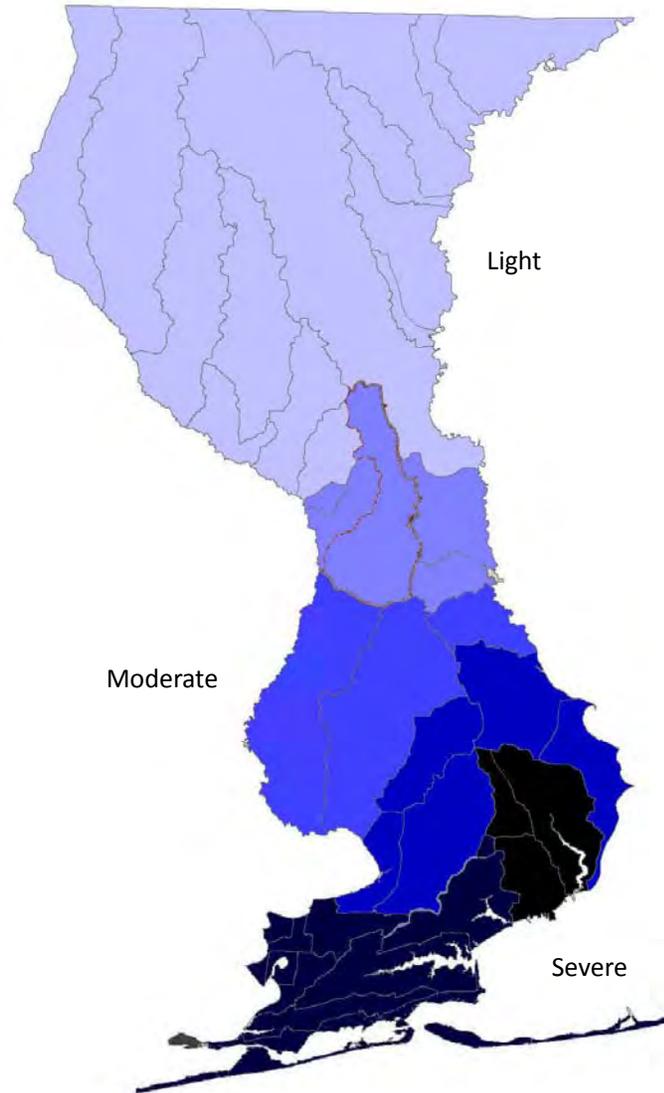
Master Drainage Study
initialized County-wide in
1990's.

COUNTY divided into Two
Primary Basins

Storm Water Advisory Team

Escambia County, FL.
2014

BACKGROUND



ESCAMBIA COUNTY

Master Drainage Study
initialized County-wide in
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COUNTY divided into Two
Primary Basins

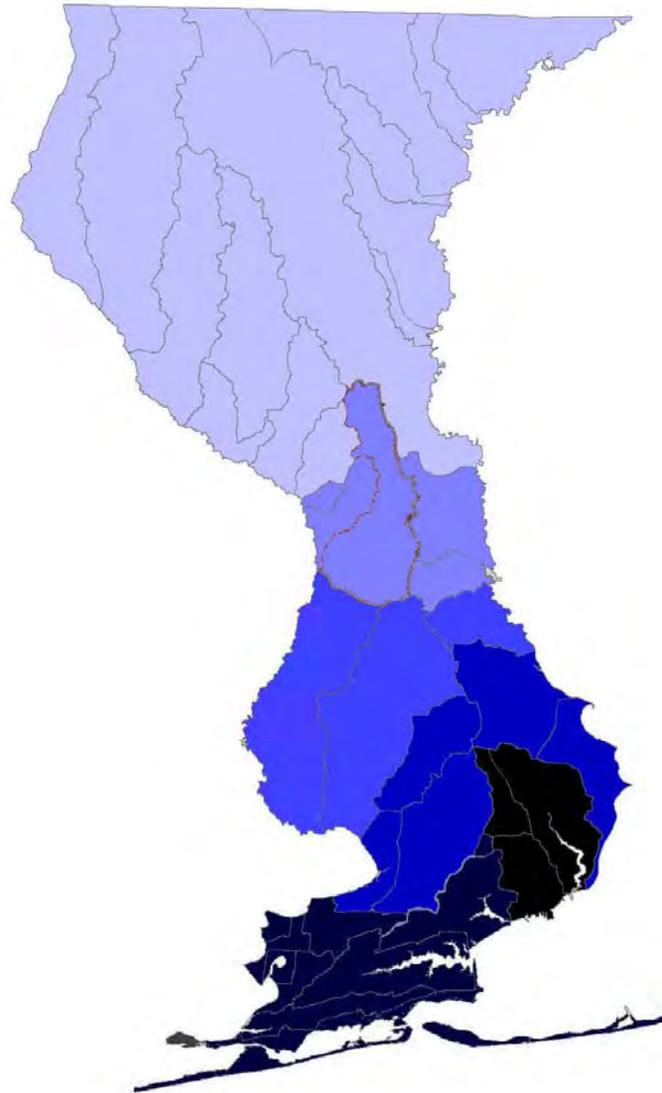
40 Sub-Basins

April 29th storm produces 25
inches of rainfall in 24 hours.

Storm Water Advisory Team

Escambia County, FL.
2014

BACKGROUND



ESCAMBIA COUNTY

Master Drainage Study
initialized County-wide in
1990's.

COUNTY divided into Two
Primary Basins

40 Sub-Basins

April 29th storm produces 25
inches of rainfall in 24 hours.

Flooding is more severe south of
Well Line Road.

Urbanization and flood potential
are correlated

Storm Water Advisory Team

Escambia County, FL.
2014

BACKGROUND

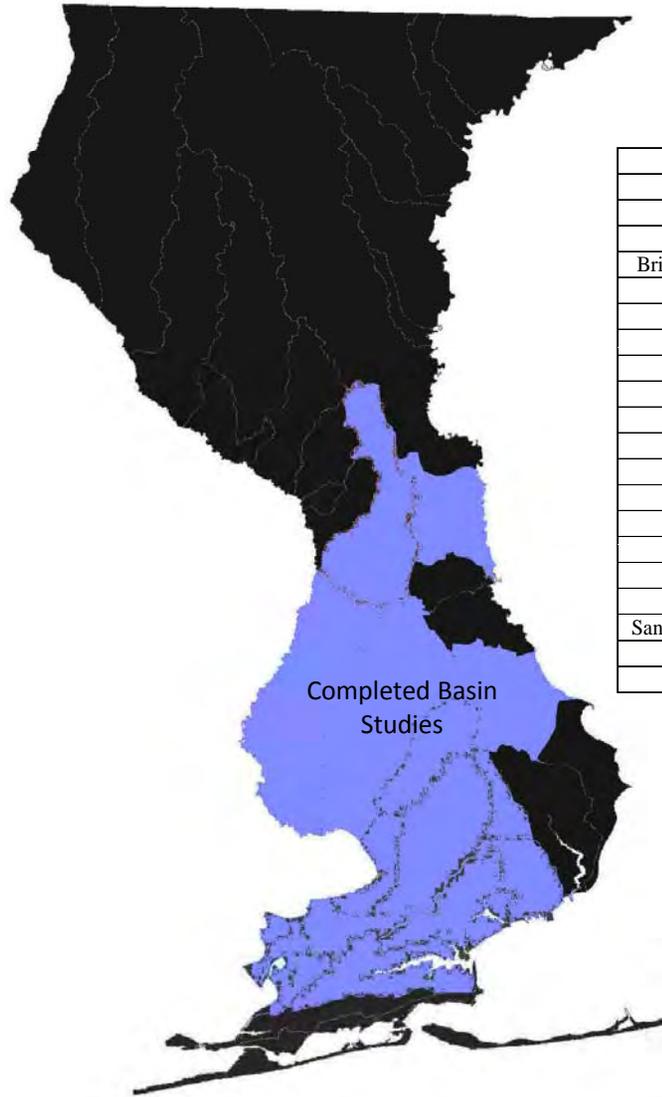


Table 1. Model Prefixes for Escambia County Basin Studies

Basin Name	Model Prefix	Basin Name	Model Prefix
Alligator Creek	01	Bayou Grande	02
Bayou Marcus Creek	03	Beverly Parkway	04
Boggy Creek	05	Bowman Creek	06
Bridge Creek Herron Bayou	07	Bronson Field	08
Brushy Creek	09	Canoe Creek	10
Carpenters Creek	11	Century	12
Catholic High School	13	Churchhouse Branch	14
Cotton Creek	15	Cowdevil Creek	16
Eight Mile Creek	17	Eleven Mile Creek	18
Escambia Bay	19	Fletcher Creek	20
Garcon Swamp	21	Jacks Branch	22
McDavid Creek	23	Millview	24
Mitchell Creek	25	Paradise Beach	26
Penasula Creek	27	Pensacola Bay	28
Williams Creek	29	Perdido River North	30
Perdido River South	31	Pine Barren Creek	32
Pritchett Mill Branch	33	Rock Creek	34
Sandy Creek Weekley Bayou	35	Scenic Hills	36
Southwest Side	37	Spanish Mill Creek	38
Tarkiln Bayou	39	Warrington	40

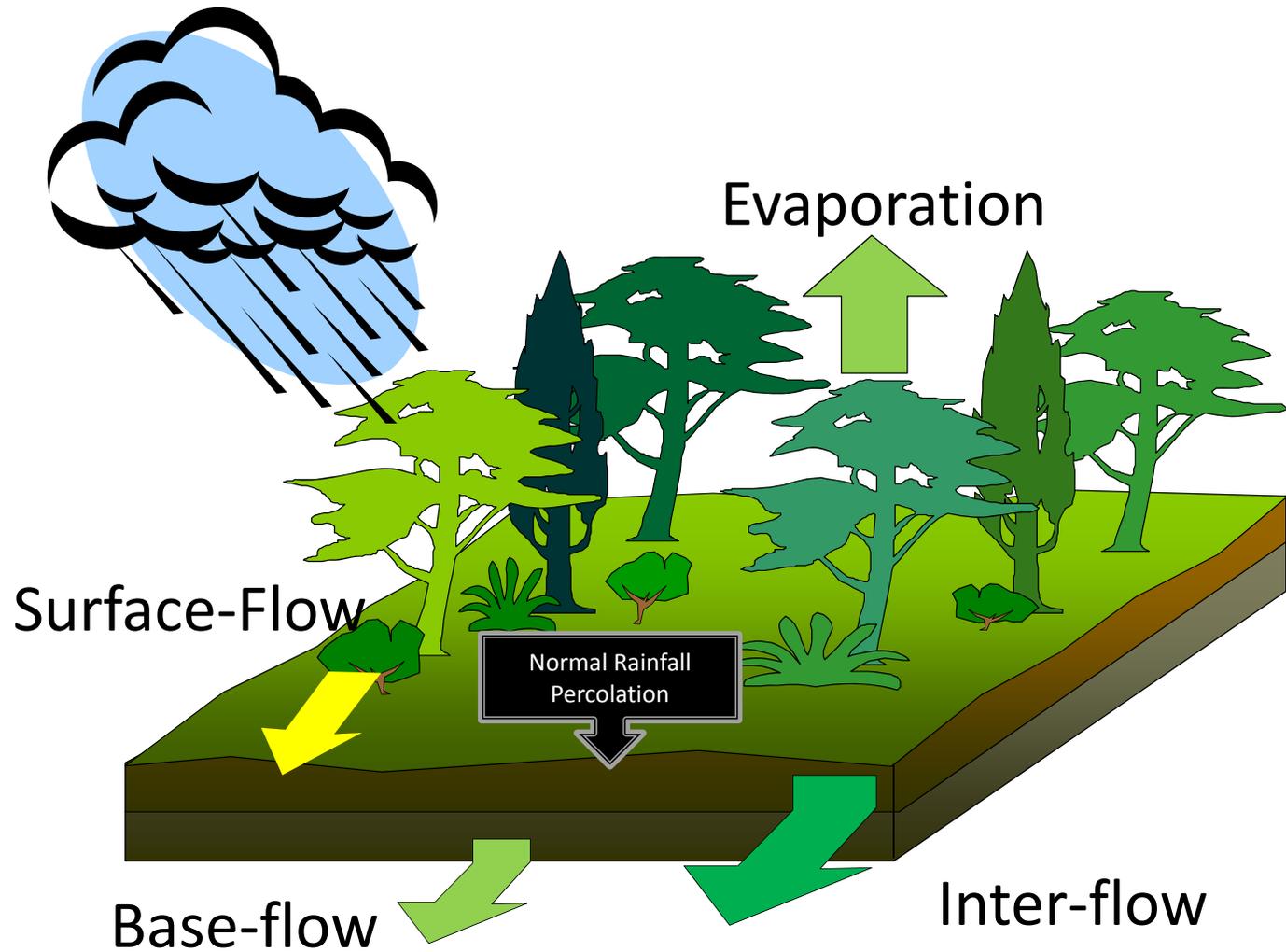
Objective: generate working digital models of all 40 basins.

Digital models allow for flooding analysis of any storm event, including the actual storm that generated widespread flooding in April 2014.

Storm Water Advisory Team

Escambia County, FL.
2014

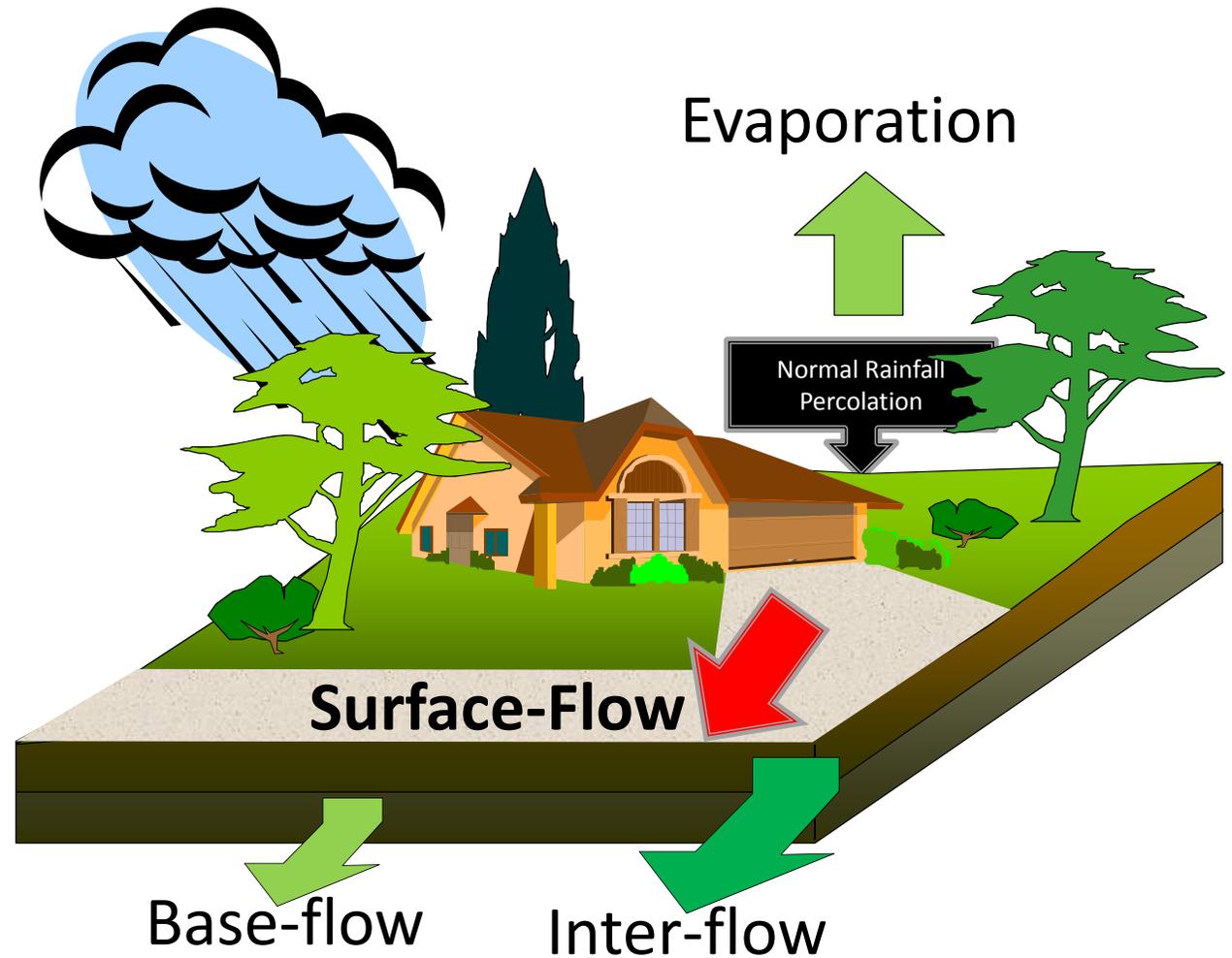
Sustainable Drainage Natural Water Catchment (Greenfield)



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Escambia County, FL.
2014

Sustainable Drainage Developed Catchment



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Escambia County, FL.
2014

Sustainable Drainage SuDs



Sustainable Drainage (SuDs) Principles

- **The Drainage Train** – SuDs components in interconnecting series
- **Percolation and slow flow** – Runoff is percolated and the flow slowed to reduce culminating cascading effect downhill
- **Source Control** – Runoff managed as close as possible to where it falls as rain
- **Sub-Catchment** – Divisions into small areas with different drainage characteristics and land use.

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Escambia County, FL.
2014

Sustainable Drainage SuDs



SuDS scheme at Stamford

Robert Bray Associates

SuDs Philosophy

- Mimic natural drainage
- Where possible manage water on the surface
- Manage water close to the source
- Provide multiple benefits

Storm Water Advisory Team

Escambia County, FL.
2014

Sustainable Drainage

SuDs



Challenges of Drainage

- Abundance of impervious surfaces decreases chance for percolation
- Rapid runoff
- Once retention pond overflows then what?
- Maintenance
- Cost
- Enhancing esthetics and biodiversity

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Escambia County, FL.
2014

Sustainable Drainage SuDs



Sustainable Drainage (SuDs) Schemes

- **Variety of Components** – SuDs components depends on site opportunities and constraints
- **Provide Management and Treatment Train**
- **Enhanced Percolation and Pervious Surface**
- **Shallow Systems are normally better and cheaper than deep systems**
- **Trees consume more water than grass.**

Storm Water Advisory Team

Escambia County, FL.
2014

Sustainable Drainage SuDs



SuDs Examples

- Grass drainage ditches versus concrete with shrubbery
- Grass Swells
- Retention ponds with enhanced vegetation to help clean and reclaim water

Storm Water Advisory Team

Escambia County, FL.
2014

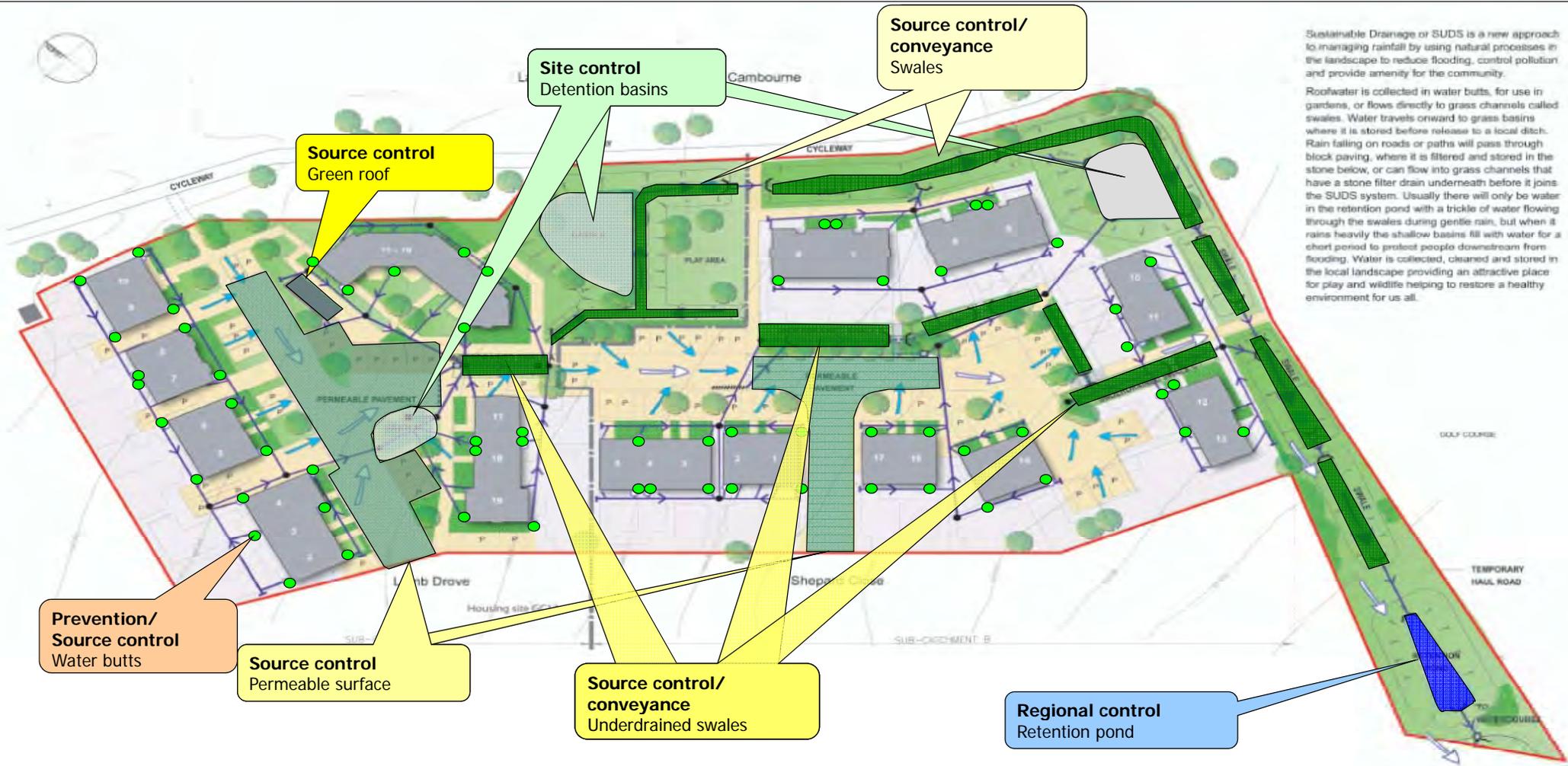
Sustainable Drainage

SuDs



SuDs Examples

- **Grass Roof**
- **Bioretention**
- **Permeable pavement** – Replacement of non-permeable surfaces with permeable.



Site control
Detention basins

**Source control/
conveyance**
Swales

Source control
Green roof

**Prevention/
Source control**
Water butts

Source control
Permeable surface

**Source control/
conveyance**
Underdrained swales

Regional control
Retention pond

Sustainable Drainage or SUDS is a new approach to managing rainfall by using natural processes in the landscape to reduce flooding, control pollution and provide amenity for the community.

Roofwater is collected in water butts, for use in gardens, or flows directly to grass channels called swales. Water travels onward to grass channels called swales where it is stored before release to a local ditch. Rain falling on roads or paths will pass through block paving, where it is filtered and stored in the stone below, or can flow into grass channels that have a stone filter drain underneath before it joins the SUDS system. Usually there will only be water in the retention pond with a trickle of water flowing through the swales during gentle rain, but when it rains heavily the shallow basins fill with water for a short period to protect people downstream from flooding. Water is collected, cleaned and stored in the local landscape providing an attractive place for play and wildlife helping to restore a healthy environment for us all.

GOLF COURSE

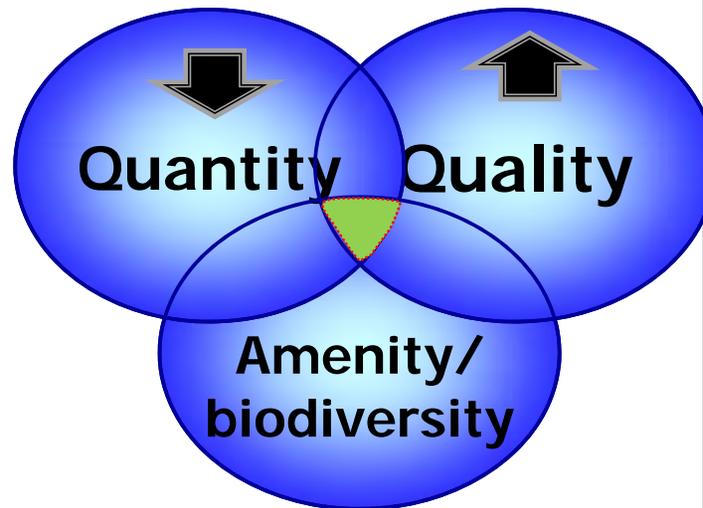
TEMPORARY HALL ROAD

TO WHITEHOUSE

Storm Water Advisory Team

Escambia County, FL.
2014

Sustainable Drainage SuDs



The SuDS Triangle

SuDs Multiple Benefits

- Reduce flood risk
- Improve Water Quality
- Increased level of green space
- Enhanced biodiversity

Storm Water Advisory Team

Escambia County, FL.
2014

Sustainable Drainage

SuDs



SuDs Examples

- **Grass Roof**
- **Bioretention**
- **Permeable pavement** – Replacement of non-permeable surfaces with permeable.

Storm Water Advisory Team

Escambia County, FL.
2014

Organization



Organizational Inputs



Storm Water Advisory Team

Escambia County, FL.
2014

Objectives



Potential SWAT Objectives

Establish existing conditions.

Ensure that the empirical problems associated with the April flood are identified and incorporated into a master database.

Evaluate Alternatives.

Prioritize investment opportunities and identify funding sources. Develop alternatives with alignment to needs and funding.

Identify Preferred Alternative.

Preferred alternative should be further developed with the appropriate technical research.

Report.

Prepare and submit final report and recommendations to ECBOCC for review.



Storm Water Advisory Team – SWAT Meeting Minutes

January 6, 2015
4:05 PM

Attendees:

Staff: Jack Brown, Joy Blackmon, Colby Brown, Keith Wilkins, Derrik Owens

Committee: Mary Gutierrez, Garrett Walton, John Cheney, Dr. Elizabeth Benchley, Phil Turner, Glenn Niblock

Citizens: (See Sign-In Sheets)

- Welcome – Mary Gutierrez
 - Mary Gutierrez welcomed the SWAT members and citizens. All members introduced themselves and provided a brief background (sign in sheet attached).
- Meeting Properly Advertised – Proof of Publication dated December 27, 2014 and January 3, 2015
 - Welcome – Jack Brown greeted the citizens and reiterated the County's commitment to work with City staff regarding funding, Interlocal agreements, securing grant funding; and in spending tax dollars wisely. Mr. Brown requested the public's participation throughout this process.
- Overview / April 29, 2014 Storm Presentation – HDR, Inc / Allen Vinson
 - Allen Vinson gave an overview of the 40+ basins located in Escambia County. A 100 Year Storm Event was defined, as were area basins, and technical background. The County's Master Stormwater Plan was

covered and mapping of the April 2014 Event presented showing Damage Assessment of over 2300 sites and rainfall levels County wide. Specific areas of damage and the respective funding opportunities for each were discussed:

- Lake Charlene – Over 100 residents received damage; 19-21” of rainfall recorded.
- Crescent Lake – Over 40 residents were impacted; right-of-ways washed out; emergency repairs have been completed and reconstruction has begun.
- Pensacola Bay Basin – 16” – 18” of recorded rainfall in this area. Hazard Mitigation Grant Program opportunities of \$4,000,000 may be available for this area.
- Mr. Vinson advised citizens of the information available on the County’s website and gave instructions on how to view the Damage Assessment areas and related project information, funding and repairs.
- Break 4:19p.m. – 4:21 p.m.
- Public Forum 4:21 p.m. – 5:00 p.m.
 - Bill Trushel
 - Maintenance improvements are needed in existing stormwater drainage systems.
 - Mary Gutierrez
 - Drainage repairs and readiness for future events needs to be addressed.
 - Changes in stormwater development (Implementation of Low Impact Development) should be made.
 - Jack Brown
 - Called for citizens’ participation in notification of pond and drainage maintenance issues.
 - Denise Windham
 - Stated that Aragon Home Owners Association indicated their desire to participate and become involved in the improvements process.
 - Gary Huston
 - Requested that the Committee address City/County jurisdiction as related to funding.

- Submitted photos to the Chair of the inoperable stormwater retention system on South 9th Avenue (Old Admiral Mason Park) stating that ditches are always full and are not draining.
- Suggested that Developers Incentives should be implemented.
- Jack Brown
 - Explained that FEMA approval is required on permanent repairs, FEMA does not reimburse. The County is making every effort to spend tax dollars wisely.
 - Asked Joy Blackmon to update the audience regarding property purchases for stormwater retention.
 - Joy Blackmon gave details on the following: Ponderosa Pond, Crescent Lake, Delano, Aragon, and Olive Road. Stating that drainage improvements made resulted in minor damage from the most recent rain events, specifically in Ferry Pass, Ensley, & Maplewoods (Hazard Mitigation Grant Program funded).
- Eric Olson
 - Reiterated that the City and County are committed to working together.
 - Requested citizens' involvement addressing needs, making priorities according to public feedback; and securing funding.
- Melanie Nichols
 - Pond on Palafox at Avery and Tarragona stays full and does not drain properly.
 - Maintenance needs improvement.
 - The Cervantes Street Bridge exceeded the stormwater cutoff and sand has since filled the drains.
- Derrik Owens
 - Addressed Long Hollow Pond issues:
 - The pond was formerly a borrow pit.
 - It is a wet facility and is under capacity.
 - A drainage study is underway and should be finalized in two weeks.
 - Requested that citizens contact him regarding maintenance concerns. (850) 435-1755 or Dispatch #311.
- Mary Gutierrez
 - Asked what could be done now.
 - Stated that Long Hollow is under a DEP permit.
- Joy Blackmon
 - Advised citizens to contact the County's Work Order Desk at (850) 494-5860.

- Sherri Myers
 - As District 2 City Council member, she inspects drainage issues after each rainfall event to identify problem stormwater areas, impassable streets, and commercial parking lots/restorations.
 - Suggests implementing incentives for restorations.
 - USEPA handbook provides information on commercial impervious to pervious parking conversions.
 - Suggests Pond Greening & Maintenance Improvements at Lanier Pond and others (Raising mower blades).
- Joy Blackmon
 - County will coordinate with City on maintenance improvements.
- Derrik Owens
 - Stated the City's Environmental Advisory Board revisions recently included increasing pond maintenance mower blade heights from 2"- 3" to 4" – 6".
- George Mead
 - Concentrate on larger issues.
 - Capital & Infrastructural Planning crossing City/County boundaries.
- Linda Austin
 - Reserve at Carpenter's Creek has trees in the creek and the banks are eroding 20' – 30' across several lots.
- Derrik Owens
 - Addressed Carpenter's Creek issues stating the Creek is under the jurisdiction of FDEP.
 - Carpenter's Creek has qualified for eligibility and has been placed on the Department of Agriculture's waiting list for their Bank Erosion Program.
- Garret Walton
 - Discussed funding cooperative efforts to secure all available funding. Priority aggressive efforts are needed.
 - Mr. Walton commended the City and County staff on working together.
- Barry Goodson
 - Priorities need to be set.
 - Developers need to do more to follow environmentally friendly procedures; using the environment to help stormwater management and not just asphalt and concrete.
- Jack Brown
 - Sustainable Urban Development is being addressed.

- Pervious pavement has been installed at Escambia County's Central Office Complex and Mahogany Mill Boat Ramp.
- Scheduling of Next Meeting
 - Next meeting scheduled for 10:30 a.m. Tuesday, February 3, 2015 at 221 Palafox Place, in the 4th Floor Training Room
 - Area of Discussion: Lake Charlene
 - Basin Study
 - Damage Assessment
 - Planned Improvements
 - Funding Options
- Adjourn
 - Mary Gutierrez made a motion to adjourn; the motion was seconded and carried unanimously.
 - Meeting adjourned at 5:15 p.m.
- Pensacola Bay Basin Report - Arcadis Staff 5:15p.m. – 5:55 p.m.
 - Joy Duperault and Kelli Thurson gave an informative twenty-minute presentation regarding areas of impact, engineering assessments and proposals, prioritized recommendations, solutions (pervious pavement, rain gardens and swales, etc.), suggestions for funding opportunities; and the basis for needed documentation for securing funding. A public input handout was distributed.

Published Daily-Pensacola, Escambia County, FL

PROOF OF PUBLICATION

State of Florida

County of Escambia:

Before the undersigned authority personally appeared **Anna Hammes** who, on oath, says that she is a personal representative of the Pensacola News Journal, a daily newspaper published in Escambia County, Florida; that the attached copy of advertisement, being a Legal in the matter of:

Meeting Schedule

Was published in said newspaper in the issue(s) of:

January 3, 2015

Affiant further says that the said Pensacola News Journal is a newspaper published in said Escambia County, Florida, and that the said newspaper has heretofore been published in said Escambia County, Florida, and has been entered as second class matter at the Post Office in said Escambia County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Sworn to and subscribed before me this 5th day of **January, 2015**, by **Anna Hammes**, who is personally known to me.

Anna Hammes Affiant
[Signature] Notary Public

CHERYL MANISCALCO
 Notary Public - State of Florida
 Comm. Expires August 4, 2018
 Comm. No. FF 147531

Board of County Commissioners - Escambia County, Florida
Meeting Schedule
 January 5-January 9, 2015

One or more of the Escambia County Commissioners may attend the following meetings:

DAY	DATE	TIME	MEETING	LOCATION
Mon	01/05	4:00pm	RESTORE Advisory Committee	3363 West Park Place
Mon	01/05	6:30pm	Pits Operation Meeting	BCC Meeting Room*
Tue	01/06	8:30am	Planning Board/Rezoning Meeting	3363 West Park Place
Tue	01/06	1:30pm	Environmental Enforcement Special Magistrate Hearing	3363 West Park Place
Tue	01/06	4:30pm	Storm Water Advisory Team Meeting	201 East Gregory Street
Wed	01/07	8:30am	Contractor Competency Board Exam Committee	3363 West Park Place
Wed	01/07	9:00am	Contractor Competency Board Meeting & Public Hrgs.	3363 West Park Place
Wed	01/07	1:00pm	Development Review Committee	3363 West Park Place*
Wed	01/07	5:30pm	Wedgwood Community Meeting Re: Borrow Pits	6405 Wagner Road
Thu	01/08	8:30am	Incident Review Board	221 Palafox Place, Rm 0201
Thu	01/08	9:00am	Board of County Commissioners Agenda Work Session	BCC Meeting Room*
Thu	01/08	4:30pm	Board of County Commissioners Public Forum	BCC Meeting Room*
Thu	01/08	5:30pm	Board of County Commissioners Public Hearings & Reports	BCC Meeting Room*
Fri	01/09	8:30am	Visit Pensacola Destination 2020 Summit	201 East Zaragoza Street

*Ernie Leo Magaha Government Building, 221 Palafox Place, First Floor
 **To View DRC Agenda go to: <http://www.mvscambia.com/government>

NEXT WEEK'S NOTE:

Mon	01/12	1:30pm	Selection Committee (Director of Development Services)	221 Palafox Place, 4 th Floor Training Rm
Mon	01/12	3:00pm	West Florida Regional Planning Council	198 North Wilson Street, Crestview
Mon	01/12	6:30pm	Marine Advisory Council (MAC)	3363 West Park Place
Tue	01/13	8:30am	Planning Board Meeting-Pits	3363 West Park Place
Tue	01/13	1:30pm	Environmental Enforcement Special Magistrate Meeting	3363 West Park Place

Note: A copy of the agenda for the meetings initiated by the Board of County Commissioners containing specific items to be considered in the order of presentation may be obtained from the County Administrator's Office, Suite 420, Escambia County Government Complex, 221 Palafox Place, Any Person needing accommodations to attend or participate, pursuant to the Americans with Disabilities Act, should contact Angela Crawley, 595-4947, at least 72 hours in advance of the meeting. Those who are hearing or speech impaired may Contact Mrs. Crawley via e-mail at acrawley@mvscambia.com Any person who decides to appeal any decision made by any board, agency, or commission with respect to any matter considered at its meeting or hearing, will need a record of the proceedings of the meeting. Since the Board of County Commissioners does not make verbatim records of its meetings, such person may need to independently secure a record that should include the testimony or evidence on which the appeal is to be based. All Board of County Commissioners meetings are broadcast live and rebroadcast on ECTV, Digital Channel 58 on Cox Cable, BrightSource and Mediacom and the Regular Board of County Commissioners Meetings beginning at 5:30 p.m. are broadcast live on WUWF Channel 4. The meetings can also be seen live via the web at <http://www.mvscambia.com>.

What's on ECTV at www.mvscambia.com



StormWater Advisory Team – SWAT

Sign-in Sheet

January 6, 2015

Name	Signature
Mike Whitehead	ABSENT
Mary Gutierrez	Mary Gutierrez
Garrett Walton	Garrett Walton
John Cheney	John Cheney
Dr. Elizabeth Benchley	Elizabeth Benchley
Phil Turner	Phil Turner
Glenn Niblock	Glenn C. Niblock
Jack Brown	ATTENDED - DID NOT SIGN-IN
Joy Blackmon	ATTENDED - DID NOT SIGN-IN
Colby Brown	Colby Brown
Keith Wilkins	Keith Wilkins



Storm Water Advisory Team – SWAT

Sign-in Sheet

January 6, 2015

Name	Signature	Phone #/Email Address
Jennifer Fleming	Jennifer Fleming	flemingjr@bellsouth.net
Ed CARSON	Ed Carson	EDCARSON@CARSONWORKS.COM
Jeff Helms	Jeff Helms	jeff.helms@att.net
HUGA ESTUNOR	Huga Estunor	hutorov@jwo.com
FRANKA MARIE TORCHI	Franka Marie Torchi	FLTAVSM9@Bellsouth.net
Glenn & Judy Niblock	Glenn Niblock	gnib@att.net
Chips Kirschenfeld	Chips Kirschenfeld	jtkirsche@myescambia.com
Charles Bare	Charles Bare	cbare@cityofpensacola.com
Dean Monson	Dean Monson	DeanWMonson@Gmail.com
Mike Haite	Mike Haite	850 232 3584
Christian Wagley	Christian Wagley	christianwagley@earthlink.net
CWOA E-Ad	CWOA E-Ad	850-261-4724
TIM HAAG	Tim Haag	969-3300 tim.haag@ecwa.fl.gov



VISITORS

Storm Water Advisory Team – SWAT

Sign-in Sheet

January 6, 2015

Name	Signature	Phone #/Email Address
Bree Windham		850-982-3833 johnfwindham@jmcw.com
John McWilliams		419-310-7908 jmcwilliams76@gmail.com
RH Wilson		b-brown@cox.net
Mary Jane Craven		850-305-1502 MARYJ50434@gmail.com
Kelli Thurson		kelli.thurson@arcadis-us.com
Joy Duperault		Joy.duperault@arcadis-us.com
Derrick Owens		downsecityofpensacola.com
ROBERT WOOD		c0980103 wawndr1@ycom
Mick Beault		mbeault@waterfrontmission.com
Devin Simmons		devinksimmons@gmail.com
Robert Montgomery		robert@montgomeryrealtors.com
BOB McLAUGHLIN		850.574.2792 McLAUGHLIN@ADL.com



VISITORS

Storm Water Advisory Team – SWAT

Sign-in Sheet

January 6, 2015

Name	Signature	Phone #/Email Address
Suzanne Zukaski	<i>Suzanne Zukaski</i>	
Milce Sheehan	<i>Milce Sheehan</i>	
Sheri Myers	<i>Sheri Myers</i>	(850) 484-0902 SPMADA@aol.com
Rob Johnson	<i>Rob Johnson</i>	850 825 - 5919
Bill TRUSHEL	<i>Bill Trushel</i>	534-1387
MaryEllen Huston	<i>M Huston</i>	469-8829
Eric Olson	<i>Eric Olson</i>	eolson@cityofpensacola.com 595-3419
CHRIS CURB	<i>Chris Curb</i>	ccurb@myescambia.com
Traci Goodhart	<i>Traci Goodhart</i>	traci.goodhart@wfrpc.org
Rhela McLay	<i>Rhela McLay</i>	rhela_rancom@myesc...
Denise Windham	<i>Denise Windham</i>	denisemwindham@gmail.com
MICHELLE MACHIEL	<i>Michelle Machiel</i>	mrm@architecturalaffairs.com



Board of County Commissioners • Escambia County, Florida

Jack R. Brown
County Administrator

STORM-WATER ADVISORY TEAM (SWAT) MEETING

Pensacola Bay Center

Tuesday, January 6, 2015

4:00 p.m.

Speaking Request

Print Clearly

(Note: Each speaker will be allowed three minutes.)

NAME: BILL TRUSHEL PHONE: 486-1057
ADDRESS: 7786 GRUNDY ST 32507
SUBJECT: MAINTENANCE OF EXISTING DRAINS



Board of County Commissioners • Escambia County, Florida

Jack R. Brown
County Administrator

STORM-WATER ADVISORY TEAM (SWAT) MEETING

Pensacola Bay Center

Tuesday, January 6, 2015
4:00 p.m.

Speaking Request
Print Clearly

(Note: Each speaker will be allowed three minutes.)

NAME: Denise Windham PHONE: (850) 516-7230
ADDRESS: 562 E. Romana St
SUBJECT: Flood - Stormwater Management



Board of County Commissioners • Escambia County, Florida

Jack R. Brown
County Administrator

STORM-WATER ADVISORY TEAM (SWAT) MEETING

Pensacola Bay Center

Tuesday, January 6, 2015
4:00 p.m.

Speaking Request
Print Clearly

(Note: Each speaker will be allowed three minutes.)

NAME: Gary Huston PHONE: 434-9200
ADDRESS: 536 E. Romana St. 32502
SUBJECT: Flooding



Board of County Commissioners • Escambia County, Florida

Jack R. Brown
County Administrator

STORM-WATER ADVISORY TEAM (SWAT) MEETING

Pensacola Bay Center

Tuesday, January 6, 2015
4:00 p.m.

Speaking Request
Print Clearly

(Note: Each speaker will be allowed three minutes.)

NAME: Melanie Nichols PHONE: 221-1586
ADDRESS: H E. Gonzalez St.
SUBJECT: Stormwater Retention pond at Avery & Palafox



Board of County Commissioners • Escambia County, Florida

Jack R. Brown
County Administrator

STORM-WATER ADVISORY TEAM (SWAT) MEETING

Pensacola Bay Center

Tuesday, January 6, 2015
4:00 p.m.

Speaking Request
Print Clearly

(Note: Each speaker will be allowed three minutes.)

NAME:

Sherril Myers

PHONE:

(850) 484-0902

ADDRESS:

526 Parker Dr -

SUBJECT:

Stormwater



Board of County Commissioners • Escambia County, Florida

Jack R. Brown
County Administrator

STORM-WATER ADVISORY TEAM (SWAT) MEETING

Pensacola Bay Center

Tuesday, January 6, 2015

4:00 p.m.

Speaking Request

Print Clearly

(Note: Each speaker will be allowed three minutes.)

NAME: GEORGE R. MEAD PHONE: 434-3541

ADDRESS: 1005 N. Rens St.

SUBJECT: DAMAGE Report / STUDIES / SOLUTION



Board of County Commissioners • Escambia County, Florida

Jack R. Brown
County Administrator

STORM-WATER ADVISORY TEAM (SWAT) MEETING

Pensacola Bay Center

Tuesday, January 6, 2015

4:00 p.m.

Speaking Request

Print Clearly

(Note: Each speaker will be allowed three minutes.)

NAME: Lynda Austin PHONE: 712-5749
ADDRESS: 5935 Creek Side Circle
SUBJECT: Carpenter's Creek

Neighborhood Flood Mitigation Workshop

January 6, 2015

Part I: Presentation Notes

As these mitigation measures are presented, please jot down any notes you'd like about the different project types.

- Detention or retention ponds: Ponds that serve to capture stormwater overflow until the water evaporates, soaks into the ground, or flows to another location
- Culverts: Concrete underground drainage systems used to move large amounts of stormwater runoff quickly
- Channelizing: Allows stream or stormwater runoff to be exposed
- Stream restoration/ stabilization: Manipulated but open streams in urban or semi-urban areas. This option is typically more natural-looking than channelizing.
- Rain gardens & swales: Natural areas proximate to large impervious surfaces that allow rain water and stormwater runoff to accumulate and soak into the ground. Usually lined with native plants
- Parking lot run-off solutions: May be implemented by both private and public property owners.

- Pervious surfaces: Allow for water to filtrate through “hardscape” such as parking lots and streets.
- Open space/dry use areas: Open public areas, such as parks, that are meant to hold water accumulation during rain events
- Chain of parks: Incorporates several open space/dry use areas to create a man-made floodway that also promotes community resiliency
- Elevation & floodproofing: Serves to protect individual structures from flooding, usually providing protection against the 100-year base flood
- Flood barriers: Includes temporary or permanent measures such as sandbags and flood walls
- Flow control: Helps minimize flooding by slowing outflow of above ground creeks or streams

Part II Small Group Discussion

Neighborhood _____

Which types of flood mitigation projects appeal to you? Why?

Are there places in the community where you feel that one particular type of project would be preferable? Please give specifics.

Are there any project types that you feel would not be good options? Why not?

Think of a place where flooding has been a personal inconvenience for you. Please describe the location and check any of the items below that apply to this flooding:

Location Description*:

- Water builds up in the street
- Water accumulates on private property such as in a yard or driveway
- Water flows into a structure such as a garage or lanai area
- Water floods my home or business
- The flooding prohibits free flow of traffic on a street
- The flooding prevents free flow of traffic at an intersection
- The flooding fills a public area such as a park or parking lot
- Other _____

(*Please use reverse side if necessary.)

Storm Water Advisory Team

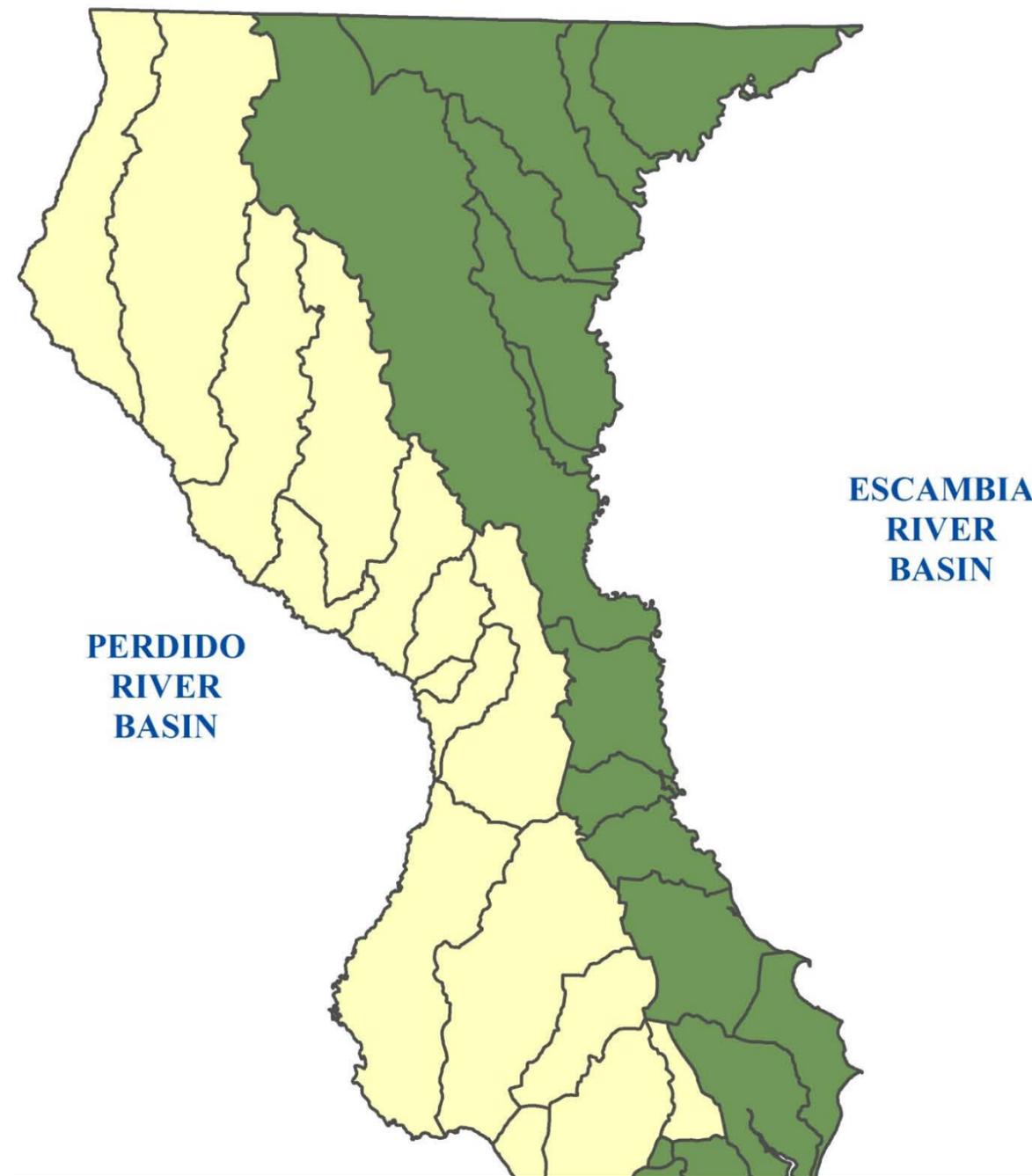
Escambia County, FL
January 6, 2015

Overview of Basin Studies



Escambia County Engineering

Joy D. Blackmon, P.E.



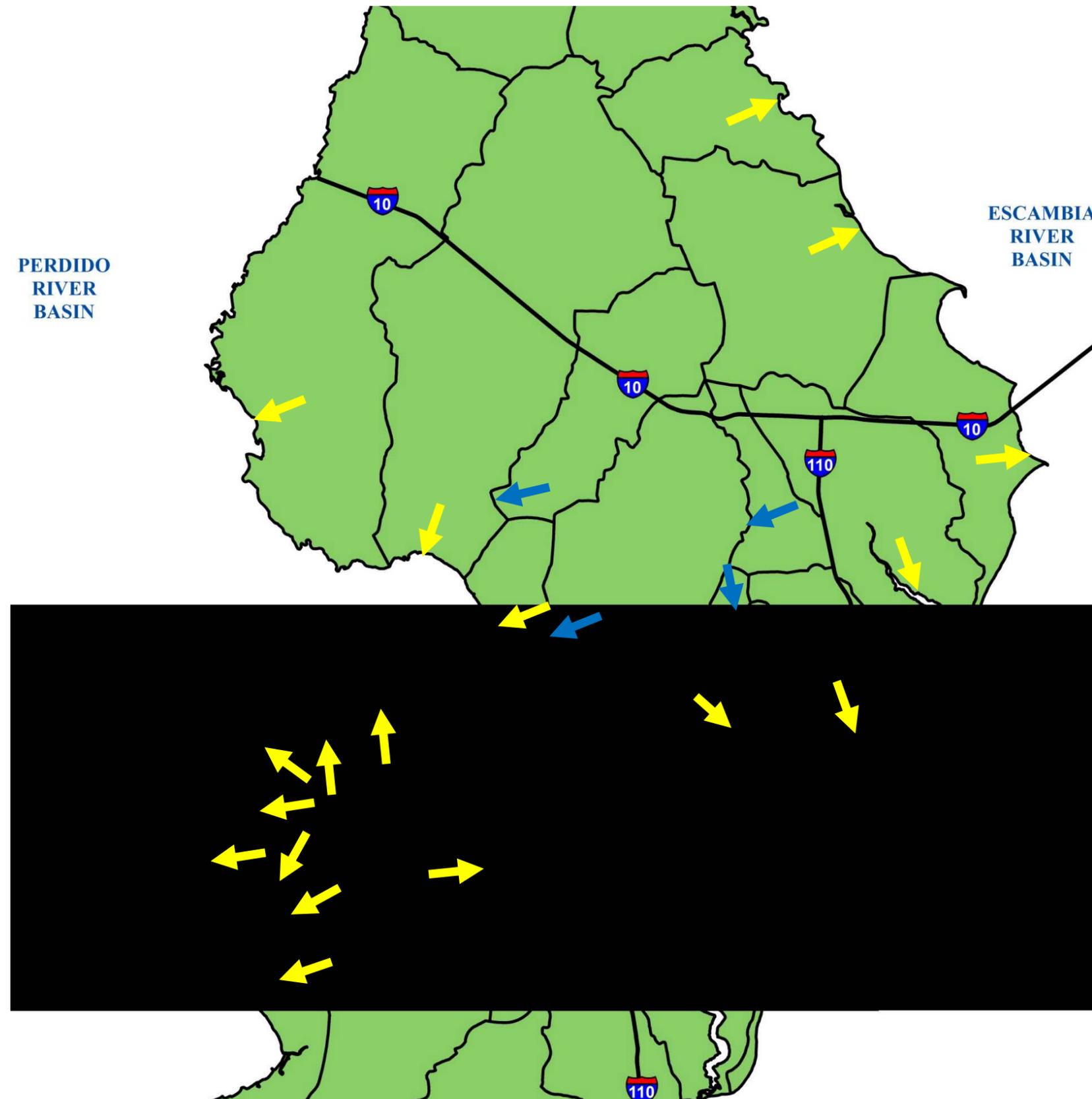
ESCAMBIA COUNTY

- County divided into two primary watersheds
- Watersheds subdivided into 40 drainage basins

Storm Water Advisory Team

Escambia County, FL
January 6, 2015

Overview of Basin Studies

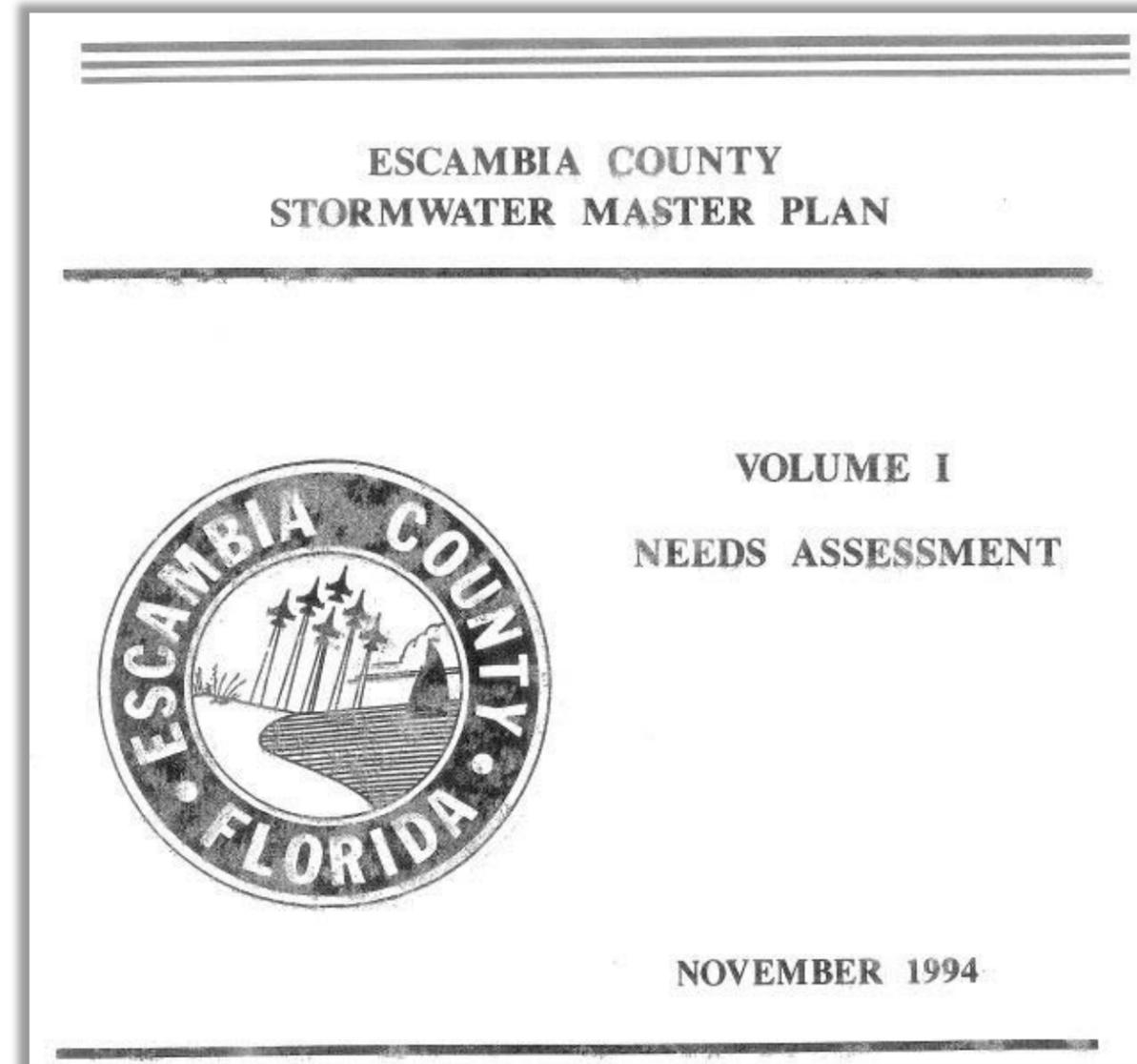


- Drainage basins are primarily independent in function
- Basins are typically divided from one another by topographic features such as ridges
- Arrows indicate areas where basins outfall

Storm Water Advisory Team

Escambia County, FL
January 6, 2015

Master Stormwater Plan



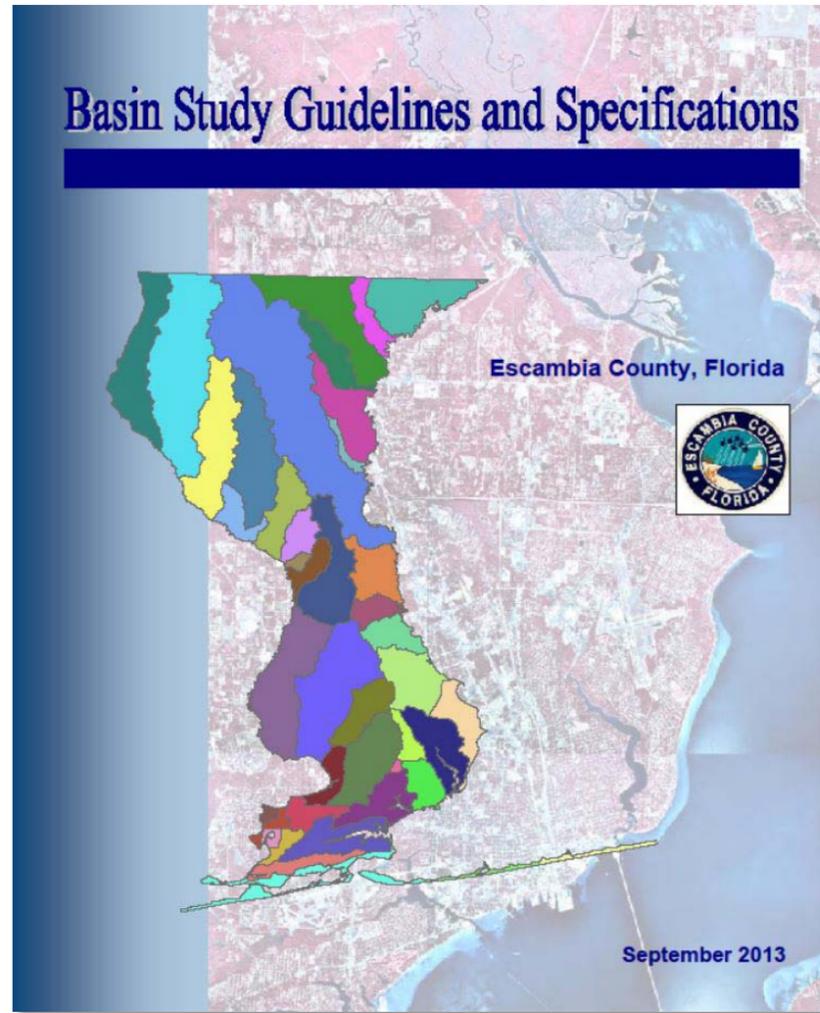
ESCAMBIA COUNTY

- Master Drainage Study initialized County-wide in 1990's
- Addressed specific locations of concern
- Basis for detailed basin study needs moving forward

Storm Water Advisory Team

Escambia County, FL
January 6, 2015

Master Stormwater Plan



Basin Name	Completed	Basin Name	Completed
Alligator Creek		Bayou Grande	2008
Bayou Marcus Creek	2007	Beverly Parkway	2003
Boggy Creek		Bowman Creek	
Bridge Creek Herron Bayou	2007	Bronson Field	2008
Brushy Creek		Canoe Creek	
Carpenters Creek		Century	
Catholic High School	2003	Churchhouse Branch	
Cotton Creek		Cowdevil Creek	
Eight Mile Creek	1994	Eleven Mile Creek	'94, '99, '08
Escambia Bay		Fletcher Creek	
Garcon Swamp	CIP list	Jacks Branch	2011
McDavid Creek		Millview	2007
Mitchell Creek		Paradise Beach	2008
Penasula Creek		Pensacola Bay	2007
Williams Creek	2007	Perdido River North	
Perdido River South	2009	Pine Barren Creek	
Pritchett Mill Branch		Rock Creek	
Sandy Creek Weekley Bayou	2008	Scenic Hills	1994
Southwest Side	CIP list	Spanish Mill Creek	
Tarkiln Bayou	2008	Warrington	2007

ESCAMBIA COUNTY

- County published Basin Study Guidelines for consistency
- 18 basin studies performed to date
- Millions spent to date on study recommendations
- Other studies planned
- Study priority based on populated areas
- Studies analyze several storm events including the 100 year event

Storm Water Advisory Team

Escambia County, FL
January 6, 2015

Technical Background



Event	Probability in any given year	Percent Chance in any given year
10 year	1 in 10	10%
25 year	1 in 25	4%
100 year	1 in 100	1%
500 year	1 in 500	0.2%

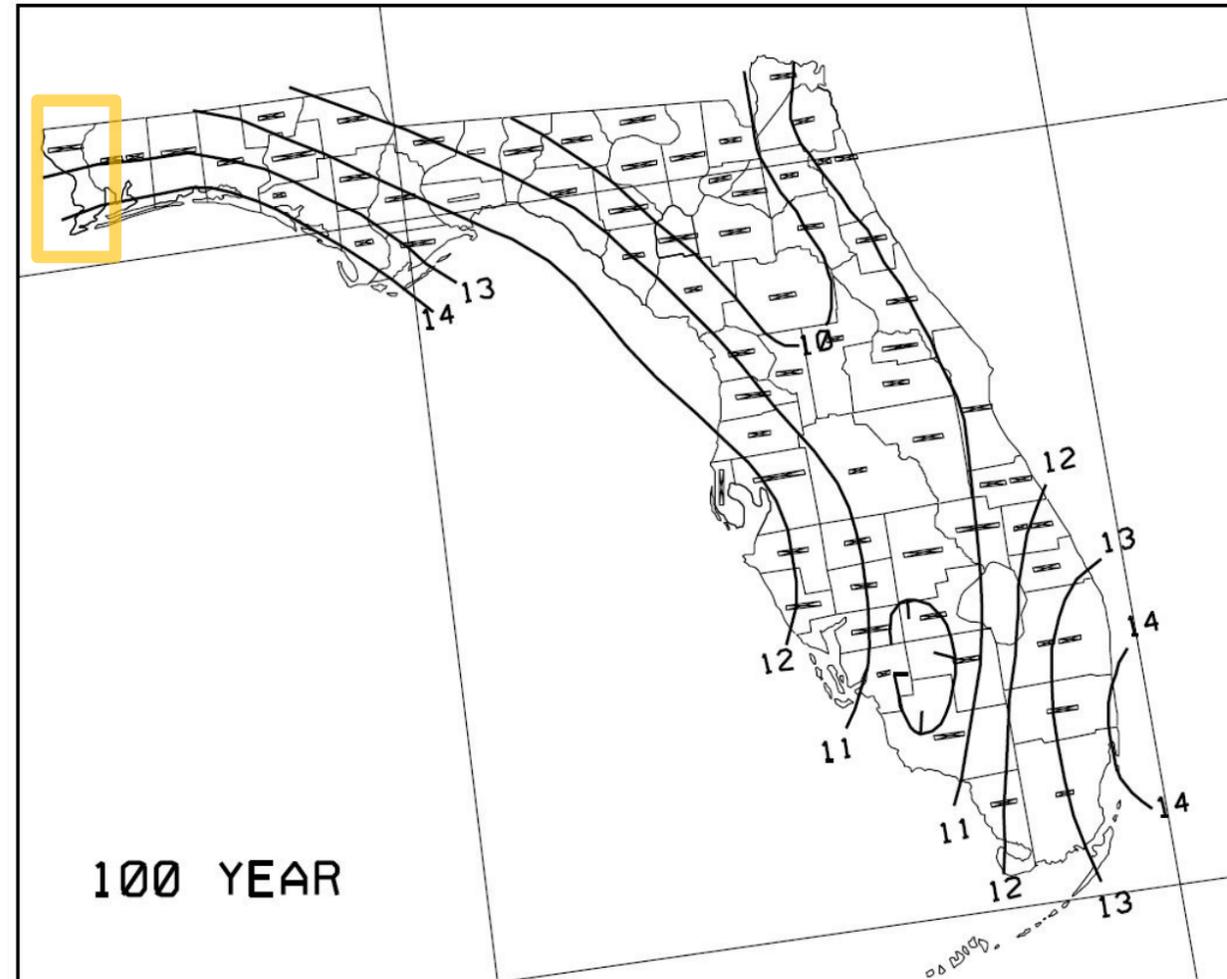
So what is a 100 year storm?

- A 100 year storm is a storm event that has a 1% chance of occurring in any given year
- The resulting stormwater produced by a numerical event is specific to a region; for instance the Pensacola area is different from Atlanta

Storm Water Advisory Team

Escambia County, FL
January 6, 2015

Technical Background



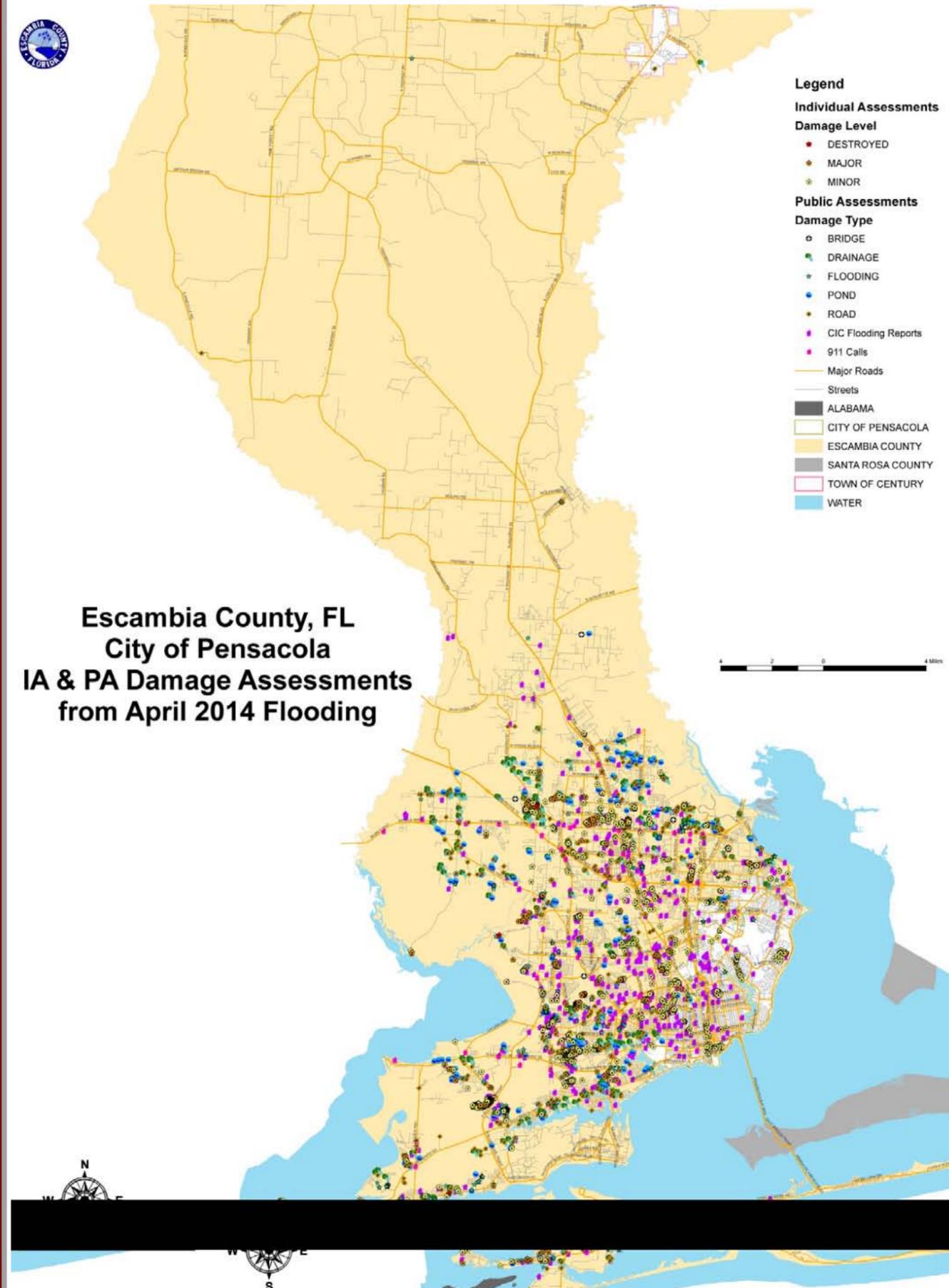
So what is a 100 year storm?

- As illustrated in the figure produced by FDOT, Escambia County could expect a different amount of rainfall for a 100 year event than other parts of the state.
- The IDF curves for this area show that the amount rainfall during a 100 year event over 24 varies from 13-14 inches

Storm Water Advisory Team

Escambia County, FL
January 6, 2015

Mapping of April Event & the Damage Assessment



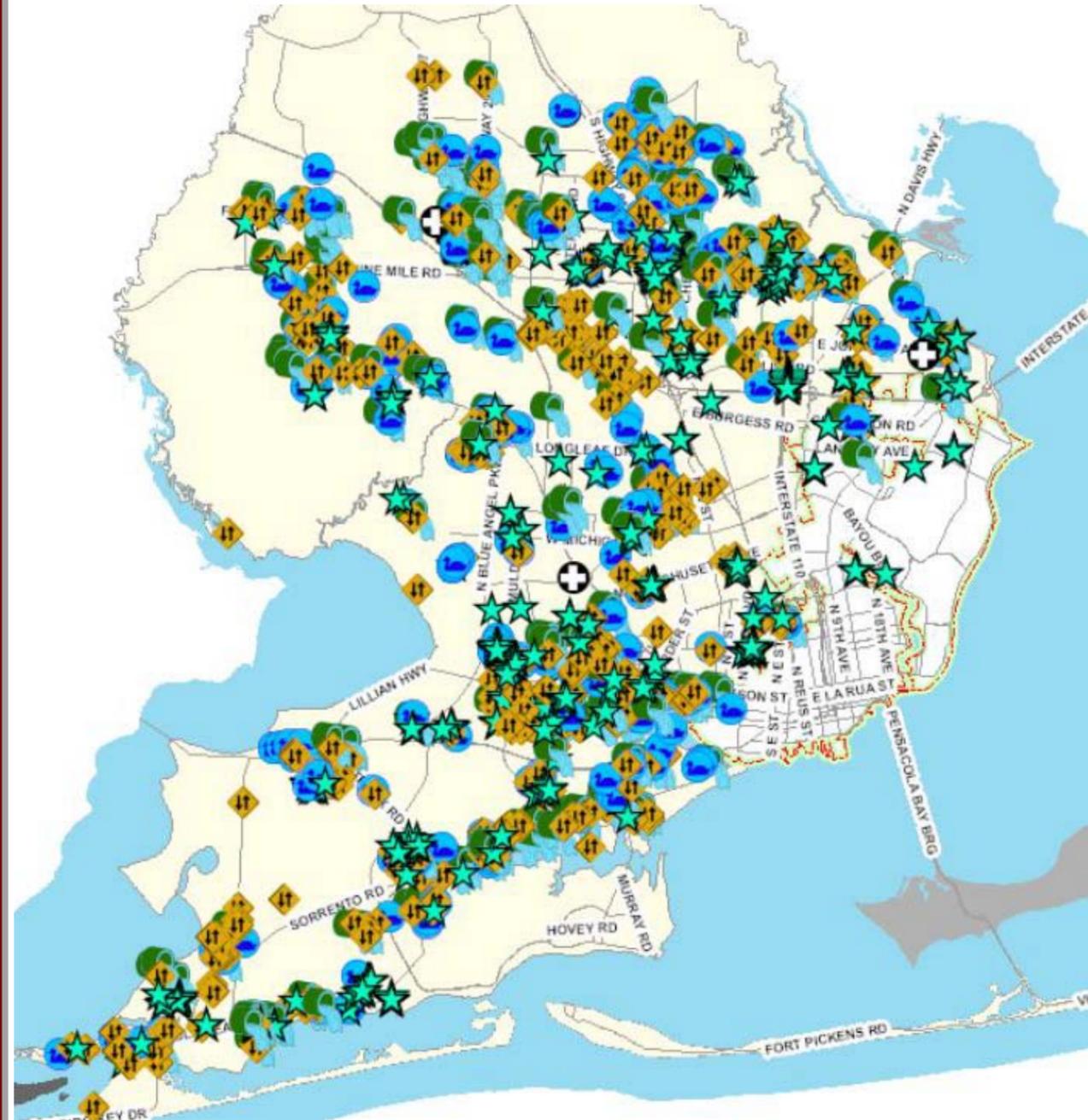
ESCAMBIA COUNTY

- 2,318 infrastructure damage sites identified by County teams.
- Additionally, 100's of private property flooding sites identified
- Infrastructure sites divided into Roadway, Drainage, Ponds, and Flooded Areas

Storm Water Advisory Team

Escambia County, FL
January 6, 2015

Mapping of April Event & the Damage Assessment



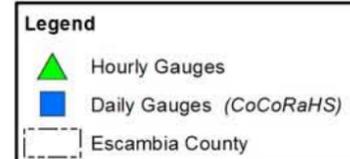
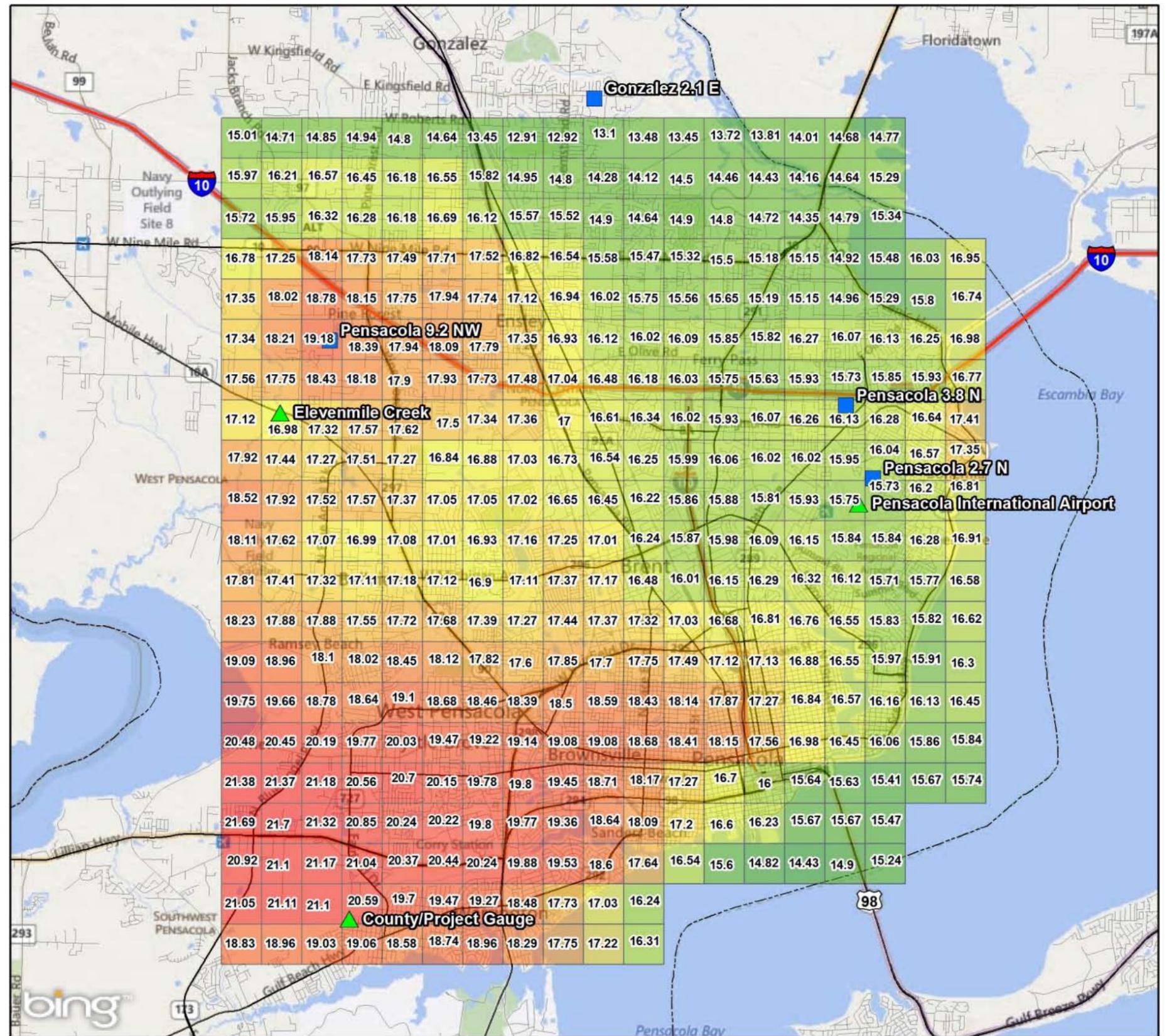
ESCAMBIA COUNTY

- Majority of sites located south of Muscogee Road
- County storm event recreation was performed which shows a grid of 24 hour rainfall totals on following slides
- Totals range from 12-22 inches over southern Escambia County

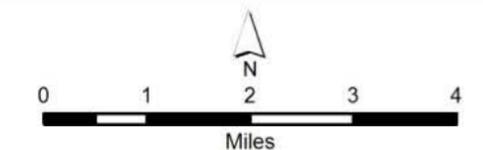
Storm Water Advisory Team

Escambia County, FL
January 6, 2015

Mapping of April Event & the Damage Assessment



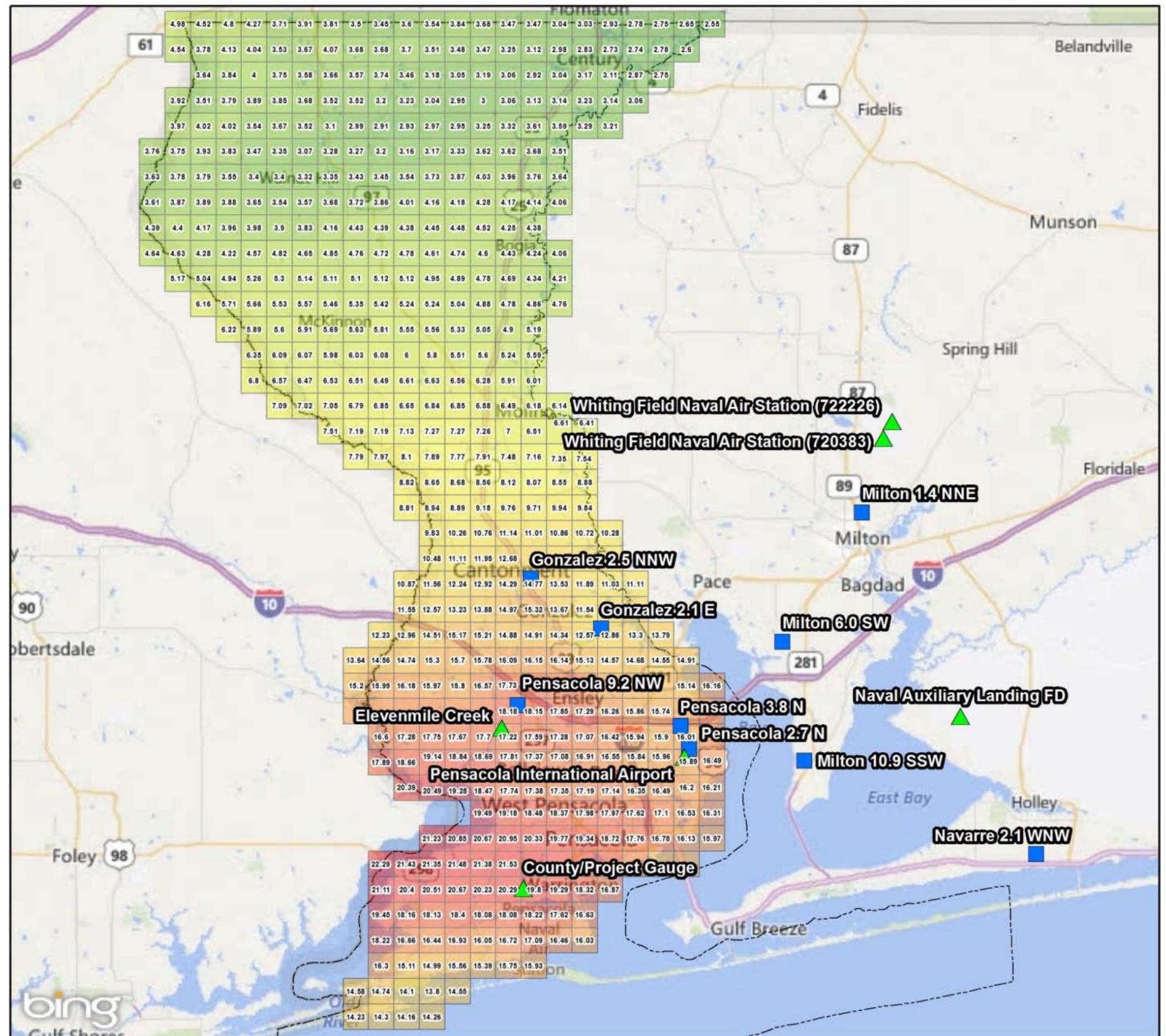
4/29-30/2014
Rainfall Event Total
1 KM x 1 KM Grid



Storm Water Advisory Team

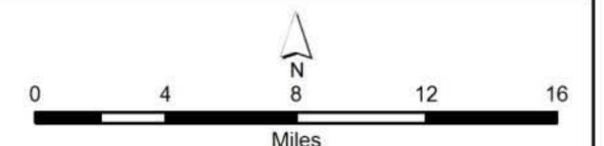
Escambia County, FL
January 6, 2015

Mapping of April Event & the Damage Assessment



Legend
 Hourly Gauges
 Daily Gauges (CoCoRaHS)
 Escambia County

4/29-30/2014
Rainfall Event Total
2 KM x 2 KM Grid



Storm Water Advisory Team

Escambia County, FL
January 6, 2015

Areas of Damage



LAKE CHARLENE AREA

- Located west of Navy Blvd and north of US 98
- More than 100 properties flooded
- 19-21 inches of Rainfall over 24 hours in contributing area
- Drainage Study underway
- Applied for nearly \$2million in HMGP funds for improvements

Storm Water Advisory Team

Escambia County, FL
January 6, 2015

Areas of Damage



CRESCENT LAKE AREA

- Located west of W Street and north of Michigan Avenue
- More than 40 properties with flooding or access issues; Crescent Lake Dam destroyed
- 16-18 inches of Rainfall over 24 hours in contributing area
- Emergency repairs to restore property access
- Drainage Study and infrastructure reconstruction underway

Storm Water Advisory Team

Escambia County, FL
January 6, 2015

Areas of Damage



DELANO AREA OF PENSACOLA BAY BASIN

- Areas within and around Leonard Street, Pace Boulevard, & Palafox Street
- Several public & private properties flooded including Sherriff Complex, Town & Country, Escambia COC, ECAT, & Waterfront Rescue Mission
- 16-18 inches of Rainfall over 24 hours in contributing area
- County performed Drainage Study & applied for over \$4.4million in HMGP funding

Storm Water Advisory Team

Escambia County, FL
January 6, 2015

Areas of Damage



ESCAMBIA COUNTY STATUS

Damage Inventory/Projects

- Over 80% of original 2,318 damage sites addressed or repaired
- Remainder of damages are under design or repair.
- Over 100 County projects seeking FEMA reimbursement
- 22 County projects seeking FHWA reimbursement
- 9 County projects seeking NRCS reimbursement
- Over 80 additional flooded areas were identified that do not qualify for FEMA-PA, FHWA, or NRCS funding; County is working on funding solutions including LOST

Additional Efforts

- Over 200 Flooding Questionnaires returned from public
- Project updates, Flooding Questionnaires, and damage maps located in County Website

Storm Water Advisory Team

Escambia County, FL
January 6, 2015

Web Site



WEB LINKS FOR ADDITIONAL INFORMATION

April Storm Damage Updates:

<http://myescambia.com/beready/news/public-works-department-april-storm-damage-recovery-update>

Note - At this website you will find links to the following:

- Brief Flooding Survey
- Detailed Flooding Questionnaire
- Interactive Map of Damages

S.W.A.T. Agendas, Presentations, & Information:

(webpage under construction)

Disaster Educational Information:

- <http://www.floridadisaster.org/Recovery/PublicAssistance/Index.htm>
- <https://www.fema.gov/disaster/4177>
- <http://www.fhwa.dot.gov/fldiv/erpfaq.cfm>
- <http://www.nrcs.usda.gov/wps/portal/nrcs/main/fl/programs/financial/ewp/>
- <http://water.usgs.gov/edu/100yearflood.html>

Storm Water Advisory Team

Escambia County, FL
January 6, 2015

Public Comment



PUBLIC COMMENT PERIOD



Storm Water Advisory Team – SWAT

February 3, 2015 Meeting Minutes

221 Palafox Place, 4th Floor Training Room

In Attendance:

Committee: Mary Gutierrez, Garrett Walton, John Cheney, Dr. Elizabeth Benchley, Phil Turner, & Glenn Niblock

Staff: Joy Blackmon, Colby Brown, Keith Wilkins, Chris Curb, Carrie Stevenson, Chips Kirschenfeld

Citizens: Tim Haag, Roger Dreher, Lynda Austin, Jim Lee, Barbara Albrecht, Stella Wilson, Jim Jones, Dean Kirschner, Kyle Ross, R.H. Wilson, Christian Wagley, Vicki Rabb, Jim Waite, Daniel Broxson, Richard Brown, Jim Hunt, Joe Brewer, Karl Bayer, Fred Martin, Kenneth Owen

- **Welcome** – Mary Gutierrez
 - Mary Gutierrez, Chair, called the meeting to order at 10:35 a.m.
- **Meeting Properly Advertised** – Proof of Publication dated 1/24/15 and 1/31/15 in the Pensacola News Journal.
- **Approval of 01-06-15Minutes** - Ms. Gutierrez made a motion to approve the January 6, 2015 minutes. The motion was seconded by Mr. Niblock and carried unanimously.
- Mary Gutierrez announced to the committee that District 1 appointee, Mike Whitehead, had resigned his appointment and Colby Brown informed the committee that District 1 replacement , Nathan White, was being presented to the BCC on 2/5/15 for approval.
- Joy Blackmon gave an update on the Corry Bridge Replacement Project:
 - AT&T Fiber Optics Security Issue – Extensive utility conflicts caused the need for a temporary bridge to be installed until the utility issues are resolved.
 - Notice will be given when the project is able to move forward with the permanent bridge replacement.

- **Community Updates –**

- Mary Gutierrez discussed community involvement in District 3 and encouraged the other members to continue with community interactions.
- The lack of maintenance at Lake Charlene was discussed among committee members based upon citizens input at the last meeting.
- Joy Blackmon expressed the importance of following grant processes to take advantage of available funding.
- Allen Vinson continued the funding discussion stating that the Local Mitigation Strategy LMS committee makes recommendations to FEMA; March 9th deadline for application. Available options for funding are: FEMA, Public Assistance, Hazard Mitigation Grant Program (substantial funding available: \$750,000 for Jackson Creek with a 25% County Match; RESTORE: \$11M for Bayou Chico Water Quality Improvements & Flood Plain Capacity Improvements. Amendment 1: \$10 billion over the next 20 years available through multiple agencies; Water Management District: \$600M with available beginning in early summer.
- Chris Curb mentioned that the FDEM application alone is 850 pages long.
- Dr. Benchley – Discussed the need for implementation of Non-Construction Areas such as Aragon and other low lying wetland areas of the community. Joy Blackmon explained that codes have been updated to bring about sensible improvements; and that Grandfathering must be addressed.
- Keith Wilkins added that LDC efforts regarding environmental issues and property rights are being brought to a minimum in the LDC because the State requirements will prevent further damage. Chips Kirschenfeld stated that wetland buffer proposals are being submitted through ERP requirements. Keith Wilkins added that the Planning Board has Water Quality stand points for protection discussions underway that will later be submitted to the BCC.
- Phil Turner – Requested that the City identify and summarize areas of impact.
- Mary Gutierrez asked staff how we can ensure that impervious pavement doesn't continue to create or worsen current projects. Allen Vinson and Joy Blackmon discussed policy changes and LDC modeling for new development; and basin outfalls flowing through the same areas.

- **Grant Writing** – Ms. Gutierrez asked members to identify one small scale project from each district to be considered for grant funding and offered to write the grant applications.

- **Lake Charlene Discussion** – Allen Vinson gave an overview presentation of the Lake Charlene Basin Study, (13 square miles), Damage Assessment, Planned Improvements, and Funding Options. (Local Mitigation Strategies (LMS) recommendations to FEMA, Public Assistance, and Hazard Mitigation Grant Programs (HMGP) were all discussed.
 - Dean Kirschner addressed the committee stating that the dredging of the Lake Charlene canal and other projects need to begin to prevent property values from dropping and Lake Charlene being made into a flood zone.
 - Garrett Walton asked staff if there is a cost estimate for repairing the Lake Charlene drainage basin. Allen Vinson stated that an estimated \$5M/25 year storm event. Chris Curb further stated that basin lines are crossed; there is a concept to take \$2M staying in the same basin; which would take 89 homes out of the flood area. \$11M written, going to the BCC within the next month covering Bayou Chico, beach Haven, and Jackson Creek. Garret Walton asked if \$2M would take 89 homes out of the flood area; and \$1M of the \$11M from NFWF helps Jones Creek / Bayou Chico outfall; then what would be left. Chris Curb responded that 11 homes would be left in the 100 year flood plain out of the 100 homes that flooded during the April 2014 flood event.
 - Mary Gutierrez requested staff to provide an executive summary of grant funding available for Lake Charlene.
 - The group discussed flood mitigation eligibility and availability; and Garret Walton discussed NFIP annual notifications. Joy Blackmon stated that staff would be willing to contact the 11 homeowners in Lake Charlene regarding their mitigation options.
 - Glenn Niblock review handouts & charts with Committee members stating that in 53 years curves have not been updated and suggested that weather and statistic professionals be hired to evaluate the area's past 55 year history. Daniel Broxson explained that the NOAH Atlas has been updated and is in the process for adoption by the State; and that we are using updated numbers.

- **Public Comments** – The committee heard comments from the following:
 - Crescent Lake citizens, Fred and Melinda Martin, of 6105 East Shore Drive, indicated that they had not been contacted by County staff and

needed assistance. Chris Curb took their contact information and stated that he would be in touch with them.

- Carrie Stevenson – Discussed availability of Problem Areas & Flood Plain Maps.
- Tim Haag – Inflow & Infiltration in Area Waterways 15 Year Program
Working with the County makes future storm water problems come to light
- **White Paper – Draft** – Mary Gutierrez commented that a team has been hired to prepare the Scope; Committee input will be added at a later date; and finally Public Input Outreach will begin.
- **Next meeting Agenda/Date/Time** – Mary Gutierrez presented options for upcoming meetings. The committee agreed upon setting meetings on the **3rd Tuesday of each month beginning March 17th**. Meetings will begin at 4:00 p.m. depending upon the availability of a meeting room at the Central Office Complex.
 - a. Area of Discussion: Downtown Stormwater Study & Aragon – Presentation - Derrick Owens, City of Pensacola
 - i. Colby Brown - Basin Focus
 - ii. Garrett Walton – Problem Areas List (Including Where Each Project is on the list)
 - iii. Garrett Walton – LID Consideration Driven by Incentives
 - iv. Glenn Niblock – Open Items List
- 2. Adjourn – 12:24 p.m.

February 3, 2015

To: Storm Water Advisory Team

Elizabeth Benchley, City of Pensacola John Cheney, District 5
Mary Gutierrez, District 3 Phil Turner, City of Pensacola
Garrett Walton, District 4 Mike Whitehead, District 1

Copy to: Colby Brown

Subject: Intense Storm Rainfall Events

The design basis rainfall event raises a compound question of risk assessment. That compound question is: which rainfall events are likely to produce extensive flooding in Escambia County and what level of risk is considered acceptable? A design basis risk is generally stated in terms of the rainfall return period. It might be once per 25 years, once per 100 years, or an even higher value such as once per 500 years.

The U. S. Department of Agriculture prepared an extensive study of rainfall in the contiguous states and published it as Technical Report 40 in May 1961. It was repaginated and republished in 1963. A copy of the cover sheet for that report is attached as Exhibit 1.

A chart that shows lines of constant rainfall taken from Technical Paper No. 40 is attached as Exhibit 2. Note that the once per 100 year rainfall levels for Escambia County are 14 inches near the coast, 13 inches at mid-county, and 12 inches near the Alabama border. It is not easy to read but is the best copy I could get.

The USDA published *Urban Hydrology for Small Watersheds* as Technical Report 55 (TR-55) in 1975, and a second edition in 1986 that contained curves of constant rainfall. Exhibit 3 shows a chart with lines of constant rainfall taken from the TR-55 document. Please note that the lines of constant rainfall appear identical with those in the first chart. You may also note that the TR-55 report is referenced in the Warrington Basin report we just reviewed.

A presentation to SWAT on January 6, 2014 included another depiction of the TR-55 data as can be seen in Exhibit 4. The curves of constant peak rainfall show a rainfall intensity for a 100-year rainfall of 14 inches near the coast of Escambia County; 13 inches at mid-county; and 12 inches near the Alabama border, the same as in Technical Paper No. 40, and TR-55. The data has not been updated in over 50 years.

There is reason to suspect that the data used by the County understates the amount that should be used for the drainage system design basis. There have been four storms with intense rainfall that led to flooding since the county record rainfall of 15.29 inches in 1934. Those are tabulated in Exhibit 5. A frequency of four storms exceeding 13 inches in 80 years implies that the 100-year rainfall should be expected to be greater than 13 inches.

Exhibit 5 presents the results of an analysis of fifty years of maximum rainfall data for the Pensacola Airport. Maximum rainfall is the greatest 24-hour rainfall in a given year. More data are available but 50 years was selected as a large enough sample that gave some weight to more recent events. The 100-year (1% probability) rainfall from this analysis is 20.5 inches. For purposes of the analysis the April 29-30, 2014 rainfall was taken as 23 inches. To give some perspective, the raw data from NOAA are shown, as is a data point representing the four 13-inch or greater events in an 80 year span, along with the record 24-hour rainfall for Florida which occurred during Hurricane Easy (1950).

All of this data was transmitted to County engineers and managers months ago. I am baffled that there has not been more interest in an evaluation to establish a sound scientific basis for rainfall events specific to Escambia County. The design basis rainfall is the fundamental criterion for design of the storm water management system. If the design basis is lower than should reasonably be expected, we can count on a continuation of intermittent severe floods that occur more frequently than expected. In short, GIGO for the hydrological models that forecast flooding, and a flawed design basis.

The County can continue to use rainfall curves developed around 1961, which ignore data from the last 53 years, and keep relying on data that are not specific to Escambia County. But it seems prudent for the County to have weather and statistics experts evaluate data that includes many years and is specific to Escambia County. That is what I've recommended from the first. I recommend that the Storm Water Advisory Committee request an updated assessment of the rainfall design basis.

Respectfully submitted,

Glenn Niblock
District 2

U.S. DEPARTMENT OF COMMERCE
LUTHER H. HODGES, Secretary

WEATHER BUREAU
F. W. REICHELDERFER, Chief

TECHNICAL PAPER NO. 40

RAINFALL FREQUENCY ATLAS OF THE UNITED STATES

for Durations from 30 Minutes to 24 Hours and
Return Periods from 1 to 100 Years

Prepared by
DAVID M. HERSHFIELD
Cooperative Studies Section, Hydrologic Services Division
for
Engineering Division, Soil Conservation Service
U.S. Department of Agriculture



WASHINGTON, D.C.

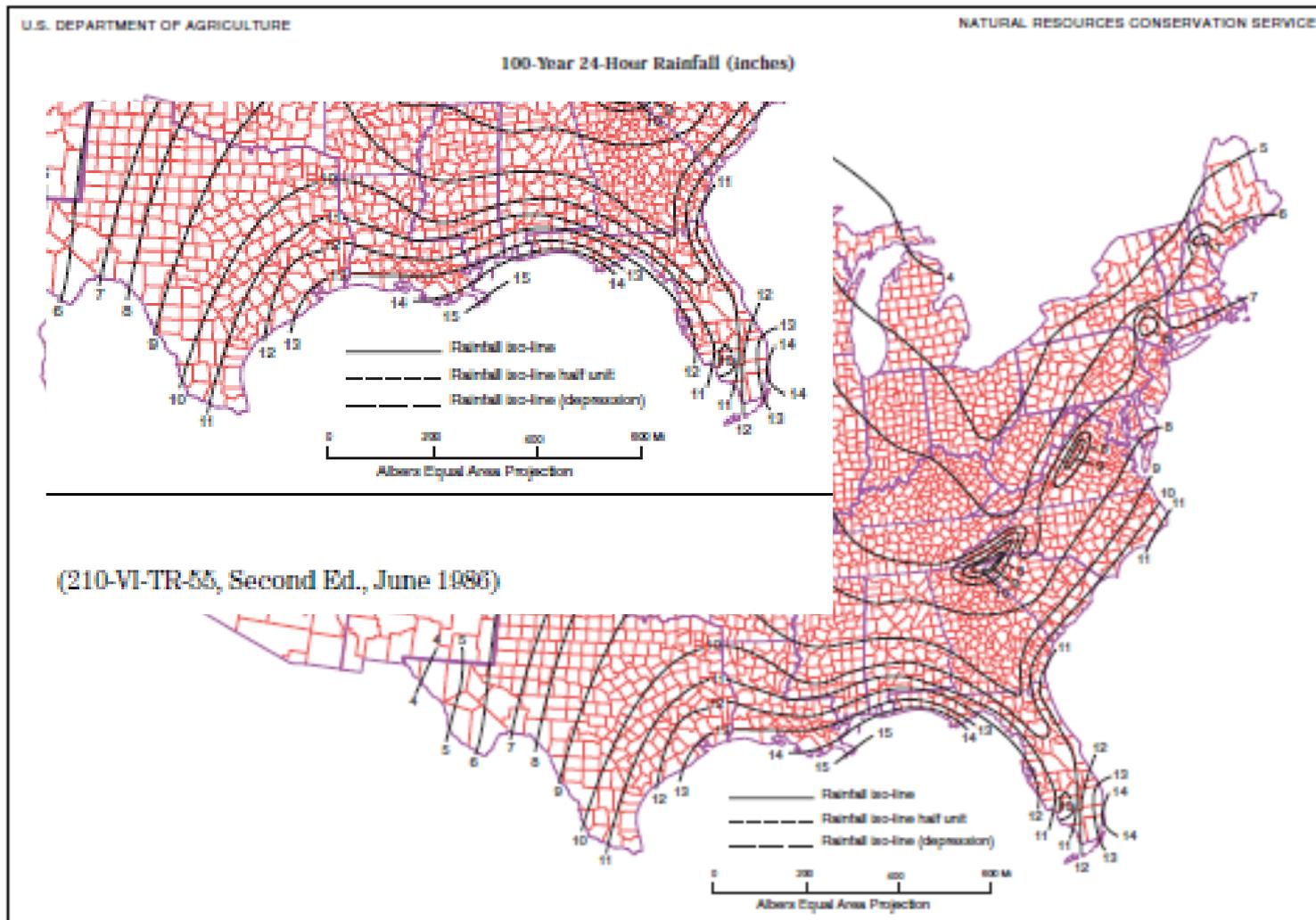
May 1961

Repaginated and Reprinted January 1963

1975 & 1986 Rainfall Data from TR-55

Exhibit 3

Figure B-8 100-year, 24-hour rainfall



(210-VI-TR-55, Second Ed., June 1986)

Storm Water Advisory Team

Escambia County, FL
January 6, 2014

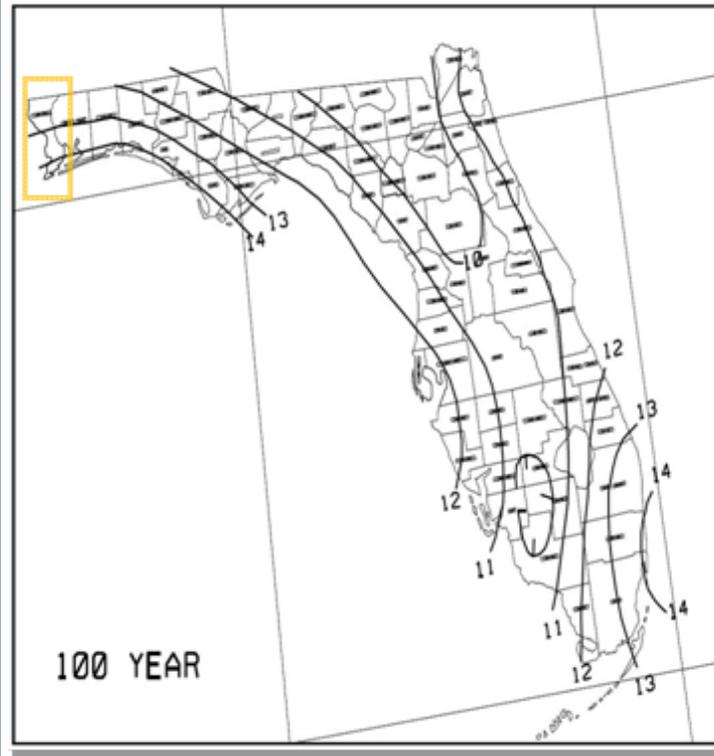
Technical Background



Exhibit 4

So what is a 100 year storm?

- As illustrated in the figure produced by FDOT, Escambia County could expect a different amount of rainfall for a 100 year event than other parts of the state.
- The IDF curves for this area show that the amount rainfall during a 100 year event over 24 varies from 13-14 inches



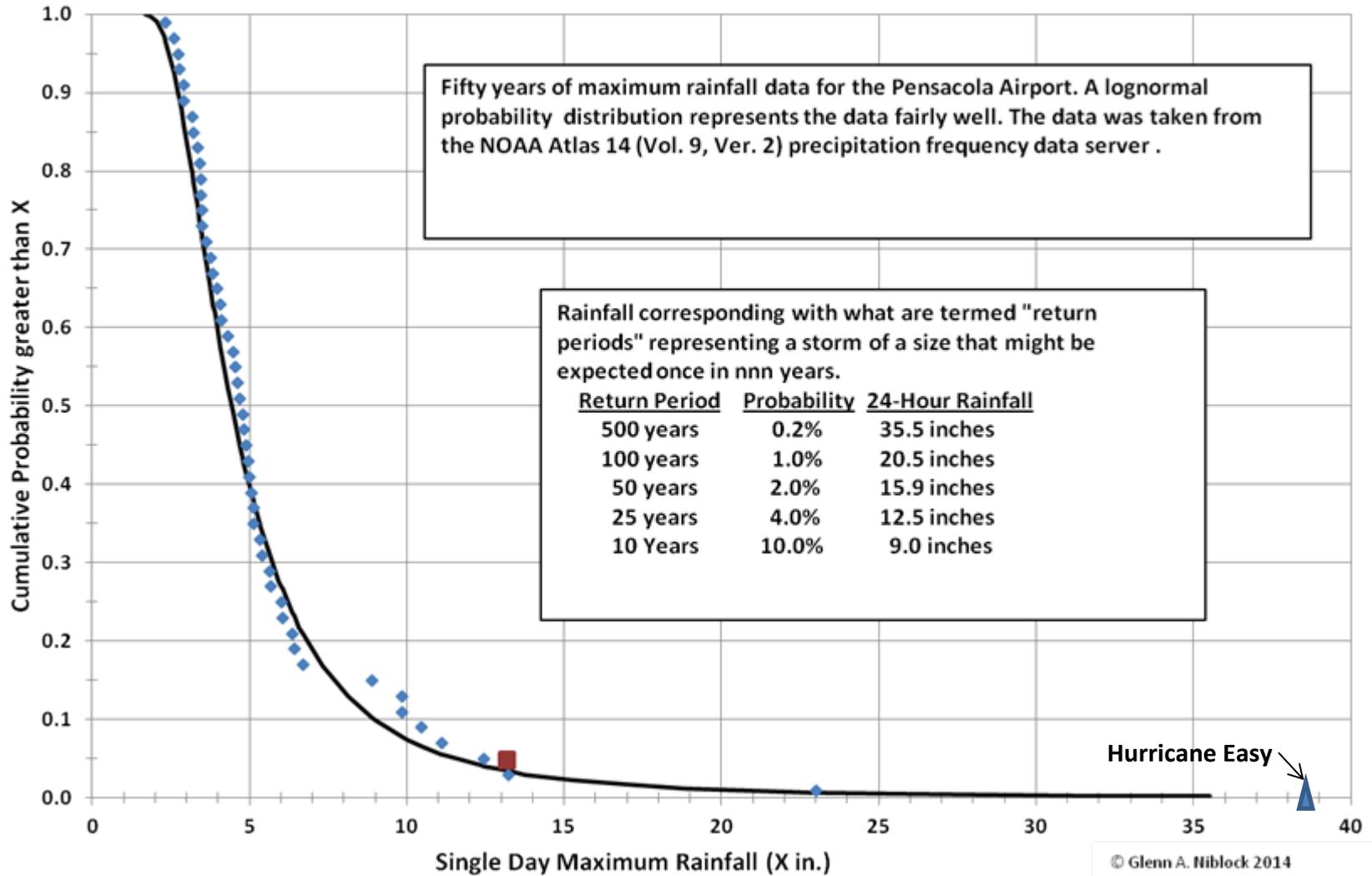
High Rainfall Events

Pensacola has had four intense flood-producing 24-hour rainfall totals over the last 80 years as tabulated below:

Year	24-Hour Rainfall (inches)
1934	15.29 inches
2005	13.96 inches
2012	13.22 inches
2014	20 inches (approx.)

This shows a rate of 4 rainfalls of at least 13.22 inches over a period of 80 years. This rate of 4 per 80 years is a frequency (probability) of 0.05 (5%).

Pensacola Airport Single Day Maximum Rainfall



Conclusions/Next Steps

Exhibit 7

- Rainfall data (curves) used by FDOT and Escambia County were developed over 50 years ago and have not been updated
- The basis for the rainfall curves was not specific to Escambia County
- Difficulties in determining probabilities of infrequent events may not have been as well known then
- More recent intense rainfall events indicate the 100-year storm rainfall is greater than the County's design basis
- The County should hire experts in weather and statistics to establish a design basis rainfall with more up-to-date rainfall data



Storm Water Advisory Team – SWAT

March 17, 2015 Meeting Minutes

221 Palafox Place, 4th Floor Training Room

In Attendance:

Committee: Mary Gutierrez, Nathan White, Glenn Niblock , Dr. Elizabeth Benchley, Phil Turner, & Garrett Walton **Absent:** John Cheney

Staff: Colby Brown, Chips Kirschenfeld

Citizens: Barbara Albrecht, Daniel Broxson, Allen Vinson

- Welcome – Mary Gutierrez
 - Mary Gutierrez, Chair, called the meeting to order at 4:36 p.m.
- Meeting Properly Advertised – Ms. Gutierrez verified with staff that the meeting had been advertised and staff presented Proof of Publication dated 3/7/15 and 3/14/15 in the Pensacola News Journal.
- **Approval of 02-17-15 Minutes** - Ms. Gutierrez called for approval of the February 3, 2015 minutes, Dr. Benchley made a motion to approve, the motion was seconded by Mr. Niblock and carried unanimously. (Mr. White abstained due to his absence from the meeting.)
- Mary Gutierrez introduced and welcomed, Nathan White as the new District 1 appointee.
- Baskerville Donovan, Inc. White Paper Drafting & Scope Review (Daniel Broxson)
 - Daniel Broxson reviewed the Task & Scope of Work by Baskerville-Donovan, Inc. (BDI). Colby Brown discussed white paper prioritizations; and informed the Team that the April 2014 Project List is posted on the SWAT page of the County web site.
- Executive Order for Federal Flood Risk Management
 - Mary Gutierrez read information provided by Keith Wilkins regarding the President's Executive Order for Federal Flood Risk Management. Keith Wilkins' message stated that Escambia County already has a 2'-3'

freeboard established. A discussion regarding the City's freeboard specifications took place; and it was requested that this issue be added to next month's agenda. Mr. Walton requested verification that the City of Pensacola designs for a 100-Year Storm and suggested that this information be used as additional support to move forward with the 100-Year design standards.

- The Design Storm Issues in the Land Development Code (LDC) will be presented to the BCC at their first meeting in April. Staff's goal is to create Design Standards that are less cumbersome; more standard and more technical. Colby Brown explained that The Planning Board did not accept Staff's recommendation of 100-Year Design Standards; but suggested a 50-Year Design. Staff will re-present the 100-Year Storm Criteria to the BCC. As it is currently written with a 25-Year Open; and 100-Year Closed Basin. The Public Hearing is scheduled for April 2, 2015.
- Mr. Walton also asked for the number of Closed Basins in Escambia County and what the design standard requirements would be for Private Ponds. Phil Turner made a motion to move forward with presenting the Executive Summary to the BCC; the motion was seconded by Mr. White, and passed unanimously.
- Ms. Gutierrez directed staff to submit a letter of support of the 100-Year Design Standards to be presented to the Board on March 19th and nominated Phil Turner to present with Glenn Niblock assisting with the presentation to the Board.
- Colby Brown informed the SWAT that the Pensacola Basin simulator had been posted to the SWAT page of the County web site and requested that all review. Mary Gutierrez discussed her opposition to the City's approach and Dr. Benchley addressed the Longhollow area demonstrating that the historic areas of the City were built in low lying wetland areas; and stated that she would like to see the wetlands used as natural stormwater capture zones and discourage bordering area development. Ms. Gutierrez added that she would like to see the County move forward in increasing the wetlands buffer rather than minimizing to 30'. Colby Brown stated that these uses are still under review by the LCD.
- Garret Walton stated that he would like to present Low Impact Development to the BCC and the City requesting that they take actions to 1: Incorporate Low Impact Development standards; and 2: Changes to the LDC should be prefiltered by technical standards and incentivized actions; charging the Staff; BCC and City Council to adopt Low Impact Development Standards. Mr. Walton will present more LID information at the April 21st SWAT meeting. Mary Gutierrez indicated that she may have a PowerPoint presentation regarding Low Impact Development and Ecological Impacts. Colby Brown suggested bringing forward recommendations for incentivizing; by offering a supportive group in the development community.

- Ms. Gutierrez informed the SWAT that she had attended a Climate Change workshop and provided a handout of links to informative websites containing current, historical and future scenarios.
- Public Comments
 - Colby Brown announced the Nature Conservancy /Sam Brody meeting scheduled for April 10th. Mr. Brown gave a brief explanation of the 41 drainage basins and 16 basin studies already performed.
 - Chips Kirschenfeld stated that the 16 studies address issues and make recommendations for problems in the south portion of the County.
 - Phil Turner expressed that we all must be using the same reference points.
 - Barbara Albrecht addressed the SWAT, discussing definition of riparian zones and what the County is doing regarding them, who has authority over them and how water quality is being addressed; the City's EWP work on Carpenter's Creek due to private property erosion; hardening urban streams; suggesting integration; LIDAR needing to be calibrated and the need for GIS funding to update the LIDAR data; she asked Daniel Broxson (BDI) about the Scope and if the County is working on a comprehensive watershed plan. Mr. Broxson stated this is a first step in that direction and they are looking at what has already been done and where and how we need to move forward.
- Old Business
 - District 1 SWAT position
 - Community meeting updates
 - Grant writing
 - Area of Discussion: Lake Charlene
 - Mr. Niblock Questions/Comments (Handout)
 - Public Comments
- Other items for consideration
 - Agenda for April 21, 2015
 - Freeboard: City & County
 - Flood Plain Managers
 - Garrett Walton – Low Impact Development Paper
 - Invite Derek Owens, City Engineer
 - Tying Studies Together
 - Current Standards
 - Address the City's plans from here forward
- General
 - Ms. Gutierrez thanked the SWAT and staff and stated that she hopes the public will stay involved.
- Adjourn
 - The meeting was adjourned at 6:13 p.m.

Published Daily-Pensacola, Escambia County, FL

PROOF OF PUBLICATION

State of Florida

County of Escambia:

Before the undersigned authority personally appeared Anna Hammes who, on oath, says that she is a personal representative of the Pensacola News Journal, a daily newspaper published in Escambia County, Florida; that the attached copy of advertisement, being a Legal in the matter of:

Meeting Schedule

Was published in said newspaper in the issue(s) of:

April 11, 2015

Affiant further says that the said Pensacola News Journal is a newspaper published in said Escambia County, Florida, and that the said newspaper has heretofore been published in said Escambia County, Florida, and has been entered as second class matter at the Post Office in said Escambia County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Sworn to and subscribed before me this 13th day of April, 2015, by Anna Hammes, who is personally known to me.

Anna Hammes Affiant
Clair J. [Signature] Notary Public

HELEN MARINIS CALICO
 Notary Public - State of Florida
 Comm. Expires August 4, 2018
 Comm. No. FF 147551

Board of County Commissioners - Escambia County, Florida
 Meeting Schedule
 April 13- April 17, 2015

One or more of the Escambia County Commissioners may attend the following meetings:

DAY	DATE	TIME	MEETING	LOCATION
Mon	04/13	4:00pm	Community Economic Development Association Board	117 West Garden Street
Tue	04/14	1:00pm	Environmental Enforcement Special Magistrate	3363 West Park Place, Room 104
Tue	04/14	2:00pm	Local Mitigation Strategy Board Meeting (LMS)	3363 West Park Place, Room 104
Tue	04/14	5:00pm	Ment System Protection Board (MSPB)	235 Palatka Place, Room 205***
Tue	04/14	5:00pm	Escambia County Housing Finance Authority	760 South Palatka Street, Suite 210
Wed	04/15	8:00am	Escambia Soil & Water Conservation District Board	151 Highway 97, Molokai
Wed	04/15	8:30am	Board of Adjustment	3363 West Park Place
Wed	04/15	1:00pm	Development Review Committee (DRC)	3363 West Park Place**
Wed	04/15	1:30pm	Witness Committee Meeting	221 Palatka Place, Room 200
Wed	04/15	2:00pm	Benefits Committee Meeting	221 Palatka Place, Room 200
Wed	04/15	3:00pm	Escambia County Disability Awareness Committee (ECDAC)	3363 West Park Place, Room 104
Thu	04/16	9:00am	Special BCC Meeting - RESTORE Act	291 East Gregory Street****
Thu	04/16	5:00pm	Special BCC Meeting Public Hrg-LDC Ordinance	BCC Meeting Room*
			One or more Planning Board members may attend the above meeting.	

*Ernie Leo Magaha Government Building, 221 Palatka Place, First Floor
 **To View DRC Agenda go to: <http://www.mvescambia.com/government>
 ***Old Courthouse Board Chambers
 ****Pensacola Bay Center

NEXT WEEK'S NOTE:

Mon	04/20	3:30pm	West Florida Regional Planning Council	152 North Wilson Street, Crestview
Tue	04/21	1:00pm	Visit Pensacola Finance Meeting	101 West Main Street
Tue	04/21	1:00pm	Environmental Enforcement Special Magistrate	3363 West Park Place, Room 104
Tue	04/21	3:00pm	Visit Pensacola Marketing Meeting	161 Airport Lane
Tue	04/21	4:30pm	Storm Water Advisory Team (SWAT)	3363 West Park Place
Wed	04/22	12:00pm	Enterprise Zone Development Agency (EZDA)	117 West Garden Street
Wed	04/22	1:00pm	Development Review Committee (DRC)	3363 West Park Place**
Wed	04/22	3:00pm	Visit Pensacola Board Meeting	2 Via de Luna, Pensacola Beach
Thu	04/23	8:45am	Santa Rosa Island Authority Committee Meeting	1 Via de Luna, Pensacola Beach
Thu	04/23	9:00am	Community Redevelopment Agency Meeting	BCC Meeting Room*
Thu	04/23	4:30pm	Board of County Commissioners Agenda Work Session	BCC Meeting Room*
Thu	04/23	4:30pm	Board of County Commissioners Public Forum	BCC Meeting Room*
Thu	04/23	5:30pm	Board of County Commissioners Public Hearings & Reports	BCC Meeting Room*
Fri	04/24	1:00pm	Santa Rosa Island Authority Board Member Workshop	1 Via de Luna, Pensacola Beach

Note: A copy of the agenda for the meetings initiated by the Board of County Commissioners containing specific items to be considered in the order of presentation, may be obtained from the County Administrator's Office, Suite 425, Escambia County Government Complex, 221 Palatka Place. Any Persons needing accommodations to attend or participate, pursuant to the Americans with Disabilities Act, should contact Angela Crawley, 595-4947, at least 72 hours in advance of the meeting. Those who are hearing or speech impaired may contact Mrs. Crawley via e-mail at ajcrawley@mveescambia.com. Any person who decides to appeal any decision made by any board, agency, or commission will respect to any matter considered at its meeting or hearing, will need a record of the proceedings of the meeting. Since the Board of County Commissioners does not make verbatim records of its meetings, such person may need to independently secure a record that should include the testimony or evidence on which the appeal is to be based. All Board of County Commissioners meetings are broadcast live and rebroadcast on ECTV, Digital Channel 58 on Cox Cable, BrightHouse and Mediacom and the Regular Board of County Commissioners Meetings beginning at 5:30 p.m. are broadcast live on WUWF Channel 4. The meetings can also be seen live via the web at <http://www.mvescambia.com>.

Legal No. 1640164 1T April 11, 2015 What's on ECTV at www.mvescambia.com



StormWater Advisory Team – SWAT

Committee Members Sign-in Sheet

April 21st, 2015

Name	Signature
District 1 - Nathan White	
District 2 - Glenn Niblock	
District 3 - Mary Gutierrez, Chair	
District 4 - Garrett Walton	
District 5 - John Cheney	
City of Pensacola - Dr. Elizabeth Benchley	
City of Pensacola - Phil Turner Vice-Chair	



StormWater Advisory Team – SWAT

Citizens/Public Sign-in Sheet

April 21st, 2015

Name

Address

Phone #/Email

** STAFF*

HARRY T. GIBSON

BID - ESCAMBIA Co

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JIM WHITE

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DERRIK OWENS

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Chris Curl

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Storm Water Advisory Team – SWAT

April 21, 2015 Meeting Minutes

221 Palafox Place, 4th Floor Training Room

In Attendance:

Committee: Mary Gutierrez, Nathan White, Glenn Niblock, Dr. Elizabeth Benchley, Phil Turner, Garrett Walton, & John Cheney

Staff: Colby Brown, Keith Wilkins, & Chips Kirschenfeld, Harry Gibson, Chris Curb

Citizens: Jim Waite, Derrik Owens, Daniel Broxson, Barbara Albrecht

- **Welcome** – Mary Gutierrez
 - Mary Gutierrez, Chair, called the meeting to order at 4:35 p.m.
- **Verification of Meeting Advertisement** – Ms. Gutierrez verified with staff that the meeting had been advertised and staff presented Proof of Publication dated 4/11/15 in the Pensacola News Journal.
- **Approval of 03-17-15 Minutes** - Ms. Gutierrez called for approval of the March 17, 2015 minutes, John Cheney made a motion to approve, the motion was seconded by Dr. Benchley and carried unanimously.
- **City of Pensacola Drainage Study Findings**
 - Derrik Owens, City Engineer, gave a brief summary of the Drainage Study Findings which were presented at the February 25th City Council Meeting. There are four studies posted on the City's web site. The City's ultimate goal is to combine the North and South Basins into a living model. Mr. Owens stated that the City continues working out issues with the current Standards to obtain this goal. The Storm Water Master Plan will be outdated in FY'16-'17. A complete City-Wide Master Plan update (separate from tying models together) is underway. Deficiencies are being identified and sustainable recommendations are being reviewed. A 100 Year Design Storm Standard passed recently, and is soon to be adopted from 25 Year to 100 Year Standards. FEMA, FDOT, FDEP, have all requested the 100 Year Standards. Grant funding is available when the 100 Year Design Standards are used.

- **Freeboard – City & County**
 - Harry Gibson, Escambia County Floodplains Manager and Derrik Owens addressed questions regarding Freeboard standards for the City and County. Derrik Owens stated that generally, it depends on the area; the City's current A&E standard is three feet.

- **Baskerville Donovan, Inc. White Paper Update**
 - Daniel Broxson reviewed White Paper Project Maps stating that prioritization of Capital Improvement Program projects are based on damage assessments, the ability to permit (and probability of permitting with cost considerations), and constructability to create a weighted score. This information will be posted on the SWAT page of the County web site. 16 of the 47 basins in the south end of the County have been studied. 90% through needs assessment list is being prioritized. A draft will be available for review in June.
 - The committee raised questions for consideration related to archeology site identification and superfund sites. Mr. Broxson stated that BDI is primarily addressing flooding and that superfund sites would be viewed from more of a water quality perspective. Mary Gutierrez requested a draft be distributed and Colby Brown stated that it is still in the early stages as a working document. Phil Turner requested that the distribution be made at least one week prior to the next SWAT meeting.

- **Low Impact Development (LID)**
 - Garret Walton gave an overview of a prepared handout of Land Development Code recommendations the City and County should consider for LID techniques which is incentives based and aggressively moving forward. Mr. Walton stated that the proposed changes to the LDC and their storm water impacts need review (handout attached); and the State wants to be involved with funding. Mr. Walton made a motion that LID and LDC Review for Stormwater Issues be presented to the BCC, Mr. Turner seconded the motion, and the motion passed with Ms. Gutierrez abstaining.
 - Colby Brown commented that, under the direction of Joy Blackmon, Public Works Director, staff is moving forward with the creation of a Technical Advisory Committee (TAC) saying that LID is a high priority for Public Works. The TAC will be comprised of community professionals to make recommendations to the Planning Board for future changes to the LDC. Specifically addressing issues related to the Design Standards Manual. The Storm water aspect will be addressed in LDC updates. The TAC Selection Process will be brought before the BCC and will include Professional Engineers, Builders, Developers, Professional Environmental Scientists, etc.
 - Chips Kirschenfeld added that a 319 Grant from the Florida Department of Environmental Protection Agency grant proposal was submitted last week

for our region. If accepted for funding, the grant will provide funding to develop Low Impact Development Manuals for the City of Pensacola and Escambia County. The grant funds would also be used to conduct four workshops (expected in October 2015) for architects, engineers, and land use planners to discuss LID principles and how they can be incentivized in the local area.

- **April 16th BCC Meeting SWAT Representation Ratification**
 - Phil Turner was not able to represent the SWAT at the April 16th BCC meeting (2nd Public Hearing). Nathan White made a motion to ratify Mary Gutierrez, SWAT Chair, speaking on behalf of the SWAT regarding the 100 Year Storm Water Design Standards. The motion was seconded by Phil Turner, and passed unanimously.

- **Approval of Mary Gutierrez, SWAT Chair, Speaking Engagement at 2015 Environmental Symposium on Monday, April 27, 2015 at the UWF Commons**
 - John Cheney made a motion to approve Mary Gutierrez' speaking engagement as a representative on behalf of the SWAT at the Bay Area Resource Council's 2015 Environmental Symposium. Nathan White seconded, and all were in favor.

- **Approval of Mary Gutierrez, SWAT Chair, Speaking Engagement at the Gulf Coast Diplomacy Council, May 12, 2015**
 - Nathan White made a motion to approve Mary Gutierrez' speaking engagement as a representative on behalf of the SWAT at the Gulf Coast Diplomacy Council meeting on May 12, 2015. Phil Turner seconded, and the motion passed unanimously.

- **Public Comments**
 - Christian Wagley commented on watershed level aspects and protecting our streams and waterways. He impressed upon the SWAT the importance of developing community parks in higher density suburban area developments to help maintain watershed levels.

- **Old Business**
 - Phil Turner gave an update on the March 19th BCC meeting stating that this was a precursor to the BCC meeting regarding the Planning Board's recommendation to stay with a 25 Year Storm Water Design Standard.

- **Other Items for Consideration**
 - Review White Paper (Send to SWAT Members prior to next meeting.)

- **Adjourn**
 - Mary Gutierrez made a motion to adjourn; Phil Turner seconded and the meeting was adjourned at 5:50 p.m.

STORM WATER ADVISORY TEAM RECOMMENDATIONS (4/21/15)

In an effort to advance the mitigation of future, adverse storm water impacts, the Storm Water Advisory Team recommends to both the Escambia County Board of County Commissioners, and the City of Pensacola, that, with respect to their respective land development codes, each, forthwith and with deliberateness, undertake:

- 1) Development and incorporation of appropriate low storm water impact development techniques, with particular emphasis on suitability for the more flood prone drainage basins (such as the Pensacola Bay Eastern Sub Basin) within their respective governmental boundaries, together with suitable incentives to encourage implementation of such techniques by both the private and public sectors; and
- 2) Subject any, and all, future, proposed modifications of such land development codes to a prior storm water impact analysis, with such analysis to thereafter conspicuously accompany all such modifications throughout the entirety of the formulation, review, consideration and enactment process.

Pensacola Bay Eastern Sub-Basin 2015 Action Plan

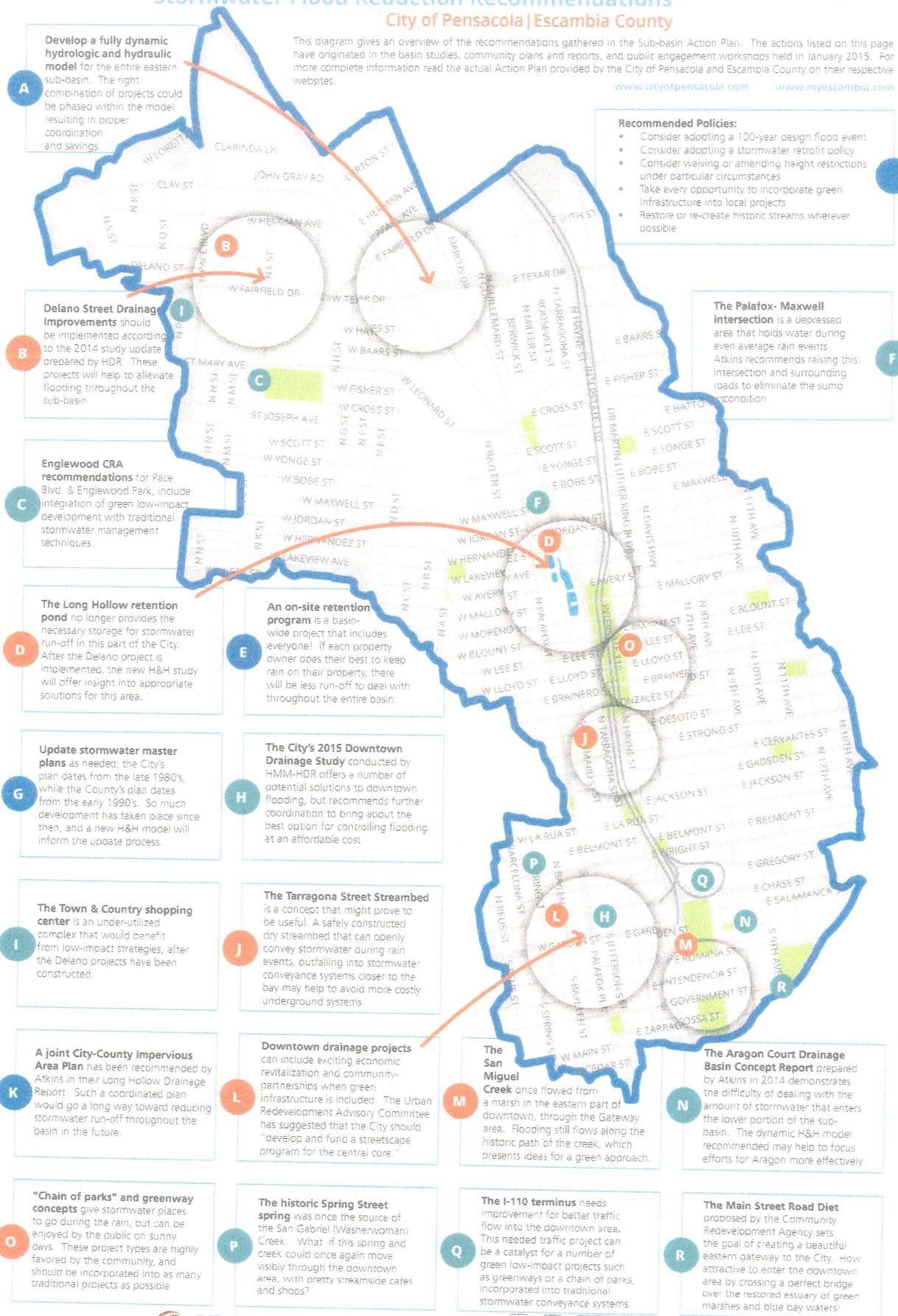
Stormwater Flood Reduction Recommendations

City of Pensacola | Escambia County



This diagram gives an overview of the recommendations gathered in the Sub-basin Action Plan. The actions listed on this page have originated in the basin studies, community plans and reports, and public engagement workshops held in January 2015. For more complete information read the actual Action Plan provided by the City of Pensacola and Escambia County on their respective websites.

www.cityofpensacola.com www.myscambia.com



A **Develop a fully dynamic hydrologic and hydraulic model** for the entire eastern sub-basin. The right combination of projects could be phased within the model resulting in proper coordination and savings.

B **Delano Street Drainage Improvements** should be implemented according to the 2014 study update prepared by HDR. These projects will help to alleviate flooding throughout the sub-basin.

C **Englewood CRA recommendations** for Pace Blvd. & Englewood Park, include integration of green low-impact development with traditional stormwater management techniques.

D **The Long Hollow retention pond** no longer provides the necessary storage for stormwater run-off in this part of the City. After the Delano project is implemented, the new H&H study will offer insight into appropriate solutions for this area.

G **Update stormwater master plans** as needed; the City's plan dates from the late 1980's, while the County's plan dates from the early 1990's. So much development has taken place since then, and a new H&H model will inform the update process.

I **The Town & Country shopping center** is an under-utilized complex that would benefit from low-impact strategies, after the Delano projects have been constructed.

K **A joint City-County Impervious Area Plan** has been recommended by Atkins in their Long Hollow Drainage Report. Such a coordinated plan would go a long way toward reducing stormwater run-off throughout the basin in the future.

O **"Chain of parks" and greenway concepts** give stormwater places to go during the rain, but can be enjoyed by the public on sunny days. These project types are highly favored by the community, and should be incorporated into as many traditional projects as possible.

E **An on-site retention program** is a basin-wide project that includes everyone! If each property owner does their best to keep rain on their property, there will be less run-off to deal with throughout the entire basin.

H **The City's 2015 Downtown Drainage Study** conducted by HMM-HDR offers a number of potential solutions to downtown flooding, but recommends further coordination to bring about the best option for controlling flooding at an affordable cost.

J **The Tarragona Street Streambed** is a concept that might prove to be useful. A safely constructed dry streambed that can openly convey stormwater during rain events, outfalling into stormwater conveyance systems closer to the bay may help to avoid more costly underground systems.

L **Downtown drainage projects** can include exciting economic revitalization and community-partnerships when green infrastructure is included. The Urban Redevelopment Advisory Committee has suggested that the City should "develop and fund a streetscape program for the central core."

P **The historic Spring Street spring** was once the source of the San Gabriel (Washerwoman) Creek. What if this spring and creek could once again move visibly through the downtown area, with pretty streamside cafes and shops?

M **The San Miguel Creek** once flowed from a marsh in the eastern part of downtown, through the Gateway area. Flooding still flows along the historic path of the creek, which presents ideas for a green approach.

Q **The I-10 terminus** needs improvement for better traffic flow into the downtown area. This needed traffic project can be a catalyst for a number of green low-impact projects such as greenways or a chain of parks, incorporated into traditional stormwater conveyance systems.

Recommended Policies:

- Consider adopting a 100-year design flood event
- Consider adopting a stormwater retrofit policy
- Consider waiving or amending height restrictions under particular circumstances
- Take every opportunity to incorporate green infrastructure into local projects
- Restore or re-create historic streams wherever possible

F **The Palafox- Maxwell intersection** is a depressed area that holds water during even average rain events. Atkins recommends raising this intersection and surrounding roads to eliminate the sump condition.

N **The Aragon Court Drainage Basin Concept Report** prepared by Atkins in 2014 demonstrates the difficulty of dealing with the amount of stormwater that enters the lower portion of the sub-basin. The dynamic H&H model recommended may help to focus efforts for Aragon more effectively.

R **The Main Street Road Diet** proposed by the Community Redevelopment Agency sets the goal of creating a beautiful eastern gateway to the City. How attractive to enter the downtown area by crossing a perfect bridge over the restored estuary of green marshes and blue bay waters!





Storm Water Advisory Team – SWAT

June 16, 2015 Meeting Minutes

Central Office Complex - 3363 West Park Place, Pensacola, FL 32505

In Attendance:

Committee: Mary Gutierrez, Glenn Niblock, Dr. Elizabeth Benchley, Phil Turner, Garrett Walton, & John Cheney
Absent: Nathan White

Staff: Colby Brown, Chris Curb, Chips Kirschenfeld, Brent Wipf

Citizens: Ryan Weed, Jim Waite, Fred Donovan, Jr., Judy Niblock, Barbara Albrecht, Christian Wagley, Jim Hunt

-
- **Welcome** – Mary Gutierrez, Chair, called the meeting to order at 4:35 p.m.
 - **Meeting Properly Advertised**
 - Ms. Gutierrez verified with staff that the meeting had been advertised and staff presented Proof of Publication dated 6/15/15 for the 6/13/15 advertisement in the Pensacola News Journal.
 - **Approval of 04-21-15 Minutes**
 - Ms. Gutierrez called for approval of the April 21, 2015 minutes, noting the addition of Christian Wagley in attendance of the meeting. Mr. Cheney made a motion to approve; the motion was seconded by Mr. Turner and carried unanimously.
 - **BDI White Paper Update** – Colby Brown and Ryan Weed
 - Colby Brown reviewed the timeline and schedule for the Storm Water Advisory Team. The next SWAT meeting will be held on July 21, 2015, to approve the final white paper which will then be presented to the Board of County Commissioners at their regular meeting on August 6, 2015. Mr. Brown stated that staff will work into the final paper any additional comments by the SWAT from tonight's discussion and any following comments he receives via email. Mr. Brown reviewed the layout and format of the white paper and asked for approval. Ms. Gutierrez shared her comments, requested using Low Impact "**Design**" rather than Low Impact "**Development**" throughout the paper, and then opened the floor.

- Ryan Weed asked if comments were to be included in the Low Impact Design (LID) Manual or the white paper document. Mr. Brown stated that the Technical Committee would be preparing the LID manual separately and comments could be forwarded to be included.
- Dr. Benchley asked staff if the white paper includes both the city and county. Mr. Brown responded that the initiative included the county only but that city and county coordination efforts can be included. Phil Turner stated that Derrick Owens, City Engineer, has almost completed the city's project list. Mr. Brown assured the SWAT that a draft of the white paper would be sent to Mr. Owens.
- Mr. Weed opened a discussion regarding basin studies versus flooding complaints and flood control issues, and addressed questions by the SWAT regarding flood control issues. The white paper draft was briefly reviewed page by page.
- Ms. Gutierrez asked about the selection process and scheduling for the LID Technical Advisory Committee. Mr. Brown indicated that he had discussed the process and timeline with Joy Blackmon, County Engineer. Ms. Gutierrez asked staff to include district-specific project maps for review.
- Mr. Weed stated that he is using rankings by previous consultants, for consistency, and has prepared project summaries based upon those rankings.
- Mr. Turner commented that the paper should be detailed and simplified in laymen's terms and should include references to the coordinated efforts between the city and the county, and requested that SWAT members' names also include reference to the district or agency represented.
- Mr. Turner stated that he would like to see the Aragon/Longhollow areas mentioned in the white paper since they had been discussed at previous meetings and that the city may wish to include their input and projects.
- Ms. Gutierrez added that the city's studies, which had been discussed in previous SWAT meetings, need to be mentioned in the white paper. Mr. Brown said that the Pensacola Bay Basin Study overlaps to Delano and an inclusive paragraph regarding the city's studies could be included in the body.
- Dr. Benchley expressed her concern regarding the issue of the downtown area ignoring historical wetland areas, and stated she believes the city isn't addressing engineering and development changes that are affecting flooding issues. She reiterated that she would like the matter of

archeology to be addressed in the white paper and to assure that references to city and county policies are made and implemented.

- Mr. Walton stated that the city may not be clear on their role. This was to be a joint city/county committee. He believes that the city's role, projects and studies need to be included. "The big story here is city/county cooperation. Same-source funding is crucial, surprising and good to hear."
- Mr. Brown briefed the SWAT on the Hazard Mitigation Grant Program (HMGP) grant where the city and the county overlap in the Pensacola Bay Basin, and how staff is incorporating Delano and Pensacola Bay language. He also mentioned the concerted efforts of both agencies working together to move forward projects with available grant funding.
- Mr. Walton commented that he hopes the county will not spend much money on developing a new manual since there are so many available online, and further, that all LDC changes should go through a stormwater impacts filter. Mr. Walton also said that he is not excited about more studies. He would rather see money spent on the projects that have already been identified rather than spending money studying what can be done in the future. He believes that reasonable criteria have been used, and that the county should not deviate from the consistent historical considerations and guidelines.
- Mr. Niblock stated that the county is understaffed to complete the ~\$405 million project workload. He commented that the white paper verbiage should be "punchier" and more detailed. He is concerned with the project ranking, and prefers ranking by cost plus the engineers' judgments using comparative studies in a Consumer Reports type ranking, although he understands the pressure and deadlines.
- Ms. Gutierrez asked Mr. Brown to state the Needs Assessment ranking process used. Mr. Brown responded that the guidelines used were by drainage basin studies which consist of existing and approved guidelines based on nationwide research. Ryan Weed then summarized the Needs Assessment list ranking.
- Mr. Turner added that he would like the white paper to include the number of households and/or people affected, both positively and negatively. Mr. Niblock and Ms. Gutierrez both agreed with the historical consistency and that the current list should be used based on the historical evaluations.
- Mr. Brown stated that project maps would be used, and Mr. Weed added that the top thirty ranked projects have been reviewed by the following criteria: severe flooding; water quality; and permitting problems/issues. He responded to Mr. Turner that the number of households and/or people affected is not always available in previous basin studies. Mr. Brown gave

as an example, that a single roadway washout would affect an entire neighborhood, quantities could be tied to different types of projects, but it is difficult to tie to the total number of households/people affected.

- Mr. Brown stated that the white paper would be updated with modifications from today's meeting and would then be posted to the county's web site, on the SWAT page.

- **Daylighting**

- Ms. Gutierrez brought up the topic of daylighting, based on recent and past walking tours that assessed daylighting in the downtown Pensacola area. At the first tour, Eric Meade provided several examples and resources on daylighting. Ms. Gutierrez asked if daylighting would create stormwater benefits by opening streams such as San Gabriel Creek, Washer Woman's Creek & Connect Creek that have been covered for decades. If daylighting is relevant, it should be included or at least mentioned in the white paper. Dr. Benchley added that a review should be made of ways to spread out the daylighted streams and slow down the surface water. Some creeks have been draining since 1776. There have been discussions about opening the daylighted creek on the west side of the Pensacola Bay Basin, but the east side has not been discussed. She was also under the impression that the SWAT white paper was going to include city projects.

- **Low Impact Design**

- Ms. Gutierrez expressed her concern with the time frame, asked where we stand with the LID incentive-based initiatives being brought to the Planning Board, and asked if this has to be done by the Technical Advisory Committee or if could it be done earlier and separately. Mr. Brown stated that the TAC would make recommendations to the Board of County Commissioners, and we should not "leap frog" the Planning Board.

- **Public Comments**

- Ms. Gutierrez opened the floor for public comments. (None were received.)

- **Other items for consideration**

- Agenda for July 21, 2015: White Paper Revisions Incorporated

- **Adjourn**

The meeting adjourned at 6:14 p.m.



Storm Water Advisory Team – SWAT

July 21, 2015 Meeting Minutes

Central Office Complex - 3363 West Park Place, Pensacola, FL 32505

In Attendance:

Committee: Mary Gutierrez, Glenn Niblock, Phil Turner, Garrett Walton, & John Cheney. **Absent:** Dr. Elizabeth Benchley & Nathan White

Staff: Colby Brown, Chips Kirschenfeld

Public: Jim Waite, Christian Wagley, Barbara Albrecht, Michael Langston

-
- **Welcome** – Chairman Mary Gutierrez
 - Chairman Gutierrez called the meeting to order at 4:31 p.m.
 - **Proof of Publication** – Ms. Gutierrez verified with staff that the meeting had been advertised on 7/11/15 and 7/18/15 in the Pensacola News Journal.
 - **Approval of 06-16-15 Minutes** - Ms. Gutierrez called for approval of the June 16, 2015 minutes. Mr. Niblock requested one minor change on page 3, in the fifth paragraph; to replace “environmental impact” with “comparative”. Mr. Cheney made a motion to approve; the motion was seconded by Mr. Turner and carried unanimously.
 - **City of Pensacola Stormwater Management Changes**
 - Ms. Gutierrez brought to the SWAT’s attention that the City of Pensacola, in recent meetings, has made changes to their stormwater policies and procedures. This information has been added to the White Paper.
 - **Whaley Avenue – City of Pensacola**
 - Ms. Gutierrez presented, for general information, that she had attended a recent City Council meeting where stormwater issues were discussed. Ms. Gutierrez raised questions regarding the Whaley Avenue property, including whether it was located in one of the sub basins and what type of

mediation was taken. She stated that she was satisfied with how the city and county are responding to these types of stormwater issues.

- Colby Brown stated that this was a localized sub basin within the city limits and that he had a discussion with Derrik Owens, City Engineer, regarding the Whaley Avenue area, and that the proposed work was primarily surface work to address erosion and rehabilitation of the area from a subsurface perspective.

- **Old Business**

- Draft Stormwater White Paper Updates & Comments
- Chairman Gutierrez reviewed her comments related to the white paper changes requested in the June meeting:
 - Change Low Impact Development to Low Impact Design in the Executive Summary and consistently throughout the document.
 - Use the LID acronym only once.
 - Expand the definition of daylighting as it relates to the White Paper. Chairman Gutierrez will submit a paragraph to Colby Brown to be included.
 - Check dates throughout the document (page 5, change April 29, 2015, to April 29, 2014; page 8, change December 2015 to December 2014 twice.)
 - Address specific District numbers.
 - The city needs assessment list is being added to the White Paper.
 - Expand Basin Studies to include the city basin studies in the White Paper and reference the city's web address.
 - Ensure that city and county archeological projects are added.
 - Page 8, change grass roofs to green roofs.
 - Include comments regarding city/county collaboration.
- Mr. Turner requested that a city council district map be included. Colby Brown said he would check on acquiring the map.
- Mr. Niblock noted that he had seen much improvement in the document. Using highlighted pages from the draft White Paper, he suggested that recommendations be summarized and then allow for additional reading using links to expanded information.

- **Public Comments**

- Ms. Barbara Albrecht, (1528 E. Brainerd Street, Pensacola), inquired as to the total cost for all identified projects; and if these projects have been prioritized. Mr. Brown responded that a combined total had not been generated and that the projects have been prioritized.

- **Other Items for Consideration**

- August 13th, 2015, Committee of the Whole Presentation of Final White Paper
 - Mr. Brown reviewed the SWAT schedule, including deadlines, and briefly discussed the presentation of the Final White Paper to the Committee of the Whole on August 13, 2015.
- Ms. Gutierrez then opened the floor for questions.
- Mr. Niblock asked how to go about and who is in charge of obtaining funding for the high priority projects, and if a funding discussion could be added to the agenda of a future meeting. Colby Brown and Chips Kirschenfeld both briefed the SWAT on available funding sources such as: Local Option Sales Tax (LOST) Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies Act (RESTORE), National Resource Conservation Service (NRCS), Emergency Watershed Program (EWP), and the Hazard Mitigation Grant Program (HMGP).
- Ms. Gutierrez inquired about the length of service of the SWAT. Mr. Brown responded that the resolution did define the goal of the committee and that the Board of County Commissioners would ultimately need to sunset the committee. He suggested that the August Committee of the Whole would be a good time to discuss this issue.

- **Adjourn**

- Having no further questions, Chairman Gutierrez called to adjourn the meeting at 5:25 p.m.

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Compiled by Baskerville-Donovan, Inc. under direction of Escambia County

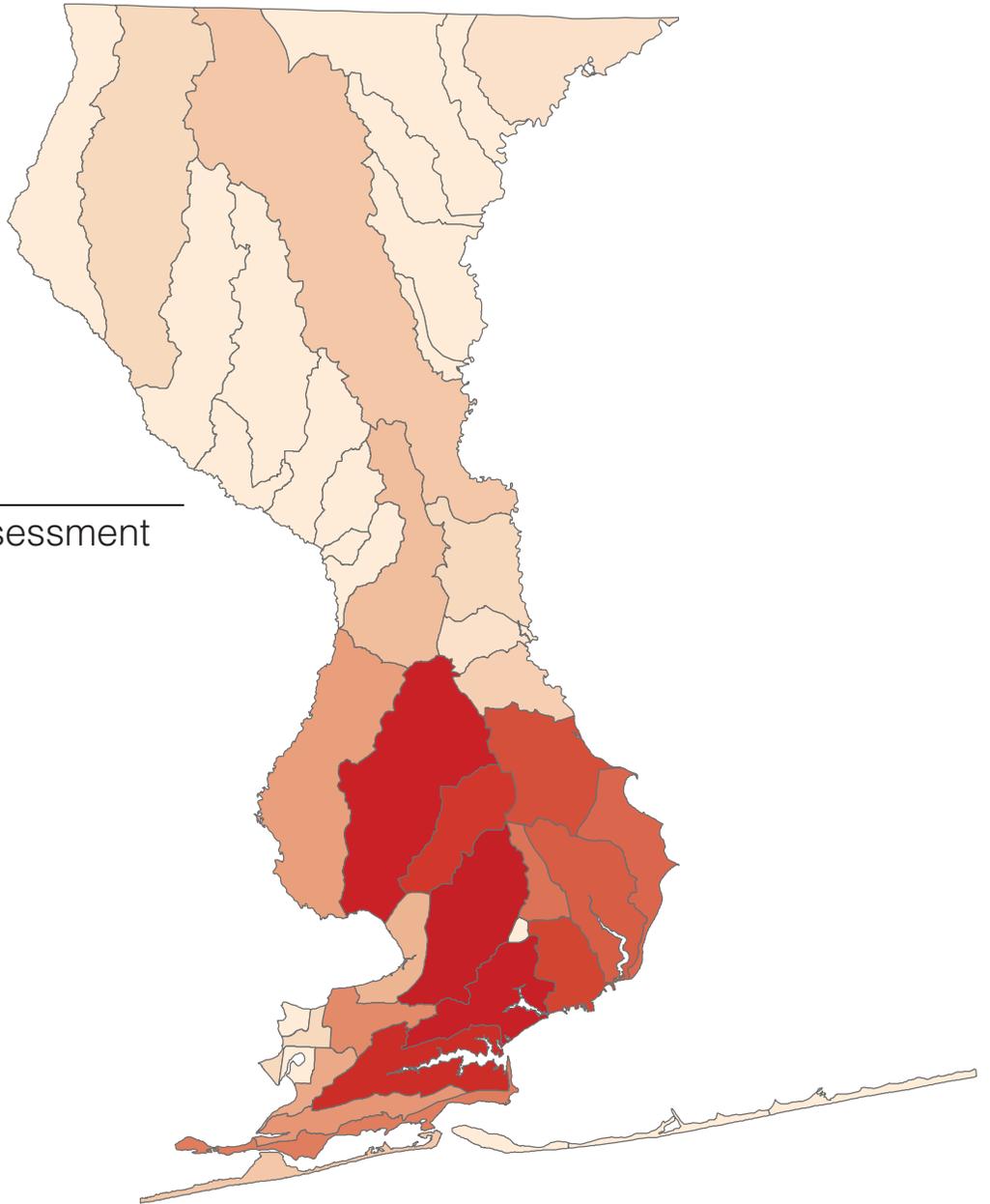
 **BASKERVILLE-DONOVAN, INC.**
Innovative Infrastructure Solutions
449 W. Main Street, Pensacola, FL 32502

BDI Job Number: 25899.02



Escambia County

Stormwater Needs Assessment
2015 Edition

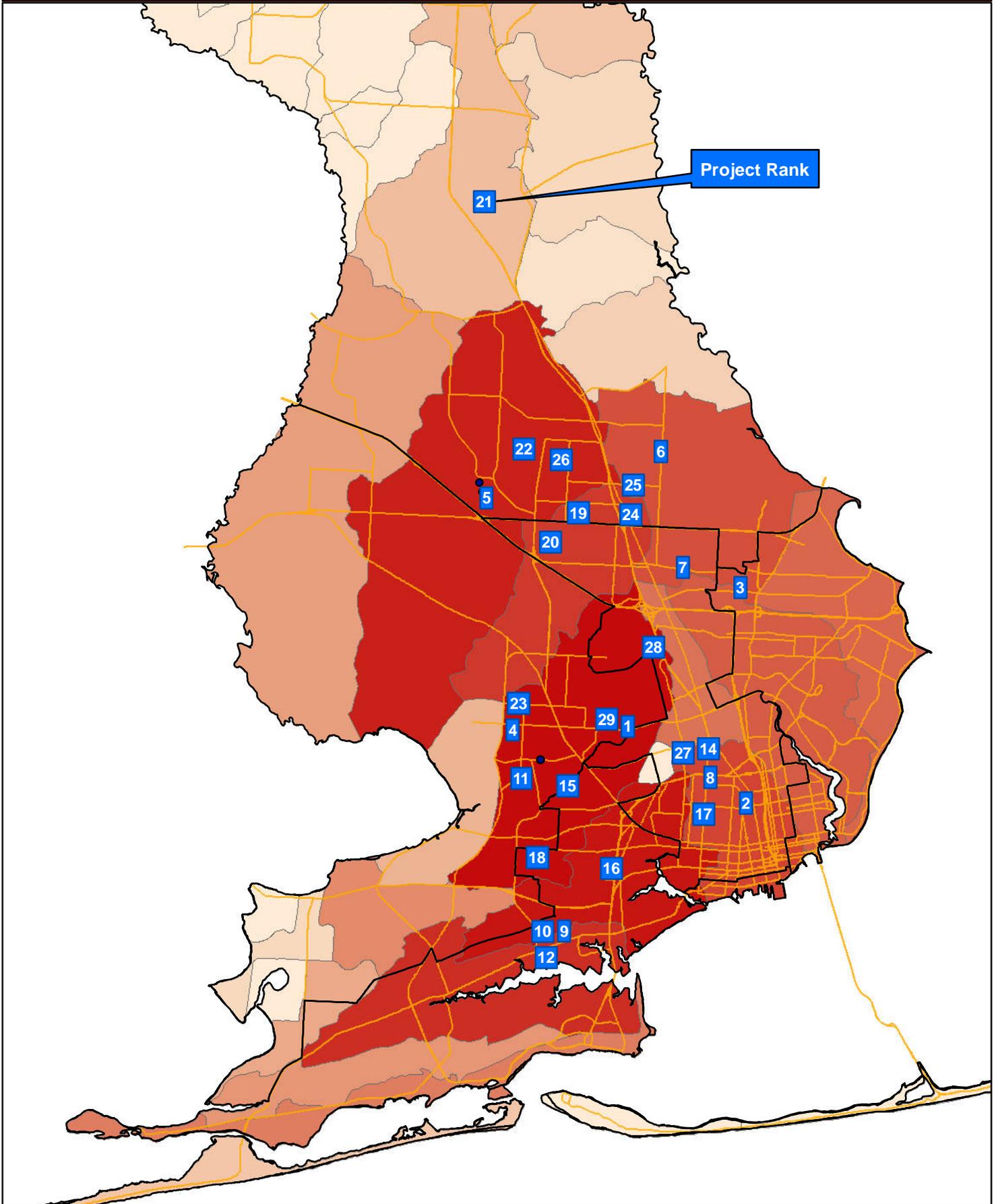


 **BASKERVILLE-DONOVAN, INC.**
Innovative Infrastructure Solutions

Prepared For:
Escambia County

BDI Job Number:
25899.02

Prepared By:
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Fax: (850) 433-6761



Rank	Project		Page
1	Crescent Lake <i>Construct drainage system and new ponds on east side of Crescent Lake through the Blue Springs Drive drainage system up to Glass Street and Sun valley Drive</i>	\$4,000,000	87
2	Spring Street - Leonard Street - PHS Drainage <i>Joint Drainage project between the City and School Board to address flooding on Spring Street and School Area.</i>	\$500,000	97
3	Frinchez Heights (Sabra, Erwin, Whitmire, Ernestene Area) <i>Proposed drainage capacity improvements in the Frinchez Heights area including Sabra Dr, Erwin Dr, Whitmire Dr, Ernestene Rd (North of Olive Rd) which will likely require a ditch conversion into a pond site</i>	\$400,000	65
4	Muldoon Road and Saufley Field Rd Area <i>Drainage improvements are needed to address existing drainage capacity from Blue Angel to Muldoon Road. FDOT is currently (2015) reviewing partial drainage with sidewalk projects.</i>	\$3,000,000	83
5	Flood Plain Management, Wetland Restoration, and Regional Pond Construction in 11-Mile Creek Basin <i>A large scale project to provide channel, stream, and flood plain restoration improvements, including at minimum of 9 regional stormwater management faculties (ponds). Project completion will require multiple grants to provide a complete realization of the 11-Mile Creek Basin Study Recommendations. The total estimated project costs is over at least a 10-year period.</i>	\$46,538,265	51
6	Willowbrook Lake Dam <i>Restore dam and overflow structure at Willowbrook dam East of Chemstrand Road to provide Water Quality</i>	\$500,000	55
7	Ensley Drairage - Caro-Mayflower Pond Area <i>Expansion of the Caro-Mayflower pond, to address drainage issues south of Caro Street, north of Johnson Ave between Hwy 29 and Palafox Street, including repetitive flooding loss on Orange Avenue.</i>	\$1,300,000	63
8	Delano Drainage Area (L Street, Leonard, Fairfield, Herman, and Fairfield Area) <i>Drainage System Improvements to include new regional pond(s) and rehab of existing ponds for water quality and flood control</i>	\$6,488,476	97
9	Beach Haven Area Drainage and Sewer Northeast Phase 1 <i>Roadway/drainage and sewer improvements; currently under design (NE of Decatur Ave to Gulf Beach Highway; from Mills Ave to Decatur Ave including ponds for Phase 1 & 2)</i>	\$10,887,839	107
10	Beach Haven Area Drainage and Sewer Northeast Phase 2 <i>Roadway/drainage and sewer improvements; currently under design (NE of Fairfield and Gulf Beach Highway; Fairfield Dr to Colbert)</i>	\$7,823,000	117
11	Muldoon-Saufley Field-Velma (Pond Expansion) <i>Property purchase and drainage improvement design to provide positive outfall for two County ponds, expand the Velma St Pond, and provide outfall to Bayou Marcus Creek. Refer to Bayou Marcus Basin Study -Velma Dr Pond Outfall Branch C to be modified by property acquisition and Velma pond expansion.</i>	\$3,450,000	91
12	Beach Haven Area Drainage and Sewer (South) <i>Roadway/drainage and sewer improvements; currently under design (NE of Fairfield and Gulf Beach Highway; Fairfield Dr to Colbert)</i>	\$12,000,000	117
13	Bristol Creek Property Acquisition <i>A large scale project, with a Property Acquisition Plan for repeatedly flooded property and easement acquisition. Project will be partially funded by HMGP grant if approved. Related to project "Flood Plain Management, Wetland Restoration, and Regional Pond Construction in 11-Mile Creek Basin."</i>	\$6,189,380	51
14	Beverly Parkway Basin Zone H- Loretta Street, between Kelly Ave and North "P" Street <i>Construct new ponds and expand the stormwater collection system in the area around Loretta Street.</i>	\$6,499,810	89

Rank	Project		Page
15	North 61st Property Purchase and flood plain restoration		93
	<i>Purchase of 10 properties for the purposes of flood plain restoration, and stream restoration</i>	\$700,000	
16	Old Corry Outfall Property Purchase and Flood Plain Restoration		107
	<i>Pete Moore ditch- Jackson Creek flood plain and habitat restoration.</i>	\$978,881	
17	Avery Street Drainage (Kupfrian Park/Hernandez and Lakeview)		97
	<i>Continued drainage for the Kupfrian Park area to include stormwater pond(s) for flood control/water quality, and conveyance system to address flooding issues on Hernandez and Lakeview between Pace and J Street.</i>	\$998,563	
18	Myrtle Grove System A (remaining portion)		105
	<i>Completion of System A to included drainage improvements including acquisition for easement and pond site on 72nd and 73rd Ave, South of Jackson, and North of Harvey St</i>	\$450,000	
19	Ponderosa Drive Area Drainage		61
	<i>Expand existing pond to accommodate contributing basin</i>	\$2,243,000	
20	Kingfisher, Bush Street, and Interstate Circle Drainage		61
	<i>Eight Mile Creek Priority 5 Drainage to construct a regional pond to address flooding for Kingfisher, Blue Jay Way, Bush Street, and Interstate Circle</i>	\$2,500,000	
21	Pin Oak Lane Drainage (Phase 1) and Flood Plain Restoration Project (Phase 2)		31
	<i>Construct a new roadway connection to Quintette Road at North end. Also purchase property to restore flood plain at South end.</i>	\$725,277	
22	West Roberts Drainage Improvements and Regional Pond (Regional Pond in 11-Mile Creek Basin)		51
	<i>Regional pond and conveyance system on West Roberts Road utilizing on FDOT pit (Part of 11 Mile Creek Basin Plan to reduce flood stage in Bristol Creek/Bristol Park/Ashbury Hills)</i>	\$1,500,000	
23	Bellview Avenue Branch E Drainage Chestnut-Hogan Pit expansion		83
	<i>Bellview between Rosewood Estates and Hogan Road, includes expansion of the Chestnut-Hogan Pit</i>	\$1,500,000	
24	Chandler Road Drainage		63
	<i>Alleviate lot flooding by installing a conveyance system in the area connected to the main trunk line currently being installed by FDOT. This line drains to the Holsberry pond, part of the Hwy 29 lane widening project</i>	\$600,000	
25	Ten Mile Road Drainage and Roadway Improvements		55
	<i>Address capacity and drainage problems from Chemstrand to Palafox to address flooding in the area of Holsberry Lane. May involve property acquisition.</i>	\$5,000,000	
26	11 Mile Creek Basin Study Zone 5		53
	<i>increase capacity of pipe under green hills rd. and construct a pond near urban drive to alleviate area flooding</i>	\$3,619,643	
27	Beverly Parkway Basin Branch G- Andrew Ave and Coons Ave		89
	<i>Extend the stormwater collection system along Andrew Avenue and Coons Avenue.</i>	\$1,319,873	
28	Dorothy & Lydia Avenue Area Drainage		77
	<i>Improve existing drainage system causing lot flooding. The surrounding area drains to private Rolling Hills borrow pit, causing sediment problems at Crescent Lake</i>	\$400,000	
29	South Gulf Manor Private Pond Rehab		85
	<i>Upgrade to county standards a private pond that has failed to accommodate flow from South Gulf Manor Phase 1 on numerous occasions. This has resulted in flooding of around 15 homes.</i>	\$200,000	

Rank	Project		Page
30	Avondale Estates - Bayou Marcus Branch E <i>Roadway/drainage improvements for Cerny Road area and area North of Cerny to provide possible pond outfall solutions for Saufley Field -Muldoon Area Ponds. Concept plans requires further study for alternate pond outfall options considering Velma Pond.</i>	\$3,300,000	83
31	Palafox Street @ Oakfield/Kenmore/Pacific/Majors/Pinestead Drainage <i>Drainage Project currently under design to address Beverly Parkway Basin Study Improvements Branches N, O, P, & Q</i>	\$4,900,000	77
32	Old Corry Field Area Drainage <i>Construct a new stormwater collection system along Old Corry Field Road from Border Street to Jackson Creek.</i>	\$2,000,000	109
33	Catholic High Basin Zone A North - North end of the basin around Mission Street <i>Expand pond storage by expanding existing pond and constructing a new pond as well as expanding and increasing existing collection to prevent home and street flooding. This improvement will not have negative impacts on downstream properties.</i>	\$3,330,648	95
34	Intersection of Hwy 29 and Hwy 97 <i>Construct a dry pond and conveyance pipes at the corner of Highway 97 and Crabtree Church Road to contain and control downstream stormwater runoff. Increase the capacity of culverts running under Highway 29 to reduce roadway flooding.</i>	\$558,137	21
35	Helms/Beulah School Road <i>Increase capacity of drainage structures crossing Helms Road to prevent roadway overtopping and decrease upstream flood stages.</i>	\$207,509	71
36	Carver Park Area Drainage Improvements West of 297A <i>Four-phase roadway and drainage improvement project for the area south of Muscogee Road, north of the Road Camp, east of Booker, and west of Ransom, requiring property pond acquisition and drainage conveyance improvements.</i>	\$2,250,000	37
37	Haley Lane and Eagle Street <i>Reconstruct the Brookhollow collection system and construct a new collection system along 10 Mile Road to reduce roadway flooding. Improvements may have a negative effect on downstream properties.</i>	\$584,279	53
38	Raise berm east of landfill (Perdido River South Basin) <i>Raise the berm east of the landfill to prevent an existing pond from overtopping.</i>	\$623,519	49
39	West Highlands (Green and Lloyd) and Lloyd up to Mallory Street <i>Address property flooding in an area North of Mobile Hwy West of Dominguez Street, and at Green St</i>	\$650,000	95
40	Carver Park/West Booker Road <i>Reduce area flooding by increasing the capacity of area conveyance structures as well as constructing a new pond.</i>	\$1,327,654	43
41	Ferry Pass Drainage Zone 5 <i>Drainage System Improvements on Boyd Ave and adjoining Beagles St, Geeker St, De Loach St, and Raines St; dependent upon Olive Rd drainage system upgrades</i>	\$950,000	79
42	Delano Area North Kelly Avenue Basin <i>Drainage System Conveyance Improvements for area between Pace Blvd, Massachusetts Av, W" St., and Truman to improve conveyance to Kelly Avenue pond, as well as provide for an improved outfall system. Project requires coordination with CRA improvements on Massachusetts Avenue for sidewalks and drainage improvements</i>	\$400,000	89
43	Nims Lane Drainage Project <i>Nims Lane receives stormwater from a basin of approximately 29 acres. This basin extends just east of Holsberry Road and just north of Holsberry Lane. This area is prone to flooding due a lack of a positive outfall or stormwater conveyance system. Discharge from this conveyance system is expected to be routed to the Holsberry Pond</i>	\$400,000	63

Rank	Project		Page
44	Lake Charlene Area Drainage (including future phases not covered by grant) <i>Increase outfall capacity of Lake Charlene by implementing some of the drainage system improvements from the 2007 Warrington Master Plan and the 2015 Lake Charlene Warrington Study.</i>	\$1,992,309	107
45	Treasure Hills Drainage <i>Install drainage upgrades, stormwater pond w/pond site purchase, and drainage rehabilitation in area of Avon, Medina, and Gulf Beach Hwy</i>	\$760,000	121
46	Beverly Parkway Basin Branch C- Twelve Oaks Area <i>Construct a new collection system for the Twelve Oaks Area with a discharge to the FDOT system. Connection to the FDOT system will limit design to the 3 year event.</i>	\$2,522,301	87
47	Beverly Parkway Basin Zone D-Brentwood <i>Expand the stormwater systems on Cary Memorial Drive and Armenia Drive to Carolyn Way, Jacquelyn Way, Virginia Way, Palm Court, Concordia Street, and Chimes Way and tie into the existing system on Hardy Place. Connection to the FDOT system will limit design to the 3 year event.</i>	\$3,596,439	89
48	Dogtrack South –Coral Creek – Mariners Village-Hampton Lakes <i>Stream and wetland restoration and construction of an attenuation pond. Two creeks merge north of Coral Creek, resulting in upstream flooding the affects Mariners Village to the northwest and a creek along Dog Track Road to the northeast.</i>	\$3,400,000	113
49	Westview Lane & Lewis St Area Drainage <i>Drainage improvements to address stormwater and groundwater from Lewis Street and Moose Lodge 557 impacting lots along Westview Lane</i>	\$200,000	67
50	Klondike Road North of Mobile Highway <i>Increase capacity of structure under Klondike Road to prevent roadway overtopping.</i>	\$22,571	73
51	Catholic High Basin Zone A South - South of Avery Street <i>Construct new collection system to prevent street flooding. This improvement will not have negative impacts on downstream improvements.</i>	\$1,440,259	95
52	N 69th Ave- Bayou Marcus/Millview Study Branch D <i>Expand the stormwater collection system along 69th Avenue to reduce flooding in the area.</i>	\$1,963,878	93
53	Well Line Rd Home Flooding <i>Increase the capacity of the culvert under Well Line Road to reduce roadway and home flooding. Connect the Well Line Road culvert to the culvert running under Forrest Street to minimize water flowing across the property (this will require permission or easements from two property owners).</i>	\$67,472	37
54	Hwy 29 (North of Bet Raines Rd) <i>Increase the capacity of culverts under Highway 29 and modify the surrounding ditch area to reduce roadway flooding.</i>	\$323,506	21
55	Willowside Drive and Westlake Subdivision Drainage <i>Address home, yard, and street flooding on 72nd Avenue and Willowside Drive through the Westlake Subdivision: Reference Warrington Basin Study-St James Branch C. May require modifications.</i>	\$750,000	105
56	Elsa Area Drainage <i>Drainage project to address flooding in the area of Elsa Avenue South of Lillian from 48th Avenue over to Feldor Avenue including 49th, 50th, 52nd, State Street, Kinear Avenue, and Martha Ave</i>	\$2,600,000	93
57	Ranch Lands - Sagebrush Trail <i>Repetitive loss flooding along Sagebrush Trail (Ranch Lands Subdivision) requires purchase of a pond site and improved drainage conveyance to address FDOT channel capacity. Refer to 8 Mile Creek basin Study Priority 3 for detailed information.</i>	\$500,000	61
58	International Paper Area <i>Increase capacity of drainage system in order to reduce roadway overtopping and upstream flood stages.</i>	\$367,980	43

Rank	Project		Page
59	Sunset/Patton/Elite/Gulf Beach Hwy Drainage Outfall		117
	<i>Realign the drainage outfall line beginning at Gulf Beach Hwy and Elite Drive to flow down Sunset St. in order to correct non-functioning sections and routing beneath homes.</i>	\$220,000	
60	Velma Pond Outfall		91
	<i>Construct outfall for the Velma Pond to prevent overtopping during a 100 year event.</i>	\$905,319	
61	Beverly Parkway Basin Branch B- South Portion- Michael Drive		87
	<i>Construct a stormwater pond on Michael Drive.</i>	\$623,567	
62	System improvements between Interstate 10 and Hwy 297A		59
	<i>Reconstruct Eleven Mile Creek in this area to incorporate more volume for flood control within the stream in lieu of constructing detention ponds to prevent flooding of homes between I-10 and Hwy 297A. Report also suggests requiring attenuation of the 100 year event upstream of this area.</i>	\$48,315,410	
63	Ten Mile Road at Stefani Dr.		53
	<i>Increase the collection system size along Stefani Drive and Ten Mile Road and increase the capacity of the culverts under Midway Drive to reduce extensive flooding in the area. Improvement may have a negative effect on downstream properties.</i>	\$393,265	
64	Ten Mile Creek from Pine Forest to Stefani Dr.		53
	<i>Reconstruct Ten Mile Creek from Pine Forest to Stefani Drive to provide additional storage capacity to reduce extensive flooding in the area. Improvement may have a negative effect on downstream properties</i>	\$8,988,914	
65	Ten Mile Creek from Stefani Drive to Roberts Rd.		53
	<i>Reconstruct Ten Mile Creek from Stefani Drive to Roberts Road to provide additional storage capacity to reduce extensive flooding in the area. Improvement may have a negative effect on downstream properties.</i>	\$10,674,335	
65	Ten Mile Creek from Stefani Drive to Roberts Rd.		53
	<i>Reconstruct Ten Mile Creek from Stefani Drive to Roberts Road to provide additional storage capacity to reduce extensive flooding in the area. Improvement may have a negative effect on downstream properties.</i>	\$10,674,335	
66	Jamison Street Branch F -Warrington Basin Study		109
	<i>Construct new stormwater system along Jamison Street and Rue Max Street with direct discharge to Bayou Chico to reduce discharges to the Barrancas Avenue System. Connect to Lexington Terrace stormwater ponds to provide water quality improvement prior to discharge to the wetlands.</i>	\$2,000,000	
67	Beach Haven Area Drainage and Sewer Northwest		115
	<i>Roadway/drainage and sewer improvements (NW of Fairfield to Gulf Beach Highway)</i>	\$4,000,000	
68	Tate Road North of Petty St		45
	<i>Increase capacity of roadway culvert crossings to prevent overtopping of Tate Road</i>	\$13,269	
69	Filley Rd		53
	<i>Increase capacity of culvert crossing to prevent overtopping of Filley Rd</i>	\$4,283	
70	Amanda Rd		51
	<i>Increase capacity of culvert at Creekwood Drive to prevent roadway overtopping</i>	\$6,896	
71	Chestnut Rd to Hwy 29		23
	<i>Remove accumulated sediment from the upstream side of the Chestnut Road bridge in order to lower downstream velocities. Replace the culverts under Molino Road and Chestnut Road with bridges to prevent roadway overtopping and increase flow capacity.</i>	\$1,027,014	
72	Ashland Park Joint ECUA funded sewer and drainage		55
	<i>Improve Box Culverts at Rodney, Joel and Childers Streets.</i>	\$100,000	
73	Yupon/Pebble Creek/Deerfield		59
	<i>Reduce area flooding by enlarging existing ponds and increasing area culvert capacities.</i>	\$663,784	

Rank	Project		Page
74	Stagecoach/Wilshire/Mobile Highway <i>Increase capacity of drainage structure at Mobile Highway and improve downstream channel to prevent roadway overtopping and residential flooding.</i>	\$70,698	71
75	Bayou Grande Basin K1- Gulf Beach to Winthrop SS <i>Replace the outfall trunk line from Gulf Beach Hwy through Winthrop Ave. to prevent roadway flooding.</i>	\$174,160	117
76	Beverly Parkway Basin Branch E- west side of Hwy 29 on Mason Lane <i>Construct a new collection system along Hwy 29 and Mason Lane along with a new pond for the system to connect to.</i>	\$1,077,800	89
77	Navy Point Drainage North <i>Construct treatment swales within Navy Point to treat stormwater as it flows to the discharge point per Bayou Grande Basin Study.</i>	\$20,000	117
78	Navy Point Drainage South <i>Construct treatment swales within Navy Point to treat stormwater as it flows to the discharge point per Bayou Grande Basin Study.</i>	\$25,000	117
79	Beverly Parkway Basin Branch I- Moss Lane tie in at Van Pelt Lane <i>Construct new stormwater system along Moss Lane.</i>	\$237,810	87
80	Frank Reeder Rd & Rebel Rd <i>Reconstruct the swale in the area near Rebel Road and construct a culvert under Frank Reeder Road.</i>	\$49,521	49
81	Emory Drive- Warrington Basin Study Branch K <i>Construct a new stormwater system along Emory Drive, Stanford Road, Stetson Road, and Vanderbilt Road with a new stormwater pond at the eastern end of Tulip Drive.</i>	\$637,509	93
82	Navy Point Drainage and Sanitary Sewer <i>Roadway/drainage and sewer improvements; currently under design (NE of Fairfield and Gulf Beach Highway; Fairfield Dr to Colbert)</i>	\$300,000	117
83	Bayou Grande Basin Study P1- Bainbridge Culvert <i>Replace existing culvert on Bainbridge with a larger pipe to prevent road overtopping.</i>	\$44,945	117
84	Hwy 97 (East of Hwy 29) <i>Increase the capacity of the culverts under Highway 97 to decrease likelihood of roadway flooding.</i>	\$201,759	21
85	Lake Charlene/Querido Heights- Warrington Basin Branch B <i>Reconstruct Lake Charlene overflow structure and outfall ditch. Reconstruction of the 69th Avenue drainage system to reduce discharges to Lake Charlene, increase the capacity of the 61st Avenue drainage system, and increase the capacity of the 61st Ave, Kittyhawk Drive, Lake Charlene Lane, and Myrtle Hill Circle drainage system. Solutions are currently under evaluation.</i>	\$6,765,919	107
86	Johnson Ave Drainage (East of Briese Ln) <i>Remove/Replace faulty storm pipe from Pine Ridge Lane to Johnson Ave, Address pipe flow Crystal Wells pond, Address two 24" pipe feeding one 24" pipe down to outfall in Gulf Power Easement.</i>	\$400,000	63
87	Olive Manor & Lincoln Park Drainage <i>Drainage System Improvements with a creek restoration/preservation</i>	\$1,200,000	63
88	Shadow Ridge Drive - Meadowview Lane <i>Drainage Improvements proposed within unopened County right-of-way in coordination with adjacent property to address property damage and erosion for the accumulation of development.</i>	\$30,000	55
89	Hwy 29 (North of Quintette Rd.) <i>Replace the existing culverts under (divided) Highway 29 north of Quintette Road with two bridge structures to increase flow capacity and prevent roadway overtopping.</i>	\$2,412,936	29
90	Hwy 29 (Jack's Branch Q13) <i>Replace the existing culverts under (divided) Highway 29 with two bridge structures to increase flow capacity and prevent roadway overtopping.</i>	\$2,410,815	31
91	Hwy 29 (South of Omega Drive) <i>Increase the capacity of the culverts under Highway 29 south of Omega Drive to reduce roadway flooding.</i>	\$331,272	23

Rank	Project		Page
92	Hwy 29 (North of Hwy 97) <i>Increase the capacity of the culverts under Highway 29 near North Highway 95A to prevent flooding.</i>	\$283,017	21
92	Hwy 29 (North of Hwy 97) <i>Increase the capacity of the culverts under Highway 29 near North Highway 95A to prevent flooding.</i>	\$283,017	21
93	Hwy 97 at Elementary School <i>Increase the capacity of the two culverts under Highway 97 near the Molino School and connect them with an earthen ditch. This will prevent roadway flooding.</i>	\$297,927	21
94	Old Corry Field Rd- Warrington Basin Branch H <i>Construct a new stormwater collection system along Old Corry Field Road from Border Street to Jackson Creek.</i>	\$2,126,280	95
95	Midas- Muldoon Area including West side of Green Acres <i>Miscellaneous drainage improvements in this area to address flooding, including a small pond and conveyance improvements</i>	\$250,000	83
96	Frank Reeder Rd & Beulah Rd <i>Reconstruction of the ditch and installation of culverts where necessary to provide a defined drainage path.</i>	\$64,153	49
97	Helms Rd & Woods Lane <i>Construct a new culvert under Woods Lane and reconstruct the ditch feeding to the existing culvert.</i>	\$69,780	69
98	Lakewood/Millwood Terrace- Warrington Basin Branch F <i>Construct new stormwater collection system in the Lakewood Road area with a stormwater pond at Lakewood Road and Addison Avenue with an outfall under Lakewood Drive to Bayou Chico.</i>	\$4,510,975	109
99	Shoshone and Doug Ford Drive Drainage <i>Evaluate pipe system and obtain permits to restore flow the wetlands and alleviate home flooding along Shoshone Drive.</i>	\$240,000	121
100	Lanette Drive <i>Construct new stormwater system for the area around Lanett Drive to reduce flooding in the area.</i>	\$1,000,000	83
101	Hwy 29/Tate School Road <i>Increase capacity of culverts to prevent overtopping of Tate Road</i>	\$187,331	45
102	Bayou Grande Basin Study P7- Bay Meadows Treatment Pond <i>Provide treatment pond for existing residential development north of Bay Meadows Dr. This will not affect downstream properties.</i>	\$112,361	115
103	Ten Mile Creek from Roberts Rd North to Kingsfield Rd <i>Reconstruct the creek to provide additional storage volume and increase the culvert capacity under Roberts Road, Dolphin Street, Tate Road, and Kingsfield Road to prevent flooding to structures. Improvements may have a negative effect on downstream properties.</i>	\$4,494,457	51
104	Pine Forest/Klondike Road <i>Construct two new retention/detention ponds and increase capacity of driveway culverts along Klondike Rd to reduce peak flows downstream, and reduce scour.</i>	\$2,116,233	59
105	Bayou Grande Basin Study S2- Athens Ave Culvert <i>Enlarge the existing culvert on Athens in order to prevent road flooding. This improvement will not negatively impact downstream properties or other improvements.</i>	\$18,000	115
106	Bayou Grande Basin Study S1- Americus Ave Culvert <i>Enlarge the existing culvert on Americus in order to prevent road flooding. This improvement may impact other improvements.</i>	\$12,000	115
107	Carrington Lakes <i>Repair outfall erosion at the private subdivision pond to prevent further erosion and possible wetland impacts.</i>	\$276,893	29

Rank	Project		Page
108	Ashton Brosnaham Park <i>Construct a new stormwater pond at the end of Bet mark Lane with a ditch connecting runoff from the recreational center to the pond.</i>	\$1,568,145	55
109	Myrtle Grove System E (McNair Ln and 57th) <i>Decrease drainage impacts on Lake Charlene through drainage improvements on 72nd and 73rd Ave, South of Jackson and North of Harvey St.</i>	\$100,000	107
110	Northcreek and Valley Ridge Area Drainage Joint Sanitary Sewer Project <i>Drainage and sanitary sewer improvements in Northcreek Subdivision and in the adjacent Deer Run and Valley Ridge subdivisions, as well as on Bison Road and Motley Court</i>	\$250,000	55
111	Tributary 10-A of Eight Mile Creek Basin Study <i>Increase the capacity of the culvert under Pine Forest Road at Lake Francis to decrease roadway flooding and accommodate the improved secondary sewer system.</i>	\$58,307	75
112	Rittenberry Drive <i>Increase the capacity of the culverts under Rittenberry Drive and Madrid Road and deepen the roadside ditches to prevent home flooding.</i>	\$70,597	35
113	Well Line Rd <i>Increase the capacity of the culverts under Well Line Road to reduce roadway flooding. Clear debris and large pieces of concrete pipe from the downstream channel to facilitate stormwater flow.</i>	\$58,461	37
114	Stacey Rd (at the bridge) <i>Clear and grade the existing channel area and construct an improved concrete outfall channel to provide adequate stormwater conveyance and reduce yard and building flooding.</i>	\$45,289	31
115	Stacey Rd at Quintette Rd <i>Increase the capacity of the culverts under Stacey Road and Quinette Road and construct a ditch that connects them to prevent roadway and home flooding.</i>	\$127,811	31
116	Quintette Rd (North of Welcome Circle) <i>Increase the capacity of the culverts under West Quinette Road and replace the existing grate inlet to decrease roadway flooding. These improvements may have a negative impact on downstream properties.</i>	\$59,474	31
117	Muldoon-Cerney-Velma-Fresno Area Drainage <i>Drainage System Improvements including Velma pond expansion, outfall, and drainage conveyance to Velma Pond; better outfall for Muldoon Area Ponds</i>	\$2,200,000	91
118	St Johns North of PCC <i>Purchase property for pond site and connect to 48" pipe across PCA. Add conveyance from system to the North per Beverly Parkway Basin Study Zone F including upgrades to system from Oleander drive to Cummings Street. This will address flooding problems at Cummings Street and St. John's before tying into the PCA Campus.</i>	\$450,000	89
119	West Highlands <i>Proposed new system located on Kirk Street and extend from West Avery Street to West Gonzalez Street and the surrounding area. This new system requires the acquisition and construction of a new retention/detention pond. (see Branch I in Warrington Master Plan)</i>	\$2,700,000	95
120	Breise Lane between Jeffry and Olive Road <i>Extend existing Johnson Ave drainage system to relieve roadway and yard flooding.</i>	\$100,000	63
121	Ellyson Industrial Park Drianage <i>Miscellaneous Infrastructure drainage improvements to address roadway flooding at Grow Road, Copter Road, and East pond expansion</i>	\$1,000,000	67
122	Bayou Grande Basin Study E1 - Gulf Beach Hwy Outfall Improvement <i>Increase the culvert size along Gulf Beach Hwy culvert between Brigadier and Richmond. The downstream channel to Winthrop St will be regraded and shaped to provide positive flow to the Winthrop culvert. This improvement will not affect downstream properties.</i>	\$73,035	107

Rank	Project		Page
123	Bronson Airfield design 3 (entire) <i>Construct a pond over the entire Bronson Airfield property.</i>	\$27,631,968	99
124	Edgewater Drive - Warrington Basin Study Branch F <i>Extend and increase the capacity of the stormwater system on Edgewater and Chaseville Streets. Construct an outfall ditch and discharge pipe into Bayou Chico.</i>	\$1,572,096	109
125	Bayou Grande Basin Study CC1- Sidney Culvert <i>Enlarge existing culvert to prevent road flooding along Sidney Rd.</i>	\$10,000	113
126	Bayou Grande Basin Study R1- Weller Dr. Culvert <i>Replace and increase the existing culvert along Weller Dr. to prevent road overtopping. This improvement will not negatively impact downstream properties.</i>	\$55,000	115
127	Muldoon R. Improvements <i>Improve the drainage system along Muldoon road.</i>	\$386,830	83
128	Tributary 16-A of Eight Mile Creek begins at Belgium Rd south of Holly Hill Rd and enters the main channel north of Pine Forest Rd <i>Increase the capacity of the structures at Belgium Road and Lillie Lane to minimize roadway flooding.</i>	\$50,273	75
129	Beulah Road Ditch <i>Clean out existing culvert and construct a new ditch to convey stormwater to the culvert.</i>	\$90,039	39
130	Bridlewood Rd (at Mobile Hwy) <i>Construct two stormwater ponds, remove the culvert under Bridlewood and construct a new culvert under Nine Mile Road to prevent yard and road flooding.</i>	\$929,651	57
131	West Cervantes at Westworth <i>Correct road flooding in area with no drainage system</i>	\$600,000	95
132	Magaha Area/Nine Mile Road <i>Improve channel and increase capacity of the upstream structure along Nine Mile Road to prevent roadway overtopping and yard flooding.</i>	\$1,240,677	57
133	11 Mile Creek Basin Study Zone 6 <i>increase culvert capacity under Amanda lane and 9 1/2 mile road (seems to be partial overlap with 94 priority 19)</i>	\$258,586	53
134	11 Mile Creek Basin Study Zone 8 <i>Increase culvert capacity to reduce area flooding.</i>	\$99,466	53
135	Godwin Lane - bayou Marcus/Millview Study Branch F <i>Construct new stormwater system for the area around Godwin Lane including two stormwater ponds.</i>	\$5,320,591	85
136	Pensacola Heights- Branch F <i>Modify the existing collection system serving Pensacola Heights and construct a new detention pond.</i>	\$4,352,877	85
137	South Bronson Airfield Ditch Block <i>Construct ditch blocks in the ditch south of Bronson Airfield. (Treatment only)</i>	\$142,730	111
138	Citrus Street Area Drainage <i>Drainage System Improvements on Citrus per Warrington Basin Study Branch G (Study modification required to consider existing County parcel for pond site and conveyance system).</i>	\$1,300,000	95
139	Bayou Grande Basin Study P3- Fairfield Storm Sewer at Gulf Beach <i>Replace existing storm collection with a larger system to prevent road overtopping.</i>	\$106,743	115
140	Bayou Grande Basin Study BB9- Carrier Dr Channel Improvements <i>Clear and regrade channel downstream of the culvert on Carrier Dr. to alleviate road flooding.</i>	\$8,427	113
141	Brookshill Drive <i>Replace the existing culverts under Brookhills Drive with a bridge span to increase flow capacity under the road and decrease roadway, yard, and home flooding. Set a minimum finished floor elevation for any new homes built along the road in order to prevent structure flooding.</i>	\$409,429	37

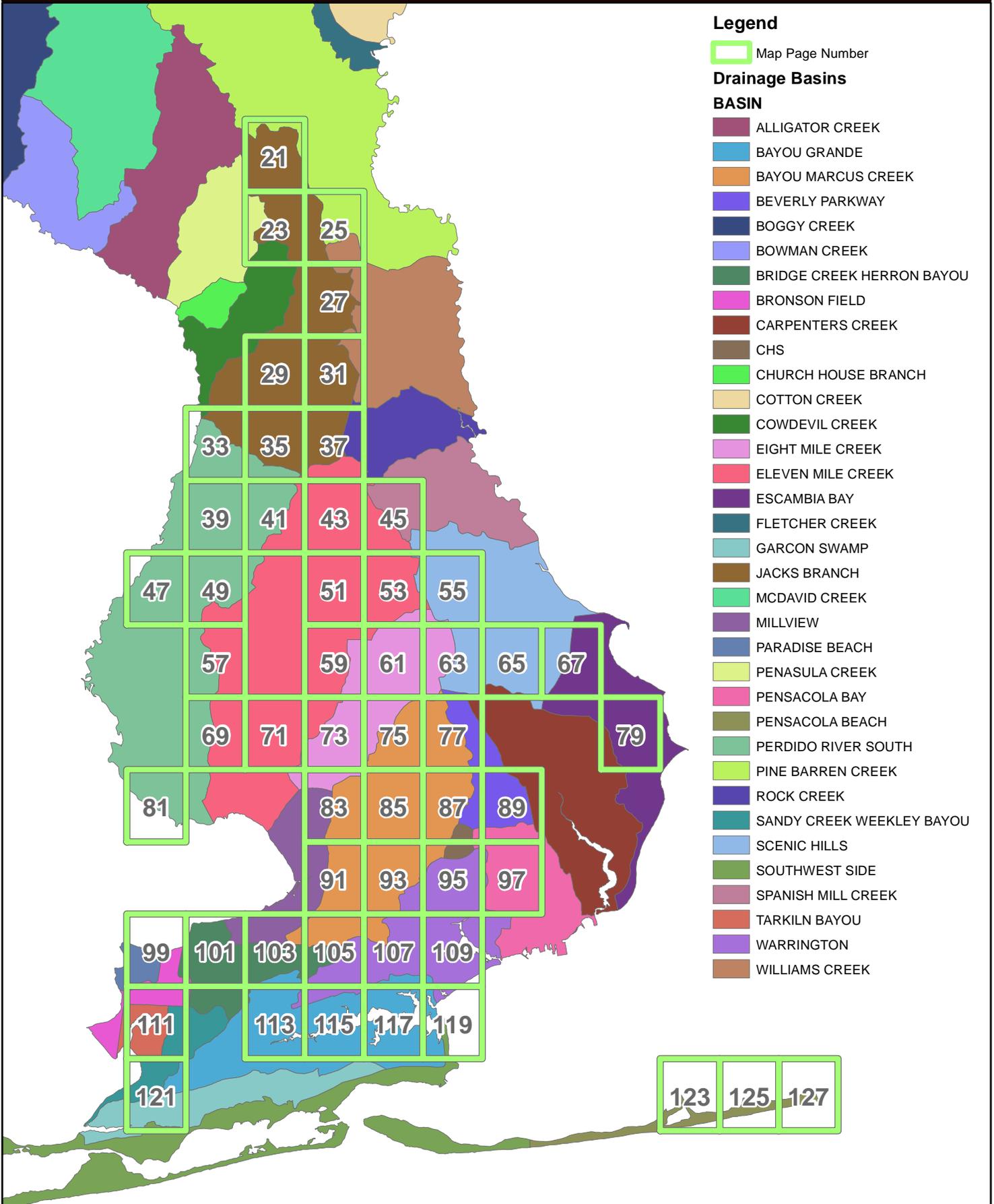
Rank	Project		Page
142	Piney Lane <i>Construct a ditch along the road and a culvert under Piney Lane.</i>	\$101,294	41
143	Frank Reeder Rd culvert and swales <i>Construct drainage swale adjacent to roadway and culvert under Frank Reeder Road.</i>	\$100,168	49
144	Shelby Lane <i>Construct a ditch along the road and a culvert under Shelby Lane.</i>	\$95,666	57
145	Bayou Grande Basin Study Y2- Kinard Drainage System <i>Increase and extend existing roadside ditch system along Kinard Ave. and Robertson Rd. to control road and yard flooding.</i>	\$179,778	113
146	Perdido Rd West of Balboa Road <i>Increase the capacity of the culverts under Perdido Road to decrease roadway and yard flooding. This will negatively effect downstream properties and should be performed in conjunction with other Balboa Road improvements.</i>	\$43,814	35
147	Daylilly Road <i>Increase the capacity of the culverts under Daylilly Road to decrease roadway overtopping. This improvement may have a negative effect on downstream homes, so the downstream ditch should be considered in construction plans.</i>	\$49,488	31
148	Stacey Rd (at the bend) <i>Regrade the right-of-way and increase the capacity of the culverts under Stacey Road to prevent roadway and yard flooding.</i>	\$93,335	31
149	Schaag Rd at Stokes Pond <i>Place riprap along the channel from Stokes Pond to the cross drain inlet to prevent channel erosion. Replace the upstream headwall to prevent headwall failure and roadway undermining.</i>	\$98,040	25
150	Crabtree Church Rd at Abbott Lane <i>Replace the existing culverts under Crabtree Church Road with a bridge to reduce roadway flooding.</i>	\$927,730	21
151	Bet Raines Rd (East of Bridge) <i>Increase the capacity of the culverts underneath Bet Raines Road and construct an earthen ditch to improve flows and reduce yard flooding.</i>	\$75,991	23
152	Bridge on Bet Raines Rd <i>Improve flow conditions through the bridge area by removing trees and brush from the flow path and ensuring a 6 foot clearance below the bottom of the bridge.</i>	\$17,001	23
153	Chestnut Rd South <i>Increase the capacity of the culverts under Chestnut Road to decrease roadway flooding and possible home flooding.</i>	\$101,837	23
154	Bronson Airfield design 2 (Eastern Side) <i>Construct a pond on the eastern side of the Bronson Airfield property.</i>	\$9,767,981	99
155	Quintette Rd (at Welcome Rd) <i>Increase the capacity of the culverts under Quinette Road and improve the downstream channel in order to reduce roadway flooding.</i>	\$51,489	31
156	Schaag Rd Bridge at Jack's Branch Tributary P <i>Replace the existing bridge with a new bridge that has sufficient hydraulic capacity to prevent roadway overtopping.</i>	\$695,188	25
157	Bayou Grande Basin Study P2- Gulf Beach Storm Sewer at Fairfield <i>Replace existing storm collection with a larger system to prevent road overtopping.</i>	\$78,653	115
158	Chestnut Rd North <i>Raise the elevation of Chestnut Road increase the flow capacity of the culverts to decrease roadway flooding.</i>	\$271,465	23
159	Via DeLuna Drainage at Pensacola Beach RV Resort <i>System should be cleaned of sediment and checked regularly. Increased system capacity should be considered.</i>	\$287,470	123

Rank	Project		Page
160	Corto, Largo, and Rio Vista Drives Drainage <i>Repaving at Corto Drive and Rio Vista Drive. Regrading at Largo Drive from Avenida 17 to the sound. Stabilizing along Rio Vista Drive south of Largo Drive.</i>	\$735,389	125
161	Isaacs Rd <i>Construct a ditch along Isaacs Road and a new culvert under Beulah Road.</i>	\$114,800	49
162	Muscogee Rd & Beulah Rd <i>Reconstruct the ditches in the area of the intersection and construction of a culvert under Beulah Road.</i>	\$59,651	39
163	Thompson Bayou - Scenic Hills Basin Study Tributary A <i>Construct a new stormwater pond between University Parkway and Shoal Creek Drive.</i>	\$1,736,479	67
164	Thompson Bayou Main Channel <i>Construct new stormwater pond at Airway Drive near the end of the Thompson Bayou main channel and increase the capacity of the existing culvert at Airway Drive.</i>	\$2,009,815	65
165	Eaton Rd - Warrington Basin Study Branch K <i>Construct a new stormwater system along Eaton Road from Feldor to Adkinson Drive with a discharge to an existing county pond per Warrington Basin Study Branch K.</i>	\$1,219,351	93
166	Coral Village Storm Drainage Replacement <i>Reduce flooding by replacing failing storm pipe within drainage easement.</i>	\$300,000	113
167	Royal Pines - Bayou Marcus/Millview Study Branch B <i>Construct new stormwater system for the Royal Pines subdivision to reduce flooding in the area.</i>	\$2,908,721	91
168	Tributary 21-A of Eight Mile Creek (south of Site 6, through the pit at Bush Street and enters the main channel south of Detroit Blvd) <i>Increase the capacity of the pond south of Bush Street. Increase the capacity of the culvert at Bush Street to prevent roadway flooding. Expand the channel in this area to increase capacity and prevent out-of-bank flooding. Relocate and increase the capacity of the structure at Nine Mile Road to line up with the improved channel.</i>	\$1,628,083	61
169	Main channel crossing at Mobile Hwy <i>Raise the elevation of the Mobile Highway Bridge 2.5 feet to prevent over-topping.</i>	\$2,539,817	73
170	Bayou Grande Basin Study BB4- Windward Ct Outfall Improvements <i>Clean and grade ditch outfall from Windward Court in Coral Creek.</i>	\$13,483	113
171	Bayou Grande Basin Study BB3- Coral Island Dr. Outfall Improvements <i>Provide stormwater collection along Coral Island Dr. in order to alleviate flooding along the roadway.</i>	\$36,517	113
172	Ridgewood Park - bayou Marcus/Millview Study Branch B <i>Construct new stormwater system for the Ridgewood Park subdivision to reduce flooding in the area.</i>	\$2,524,333	91
173	Riola Place - Bridge Creek/Heron Bayou Study Branch E <i>Lower pipe inverts and increase the capacity of the culvert under Riola Place to decrease out-</i>	\$189,379	101
174	Risen Drive and Bonanza Drive <i>Upgrade the culvert under Bonanza Drive and obtain drainage easement over downstream ditch to reduce roadway flooding at the intersection. Improvement may have a negative effect on downstream properties.</i>	\$101,125	51
175	Pensacola Beach Blvd Stormwater Outfall Upgrades <i>Installing stormwater treatment on the outfall in the vicinity of the marina within the existing stormwater easement</i>	\$401,121	123
176	River Annex Road bridge <i>Reconstruct the bridge over River Annex Road to a higher elevation.</i>	\$623,519	33
177	Roosevelt - Warrington Basin Study Branch K <i>Construct a new stormwater system along 61st, 59th, 60th, 63rd, and 65th streets with a new stormwater pond west of 61st street.</i>	\$4,512,150	93
178	SR 297-A/Meander Road <i>Increase capacity of culverts to prevent overtopping of State Road 297-A</i>	\$61,024	51

Rank	Project		Page
179	Bayou Grande Basin Study P6- Athens St. Ditch Improvements <i>Improve and regrade existing ditch along Athens and Gulf Beach Hwy to decrease road flooding.</i>	\$8,427	115
180	Bayou Grande Basin Study Y1- Robertson Channel Improvements <i>Increase and extend existing roadside ditch system along Robertson Rd to control road and yard flooding.</i>	\$106,743	113
181	Deerwood Drive - Bayou Marcus/Millview Study Branch F <i>Increase the capacity of the Deerwood Drive stormwater system and outfall pipe.</i>	\$1,971,838	85
182	Perdido Rd at Saverna Park <i>Increase the capacity of the culverts near Perdido Road to prevent roadway overtopping.</i>	\$166,774	35
183	Cedar Tree Lane (Hwy 29 Side Drain) <i>Lower and increase the capacity of the culverts under Cedar Tree Lane to prevent roadway flooding. Rebuild the downstream ditch in order to provide a positive grade away from the cross drain.</i>	\$137,132	31
184	Cedar Tree Lane (at Cedar Point Rd) <i>Increase the capacity of the culverts under Cedar Tree Lane to prevent roadway flooding. The roadway in this area should also be paved to decrease sediment buildup in the culverts.</i>	\$85,872	31
185	Welcome Rd (at the bend) <i>Increase the capacity of the culvert under Welcome Road to prevent roadway overtopping and add end treatments and riprap to prevent erosion.</i>	\$47,062	31
186	Hernandez Street pond site 3 <i>Construct a new pond on Hernandez St. to reduce flood staging in surrounding and downstream. This improvement will not negatively impact downstream properties/impacts.</i>	\$1,195,738	97
187	New 36 Inch Pipe Outlet Along Hernandez Street <i>Construct a new collection system and outfall connection to the existing system to decrease flood stages in the surrounding areas. This improvement could have impacts on all downstream properties.</i>	\$2,232,399	97
188	Serenity Circle (pond) <i>Construction of stormwater pond adjacent to Serenity Circle.</i>	\$113,944	99
189	Beverly Parkway Basin Branch B- North Portion- Lookout Drive <i>Construct a stormwater system along Lookout Drive West Michigan Avenue, and Rock Island Place with a discharge to the FDOT pit.</i>	\$1,128,009	87
190	Bayou Grande Basin Study L1- Cousineau Rd. Outfall <i>Replace the outfall from Cousineau Rd. to Bayou Grade by an outfall ditch in order to prevent street flooding.</i>	\$25,281	117
191	Bayou Grande Basin Study BB10- Liberty Church Discharge Structure <i>Provide stormwater pond at Liberty Church with a discharge structure to control the water level and time of detention.</i>	\$14,045	113
192	Bayou Grande Basin Study CC2- Sidney Culvert <i>Enlarge existing culvert to prevent road flooding along Sidney Rd.</i>	\$16,854	113
193	Bayou Grande B1- New Storm Drainage System <i>Construct a new street collection system consisting of roadside swales and culverts along 1st and 2nd streets to reduce roadway flooding. Improvement is an independent project and will not affect downstream properties.</i>	\$308,994	119
194	Calle Juela Drainage at Via DeLuna <i>Regrade to a grate inlet with outfall through an exfiltration pipe</i>	\$93,595	127
195	Calle Traviesa Drainage at Via DeLuna <i>Regrade to a grate inlet with outfall through an exfiltration pipe</i>	\$93,595	127
196	Siguenza Drive Drainage <i>Construct a small retention area at the bend adding a new inlet at the location of the flooding</i>	\$93,595	123
197	Frank Reeder Rd ditch <i>Construct a ditch along Frank Reeder Road.</i>	\$68,655	47

Rank	Project		Page
198	Hurst Hammock <i>Construct an additional culvert under Hurst Hammock and install flap valves on the downstream side of the culverts to prevent the propagation of seawater from tidal action.</i>	\$61,902	81
199	Bayou Grande Basin Study P5- Grundy Culvert <i>Enlarge the existing culvert on Grundy in order to prevent road flooding. This improvement may impact other improvements.</i>	\$25,843	115
200	Sal Tillo - Bayou Marcus/Millview Study Branch C <i>Improve the stormwater collection system serving the area around Sal Tillo Street.</i>	\$188,068	91
201	Perdido Bay Country Club Estates Unit 7 <i>Drainage and resurfacing projects to address flooding and groundwater problems</i>	\$170,000	121
202	Bayou Grande Basin Study E2-Brigadier St. Culvert <i>Increase the culvert size on Brigadier St. to prevent road flooding. This Improvement may have a negative impact on downstream roadway flooding.</i>	\$33,708	107
203	Bayou Grande Basin Study P4- Bay Meadows Dr. Culvert <i>Replace the existing culvert on Bay Meadows Dr. with larger pipes to prevent road flooding.</i>	\$56,181	115
204	Bayou Grande Basin Study BB8- Vonna Jo Discharge Structure <i>Provide stormwater pond on Vonna Jo Circle with a discharge structure to control the water level and time of detention.</i>	\$14,045	113
205	Imperial Drive - Bayou Marcus/Millview Study Branch B <i>Construct new stormwater system for the area around Imperial Drive to reduce flooding in the area.</i>	\$526,033	91
206	49th Av - Warrington Basin Study Branch K <i>Construct a new stormwater system along 49 the Ave with a discharge to the existing county pond on Lillian Highway.</i>	\$1,648,952	93
207	Carrollwood Subdivision Resurfacing & Drainage Rehabilitation <i>Replace older cross drain at Stillbrook Road and repair existing drainage system on Pickwood including grading/resurfacing on Candlewood Circle</i>	\$1,200,000	65
208	Crabtree Church Rd (East of Chestnut Rd) <i>Increase the capacity of the culverts under Crabtree Church Road to decrease roadway flooding.</i>	\$51,767	21
209	Saint James Place-Warrington Basin Study Branch C <i>Construct a new stormwater system for the St James Place/Dowdy Drive area.</i>	\$902,785	105
210	Bayou Grande Villas <i>Roadway/drainage and sewer improvements; currently under design (NE of Fairfield and Gulf Beach Highway; Fairfield Dr to Colbert)</i>	\$200,000	115
211	Aileron Ave - Bridge Creek/Heron Bayou Basin Branch B <i>Install a new storm sewer system along Aileron Avenue and increase the capacity of the existing culvert under Dog Track Road to reduce roadway flooding.</i>	\$189,379	103
212	Tatnall Street - Bridge Creek/Heron Bayou Basin Branch D <i>Extend the existing ditch northward into the bayou to reduce flooding.</i>	\$163,750	103
213	Main channel crossing at a private driveway located between Asland Rd and Interstate 10 <i>Raise the road height by constructing a bridge at the private driveway crossing of the main channel to prevent road overtopping and reduce flooding.</i>	\$92,885	61
214	Schaag Rd (North of Hwy 196) <i>Raise the surface elevation of a portion of Schaag Road and increase the capacity of the culverts underneath to prevent roadway overtopping.</i>	\$351,943	27
215	Catholic High Zone C Drainage <i>Re-evaluate previous basin study solution (a new discharge trunk line with storm sewer extensions, treatment swales, and underground vaults) to determine whether ponds or direct piping produces the greatest impact.</i>	\$9,000,000	97
216	Via DeLuna Side road Connection Drainage Improvements <i>Drainage Improvements</i>	\$334,268	125

Rank	Project		Page
217	Visitor Information Center Access Road Drainage		123
	<i>Regrading and repaved roadway to add slope and positive outfall to drainage inlets</i>	\$93,595	
218	Beulah Rd sag near bridge		39
	<i>Regrade Beulah Road to prevent overtopping. Improvement may have a negative effect on downstream properties.</i>	\$248,732	
219	Windham Pond Outfall		83
	<i>Construct an outfall for the Windham Pond. This improvement could cause negative effects to other properties.</i>	\$293,987	
220	Felton Pond Outfall		83
	<i>Construct an outfall to connect the Felton Pond to the Windham Pond. This improvement could cause negative effects to other properties.</i>	\$342,660	
221	Catholic High Basin Zone B - Intersection of "S" Street and Avery Street and consist of a large storm sewer system running up "S" Street to Leonard Street		97
	<i>Increase and expand existing storm collection system and provide stormwater treatment. Provide tie-ins to outfall proposed in "Begins at the intersection of Avery Street and run south to Gonzalez Street, west to "U" Street and south on "U" Street to its discharge point to Maggie's Ditch." This improvement can only be constructed after the completion of the proposed outfall trunk line.</i>	\$3,850,727	
222	Pearson Rd- Bayou Marcus/Millview Basin Branch C		91
	<i>Construct new stormwater system for the area around Pearson Road to reduce flooding in the area.</i>	\$1,364,488	
223	Improve Open Ditch Outlet Terminating at Fairfield Drive		97
	<i>Enlarge outlet orifice for open ditch flowing to Fairfield Drive. This will not negatively impact downstream properties/improvements.</i>	\$20,990	
224	Ailanthus Drive and Bauer Drive (culverts)		99
	<i>Upgrade culvert near intersection of Ailanthus Drive and Bauer Drive.</i>	\$301,051	
225	Monroe Avenue		37
	<i>Increase the capacity of the culverts under Monroe Avenue to decrease roadway flooding. This may have negative impacts on downstream properties.</i>	\$90,647	
226	Bronson Airfield design 1 (northeast corner)		99
	<i>Construct a pond in the northeast corner of the Bronson Airfield property.</i>	\$1,017,098	
227	Bellview and East Fence/Saufley Road		83
	<i>Provide conveyance system to Sauflay Field C&D Pond from Bellview</i>	\$1,500,000	
228	61st Ave - Bayou Marcus/Millview Basin Branch D		93
	<i>Increase the capacity of the 61st Avenue stormwater system to reduce flooding in the area.</i>	\$374,139	



Legend

Map Page Number

Drainage Basins

BASIN

- ALLIGATOR CREEK
- BAYOU GRANDE
- BAYOU MARCUS CREEK
- BEVERLY PARKWAY
- BOGGY CREEK
- BOWMAN CREEK
- BRIDGE CREEK HERRON BAYOU
- BRONSON FIELD
- CARPENTERS CREEK
- CHS
- CHURCH HOUSE BRANCH
- COTTON CREEK
- COWDEVIL CREEK
- EIGHT MILE CREEK
- ELEVEN MILE CREEK
- ESCAMBIA BAY
- FLETCHER CREEK
- GARCON SWAMP
- JACKS BRANCH
- MCDAVID CREEK
- MILLVIEW
- PARADISE BEACH
- PENASULA CREEK
- PENSACOLA BAY
- PENSACOLA BEACH
- PERDIDO RIVER SOUTH
- PINE BARREN CREEK
- ROCK CREEK
- SANDY CREEK WEEKLEY BAYOU
- SCENIC HILLS
- SOUTHWEST SIDE
- SPANISH MILL CREEK
- TARKILN BAYOU
- WARRINGTON
- WILLIAMS CREEK



34	Intersection of Hwy 29 and Hwy 97	\$558,137
Construct a dry pond and conveyance pipes at the corner of Highway 97 and Crabtree Church Road to contain and control downstream stormwater runoff. Increase the capacity of culverts running under Highway 29 to reduce roadway flooding.		
54	Hwy 29 (North of Bet Raines Rd)	\$323,506
Increase the capacity of culverts under Highway 29 and modify the surrounding ditch area to reduce roadway flooding.		
84	Hwy 97 (East of Hwy 29)	\$201,759
Increase the capacity of the culverts under Highway 97 to decrease likelihood of roadway flooding.		
92	Hwy 29 (North of Hwy 97)	\$283,017
Increase the capacity of the culverts under Highway 29 near North Highway 95A to prevent flooding.		
93	Hwy 97 at Elementary School	\$297,927
Increase the capacity of the two culverts under Highway 97 near the Molino School and connect them with an earthen ditch. This will prevent roadway flooding.		
150	Crabtree Church Rd at Abbott Lane	\$927,730
Replace the existing culverts under Crabtree Church Road with a bridge to reduce roadway flooding.		
208	Crabtree Church Rd (East of Chestnut Rd)	\$51,767
Increase the capacity of the culverts under Crabtree Church Road to decrease roadway flooding.		



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1,200
Feet

158	Chestnut Rd North	\$271,465
Raise the elevation of Chestnut Road increase the flow capacity of the culverts to decrease roadway flooding.		
152	Bridge on Bet Raines Rd	\$17,001
Improve flow conditions through the bridge area by removing trees and brush from the flow path and ensuring a 6 foot clearance below the bottom of the bridge.		
151	Bet Raines Rd (East of Bridge)	\$75,991
Increase the capacity of the culverts underneath Bet Raines Road and construct an earthen ditch to improve flows and reduce yard flooding.		
153	Chestnut Rd South	\$101,837
Increase the capacity of the culverts under Chestnut Road to decrease roadway flooding and possible home flooding.		
91	Hwy 29 (South of Omega Drive)	\$331,272
Increase the capacity of the culverts under Highway 29 south of Omega Drive to reduce roadway flooding.		
71	Chestnut Rd to Hwy 29	\$1,027,014
Remove accumulated sediment from the upstream side of the Chestnut Road bridge in order to lower downstream velocities. Replace the culverts under Molino Road and Chestnut Road with bridges to prevent roadway overtopping and increase flow capacity.		



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1,200
Feet

149

Schaag Rd at Stokes Pond

\$98,040

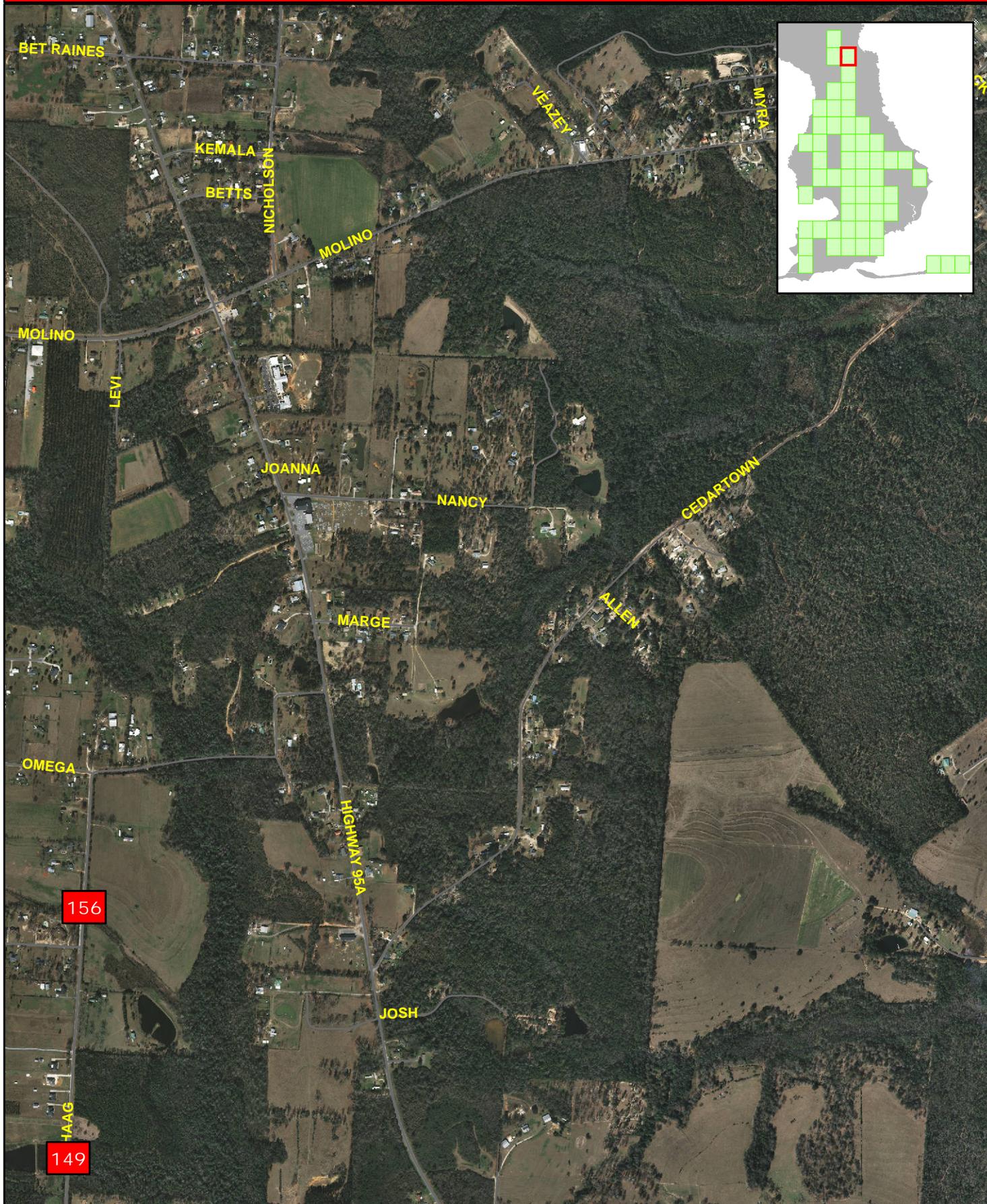
Place riprap along the channel from Stokes Pond to the cross drain inlet to prevent channel erosion. Replace the upstream headwall to prevent headwall failure and roadway undermining.

156

Schaag Rd Bridge at Jack's Branch Tributary P

\$695,188

Replace the existing bridge with a new bridge that has sufficient hydraulic capacity to prevent roadway overtopping.

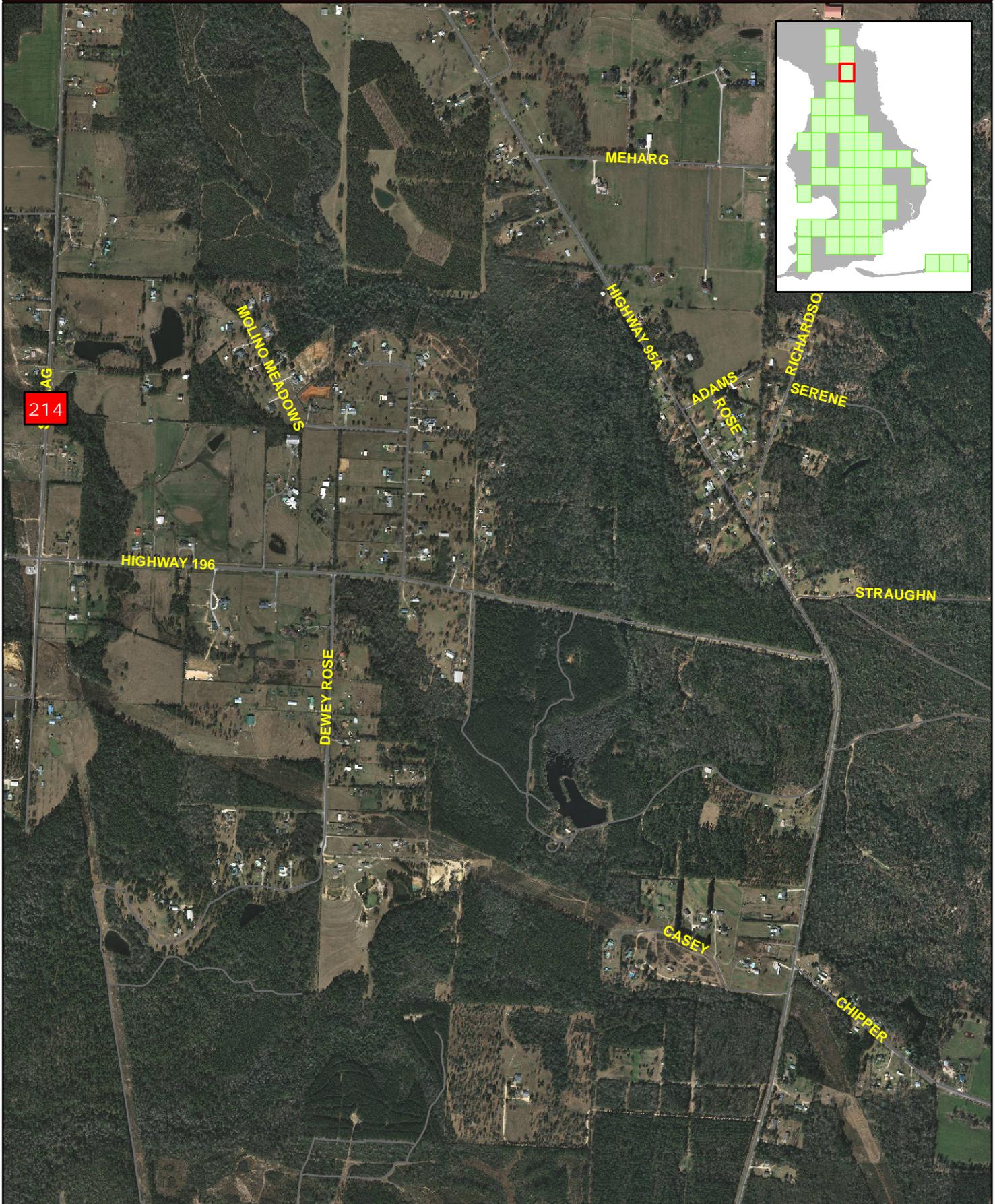


214

Schaag Rd (North of Hwy 196)

\$351,943

Raise the surface elevation of a portion of Schaag Road and increase the capacity of the culverts underneath to prevent roadway overtopping.



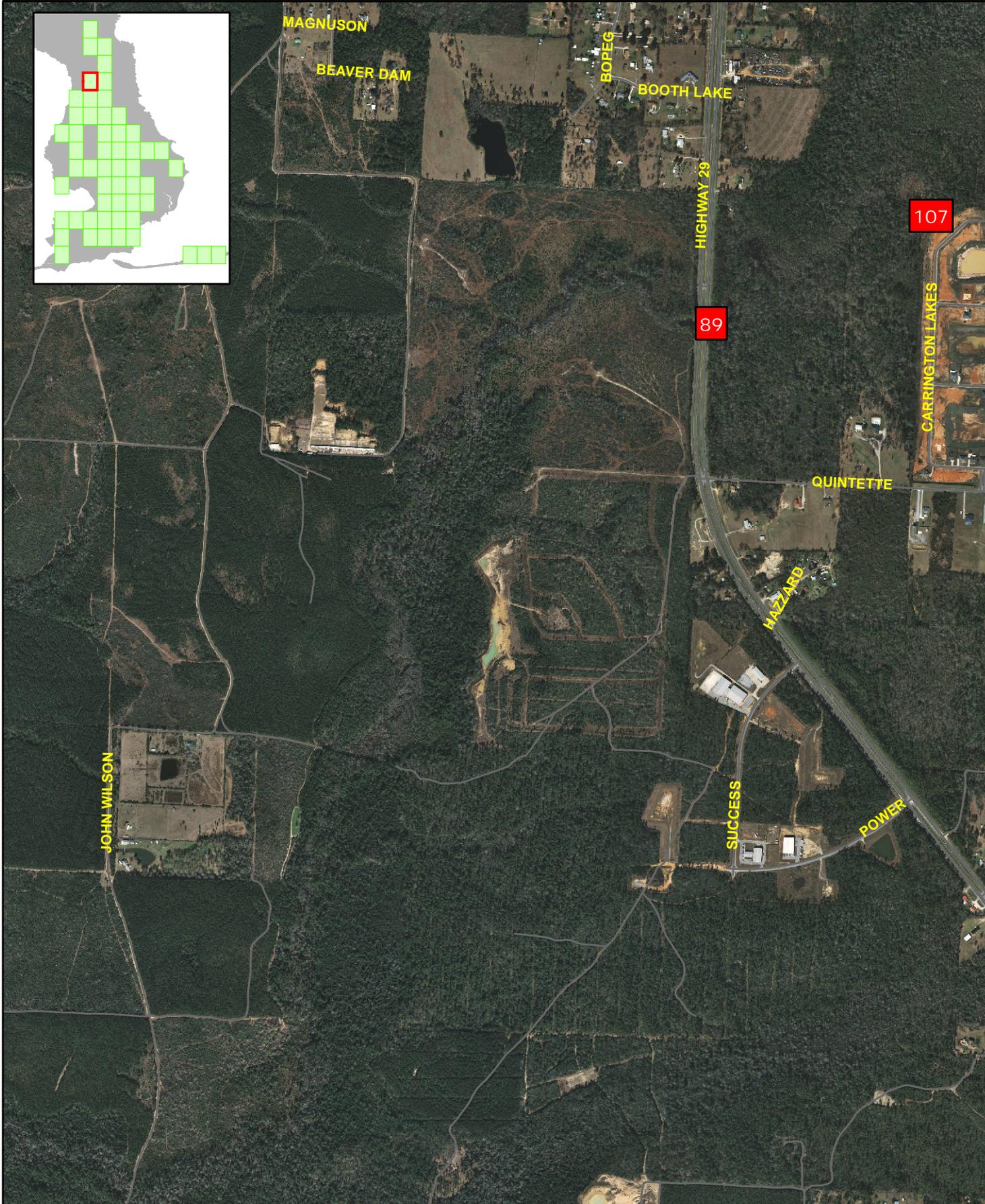
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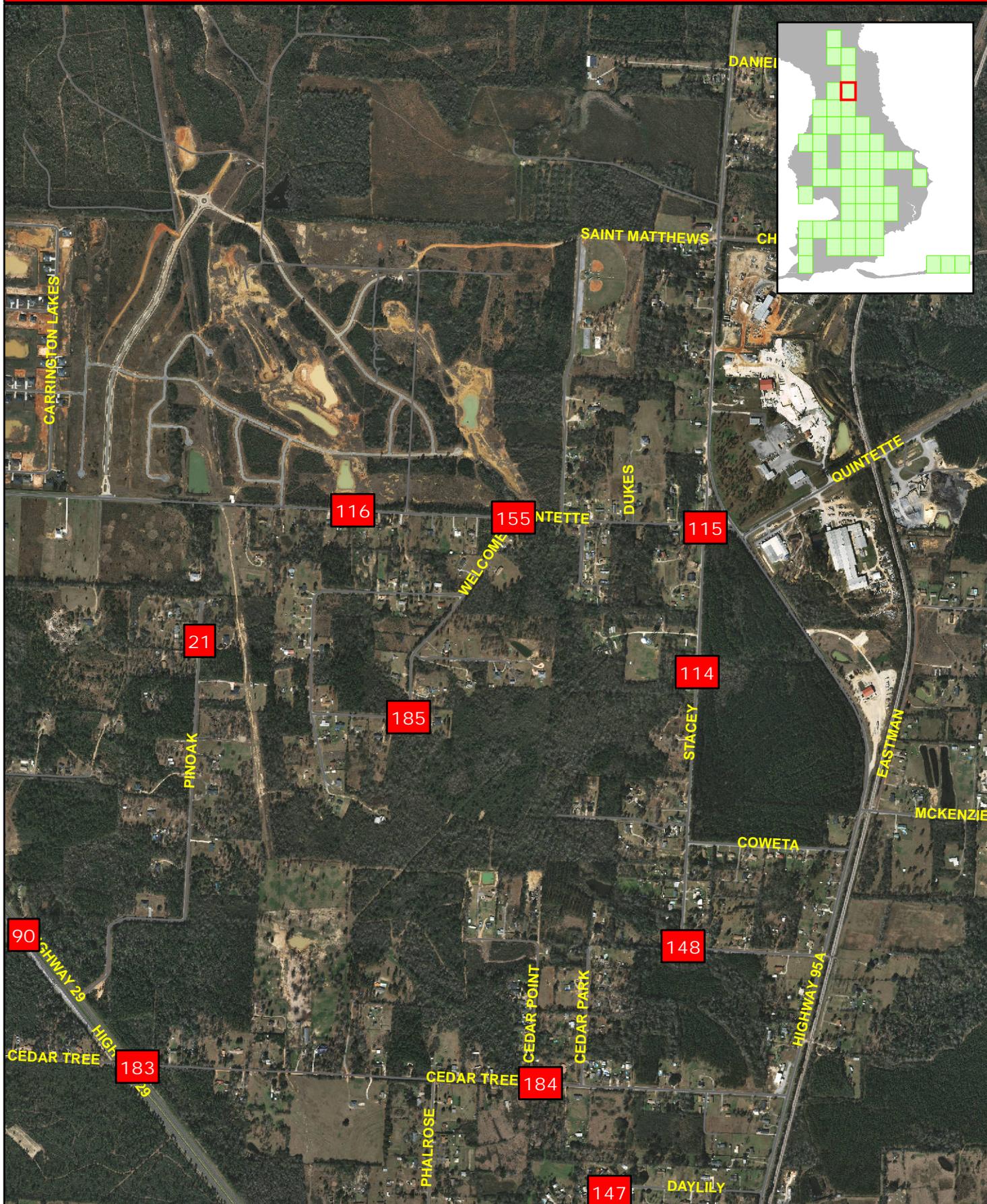
1,200
Feet

89	Hwy 29 (North of Quintette Rd.)	\$2,412,936
Replace the existing culverts under (divided) Highway 29 north of Quinette Road with two bridge structures to increase flow capacity and prevent roadway overtopping.		

107	Carrington Lakes	\$276,893
Repair outfall erosion at the private subdivision pond to prevent further erosion and possible wetland impacts.		



116	Quintette Rd (North of Welcome Circle)	\$59,474
Increase the capacity of the culverts under West Quintette Road and replace the existing grate inlet to decrease roadway flooding. These improvements may have a negative impact on downstream properties.		
155	Quintette Rd (at Welcome Rd)	\$51,489
Increase the capacity of the culverts under Quintette Road and improve the downstream channel in order to reduce roadway flooding.		
115	Stacey Rd at Quintette Rd	\$127,811
Increase the capacity of the culverts under Stacey Road and Quintette Road and construct a ditch that connects them to prevent roadway and home flooding.		
21	Pin Oak Lane Drainage (Phase 1) and Flood Plain Restoration Project (Phase 2)	\$725,277
Construct a new roadway connection to Quintette Road at North end. Also purchase property to restore flood plain at South end.		
185	Welcome Rd (at the bend)	\$47,062
Increase the capacity of the culvert under Welcome Road to prevent roadway overtopping and add end treatments and riprap to prevent erosion.		
114	Stacey Rd (at the bridge)	\$45,289
Clear and grade the existing channel area and construct an improved concrete outfall channel to provide adequate stormwater conveyance and reduce yard and building flooding.		
90	Hwy 29 (Jack's Branch Q13)	\$2,410,815
Replace the existing culverts under (divided) Highway 29 with two bridge structures to increase flow capacity and prevent roadway overtopping.		
148	Stacey Rd (at the bend)	\$93,335
Regrade the right-of-way and increase the capacity of the culverts under Stacey Road to prevent roadway and yard flooding.		
147	Daylilly Road	\$49,488
Increase the capacity of the culverts under Daylilly Road to decrease roadway overtopping. This improvement may have a negative effect on downstream homes, so the downstream ditch should be considered in construction plans.		
183	Cedar Tree Lane (Hwy 29 Side Drain)	\$137,132
Lower and increase the capacity of the culverts under Cedar Tree Lane to prevent roadway flooding. Rebuild the downstream ditch in order to provide a positive grade away from the cross drain.		
184	Cedar Tree Lane (at Cedar Point Rd)	\$85,872
Increase the capacity of the culverts under Cedar Tree Lane to prevent roadway flooding. The roadway in this area should also be paved to decrease sediment buildup in the culverts.		

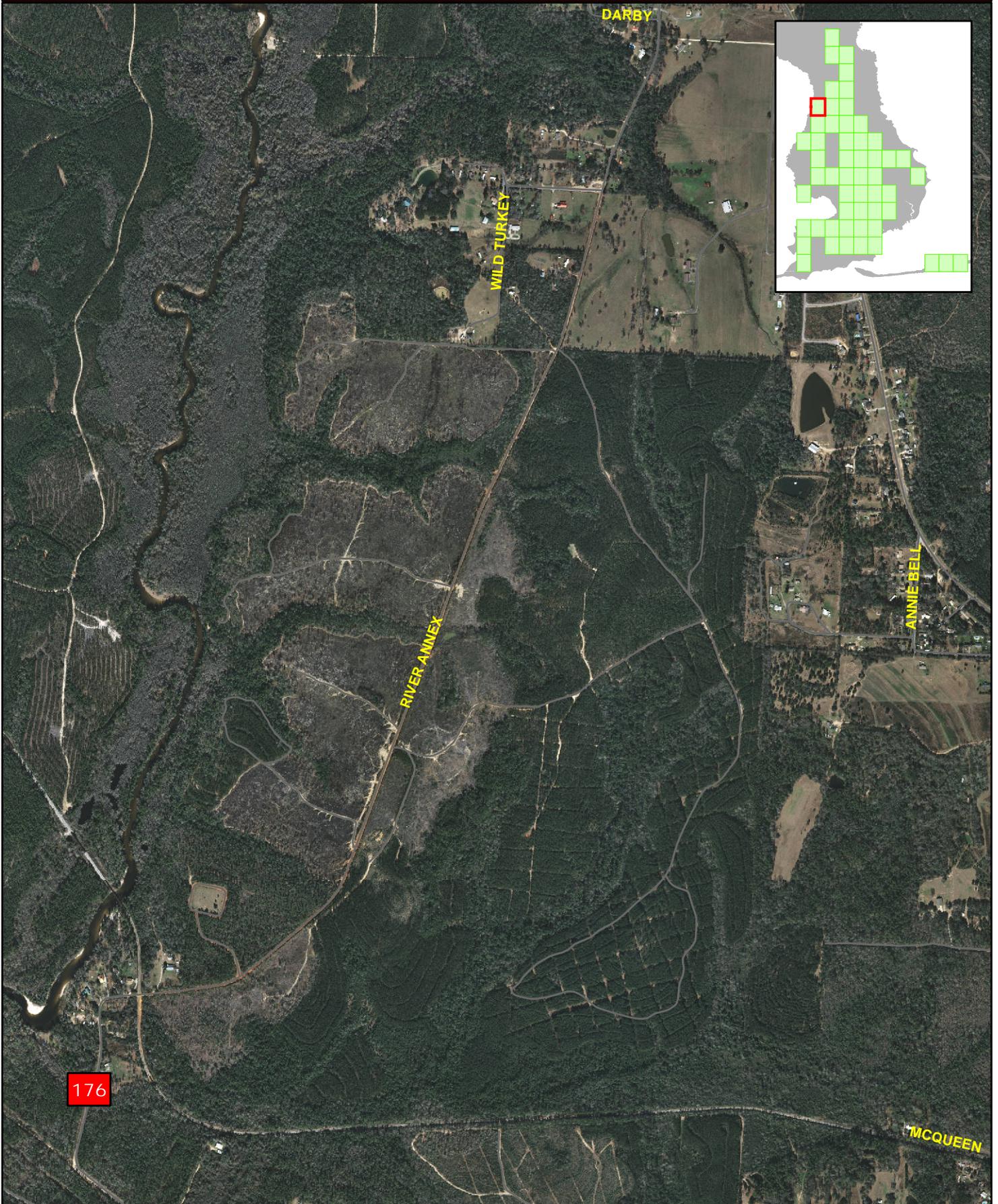


176

River Annex Road bridge

\$623,519

Reconstruct the bridge over River Annex Road to a higher elevation.



112	Rittenberry Drive	\$70,597
Increase the capacity of the culverts under Rittenberry Drive and Madrid Road and deepen the roadside ditches to prevent home flooding.		

146	Perdido Rd West of Balboa Road	\$43,814
Increase the capacity of the culverts under Perdido Road to decrease roadway and yard flooding. This will negatively effect downstream properties and should be performed in conjunction with other Balboa Road improvements.		

182	Perdido Rd at Saverna Park	\$166,774
Increase the capacity of the culverts near Perdido Road to prevent roadway overtopping.		



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1,200
Feet

113	Well Line Rd	\$58,461
Increase the capacity of the culverts under Well Line Road to reduce roadway flooding. Clear debris and large pieces of concrete pipe from the downstream channel to facilitate stormwater flow.		
141	Brookshill Drive	\$409,429
Replace the existing culverts under Brookshills Drive with a bridge span to increase flow capacity under the road and decrease roadway, yard, and home flooding. Set a minimum finished floor elevation for any new homes built along the road in order to prevent structure flooding.		
53	Well Line Rd Home Flooding	\$67,472
Increase the capacity of the culvert under Well Line Road to reduce roadway and home flooding. Connect the Well Line Road culvert to the culvert running under Forrest Street to minimize water flowing across the property (this will require permission or easements from two property owners).		
225	Monroe Avenue	\$90,647
Increase the capacity of the culverts under Monroe Avenue to decrease roadway flooding. This may have negative impacts on downstream properties.		
36	Carver Park Area Drainage Improvements West of 297A	\$2,250,000
Four-phase roadway and drainage improvement project for the area south of Muscogee Road, north of the Road Camp, east of Booker, and west of Ransom, requiring property pond acquisition and drainage conveyance improvements.		



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1,200
Feet

162	Muscogee Rd & Beulah Rd	\$59,651
Reconstruct the ditches in the area of the intersection and construction of a culvert under Beulah Road.		
129	Beulah Road Ditch	\$90,039
Clean out existing culvert and construct a new ditch to convey stormwater to the culvert.		
218	Beulah Rd sag near bridge	\$248,732
Regrade Beulah Road to prevent overtopping. Improvement may have a negative effect on downstream properties.		

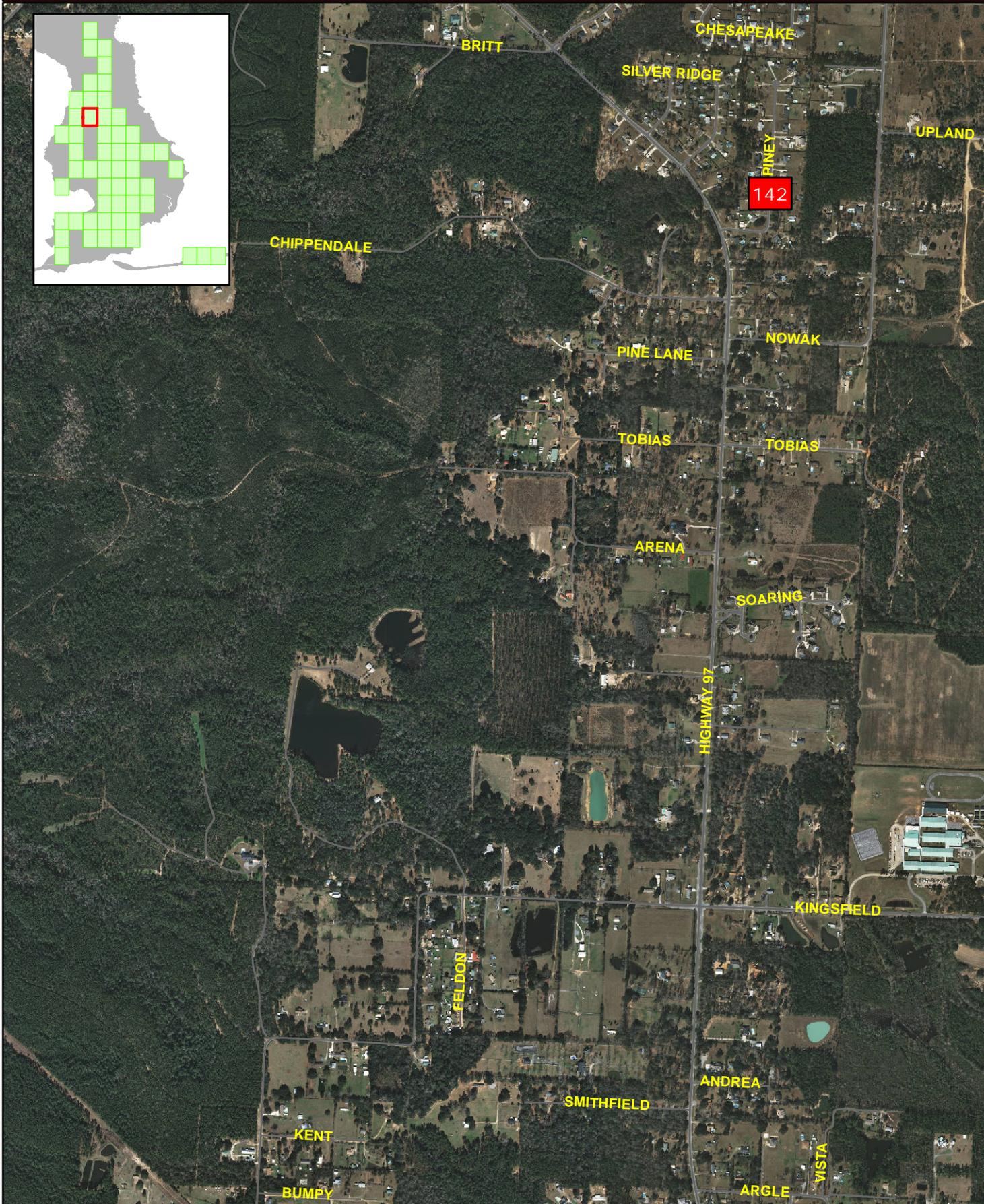


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1,200
Feet

142	Piney Lane	\$101,294
Construct a ditch along the road and a culvert under Piney Lane.		



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1,200
Feet

40	Carver Park/West Booker Road	\$1,327,654
Reduce area flooding by increasing the capacity of area conveyance structures as well as constructing a new pond.		

58	International Paper Area	\$367,980
Increase capacity of drainage system in order to reduce roadway overtopping and upstream flood stages.		

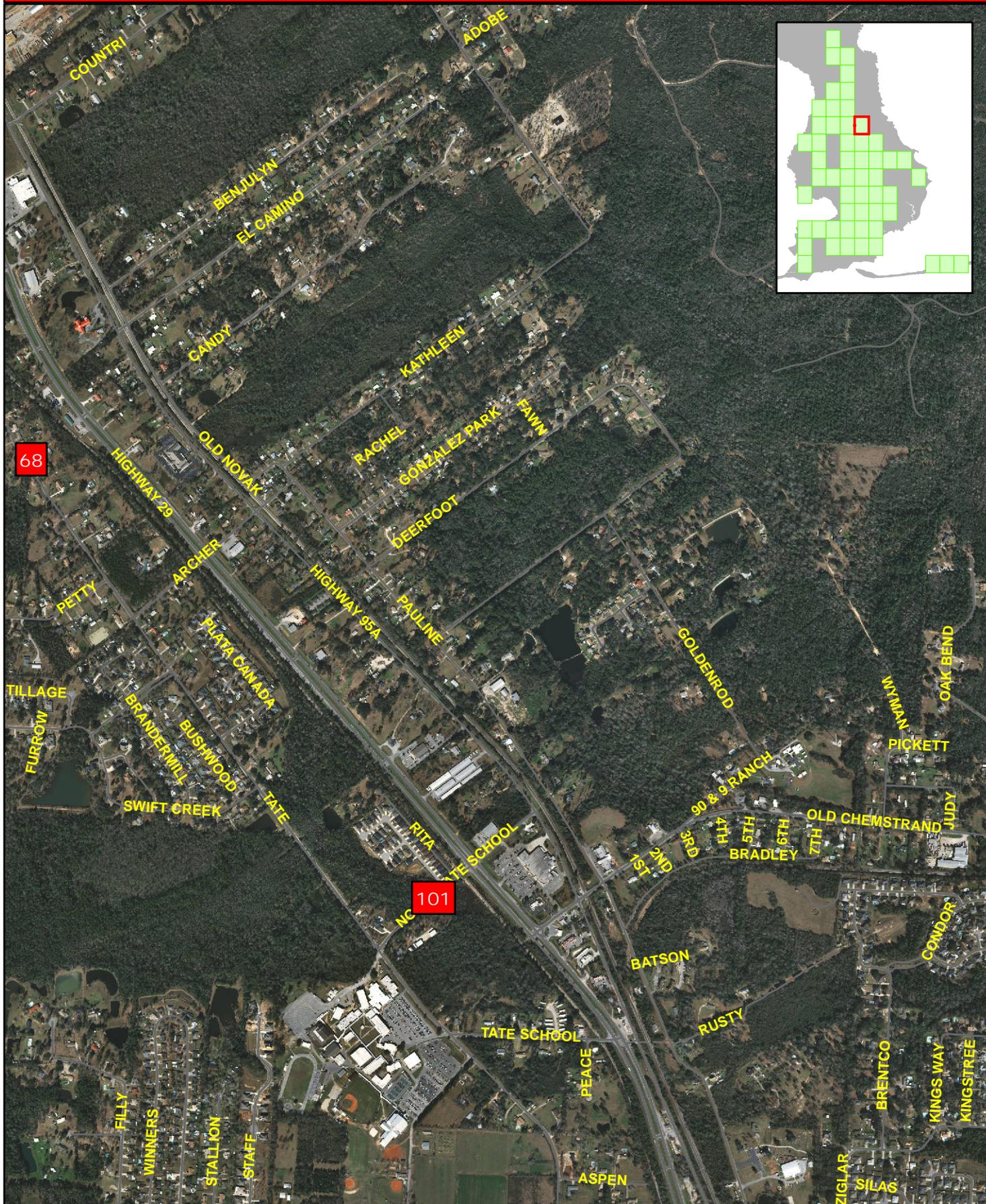


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1,200
Feet

68	Tate Road North of Petty St	\$13,269
Increase capacity of roadway culvert crossings to prevent overtopping of Tate Road		
101	Hwy 29/Tate School Road	\$187,331
Increase capacity of culverts to prevent overtopping of Tate Road		

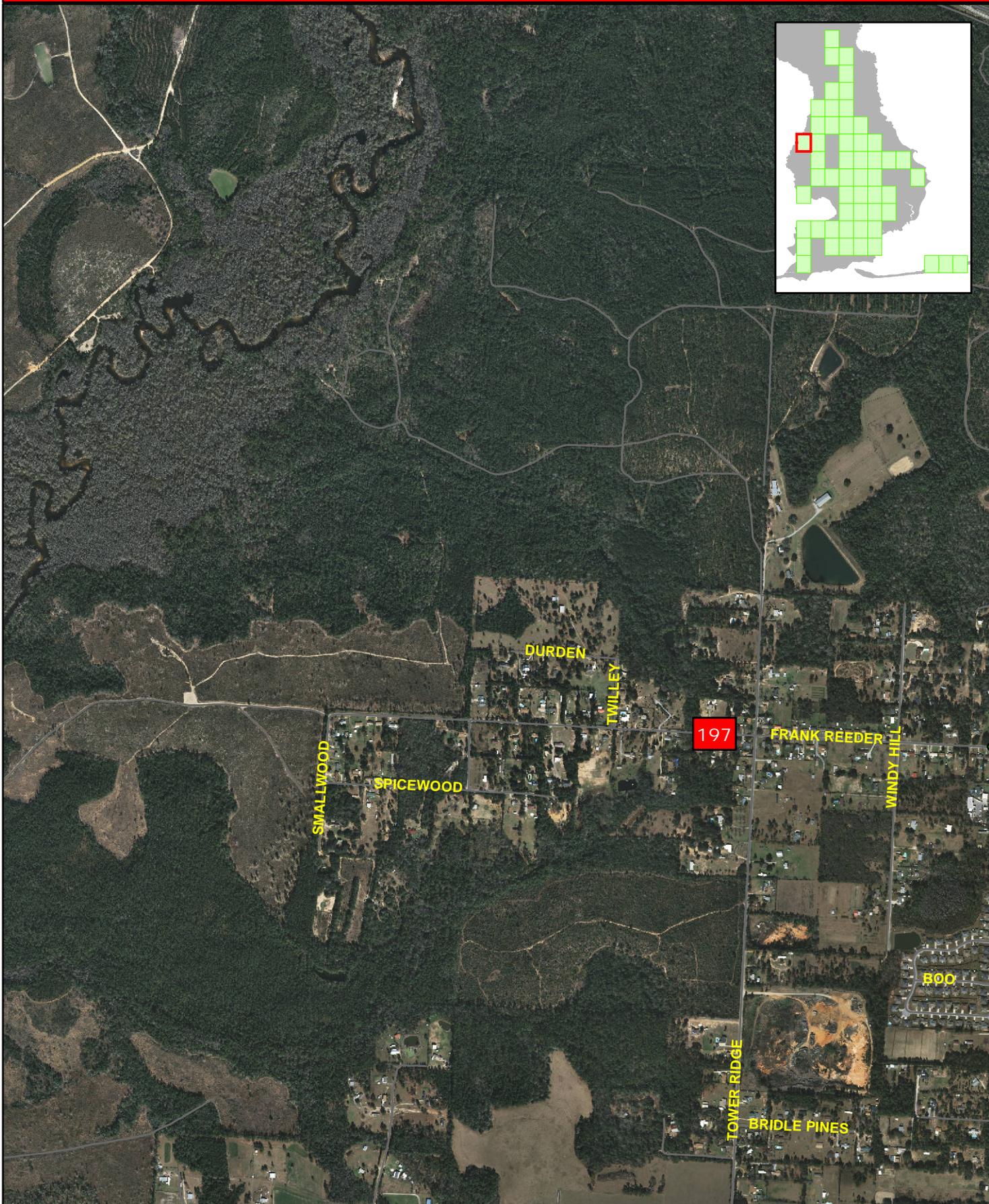


197

Frank Reeder Rd ditch

\$68,655

Construct a ditch along Frank Reeder Road.

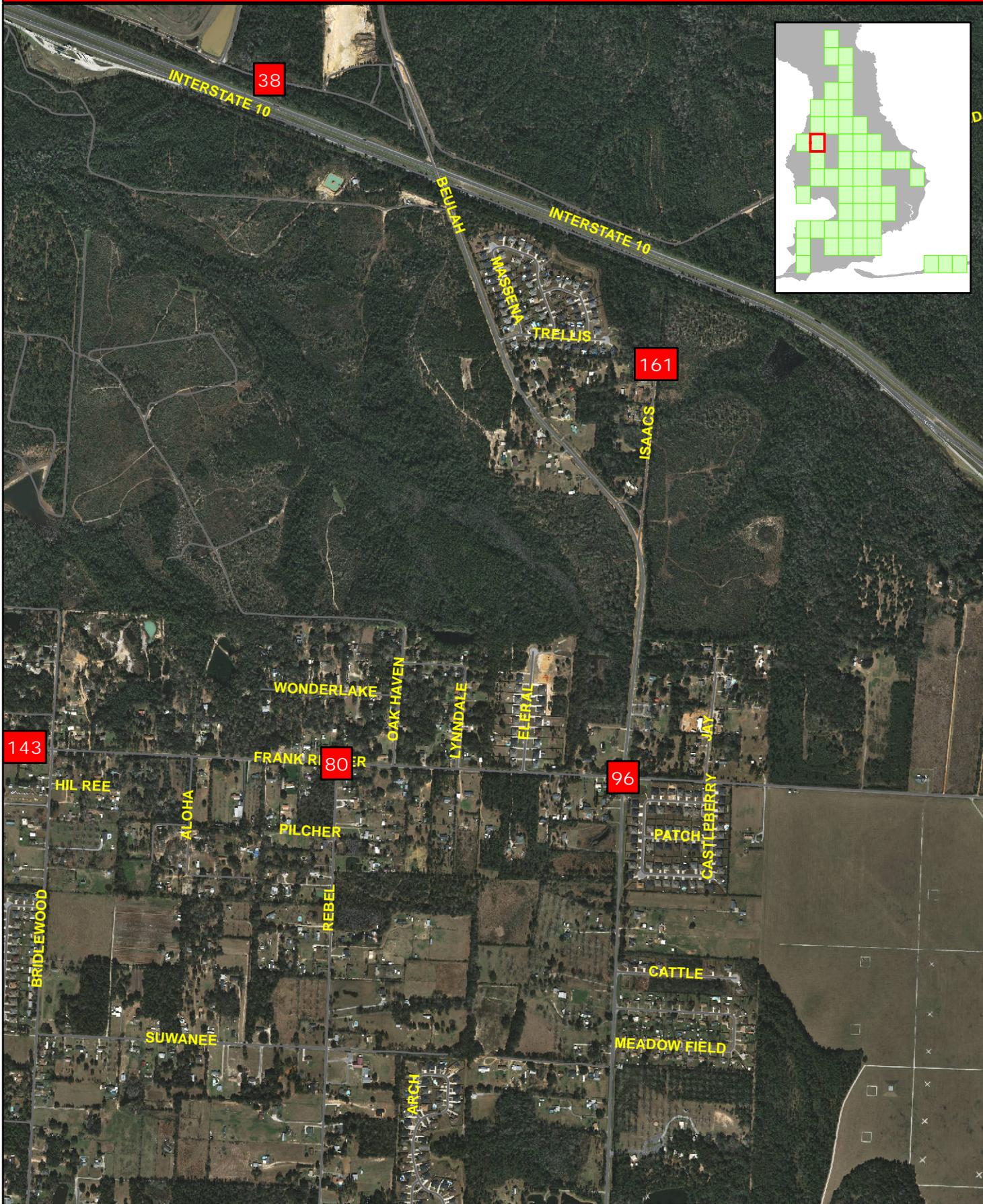


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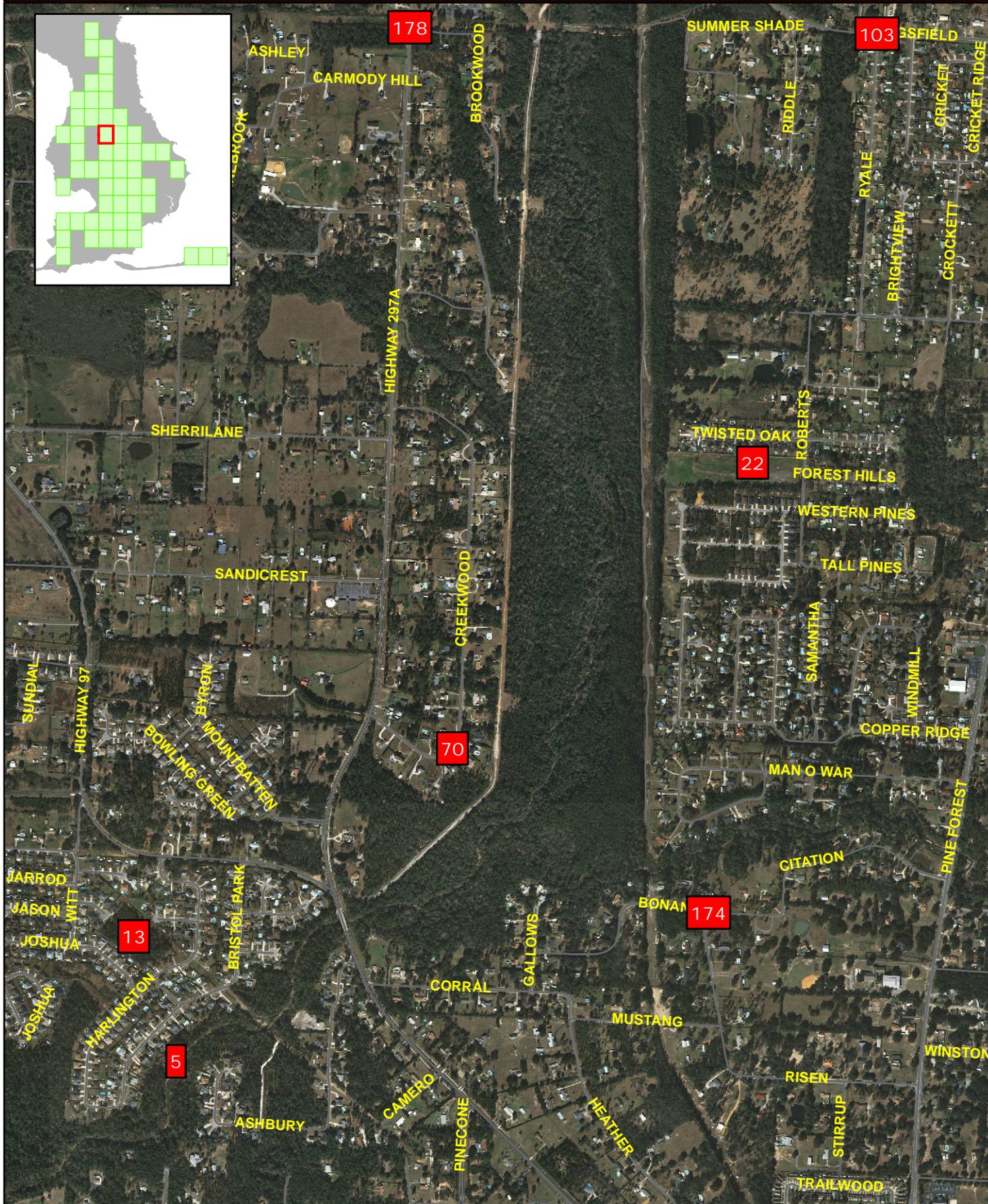


1,200
Feet

38	Raise berm east of landfill (Perdido River South Basin)	\$623,519
Raise the berm east of the landfill to prevent an existing pond from overtopping.		
161	Isaacs Rd	\$114,800
Construct a ditch along Isaacs Road and a new culvert under Beulah Road.		
80	Frank Reeder Rd & Rebel Rd	\$49,521
Reconstruct the swale in the area near Rebel Road and construct a culvert under Frank Reeder Road.		
173	Riola Place - Bridge Creek/Heron Bayou Study Branch E	\$189,379
Lower pipe inverts and increase the capacity of the culvert under Riola Place to decrease out-of-bank channel flooding.		
96	Frank Reeder Rd & Beulah Rd	\$64,153
Reconstruction of the ditch and installation of culverts where necessary to provide a defined drainage path.		



178	SR 297-A/Meander Road	\$61,024
Increase capacity of culverts to prevent overtopping of State Road 297-A		
103	Ten Mile Creek from Roberts Rd North to Kingsfield Rd	\$4,494,457
Reconstruct the creek to provide additional storage volume and increase the culvert capacity under Roberts Road, Dolphin Street, Tate Road, and Kingsfield Road to prevent flooding to structures. Improvements may have a negative effect on downstream properties.		
22	West Roberts Drainage Improvements and Regional Pond (Regional Pond in 11-Mile Creek Basin)	\$1,500,000
Regional pond and conveyance system on West Roberts Road utilizing on FDOT pit (Part of 11 Mile Creek Basin Plan to reduce flood stage in Bristol Creek/Bristol Park/Ashbury Hills)		
70	Amanda Rd	\$6,896
Increase capacity of culvert at Creekwood Drive to prevent roadway overtopping		
13	Bristol Creek Property Acquisition	\$6,189,380
A large scale project, with a Property Acquisition Plan for repeatedly flooded property and easement acquisition. Project will be partially funded by HMGP grant if approved. Related to project "Flood Plain Management, Wetland Restoration, and Regional Pond Construction in 11-Mile Creek Basin."		
174	Risen Drive and Bonanza Drive	\$101,125
Upgrade the culvert under Bonanza Drive and obtain drainage easement over downstream ditch to reduce roadway flooding at the intersection. Improvement may have a negative effect on downstream properties.		
5	Flood Plain Management, Wetland Restoration, and Regional Pond Construction in 11-Mile Creek Basin	\$46,538,265
A large scale project to provide channel, stream, and flood plain restoration improvements, including at minimum of 9 regional stormwater management facilities (ponds). Project completion will require multiple grants to provide a complete realization of the 11-Mile Creek Basin Study Recommendations. The total estimated project costs is over at least a 10-year period.		



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1,200
Feet

69	Filley Rd	\$4,283
Increase capacity of culvert crossing to prevent overtopping of Filley Rd		
134	11 Mile Creek Basin Study Zone 8	\$99,466
Increase culvert capacity to reduce area flooding.		
65	Ten Mile Creek from Stefani Drive to Roberts Rd.	\$10,674,335
Reconstruct Ten Mile Creek from Stefani Drive to Roberts Road to provide additional storage capacity to reduce extensive flooding in the area. Improvement may have a negative effect on downstream properties.		
64	Ten Mile Creek from Pine Forest to Stefani Dr.	\$8,988,914
Reconstruct Ten Mile Creek from Pine Forest to Stefani Drive to provide additional storage capacity to reduce extensive flooding in the area. Improvement may have a negative effect on downstream properties		
26	11 Mile Creek Basin Study Zone 5	\$3,619,643
increase capacity of pipe under green hills rd. and construct a pond near urban drive to alleviate area flooding		
63	Ten Mile Road at Stefani Dr.	\$393,265
Increase the collection system size along Stefani Drive and Ten Mile Road and increase the capacity of the culverts under Midway Drive to reduce extensive flooding in the area. Improvement may have a negative effect on downstream properties.		
37	Haley Lane and Eagle Street	\$584,279
Reconstruct the Brookhollow collection system and construct a new collection system along 10 Mile Road to reduce roadway flooding. Improvements may have a negative effect on downstream properties.		
133	11 Mile Creek Basin Study Zone 6	\$258,586
increase culvert capacity under Amanda lane and 9 1/2 mile road (seems to be partial overlap with 94 priority 19)		



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1,200
Feet

72	Ashland Park Joint ECUA funded sewer and drainage	\$100,000
Improve Box Culverts at Rodney, Joel and Childers Streets.		
6	Willowbrook Lake Dam	\$500,000
Restore dam and overflow structure at Willowbrook dam East of Chemstrand Road to provide Water Quality		
108	Ashton Brosnaham Park	\$1,568,145
Construct a new stormwater pond at the end of Bet mark Lane with a ditch connecting runoff from the recreational center to the pond.		
88	Shadow Ridge Drive - Meadowview Lane	\$30,000
Drainage Improvements proposed within unopened County right-of-way in coordination with adjacent property to address property damage and erosion for the accumulation of development.		
110	Northcreek and Valley Ridge Area Drainage Joint Sanitary Sewer Project	\$250,000
Drainage and sanitary sewer improvements in Northcreek Subdivision and in the adjacent Deer Run and Valley Ridge subdivisions, as well as on Bison Road and Motley Court		
25	Ten Mile Road Drainage and Roadway Improvements	\$5,000,000
Address capacity and drainage problems from Chemstrand to Palafox to address flooding in the area of Holsberry Lane. May involve property acquisition.		

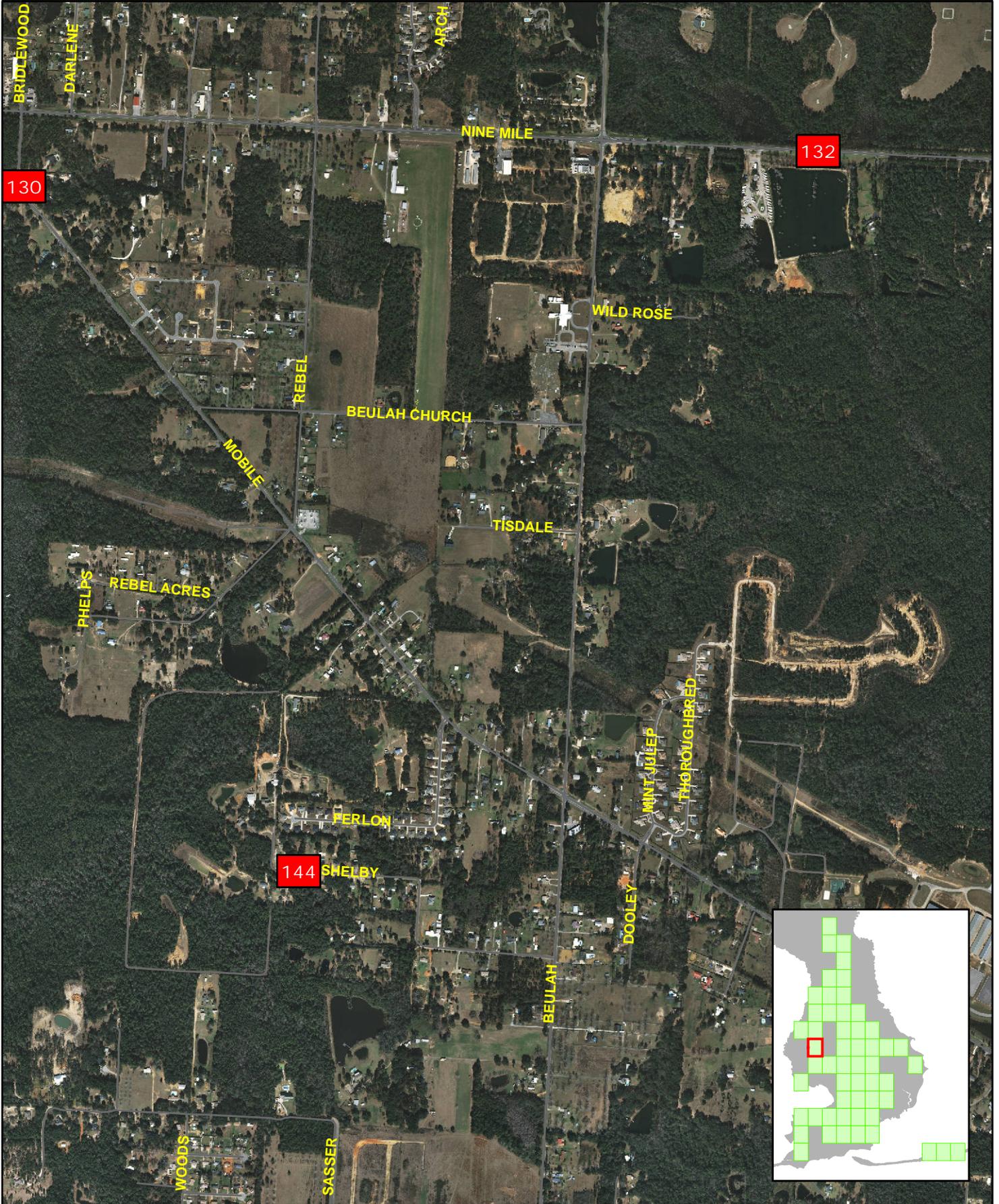


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1,200
Feet

130	Bridlewood Rd (at Mobile Hwy)	\$929,651
Construct two stormwater ponds, remove the culvert under Bridlewood and construct a new culvert under Nine Mile Road to prevent yard and road flooding.		
132	Magaha Area/Nine Mile Road	\$1,240,677
Improve channel and increase capacity of the upstream structure along Nine Mile Road to prevent roadway overtopping and yard flooding.		
144	Shelby Lane	\$95,666
Construct a ditch along the road and a culvert under Shelby Lane.		

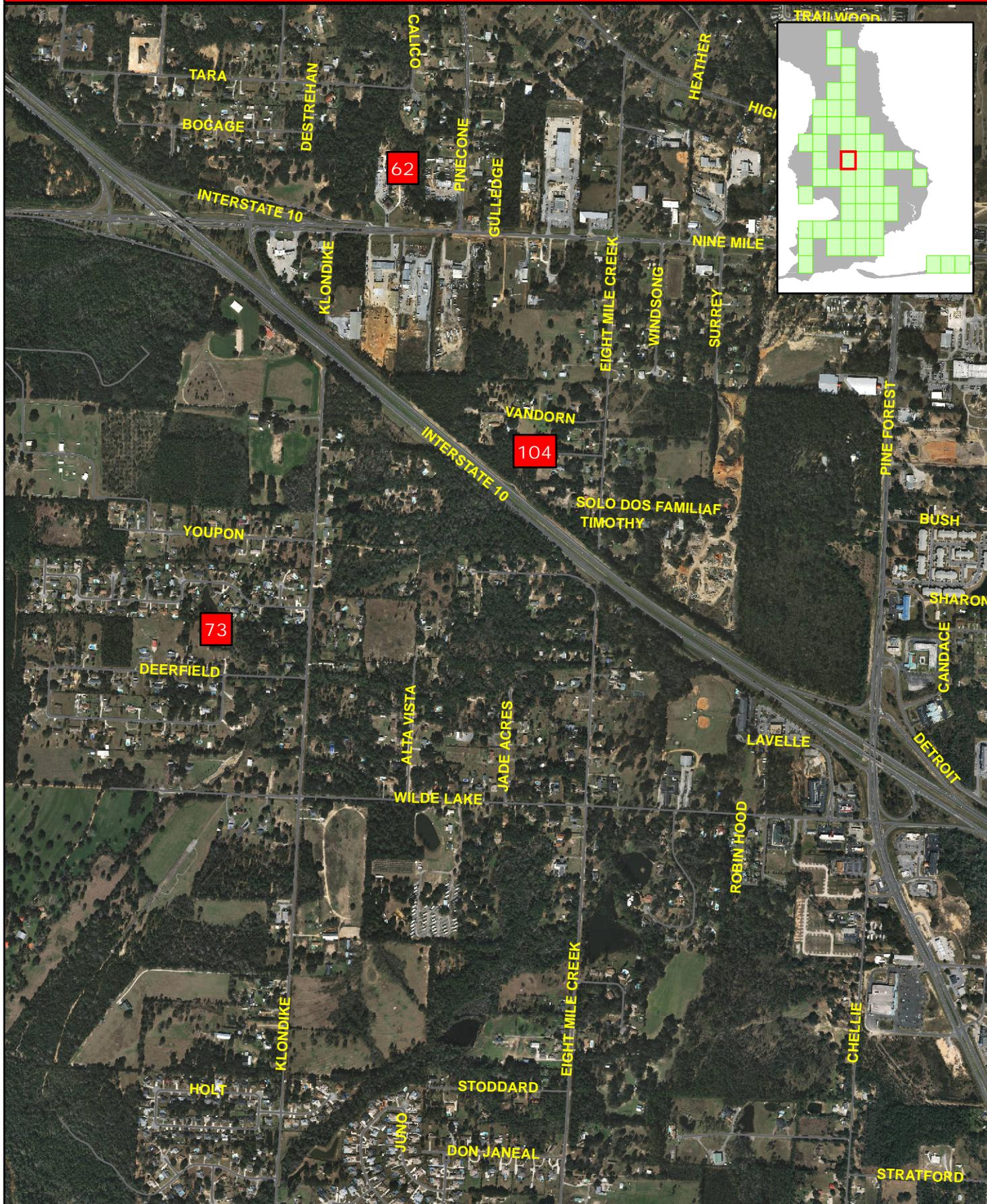


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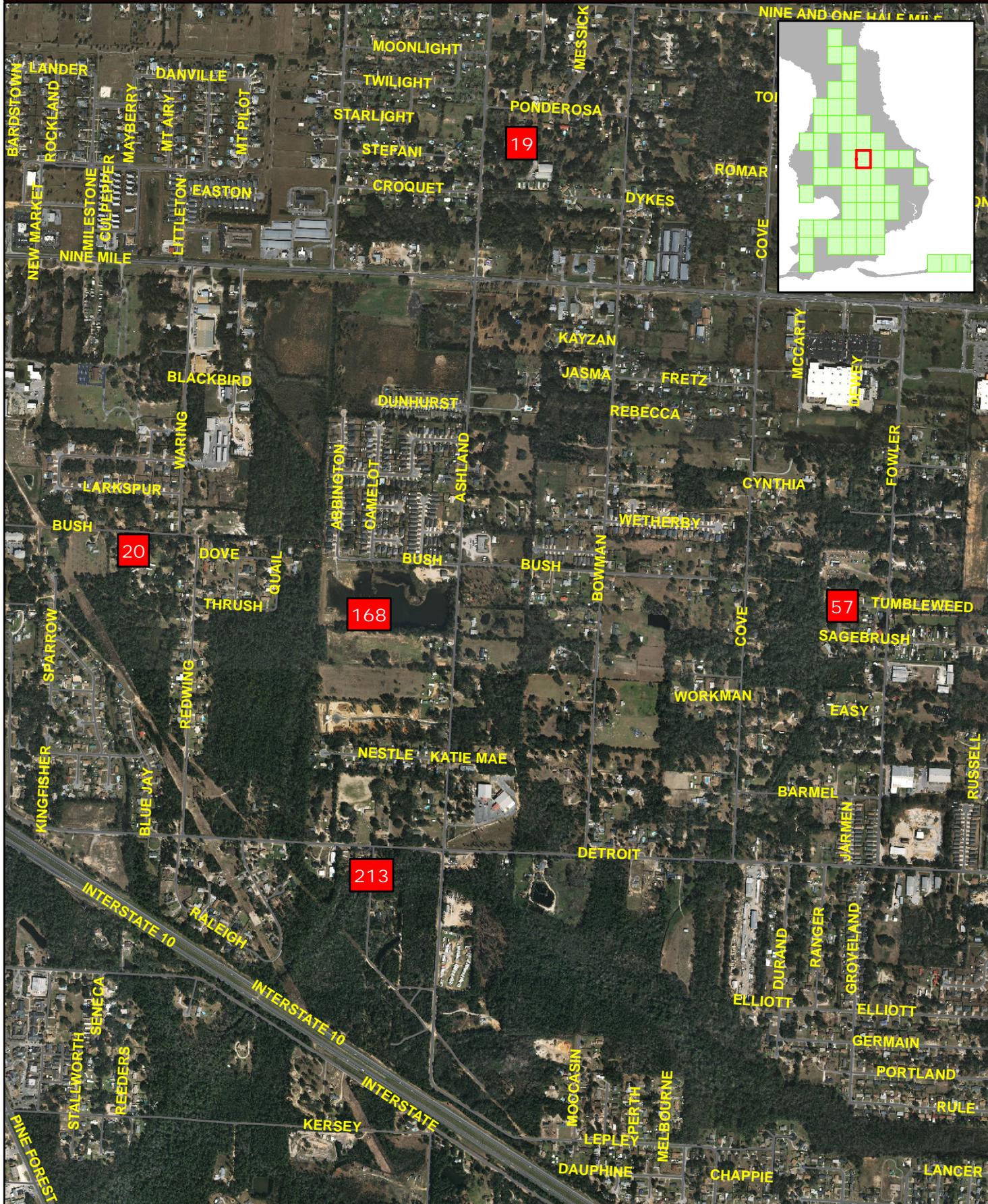


1,200
Feet

62	System improvements between Interstate 10 and Hwy 297A	\$48,315,410
Reconstruct Eleven Mile Creek in this area to incorporate more volume for flood control within the stream in lieu of constructing detention ponds to prevent flooding of homes between I-10 and Hwy 297A. Report also suggests requiring attenuation of the 100 year event upstream of this area.		
73	Yupon/Pebble Creek/Deerfield	\$663,784
Reduce area flooding by enlarging existing ponds and increasing area culvert capacities.		
104	Pine Forest/Klondike Road	\$2,116,233
Construct two new retention/detention ponds and increase capacity of driveway culverts along Klondike Rd to reduce peak flows downstream, and reduce scour.		



19	Ponderosa Drive Area Drainage	\$2,243,000
Expand existing pond to accommodate contributing basin		
20	Kingfisher, Bush Street, and Interstate Circle Drainage	\$2,500,000
Eight Mile Creek Priority 5 Drainage to construct a regional pond to address flooding for Kingfisher, Blue Jay Way, Bush Street, and Interstate Circle		
168	Tributary 21-A of Eight Mile Creek (south of Site 6, through the pit at Bush Street and enters the main channel south of Detroit Blvd)	\$1,628,083
Increase the capacity of the pond south of Bush Street. Increase the capacity of the culvert at Bush Street to prevent roadway flooding. Expand the channel in this area to increase capacity and prevent out-of-bank flooding. Relocate and increase the capacity of the structure at Nine Mile Road to line up with the improved channel.		
57	Ranch Lands - Sagebrush Trail	\$500,000
Repetitive loss flooding along Sagebrush Trail (Ranch Lands Subdivision) requires purchase of a pond site and improved drainage conveyance to address FDOT channel capacity. Refer to 8 Mile Creek basin Study Priority 3 for detailed information.		
213	Main channel crossing at a private driveway located between Asland Rd and Interstate 10	\$92,885
Raise the road height by constructing a bridge at the private driveway crossing of the main channel to prevent road overtopping and reduce flooding.		

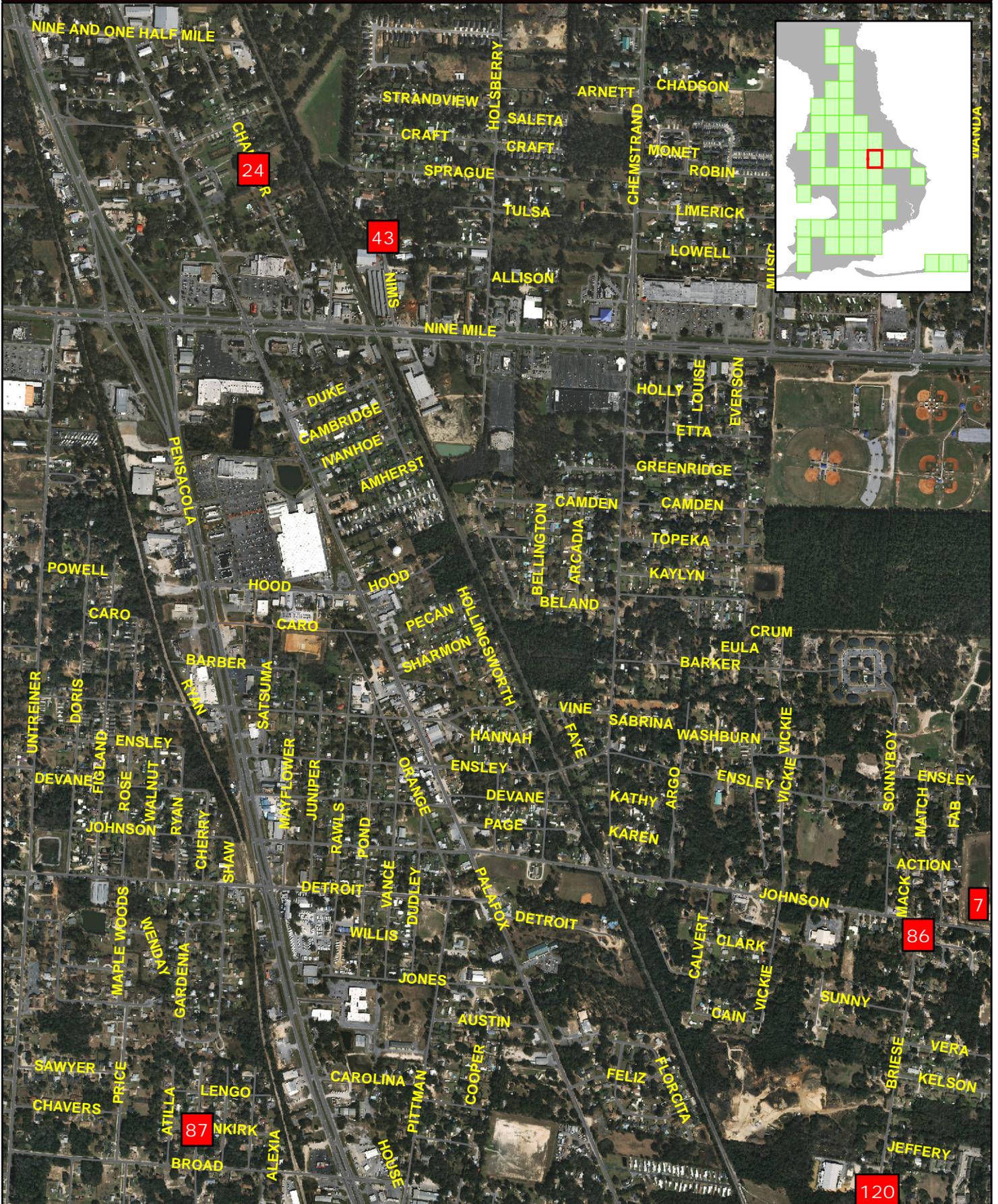


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1,200
Feet

7	Ensley Drainage - Caro-Mayflower Pond Area	\$1,300,000
Expansion of the Caro-Mayflower pond, to address drainage issues south of Caro Street, north of Johnson Ave between Hwy 29 and Palafox Street, including repetitive flooding loss on Orange Avenue.		
24	Chandler Road Drainage	\$600,000
Alleviate lot flooding by installing a conveyance system in the area connected to the main trunk line currently being installed by FDOT. This line drains to the Holsberry pond, part of the Hwy 29 lane widening project		
43	Nims Lane Drainage Project	\$400,000
Nims Lane receives stormwater from a basin of approximately 29 acres. This basin extends just east of Holsberry Road and just north of Holsberry Lane. This area is prone to flooding due a lack of a positive outfall or stormwater conveyance system. Discharge from this conveyance system is expected to be routed to the Holsberry Pond		
86	Johnson Ave Drainage (East of Briese Ln)	\$400,000
Remove/Replace faulty storm pipe from Pine Ridge Lane to Johnson Ave, Address pipe flow Crystal Wells pond, Address two 24" pipe feeding one 24" pipe down to outfall in Gulf Power Easement.		
87	Olive Manor & Lincoln Park Drainage	\$1,200,000
Drainage System Improvements with a creek restoration/preservation		
120	Briese Lane between Jeffry and Olive Road	\$100,000
Extend existing Johnson Ave drainage system to relieve roadway and yard flooding.		

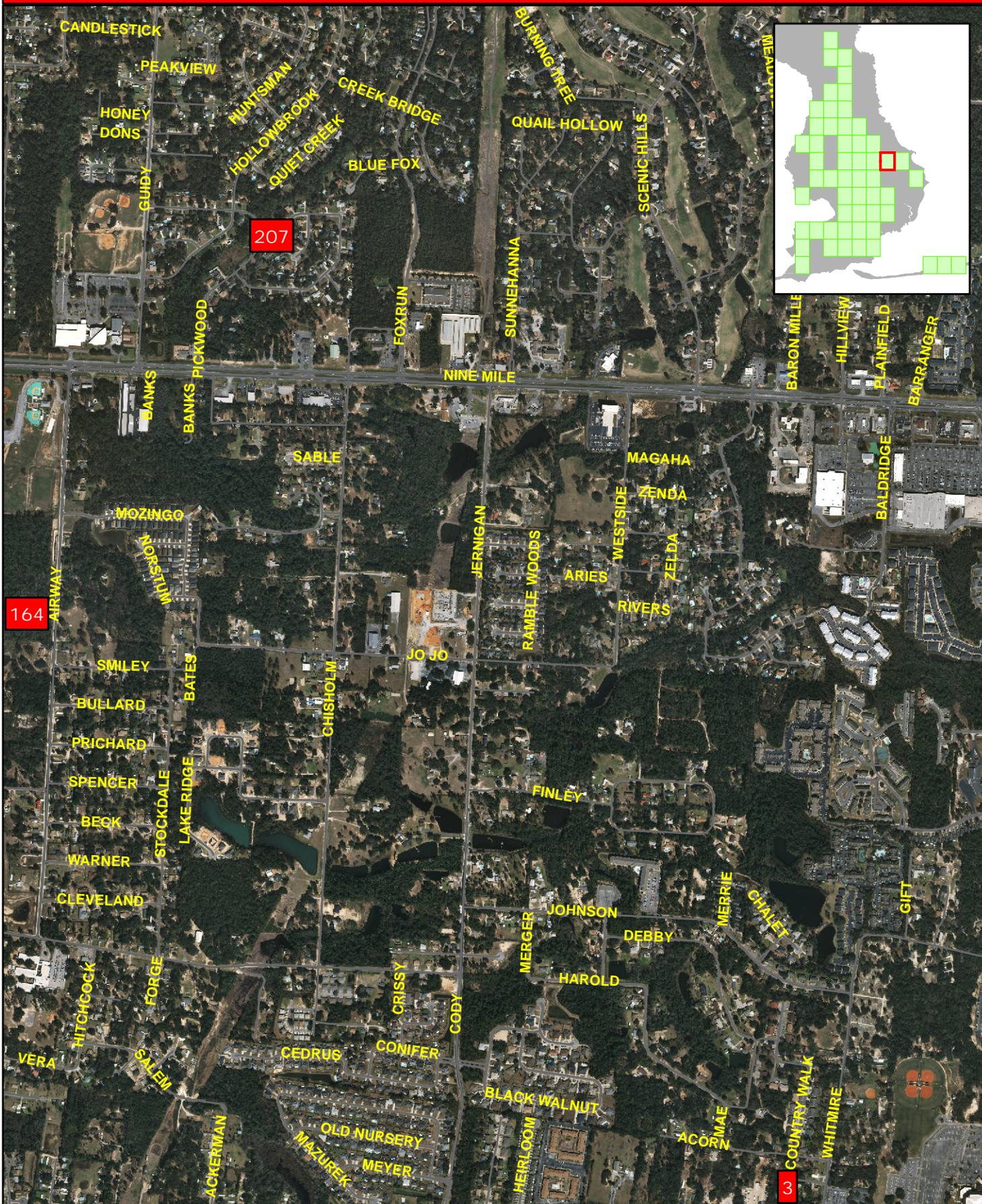


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1,200
Feet

3	Frinchez Heights (Sabra, Erwin, Whitmire, Ernistene Area)	\$400,000
Proposed drainage capacity improvements in the Frinchez Heights area including Sabra Dr, Erwin Dr, Whitmire Dr, Ernistene Rd (North of Olive Rd) which will likely require a ditch conversion into a pond site		
164	Thompson Bayou Main Channel	\$2,009,815
Construct new stormwater pond at Airway Drive near the end of the Thompson Bayou main channel and increase the capacity of the existing culvert at Airway Drive.		
207	Carrollwood Subdivision Resurfacing & Drainage Rehabilitation	\$1,200,000
Replace older cross drain at Stillbrook Road and repair existing drainage system on Pickwood including grading/resurfacing on Candlewood Circle		



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1,200
Feet

49	Westview Lane & Lewis St Area Drainage	\$200,000
Drainage improvements to address stormwater and groundwater from Lewis Street and Moose Lodge 557 impacting lots along Westview Lane		
121	Ellyson Industrial Park Drianage	\$1,000,000
Miscellaneous Infrastructure drainage improvements to address roadway flooding at Grow Road, Copter Road, and East pond expansion		
163	Thompson Bayou - Scenic Hills Basin Study Tributary A	\$1,736,479
Construct a new stormwater pond between University Parkway and Shoal Creek Drive.		



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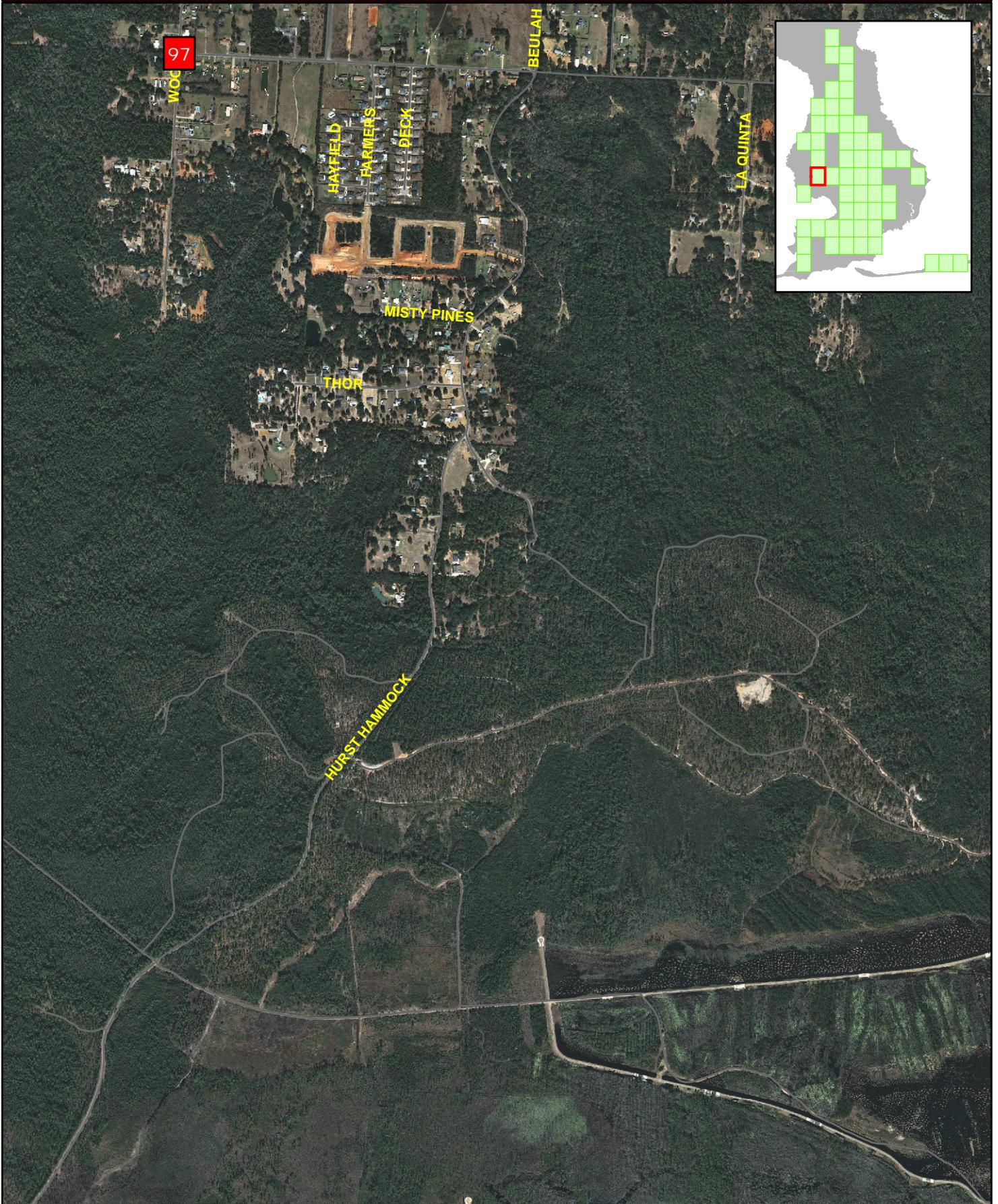
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Feet

97

Helms Rd & Woods Lane

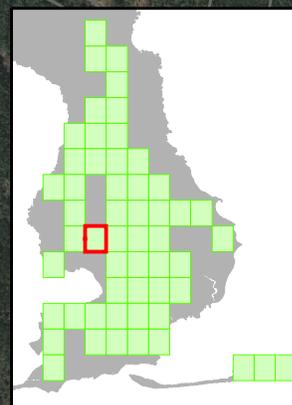
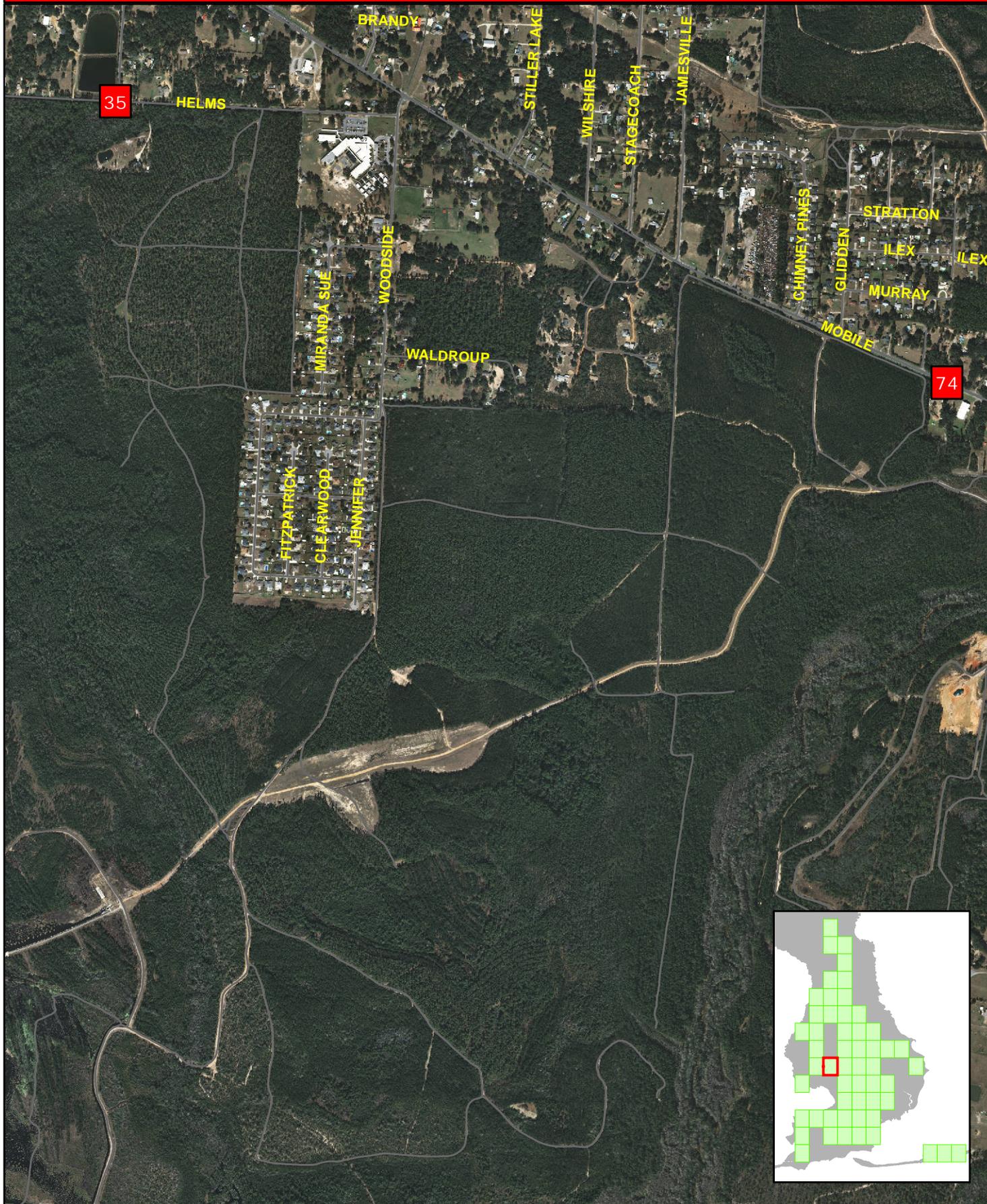
\$69,780

Construct a new culvert under Woods Lane and reconstruct the ditch feeding to the existing culvert.

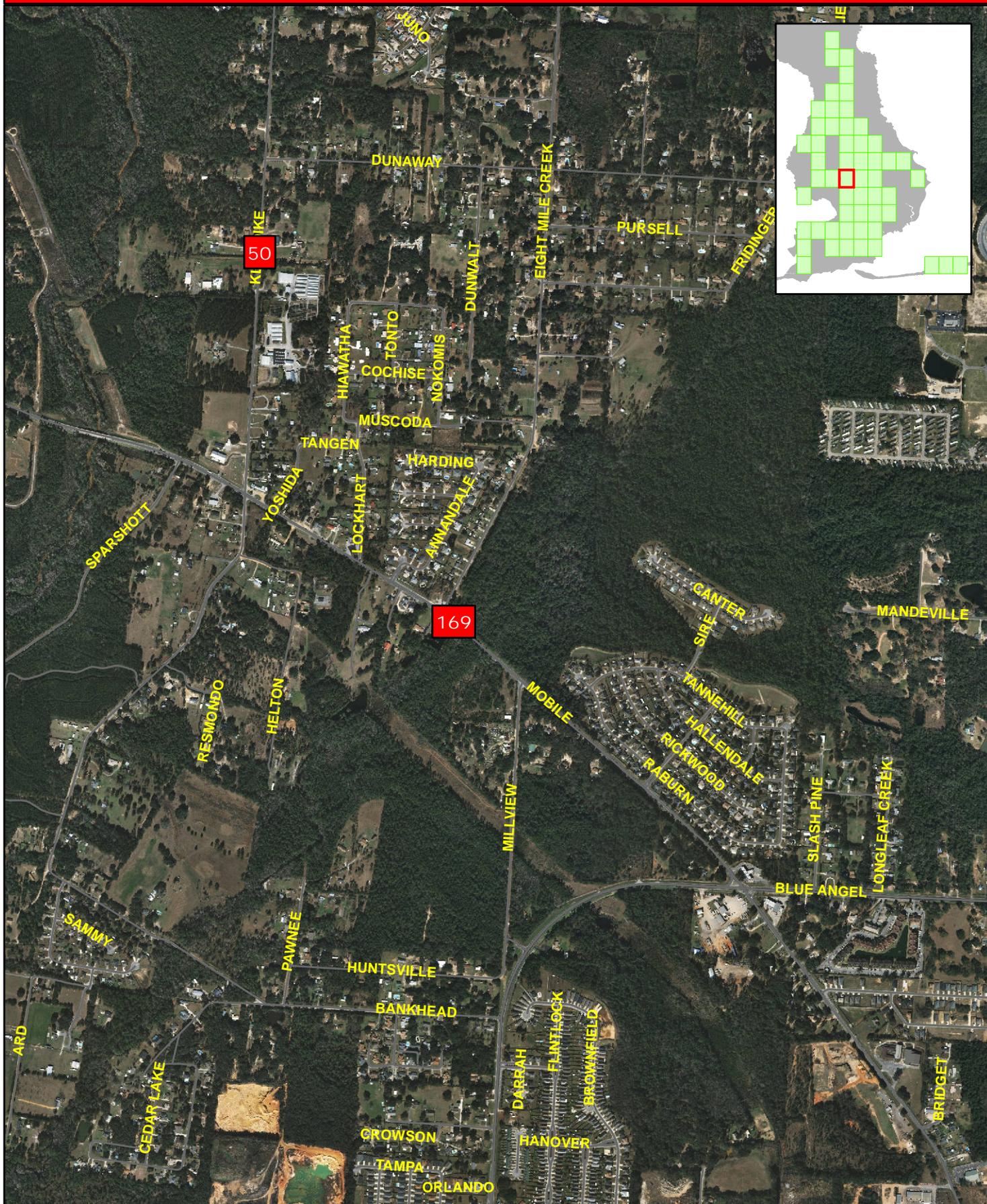


35	Helms/Beulah School Road	\$207,509
Increase capacity of drainage structures crossing Helms Road to prevent roadway overtopping and decrease upstream flood stages.		

74	Stagecoach/Wilshire/Mobile Highway	\$70,698
Increase capacity of drainage structure at Mobile Highway and improve downstream channel to prevent roadway overtopping and residential flooding.		



50	Klondike Road North of Mobile Highway	\$22,571
Increase capacity of structure under Klondike Road to prevent roadway overtopping.		
169	Main channel crossing at Mobile Hwy	\$2,539,817
Raise the elevation of the Mobile Highway Bridge 2.5 feet to prevent over-topping.		



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1,200
Feet

111	Tributary 10-A of Eight Mile Creek Basin Study	\$58,307
Increase the capacity of the culvert under Pine Forest Road at Lake Francis to decrease roadway flooding and accommodate the improved secondary sewer system.		

128	Tributary 16-A of Eight Mile Creek begins at Belgium Rd south of Holly Hill Rd and enters the main channel north of Pine Forest Rd	\$50,273
Increase the capacity of the structures at Belgium Road and Lillie Lane to minimize roadway flooding.		



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1,200
Feet

28	Dorothy & Lydia Avenue Area Drainage	<i>\$400,000</i>
Improve existing drainage system causing lot flooding. The surrounding area drains to private Rolling Hills borrow pit, causing sediment problems at Crescent Lake		
31	Palafox Street @ Oakfield/Kenmore/Pacific/Majors/Pinestead Drainage	<i>\$4,900,000</i>
Drainage Project currently under design to address Beverly Parkway Basin Study Improvements Branches N, O, P, & Q		

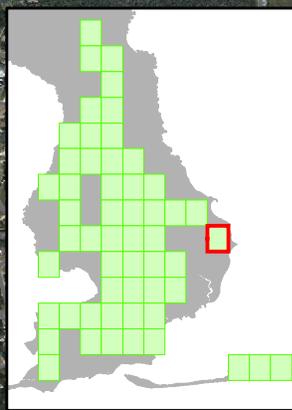


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1,200
Feet

41	Ferry Pass Drainage Zone 5	<i>\$950,000</i>
Drainage System Improvements on Boyd Ave and adjoining Beagles St, Geeker St, De Loach St, and Raines St; dependent upon Olive Rd drainage system upgrades		

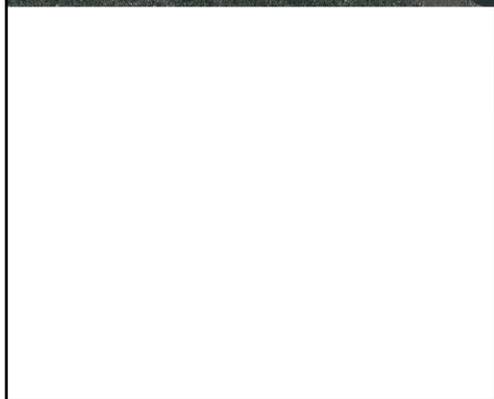


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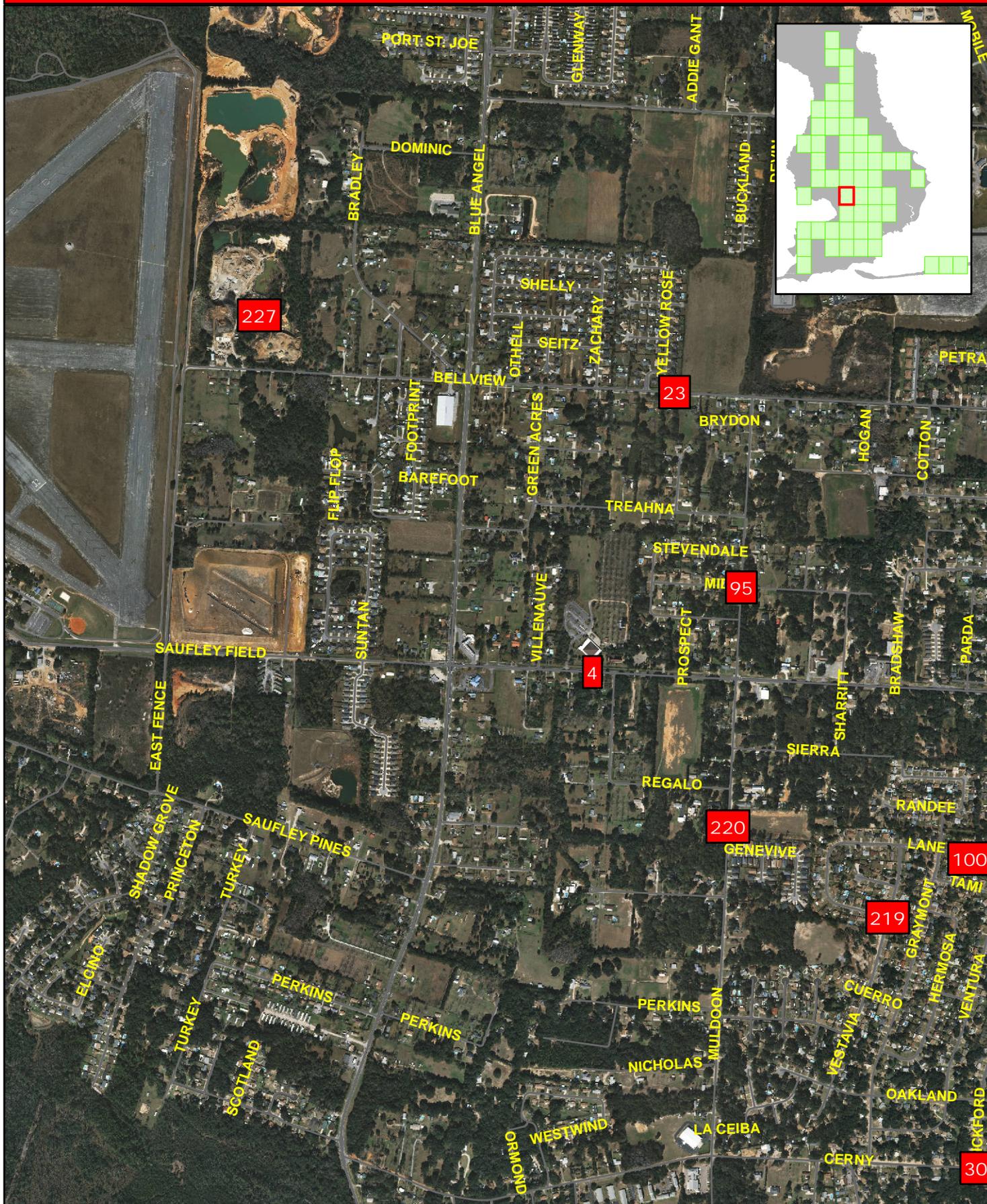
Hurst Hammock

\$61,902

Construct an additional culvert under Hurst Hammock and install flap valves on the downstream side of the culverts to prevent the propagation of seawater from tidal action.



4	Muldoon Road and Saufley Field Rd Area	\$3,000,000
Drainage improvements are needed to address existing drainage capacity from Blue Angel to Muldoon Road. FDOT is currently (2015) reviewing partial drainage with sidewalk projects.		
23	Bellview Avenue Branch E Drainage Chestnut-Hogan Pit expansion	\$1,500,000
Bellview between Rosewood Estates and Hogan Road, includes expansion of the Chestnut-Hogan Pit		
227	Bellview and East Fence/Saufley Road	\$1,500,000
Provide conveyance system to Saufley Field C&D Pond from Bellview		
95	Midas- Muldoon Area including West side of Green Acres	\$250,000
Miscellaneous drainage improvements in this area to address flooding, including a small pond and conveyance improvements		
220	Felton Pond Outfall	\$342,660
Construct an outfall to connect the Felton Pond to the Windham Pond. This improvement could cause negative effects to other properties.		
100	Lanette Drive	\$1,000,000
Construct new stormwater system for the area around Lanett Drive to reduce flooding in the area.		
219	Windham Pond Outfall	\$293,987
Construct an outfall for the Windham Pond. This improvement could cause negative effects to other properties.		
30	Avondale Estates - Bayou Marcus Branch E	\$3,300,000
Roadway/drainage improvements for Cerny Road area and area North of Cerny to provide possible pond outfall solutions for Saufley Field -Muldoon Area Ponds. Concept plans requires further study for alternate pond outfall options considering Velma Pond.		

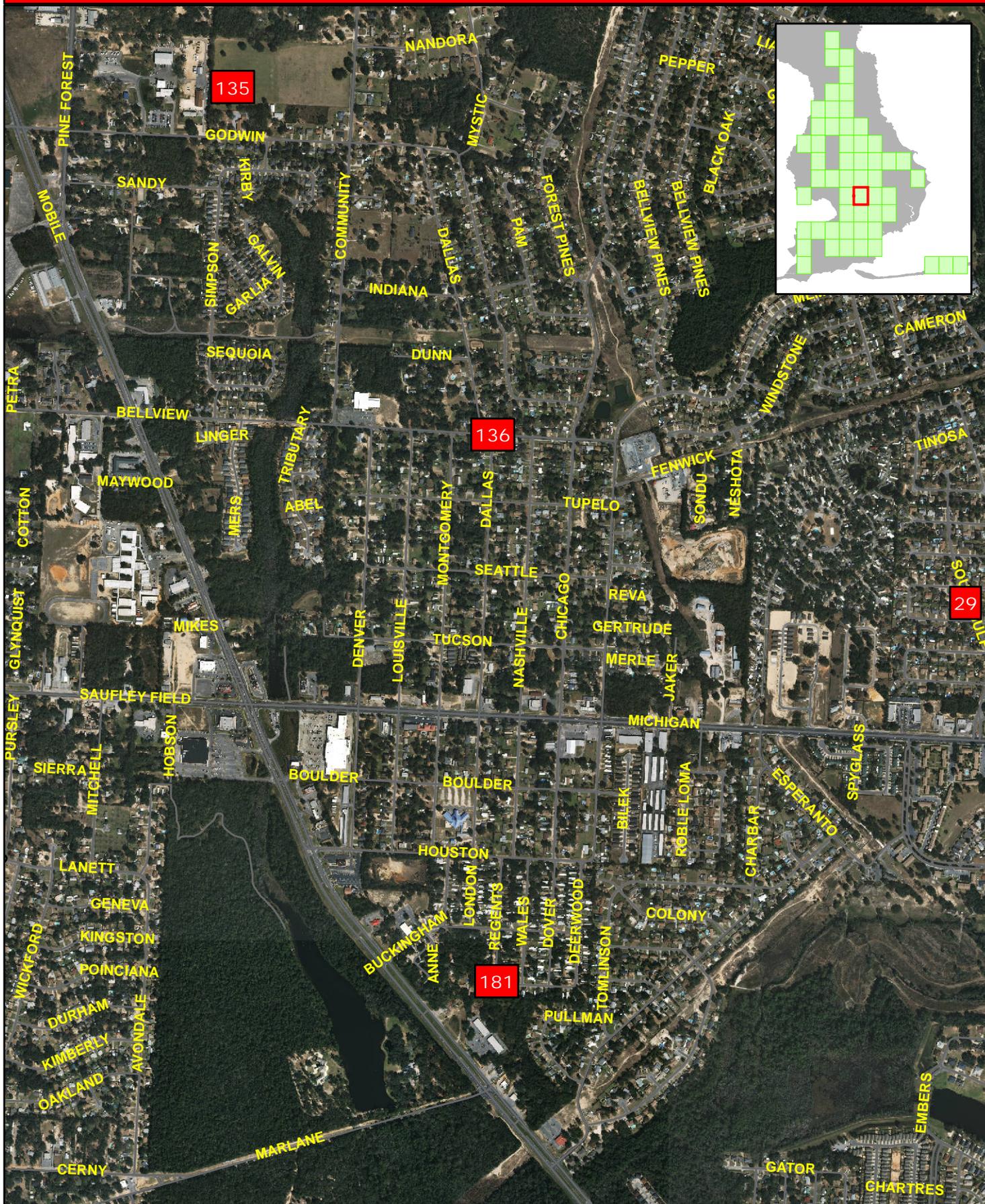


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1,200
Feet

135	Godwin Lane - bayou Marcus/Millview Study Branch F	\$5,320,591
Construct new stormwater system for the area around Godwin Lane including two stormwater ponds.		
136	Pensacola Heights- Branch F	\$4,352,877
Modify the existing collection system serving Pensacola Heights and construct a new detention pond.		
181	Deerwood Drive - Bayou Marcus/Millview Study Branch F	\$1,971,838
Increase the capacity of the Deerwood Drive stormwater system and outfall pipe.		
29	South Gulf Manor Private Pond Rehab	\$200,000
Upgrade to county standards a private pond that has failed to accommodate flow from South Gulf Manor Phase 1 on numerous occasions. This has resulted in flooding of around 15 homes.		



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1,200
Feet

1	Crescent Lake	\$4,000,000
Construct drainage system and new ponds on east side of Crescent Lake through the Blue Springs Drive drainage system up to Glass Street and Sun valley Drive		
46	Beverly Parkway Basin Branch C- Twelve Oaks Area	\$2,522,301
Construct a new collection system for the Twelve Oaks Area with a discharge to the FDOT system. Connection to the FDOT system will limit design to the 3 year event.		
79	Beverly Parkway Basin Branch I- Moss Lane tie in at Van Pelt Lane	\$237,810
Construct new stormwater system along Moss Lane.		
189	Beverly Parkway Basin Branch B- North Portion- Lookout Drive	\$1,128,009
Construct a stormwater system along Lookout Drive West Michigan Avenue, and Rock Island Place with a discharge to the FDOT pit.		
61	Beverly Parkway Basin Branch B- South Portion- Michael Drive	\$623,567
Construct a stormwater pond on Michael Drive.		

118	St Johns North of PCC	\$450,000
Purchase property for pond site and connect to 48" pipe across PCA. Add conveyance from system to the North per Beverly Parkway Basin Study Zone F including upgrades to system from Oleander drive to Cummings Street. This will address flooding problems at Cummings Street and St. John's before tying into the PCA Campus.		
47	Beverly Parkway Basin Zone D-Brentwood	\$3,596,439
Expand the stormwater systems on Cary Memorial Drive and Armenia Drive to Carolyn Way, Jacquelyn Way, Virginia Way, Palm Court, Concordia Street, and Chimes Way and tie into the existing system on Hardy Place. Connection to the FDOT system will limit design to the 3 year event.		
76	Beverly Parkway Basin Branch E- west side of Hwy 29 on Mason Lane	\$1,077,800
Construct a new collection system along Hwy 29 and Mason Lane along with a new pond for the system to connect to.		
27	Beverly Parkway Basin Branch G- Andrew Ave and Coons Ave	\$1,319,873
Extend the stormwater collection system along Andrew Avenue and Coons Avenue.		
42	Delano Area North Kelly Avenue Basin	\$400,000
Drainage System Conveyance Improvements for area between Pace Blvd, Massachusetts Av, W" St., and Truman to improve conveyance to Kelly Avenue pond, as well as provide for an improved outfall system. Project requires coordination with CRA improvements on Massachusetts Avenue for sidewalks and drainage improvements		
14	Beverly Parkway Basin Zone H- Loretta Street, between Kelly Ave and North "P" Street	\$6,499,810
Construct new ponds and expand the stormwater collection system in the area around Loretta Street.		

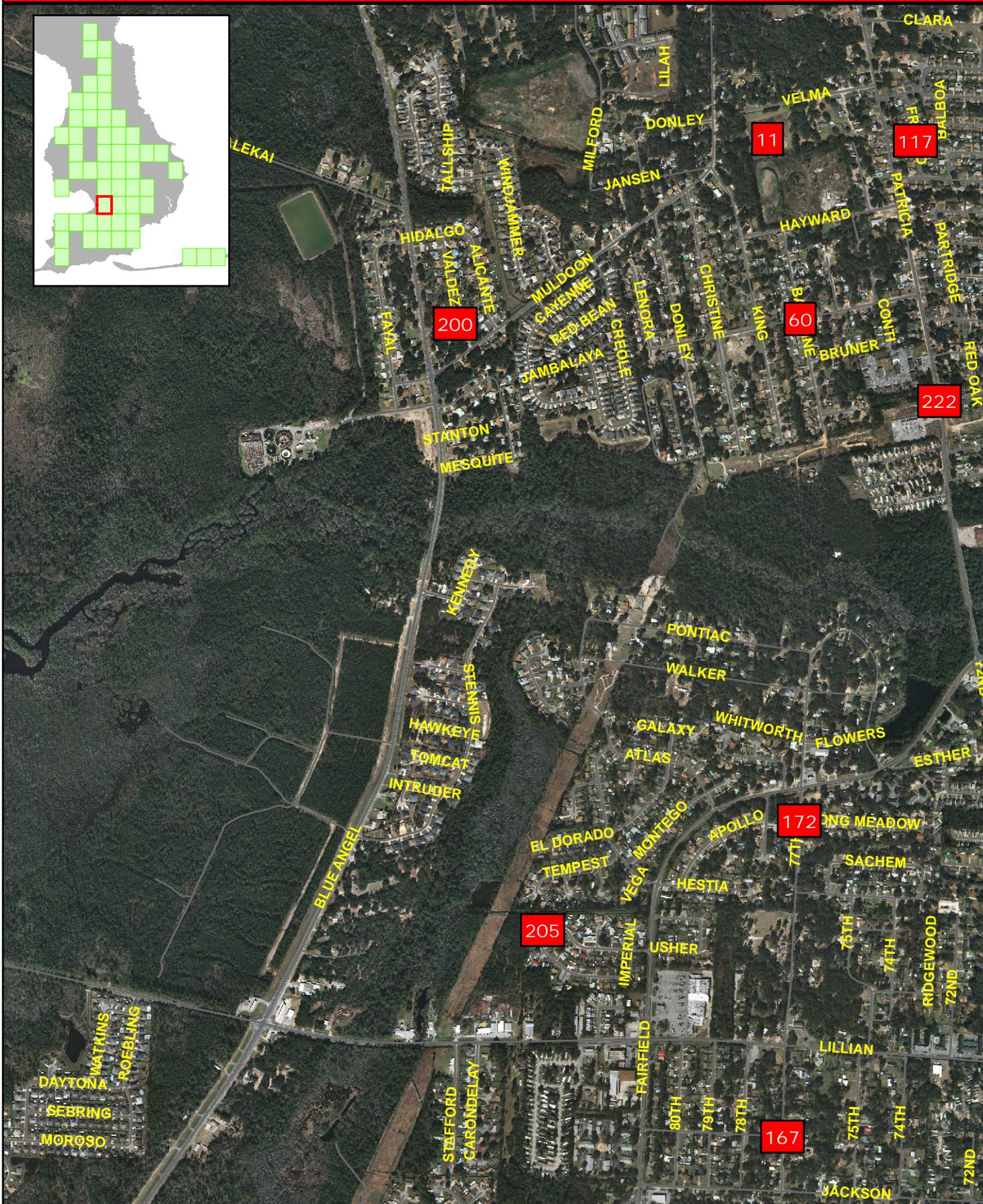


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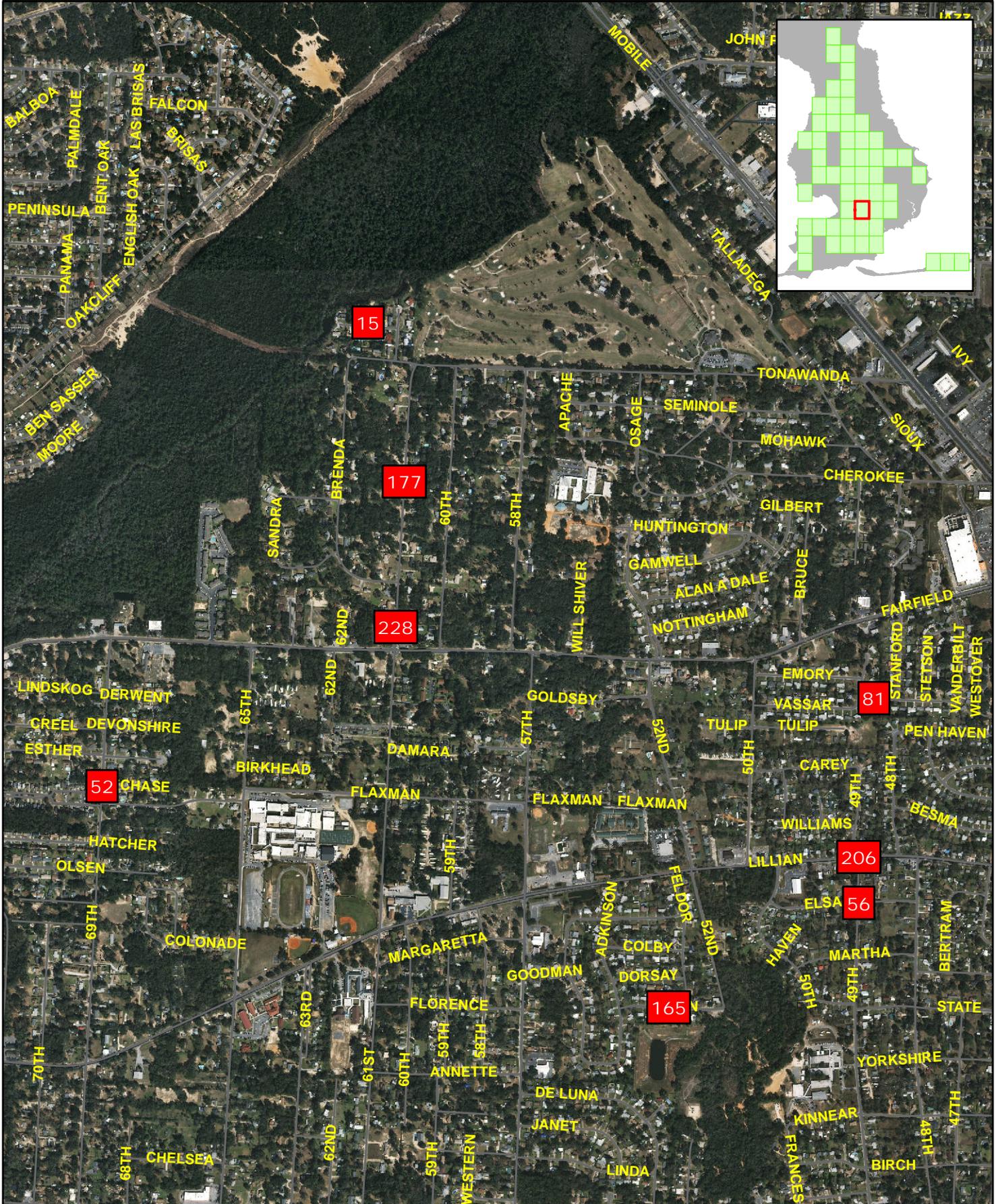


1,200
Feet

11	Muldoon-Saufley Field-Velma (Pond Expansion)	\$3,450,000
Property purchase and drainage improvement design to provide positive outfall for two County ponds, expand the Velma St Pond, and provide outfall to Bayou Marcus Creek. Refer to Bayou Marcus Basin Study -Velma Dr Pond Outfall Branch C to be modified by property acquisition and Velma pond expansion.		
117	Muldoon-Cerney-Velma-Fresno Area Drainage	\$2,200,000
Drainage System Improvements including Velma pond expansion, outfall, and drainage conveyance to Velma Pond; better outfall for Muldoon Area Ponds		
200	Sal Tillo - Bayou Marcus/Millview Study Branch C	\$188,068
Improve the stormwater collection system serving the area around Sal Tillo Street.		
60	Velma Pond Outfall	\$905,319
Construct outfall for the Velma Pond to prevent overtopping during a 100 year event.		
222	Pearson Rd- Bayou Marcus/Millview Basin Branch C	\$1,364,488
Construct new stormwater system for the area around Pearson Road to reduce flooding in the area.		
172	Ridgewood Park - bayou Marcus/Millview Study Branch B	\$2,524,333
Construct new stormwater system for the Ridgewood Park subdivision to reduce flooding in the area.		
205	Imperial Drive - Bayou Marcus/Millview Study Branch B	\$526,033
Construct new stormwater system for the area around Imperial Drive to reduce flooding in the area.		
167	Royal Pines - Bayou Marcus/Millview Study Branch B	\$2,908,721
Construct new stormwater system for the Royal Pines subdivision to reduce flooding in the area.		

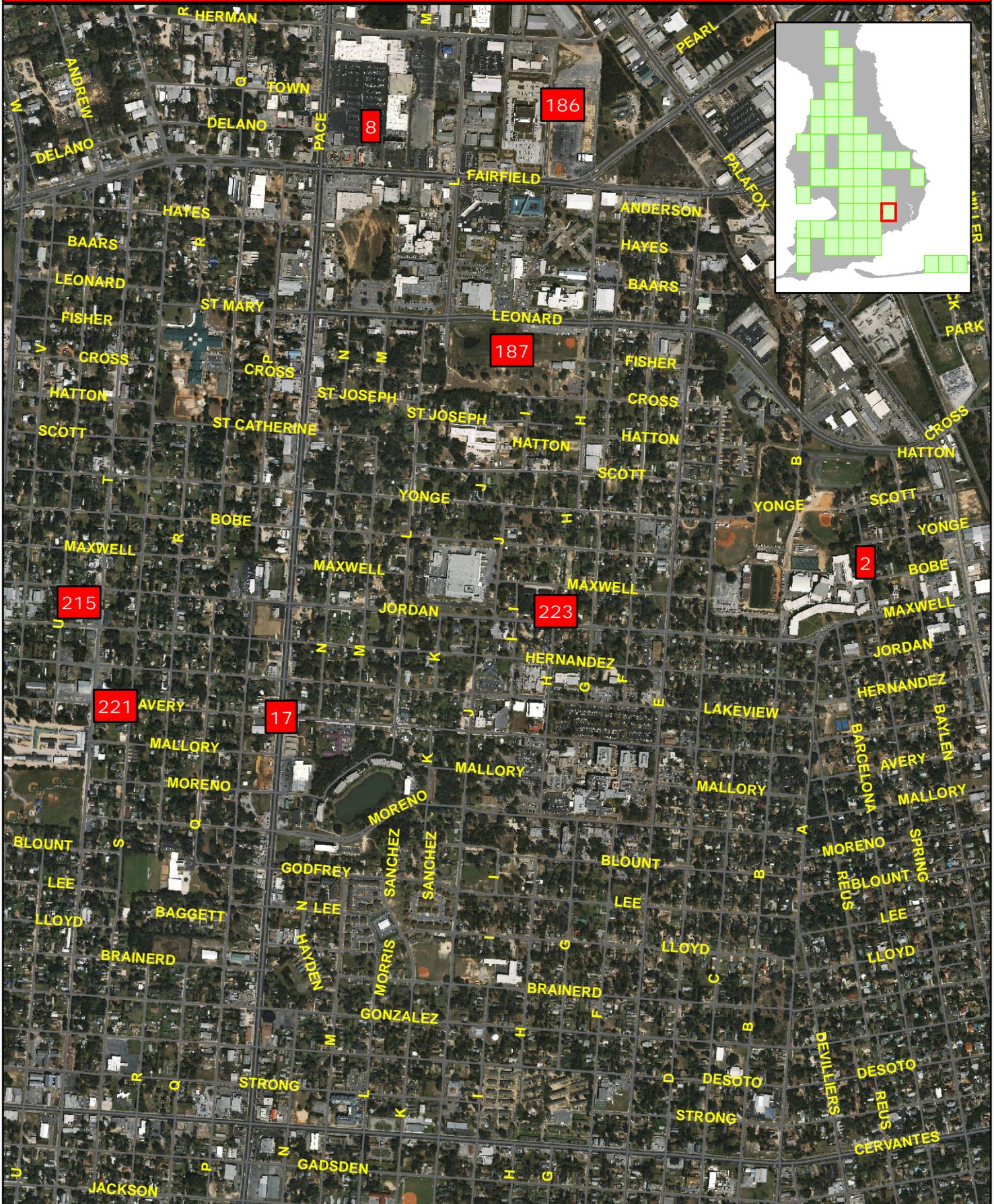


15	North 61st Property Purchase and flood plain restoration	\$700,000
Purchase of 10 properties for the purposes of flood plain restoration, and stream restoration		
177	Roosevelt - Warrington Basin Study Branch K	\$4,512,150
Construct a new stormwater system along 61st, 59th, 60th, 63rd, and 65th streets with a new stormwater pond west of 61st street.		
228	61st Ave - Bayou Marcus/Millview Basin Branch D	\$374,139
Increase the capacity of the 61st Avenue stormwater system to reduce flooding in the area.		
81	Emory Drive- Warrington Basin Study Branch K	\$637,509
Construct a new stormwater system along Emory Drive, Stanford Road, Stetson Road, and Vanderbilt Road with a new stormwater pond at the eastern end of Tulip Drive.		
52	N 69th Ave- Bayou Marcus/Millview Study Branch D	\$1,963,878
Expand the stormwater collection system along 69th Avenue to reduce flooding in the area.		
56	Elsa Area Drainage	\$2,600,000
Drainage project to address flooding in the area of Elsa Avenue South of Lillian from 48th Avenue over to Feldor Avenue including 49th, 50th, 52nd, State Street, Kinear Avenue, and Martha Ave		
206	49th Av - Warrington Basin Study Branch K	\$1,648,952
Construct a new stormwater system along 49 the Ave with a discharge to the existing county pond on Lillian Highway.		
165	Eaton Rd - Warrington Basin Study Branch K	\$1,219,351
Construct a new stormwater system along Eaton Road from Feldor to Adkinson Drive with a discharge to an existing county pond per Warrington Basin Study Branch K.		



33	Catholic High Basin Zone A North - North end of the basin around Mission Street	\$3,330,648
Expand pond storage by expanding existing pond and constructing a new pond as well as expanding and increasing existing collection to prevent home and street flooding. This improvement will not have negative impacts on downstream properties.		
94	Old Corry Field Rd- Warrington Basin Branch H	\$2,126,280
Construct a new stormwater collection system along Old Corry Field Road from Border Street to Jackson Creek.		
51	Catholic High Basin Zone A South - South of Avery Street	\$1,440,259
Construct new collection system to prevent street flooding. This improvement will not have negative impacts on downstream improvements.		
39	West Highlands (Green and Lloyd) and Lloyd up to Mallory Street	\$650,000
Address property flooding in an area North of Mobile Hwy West of Dominguez Street, and at Green St		
119	West Highlands	\$2,700,000
Proposed new system located on Kirk Street and extend from West Avery Street to West Gonzalez Street and the surrounding area. This new system requires the acquisition and construction of a new retention/detention pond. (see Branch I in Warrington Master Plan)		
131	West Cervantes at Westworth	\$600,000
Correct road flooding in area with no drainage system		
138	Citrus Street Area Drainage	\$1,300,000
Drainage System Improvements on Citrus per Warrington Basin Study Branch G (Study modification required to consider existing County parcel for pond site and conveyance system).		

8	Delano Drainage Area (L Street, Leonard, Fairfield, Herman, and Fairfield Area)	\$6,488,476
Drainage System Improvements to include new regional pond(s) and rehab of existing ponds for water quality and flood control		
2	Spring Street - Leonard Street - PHS Drainage	\$500,000
Joint Drainage project between the City and School Board to address flooding on Spring Street and School Area.		
186	Hernandez Street pond site 3	\$1,195,738
Construct a new pond on Hernandez St. to reduce flood staging in surrounding and downstream. This improvement will not negatively impact downstream properties/impacts.		
187	New 36 Inch Pipe Outlet Along Hernandez Street	\$2,232,399
Construct a new collection system and outfall connection to the existing system to decrease flood stages in the surrounding areas. This improvement could have impacts on all downstream properties.		
215	Catholic High Zone C Drainage	\$9,000,000
Re-evaluate previous basin study solution (a new discharge trunk line with storm sewer extensions, treatment swales, and underground vaults) to determine whether ponds or direct piping produces the greatest impact.		
223	Improve Open Ditch Outlet Terminating at Fairfield Drive	\$20,990
Enlarge outlet orifice for open ditch flowing to Fairfield Drive. This will not negatively impact downstream properties/improvements.		
221	Catholic High Basin Zone B - Intersection of "S" Street and Avery Street and consist of a large storm sewer system running up "S" Street to Leonard Street	\$3,850,727
Increase and expand existing storm collection system and provide stormwater treatment. Provide tie-ins to outfall proposed in "Begins at the intersection of Avery Street and run south to Gonzalez Street, west to "U" Street and south on "U" Street to its discharge point to Maggie's Ditch." This improvement can only be constructed after the completion of the proposed outfall trunk line.		
17	Avery Street Drainage (Kupfrian Park/Hernandez and Lakeview)	\$998,563
Continued drainage for the Kupfrian Park area to include stormwater pond(s) for flood control/water quality, and conveyance system to address flooding issues on Hernandez and Lakeview between Pace and J Street.		

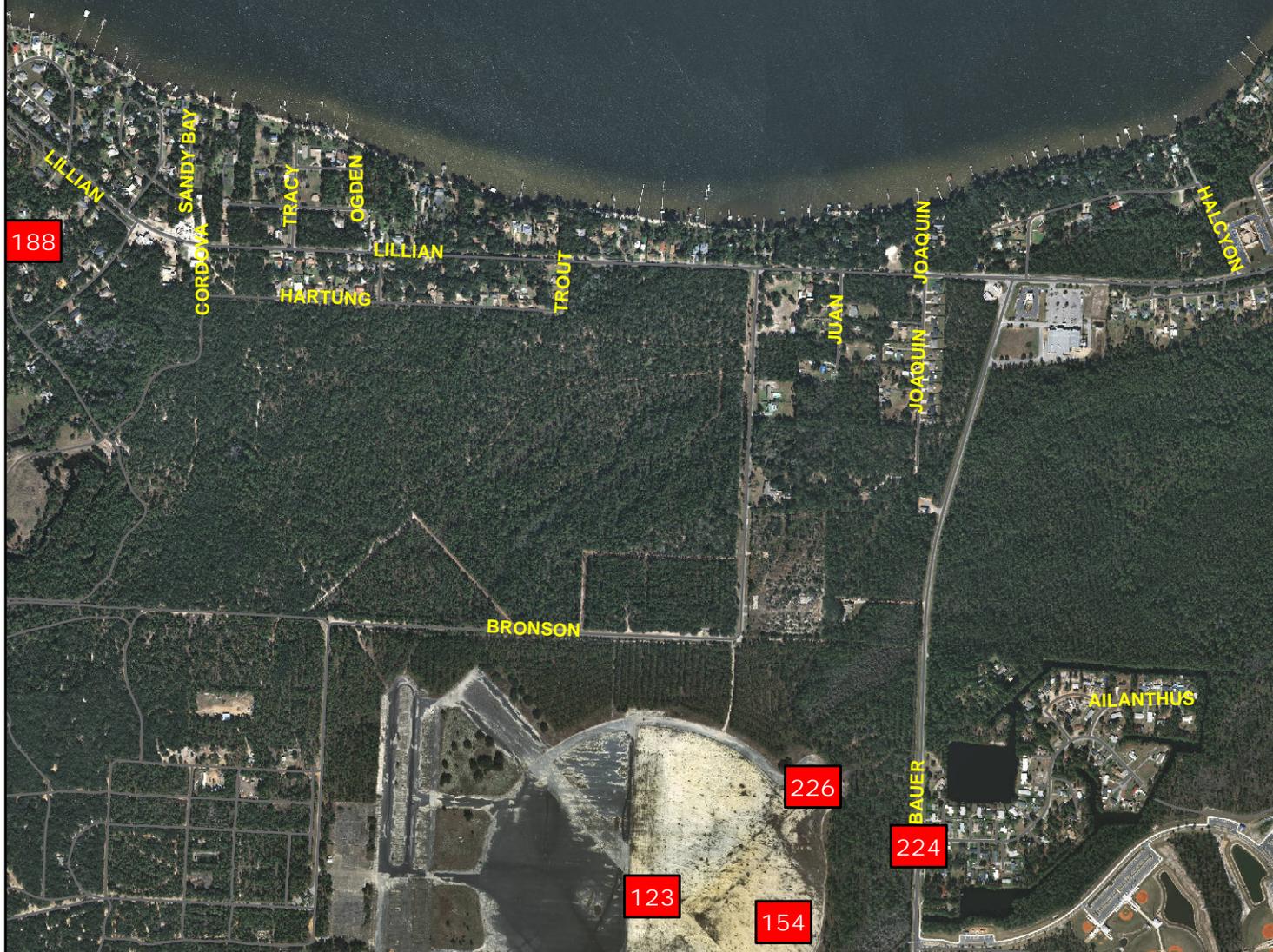
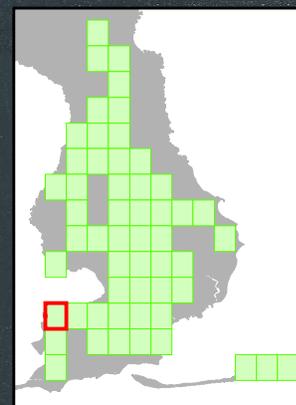


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1,200
Feet

123	Bronson Airfield design 3 (entire)	\$27,631,968
Construct a pond over the entire Bronson Airfield property.		
154	Bronson Airfield design 2 (Eastern Side)	\$9,767,981
Construct a pond on the eastern side of the Bronson Airfield property.		
224	Ailanthus Drive and Bauer Drive (culverts)	\$301,051
Upgrade culvert near intersection of Ailanthus Drive and Bauer Drive.		
226	Bronson Airfield design 1 (northeast corner)	\$1,017,098
Construct a pond in the northeast corner of the Bronson Airfield property.		



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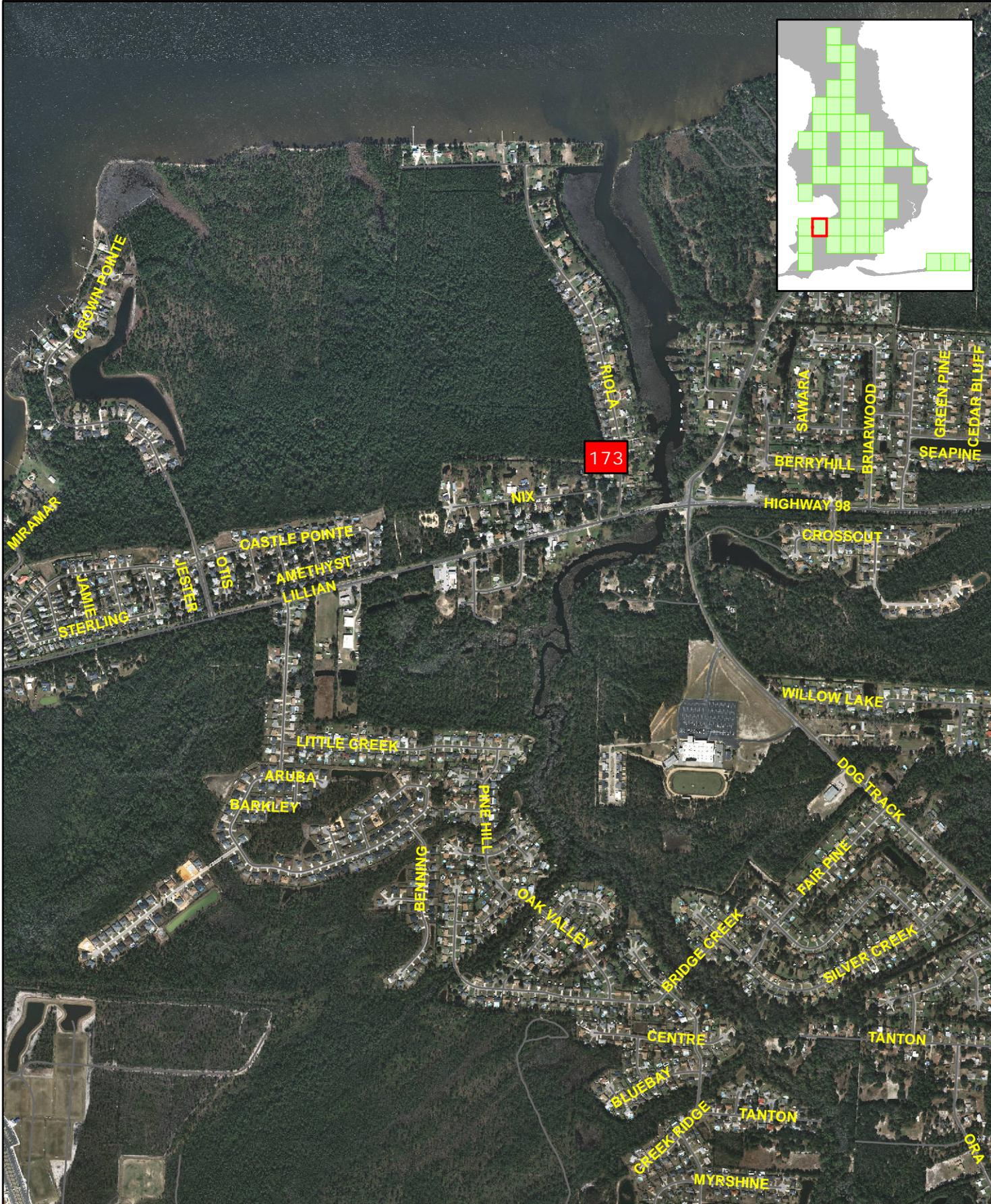
1,200
Feet

173

Riola Place - Bridge Creek/Heron Bayou Study Branch E

\$189,379

Lower pipe inverts and increase the capacity of the culvert under Riola Place to decrease out-of-bank channel flooding.



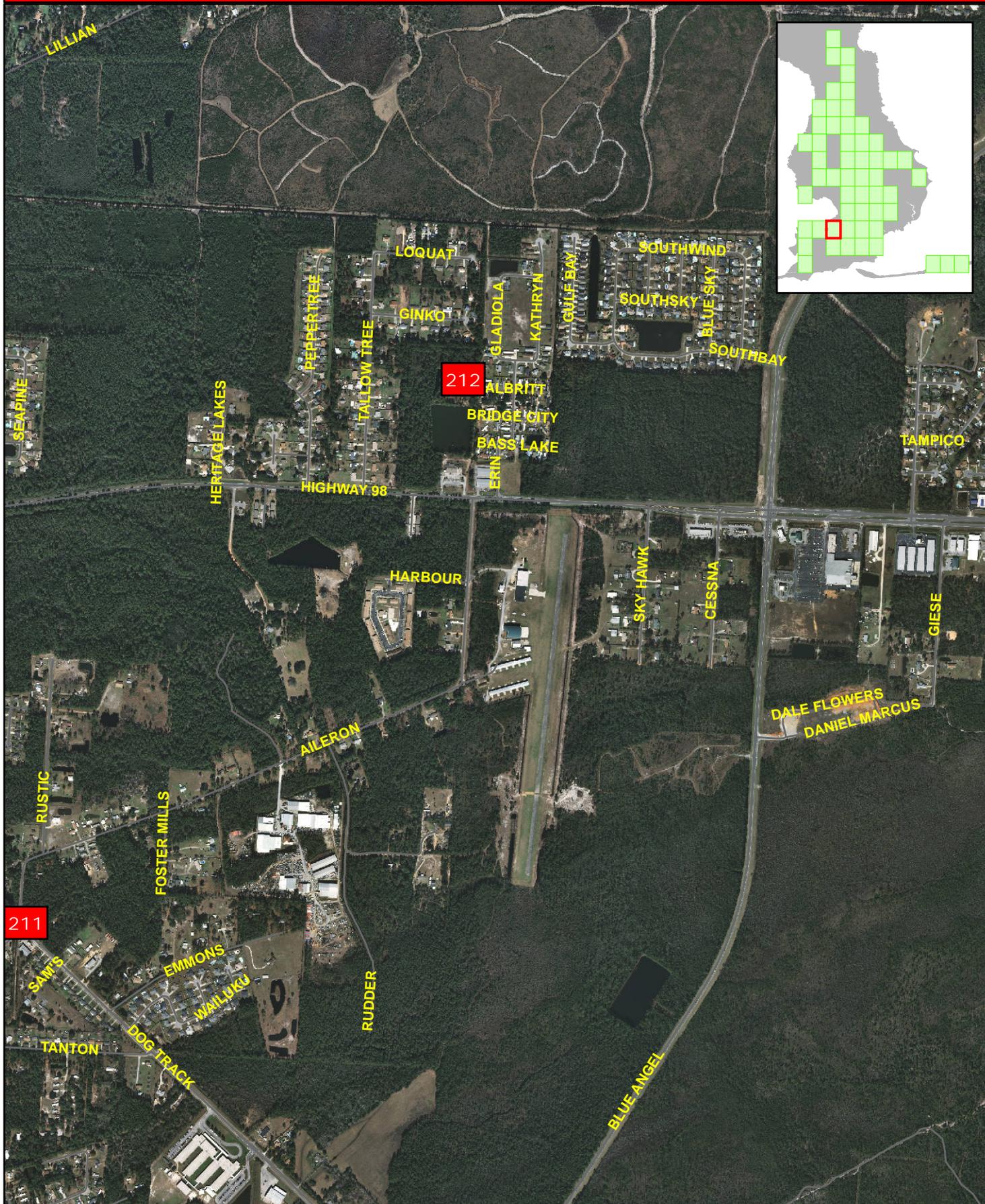
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1,200
Feet

211	Aileron Ave - Bridge Creek/Heron Bayou Basin Branch B	\$189,379
Install a new storm sewer system along Aileron Avenue and increase the capacity of the existing culvert under Dog Track Road to reduce roadway flooding.		

212	Tatnall Street - Bridge Creek/Heron Bayou Basin Branch D	\$163,750
Extend the existing ditch northward into the bayou to reduce flooding.		

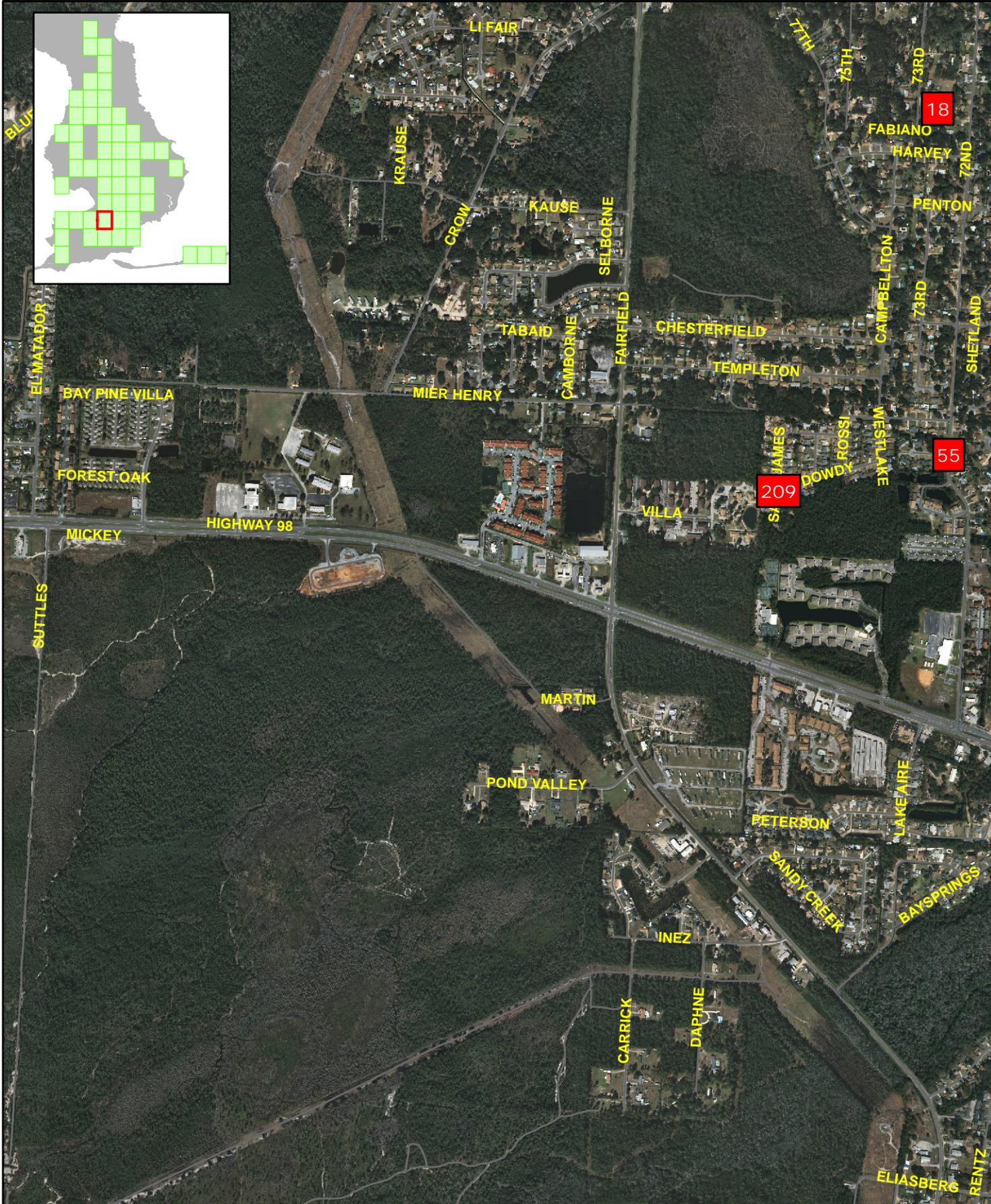


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1,200
Feet

18	Myrtle Grove System A (remaining portion)	<i>\$450,000</i>
Completion of System A to included drainage improvements including acquisition for easement and pond site on 72nd and 73rd Ave, South of Jackson, and North of Harvey St		
55	Willowside Drive and Westlake Subdvision Drainage	<i>\$750,000</i>
Address home, yard, and street flooding on 72nd Avenue and Willowside Drive through the Westlake Subdivision: Reference Warrington Basin Study-St James Branch C. May require modifications.		
209	Saint James Place-Warrington Basin Study Branch C	<i>\$902,785</i>
Construct a new stormwater system for the St James Place/Dowdy Drive area.		



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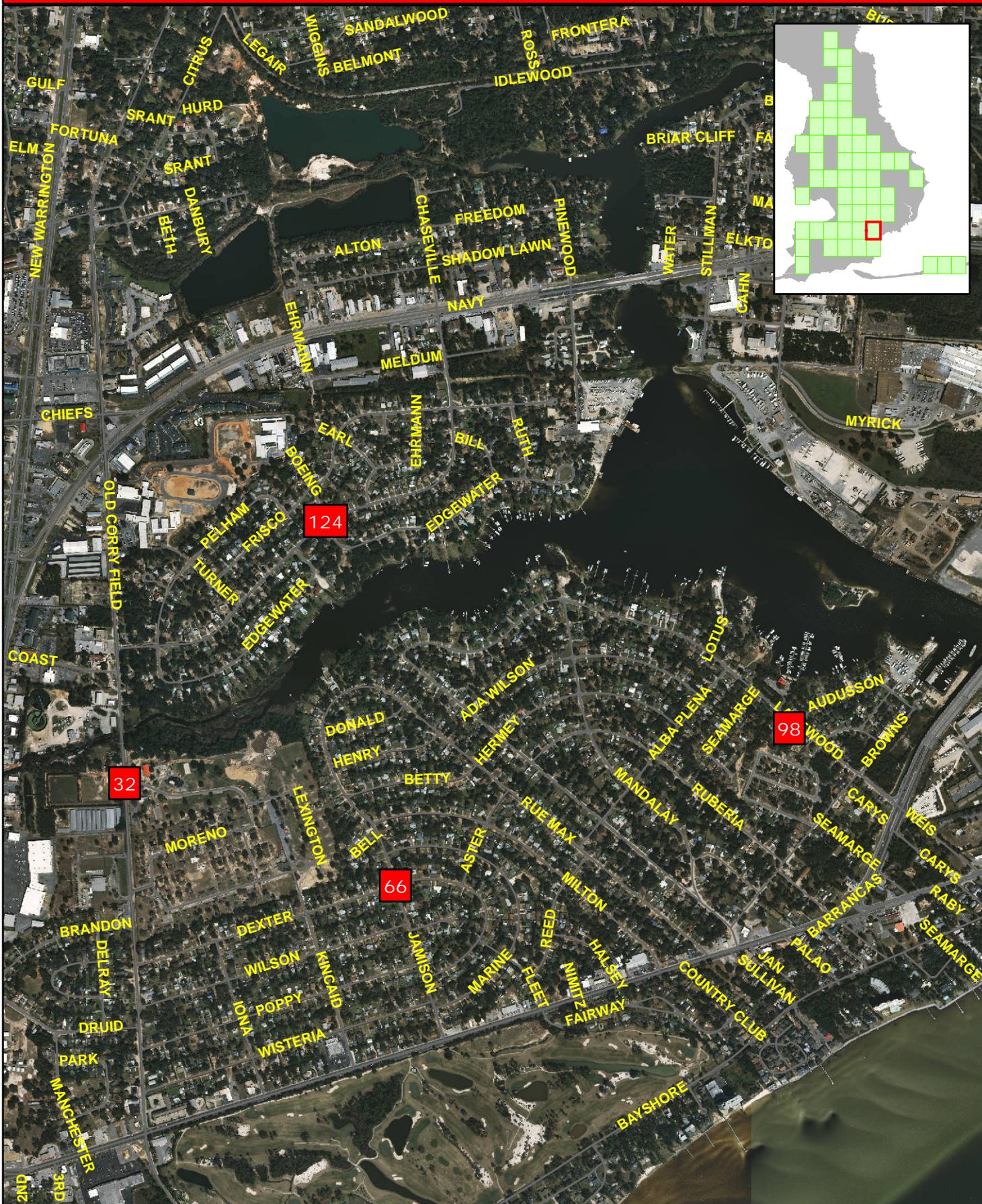


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Feet

109	Myrtle Grove System E (McNair Ln and 57th)	\$100,000
Decrease drainage impacts on Lake Charlene through drainage improvements on 72nd and 73rd Ave, South of Jackson and North of Harvey St.		
16	Old Corry Outfall Property Purchase and Flood Plain Restoration	\$978,881
Pete Moore ditch- Jackson Creek flood plain and habitat restoration.		
85	Lake Charlene/Querido Heights- Warrington Basin Branch B	\$6,765,919
Reconstruct Lake Charlene overflow structure and outfall ditch. Reconstruction of the 69th Avenue drainage system to reduce discharges to Lake Charlene, increase the capacity of the 61st Avenue drainage system, and increase the capacity of the 61st Ave, Kittyhawk Drive, Lake Charlene Lane, and Myrtle Hill Circle drainage system. Solutions are currently under evaluation.		
44	Lake Charlene Area Drainage (including future phases not covered by grant)	\$1,992,309
Increase outfall capacity of Lake Charlene by implementing some of the drainage system improvements from the 2007 Warrington Master Plan and the 2015 Lake Charlene Warrington Study.		
9	Beach Haven Area Drainage and Sewer Northeast Phase 1	\$10,887,839
Roadway/drainage and sewer improvements; currently under design (NE of Decatur Ave to Gulf Beach Highway; from Mills Ave to Decatur Ave including ponds for Phase 1 & 2)		
122	Bayou Grande Basin Study E1 - Gulf Beach Hwy Outfall Improvement	\$73,035
Increase the culvert size along Gulf Beach Hwy culvert between Brigadier and Richmond. The downstream channel to Winthrop St will be regraded and shaped to provide positive flow to the Winthrop culvert. This improvement will not affect downstream properties.		
202	Bayou Grande Basin Study E2-Brigadier St. Culvert	\$33,708
Increase the culvert size on Brigadier St. to prevent road flooding. This Improvement may have a negative impact on downstream roadway flooding.		



32	Old Corry Field Area Drainage	\$2,000,000
Construct a new stormwater collection system along Old Corry Field Road from Border Street to Jackson Creek.		
66	Jamison Street Branch F -Warrington Basin Study	\$2,000,000
Construct new stormwater system along Jamison Street and Rue Max Street with direct discharge to Bayou Chico to reduce discharges to the Barrancas Avenue System. Connect to Lexington Terrace stormwater ponds to provide water quality improvement prior to discharge to the wetlands.		
98	Lakewood/Millwood Terrace- Warrington Basin Branch F	\$4,510,975
Construct new stormwater collection system in the Lakewood Road area with a stormwater pond at Lakewood Road and Addison Avenue with an outfall under Lakewood Drive to Bayou Chico.		
124	Edgewater Drive - Warrington Basin Study Branch F	\$1,572,096
Extend and increase the capacity of the stormwater system on Edgewater and Chaseville Streets. Construct an outfall ditch and discharge pipe into Bayou Chico.		

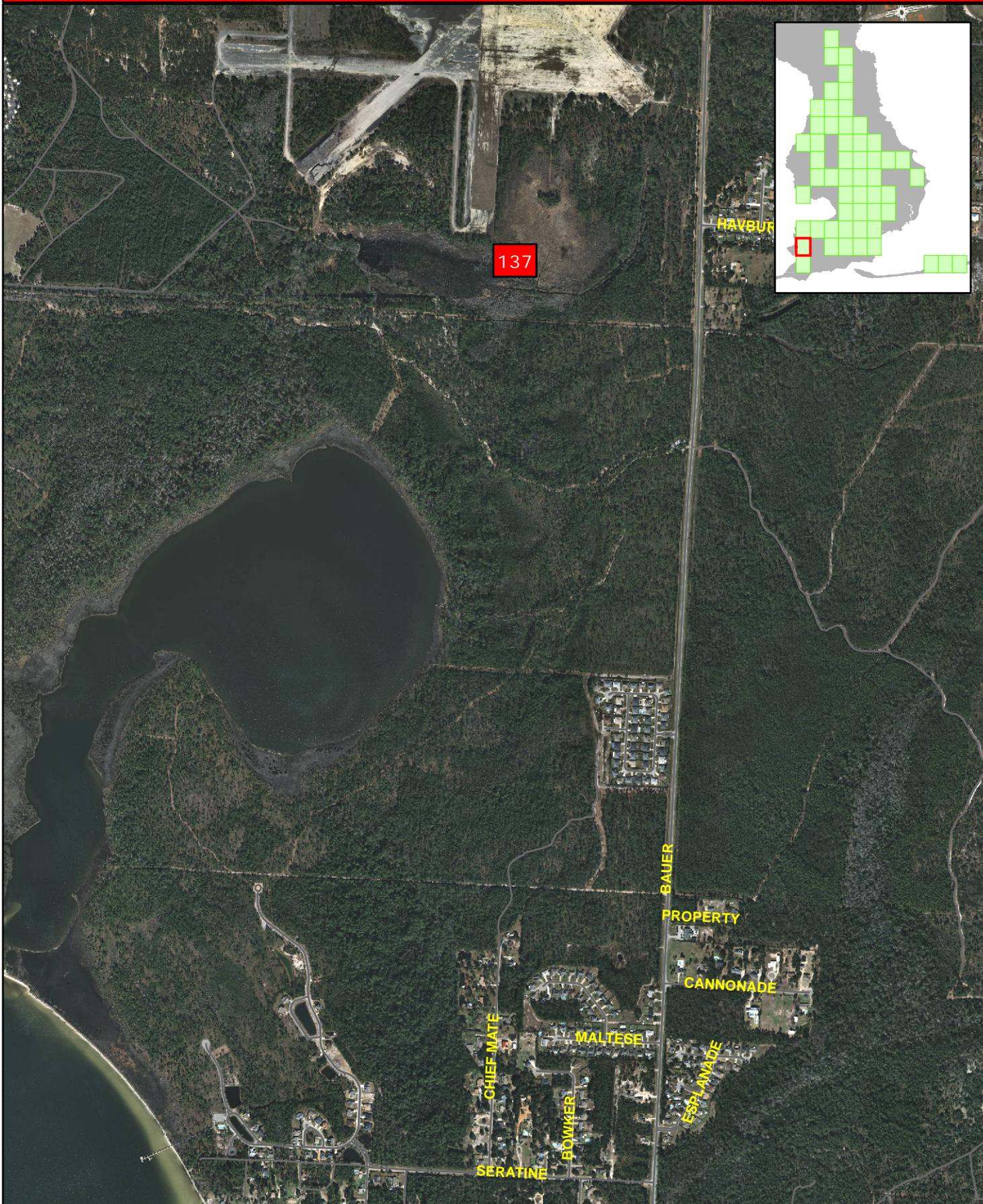


137

South Bronson Airfield Ditch Block

\$142,730

Construct ditch blocks in the ditch south of Bronson Airfield. (Treatment only)

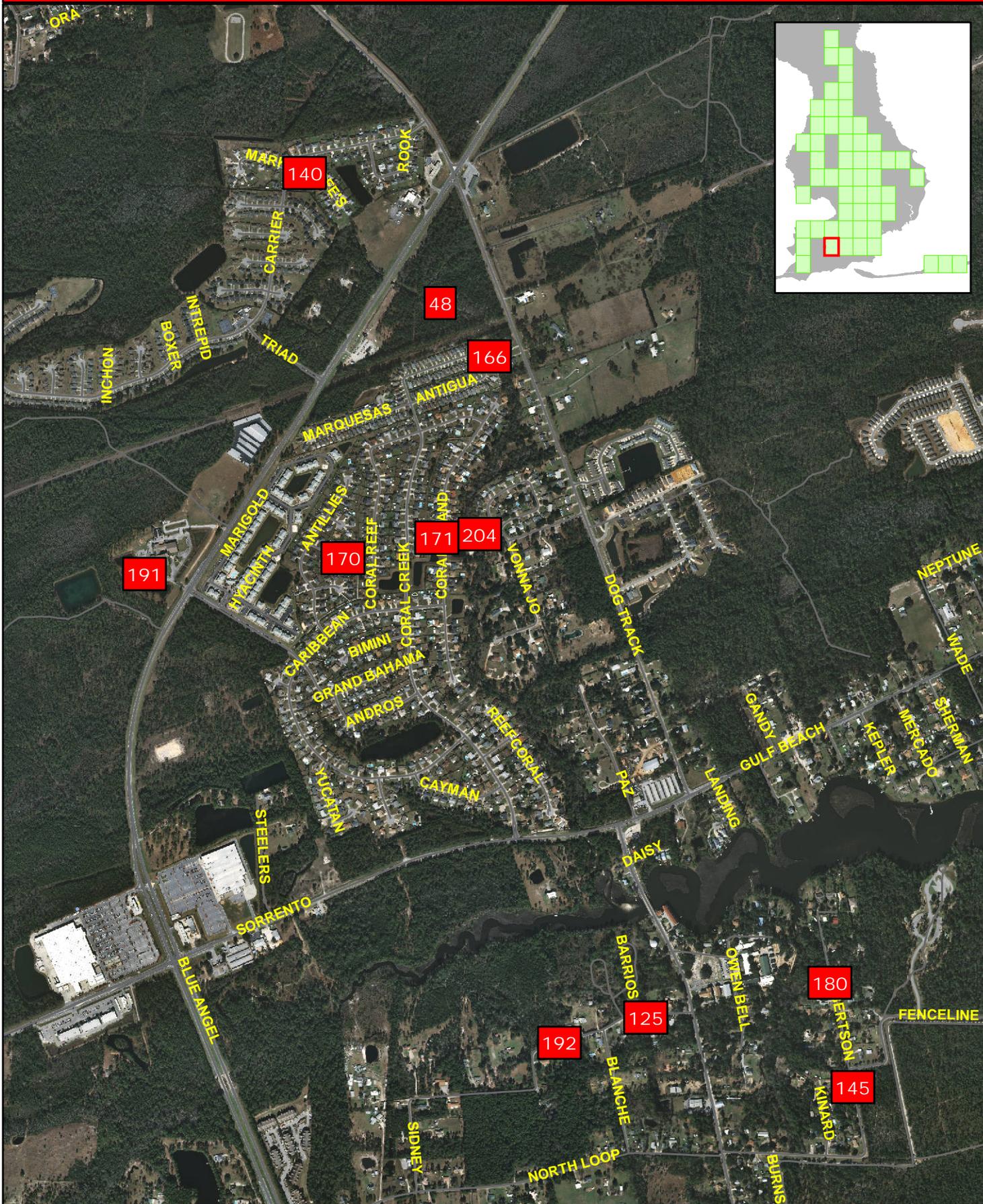


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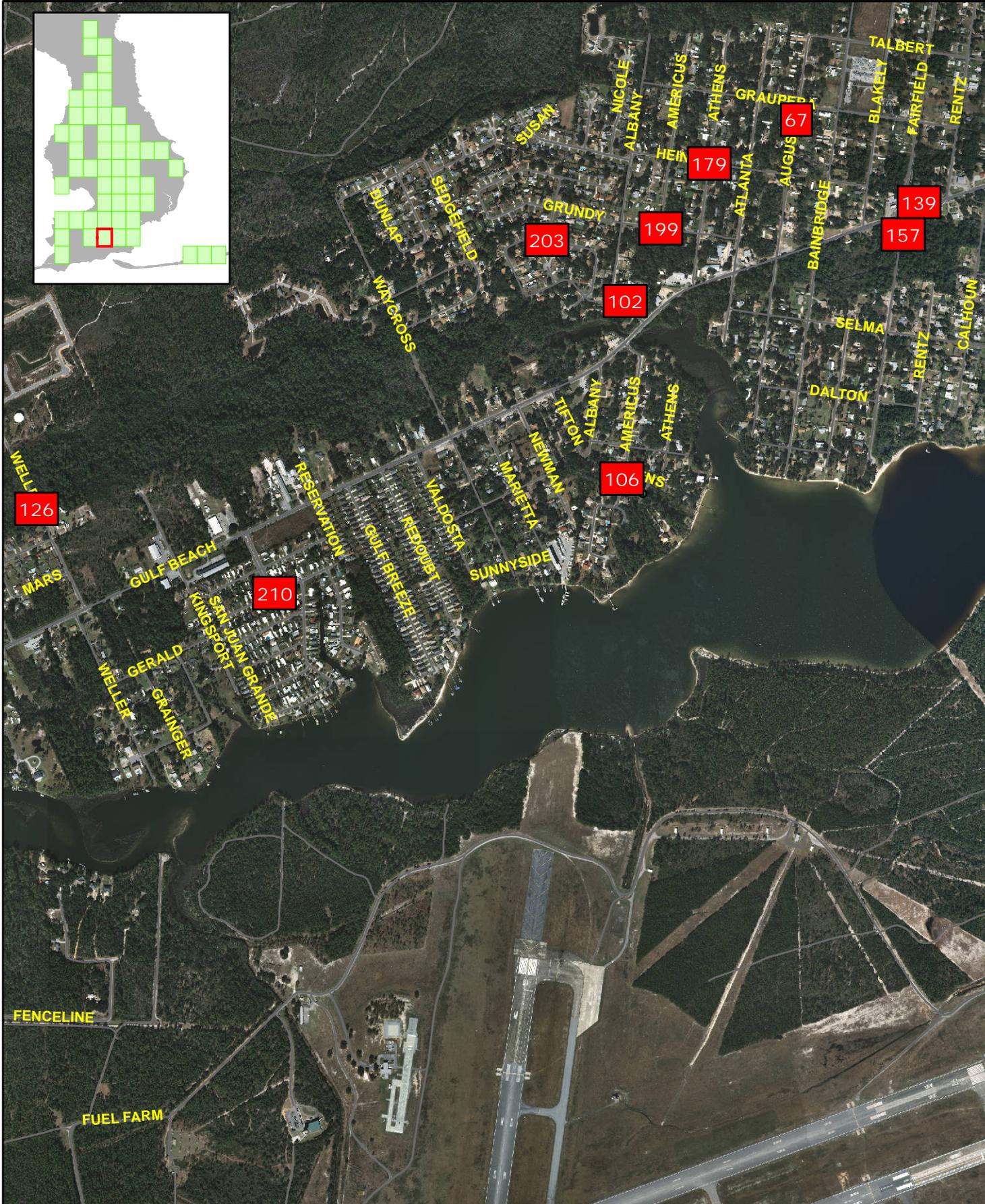


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Feet

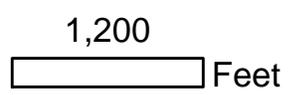
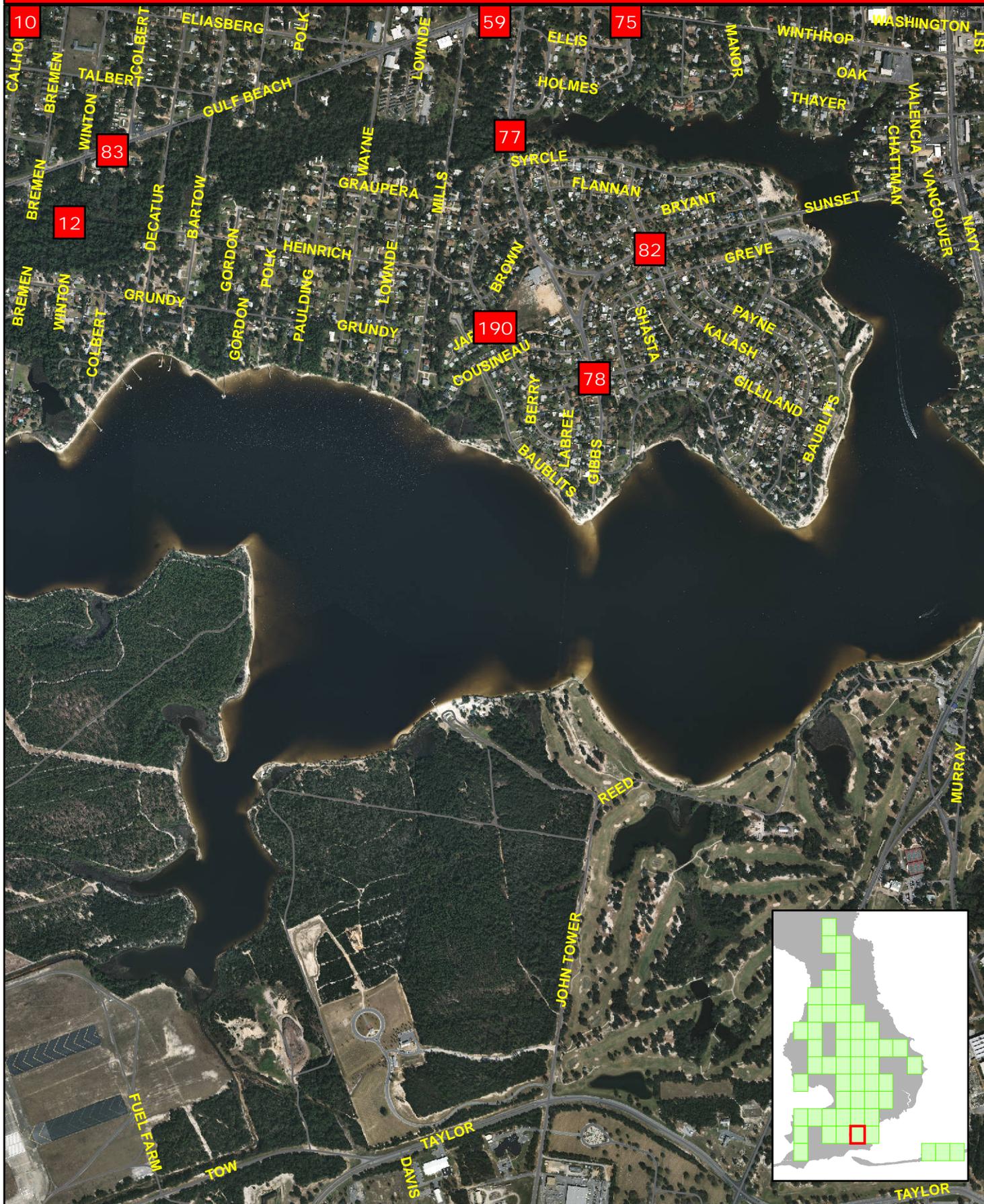
140	Bayou Grande Basin Study BB9- Carrier Dr Channel Improvements	\$8,427
Clear and regrade channel downstream of the culvert on Carrier Dr. to alleviate road flooding.		
48	Dogtrack South –Coral Creek – Mariners Village-Hampton Lakes	\$3,400,000
Stream and wetland restoration and construction of an attenuation pond. Two creeks merge north of Coral Creek, resulting in upstream flooding the affects Mariners Village to the northwest and a creek along Dog Track Road to the northeast.		
166	Coral Village Storm Drainage Replacement	\$300,000
Reduce flooding by replacing failing storm pipe within drainage easement.		
191	Bayou Grande Basin Study BB10- Liberty Church Discharge Structure	\$14,045
Provide stormwater pond at Liberty Church with a discharge structure to control the water level and time of detention.		
170	Bayou Grande Basin Study BB4- Windward Ct Outfall Improvements	\$13,483
Clean and grade ditch outfall from Windward Court in Coral Creek.		
171	Bayou Grande Basin Study BB3- Coral Island Dr. Outfall Improvements	\$36,517
Provide stormwater collection along Coral Island Dr. in order to alleviate flooding along the roadway.		
204	Bayou Grande Basin Study BB8- Vonna Jo Discharge Structure	\$14,045
Provide stormwater pond on Vonna Jo Circle with a discharge structure to control the water level and time of detention.		
192	Bayou Grande Basin Study CC2- Sidney Culvert	\$16,854
Enlarge existing culvert to prevent road flooding along Sidney Rd.		
125	Bayou Grande Basin Study CC1- Sidney Culvert	\$10,000
Enlarge existing culvert to prevent road flooding along Sidney Rd.		
180	Bayou Grande Basin Study Y1- Robertson Channel Improvements	\$106,743
Increase and extend existing roadside ditch system along Robertson Rd to control road and yard flooding.		
145	Bayou Grande Basin Study Y2- Kinard Drainage System	\$179,778
Increase and extend existing roadside ditch system along Kinard Ave. and Robertson Rd. to control road and yard flooding.		



67	Beach Haven Area Drainage and Sewer Northwest	\$4,000,000
Roadway/drainage and sewer improvements (NW of Fairfield to Gulf Beach Highway)		
179	Bayou Grande Basin Study P6- Athens St. Ditch Improvements	\$8,427
Improve and regrade existing ditch along Athens and Gulf Beach Hwy to decrease road flooding.		
203	Bayou Grande Basin Study P4- Bay Meadows Dr. Culvert	\$56,181
Replace the existing culvert on Bay Meadows Dr. with larger pipes to prevent road flooding.		
199	Bayou Grande Basin Study P5- Grundy Culvert	\$25,843
Enlarge the existing culvert on Grundy in order to prevent road flooding. This improvement may impact other improvements.		
139	Bayou Grande Basin Study P3- Fairfield Storm Sewer at Gulf Beach	\$106,743
Replace existing storm collection with a larger system to prevent road overtopping.		
157	Bayou Grande Basin Study P2- Gulf Beach Storm Sewer at Fairfield	\$78,653
Replace existing storm collection with a larger system to prevent road overtopping.		
102	Bayou Grande Basin Study P7- Bay Meadows Treatment Pond	\$112,361
Provide treatment pond for existing residential development north of Bay Meadows Dr. This will not affect downstream properties.		
106	Bayou Grande Basin Study S1- Americus Ave Culvert	\$12,000
Enlarge the existing culvert on Americus in order to prevent road flooding. This improvement may impact other improvements.		
126	Bayou Grande Basin Study R1- Weller Dr. Culvert	\$55,000
Replace and increase the existing culvert along Weller Dr. to prevent road overtopping. This improvement will not negatively impact downstream properties.		
210	Bayou Grande Villas	\$200,000
Roadway/drainage and sewer improvements; currently under design (NE of Fairfield and Gulf Beach Highway; Fairfield Dr to Colbert)		



10	Beach Haven Area Drainage and Sewer Northeast Phase 2	\$7,823,000
Roadway/drainage and sewer improvements; currently under design (NE of Fairfield and Gulf Beach Highway; Fairfield Dr to Colbert)		
12	Beach Haven Area Drainage and Sewer (South)	\$12,000,000
Roadway/drainage and sewer improvements; currently under design (NE of Fairfield and Gulf Beach Highway; Fairfield Dr to Colbert)		
78	Navy Point Drainage South	\$25,000
Construct treatment swales within Navy Point to treat stormwater as it flows to the discharge point per Bayou Grande Basin Study.		
59	Sunset/Patton/Elite/Gulf Beach Hwy Drainage Outfall	\$220,000
Realign the drainage outfall line beginning at Gulf Beach Hwy and Elite Drive to flow down Sunset St. in order to correct non-functioning sections and routing beneath homes.		
75	Bayou Grande Basin K1- Gulf Beach to Winthrop SS	\$174,160
Replace the outfall trunk line from Gulf Beach Hwy through Winthrop Ave. to prevent roadway flooding.		
83	Bayou Grande Basin Study P1- Bainbridge Culvert	\$44,945
Replace existing culvert on Bainbridge with a larger pipe to prevent road overtopping.		
77	Navy Point Drainage North	\$20,000
Construct treatment swales within Navy Point to treat stormwater as it flows to the discharge point per Bayou Grande Basin Study.		
190	Bayou Grande Basin Study L1- Cousineau Rd. Outfall	\$25,281
Replace the outfall from Cousineau Rd. to Bayou Grade by an outfall ditch in order to prevent street flooding.		
82	Navy Point Drainage and Sanitary Sewer	\$300,000
Roadway/drainage and sewer improvements; currently under design (NE of Fairfield and Gulf Beach Highway; Fairfield Dr to Colbert)		

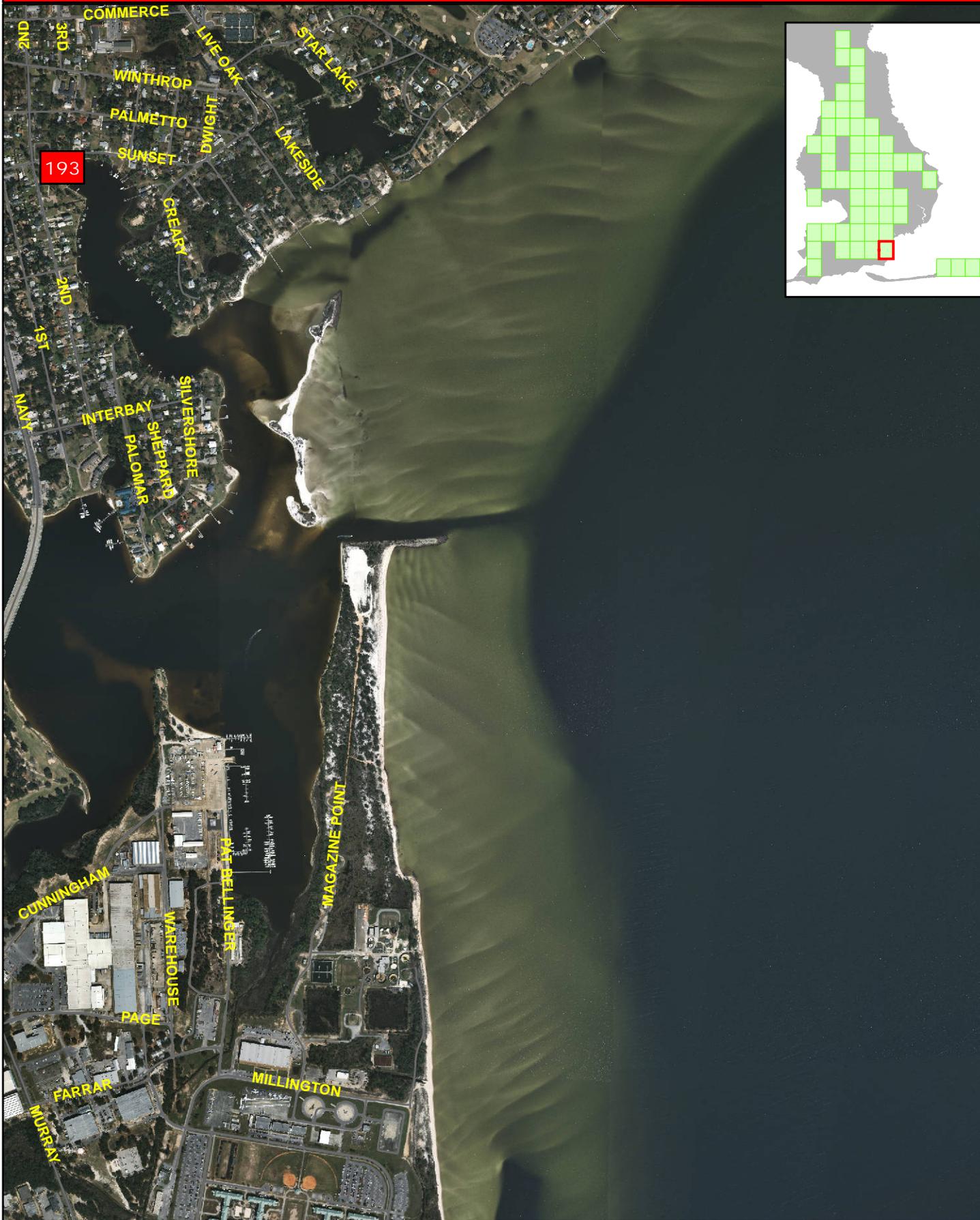


193

Bayou Grande B1- New Storm Drainage System

\$308,994

Construct a new street collection system consisting of roadside swales and culverts along 1st and 2nd streets to reduce roadway flooding. Improvement is an independent project and will not affect downstream properties.



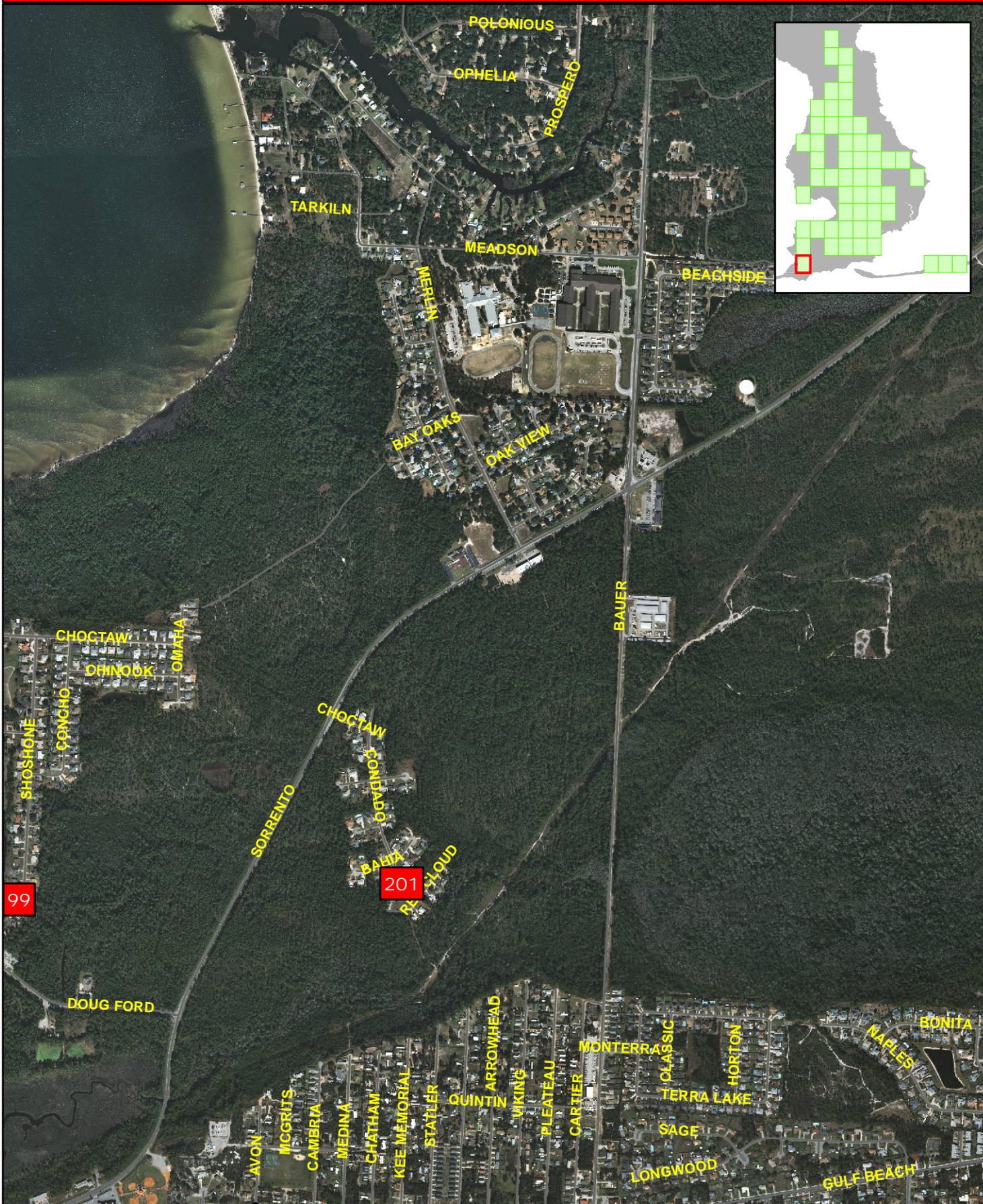
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1,200
Feet

99	Shoshone and Doug Ford Drive Drainage	<i>\$240,000</i>
Evaluate pipe system and obtain permits to restore flow the wetlands and alleviate home flooding along Shoshone Drive.		

201	Perdido Bay Country Club Estates Unit 7	<i>\$170,000</i>
Drainage and resurfacing projects to address flooding and groundwater problems		

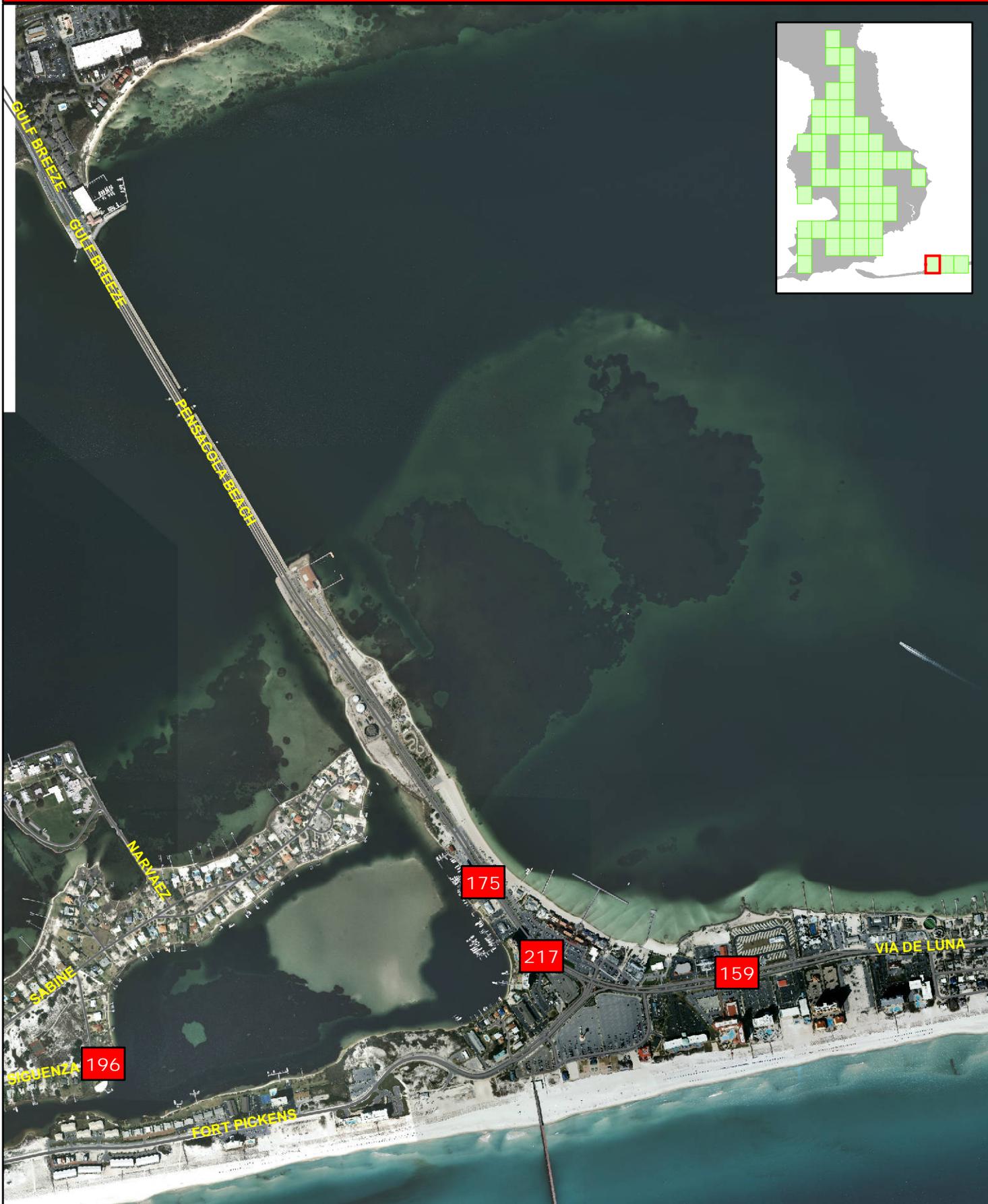


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1,200
Feet

159	Via DeLuna Drainage at Pensacola Beach RV Resort	\$287,470
System should be cleaned of sediment and checked regularly. Increased system capacity should be considered.		
175	Pensacola Beach Blvd Stormwater Outfall Upgrades	\$401,121
Installing stormwater treatment on the outfall in the vicinity of the marina within the existing stormwater easement		
196	Siguenza Drive Drainage	\$93,595
Construct a small retention area at the bend adding a new inlet at the location of the flooding		
217	Visitor Information Center Access Road Drainage	\$93,595
Regrading and repaved roadway to add slope and positive outfall to drainage inlets		

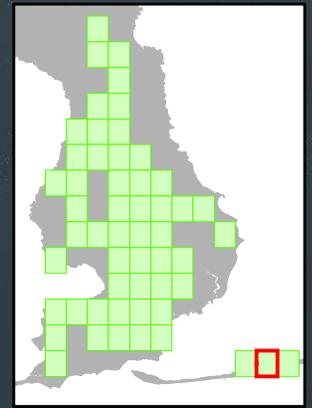


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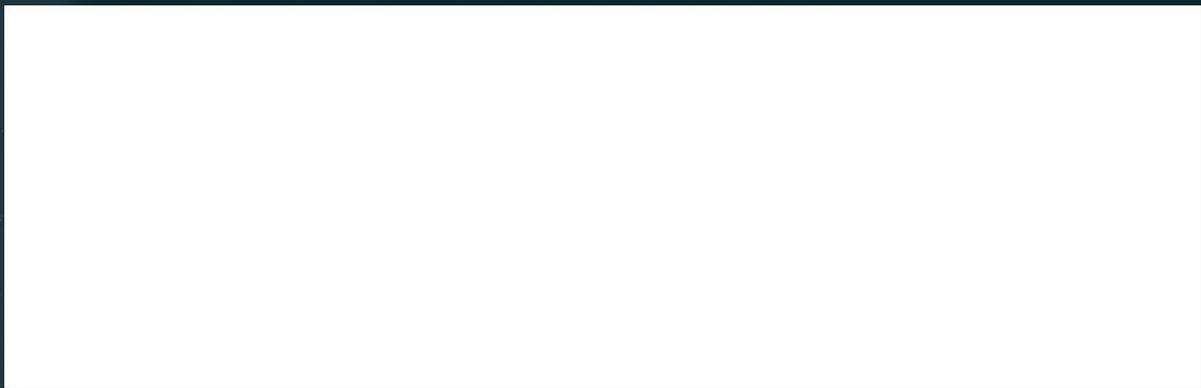
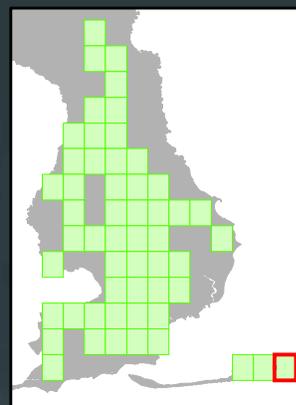
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Feet

160	Corto, Largo, and Rio Vista Drives Drainage	\$735,389
Repaving at Corto Drive and Rio Vista Drive. Regrading at Largo Drive from Avenida 17 to the sound. Stabilizing along Rio Vista Drive south of Largo Drive.		
216	Via DeLuna Side road Connection Drainage Improvements	\$334,268
Drainage Improvements		



194	Calle Juela Drainage at Via DeLuna	\$93,595
Regrade to a grate inlet with outfall through an exfiltration pipe		

195	Calle Traviesa Drainage at Via DeLuna	\$93,595
Regrade to a grate inlet with outfall through an exfiltration pipe		





449 W. Garden Street, Pensacola, FL 32502

www.baskervilledonovan.com

Committee of the Whole

5.

Meeting Date: 08/13/2015

Issue: Allocation of RESTORE Direct Component Funds

From: Keith Wilkins, Department Director

Information

Recommendation:

Allocation of RESTORE Direct Component Funds

(Keith T. Wilkins - 30 min)

A. Board Discussion

B. Board Direction

Attachments

CW Rec-Allocation RESTORE Direct Component Funds



BOARD OF COUNTY COMMISSIONERS Escambia County, Florida

Committee of the Whole Workshop

Meeting Date: 08-13-2015
Issue: Allocation of RESTORE Direct Component Funds
From: Keith T. Wilkins, Director
Organization: Department of Natural Resources Management
CAO Approval:

RECOMMENDATION:

Recommendation Concerning the Allocation of RESTORE Direct Component Funds – Keith T. Wilkins, Director, Department of Natural Resources Management

That the Board consider the following issues concerning the allocation of RESTORE Direct Component Funds:

- A. Does the Board wish to procure only or consider sub recipients?;
- B. If sub recipients, do we authorize by size and federal experience?
(City of Pensacola, ECUA, UWF, PSC, Town of Century, School District); and
- C. Hybrid: Would County consider “partnerships” (remain fiscal agent) for non-county expertise projects?
(Partnering agreements for smaller applicants such as: Career Source EscaRosa, Chamber of Commerce, PEDC, Pathways for Change, BRACE, United Way, small NGOs)

BACKGROUND:

The RESTORE Act allows for two mechanisms to allocate funds: procurement and sub grants. Both must comply and therefore the County must require each of its Contractors, Sub recipients and subcontractors with all Federal statutes, Federal regulations, Executive Orders, OMB circulars, Standard Terms and Conditions, Program-Specific Terms and Conditions, and any Special Award Conditions of the grant award, including the items below:

- Execute a legally binding written agreement with the sub recipient
- Evaluate and document each sub recipient’s risk of noncompliance
- Monitor the sub recipient’s use of federal funds through reporting, site visits, regular contact and other means to provide reasonable compliance
- Verify that every sub recipient is audited (if over auditing threshold)
- Provide training and technical assistance to the sub recipient as necessary
- If necessary, take appropriate enforcement actions against non-compliant sub recipients

- Ensure that a sub recipient who makes a sub award applies the terms and conditions of the award
- Maintain written standards of conduct governing the performance of its employees involved in executing the award and administration of sub awards

As project selection is nearing (October 1, 2015), the RESTORE Advisory Committee, County Staff and the public will need to understand the Board's direction on funding allocation and project selection.

BUDGETARY IMPACT:

Funds will continue to flow through the County, so there is no budgetary impact from this action.

LEGAL CONSIDERATIONS/SIGN-OFF:

To be determined from direction provided.

PERSONNEL:

To be determined if there is personnel impact in resource demand for project management and compliance administration.

POLICY/REQUIREMENT FOR BOARD ACTION:

Necessary for direction of RESTORE fund allocation.

IMPLEMENTATION/COORDINATION:

Implementation will be coordinated between the Clerk's Office, Department of Natural Resources Management and the Purchasing Office.

Attachments

Committee of the Whole

6.

Meeting Date: 08/13/2015

Issue: Jail Update

From: Jack Brown, County Administrator

Information

Recommendation:

Jail Update

(Jack Brown - 30 min)

A. Board Discussion

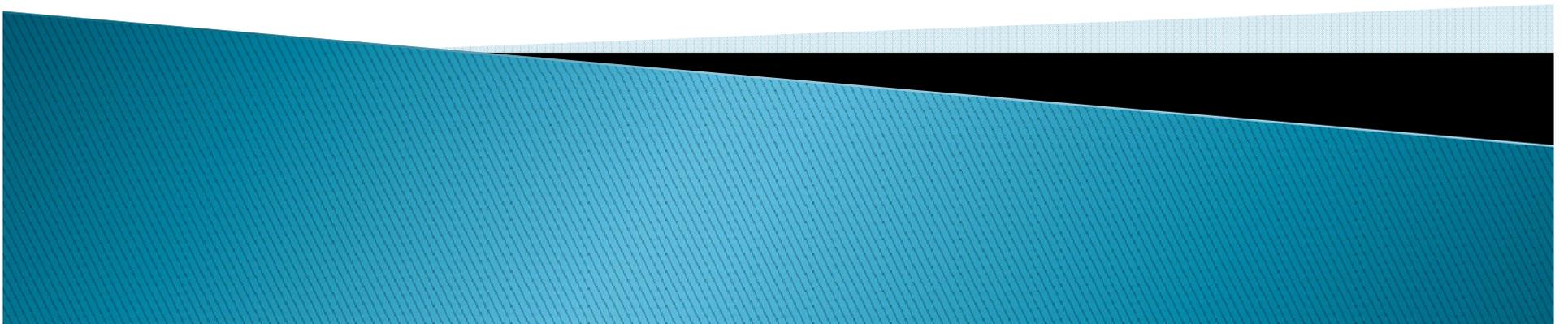
B. Board Direction

Attachments

Jail Update Part VI

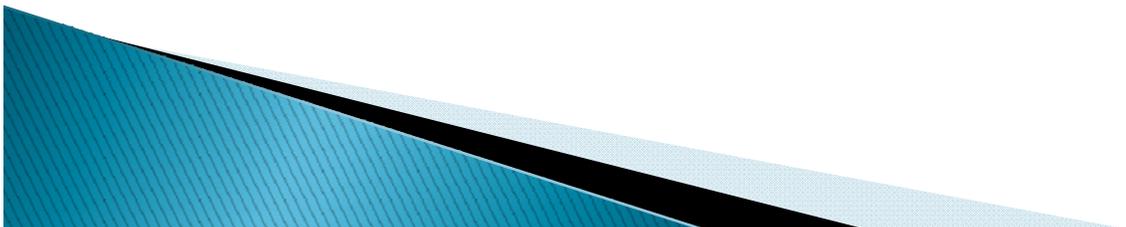
Jail Update

08/13/2015



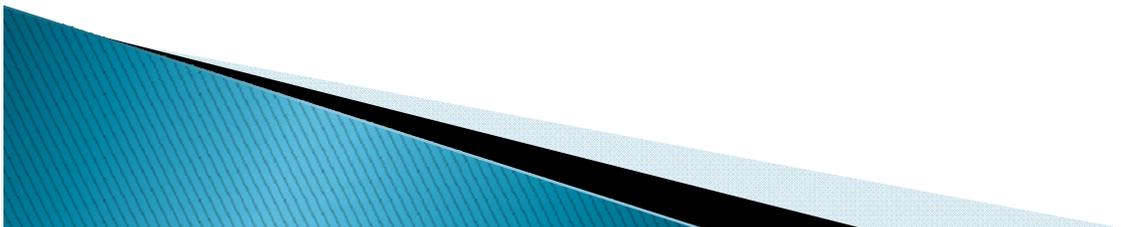
Timeline to Completion

	2015					2016					2017					2018															
Process	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O
Appraisals, Phase I Environmental	█	█																													
Design Criteria Professional					█	█	█	█	█	█	█	█	█	█	█	█															
Site Selection					█	█	█	█	█	█	█	█	█	█																	
Land Acquisition					█	█	█	█	█	█	█	█	█	█																	
Rezoning															█	█															
Design																						█	█	█	█	█	█				
Construction																															



Repair vs. Replacement

- ▶ FEMA has performed a repair vs. replacement analysis for the Central Booking Detention Facility (CDBF).
 - The repair cost exceeds 50% of the estimated cost to replace the facility. Therefore, according to FEMA guidelines, the buildings should qualify for replacement.



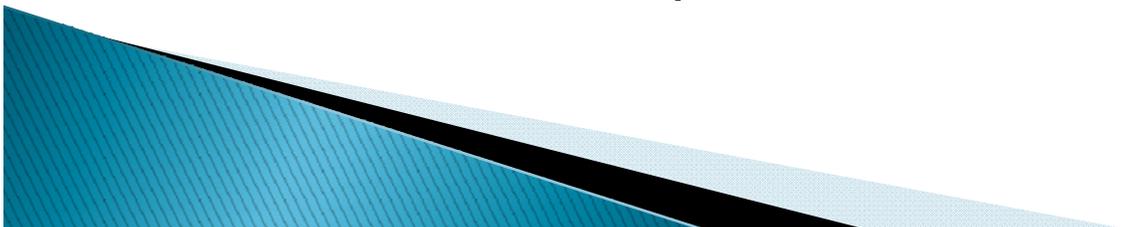
CBDF Replacement

- ▶ The PW for the replacement of this facility is currently about \$55,100,000.
- ▶ The PW for the replacement of CBDF would rebuild the same size facility utilizing current building codes and standards. However, it does not take into account recommended practices regarding minimum space requirements for inmates.
 - These practices require additional space in each cell increasing the overall square footage of the facility.
 - County staff are attempting to have FEMA take into account these recommended practices.



Design Criteria Professional

- ▶ The contract for the award to the Design Criteria Professional is scheduled to come to the Board on 8/20/15.
- ▶ If this contract is approved, it is anticipated that this firm will commence work in September.
- ▶ The firm's first task will be to evaluate and rank the 3 remaining potential jail sites.
 - The superfund site
 - The Brent/Palafox site
 - The Palafox/Airport site



Committee of the Whole

7.

Meeting Date: 08/13/2015

Issue: Interim Detention Facility

From: Amy Lovoy, Assistant County Administrator

Information

Recommendation:

Interim Detention Facility (BACKUP TO BE DISTRIBUTED UNDER SEPARATE COVER.)

(Amy Lovoy/David Wheeler - 15 min)

A. Board Discussion

B. Board Direction

Attachments

No file(s) attached.

Committee of the Whole

8.

Meeting Date: 08/13/2015

Issue: Direction from the Board on Outside Agencies

From: Amy Lovoy, Assistant County Administrator

Information

Recommendation:

Direction from the Board on Outside Agencies

(Amy Lovoy - 60 min)

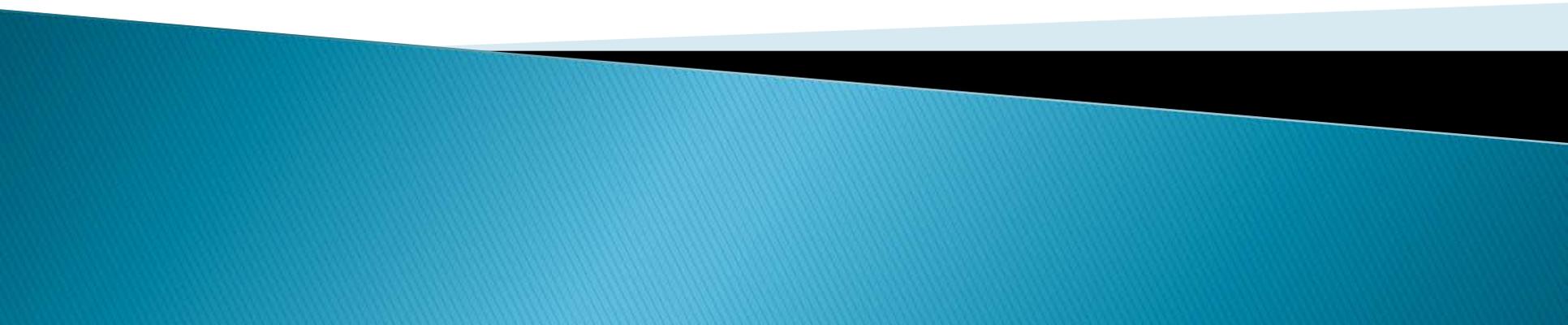
A. Board Discussion

B. Board Direction

Attachments

Outside Agency Funding Presentation

Outside Agency Funding

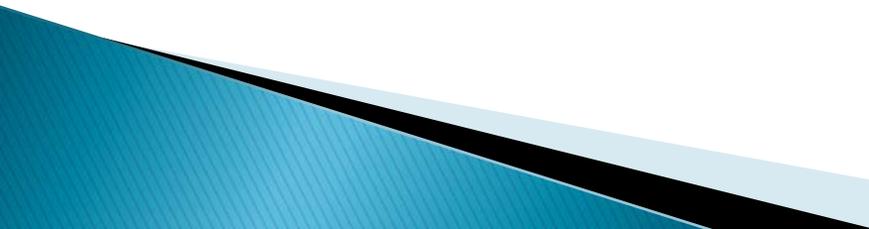


Current County Process

- ▶ Outside Agencies fill out a request form. The form asks the agency to document the following:
 - The amount requested
 - The service(s) provided to the community
 - If there are plans to increase/decrease service levels or staff
 - Dependence on local match
 - Type of in-kind support received, if any
 - If you are a non-profit agency as defined by IRS regulations.
 - A financial report from the agency's most recently completed fiscal year
 - A copy of the agency's most recent tax return and/or audit.

- ▶ Not all agencies complete this form.

Current County Process

- ▶ If the agency request is not tourist related, the funding request is placed on a list and considered by the Board typically at the budget workshops or as received throughout the year.
 - ▶ Agencies requesting funding for tourist related activities can submit a request to the Tourist Development Council for funding, or submit the request to the County for consideration for funding from the 4th Cent Tourist Development Tax.
- 

United Way Process

- ▶ Any requesting agency must be certified by providing the following information:
 - The IRS determination letter
 - Articles of incorporation
 - Corporate bylaws
 - State of Florida tax exempt certification
 - State of Florida solicitation registration number
 - Current board of directors
 - Current annual report
 - 25 word definition of organization's purpose; must include administrative and fundraising percentages
 - Most recently completed tax return
 - Current board of directors meeting schedule
 - Most recent audit (if required)
 - Completed Agency support form
 - Demonstration of compliance with the Patriot Act

United Way Process

- ▶ Once an agency has been certified, they may then apply to the United Way for funding.
 - ▶ The application for funding includes basic demographic data for the organization including the number of employees, board members, length of tenure for the agency head, description of the program, etc.
 - ▶ The application further asks for the amount requested, and any funds that would be leveraged
- 

United Way Process

- ▶ Every application for funding must fit into one of the United Way's funding categories
 - Health
 - Education
 - Financial Stability
- ▶ Every application must further align itself with the specified goals for each category listed above.
 - For example, in the Financial Stability category one of the prescribed goals is "Reduce the number of people living below the federal poverty level"
- ▶ Outcomes for this goal must then be measured using approved measurement tools
 - For example if the goal is to "Reduce the number of people living below the federal poverty level," then the measurement tools would be housing status, use of food stamps or WIC, reduction of debt, etc.

Board Direction

- ▶ Application Process
- ▶ Special Workshop

Committee of the Whole

9.

Meeting Date: 08/13/2015

Issue: Escambia County/Martin Mercy Bench and Shelter Contract Transition

From: Joy D. Blackmon, P.E., Department Director

Information

Recommendation:

Escambia County/Martin Mercy Bench and Shelter Contract Transition
(Colby Brown and Don Christian - 15 minutes)

- A. Board Discussion
 - B. Board Direction
-

Attachments

Bus and Shelter Transition Plan

Escambia County / Martin Mercy



Bench and Shelter Contract Transition

August 13th Committee of the Whole



Current Contract

- December 12, 2010 – Contract begins
- September 30, 2015 - Contract expires
- Annual cost to county - \$0
- Annual revenue – approx \$18,000
- All amenities owned by Martin Mency (MM)
- MM retains sole advertising rights

Proposed

- **Allow contract to expire**
- **Bring amenities program in-house**
- **Annual cost to county - \$65,000**
(ECAT personnel)
- **Initial cost for maintenance materials – \$9,500**
- **Annual revenue – approx \$220,000**
- **All amenities owned by county**
- **Amenity Acquisition Plan**

Current Inventory Overall

- 1,076 Bus Stops in Escambia County
- 270 Bus Benches
- 59 Bus Shelters
(12 county-owned)



Current Martin Mercy Inventory

Benches

257 bus benches in Escambia County



Current Martin Mercy Inventor Shelters

47 bus shelters in Escambia County



Negotiations History

- April 9, 2015
Board authorized
County Admin. to
negotiate
- May 21, 2015
Martin Mency 1st
offer - \$650,000
- June 24, 2015
Escambia County
counter-offer -
\$283,260
- July 13, 2015
MM final offer -
\$619,992

Purchase Existing Martin Mercy Amenities

Pros

- County will have oversight of all amenities, including ADA compliance
- Cost to county is \$620,000 (allocated)
- No disruption to transit riders
- Supplement vs replace with new amenities
- Allows for easier transition with advertising

Cons

- Still using some older, outdated amenities
- Not consistent in appearance

Purchase New Amenities



Pros

- County will have oversight of all amenities, including ADA compliance
- All brand new amenities

Cons

- Cost to County is approx \$840,000 (allocated)
- 4 to 6 month disruption to transit riders during installation of new benches and shelters
- Advertising transition more difficult

Request



- Board to determine whether or not to purchase existing amenities
- Discussion / Questions

Committee of the Whole

10.

Meeting Date: 08/13/2015

Issue: Land Development Code (LDC) - Savings Clause

From: Alison Rogers, County Attorney

Information

Recommendation:

Land Development Code (LDC) - Savings Clause

(Alison Rogers - 10 min)

A. Board Discussion

B. Board Direction

Attachments

Draft Ordinance

1 eliminated as a result of the April 16, 2015 adoption of the LDC, may apply to
2 have the previous residential density or permitted land uses reinstated. Only
3 residential density and permitted land uses on record on the date of adoption
4 shall be eligible for reinstatement pursuant to this section. Applications shall be
5 approved, unless reinstating the previous residential density or land uses would
6 cause the parcel's density or uses to become inconsistent with the existing
7 applicable future land use (FLU) category. If the density or land uses would
8 become inconsistent with the existing applicable FLU, approval for reinstatement
9 shall be granted only after a FLU amendment consistent with the previous
10 density and uses has been approved and adopted according to the amendment
11 provisions in Article 7 of Chapter 2. All applications for reinstatement and FLU
12 amendments made pursuant to this section shall be submitted to the Planning
13 Official and processed at no cost to the land owner.

14 **(b) Applicability.** This section is not intended to authorize density or land uses that
15 are otherwise limited by the LDC. These limitations include, but are not limited to,
16 the provisions of the overlay zoning districts, the airport/airfield environs,
17 floodplain management, or location criteria.

18
19 **Section 2. Severability.**

20 If any section, sentence, clause or phrase of this Ordinance is held to be invalid or
21 unconstitutional by any Court of competent jurisdiction, then said holding shall in no way
22 affect the validity of the remaining portions of this Ordinance.

23
24 **Section 3. Inclusion in Code.**

25
26 It is the intention of the Board of County Commissioners that the provisions of this
27 Ordinance shall be codified as required by F.S. § 125.68 (2015); and that the sections,
28 subsections and other provisions of this Ordinance may be renumbered or re-lettered
29 and the word "ordinance" may be changed to "section," "chapter," or such other
30 appropriate word or phrase in order to accomplish such intentions.

31
32
33
34
35 **INTENTIONALLY LEFT BLANK**
36
37
38
39
40
41

1 **Section 4. Effective Date.**

2
3 This Ordinance shall become effective upon filing with the Department of State.

4
5 **DONE AND ENACTED** this _____ day of _____, 2015.

6
7 **BOARD OF COUNTY COMMISSIONERS**
8 **OF ESCAMBIA COUNTY, FLORIDA**

9
10 **By:** _____
11 **Steven Barry, Chairman**

12
13 **ATTEST: PAM CHILDERS**
14 **Clerk of the Circuit Court**

15
16 **By:** _____
17 **Deputy Clerk**

18 **(SEAL)**

19
20 **ENACTED:**

21 **FILED WITH THE DEPARTMENT OF STATE:**

22 **EFFECTIVE DATE:**

23

Committee of the Whole

11.

Meeting Date: 08/13/2015

Issue: EDATE Update

From: Amy Lovoy, Assistant County Administrator

Information

Recommendation:

Economic Development Ad Valorem Tax Exemption (EDATE) Update
(Amy Lovoy - 15 min)

- A. Board Discussion
 - B. Board Direction
-

Attachments

EDATE Update Presentation

EDATE

Economic Development
Ad Valorem Tax Exemption
Ordinance

History

- ▶ In January 2012, Escambia County voters renewed by referendum the Board's authority to grant EDATES for another 10 years, thru December 10, 2022
 - ▶ The primary County Ordinance establishing the EDATE criteria has not been updated since prior to 2002
 - ▶ A Resolution of Intent may be adopted prior to the submission of the business' EDATE application and adoption of the individual business' Ordinance granting the exemption
 - ▶ FloridaWest Economic Development Alliance (formerly under the Chamber of Commerce) currently vets EDATE applications for the Board and the Property Appraiser reports on projected tax loss
- 

Current Status

- ▶ For the FY14 Tax Roll, twelve EDATE renewals were granted to 10 companies in Escambia County
 - Navy Federal Credit Union currently has 3 active EDATES
- ▶ These EDATES range from 23% to 100% of exemptions on improvements to real and/or tangible personal property for 10 years
- ▶ Staff seeks Board direction to repeal the current primary Ordinance and adopt a more streamlined replacement

Proposed Changes

Item	Current	Proposed
Qualification Language	“Criteria may be used...” with a chart that follows	“Point system shall be used...” with a modified chart
Minimum Number of Points for EDATE Consideration	None	Establishing 4-point minimum to qualify
Point System/Criteria Qualification Specifics	None	4-7 pts = 25% exemption 8-10 pts = 50% exemption 11-14 = 100% exemption
Enterprise Zone Language	Unclear; has been topic of debate in previous EDATE discussions	Specifies “County” Enterprise Zone only and establishes 1 point for location or expansion of business in EZ

Proposed Changes (cont)

Item	Current	Proposed
Capital Investment Criteria	Under \$1 million = 1 point \$1 million –5 million = 3 points Over \$5 million = 5 points	\$1 million –5 million = 1 point \$5,000,001–\$10,000,000 = 3 points Over \$10 million = 5 points
# of Employees Criteria	Unclear; chart requires minimum of 25 for 1 point, but the “expansion of existing business” and “new business” definitions state only 10 additional employees are required in some cases*	Lowers minimum to 10 on chart

* In the definitions section, language was also added to specify that if a business was seeking to qualify with the minimum # of new employees (10), the business had to both pay above average annual wage and be an industrial/manufacturing facility or “a target business enterprise as identified in section 78–304 and referenced in section 78–309(g) of the Code of Ordinances of Escambia County, Florida”. A definition for “average annual wage” was also added, specifically as the State of Florida statistic reported for Escambia County.

General Info

- ▶ The proposed changes will not alter any current established EDATE, though those not fully realized may be affected.
 - ▶ The proposed changes should also make it easier for businesses to quantify with certainty an investment in Escambia County, and hopefully attract more target industry.
- 

Committee of the Whole

12.

Meeting Date: 08/13/2015

Issue: Brownsville Community Center

From: Jack Brown, County Administrator

Information

Recommendation:

Brownsville Community Center
(Jack Brown/Tonya Gant - 20 min)

- A. Board Discussion
 - B. Board Direction
-

Attachments

Brownsville Community Center Backup



ESCAMBIA COUNTY, FLORIDA BOARD OF COUNTY COMMISSIONERS

FACILITIES MANAGEMENT DEPARTMENT

100 E. Blount Street
Pensacola, FL 32501

David W. Wheeler, CFM
Director

MEMORANDUM

FMA-035

TO: Jack R. Brown, County Administrator
FROM: David W. Wheeler, CFM, Director 
DATE: July 30, 2015
SUBJECT: Brownsville Community Resource Center

The Brownsville Community Resource Center Project currently has a budget of \$1,300,000. The budget breakdown is estimated at \$961,000 for general contractor services, \$170,000 set aside for unforeseen conditions /contingency, \$135,000 for Architectural and Engineering (AE) fees and \$34,000 for our DCAT project management fees. On Monday, August 3rd, Purchasing will advertise the Request for Letters of Interest (RLI) for AE services. Once the RLI process is completed a recommendation will be brought before the Board to approve these AE services. The AE's scope will be to prepare construction documents (drawings and specifications) for a formal sealed bid solicitation for a General Contractor to perform the required construction and renovation work. AE efforts to prepare the construction documents are estimated at 4 months and the General Contractor's work is estimated at 9 to 10 months. The project should be completed in January 2017.

To perform this project without the use of a professional AE team would be extremely difficult, requiring numerous formal and informal contract solicitations. At a minimum, we will be required to hire a mechanical engineer to evaluate the HVAC system, a building envelope specialist for the Exterior Insulation Finishing System (EIFS), openings and roof system, and an environmental engineer to assess the indoor air quality concerns in the building. All three would require a solicitation and selection to keep the process competitive. After an extensive investigation of the "as is" condition of the facility, scope narratives, drawings, and specifications will be required in order to solicit contractor services. Many of these activities will require "stamped/sealed" drawings from licensed professionals in order for the Building Inspections Department to issue permits and schedule activity inspections. There are no licensed architects or engineers on staff that can provide this type of "stamp/sealed" construction documents. Our Design and Construction Administrative Team (DCAT) consists of a Division Manager, a Construction Manager and an Administrative Assistant. Their role has always been to act as the owner's representative and managing the activities of the AE team and the contractors associated with a construction or renovation project.

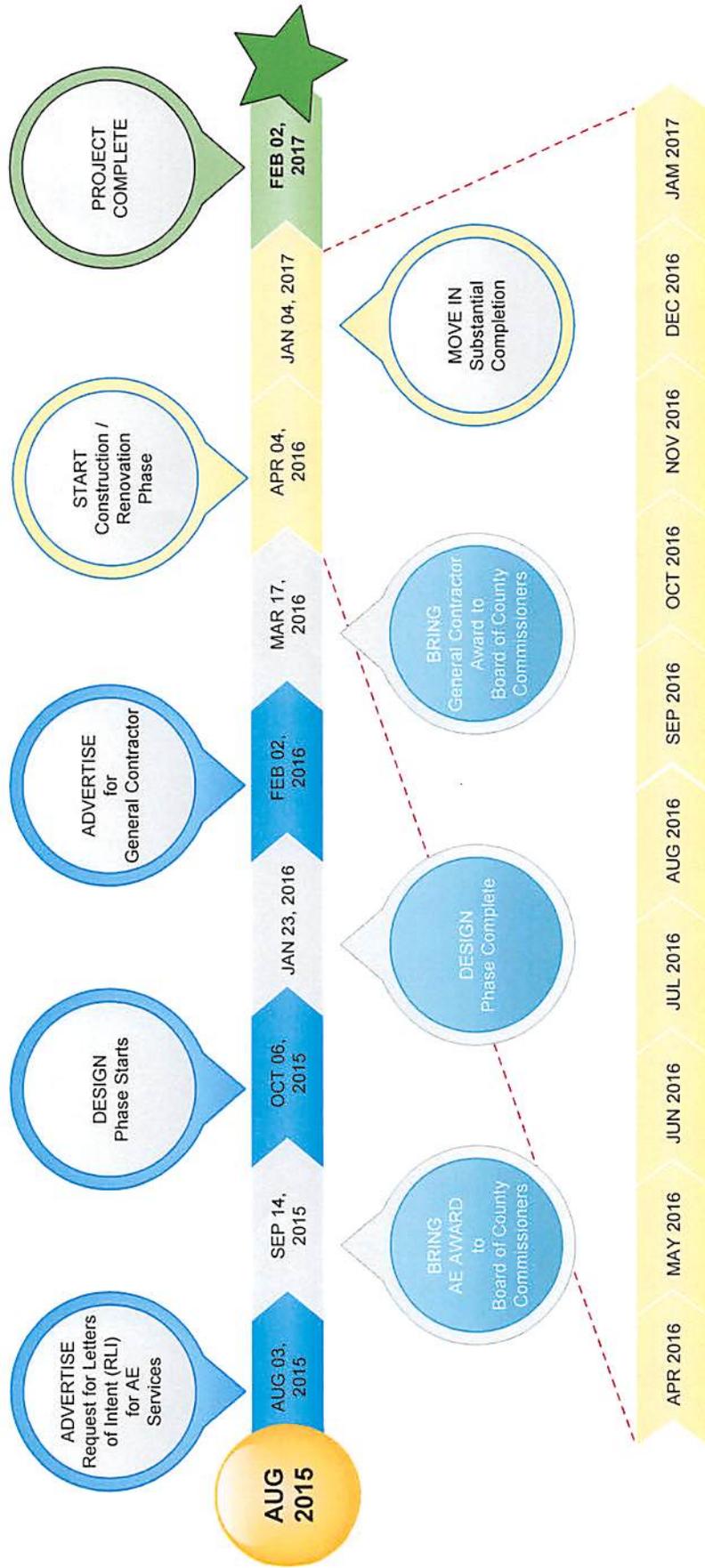
On August 19, 2013 a building inspection was conducted by Facilities Management prior to the property purchase. There were four construction/repair activities that are large in nature and will require stamped/sealed drawings and specifications to solicit licensed general contractors to perform the work.

- Exterior Envelope estimated \$180,000 of repair work. Project is over \$50,000 and will be a formal solicitation. Construction documents (drawings and specs) required for solicitation.
- Heating, Ventilation and Air Conditioning estimated at \$220,000 to replace roof top units. A mechanical engineer will evaluate usage and occupancy of building and size HVAC system accordingly. Project will be over \$50,000 and will be a formal solicitation. Construction documents (drawings and specs) required for solicitation.
- Interior and Exterior Improvements estimated at \$521,000. All interior and exterior improvements will require a thorough evaluation to determine the best approach for an economical but sustainable solution. Although not the recommended path to proceed, these improvements could perceivably be grouped into 5 or 6 separate contract packages and bid out. All packages will require construction documents (drawings and specifications) in order to advertise a formal/informal solicitation.
- Interior Abatement estimated at \$40,000 (assessment and remediation). Environmental consultant/industrial hygienist needs to be hired to conduct an Indoor Air Quality survey. All remediation work will require a detailed work plan and final clearance testing. Informal solicitation will be required with three quotes.

It is my recommendation that we proceed with the solicitation for the "Request for Letters of Interest (RLI)" and bring an architectural and engineering team onboard as soon as possible. The AE team will provide the necessary construction documents for us to solicit the general contractor to perform this work. This will allow us to have one architectural and engineering firm of record and one general contractor to perform and guarantee their work. We will make every effort to expedite all critical activities and get this building up to our established standards and available to the community at the earliest.

Please let me know if you have any additional questions or concerns.

Cc: Chip Simmons, Assistant County Administrator



BROWNSVILLE COMMUNITY RESOURCE CENTER

Possible Future Uses

(First Draft – 8-10-2015)

I. Event Center/ Performing Arts/ Culture

- a.) Concerts, Plays, Performances
- b.) Seminars, Training, Weddings, Meetings
- c.) Social Gatherings (Civic Groups, Sororities, Fraternities)
- d.) Selected Sports Events (Basketball games)

II. Recreation Programming

- a.) After-School Program/ Workshops (Boys & Girls Club/ Salvation Army)
- b.) Summer Camp (Escambia County Play Learn Grow)
- c.) Sports Clinics (Local Athletic Associations – Adult & Youth)
- d.) Selected Sports Events (Local Athletic Associations – Adult & Youth)
- e.) Boys & Girls Scout Troops
- f.) Youth Development Groups/ Clubs
- g.) Youth Mentoring Groups (Goodwill Good Guides/ Big Brother & Big Sisters/ Pretty in Pink/ 100 Black Men/ Project Challenge)
- h.) Fitness Classes/ Dance Classes
- i.) Yoga

III. Employment Training/ Placement/ Fairs

- a.) Career Source Escarosa
- b.) Goodwill/ Easter Seals
- c.) Vocational Training (George Stone)
- d.) Vocational Rehabilitation
- e.) Vocational Rehabilitation/ School to Work Transition Program
- f.) Children's Home Society (YouthWorks)
- g.) Job Corps
- h.) Project Search
- i.) Veteran Services

IV. Community Outreach

- a.) Low-Income Assistance Programs (Escambia County LIDEAP, Community Action- LIHEAP)
- b.) GED Programs (George Stone, PSC)
- c.) PSC (Educational Opportunity Center)
- d.) Computer Classes/ Training (Children's Home Society)
- e.) Senior Programs (Council on Aging/ Area on Aging/ Salvation Army)
- f.) Health Fairs/ Events/ Workshops (Escambia County Health Department/ Escambia County Community Clinics/ Healthy Start)
- g.) Social Awareness Events/ Fairs/ Workshops (CDAC)
- h.) Head Start Registration Site
- i.) Emergency Coordination Training (Be Ready Alliance)
- j.) Salvation Army
- k.) Veteran Services

Brownsville Community Resource Center - Facility Rental Rates

Non Social Event	\$50 per hour	3 hour minimum	Additional \$30 per hour after 3 hours	\$220 eight (8) hour block	\$100 Deposit
Social Event	\$75 per hour	3 hour minimum	Additional \$55 per hour after 3 hours	\$440 eight (8) hour block	\$100 Deposit

DRAFT

From: Jack R. Brown
Sent: Friday, August 07, 2015 5:33 PM
To: Jay LHS companies
Cc: Nash Patel; Tonya Gant
Subject: RE: GCIA 2015 community events at Brownsville Community Center

Jay,

Mrs. Wesley was the department head over this last year. She is no longer with us. Tonya Gant is the new Department Head. We are beginning to plan programming for the Brownsville Community Center during this time frame. I will make sure that they have your request. If you are approved to use the center for the dates requested we must insure that you have liability insurance in place insuring the County as an additionally insured party and so designated on the policy prior to allowing the use of the facility. Unfortunately last year we didn't receive this until the 2nd week of the event. I appreciate your checking with us early on. Additionally Mrs. Gant will be having the Board approved a fee schedule for the use of the facility so we will have to get back with you on the cost. What specific rooms do you need? Do the dates listed include all time that is needed to get in the building for any type of decoration, planning, etc...?

My understanding was that this was a huge success last year. I look forward to getting the additional information from you and getting back with you on a cost and locking in dates. Regards, Jack

Jack R. Brown
County Administrator
Escambia County
221 Palafox Place, Suite 420
Pensacola, Florida 3502
Email: jrbrown@myescambia.com
Phone: (850) 595-4947
Cell: (850) 490-5905
Fax: (850) 595-4908

Florida has a very broad public records law. Under Florida law, both the content of emails and email addresses are public records. If you do not want the content of your email or your email address released in response to a public records request, do not send electronic mail to this entity.

-----Original Message-----

From: Jay LHS companies [mailto:jay@lhs.cc]
Sent: Monday, August 03, 2015 3:12 PM
To: Jack R. Brown
Cc: Nash Patel
Subject: GCIA 2015 community events at Brownsville Community Center

Hello Jack, hope are are well Sir.

I had left you a message with your secretary mid last week but have been unable to connect.

Just when you get a moment can you please reach out to me re Gulf Coast Indian Association (GCIA) our not for profit group.

Last year you and the County Commissioners had let us use the Brownsville Community Center for our communities cultural & religious events and the community was able to celebrate several wonderful cultural and religious program and events. The community was very thankful for your generous support to allowing us the use of the facility.

We would like the opportunity to once again request on behalf of our community the use of the same facility, (Brownsville Community Center) for this years 2015 GCIA cultural and religious celebrations under the same terms and conditions if possible.

Our date this years are the following 7 days:

Our events start at 6pm till around 11:00pm to midnight.

Navratri Garba Dance events

Friday October 16th

Saturday October 17th

Wednesday October 21st

Friday October 23rd

Saturday October 24th

Wednesday October 28th

And finally our Dewali New year celebration on Saturday November 14th

In addition to the fees charged last year will also gladly provide the necessary liability insurance for each day and as we had done last year, we request only for one day permission for beer & wine permit for the last day November 14th Dewali celebration all other religious events are without alcohol.

Please let me know your thought and feel free to call myself at 850-393-1780 and/or Nash Patel at 850-393-1779.

Jack, as always, thank you Sir for your kind consideration towards our community and please feel free to reach out to both myself and Nash if we can ever do anything for you personally and or the County.

Thanks-Jay

Sent from Dr. Jay S. Patel's iPhone

Jack R. Brown

From: Tonya Gant
Sent: Tuesday, August 04, 2015 12:47 PM
To: Jack R. Brown
Subject: Brownsville Community Center Rental

Hi Jack,

My Findings: FYI - Currently, the *Criminal Conflict and Civil Regional Counsel* (2nd floor of this building) pays \$2,040 a month for 2,248 square feet of office space. At the Brownsville Community Center (kitchen) - only the refrigerator/freezer (industrial size) is operable. The office space on the second floor at the Brownsville Community Center is not recommended as mold has been identified (August 2013) so it is not advisable to enter into an agreement for that space.

The going rate for leased office space:

- 150 to 250 square feet = \$250.00 a month
- Over 250 square feet = \$300.00 a month
 - The prices go up from there

Anyone renting or leasing the building will need to be out of the building by April 2016 as the entire building will be turned over to the general contractor. Once we find out George's space needs (square footage) I will have a better idea of how to charge – We may want to consider, in the rental/lease rate, the cost for custodial services, utility cost (AC), dumpster fees, etc. I have a copy of the lease agreement for the Criminal Conflict Counsel if you would like to see it. Please let me know if you need anything else. Thanks.

-Tonya

Tonya Gant
Board of County Commissioners
Director, Neighborhood & Human Services
(850) 595-3123 Work
(850) 777-0339 Mobile
trgant@myescambia.com
221 Palafox Place (Old County Courthou...
Pensacola, Florida 32502

Jack R. Brown

From: Jack R. Brown
Sent: Tuesday, August 04, 2015 6:58 PM
To: grghawthorne@yahoo.com; Tonya Gant
Subject: Lease

George,

Tonya Gant is still working to determine the amount that the county needs to charge you for rental as well as determine how many offices that you could have and for how long. She needs to know exactly which offices that you are discussing and the reason for each. The county will be running programs out of Brownsville as well so we will have to evaluate if it makes would for both entities. The kitchen is problematic as they plan on renting the center out for events for in many cases may also want to rent the kitchen. Please get back with Tonya tomorrow. Thanks, Jack

Jack R. Brown
County Administrator
Escambia County
221 Palafox Place, Suite 420
Pensacola, Florida 3502
Email: jrbrown@myescambia.com
Phone: (850) 595-4947
Cell: (850) 490-5905
Fax: (850) 595-4908

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Jack R. Brown

From: Jack R. Brown
Sent: Tuesday, June 30, 2015 3:02 PM
To: grghawthorne@yahoo.com; District3; District4; District5; District2; District1
Cc: Rick Outzen; Shannon Nickinson; Quint Studer; Jackie; Tom Ninestine; Sue Straughn; Charles Thornton; Branden; John; Jessica Griffen; Angela Crawley; Aretta Green
Subject: RE: Magic Johnson Community Empowerment Center MOU Proposal for Brownsville Community Center

George,

I just got off the phone with Lumon, this is not ready for the agenda and he scheduled a meeting for the three of us on July 10, 2015 at 10:30 a.m. in his office.

Jack R. Brown
County Administrator
Escambia County
221 Palafox Place, Suite 420
Pensacola, Florida 3502
Email: jrbrown@myescambia.com
Phone: (850) 595-4947
Cell: (850) 490-5905
Fax: (850) 595-4908

Florida has a very broad public records law. Under Florida law, both the content of emails and email addresses are public records. If you do not want the content of your email or your email address released in response to a public records request, do not send electronic mail to this entity.

From: George Hawthorne [mailto:grghawthorne@yahoo.com]
Sent: Tuesday, June 30, 2015 12:55 PM
To: Jack R. Brown; District3; District4; District5; District2; District1
Cc: Rick Outzen; Shannon Nickinson; Quint Studer; Jackie; Tom Ninestine; Sue Straughn; Charles Thornton; Branden; John; Jessica Griffen
Subject: Re: Magic Johnson Community Empowerment Center MOU Proposal for Brownsville Community Center

Jack,

I talked to Lumon multiple times over the last few days and HE said to get it on the agenda, that is why we are making a public push now. He told me he supported this initiative.

However, how can anyone at the County NOT support of the most prolific African-American businessman, celebrity and billionaire to come to Escambia to deal with our most pressing issues (particularly in the Black poor communities) and bring national resources?

It seems like a no brainer!

George Hawthorne
Chief Executive Officer

Diversity Program Advisors, Inc.
251-504-7313 Cell

From: Jack R. Brown <jrbrown@co.escambia.fl.us>
To: "grghawthorne@yahoo.com" <grghawthorne@yahoo.com>; District3 <District3@co.escambia.fl.us>; District4 <District4@co.escambia.fl.us>; District5 <District5@co.escambia.fl.us>; District2 <District2@co.escambia.fl.us>; District1 <District1@co.escambia.fl.us>
Cc: Rick Outzen <rick@inweekly.net>; Shannon Nickinson <snickinson@pensacolatoday.com>; Quint Studer <quint@studergroup.com>; Jackie <jmiles@pensacolavoic.com>; Tom Ninestine <tninesti@gannett.com>; Sue Straughn <sstraughn@weartv.com>; Charles Thornton <charlesdthornton@gmail.com>; Branden <branden@newsradio1620.com>; John <john@sstiflorida.com>; Jessica Griffen <jessica@sstiflorida.com>
Sent: Tuesday, June 30, 2015 12:30 PM
Subject: RE: Magic Johnson Community Empowerment Center MOU Proposal for Brownsville Community Center

George,

I hope you. Are doing well. As I have relayed to you on several occasions you need to schedule meetings regarding the vision for the Brownsville center through Commissioner May's office. Jack

Sent from my Verizon Wireless 4G LTE smartphone

----- Original message -----

From: George Hawthorne <grghawthorne@yahoo.com>
Date: 06/30/2015 11:42 AM (GMT-06:00)
To: District3 <District3@co.escambia.fl.us>, "Jack R. Brown" <jrbrown@co.escambia.fl.us>, District4 <District4@co.escambia.fl.us>, District5 <District5@co.escambia.fl.us>, District2 <District2@co.escambia.fl.us>, District1 <District1@co.escambia.fl.us>
Cc: Rick Outzen <rick@inweekly.net>, Shannon Nickinson <snickinson@pensacolatoday.com>, Quint Studer <quint@studergroup.com>, Jackie <jmiles@pensacolavoic.com>, Tom Ninestine <tninesti@gannett.com>, Sue Straughn <sstraughn@weartv.com>, Charles Thornton <charlesdthornton@gmail.com>, Branden <branden@newsradio1620.com>, John <john@sstiflorida.com>, Jessica Griffen <jessica@sstiflorida.com>
Subject: Magic Johnson Community Empowerment Center MOU Proposal for Brownsville Community Center

Dear Commissioners and Administrator,

Unfortunately with no success, I have been trying to get a return call from the County Administration for more than a month to schedule of a meeting to discuss a proposed "public-private-partnership" regarding the attached Memorandum of Agreement between Magic Johnson Foundation Inc. (MJF), a non-profit charitable foundation, and Magic Johnson Bridgescape Academy (MJBA), a joint-venture between Magic Johnson Enterprises, Inc. and Edison Learning Inc, and Diversity Program Advisors,

Inc., a Florida corporation, and Soft Skills Training Institute of Florida, a Florida corporation regarding a collaborative business association of companies to provide professional services to develop and operate community resource centers in Escambia County Florida. Collectively the aforementioned parties are hereinafter referred to as the "Project Team"

However, now time is running out to open this facility before the next school year and make substantive outcomes for at-risk youth and their families. I cannot understand how it is that we have America's top African-American businessman, top minority business employer, global celebrity and black billionaire trying to provide substantive resources and community building assets to the County and we cannot get a call back or any timely response to such a greatly needed program and personality.

Escambia County years ago purchased an existing 34,000 s.f. facility described as a Gymnasium, Daycare and Office Building and a separate residential building described as a single-story House located at 3100 W. Desoto Street in the Brownsville Community Redevelopment Area and herein referred to as the Brownsville Community Resource Center (BCRC). This facility is currently has no clearly defined operational plan, structure or programs that have a sustainable future.

Clearly, the lower income, blighted Brownsville neighborhood and surrounding communities exhibit significant unemployment (especially among youth/young adults), high crime, juvenile delinquency and low educational attainment. The County has allocated \$1.8 million in Local Option Sales Tax (LOST) funds for the design and renovation of the existing facility (these funds are restricted to capital improvements only).

However, Escambia County's desire and intent to reduce poverty, unemployment and crimes has made it necessary to develop proactive solutions to develop programs and facilities that provides comprehensive "community resource center model for the Brownsville Community Resource Center building. Our team provides this solution and develop resources to provide exactly that operation

Whereas, as a centralized-portal of entry into an integrated system of social services, the ECRC can provide a major mechanism for proactive, holistic, and efficient service delivery and integration, the BCRC has the potential to play a significant role in enhancing access to services for Escambia's children, families and communities. Benefits to families may include: health, workforce development, educational and recreational services; reduction in service duplication; community involvement activities; cross-generational interaction; large-scale volunteer opportunities; and a feedback mechanism for the community.

The respective members of the Project Team have designed a comprehensive implementation program for a "One-Stop-Shop" to provide programmatic initiatives and management operations that could address Escambia's poverty, crime, unemployment, at-risk-youth, social service delivery and community development at the Brownsville Community Resource Center (Brownsville Model) and illustrated on Exhibit A attached hereto.

The Project Team will seek County and School District support and collaboration for funding the Brownsville Community Resource Center (BCRC) program implementation; and provide insight into possible funding options to implement and sustain the proposed BCRC's programs and ongoing operations.

The services provided by the Project Team pursuant this MOU, shall be performed and provided as a "collaborative service agreement between individual companies." The Project Team acknowledges and agrees that they respectively have offered to support the undertakings agreed to under this MOU

in support of the programmatic efforts of as outlined on the attached "Service Matrix" developed for this initiative. The Project Team further acknowledges and agrees that this MOU imposes no legal obligations or responsibilities on the members of the Project Team or their respective subsidiaries or affiliates with respect to the purpose of this MOU.

Accordingly, we are formally requesting to have a BOCC Workshop on this public private partnership proposal in order to be operational by the next school year and begin enrollment within the next 30 days. Please review the attached documents and contact me at the number below to discuss this matter.

George Hawthorne
Chief Executive Officer
Diversity Program Advisors, Inc.
251-504-7313 Cell

----- Forwarded Message -----

From: George Hawthorne <grghawthorne@yahoo.com>
To: John Rigsby <jarigsby@sstiflorida.com>; "jar1327@gmail.com" <jar1327@gmail.com>; Jessica Hall <jessica@sstiflorida.com>
Sent: Friday, June 12, 2015 7:51 AM
Subject: Fwd: Escambia County

Here is the MOU Jessica excuse the old contact in my phone I couldn't change

Sent from my iPhone

Begin forwarded message:

From: Chris Morrow <cmorrow@magicjent.com><<mailto:cmorrow@magicjent.com>>>
Date: June 11, 2015 at 8:29:14 PM CDT
To: "Stancil, Curtiss" <Curtiss.Stancil@edisonlearning.com><<mailto:Curtiss.Stancil@edisonlearning.com>>>, Larry Johnson Sr. <ljohnson@magicjent.com><<mailto:ljohnson@magicjent.com>>>
Cc: "Nti, Emeka" <Emeka.Nti@edisonlearning.com><<mailto:Emeka.Nti@edisonlearning.com>>>, "George Hawthorne (grghawthorne@yahoo.com><<mailto:grghawthorne@yahoo.com>>)" <grghawthorne@yahoo.com><<mailto:grghawthorne@yahoo.com>>>
Subject: RE: Escambia County

Hi Curtiss,

My apologies for the delay. Please see attached.

Thanks,

Chris Morrow
Magic Johnson Enterprises

From: Stancil, Curtiss [<mailto:Curtiss.Stancil@edisonlearning.com>]

Sent: Thursday, June 11, 2015 2:08 PM

To: Chris Morrow; Larry Johnson Sr.

Cc: Nti, Emeka; George Hawthorne (grghawthorne@yahoo.com<mailto:grghawthorne@yahoo.com>)

Subject: Escambia County

Hello Quick follow-up can you please sign the MOU for Escambia and send back to George!

Thanks

Curtiss Stancil

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