

Appendix A

Flood Mitigation Plan

Flood Mitigation Questionnaire



Public Hazard Mitigation Questionnaire

Santa Rosa County is undergoing two exciting efforts related to mitigation planning. The first is the development of the county's first ever stand alone flood mitigation plan and the second is a comprehensive update to the county's Local Mitigation Strategy (LMS) multi-hazard plan. Both plans are intended to assess natural hazard risks to our community and identify ways to minimize and manage those risks. In order to identify and plan for future natural disasters, we need assistance from the residents of Santa Rosa County. This questionnaire provides an opportunity for you to share your opinions and participate in the mitigation planning process. The information you provide will help us better understand your hazard concerns and can lead to mitigation activities that reduce the risk of injury or property damage in the future.

This survey consists of 20 questions and will take approximately 10 minutes to complete.

1. How long have you lived in Santa Rosa County?

- Less than 1 year
- 1 to 5 years
- 6 to 9 years
- 10 to 19 years
- 20 years or more

2. Are you responding on behalf of a residential or commercial property?

- Residential
- Commercial

3. Do you own or rent your place of residence/business?

- Own
- Rent

4. What is the street address of your residence/business?

5. What is the zip code of your residence/business? _____ (REQUIRED)

If you would like to be contacted regarding the county's mitigation efforts, please provide your name and telephone number (OPTIONAL):

_____ (850) _____ - _____
Last, First Phone

FLOOD HAZARD INFORMATION

6. To the best of your knowledge, is your property located in a designated floodplain?

- Yes
- No

7. Do you have flood insurance?

- Yes
- No

8. Do you or have you had problems getting homeowners insurance due to the cost of insurance, location of your property, age of your home, or any other reason?

- Yes
- No

9. Are you aware of any areas on your property or in your neighborhood that have experienced flooding? Description such as date of flood, area of flooding (yard, building), depth of flooding (1 foot, 2 feet, etc) would be helpful.

10. Please describe any past flooding damage to your property (please include damage estimate if known).

11. Is your property about the same, less or more prone to flooding now than it was 5 years ago?

- More
- Less
- About the same

What do you feel are the possible reasons for any change?

NATURAL HAZARD INFORMATION

12. In the past 10 years, which of the following types of natural hazard events have you or someone in your household experienced within Santa Rosa County and how concerned are you about the following natural hazards impacting Santa Rosa County?
(Please place check mark or X in all that apply)

Natural Hazard	Have Experienced		Not Concerned	Somewhat Concerned	Very Concerned	Extremely Concerned
	YES	NO				
<i>EXAMPLE - HURRICANE</i>	✓			✓		
Drought						
Erosion – Stream Bed/Coastal						
Flooding – Property						
Flooding – Basement						
Flooding – First Floor						
Flooding – Street						
Hurricane/Tropical Storm						
Severe Storms (wind, lightening, hail)						
Severe Winter Storm						
Tornado						
Excessive Temperatures						
Groundwater Contamination						
Expansive Soils (due to ground swelling)						
Landslide						
Groundwater seepage						
Sink Holes						
Wildfires						
Other _____						

13. Please rank how prepared you feel your household is for impacts of natural hazard events likely to occur within Santa Rosa County.

- _____ 1 Not prepared
- _____ 2 Slightly prepared
- _____ 3 Somewhat prepared
- _____ 4 Significantly prepared
- _____ 5 Most Prepared

14. Why do you feel prepared? **(Please check all that apply)**

- _____ Emergency preparedness information from a government source (e.g., federal, state, or local emergency management)
- _____ Locally provided news or other media information
- _____ Schools and other academic institutions
- _____ Attended meetings that have dealt with disaster preparedness
- _____ Past experiences with natural hazards
- _____ Other _____ (please specify)

15. Have you taken any actions to make your home, business or neighborhood more resistant to natural hazards?

- Yes
- No

16. Are you interested in making your home, business or neighborhood more resistant to natural hazards?

- Yes
- No

17. Information on the impacts or how to prepare for a natural disaster can be disseminated to the public in various ways. Of the methods described below please identify the top ways which would be MOST EFFECTIVE in helping you make your home safer and better able to withstand the impact of natural hazard events. **(Place a check mark or X beside all that apply).**

Printed Media

- Newspaper
- Telephone Book
- Information Brochures

Public Forums

- Public Meetings
- Workshops
- Schools

Television

- TV News
- TV Advertisements

Radio

- Radio News
- Radio Advertisements

Technology

- Email Notification
- Social Networking (i.e., Facebook)

Other Methods

- Outdoor Advertisements
- Internet
- Books
- Public Awareness Timeframe (i.e. Flood Awareness Week, Hurricane Preparation Month)
- Other (please specify) _____
- Fire Department/EMS Agency
- Academic Institutions
- Chamber of Commerce
- Church
- Public Library

18. In your opinion, what are some steps your local government could take to reduce or eliminate the risk of future hazard damages in your neighborhood?

19. Are there any other issues regarding the reduction of risk and loss associated with hazards or disasters in the community that you think are important?

Questionnaire Responses

General information about respondents

52 of the 54 respondents were answering the questions about their homes, 1 respondent was answering for a business, and 1 person did not answer.

50 of the buildings are owned by respondents with the same person not responding from the first question.

46 (85%) respondents stated they are not in a flood plain with 8 (14.8%) saying they are.

Insurance

24 (44.4%) have flood insurance, 29 (53.7%) do not have flood insurance, and 1 person did not answer. The 8 that identified themselves as being in a floodplain also indicated they have flood insurance.

15 (27.7%) said they had trouble obtaining homeowners' insurance, including 6 that do have insurance and 7 that do not. 29 (53.7%) indicated they had no trouble getting homeowners' insurance, including 17 that do have insurance. 2 did not answer.

Flood experience

28 indicated that they have experienced flooding, 17 (60.7%) of which have insurance, and 10 (35.7%) do not.

- Property
13 (24%) claim property flooding, 11 (84.6%) of them have flood insurance. All respondents have varying degrees of concern about property flooding ranging from extremely concerned (4) of which only 2 (50%) have flood insurance, very concerned (8) of which 5 (62.5%) have flood insurance, somewhat concerned (16) of which 8 (50%) have flood insurance, no concern (13), with 13 not answering.
- First Floor
6 (11%) have had experience with first floor flooding, and all 6 (100%) have insurance. 40 said no. 8 did not answer.
- Street
19 (35%) claim experience with street flooding, 12 (63%) of them have insurance. 27 said no. 8 did not answer. All respondents have varying degrees of concern about street flooding ranging from extremely concerned (4), very concerned (10), and somewhat concerned (19), no concern (6), with 14 not answering.

Damage

10 (18.5%) indicate they had damage from flooding, with 4 not being in a flood plain and 2 of them are without insurance. 6 of them are in a flood plain and have insurance as well as experience with damage.

Floodprone

12 (22.2%) say they are less prone to experience flood damage than 5 years ago, with 8 having flood insurance and 4 of them (with insurance) live in flood plains. 7 (12.9%) say more prone, of which 4 have flood insurance, and 1 of them is in a flood plain. 35 (64.8%) say about the same, of which 12 have flood insurance and 2 live in flood plains.

Reasons for flooding

3 say more development with no run off, 2 say failure to clean ditches and culverts, 1 says river bank erosion

Hurricanes

47 (87%) state hurricane experience, 3 (5.5%) said no, and 4 did not answer. All respondents have varying degrees of concern about hurricanes ranging from extremely concerned (17) of which 8 (47%) have flood insurance, very concerned (20) of which 8 (40%) have flood insurance, and somewhat concerned (9), no concern (0), with 8 not answering.

Severe storms

47 (87%) state severe storm experience, 1 (1.8%) said no, and 6 did not answer. All respondents have varying degrees of concern about hurricanes ranging from extremely concerned (5) none (0%) of which have flood insurance, very concerned (17) of which 8 (47%) have flood insurance, and somewhat concerned (20) of which 11 (55%) have flood insurance, no concern (2), with 10 not answering.

How prepared are you?

Self-categorization of preparedness levels without a control showed the following; most prepared 12 (22.2%), prepared 27 (50%), somewhat prepared 4 (7.4%), slightly prepared 10 (18.5%), 1 not answering.

- 45 respondents state they are prepared due to; Emergency preparedness information from a government source.
- 37 respondents state they are prepared due to; locally provided news or other media information
- 5 respondents state they are prepared due to; Schools and other academic institutions
- 24 respondents state they are prepared due to; Attended meetings that have dealt with disaster preparedness
- 49 respondents state they are prepared due to; Past experiences with natural hazards
- 10 respondents state they are prepared due to; other reasons like CERT training, self educated online, and e-breaking news

Mitigation

41 have taken steps to make property more resistant, 12 have not and 1 did not answer
52 are interested in taking mitigation actions, 2 are not

Information

Top ways which would be MOST EFFECTIVE in helping you make your home safer and better able to withstand the impact of natural hazard events was answered as follows:

Email	37
TV news	36
Newspaper	32
Internet	27
Public Awareness Timeframe (preparedness week)	24
Radio news	23
Brochures	22
Public meetings	19
Outdoor Advertising	14
Workshops	14
Fire Departments	12
Church	10
Library	10
Radio advertisements	9
Social Networking	8
Chambers	8
Schools	6
Telephone book	3
Academic Institution	2
Books	2

SUGGESTIONS FOR ELIMINATING RISK

Building codes, and help control stormwater run-off, look for grants that will help mitigate hazards for residents and business
When people come to inquire about rezoning or building any structures I feel the whole neighborhood flood plain, engineering information should be researched first.
Stronger utility infrastructure. Natural gas installation. Beefing up the water pipe quality. Retention ponds. Maintain culverts more frequently.
Develop a comprehensive watershed plan
Survey areas, especially after natural hazards to see where and what kind of damage occurred. See what plans worked and which ones did not and why.
Police neighborhoods (code enforcement) for junk and other items that could become wind blown hazards in high winds that could be removed before high wind conditions. 2) Improve drainage in low lying areas so that roads aren't blocked
Have the trees trimmed away from phone cable and power lines along Evelyn St
I think our SRC government has done and is doing a great job. My neighborhood has rarely been affected to the point of being unlivable – Just we are one of the last to get our electricity back and that's rough but hey, I think we are pretty blessed.
Public Service Announcements - Representation at festivals for providing various hazard related preparation and safety information
Underground utilities, roads that wash out need to be built like a ground level bridge (hwy 98 Okaloosa island).
Keep drainage ditches clean so they can function as designed to carry run off from heavy precipitation. Enforce new building Codes to provide for sufficient "perk" for ground water to be absorbed by the ground.
No building on barrier islands, the government should not repeatedly pay for rebuilding
The trees around are so tall in the neighborhood that a strong wind with rain and they are going to fall on the houses. Something has to be done.
I don't have trees in my yard but the neighbors do.
Bring mobile home permitting and inspections under the building department vice DOT. Make home mitigation expense reimbursements applicable to mobile homes like they are to regular homes.
Continue to improve the drainage systems
The neighborhood runs south from 98 to the Sound. However, it's at a relatively high point in Navarre, so we haven't had storm surge issues. There are some vacant lots with dead trees. Getting rid of the trees would make me feel more comfortable
Restudy the North end of the county. This has not been done since 1985 and needs to be done badly. Keep at least 1 foot of freeboard even if an area has been restudied. This will help maintain our CRS Rating.
Improved over sight of builders and they way they grade sites. Raising a sight to off set potential flooding and leaving the adjacent site below it forces increased run off.
Clean out storm damage brush/trees on vacant property near occupied homes
Preparation and preventative measures
Good question - education and training I suppose
Dredge part of wetlands in Biscayne Point/Pine Ranch to allow drainage to flow as designed. Decades of silt has "filled up" the wetlands so that they are now higher than properties around them; consequently drainage originally planned does not work.
Making contractors keep up with building on wetland property.
More attention to water conservation
Better drainage systems for neighborhoods and streets.
Maintaining and upgrading (as necessary) and early detection and warning system for storms. Educate the populace about hurricane evac procedures. Provide adequate storm (tornado/severe weather) shelters.
Grant money to help people raise their homes to a higher level seemed like a good idea, but we haven't heard anything else about it.
Education about putting items away before a hurricane might have saved damage. Much of our damage during flooding was due to floating debris hitting our house.
Enforce removal of boats/vehicles in driveway empty houses
Keep trees trimmed to reduce flying debris.
More public workshops with police, fire and road dept.
Making FEMA supplies available to the public.
Yes, clean out ditches

OTHER RISK ISSUES

Proper consideration of effects of new property construction to existing neighborhoods.

1) Place critical electrical connections and utilities underground except in beach areas that are subject to being washed away. Look into requiring all utilities be placed underground in the future. 2) Require burn permits in residential areas. Monitor

make sure the holding pond in the area is free of debris and the pipes are kept clear

I guess I think it's important to try and get more people involved with each other so that in the event of a disaster we know who is where and what skills are available to help each other.

County should not reduce the stormwater drainage standard for development.

Less mobile homes, more building with brick, less of vinyl siding.

Lack of planning at the county level, failure of the commission and county employees to see problems and work to correct them prior to need. County commissioners are deaf and blind to flood and other conditions until they are forced to face an already on

residents need to understand that they need to be self responsible and do their part and less dependent on the government

Fix the home insurance rate problem and availability of insurance. I have but one choice - Citizens. That's not a choice, but a "prison" sentence.

Eliminate solid breakaway walls in V zones on new construction. If the walls are destroyed on an existing structure, then they cannot be rebuilt. This will reduce the amount of debris that needs to be picked up after a storm.

Clearing of property for purposes of installing for sale signs and not building on it. This removes natural protections.

Transportation and evacuation routes

update the flood zones and have clear pictures of wetlands and flooding zones

Lack of Disaster/Recovery Shelters on the "Southside" of the County. Number of aging/elderly people, who are not able to prepare for disasters on their own.

More accessible & reasonably priced flood insurance for residents would help ensure that more homeowners are protected.

Remove dead trees from undeveloped lots.

I think a true disaster to this area would be devastating due to the nature of the homes a majority of the population live in.

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Mitigation Questionnaire - Windows Internet Explorer

Public Hazard Mitigation Questionnaire

Date: 07/21/2009

Santa Rosa County is undergoing two exciting efforts related to mitigation planning. The first is the development of the county's first ever stand alone flood mitigation plan and the second is a comprehensive update to the county's Local Mitigation Strategy (LMS) multi-hazard plan. Both plans are intended to assess natural hazard risks to our community and identify ways to minimize and manage those risks. In order to identify and plan for future natural disasters, we need assistance from the residents of Santa Rosa County. This questionnaire provides an opportunity for you to share your opinions and participate in the mitigation planning process. The information you provide will help us better understand your hazard concerns and can lead to mitigation activities that reduce the risk of injury or property damage in the future.

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- Residential
- Commercial

3. Do you own or rent your place of residence/business?

- Own
- Rent

4. What is the address of your residence/business? If you would like to be contacted regarding the county's mitigation efforts, please provide your name and telephone number.

Address: _____ Name: _____ Phone: _____

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Welcome to the Santa Rosa County Website. Your local news and county information awaits. Please use the Master Index to find the information you need.







County News ...
 Public Hazard Mitigation Questionnaire

What's Hot in Santa Rosa County

- NEW - Hazard Mitigation Information
- NEW - Fact Sheet 15 - Ivan Retrospect
- NEW - Rip Current Safety Video
- NEW - District 2 September 2009 Newsletter
- Local Land Development Code Review Project
- Navarre Beach Pier Photos Gallery
- List of Closed Roads
- 2009 Disaster Guide
- 2007/2008 Annual Report to the Citizens
- E-Breaking News - Sign Up NOW!
- Burn Information
- Transportation Impact Fee Suspension
- Frequently Asked Questions

Adopt Me Featured Pet

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Appendix B

Flood Mitigation Plan

Conformance with Other Plans and Documents

An update of the material in this appendix can be found in the
2016-2020 Local Mitigation Strategy, Section 2.

Santa Rosa County Flood Mitigation Plan Conformance With Other Plans and Documents

- X **Santa Rosa County Local Hazard Mitigation Strategy 2005-2010 (LMS), <http://www.santarosa.fl.gov/lmsc/documents/LMSPlanApproved050205optimized.pdf>**
 - o "A component of the hazard mitigation planning process is the analysis of the existing policy, program and regulatory basis for control of growth and development."
 - o "Essentially, experiences, data, and facts of emergency planning (pre- and post-disaster) are brought together with day-to-day land use planning policy. Additionally, current mitigation-related policies of local government are compared to emergency planning policies relating to mitigation. This allows for a comparison of the hazards that threaten the jurisdiction and the relative risks they pose to the community. When risks of a specific hazard are not adequately addressed in the community's policy or regulatory framework, the impacts of future disasters can be even more severe. The planning process utilized by the LMS Task Force supports detailed comparison of the community's policy controls to the level of risk posed by specific hazards. This comparison supports and justifies efforts to propose enhancements in the policy basis that could or should be promulgated by the involved local jurisdictions to create a more disaster-resistant future for the community."
 - o This Flood Mitigation Plan will be included as an appendix to the Santa Rosa County LMS.
 - o Several members of the Flood Mitigation Plan Task Force participated in the development of the LMS and other local plans that have an impact on this Flood Mitigation Plan. This participation on other committees enabled these FMP Task Force members to impart their first hand knowledge of these other ongoing efforts to the Flood Mitigation Team and the effects that those planning efforts may have on this project.

- Report of the Santa Rosa County Stormwater Runoff Task Force, <http://www.santarosa.fl.gov/stormwater/documents/swtfexecutivesummary.pdf>**
 - o The objectives of the Task Force were to:
 - thoroughly review the impacts and consequences of stormwater runoff on the water bodies in and around Santa Rosa County
 - mitigate the negative impacts/consequences on both water quantity and quality
 - make recommendations to the Board of County Commissioners on actions it could undertake to reduce the negative impacts of stormwater runoff

- Santa Rosa County Flood Information Guide 2010, <http://www.santarosa.fl.gov/permits/flood.html>**
 - o This document was created to provide contacts within the county's jurisdictions that can answer questions regarding flooding, the CRS program, flood and evacuation zones, flood hazards, and flood protection. In addition, these contacts can increase awareness of the hazards of flooding; give information on mitigating the effects from flooding and flood damage, and assist with flood protection.

- X **Santa Rosa County Board of County Commissioners Comprehensive Plan 2000-2020, <http://www.santarosa.fl.gov/zoning/compplan.html>**
 - o The Board of County Commissioners of Santa Rosa County find the goals, objectives, and policies set forth in the Comprehensive Plan are a necessary and proper means for

planning and regulating the development and use of land in the County and for otherwise protecting and promoting the health, safety and general welfare of its citizens. As the principle planning document that directs the City's growth and land use, the Comprehensive Plan is viewed as an integral part of the Santa Rosa County Flood Mitigation Plan (SRC FMP) planning process. These two planning documents will work together in their respective arenas to achieve a common goal of hazard risk reduction.

- As an overview, of some of the specific flood mitigation issues in the *Comprehensive Plan* are:
 - Density of development limitations in environmentally sensitive areas
 - Physical limitation that the County has imposed on things such as impervious surface areas
 - Clustering development is a way that the County tries to control some of the development density, especially near wetlands, for instance
 - Setback requirements includes both buildings and septic tanks
 - Policy 6.1.D.4, The County shall continue to apply the F.D.E.H.. established minimum setback for septic tank drain fields in areas adjacent to any stream, creek, pond or other open water body.
 - Buffer requirements
 - Vegetated buffers will also be required between development and free-flowing streams, rivers, lakes, bays, basins, and bayous. Such buffers will have a minimum width of 15 feet. Minor encroachments are permitted for such things as docks, piers, or similar structures, and recreational access. Variances to this requirement shall only be granted when strict application of the requirement limits all reasonable use of the property as allowed by the Future Land Use Map. When development is designed to allow untreated stormwater to discharge into wetlands, a vegetated natural buffer shall be required in accordance with DEP standards and shall be designated on the site plan or recorded plat.
 - Policy 1.1.A.4, Intent: It is the intent of this Plan to provide orderly growth management for unincorporated Santa Rosa County. This Plan is not intended to terminate growth but rather to provide mechanisms for growth management in order to best serve the citizens, visitors, and property owners of SRC. Implementation of this ordinance is designed to maintain and improve the quality of life for all citizens of the County.
 - Policy 3.1.E.6, The County shall use the latest version of the Flood Damage Prevention Ordinance promulgated by the FEMA to determine the location of the 100-year floodplain and flood prone areas and development shall be limited in those areas, consistent with FEMA requirements.
 - Goal 6.3, The provision of an environmentally safe and efficient storm water management system that serves to protect the property of the citizens of Santa Rosa County while preserving water quality.
 - Policy 6.3.A.1, The County shall continue its practice of not issuing development permits for projects not meeting the design criteria for correcting existing deficiencies or meeting future drainage requirements.
 - Policy 6.3.B.1, Installation of storm water management facilities made necessary by new development shall be the responsibility of the developer.
 - Policy 6.3.B.4, There shall be no reduction in the flood storage capacity or the other natural functions and values of the floodplain in Santa Rosa County in areas designated as regulatory floodway by FEMA Flood Insurance studies in Santa Rosa County. Encroachments shall be prohibited within designated regulatory floodway including, but not limited to, fill and new construction and development improvements that would result in any increase in flood levels.

- Policy 6.3.B.5, The County shall regulate development within the flood prone areas to minimize flood storage capacity reduction so that post development equals pre-development standard, which will afford protection to life and property within the floodplain.
- Policy 7.1.A.6, The County shall consider the relocation, mitigation or replacement or infrastructure currently present within the Coastal High Hazard Area where state funding is anticipated to be needed. An analysis of this need will be included annually in the evaluation of this Plan
- Objective 7.1.C, Preserve and protect the environmental quality of estuarine environments, coastal wetlands, wildlife habitat and living marine resources by restricting development, or by limiting the impacts of development or redevelopment..
- Policy 7.1.F.5, Santa Rosa County shall limit the density in the Coastal High Hazard Area as allowed by law. The intent of this policy is not to nullify any existing leases on Navarre Beach that specify density.
- Policy 7.1.F.6, Santa Rosa County will coordinate with the School Board to make sure that future school facilities are located outside areas susceptible to hurricane and/or storm damage and/or areas prone to flooding, or as consistent with Chapter 235, F.S. and Rule 6A-2, F.A.C., regarding floodplain and school building requirements.
- Policy 7.1.G.5, The County shall maintain an inventory of areas within the County that have experienced repeated damage from coastal storms and shall seek grant funding to limit redevelopment within these areas.
- Goal 8.1, To promote the protection, preservation, and appropriate use of Santa Rosa County's natural resources, including minerals, air, potable water, wetlands, estuarine and riverine systems, floodplains, shorelines, areas of sensitive topography, and natural vegetative, marine, and wildlife habitats for current and future generations as a means of enhancing economic development and improving the quality of life.
 - In 2003, approximately 35% of all wetlands within Santa Rosa County were under public ownership and designated for Conservation/Recreation use on the Future Land Use Map. The County will continue to support the purchase and preservation of wetlands. In addition, wetlands have been preserved as part of the private land purchases required for mitigation. The County will work with the FDEP and the USACOE to identify the location of these mitigation wetlands and designate those areas as Conservation/Recreation on the Future Land Use Map.
 - Santa Rosa County does not duplicate the permitting functions of other agencies. Impacts to wetlands under the jurisdiction of the FDEP and USACOE will be permitted, and mitigation will be required, as determined by the agency or agencies having jurisdiction. The County, prior to issuing County development approvals, requires demonstration of compliance with applicable FDEP and USACOE regulation.
 - Policy 8.1.C.3, Environmentally sensitive lands are defined as:
 - Wetlands under the jurisdiction of the Florida Department of Environmental Protection or the U.S. Army Corps of Engineers;
 - Floodplains as identified by the Federal Emergency Management Agency;
 - Free-flowing streams, rivers, lakes, bays, basins, and bayous
 - Wildlife habitat within publicly owned lands managed for conservation use.

- **Evaluation and Appraisal Report (EAR) Based Amendments to Santa Rosa County's Comprehensive Plan, <http://www.santarosa.fl.gov/zoning/index.html>**
 - To ensure that the county is on-track with regard to addressing growth management issues and proposed recommendations for ensuring that the Comprehensive Plan is aligned to meet future growth needs.

- X □ **Fiscal Year 2007/2008 Board of County Commissioners Annual Report to the Citizens of Santa Rosa County, <http://www.santarosa.fl.gov/news/annualreports/annualreport200708.pdf>**
 - "Our three main goals for the fiscal year were: quality, service and value. Significant declining revenues required our county leadership team to restructure our workforce and delay many important projects – we all had to do more with less."
 - Inspections and Compliance input includes information about the County's Floodplain Management Division that has worked hard to reduce the amount of homes on the State's Repetitive Loss List. In 2008, 356 properties were mitigated and removed from the list.
 - The Emergency Management Division stated that to fulfill our mission, we utilize the four phases of emergency management: mitigation, preparedness, response and recovery. *Mitigation* is those actions that lessen or reduce the potential for emergencies or disasters. Some of the fiscal year 2007/2008 mitigation highlights include:
 - Reviewed shelter capacity in Santa Rosa County.
 - Oversaw Chumuckla Community Center hardening project.
 - Participated in the *Local Mitigation Strategy Plan* and steering committee meetings
 - Reviewed 33 Santa Rosa County School District school emergency operations plans
 - Conducted 17 disaster plan reviews of nursing homes, adult living facilities and hospitals
 - Conducted hazard analysis on 36 critical facilities
 - Continued collaborative efforts with faith-based communities to develop a cold weather shelter for the homeless and disaster response and/or relief facilities.

- X □ **Santa Rosa County Division of Emergency Management Disaster Preparedness Guide, <http://www.santarosa.fl.gov/emergency/documents/2009DisasterGuide.pdf>**
 - This guide identifies preparedness and response procedures into which mitigation considerations could be incorporated to facilitate post-disaster reconstruction and recovery.

- X □ **The Town of Jay Comprehensive Plan 2009**
 - "Most of the vacant land is in or adjacent to tributaries of Coldwater Creek or the Escambia Rivers. The soils in most of these areas are of limited suitability for development due to wetness or slope. For this reason, most of the land now undeveloped in Jay should be placed in a conservation land use category to ensure higher standards where development is suitable, to protect the little bit of natural habitat that remains within the corporate limits of the Town and to restrict development in area where flooding or excessive soil erosion can occur. It should be noted that there are no areas within the corporate limits of Jay that are designated as flood prone areas or are within the 100 year floodplain as determined by the Federal Emergency Management Agency (FEMA)."

- X □ **City of Milton Comprehensive Plan, http://ci.milton.fl.us/city_services/planning/planning.htm**
 - "Flood prone areas should only be developed when their physical limitations have been compensated for through mitigating development techniques. Floodplains within the City

of Milton have been included in the Existing and Future Land Use Map series. These areas have been mapped as either A or B zones with base flood elevations indicated where available, to provide a development suitability indication. Any plans for redevelopment of floodprone areas will consider the FIRM Maps suitability determination and will be accomplished in accordance with FEMA standards. The natural resources most likely to be influenced by the development of vacant land are the City's floodprone areas. Most of the City's vacant land area is located out of the floodplains. Although isolated, small parcels are located in floodprone areas."

- **Florida Department of Community Affairs, August 31, 2006, Integration of the Local Mitigation Strategy into the Local Comprehensive Plan, Santa Rosa County Profile, <http://www.dca.state.fl.us/fdcp/dcp/hazardmitigation/countyprofiles/SantaRosaprofile.pdf>**
 - "This profile has been prepared as part of a statewide effort by the Florida Department of Community Affairs (DCA) to guide local governments on integrating hazard mitigation principles into local comprehensive plans. Through the process outlined in this profile, planners will be able to:
 - convey Santa Rosa County's existing and potential risk to identified hazards
 - assess how well local hazard mitigation principles have been incorporated into the County's Comprehensive Plan
 - provide recommendations on how hazard mitigation can better be integrated into the Comprehensive Plan
 - determine if any enhancements could be made to the LMS to better support comprehensive planning."

- **Committee for a Sustainable Emerald Coast Final Report, December 31, 2007, Charting a Sustainable Course for the Region, <http://consensus.fsu.edu/emeraldcoast/index.html>**
 - "By 2030, the Emerald Coast will be a better place to live. We will have forged strong collaborative partnerships among many different groups, from neighborhood associations to Chambers of Commerce to Economic Development Councils. By working together on integrated plans, we will have created a region in which new development is based on several basic principles: preserving the region's heritage, natural resources, wildlife areas, recreation areas, and open space. Instead of always looking for pristine areas for development, the Emerald Coast will pride itself on looking first to fill in existing areas to take advantage of the infrastructure already in place. This will help ensure that development is focused in regional centers to minimize sprawl and to lessen the need to build additional new roads, as well as avoid coastal high hazard areas and military installations."

- **The Better Santa Rosa Plan, <http://www.santarosa.fl.gov/bocc/betterplan.html>**
 - The Better Santa Rosa Plan is a strategic plan that acts as a blueprint for the future of Santa Rosa County. The Plan was formally adopted in June 2002. It includes capital improvements, programmatic goals, and other initiatives that county staff and elected officials plan to complete in the next ten years. It will work concurrently with the county's Comprehensive Plan to help guide growth, development, and governmental process in the years ahead.
 - As an organization comprised of public servants, Santa Rosa County government has a challenging task in responding to the diverse needs of its residents. In order to complete this task more efficiently, the County has undertaken a planning process to lay out the framework of
 - 1) Who we are,

- 2) What we need and want to do, and
- 3) How we will complete the tasks

□ **The State of Florida Hazard Mitigation Plan,**

<http://www.floridadisaster.org/Mitigation/State/3.0%20Risk%20Assessment.pdf>

- The State of Florida's long-term mitigation efforts are geared toward ensuring that the residents, visitors, and businesses in Florida are safe and secure from natural, technological, and human induced hazards by reducing the risk and vulnerability before disasters occur.

□ **Flood Insurance Study, Santa Rosa County, Florida and Incorporated Areas, December 19, 2006,**

<http://www.santarosa.fl.gov/permits/flood.html>

- A flood Insurance Study (FIS) is a book that contains information regarding flooding in a community and is developed in conjunction with the Flood Insurance Rate Map (FIRM). The FIS, also known as a flood elevation study, discusses the engineering methods used to develop the FIRMs. The study also contains flood profiles for studied flooding sources and can be used to determine Base Flood Elevations for some areas.
- The countywide Flood Insurance Study (FIS) investigates the existence and severity of flood hazards in, or revises and updates previous FIS/Flood Insurance Rate Maps for the geographic area of Santa Rosa County, Florida. The FIS aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This FIS has developed flood risk data for various areas of the county that will be used to establish actuarial flood insurance rates. This information will also be used by Santa Rosa County to update existing floodplain regulations, and will be used by local and regional planners to further promote sound land use and floodplain development.

X □ **Santa Rosa County Land Development Code,**

<http://www.santarosa.fl.gov/zoning/landdevcode.html>

- Implements all the policies that are in the Comprehensive Plan using guidance and procedures for floodplain management.
- It is the determining aspects of development that comes under planning and zoning. It includes a series of construction standards, anchoring structures to the ground and limiting what types of structures can go in certain areas, especially the flood hazard areas. Mobile homes are not permitted in those areas.

□ **Local Land Development Code Review Project,**

<http://www.santarosa.fl.gov/zoning/lldcodeproject.html>

- Guiding Principles
 - Clearly reflect current county policies
 - Maintain the value and quality of community development
 - Be limited to those regulations necessary to accomplish community development goals
 - Not unduly impede economic development

uk □ **Santa Rosa County Ordinances,**

<http://www.municode.com/resources/gateway.asp?pid=12483&sid=9>

Some of the ordinances relating to flood mitigation include:

- Appendix C, Land Development Code, Article 10. Flood Plain Management
 - 10.00.00 Purpose: Inasmuch as the flood hazard areas of Santa Rosa County are subject to periodic inundation which can result in loss of life, property, health, and safety, and which can disrupt commerce and governmental services and

which can cause extraordinary public expenditures for flood protection and relief and which can impair the tax base of the County and otherwise adversely affect the public health, safety and general welfare and because these flood losses are caused by the cumulative effect of obstruction in flood plains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, flood-proofed or otherwise protected from flood damages, this article is designed to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas. Towards this end the provisions of this article are designed to:

- Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion or in flood heights or velocities;
 - Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
 - Control the alteration of natural flood plains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;
 - Control filling, grading, dredging and other development which may increase erosion or flood damage; and
 - Prevent or regulate the construction of flood barriers which will unnaturally divert floodwater or which may increase flood hazards to other lands.
- 10.02.01 Designation of County Building Official
 - The County Building Official, or his successor, is hereby appointed to administer and implement the provisions of this article, with enforcement responsibility delegated pursuant to the County Table of Administrative Organization
 - 10.03.03 Standards for subdivision proposals
 - A. All subdivision proposals shall be consistent with the need to minimize flood damage
 - C. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards
 - 10.03.04 Standards for areas of shallow flooding (AO Zones)
 - Located within the areas of special flood hazard established in Section 10.01.01, are areas designated as shallow flooding. These areas have special flood hazards associated with base flood depths of one (1) to three (3) feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate; therefore the following provisions apply:
 - A. All new construction and substantial improvements of residential structures shall have the lowest floor, including basement, elevated to the depth number specified on the flood insurance rate map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor, including basement, shall be elevated at least two (2) feet above the highest adjacent grade.
 - Appendix C Land Development Code, Article 12, Coastal Management; Conservation
 - 12.00.00 Purpose: The purpose of this article is to provide regulations, standards and devices necessary to protect coastal resources, mitigate negative impacts upon natural resources, protect lives and property, enhance property values, and provide for the health, safety and welfare of the citizens of Santa Rosa County.
 - Appendix C Land Development Code, Article 4, General Provisions
 - 4.03.00 Subdivision regulations and procedures

- E. That for those lands subject to periodic or seasonal flooding, subdivision and development shall include provision for protective flood control measures and drainage facilities (see Article 10).
- 4.03.04 Preliminary plat requirements
 - D. Preliminary plat information. The preliminary plat shall include and show the following features and information:
 - 15. Proposed direction of flow, retention and distribution of stormwater in accordance with county, state, and federal laws, ordinances and regulations.
 - 16. Special flood hazard areas shall be shown where the proposed subdivision or any part thereof is in an area subject to 100 year flooding.
- 4.03.06 Construction plans – Minimum requirements
 - G. Stormwater treatment basins.
 - 3. One-half (1/2) foot of freeboard, above the maximum calculated high-water elevation for the applicable design storm, shall be provided in all ponds
 - M. Finished floor elevation.
 - 1. Minimum finished habitable floor elevations (excluding basements) shall be eight (8) inches above finished grade. If no sod is installed, elevation shall be ten (10) inches above finished grade. Finished grade shall be sloped downward from the foundation two and one half (2-½) inches within ten (10) feet or less including sidewalks, patios and driveways and then sloped a minimum one-sixteenth (1/16) inch per foot to a positive drainage outfall.
 - 2. In all new subdivisions a sealed professional engineer's evaluation shall be required. The engineer's evaluation will include design data, calculations, drawings and applicable assumptions to establish the 100-year water surface profile for the area and shall be submitted to the County Engineer. Upon review by the County Engineer, a minimum finished habitable floor elevation of fourteen inches (14") above the expected 100 year water surface profile will be established and forwarded to the Building Inspection Department where required.
 - 3. In areas determined by Santa Rosa County to be flood-prone with documented high water elevations, a minimum finished habitable floor elevation of eighteen inches (18") above the high water mark will be established by the County Engineer. Finished floor elevation requirements shall be verified prior to issuance of a Certificate of Occupancy by a certified elevation letter from a registered land surveyor or registered engineer.
- 4.04.03 Considerations in reviewing site plans
 - F. Flood prone land- Construction in flood prone areas shall comply with the County Flood Hazard Prevention Regulations as defined within Article 10 of this ordinance
 - G. Provision of Adequate Public Services_- Appropriate facilities for providing potable water, sanitary sewerage collection, solid waste disposal, surface water drainage and fire protection shall be incorporated in the site plan. These facilities shall be reviewed by appropriate County Departments. The evaluative comments of department heads shall be provided to the Planning Director to facilitate the Department review. A concept plan for drainage of storm-

water run-off supplied by the applicant shall be approved by the County Engineer prior to approval of a site plan by the County Planning Department. On site retention facilities shall be required to meet storm-water quality standards. Prior to application for a building permit, a detailed drainage plan prepared by a professional engineer, registered in the State of Florida, shall be approved by the County Engineer. A Florida registered professional engineer shall certify that the drainage plan has been appropriately implemented prior to the issuance of certificate of occupancy (see Sections 4.03.06(F) and 4.03.07(E)). Drainage plans shall not be required for site plans with a total impacted area of less than fifteen hundred (1500) square feet.

- **Santa Rosa Joint Land Use Study – Santa Rosa County and NAS Whiting Field, <http://teamsantarosa.com/pdf/jlus/ch1.pdf>**
 - A joint land use study (JLUS) is a cooperative land use planning effort between affected local government and a military installation. For the Santa Rosa County JLUS, the affected parties are Santa Rosa County government and NAS Whiting Field. Through this joint effort, the two parties work together to prepare growth management strategy designed to alleviate existing land use conflicts and to prevent the emergence of future land use conflicts. The growth management strategy may recommend modifications to the Santa Rosa County Comprehensive Plan, Land Development Code, or other County ordinances for the purpose of implementing strategies that minimize current or future problems, encouraging compatible future development, and preventing incompatible future development near airfields.

- **Escambia County Local Mitigation Strategy, Revised January, 2009, <http://www.co.escambia.fl.us/Bureaus/DevelopmentServices/LocalMitigationStrategy.html>**

- **Report by the Gulf Coastal Plain Ecosystem Partnership (GCPEP), <http://www.cooperativeconservationamerica.org/viewproject.asp?pid=544>**
 - A collaboration among the Department of Defense, Florida Division of Forestry, Northwest Florida Water Management District, National Forests in Alabama, Florida Department of Environmental Protection, Nokuse Plantation, National Park Service, the Florida Fish & Wildlife Conservation Commission, and The Nature Conservancy that operate under a 2006 multi-party Memorandum of Understanding (MOU) encompassing 1,052,321 acres in northwest Florida and south Alabama. This area is known for its extensive longleaf pine forests, as well as being one of the most critical freshwater and marine sites in the United States, including numerous outstanding examples of wetland, riverine, and estuarine systems.

- **Florida Department of Environmental Protection, Division of Water Resource Management, Pensacola Bay Water Quality Status Report, http://tlhdwf2.dep.state.fl.us/basin411/pensacola/status/Pensacola_Bay.pdf**
 - In the Pensacola Bay Basin, state, federal, regional, and local agencies and organizations are making progress towards identifying problems and improving water quality. Throughout its watershed management activities, the Department works with these entities to support programs that are improving water quality and restoring and protecting ecological resources. The Department's TMDL Program objectives will be carried out in the basin through close coordination with the activities of key stakeholders such as Escambia and Santa Rosa Counties, the Bay Area Resource Council, city of Pensacola,

Eglin Air Force Base, the U.S. Environmental Protection Agency's (EPA) Gulf Ecology Division Sabine Island Facility, and the Northwest Florida Water Management District (NFWFMD).

□ **Northwest Florida Water Management District Land Acquisition Work Plan, <http://www.nfwmd.state.fl.us/lands/lands.htm>**

- Since the inception of the District's land acquisition program, the goal has been to bring as much floodplain as possible of our major rivers and creeks under public ownership and protection. The Florida Forever Land Acquisition Program continues to increase the acres of wetland, floodplain and aquifer recharge areas acquired by the District. To date, over 216,000 acres have been protected for water resource purposes through the land acquisition efforts of the District either in fee simple or through conservation easements. In 1999 the Florida Legislature passed the Florida Forever Act (Section 259.105, F.S.), which continues the state's long-term commitment to environmental land acquisition, restoration of degraded natural areas, and high-quality outdoor recreation opportunities. The Florida Forever Program authorizes issuance of up to \$300 million annually in bonds over a ten-year period to several state agencies and the five water management districts (WMDs). While the previous programs focused almost exclusively on the acquisition of environmentally sensitive lands, the Florida Forever program is somewhat different in that it authorizes the use of up to half of the program funding for certain types of capital improvement projects. Eligible uses of the "discretionary" funds include water resource development, stormwater management projects, water body restoration, recreation facilities, public access improvements, and removing invasive plants, among others. The remaining fifty percent must be spent on land acquisition.



▪ **Garcon Point Ecosystem**

- This proposed land acquisition project contains most of the Garcon Point Peninsula in Pensacola Bay. The project area is largely undeveloped and includes a variety of natural communities that are in good to excellent condition. The entire tract provides considerable protection to the water quality of Pensacola Bay, as well as harboring a number of rare and endangered species. Priority purchases will be concentrated on parcels adjacent to existing District lands. Currently the District owns 3,245 acres. The emergent estuarine marsh that borders several miles of shoreline within the project is an important source of organic detritus and nutrients, and serves as a nursery for many of the species found in Pensacola Bay. These wetlands function as both stormwater filtration and a storm buffer area, as well as providing erosion controls to the neighboring uplands. A minimum of 13 endangered or threatened species are known to live in the region and the northern wet prairie portion is known to be an outstanding pitcher plant habitat.
- **Public Access**
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

- **Land Acquisition**

Approximately 3,200 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.
- **Blackwater River Basin**
 - Originating in the Alabama Conecuh National Forest, the Blackwater River has a large portion of its Florida watershed further protected by the Blackwater River State Forest. In all, nearly 50 miles of the river corridor is remote and undeveloped. As a result, the Blackwater is considered one of Florida's best-preserved waterways. Acquisition by the Florida Division of Forestry will bring into public ownership much of the lower, least protected portion of river floodplain and estuary. The District will assist in these acquisitions as needed. Currently the District owns 380 acres along the river. The acquisition area includes a large area of mature longleaf pine forest, considerable bottomland forest and marsh acreage, upland mixed forest, blackwater stream and seepage slope communities. Priority purchases will be concentrated on parcels adjacent to existing District lands. Some 380 acres have been acquired along the Blackwater immediately south of Milton.
 - **Land Acquisition**

Approximately 11,449 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.
- **Yellow/Shoal River Basin**
 - The Yellow River has its headwaters in Alabama's Conecuh National Forest and forms the northern border of Eglin Air Force Base (AFB) across much of eastern Santa Rosa and western Okaloosa counties. The proposed acquisitions would bring much of the remainder of the Yellow River floodplain in Florida under public ownership. Included in the project is a segment of the lower Shoal, the largest tributary to the Yellow. Large private landowners own a majority of the floodplain in this project, but considerable areas of the bordering and buffer lands must also be acquired to ensure effective management and the protection of water resources. To accomplish these objectives, acquisition of the bordering land within the 100-year floodplain, along with an additional buffer of at least 50-feet, will be required. Highest priority will be given to tracts in the western portion of the project. Priority purchases will be concentrated on parcels adjacent to existing District lands. Currently the District owns 17,742 acres along the river. Although the Yellow and Shoal rivers exhibit good overall water quality, both are fed largely by rainwater runoff and thus are highly susceptible to pollution from land use activities. The proposed purchase area would provide water quality protection from the Alabama border and encompass roughly 39,000 acres. Purchase of lands northwest of Eglin AFB, along the I-10 corridor, would provide approximately 52,000 acres of land that has excellent potential for future water resource development to supplement the strained potable water sources

in southern Santa Rosa and Okaloosa counties. Acquisitions in this area are recommended by the District Regional Water Supply Plan for Okaloosa, Santa Rosa and Walton counties to protect future supply sources.

- **Land Acquisition**

Approximately 39,982 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

- **Groundwater Recharge Areas**

In Escambia and Santa Rosa counties, the Sand-and-Gravel Aquifer is the principal source of potable water for public supply. The Sand-and-Gravel Aquifer is unconfined or poorly confined, making it particularly susceptible to contamination by land uses. Land acquisition along the I-10 corridor between the Yellow and Blackwater rivers would protect recharge areas that are particularly important for future water supply sources.

- **Escambia River Basin**

- Beginning at the confluence of the Conecuh River and Escambia Creek above the Florida/Alabama border and emptying into Escambia Bay, the Escambia River corridor contains a rich diversity of plant and animal species, as well as many rare fish and waterfowl. The Escambia basin is broad and well drained in the upper reaches, and swampy below Molino, Florida. While the overall water quality is considered good, many point and non-point pollution sources empty into the river. Currently the District owns 34,919 acres along the river. Priority purchases will be concentrated on parcels adjacent to existing District lands around the river mouth and designated tributaries.

- **Land Acquisition**

Approximately 7,138 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Appendix C

Flood Mitigation Plan

Waterways of Santa Rosa County Map



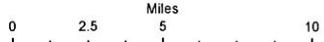
Santa Rosa County
 Flood Mitigation Plan
 Rivers, Bays, Lakes, Floodplains,
 Beaches, Shores & Estuaries Map



Legend

- Main Roads
- Rivers, Lakes, Estuaries
- Flood Zone**
- A/AE (100 Year Flood Plain)
- VE (100 Year Flood Plain with Wave Action)
- X 500 Year Floodplain
- Open Water - No Defined Flood Hazard

Disclaimer:
 The GIS maps and data distributed by the Santa Rosa County BOCC Departments are derived from a variety of public and private sector sources considered to be dependable, but the accuracy, completeness, and currency thereof are not guaranteed. The Santa Rosa County Commission makes no warranties, expressed or implied, as to the accuracy, completeness, currency, reliability, or suitability for any particular purpose of information or data contained in or generated from the County Geographic Database. Additionally, the Santa Rosa Commission or any agent, servant, or employee thereof assume no liability associated with the use of this data, and assume no responsibility to maintain it in any matter or form.



Map Document: (C:\mav's-d-drive\mav\work\2015 LMS Update\Rivers, Bays, Lakes, etc.mxd)
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Data Source: FEMA Digital Flood Insurance Rate Map (DFIRM) provided by Dewberry & Davis. Other GIS Data: Santa Rosa County GIS Department

Community Planning, Zoning and Development Division
 March 30, 2015



Appendix D

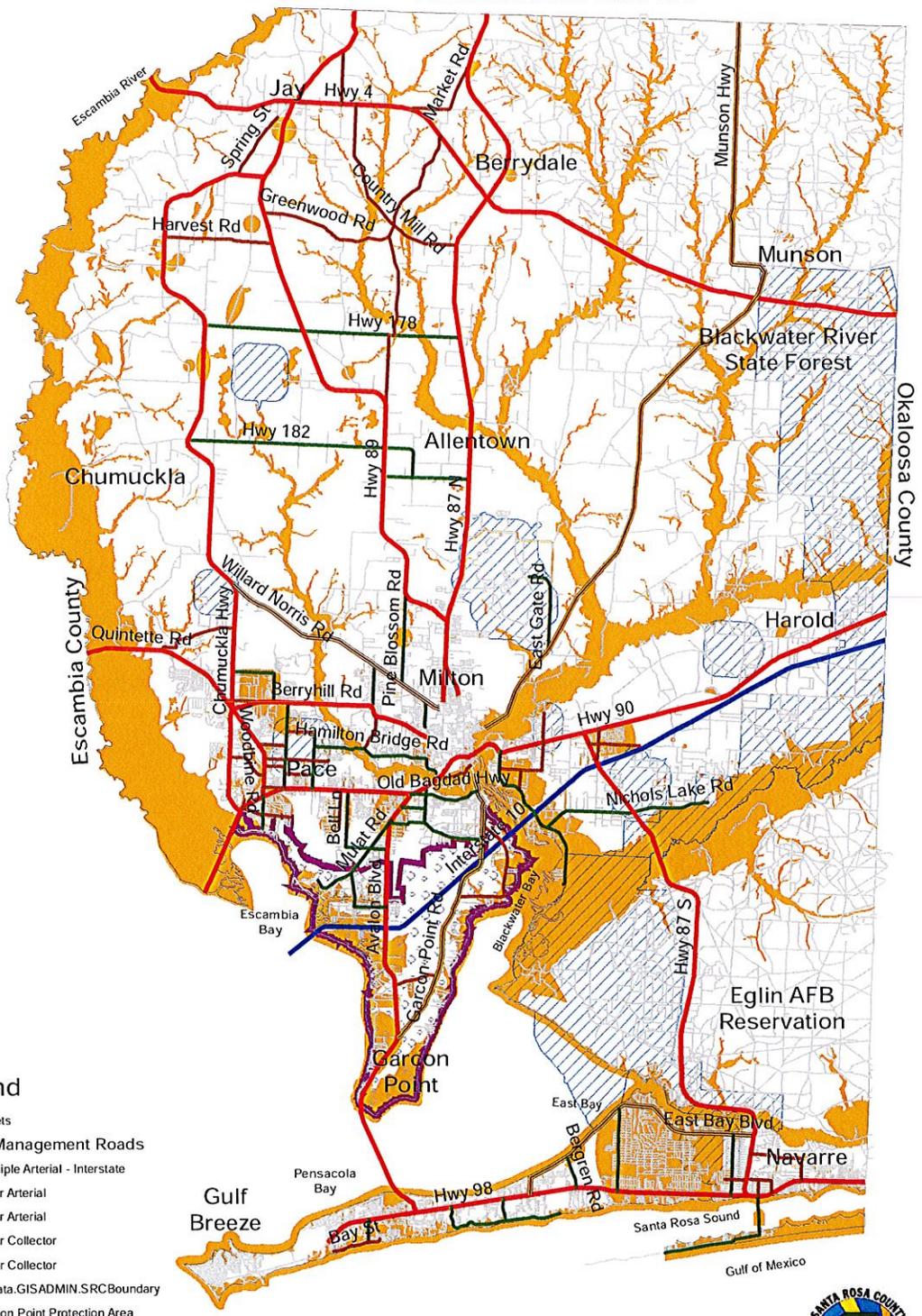
Flood Mitigation Plan

Storm Surge and Stormwater Problem Areas Map



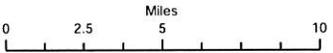
Santa Rosa County Flood Mitigation Plan Minor Subdivision Regulated Areas

Florida/Alabama State Line



Legend

- Streets
- Access Management Roads**
- Principle Arterial - Interstate
- Major Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- gisdata.GISADMIN.SRCBoundary
- Garcon Point Protection Area
- Military/Private Airport Zones
- Stormwater Problem Areas



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Zoning Maps Disclaimer: Areas which are outlined as a Special Planning Areas, Protection Areas or Historic Areas may have additional limitations that regulate the use of the property. Zoning Boundaries are not static - contact us for any changes which may have occurred since the publication of this map document. Parcel information is produced by the Property Appraiser for appraisal purposes only and are NOT surveys. Please contact the Community Planning, Zoning and Development Division for additional information.



Planning, Zoning
and
Development Division
March 30, 2015

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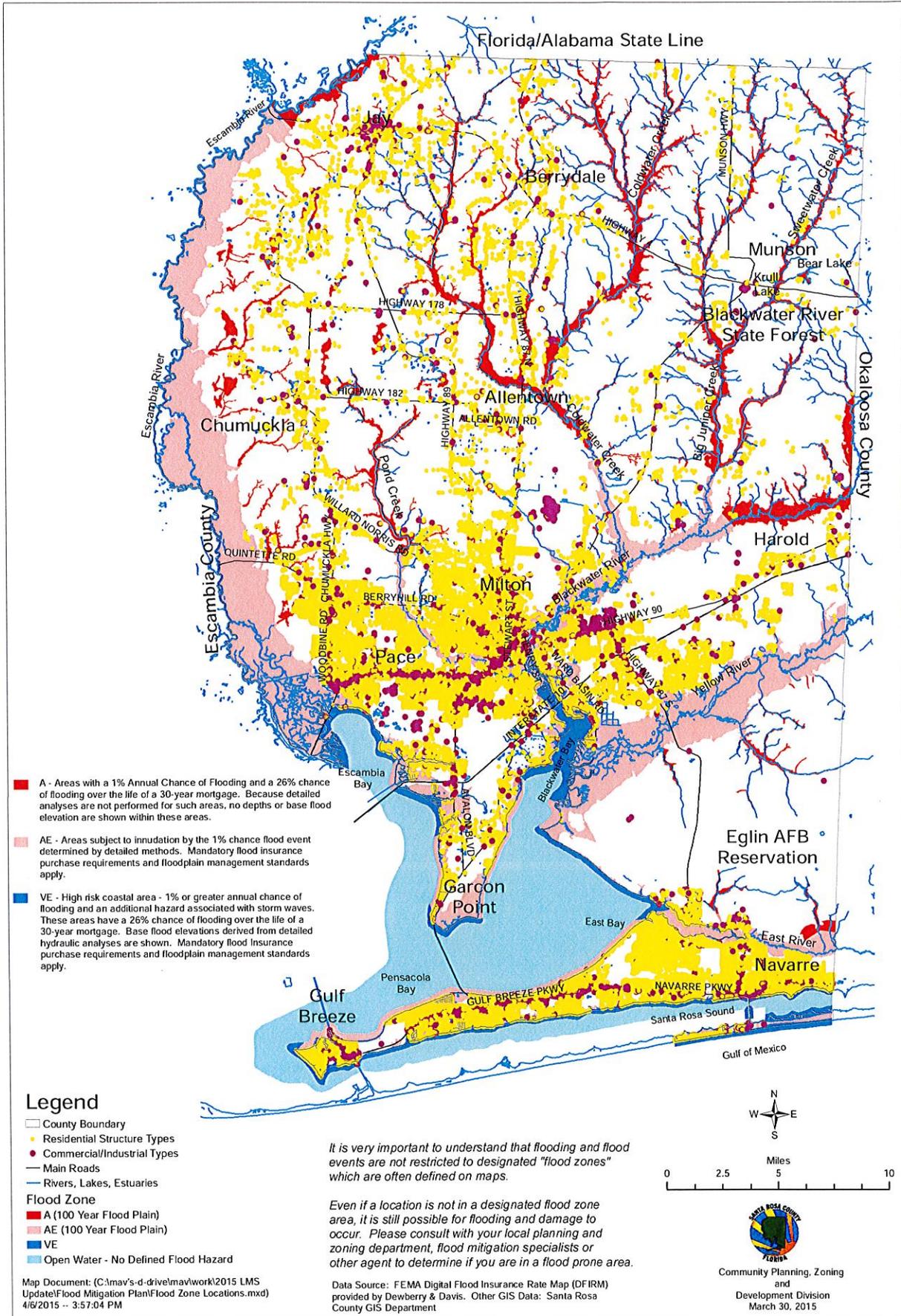
Appendix E

Flood Mitigation Plan

Flood Zone Locations, FIRM and FIRM Panels Index Maps



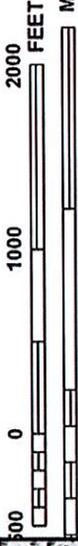
Santa Rosa County Flood Mitigation Plan Flood Zone Locations







MAP SCALE 1" = 1000'



NFIP

PANEL 0455G

FIRM FLOOD INSURANCE RATE MAP SANTA ROSA COUNTY, FLORIDA AND INCORPORATED AREAS PANEL 455 OF 657

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY SANTA ROSA COUNTY
NUMBER 120274
PANEL 0455
SUFFIX G

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



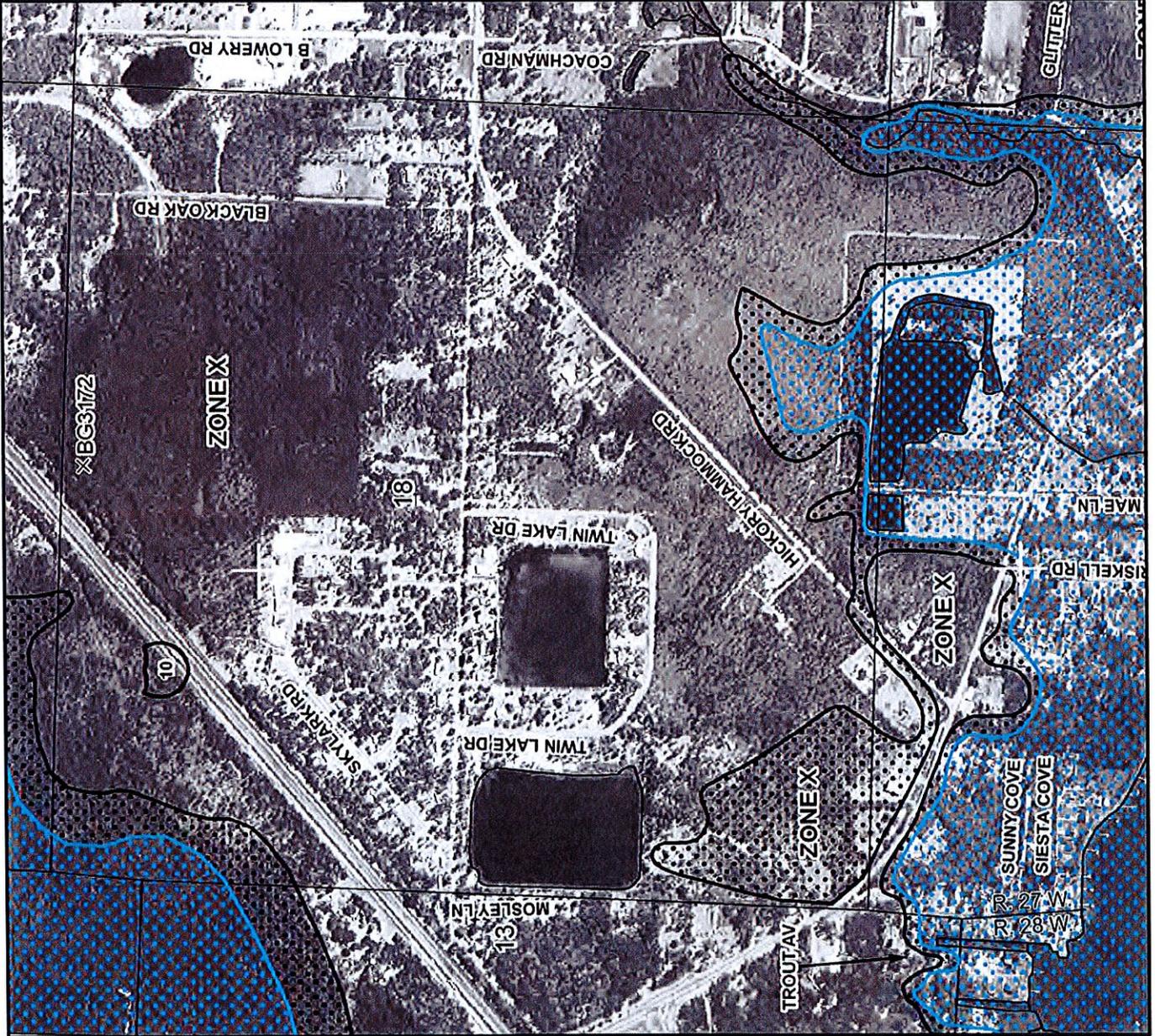
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EFFECTIVE DATE
DECEMBER 19, 2006

Federal Emergency Management Agency

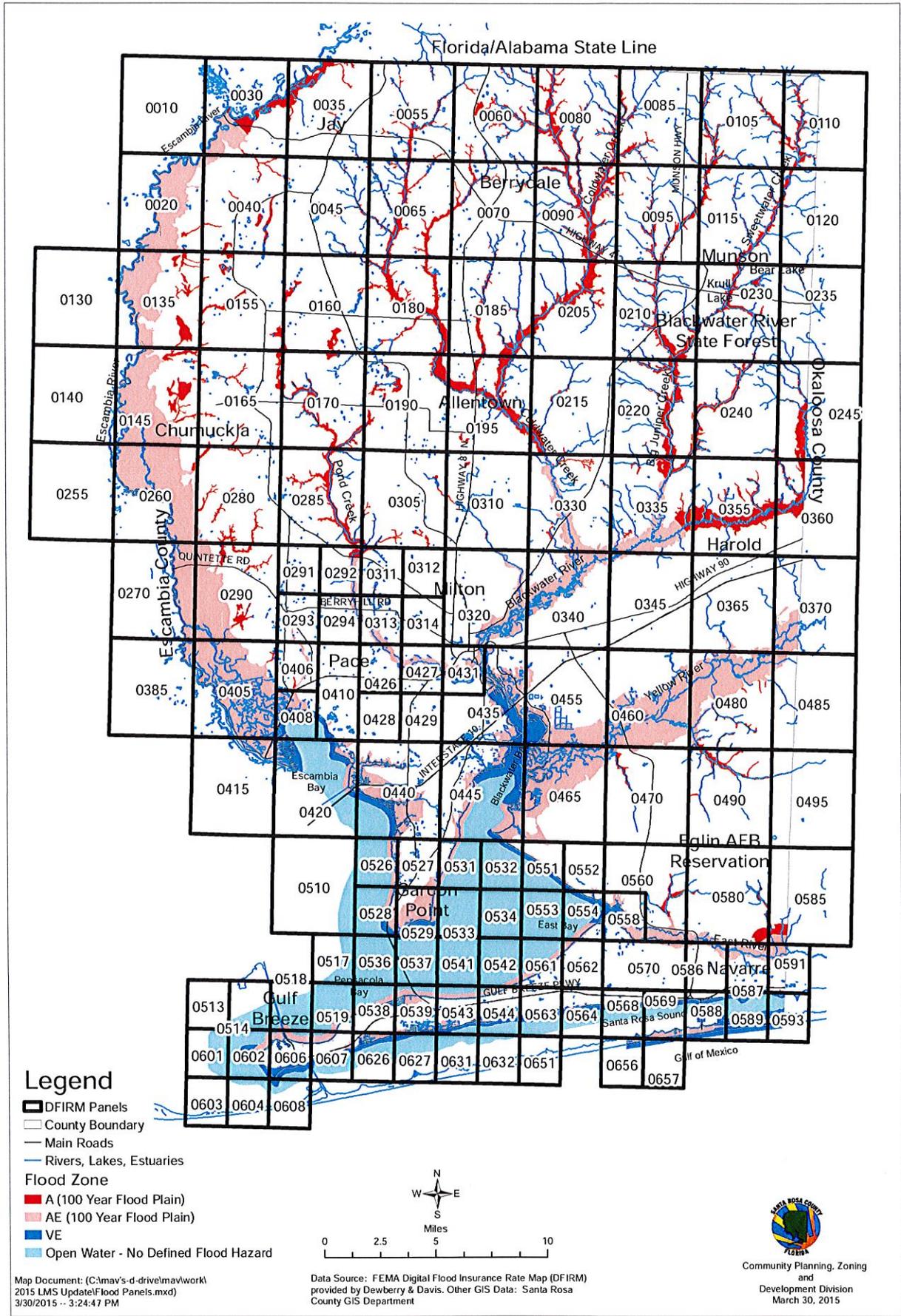
NATIONAL FLOOD INSURANCE PROGRAM

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov





Santa Rosa County Flood Mitigation Plan DFIRM Panels



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Data Source: FEMA Digital Flood Insurance Rate Map (DFIRM) provided by Dewberry & Davis. Other GIS Data: Santa Rosa County GIS Department

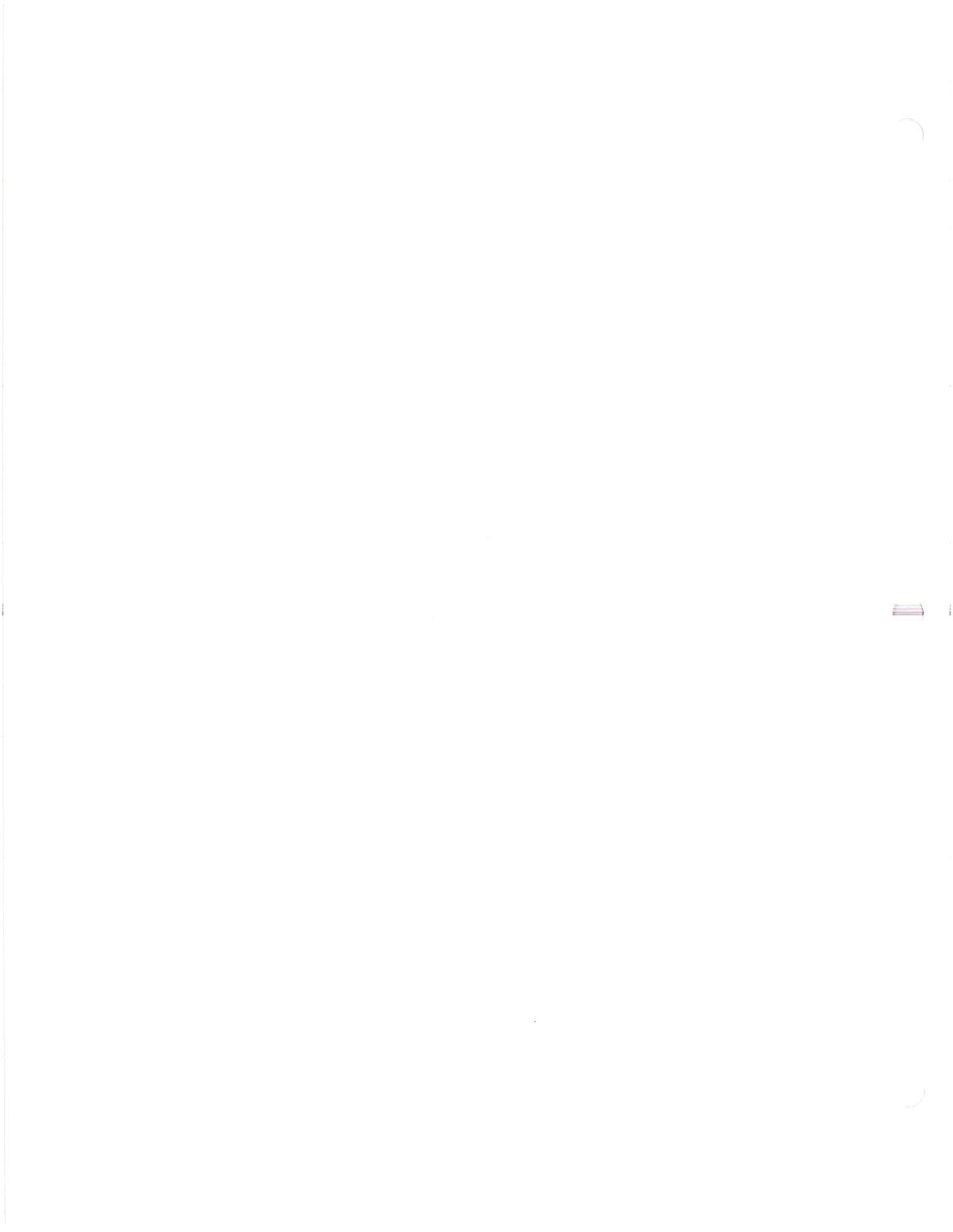

 SANTA ROSA COUNTY
 FLORIDA
 Community Planning, Zoning
 and
 Development Division
 March 30, 2015



Appendix F

Flood Mitigation Plan

Hurricanes Ivan and Dennis



Your County, Your Government

Remembering the Storm that Changed our County



Fact Sheet #15
September 16, 2009



Hurricane Ivan Retrospect- Five Years Later

September 16 marks five years since Hurricane Ivan. The memorable storm hit at approximately 2:02 a.m. on a Tuesday morning in 2004 and devastated the county with over 23,000 housing units, or 47 percent of the homes, damaged or destroyed. The aftermath of Ivan dramatically affected residents and county government alike. Ivan taught us many lessons.

Although no storm or its aftermath can be predicted, Santa Rosa County Emergency Management has taken numerous steps to improve and implement new operations so we can all be more prepared when the next disaster strikes. A few examples of the changes made to ensure you have the information and services during any type of disaster include:

Lesson Learned

Improvements

Benefits to Residents

Communication Failure

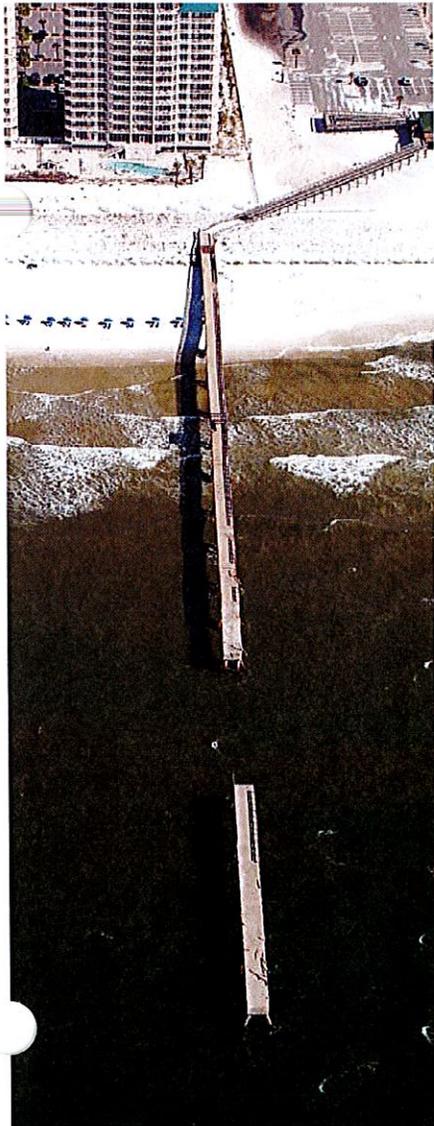
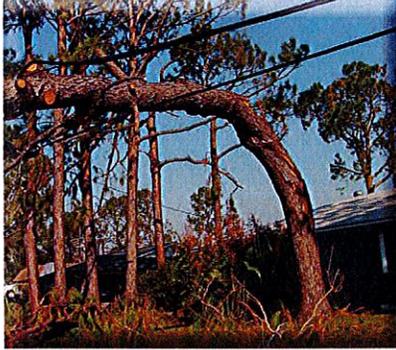


New permanent and portable cellular towers and walkie-talkie service.	Helps maintain communication for officials, staff and responders, which increases their ability to respond to community needs.
Website backup has been implemented from an out of town location to ensure Web access.	Maintains internet capabilities to provide up-to-date information to residents in or out of the county.
Forged relationship with Lamar Advertising to utilize an electronic billboard in the south end of the county.	Provides an additional and immediate tool to relay important information to residents and visitors traveling on US Hwy. 98.
Electronic message boards were purchased and additional message boards have been identified, if needed.	Additional tool to display important messages placed strategically throughout the county.
System for informational handouts at points of distribution locations if a major communications loss occurs was created.	Ensures communication flow from the EOC when traditional communication methods fail.
Media allowed to embed and a media room created to accommodate their needs.	Working with the media, the community will receive prompt information regarding safety of life and property.
Created a text messaging system called "E-Breaking News."	Citizens can sign up to receive alerts on emergency or other information that may affect daily life.
Partnership formed with Mediacom that gives the county the ability to override channel 27 with important safety information.	Provides residents with an additional outlet to receive important emergency messages.
New REVERSE 911® system purchased that enables the county to call homes and businesses in specific areas to alert them during an emergency.	Citizens that may be affected by a disaster in a targeted area can receive specialized notification.
Partnership with the Weather Channel to display disaster information on the "crawl" found at the bottom of your TV Screen.	Provides residents with an additional outlet to receive important emergency messages.



Lesson Learned

Limited Resources



Improvements

Benefits to Residents

<p>Addition of two emergency management staff positions.</p>	<p>Allows emergency management to focus daily on planning, preparedness, response and recovery for all hazards. Also allows staff to provide more public awareness presentations and maintain better relationships with disaster partners.</p>
<p>County staff and designated representatives assigned to EOC stations.</p>	<p>Allows for better training of EOC staff, improves internal communications which in turn provides better response for citizens.</p>
<p>Increased training which is now held year round, including full scale disaster drills for numerous types of disasters that may affect our county.</p>	<p>Disaster responders are able to learn, develop working relationships before a disaster and are better prepared to assist residents.</p>
<p>Creation of Grand Central Station, a communication sharing software for emergency responders working in the EOC.</p>	<p>Enables EOC staff to communicate quickly and better assess and respond to the community's needs.</p>
<p>Faith-based Partner Group created to coordinate disaster response efforts.</p>	<p>Expands the county's capacity to quickly respond to our residents' needs by reducing our dependency on outside help which can often take days to arrive.</p>
<p>A business continuity emergency support function was created to provide better communication with business.</p>	<p>More accurate information relayed to residents about what businesses are open and what supplies they have available including food, water and gas.</p>
<p>Identified facilities to be used during disasters and manpower, both county and volunteers, to run the facilities.</p>	<p>Predetermines appropriateness and adequacy of physical facilities to be used as response and recovery resources.</p>
<p>Created SAFER or the Support Alliance for Emergency Readiness, an organization of businesses, non-profits, individuals and government agencies that help in recovery efforts after a disaster.</p>	<p>Expands the county's capacity to quickly respond to our residents' needs by reducing our dependency on outside help which can often take days to arrive.</p>
<p>Established warehouse space required for a County Staging Area for relief supplies and equipment.</p>	<p>Resources can be stored before a disaster strikes, drastically reducing the time needed to get the resources to our citizens.</p>
<p>Pre-identified companies and pre-bid disaster services with contractors which are reviewed yearly.</p>	<p>Ensures adequate resources are available, which helps reduce response time for the community.</p>
<p>Satellite phones installed at the emergency operations center.</p>	<p>Ensures communication if landline and cell phone service is lost.</p>
<p>Added additional shelters around the county, including a new Pet Friendly Shelter.</p>	<p>Provides last resort shelter space for residents who cannot go to other safe locations.</p>
<p>Adopted the National Incident Management System and restructured the emergency operations center.</p>	<p>Allows agencies that have similar missions sitting together as a group to increase communication and effectiveness.</p>
<p>Increased training, supervision and created scripted questions for Citizen Information Center staff.</p>	<p>Facilitates two-way communication with residents, helps identify needs and provides direct, correct, and consistent information.</p>

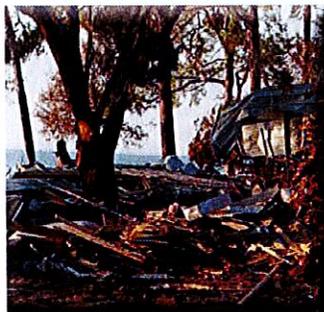


Ivan's Wrath Facts

Tropical Storm Force Winds Hurricane Winds Eye Landfall	7 a.m., Wednesday, September 15 2 p.m., Wednesday, September 15 2:02 a.m., Thursday, September 16
Evacuation Numbers	Over 30,000 residents are estimated to have evacuated
Shelters	An estimated 1,000 people utilized county shelters
Peak Wind Gusts	107 MPH at NAS Pensacola
Highest Tides	12.92 feet at Escambia Bay West Bank at U.S. Hwy. 90
Inches of Rain (48 hour totals)	15.79 inches
9-1-1 Calls Answered During Peak Risk Period	1,778 (Normal 290 a day)
Access to Navarre Beach closed	6:00 a.m., Wednesday, September 15
Access to Navarre Beach Open	To residents only, no vehicles September 27
Amount of Debris Removed	7.71 Million Cubic Yards
Estimated County Debris Removal Expenditures	\$42.14 Million
Estimated Amount to be Refunded by FEMA for Debris Removal	\$40.79 Million
Storm Related Deaths	2
Number of Gulf Power Customers Without Service	60,270

Improving Safety and Recovery Through Aggressive Mitigation

As a result of Hurricane Ivan, Santa Rosa County has received approval for approximately \$10 million in hazard mitigation projects of which the county has a 25 percent match. Some examples include shuttering of seven county buildings, elevation of ten lift station electrical control panels on Navarre Beach, and Phase I engineering for seven large scale stormwater/drainage improvement projects in the south end of the county. Phase II Construction is anticipated to begin on these seven projects in 2010.



What is Emergency Management?

The Emergency Management Division is responsible for work in the development, implementation and management of county-wide disaster prevention, preparedness, response, recovery and mitigation. It is responsible for the County's all-hazard Comprehensive Emergency Management Plan and coordinates the activities for the County's Emergency Operations Center or EOC.



The Santa Rosa County EOC was built in 1998. It serves as the **central location where representatives of local government and private sector agencies convene during disaster situations to make decisions.** It was built to withstand 150 MPH winds and is fully equipped with manual shutters and doors and two generators that are tested weekly.

Activations do not only happen during hurricane season. Incidents including tornadoes, wildfires, flooding, extreme cold or heat, transportation accidents, pandemics, and chemical or terrorist threats could all trigger an activation.

There are three levels of activation:

Level III: Monitoring- Selected agencies are notified that would take action as part of daily activities. The EOC is staff by the emergency communications center and other division of emergency management personnel.

Level II: Partial Activation- All primary agencies that man the EOC are notified. The EOC is staffed by emergency management personnel and selected EOC staff.

Level I: Full Scale Activation

- All Emergency Management personnel and primary and support Emergency Support Functions are activated within the EOC.



What Happens at Emergency Management During a Storm?

72 Hours Before an Anticipated Storm Hit

- ✓ The emergency management director notifies the board of county commissioners of the situation through the county administrator.
- ✓ A local emergency declaration may be declared in accordance with the Comprehensive Emergency Management Plan.
- ✓ Evacuation routes will be reviewed, problem areas identified and appropriate actions taken.
- ✓ Dissemination of targeted public information will begin.

48 Hours Before an Anticipated Storm Hit

- ✓ Emergency Operations Center activated at the appropriate level and a full briefing between all EOC agencies is conducted.
- ✓ American Red Cross of Northwest Florida and Santa Rosa County Department of Health will begin preparation for possible shelter openings.
- ✓ Personnel will be placed on standby and assignment to teams confirmed.
- ✓ Personnel having responsibilities during the storm will be sent home to prepare their families and property while maintaining adequate EOC manning.
- ✓ All campgrounds, recreational parks and mobile home parks will be directly advised to start hurricane preparedness and prepare for evacuation.
- ✓ Coordination commences concerning evacuation on decisions with Escambia, Florida; Escambia, Alabama, and Okaloosa counties emergency management.

24 Hours Before an Anticipated Storm Hit

- ✓ Evacuation of designated areas will begin subject to location, category and speed of the hurricane. Actual time to commence evacuation will be determined by Emergency Management Director in coordination with local law enforcement and neighboring counties. All mobile home residents will be advised to evacuate regardless of location.
- ✓ Authorities will ensure the Division of Emergency Management and the Public Information Officer are informed of government office and school closures.
- ✓ Shelters will be opened to adequately handle evacuees.
- ✓ All Emergency Management personnel including Emergency Operations Center volunteers report to assignments as directed.
- ✓ Special needs evacuation will begin.
- ✓ Available aircraft will evacuate as conditions warrant.

12 Hours Before an Anticipated Storm Hit

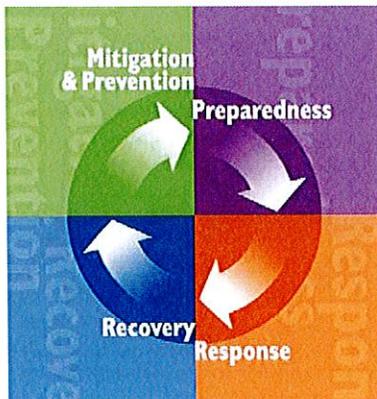
- ✓ EOC is fully activated with all designated representatives present.
- ✓ All non-essential personnel should be departing from evacuation area. Essential personnel will evacuate as conditions warrant, to be completed no later than the arrival of tropical force winds.

Arrival of Tropical Storm Force Winds

- ✓ All emergency vehicles are staged in appropriate locations and to ensure the safety of first responders, are not moved until the possibility of storm force winds (39-73 mph) has passed.



Santa Rosa County Emergency Management uses four phases to prepare for and respond to disasters.



What is an ESF?

An ESF, or Emergency Support Function, consolidates multiple agencies that perform similar or like functions into a single cohesive unit to allow for better management of emergency response functions. These functions represent specific response activities that are common to all disasters. Each Emergency Support Function is comprised of one or more primary agency (ies) serving as the lead and several other agencies and organizations providing support. The ESF concept was developed by the Federal Emergency Management Agency in the late 1980's. In Santa Rosa County and throughout Florida, 15 of the 18 ESFs fall under one of four branches in the Operations Section: Emergency Services, Human Services, Infrastructure Support and Operations Support

- ESF 1 - Transportation
- ESF 2 - Communications
- ESF 3 - Public Works & Engineering
- ESF 4 - Firefighting
- ESF 5 - Information Planning
- ESF 6 - Mass Care
- ESF 7 - Resource Support
- ESF 8 - Health & Medical Services
- ESF 9 - Search & Rescue

- ESF 10 - Hazmat
- ESF 11 - Food & Water
- ESF 12 - Energy
- ESF 13 - Military Support
- ESF 14 - Public Information
- ESF 15 - Volunteers & Donations
- ESF 16 - Law Enforcement & Security
- ESF 17 - Animal Protection & Agriculture
- ESF 18 - Business & Infrastructure





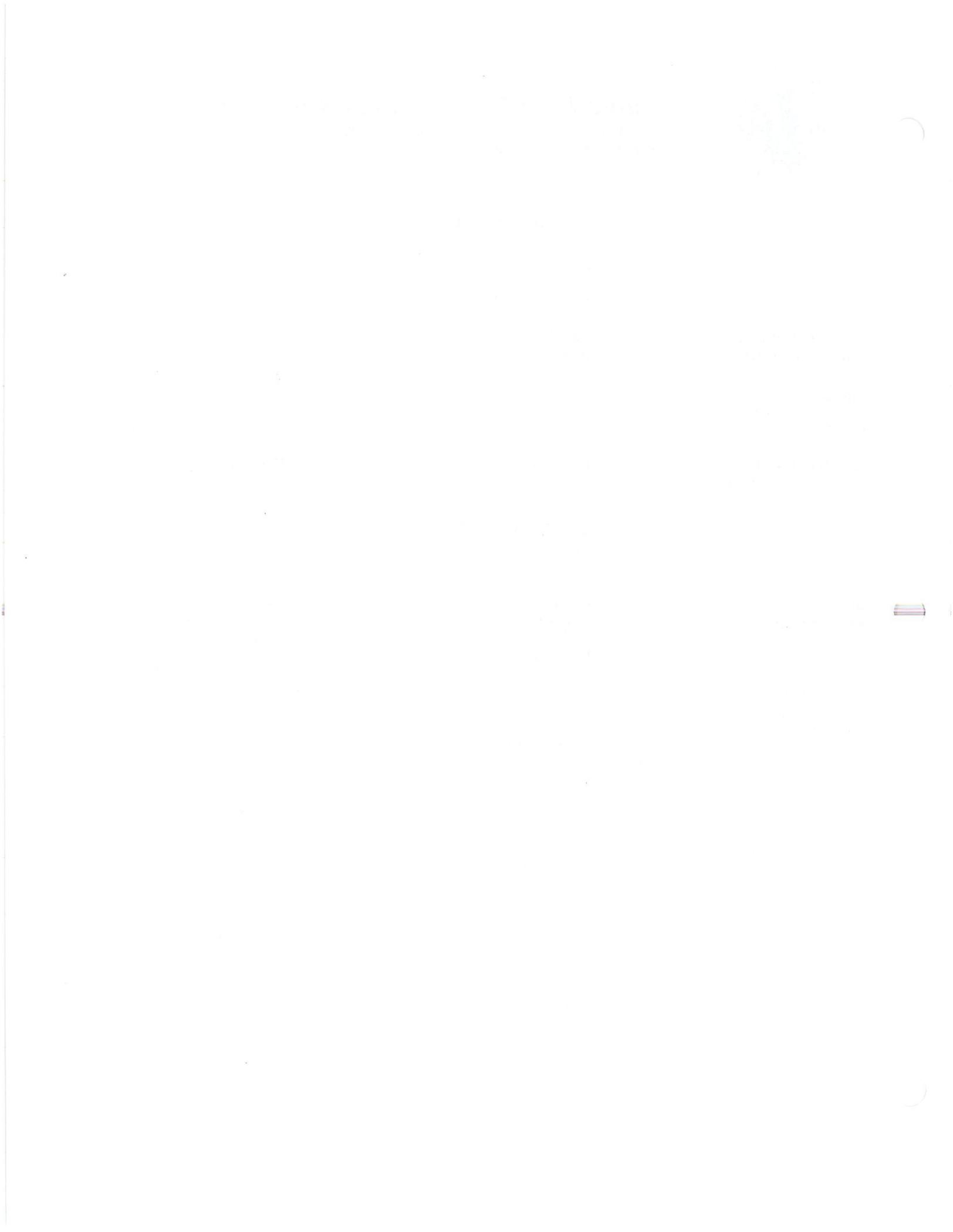
Santa Rosa County Public Information

4499 Pine Forest Road ■ Milton, Florida 32583

(850) 983-5254 ■ (850) 983-5248 Fax

Santa Rosa County Storm Facts 2004-2005

Stats	Hurricane Ivan	Hurricane Dennis
Evacuation ordered	6:00 a.m. Tuesday, September 14, 2004	6:00 p.m. Friday, July 8, 2005
Declaration of local state of emergency	Monday September 13, 2004	Friday July 8, 2005
Landfall <i>According to the National Weather Service</i>	2:02 a.m. Thursday, September 16, 2004	7:27 p.m. Sunday, July 10, 2005
Peak Wind Gusts <i>According to the National Weather Service</i>	107 MPH at Pensacola NAS	120 MPH, Pensacola Airport
Highest Tides <i>According to the National Weather Service</i>	12.92 feet Escambia Bay West Bank at HWY 90	5.50 feet in Pensacola
Inches of Rain (48 hour totals) <i>According to the National Weather Service</i>	15.79 inches, ending 7 p.m. CDT –September 16, 2004 Pensacola, FL (WEAR Studios)	7.67 inches, ending at 11:59 p.m. - July 10, 2005 (WEAR Studios)
Flood Damage in Special Flood Hazard Areas Only	Santa Rosa County: 3,934 >956 with 0-24.99% damage >1848 with 25-49.99% damage >622 with 50-74.99% damage >508 with 75% or more damage	Navarre Beach Only: 1,035 (Townhouses included, not condo's; no other flood damage in the special flood hazard areas): >545 with 0-24.99% damage >302 with 25-49.99% damage >118 with 50-74.99% damage >70 with 75% or more damage
Amount of Debris Removed	Total Vegetative and C & D: 7.71 Million CY	Vegetative: 1.75 million Cubic Yards C & D: 161,044 CY Total: 1.90 million CY
Estimated County Debris Removal Expenditures <i>(as of 05/08/2009)</i>	\$42.14 Million	\$21.98 Million



Estimated amount to be refunded by FEMA for Debris removal <i>(as of 05/08/2009)</i>	\$40.79 Million It is expected that the county's cost share for Ivan after final reimbursements are made will be approximately \$3 mill.	\$21.94 Million (County will be reimbursed for the majority of Dennis after the state obligates payment with the recent decision to pay Dennis and Katrina at 100%.)
Estimated Unfunded Costs to the County <i>(as of 05/08/2009)</i>	\$1.35 million	\$40,000 (County will be reimbursed for the majority of Dennis after the state obligates payment with the recent decision to pay Dennis and Katrina at 100%.)
Shelters and number of people at height of storm	<ul style="list-style-type: none"> Milton Community Center- 240 citizens and 20 staff Sims Middle School- 103 special needs clients and 13 staff 	<ul style="list-style-type: none"> Milton Community Center- 454 citizens and 18 staff S.S. Dixon Intermediate School- 110 Sims Middle School- 38 clients and 21 staff
Curfew declared	Tuesday, September 16, 2004	Sunday, July 10, 2005
Curfew lifted	5 a.m., Monday, October 4, 2004	Noon, Thursday, July 14, 2005 (except Navarre Beach)
Access to Navarre Beach closed	6:00 a.m., Wednesday, September 15, 2004	12:00 p.m., Saturday, July 9 closed to visitors 6:00 p.m., Saturday, July 9 to residents
Access to Navarre Beach Open	To residents only, no vehicles September 27, 2004 7 a.m.-6 p.m. only	July 12, 2005 Opened to pedestrian traffic only 8 am-6 p.m. only
Storm Related Deaths	2	1
Number of Gulf Power Customers without Service	Santa Rosa- 60,270 Escambia- 137,963 90% of the 396,000 total customers	Escambia- 100,107 Santa Rosa- 56,697 60% of the 396,000 total customers

Number of mobile homes in Santa Rosa County

- 8,586 units (According to FHDC Florida Online Housing Data Website)

Estimated number of residential structures in each evacuation zone:

- Category 1 – 7,537
- Category 2-3 – 5,447
- Category 4-5 – 8,233

(Please note some of the residential structures are vacation rental property and are not necessarily occupied.)

Average Household Size

- 2.69 persons (2000 Census Bureau statistic)
- 2.62 persons (2005 Florida Housing Data Clearinghouse Website, estimated population of 136,441 divided by an estimated number of households of 52,086)



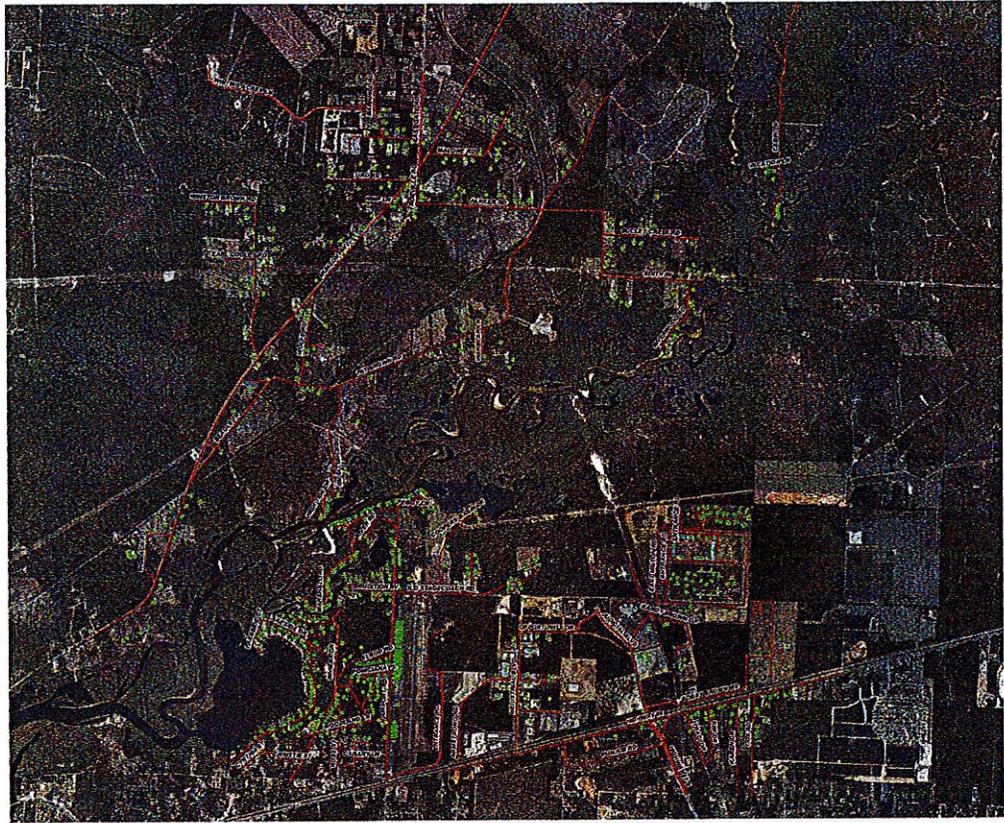
Appendix G

Flood Mitigation Plan

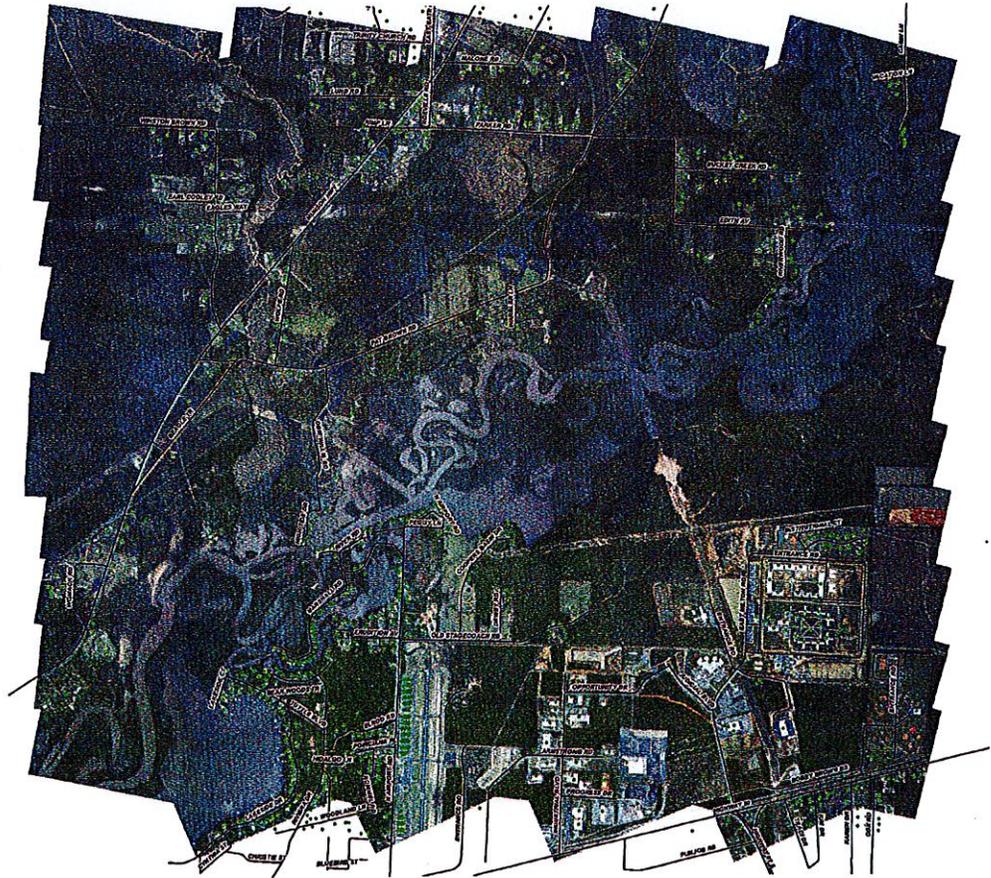
March 2009 Flood Event



*Blackwater River
before the
March 2009
flood event*



*Blackwater River
after the
March 2009
flood event*





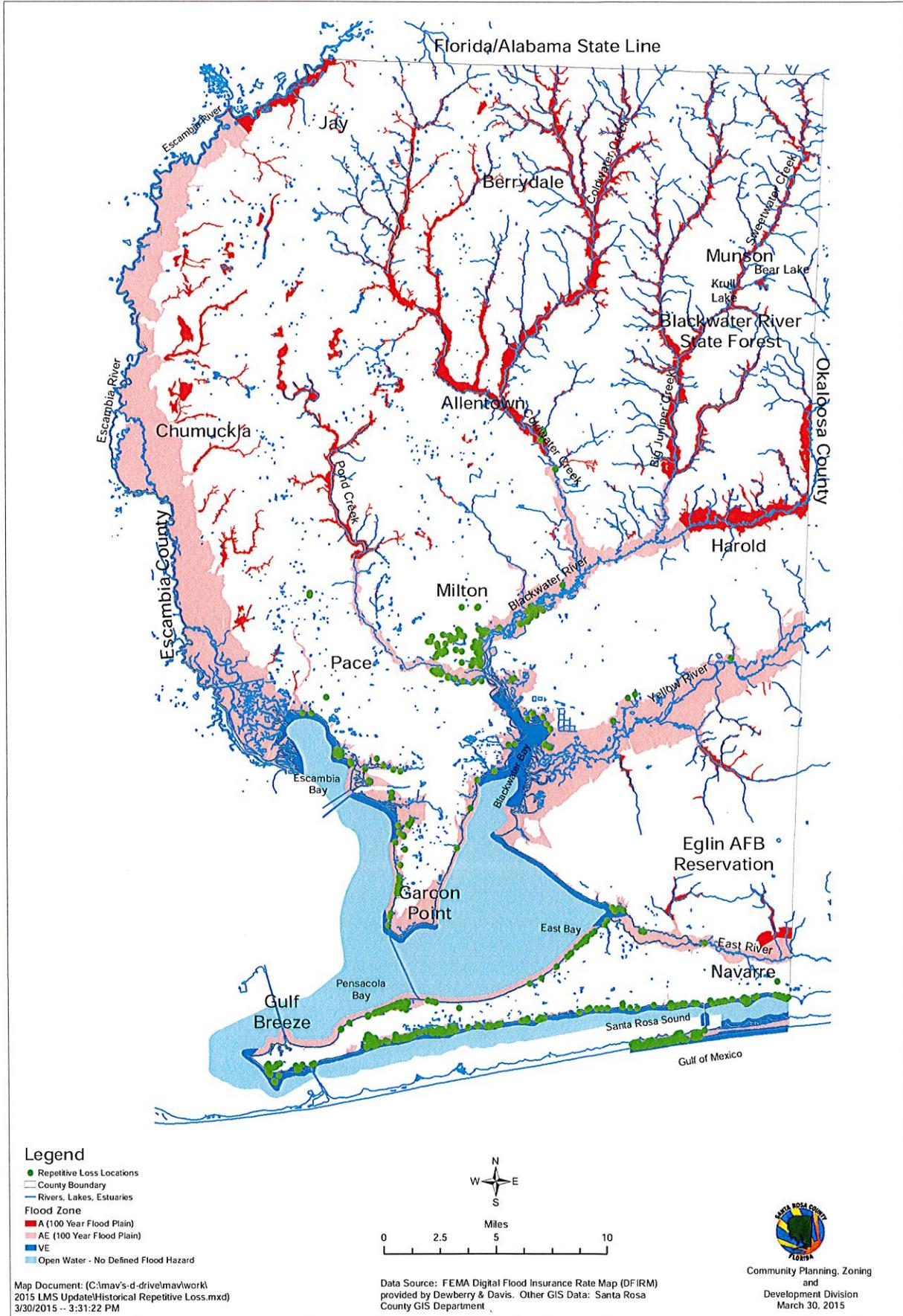
Appendix H

Flood Mitigation Plan

Historical Repetitive Loss Locations Map



Santa Rosa County Flood Mitigation Plan Historical Repetitive Loss Locations





Appendix I

Flood Mitigation Plan

Flood Mitigation Projects Detail

Project Title:

FEMA-1551-33-R, Phase-2, Villa Venyce Storm-water Improvement/Drainage Project

Location of Proposed Work:

Villa Venyce Subdivision is located in the Gulf Breeze area in an unincorporated part of Santa Rosa County. Villa Venyce is south of U.S. Hwy. 98 and on the east side of Gulf Islands National Seashore Park, then extends to the Santa Rosa Sound; encompassing the following roads: Gondolier Blvd, Settlers Colony, Venetian Way, Lido Blvd and Bay St.

Proposed Work and Purpose:

The phase I study determined modifications are needed to improve and upgrade the existing drainage system. Phase I funded the design, permitting, and geotechnical surveying for this project. Phase II provides funding for a construction project that will minimize recurring flooding and reduce repetitive flood-loss to 260-structures against the 100-year storm event. The runoff will be routed through a series of open swales, culverts, and treatment facilities as appropriate. The enhanced drainage system is also designed to lower the elevation of the water table in select locations, thus enhancing the soil's ability to absorb additional runoff and assimilate pollutants associated with residential runoff.



Pensacola Bay

SANDPIPER VILLAGE

WHISPER BAY

OLD TRAIL EST.

GRAND POINTE

GULF BREEZE

GULF ISLANDS NATIONAL SEASHORE

OAKS

VILLA VENYCE

PROJECT LOCATION VILLA VENYCE

GULF BREEZE 98 PKWY

Waterway

Intracoastal

SANTA ROSA COUNTY ESCAMBIA COUNTY

Santa Rosa Sound

Sharp Pt.

VILLA VENYCE STORMWATER IMPROVEMENT

NAVYSHORE ROAD

36

W. 1st St. 24ft

ZONE X

ZONE AE ZONE X

ZONE AE

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

SANTA ROSA COUNTY,
FLORIDA
(UNINCORPORATED AREAS)

PANEL 337 OF 370
SEE MAP INDEX FOR PANELS NOT PRINTED

ZONE AE

ZONE AE

ZONE AE

ZONE VE

ZONE AE

COMMUNITY - PANEL NUMBER
120274 0337 C

MAP REVISED:
JANUARY 19, 2000



Federal Emergency Management Agency

Project Title:

FEMA-1551-37-R, Phase-2, Ramblewood Storm-water Improvement Drainage Project

Location of Proposed Work:

Ramblewood Drive is located in the Gulf Breeze area of an unincorporated area of Santa Rosa County. Ramblewood is south of U.S. Hwy. 98 and west of Oriole Beach Rd.

Proposed Work and Purpose:

A phase I study has been conducted to determine modifications needed to improve and upgrade the existing drainage system. Phase I provided funding for completion of design, permitting, and geotechnical surveying process for this project. Phase II provides funding for a construction project that will minimize recurring flooding and reduce repetitive flood loss to 57 structures and will provide protection against a 100-year storm event. This project will utilize a flood-control pond, storm-drain pipe, concrete ditch, with ditch bottom inlets and manhole structures to collect and convey storm-water runoff from the flood prone areas. The ditch bottom inlets located near Paula Court will transport the storm-water runoff to the control pond. The flood control pond will be located on the southeast corner of Paula Court and Ramblewood Drive. This pond will require acquisition of approximately 0.74-acres that is now occupied by a residential home. The pond will attenuate runoff before discharging into a storm-drain pipe and then into a concrete ditch (both being located on drainage easements that must be acquired). The existing residential pond will be routed into the same concrete ditch via a concrete weir.



Pensacola Bay

SANDPIPER VILLAGE

WHISPER BAY

CORAL STRIP PKWY
WILKINS LN
BAYVIEW LN
WAKE LN
DUKE DR
GUAM LN

RANCHETTE SQUARE

ROSA OR DEL OR
FOREST LANE CEM
VILLA

OLD TRAIL EST.

GRAND POINTE

GULF BREEZE

THE CLUBS FITNESS COMPLEX

GULF ISLANDS NATIONAL SEASHORE

OAKS TIGER TRACE

BIRDSEYE

32501

GULF BREEZE 98 PKWY

PROJECT LOCATION
RAMBLEWOOD DRIVE

Waterway

Intracoastal

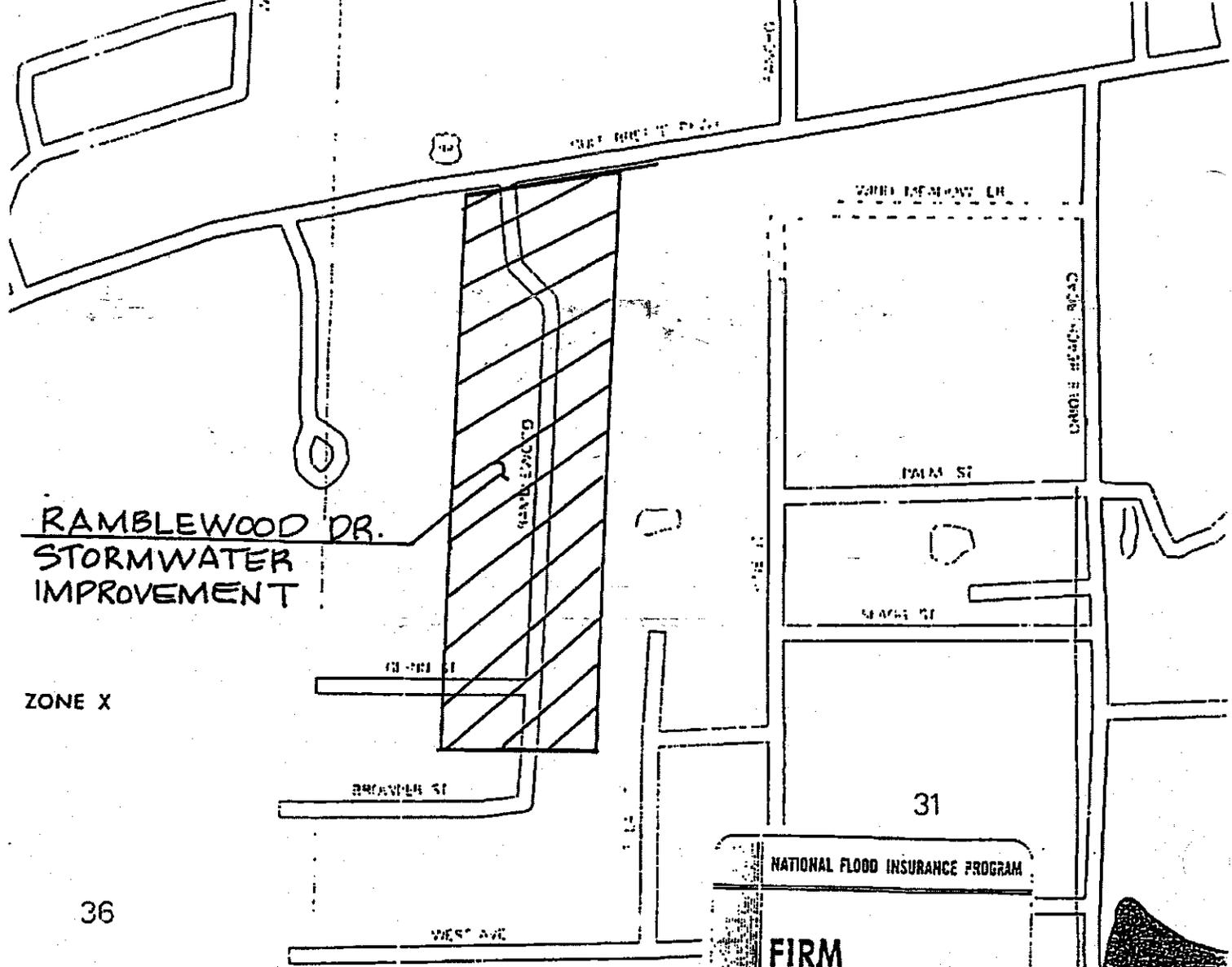
SANTA ROSA COUNTY
ESCAMBIA COUNTY

Santa Rosa Sound

Sharp Pt.

TOWNSHIP 23
TOWNSHIP 24
TOWNSHIP 25

TOWNSHIP 23
TOWNSHIP 24
TOWNSHIP 25



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

SANTA ROSA COUNTY,
FLORIDA
(UNINCORPORATED AREAS)

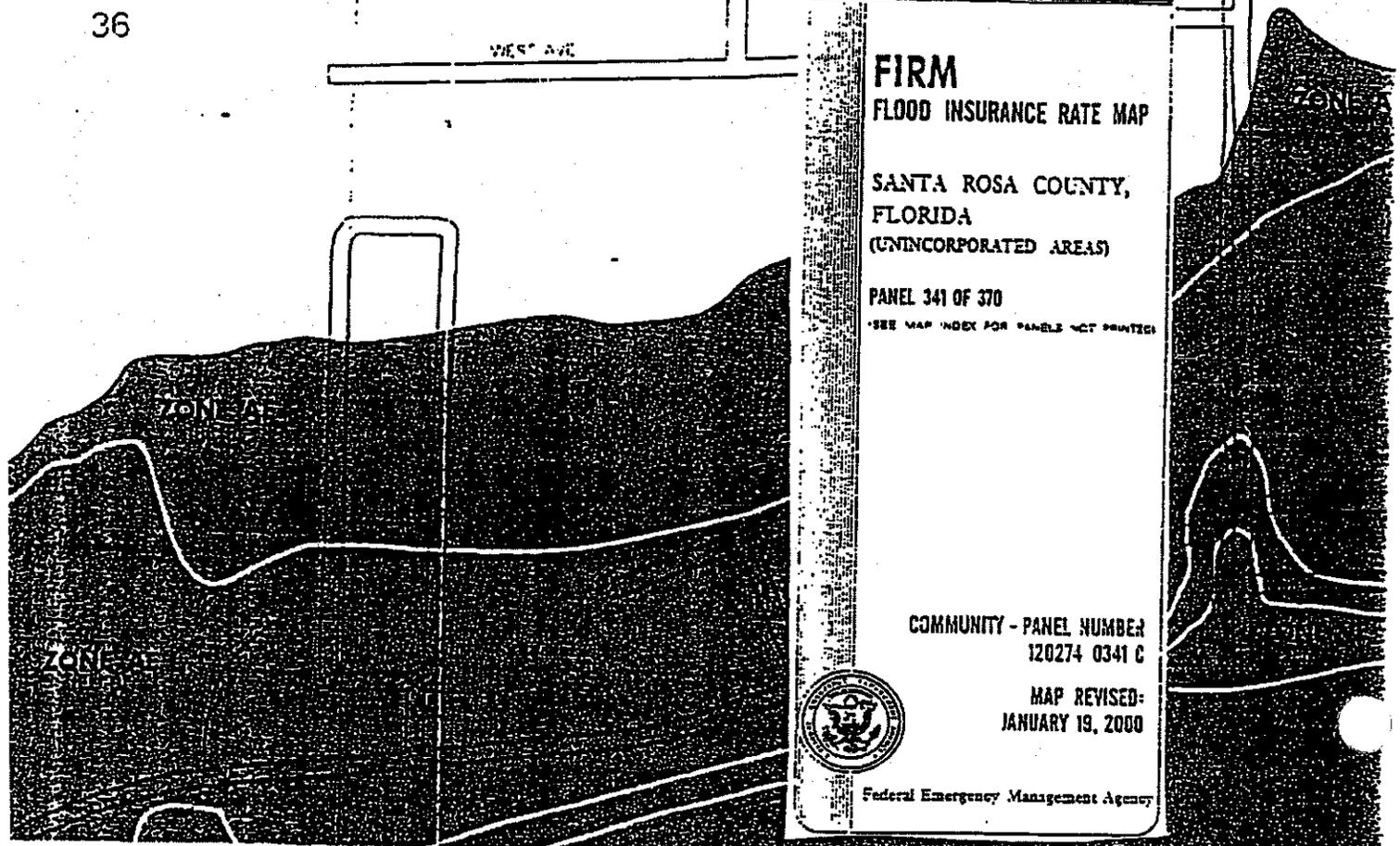
PANEL 341 OF 370
SEE MAP INDEX FOR PANELS NOT PRINTED

COMMUNITY - PANEL NUMBER
120274 0341 C

MAP REVISED:
JANUARY 19, 2000



Federal Emergency Management Agency



Project Title:

FEMA-1551-18-R Phase-2, Harrison Avenue Storm-water System Drainage Project

Location of Proposed Work:

The project is in the Gulf Breeze area of an unincorporated region of Santa Rosa County. It lays south of U.S. Highway 98, east of Oriole Beach Road, and west of Redwood Lane extending to Santa Rosa Sound.

Proposed Work and Purpose:

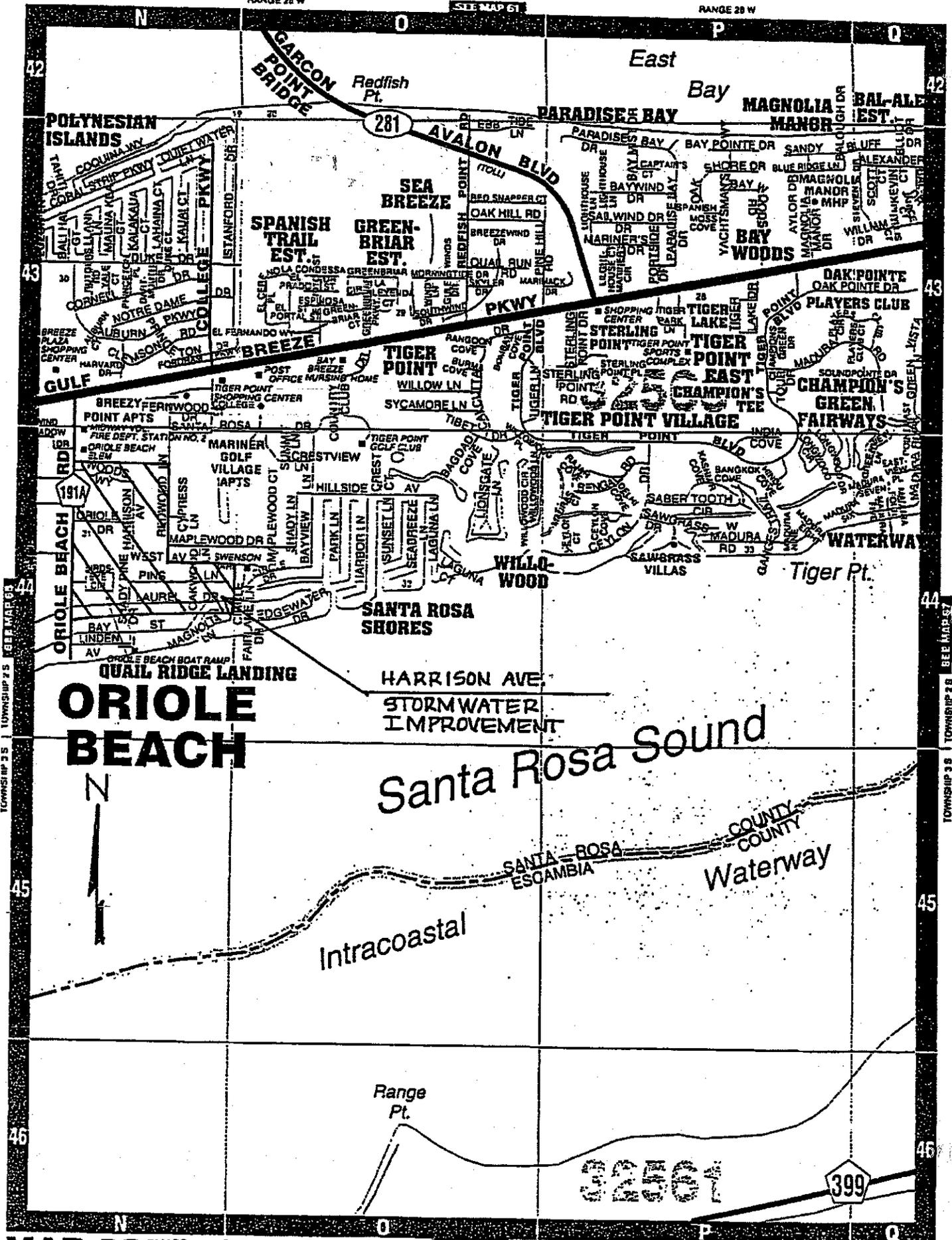
The phase I study determined modifications are needed to improve and upgrade the existing drainage system. Phase I funded the design, permitting, and geotechnical surveying for this project. Phase II provides funding for a construction project that will minimize recurring flooding and reduce repetitive flood loss to 210-structures and will provide protection against a 100-year storm event. This project will remove inadequate drainage facilities along Harrison Avenue, Oriole Beach Road, Pins Lane, Oriole Drive, and Laurel Drive, and will be replaced with a comprehensive and coordinated drainage network capable of handling existing and future growth in the area. The network will include pipes and open ditches, through the Calvary Chapel Church property to protect residences along Redwood Lane from environmental contamination eliminating a health hazard caused by flooded yards with failed septic systems.

ORIOLE BEACH

RANGE 28 W

SITE MAP 61

RANGE 28 W



FIRM
FLOOD INSURANCE RATE MAP

ANTA ROSA COUNTY,
FLORIDA
(UNINCORPORATED AREAS)

PANEL 341 OF 370

SEE MAP INDEX FOR PANELS NOT PRINTED

30

HARRISON AVE.
STORMWATER
IMPROVEMENT

COMMUNITY - PANEL NUMBER
120274 0341 C

MAP REVISED:
JANUARY 19, 2000



Federal Emergency Management Agency

WIND MEADOW CR

PALM ST

SKAGG ST

31

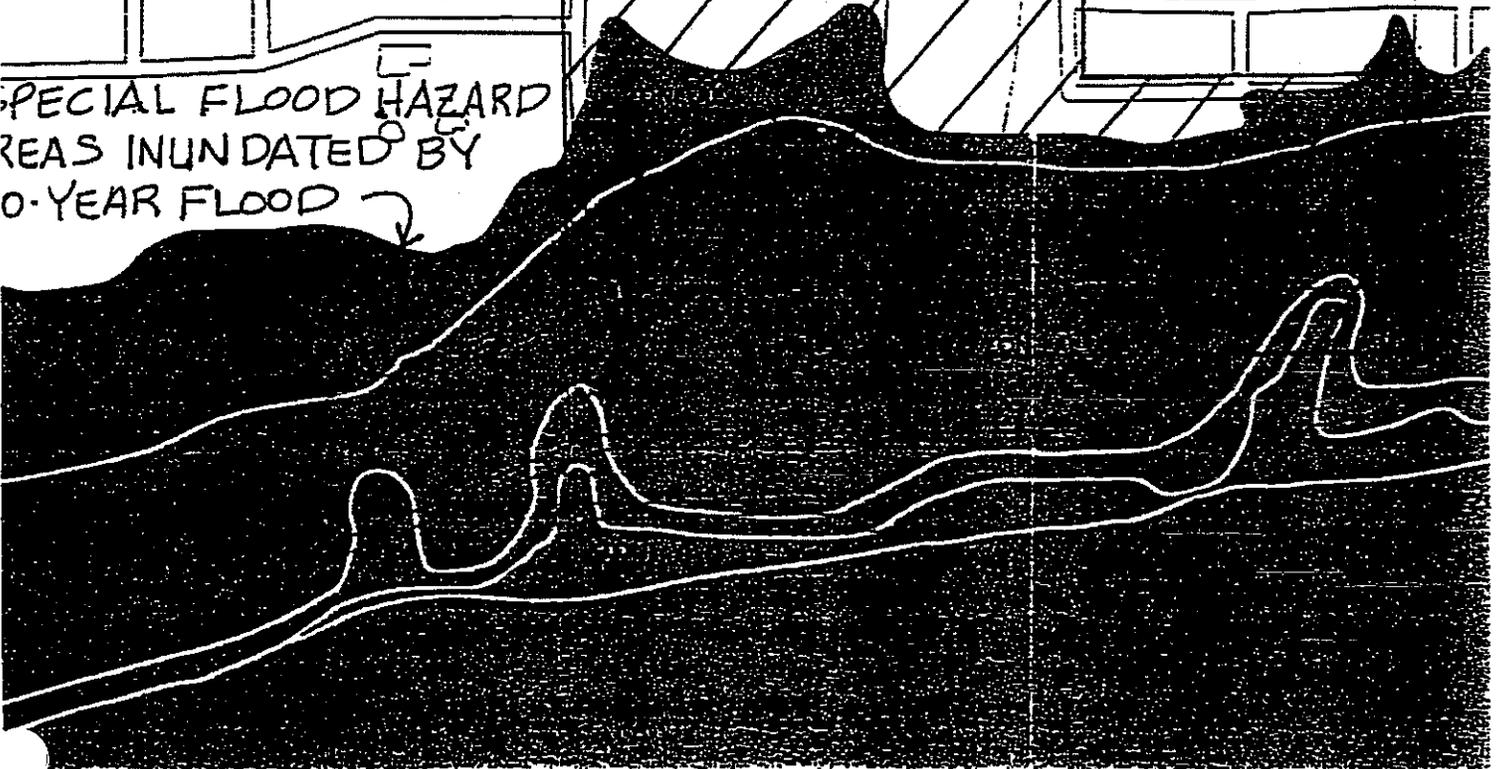
WHITE BEACH RD

REVEREND LANE

ANTHONY LN

MAPLEWOOD DR

SPECIAL FLOOD HAZARD
AREAS INUNDATE BY
10-YEAR FLOOD



Project Title:

FEMA-1551-38-R, Phase-2, Greenbriar Storm-water Improvement Drainage Project

Location of Proposed Work:

Greenbriar is located near Gulf Breeze in an unincorporated area of Santa Rosa County. It is north of U.S. Highway 98, east of College Pkwy, and west of Avalon Blvd., extending 2000-feet north and parallel to Hwy 98.

Proposed Work and Purpose:

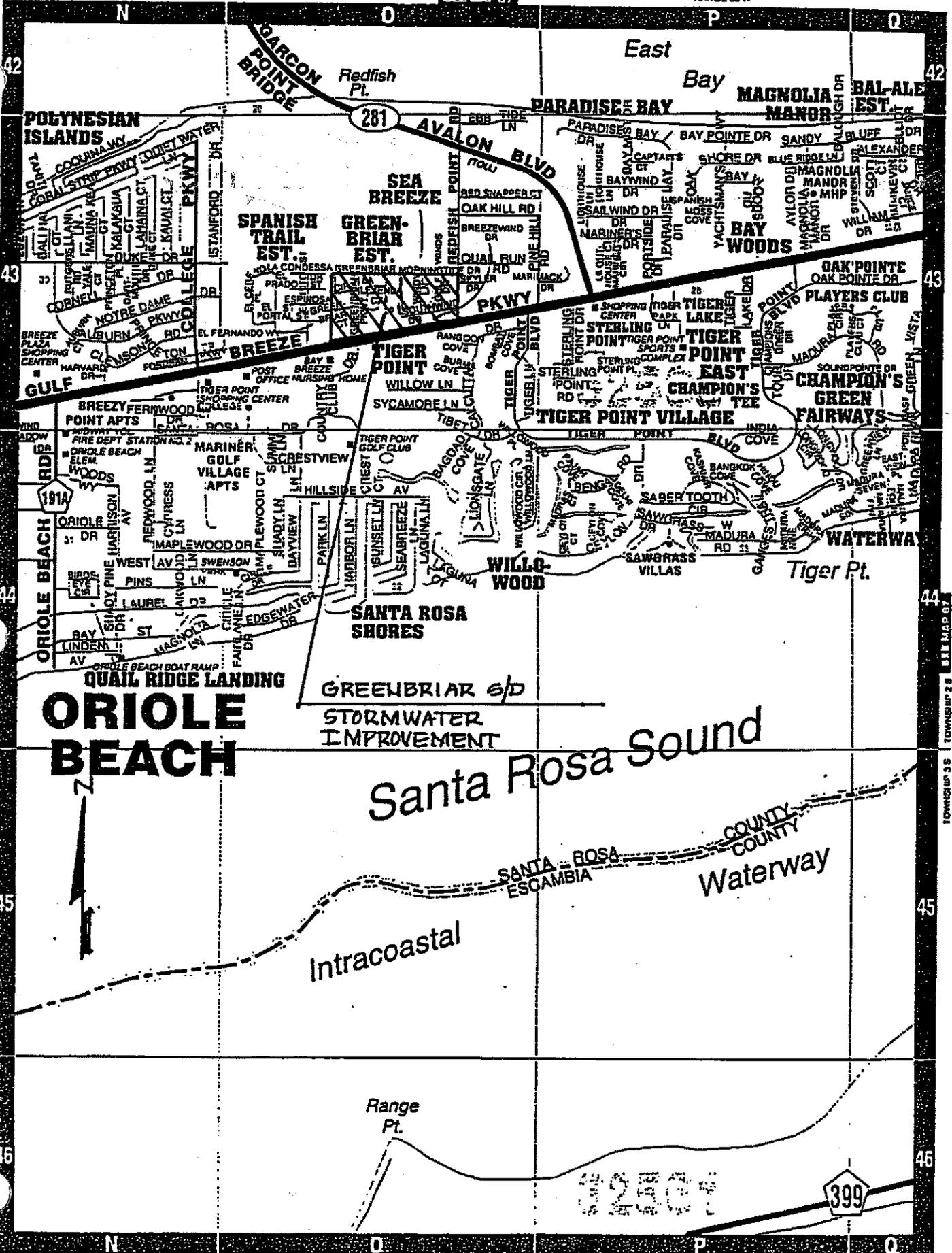
The phase I study determined modifications are needed to improve and upgrade the existing drainage system. Phase I provided funding for completion of design, permitting, and geotechnical surveying process for this project. Phase II provides funding for a construction project that will minimize recurring flooding and reduce repetitive flood loss for 469-structures against a 100-year storm event. The project consists of replacing the existing system to meet current and future needs. The drainage system will provide extra outfall at Duke Drive into the Santa Rosa Bay Bridge wetland mitigation area to relieve pressure on the system. A proprietary storm water treatment facility will be added to the outfall at Duke Drive to treat storm-water which is currently diverted from the existing treatment system. The existing ditches will be improved from earthen ditches to the appropriate sized concrete bottom ditches. All inlets will be standard FDOT type inlets, the existing HDPE pipe under Stanford Road will be replaced with a larger RCP pipe, and an outflow will be created at Duke Drive and Stanford Road.

ORIOLE BEACH

RANGE 28 W

SEE MAP 61

RANGE 28 W



NATIONAL FLOOD INSURANCE PROGRAM

FIRM FLOOD INSURANCE RATE MAP

SANTA ROSA COUNTY,
FLORIDA
(UNINCORPORATED AREAS)

PANEL 333 OF 370

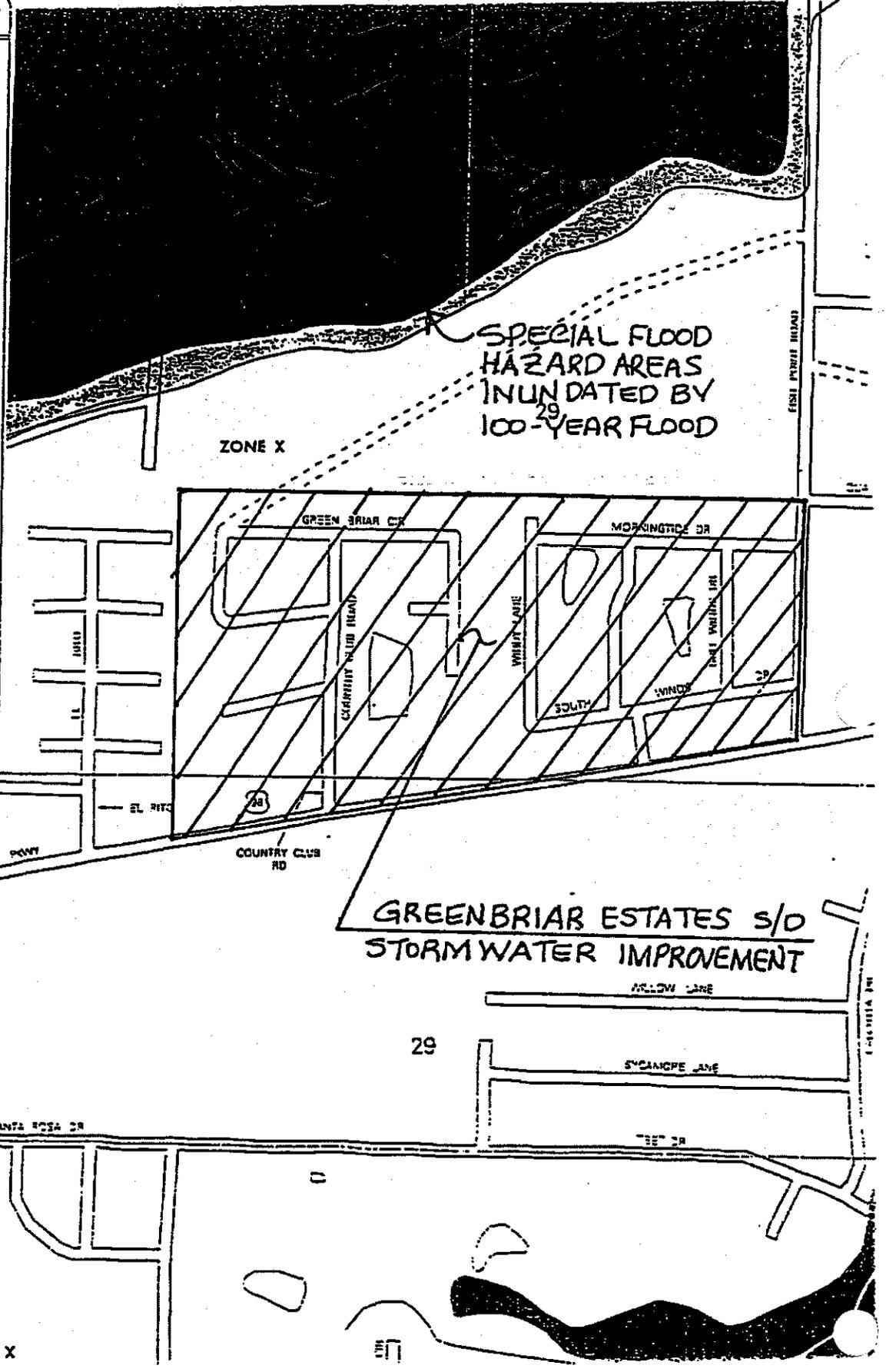
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COMMUNITY - PANEL NUMBER
120274 0333 0

MAP REVISED -
JANUARY 19, 2000



Federal Emergency Management Agency



SPECIAL FLOOD
HAZARD AREAS
INUNDATED BY
100-YEAR FLOOD

ZONE X

GREEN BRIAR CT

MORNINGTIDE DR

CARRIWAY CLUB BLVD

WHITE LANE

SOUTH

WINDO

29

GREENBRIAR ESTATES S/O
STORMWATER IMPROVEMENT

WILLOW LANE

29

SYCAMORE LANE

SANTA ROSA DR

TEE DR

ZONE X

Project Title:

FEMA-1551-28-R, Phase-2, Sabertooth Circle Drainage Project

Location of Proposed Work:

Sabertooth Circle is within the Tiger Point Subdivision located in the Gulf Breeze area of an unincorporated region of Santa Rosa County. Sabertooth Circle lies south of Tiger Point Blvd. and east of Ceylon Drive; it is bounded east and south by golf course lakes, that discharge into Santa Rosa Sound.

Proposed Work and Purpose:

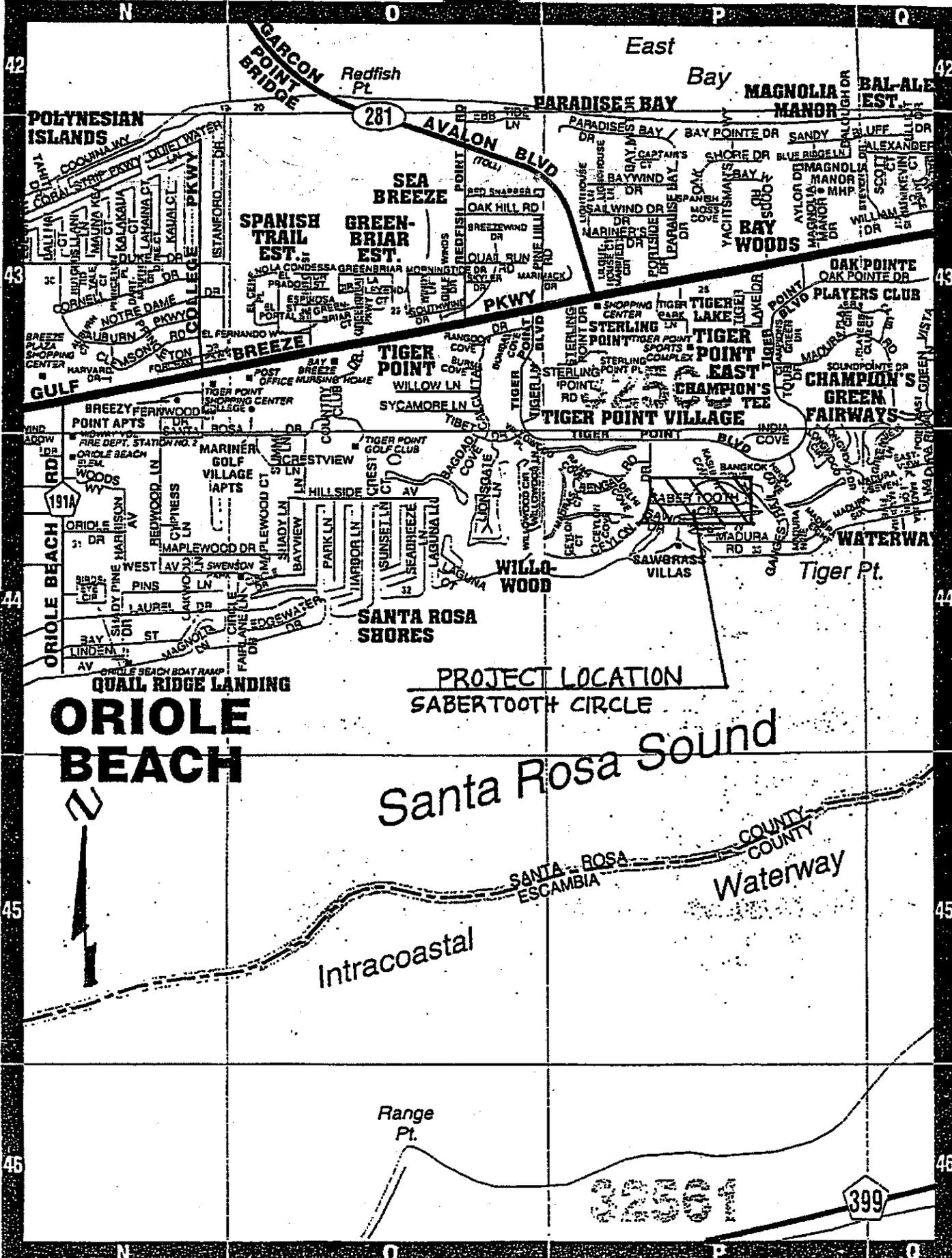
A phase I study has been conducted to determine modifications needed to improve and upgrade the existing drainage system. Phase I provided funding for completion of design, permitting, and geotechnical surveying process for this project. Phase II provides funding the project to minimize recurring flooding and reduce repetitive flood loss to 48 residential properties, and provide protection against a 100-year storm event. This project will eliminate the use of the existing ineffective shallow-swales to transport runoff to the golf course lakes. The major element of this project is the use of a Roadway Profile design. This approach lowers the roadbeds sufficiently to allow for curbing and guttering throughout the project area with the addition of curb-inlets strategically placed that collect runoff more efficiently and transports the storm-water to 3-discharge points.

ORIOLE BEACH

RANGE 28 W

SEE MAP 61

RANGE 28 W



ORIOLE BEACH

PROJECT LOCATION
SABERTOOTH CIRCLE

Santa Rosa Sound

Intracoastal

Waterway

Range Pt.

399

399

FIRM
FLOOD INSURANCE RATE MAP

SANTA ROSA COUNTY,
FLORIDA
(UNINCORPORATED AREAS)

PANEL 341 OF 370
(SEE MAP INDEX FOR PANELS NOT PRINTED)

ZONE X

SABERTOOTH CIRCLE
STORMWATER
IMPROVEMENT

29

33

COMMUNITY - PANEL NUMBER
120274 0341 C

MAP REVISED
JANUARY 19, 2000



Federal Emergency Management Agency

ZONE X

ZONE X

ZONE V

ZONE AE

ZONE VE

SANTA ROSA

SANTA ROSA

SOUND

Project Title:

FEMA-1551-26-R, Phase-2, Ganges-Madura Trail Storm-water Project

Location of Proposed Work:

Ganges-Madura Trail Road project is in the Tiger Point subdivision, within the Gulf Breeze area of an unincorporated portion of Santa Rosa County. It is south of Tiger Point Blvd. and east of Ceylon Drive. Ganges Trail runs north and south intersecting Madura Road on the south end. Madura Road runs east and west from the intersection with Ganges Trail ending in cul-de-sacs in both directions.

Proposed Work and Purpose:

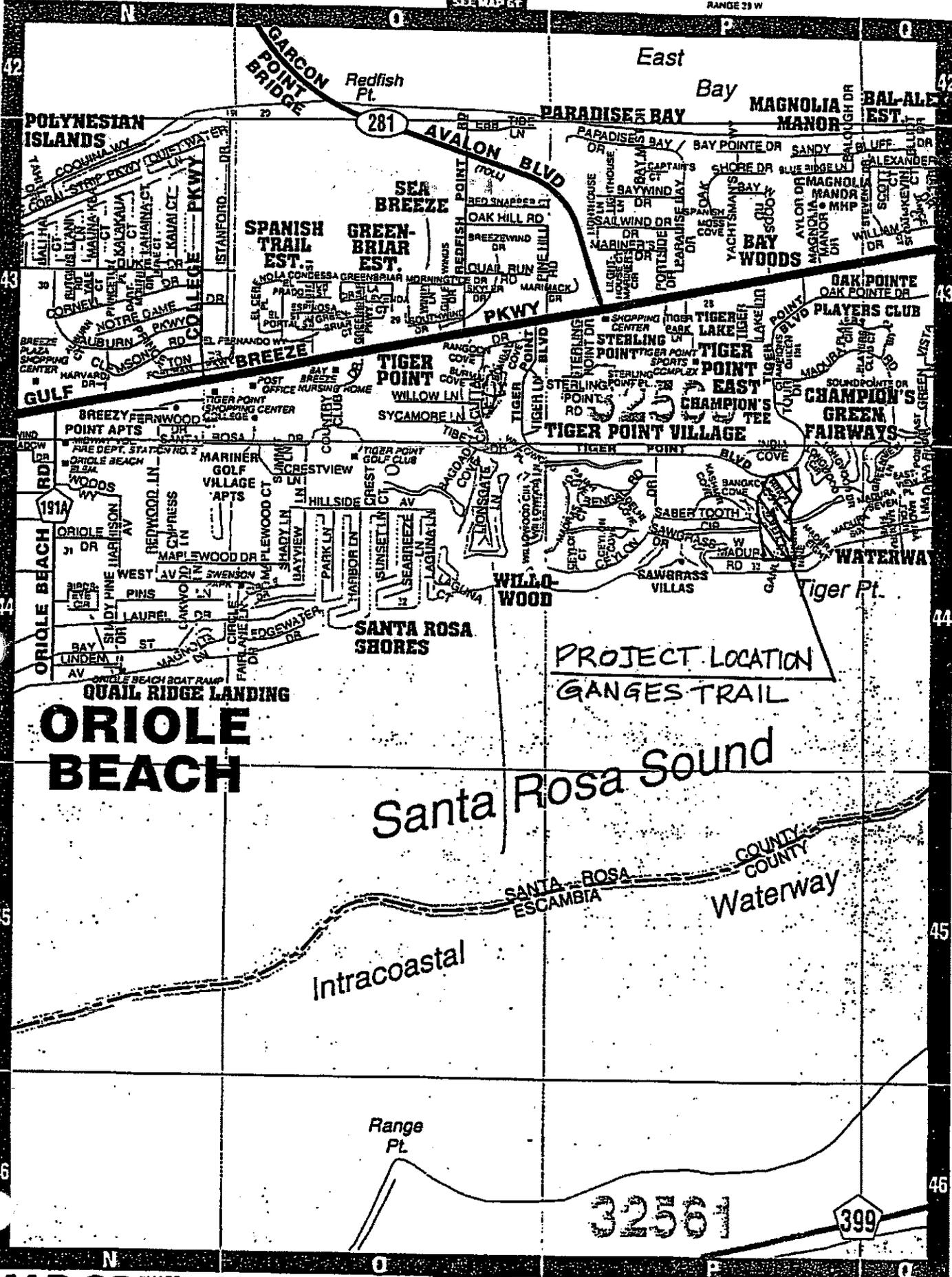
A phase I study has been conducted to determine modifications needed to improve and upgrade the existing drainage system. Phase I provided funding for completion of design, permitting, and geotechnical surveying process for this project. If Phase II is approved and completed, the completed construction project will minimize recurring flooding and reduce repetitive flood loss to properties and will provide protection against a 100-year storm event for 49-structures. The Ganges Trail – Madura Road segment of this project is to upgrade the existing inadequate drainage facilities with a comprehensive and coordinated drainage network utilizing a pumping station, private ponds and swales capable of handling expected runoff from the area and from the contributing offsite basin. A series of pipes, inlet structures, swales and under-drains will be used along with the existing drainage easements, and right-of-ways to minimize cost and impacts to private properties.

ORIOLE BEACH

RANGE 28 W

SEE MAP 67

RANGE 29 W



FIRM
FLOOD INSURANCE RATE MAP

SANTA ROSA COUNTY,
FLORIDA
(UNINCORPORATED AREAS)

PANEL 341 OF 370
SEE MAP INDEX FOR PANELS NOT PRINTED

COMMUNITY - PANEL NUMBER
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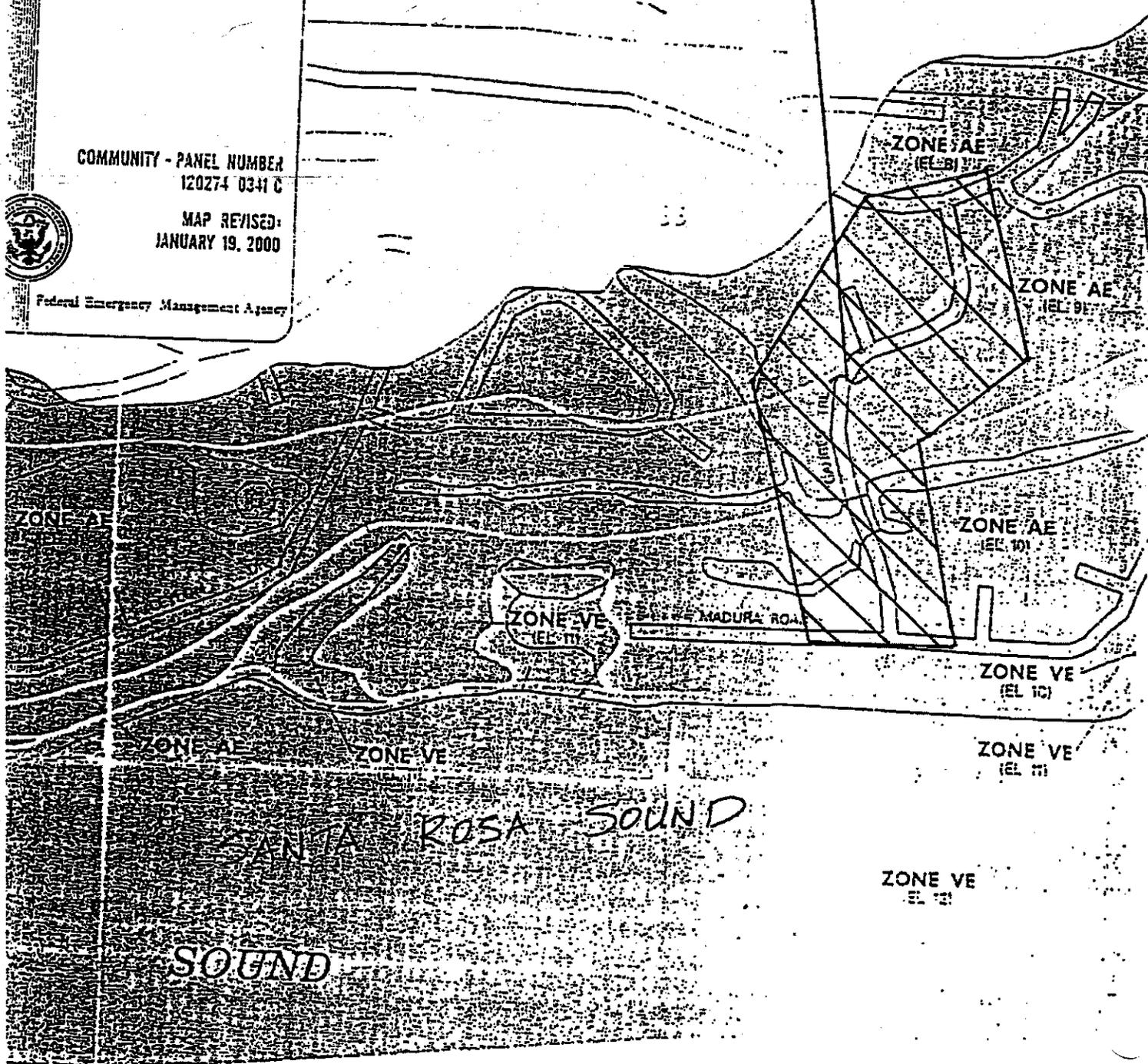
MAP REVISED
JANUARY 19, 2000



Federal Emergency Management Agency

ZONE X

**GANGES TRAIL
STORMWATER
IMPROVEMENT**



ZONE AE
(EL 8)

ZONE AE
(EL 9)

ZONE AE
(EL 10)

ZONE VE
(EL 11)

ZONE VE
(EL 10)

ZONE AE

ZONE VE

ZONE VE
(EL 11)

ZONE VE
(EL 12)

SOUND

SANTA ROSA SOUND

MADURA ROAD

GANGES TRAIL

Project Title:

FEMA-1551-27-R Phase 2, Orion Lake Drainage Project

Location of Proposed Work:

This project is in the Navarre area of an unincorporated region of Santa Rosa County, It is north of U.S. Highway 98, east of Whispering Pines Boulevard, and west of the Okaloosa County line then extends north to the East River swamp.

Proposed Work and Purpose:

Phase I determined modifications are needed to improve and upgrade the existing drainage system. Phase I funded the design, permitting, and geotechnical surveying for this project. Phase II provides funding for the construction project to minimize recurring flooding and reduce repetitive flood-loss to 115 structures against a 100-year storm event. This will be done by replacing the inadequate (15") drainage system along the existing route with a comprehensive and coordinate drainage network capable of handling current conditions, using larger drainage pipe. Furthermore, a new lake discharge structure will lower the lake level to provide better storm attenuation capability. The scope of this project includes repair and/or replacement of fences, sheds and other private property. Additionally, gravity piping and inlets will also be placed along Creet Circle to route storm-water runoff into the lake.

RANGE 26 W

LIMIT OF MAP

RANGE 28 W

BB

CC

DD

EE

East

EGLIN AIR FORCE BASE

Bay

River

TURKEY CREEK EST.

WHISPERING PINES EST.

- 1. HERITAGE CIR
- 2. DYNASTY LN
- 3. NAPLES LN
- 4. MIAMI CT
- 5. TALLY LN

COLONIAL PINES MHP

- 1-POPPY CR
- 2-CLOVER CR
- 3-VIOLET CR
- 4-PRIMROSE CIR
- 5-TULIP CIR
- 6-ROSEWOOD DR
- 7-SANDPESSEL CR
- 8-ORCHID CIR
- 9-JASMINE CIR
- 10-BUTTERCUP CR
- 11-SEASHORE CR
- 12-W BUNKER HILL CR
- 13-W CONCORD CIR
- 14-BRANDYWINE DR
- 15-E CONCORD CIR
- 16-E BUNKER HILL CR

EAGLE NEST DR

DEER TRAIL LN

32568

PARKER'S LANDING

AZALEA EST.

MILITARY LN

GREETWOODS

SEAFARE'S WY

ASHBERRY WOODS

SUNSET DR

EL DORADO EST.

PRYTANIA CIR

WHISPERWOODS

SANDALWOOD

BELLE MEADE COUNTRY EST.

ORION LAKE

EL DORADO CT

QUAIL ROOST DR

ROOST DR

PRYTANIA CIR W

FOX DEN DR

STATES CIR

MAR-MAR EST.

ORION PARK BLVD

HANCH DR

TIMBER LARKER WOODS EST.

WILLOW MHP

NAVARRA

FOX DEN DR

STATES CIR

MAR-MAR EST.

ORION PARK BLVD

KIEFERWALD WOODS RD

WILLOW MHP

NAVARRA

FOX DEN DR

STATES CIR

STATES CIR

MAR-MAR EST.

ORION PARK BLVD

98

CARDINAL EST

MAR-MAR EST.

ORION PARK BLVD

WILLOW MHP

WILLOW MHP

NAVARRA

FOX DEN DR

STATES CIR

STATES CIR

MAR-MAR EST.

ORION PARK BLVD

WILLOW MHP

WILLOW MHP

NAVARRA

FOX DEN DR

STATES CIR

STATES CIR

MAR-MAR EST.

ORION PARK BLVD

WILLOW MHP

WILLOW MHP

NAVARRA

FOX DEN DR

STATES CIR

STATES CIR

MAR-MAR EST.

ORION PARK BLVD

WILLOW MHP

WILLOW MHP

NAVARRA

FOX DEN DR

STATES CIR

STATES CIR

MAR-MAR EST.

ORION PARK BLVD

WILLOW MHP

WILLOW MHP

NAVARRA

FOX DEN DR

STATES CIR

STATES CIR

MAR-MAR EST.

ORION PARK BLVD

WILLOW MHP

WILLOW MHP

NAVARRA

FOX DEN DR

STATES CIR

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MAR-MAR EST.

ORION PARK BLVD

WILLOW MHP

WILLOW MHP

NAVARRA

FOX DEN DR

STATES CIR

STATES CIR

MAR-MAR EST.

ORION PARK BLVD

WILLOW MHP

WILLOW MHP

NAVARRA

FOX DEN DR

STATES CIR

STATES CIR

MAR-MAR EST.

ORION PARK BLVD

WILLOW MHP

WILLOW MHP

NAVARRA

FOX DEN DR

STATES CIR

STATES CIR

MAR-MAR EST.

ORION PARK BLVD

WILLOW MHP

WILLOW MHP

NAVARRA

FOX DEN DR

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MAR-MAR EST.

ORION PARK BLVD

WILLOW MHP

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MAR-MAR EST.

ORION PARK BLVD

WILLOW MHP

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MAR-MAR EST.

ORION PARK BLVD

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MAR-MAR EST.

ORION PARK BLVD

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MAR-MAR EST.

ORION PARK BLVD

WILLOW MHP

WILLOW MHP

NAVARRA

FOX DEN DR

STATES CIR

STATES CIR

MAR-MAR EST.

ORION PARK BLVD

WILLOW MHP

WILLOW MHP

NAVARRA

FOX DEN DR

STATES CIR

STATES CIR

MAR-MAR EST.

ORION PARK BLVD

Santa Rosa Sound

Intracoastal Waterway

Santa Rosa Island

Gulf Of Mexico

32542

EGLIN AIR FORCE BASE

2

RANGE 26 W

LIMIT OF MAP

RANGE 28 W

EMAPSource, St. Petersburg, FL

MAP 71

ORION LAKE
STORMWATER IMPROVEMENT

JULY 2002

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

SANTA ROSA COUNTY,
FLORIDA
(UNINCORPORATED AREAS)

PANEL 359 OF 370
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY - PANEL NUMBER
120274 0359 E

MAP REVISED:
JULY 17, 2002



Federal Emergency Management Agency

ZONE X

13

WINDSPRING PINES BLVD

LE MEANIE CIR

JENNIFER ST

IRMA ST

IRINA ST

JANET ST

CIRCULAR WOODS DR

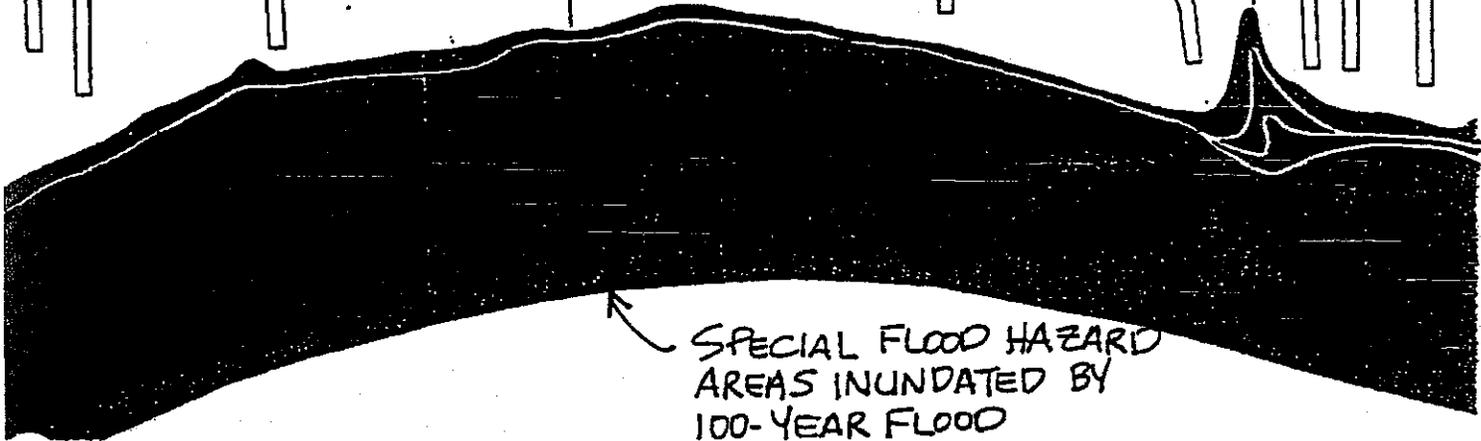
WINDY HAVEN DR

PALMIRA ST

98

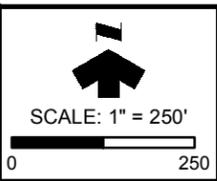
- 2

SPECIAL FLOOD HAZARD
AREAS INUNDATED BY
100-YEAR FLOOD





MARANATHA WAY AND CHIPPER LANE
DRAINAGE IMPROVEMENTS



**PROPOSED IMPROVEMENTS
HMGP APPLICATION
MARANATHA WAY AND CHIPPER LANE
DRAINAGE IMPROVEMENTS
SANTA ROSA COUNTY, FLORIDA**

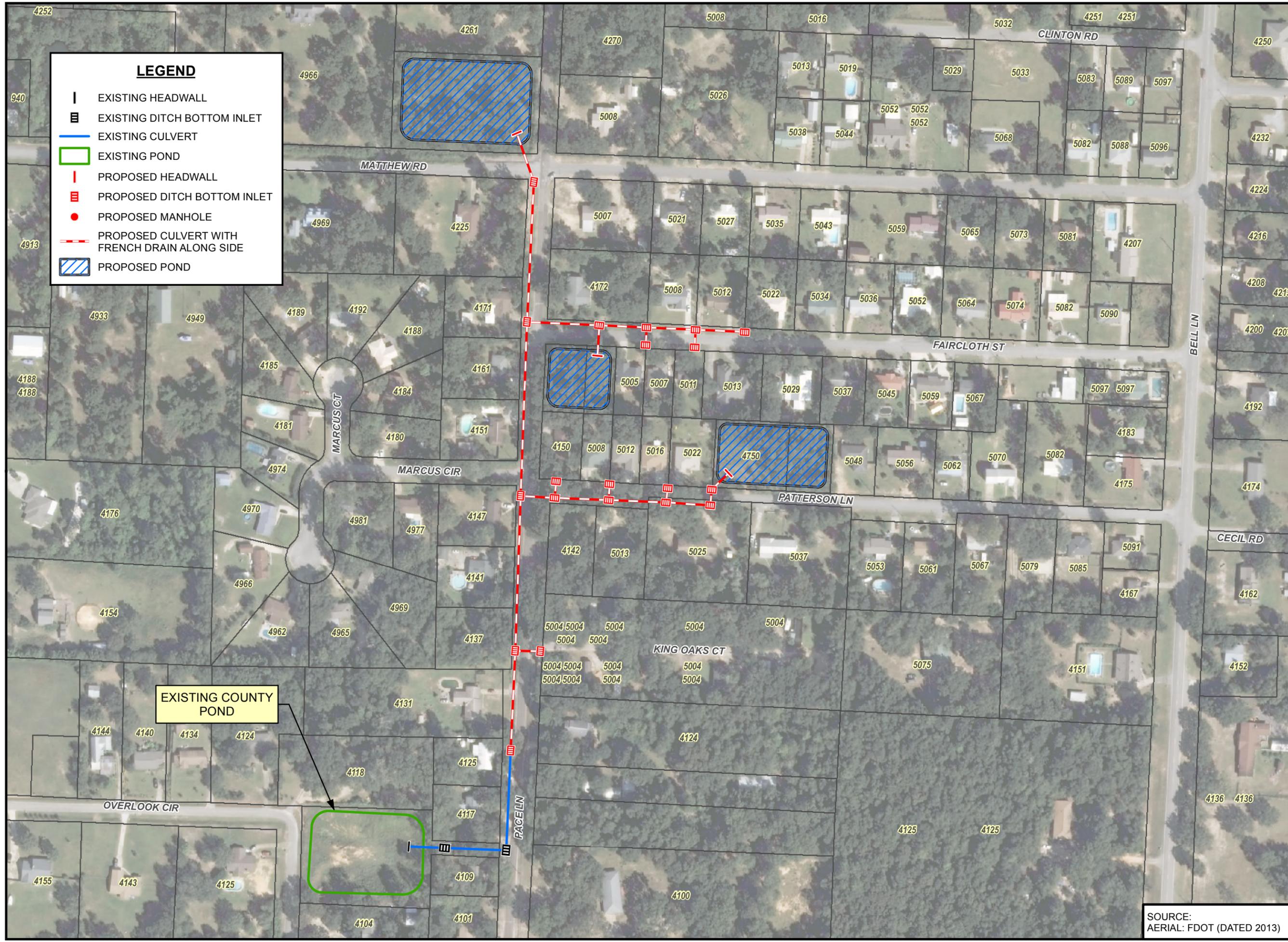
LEGEND	
	PROPOSED MITERED END SECTION
	PROPOSED HEADWALL
	PROPOSED DITCH BOTTOM INLET
	PROPOSED MANHOLE
	PROPOSED SWALE
	PROPOSED CONCRETE DITCH
	PROPOSED CULVERT
	PROPOSED POND EXPANSION

Pegasus
ENGINEERING
301 WEST STATE ROAD 434, SUITE 309
WINTER SPRINGS, FL 32708
TEL: 407-992-9160 • FAX: 407-358-5155
WEB: WWW.PEGASUSENGINEERING.NET

JOB NO.: SRC-22006
DATE: 03/2015

**FIGURE
2**

SOURCE:
AERIAL: FDOT (DATED 2013)



LEGEND

- | EXISTING HEADWALL
- ▤ EXISTING DITCH BOTTOM INLET
- EXISTING CULVERT
- ▭ EXISTING POND
- ┆ PROPOSED HEADWALL
- ▤ PROPOSED DITCH BOTTOM INLET
- PROPOSED MANHOLE
- - - PROPOSED CULVERT WITH FRENCH DRAIN ALONG SIDE
- ▨ PROPOSED POND

EXISTING COUNTY POND

SCALE: 1" = 180'

0 180

**PROPOSED IMPROVEMENTS
HMGP APPLICATION
PATTERSON LANE AND PACE LANE
DRAINAGE IMPROVEMENTS
SANTA ROSA COUNTY, FLORIDA**

Pegasus
ENGINEERING

301 WEST STATE ROAD 434, SUITE 309
WINTER SPRINGS, FL 32708
TEL: 407-992-9160 • FAX: 407-358-5155
WEB: WWW.PEGASUSENGINEERING.NET

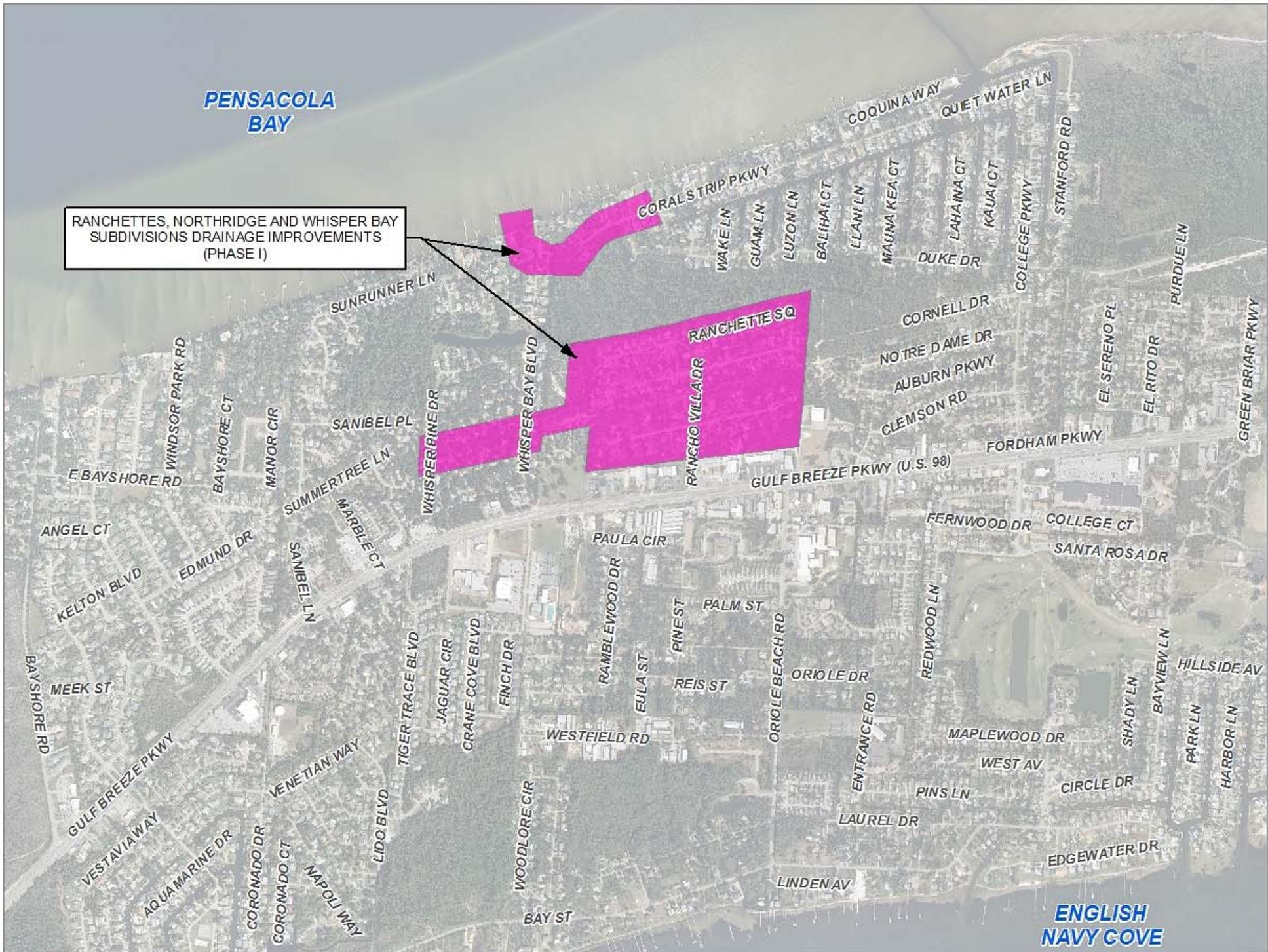
JOB NO.: SRC-22007
DATE: 03/2015

FIGURE
2

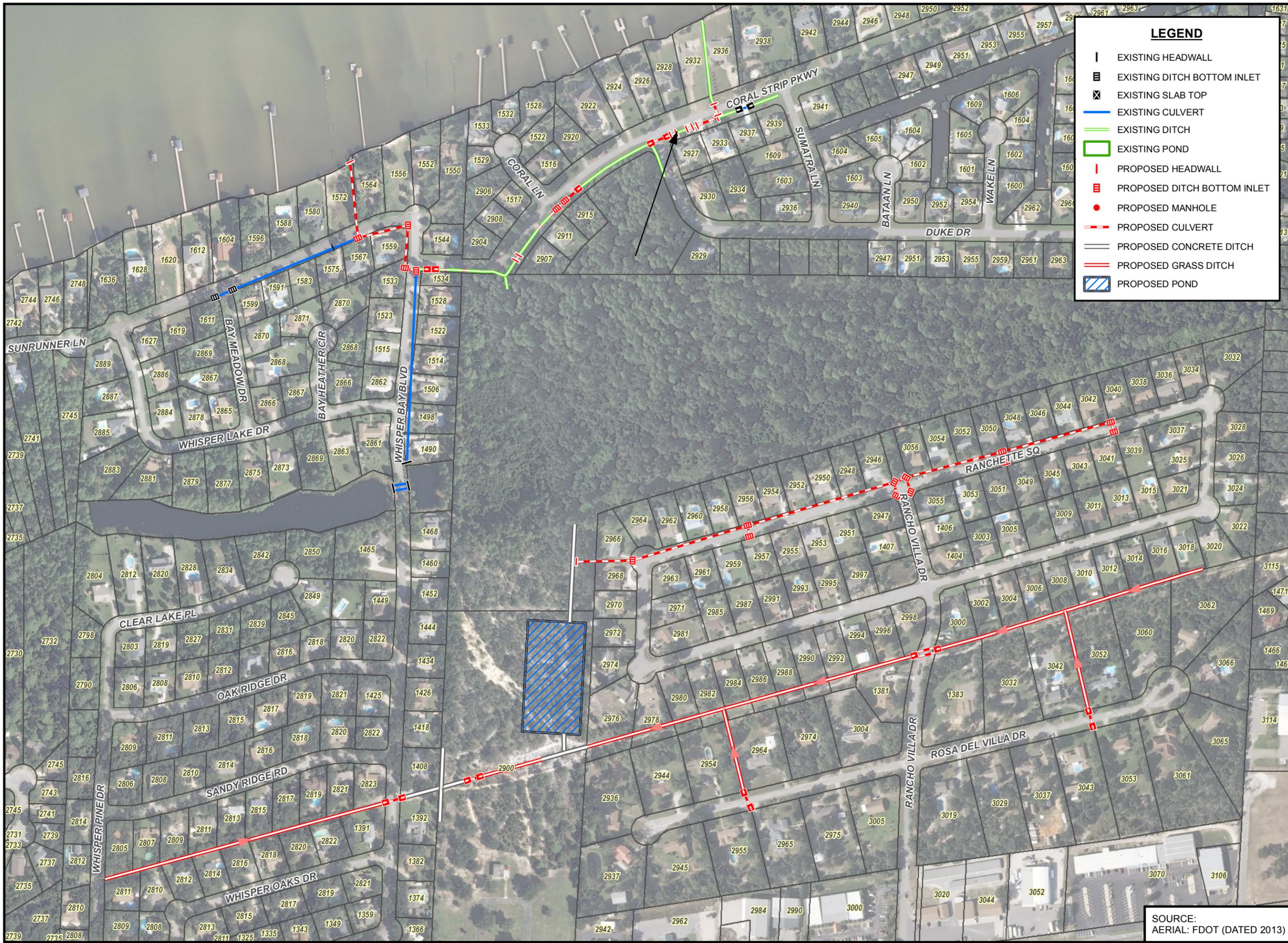
SOURCE:
AERIAL: FDOT (DATED 2013)

PENSACOLA BAY

RANCHETTES, NORTHRIDGE AND WHISPER BAY SUBDIVISIONS DRAINAGE IMPROVEMENTS (PHASE I)



ENGLISH NAVY COVE



LEGEND

- | EXISTING HEADWALL
- ▤ EXISTING DITCH BOTTOM INLET
- ⊠ EXISTING SLAB TOP
- EXISTING CULVERT
- EXISTING DITCH
- ▭ EXISTING POND
- | PROPOSED HEADWALL
- ▤ PROPOSED DITCH BOTTOM INLET
- PROPOSED MANHOLE
- - - PROPOSED CULVERT
- PROPOSED CONCRETE DITCH
- PROPOSED GRASS DITCH
- ▨ PROPOSED POND

SCALE: 1" = 300'

PROPOSED IMPROVEMENTS
HMGP APPLICATION
RANCHETTES SUBDIVISION
 SANTA ROSA COUNTY, FLORIDA

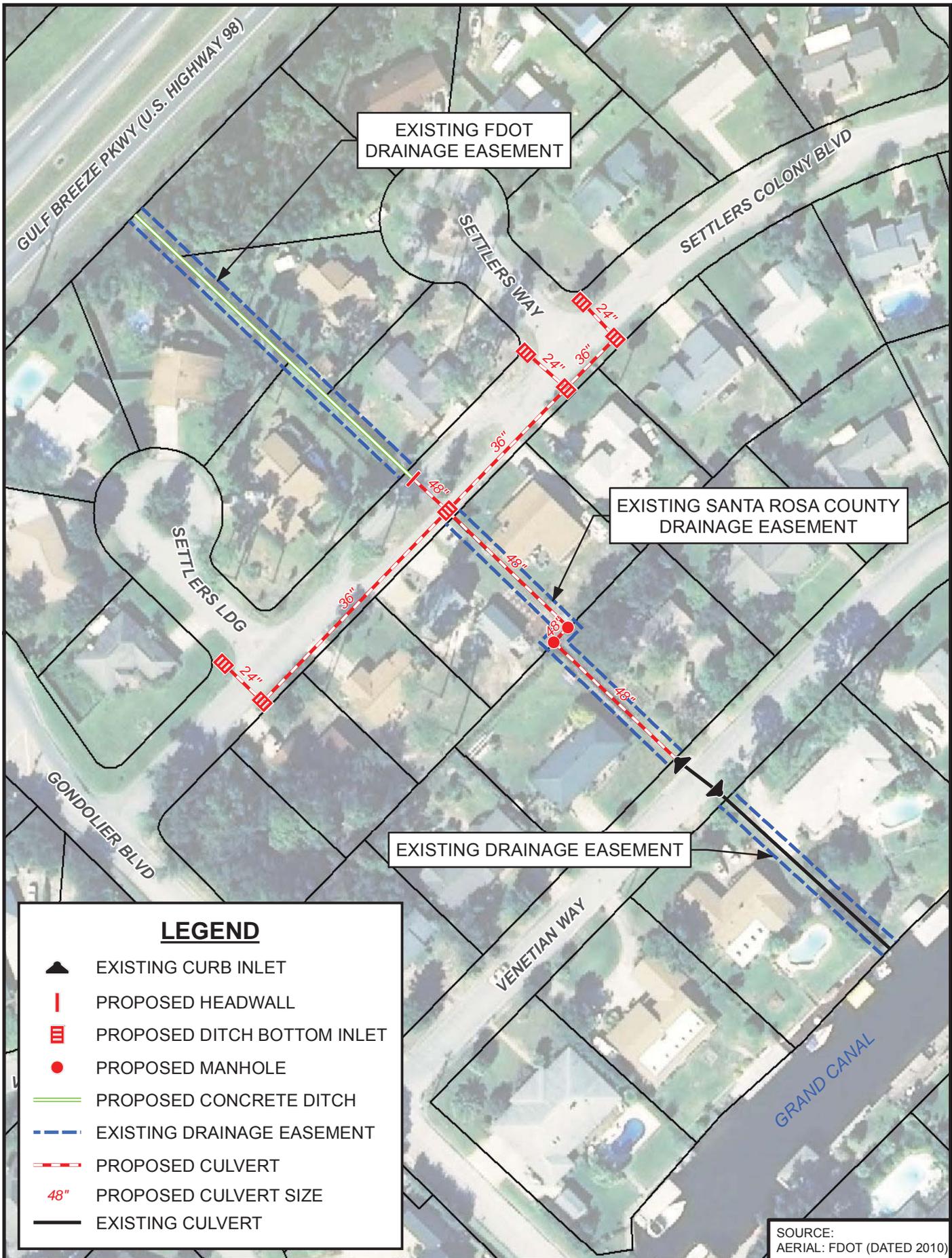
Pegasus
 ENGINEERING

301 WEST STATE ROAD 434, SUITE 309
 WINTER SPRINGS, FL 32708
 TEL: 407-992-9160 • FAX: 407-358-5155
 WEB: WWW.PEGASUSENGINEERING.NET

JOB NO.: SRC-22004
 DATE: 03/2015

FIGURE
3

SOURCE:
 AERIAL: FDOT (DATED 2013)



LEGEND

- EXISTING CURB INLET
- PROPOSED HEADWALL
- PROPOSED DITCH BOTTOM INLET
- PROPOSED MANHOLE
- PROPOSED CONCRETE DITCH
- EXISTING DRAINAGE EASEMENT
- PROPOSED CULVERT
- PROPOSED CULVERT SIZE
- EXISTING CULVERT

SOURCE:
AERIAL: FDOT (DATED 2010)

SCALE: 1" = 100'

Pegasus
ENGINEERING

301 WEST STATE ROAD 434, SUITE 309
WINTER SPRINGS, FL 32708
TEL: 407-992-9160 • FAX: 407-358-5155
WEB: WWW.PEGASUSENGINEERING.NET

**PROPOSED IMPROVEMENTS
HMGP APPLICATION
SETTLERS COLONY
DRAINAGE IMPROVEMENTS
SANTA ROSA COUNTY, FLORIDA**

JOB NO.: SRC-22002
DATE: 02/2013

FIGURE
2



SCALE: 1" = 250'

0 250

**PROPOSED IMPROVEMENTS
HMGP APPLICATION
VENETIAN WAY AND CORONADO DRIVE
DRAINAGE IMPROVEMENTS
SANTA ROSA COUNTY, FLORIDA**

Pegasus
ENGINEERING

301 WEST STATE ROAD 434, SUITE 309
WINTER SPRINGS, FL 32708
TEL: 407-992-9160 • FAX: 407-358-5155
WEB: WWW.PEGASUSENGINEERING.NET

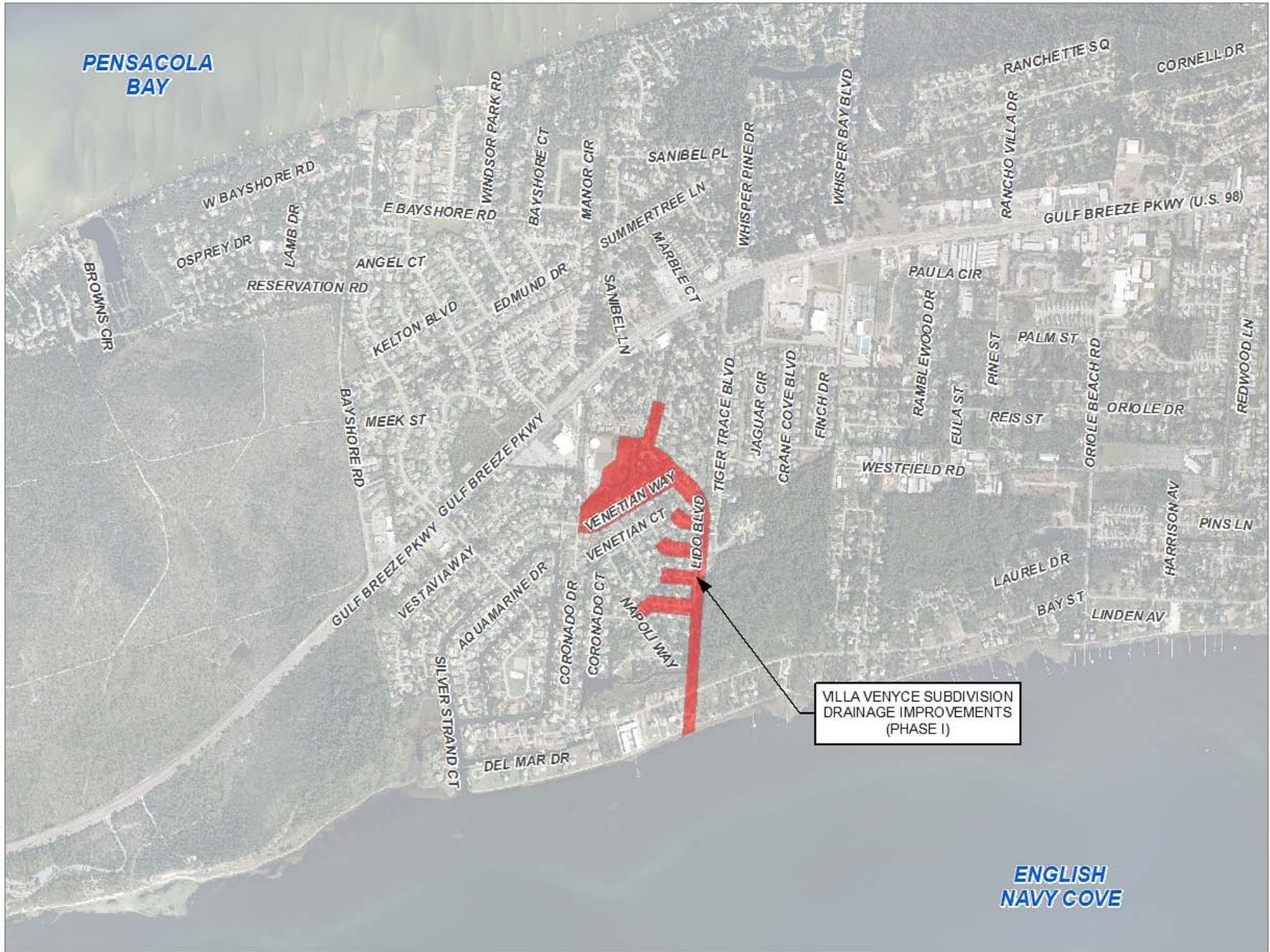
JOB NO.: SRC-22005
DATE: 07/2015

**FIGURE
2A**

SOURCE:
AERIAL: FDOT (DATED 2013)

LEGEND			
	EXISTING OVERFLOW WEIR		PROPOSED HEADWALL
	EXISTING CURB INLET		PROPOSED INLET
	EXISTING HEADWALL		PROPOSED MITERED END SECTION
	EXISTING INLET		PROPOSED CULVERT / STORM PIPE
	EXISTING MANHOLE		PROPOSED BOX CULVERT
	EXISTING MITERED END SECTION		PROPOSED DITCH
	EXISTING CULVERT / STORM PIPE		PROPOSED STORMWATER POND
	EXISTING GRASS DITCH		
	EXISTING CONCRETE DITCH		
	EXISTING BERM		
	EXISTING STORMWATER POND		

PENSACOLA BAY



VILLA VENYCE SUBDIVISION
DRAINAGE IMPROVEMENTS
(PHASE I)

ENGLISH NAVY COVE

Appendix J

Flood Mitigation Plan

All Flood Insurance Claims

(Note: This information is no longer provided to local government
and has not been updated from the 2009 FMP.)

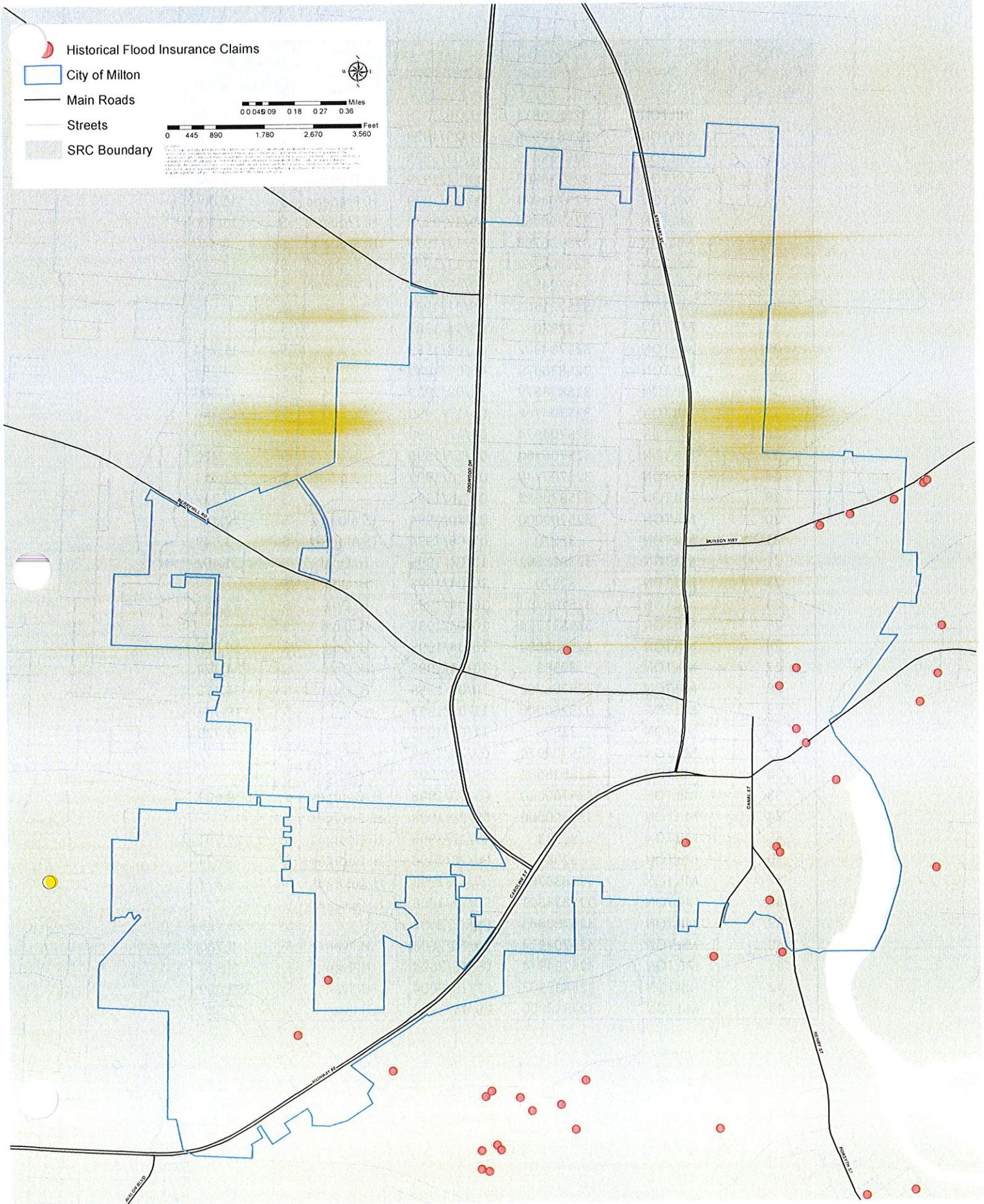


Historical Flood Insurance Claims Within The City of Gulf Breeze





Historical Flood Insurance Claims Within The City of Milton



City of Milton NFIP Flood Insurance Claims 1978-2008

Flood Insurance Claim #	City	Zip Code	Date of Loss	Event	Total \$ amount of Claim Paid
1	MILTON	325839811	01/26/1978		\$ 1,500
2	MILTON	325838655	01/25/1978		\$ 4,482
3	MILTON	325708633	03/03/1979		\$ 897
4	MILTON	325720807	09/12/1979	H. Frederic	\$ 2,566
5	MILTON	325704974	09/12/1979	H. Frederic	\$ 15,000
6	MILTON	325706760	09/12/1979	H. Frederic	\$ 11,100
7	MILTON	325706760	09/12/1979	H. Frederic	\$ 8,440
8	MILTON	325706762	09/12/1979	H. Frederic	\$ 14,520
9	MILTON	325704529	09/12/1979	H. Frederic	\$ 10,800
10	MILTON	325701501	10/31/1985		\$ -
11	MILTON	32570	08/14/1987		\$ -
12	MILTON	325704902	06/08/1989		\$ 11,744
13	MILTON	325838679	06/09/1989		\$ 4,294
14	MILTON	325838679	11/09/1989		\$ 1,300
15	MILTON	325706762	03/17/1990		\$ 12,786
16	MILTON	325704974	03/17/1990		\$ 9,020
17	MILTON	325706760	03/17/1990		\$ 420
18	MILTON	325703736	03/20/1990		\$ 22,314
19	MILTON	325838679	03/16/1990		\$ 6,217
20	MILTON	325700000	07/10/1994	TS Alberto	\$ 22,158
21	MILTON	32570	07/06/1994	TS Alberto	\$ 3,549
22	MILTON	325838662	10/04/1995	H. Opal	\$ 1,402
23	MILTON	32570	10/04/1995	H. Opal	\$ -
24	MILTON	325706760	10/04/1995	H. Opal	\$ 23,844
25	MILTON	325837314	10/04/1995	H. Opal	\$ -
26	MILTON	325700000	10/04/1995	H. Opal	\$ 29,568
27	MILTON	32583	10/04/1995	H. Opal	\$ 54,174
28	MILTON	325706762	10/04/1995	H. Opal	\$ 36,113
29	MILTON	325700000	11/01/1995		\$ 19,741
30	MILTON	32570	11/01/1995		\$ 2,729
31	MILTON	325704974	09/28/1998	H. Georges	\$ -
32	MILTON	325838662	09/28/1998	H. Georges	\$ -
33	MILTON	325700000	09/30/1998	H. Georges	\$ 9,609
34	MILTON	325700000	09/28/1998	H. Georges	\$ -
35	MILTON	32583	09/27/1998	H. Georges	\$ 29,101
36	MILTON	32583	09/28/1998	H. Georges	\$ 1,224
37	MILTON	325838709	09/27/1998	H. Georges	\$ 877
38	MILTON	325838801	09/27/1998	H. Georges	\$ -
39	MILTON	325705063	09/27/2002		\$ 23,729
40	MILTON	325704974	09/16/2004	H. Ivan	\$ 5,780
41	MILTON	325704974	09/16/2004	H. Ivan	\$ 9,520
42	MILTON	325839562	09/15/2004	H. Ivan	\$ 350,000
43	MILTON	325830000	09/16/2004	H. Ivan	\$ 20,989

City of Milton NFIP Flood Insurance Claims 1978-2008

Flood Insurance Claim #	City	Zip Code	Date of Loss	Event	Total \$ amount of Claim Paid
44	MILTON	325833303	09/16/2004	H. Ivan	\$ 159,500
45	MILTON	325835606	09/16/2004	H. Ivan	\$ 120,000
46	MILTON	32570	09/16/2004	H. Ivan	\$ 55,292
47	MILTON	325705202	09/16/2004	H. Ivan	\$ 29,682
48	MILTON	325838445	09/16/2004	H. Ivan	\$ 48,605
49	MILTON	325838440	09/16/2004	H. Ivan	\$ 288,600
50	MILTON	325837314	09/16/2004	H. Ivan	\$ 245,300
51	MILTON	325832927	09/16/2004	H. Ivan	\$ 140,480
52	MILTON	325835420	09/16/2004	H. Ivan	\$ 33,292
53	MILTON	325705253	09/16/2004	H. Ivan	\$ 60,000
54	MILTON	325705253	09/16/2004	H. Ivan	\$ 71,278
55	MILTON	325705254	09/16/2004	H. Ivan	\$ 18,000
56	MILTON	325702257	09/17/2004	H. Ivan	\$ 41,056
57	MILTON	325702257	09/15/2004	H. Ivan	\$ 19,375
58	MILTON	325706695	09/16/2004	H. Ivan	\$ 61,113
59	MILTON	325705905	09/16/2004	H. Ivan	\$ 24,151
60	MILTON	325705905	09/16/2004	H. Ivan	\$ 74,585
61	MILTON	325705063	09/19/2004	H. Ivan	\$ 20,000
62	MILTON	325705063	09/16/2004	H. Ivan	\$ 14,400
63	MILTON	325704971	09/16/2004	H. Ivan	\$ 20,915
64	MILTON	325704971	09/16/2004	H. Ivan	\$ 8,601
65	MILTON	325700000	09/15/2004	H. Ivan	\$ 24,300
66	MILTON	325702235	09/16/2004	H. Ivan	\$ 93,147
67	MILTON	325835940	09/15/2004	H. Ivan	\$ 80,125
68	MILTON	325706743	09/16/2004	H. Ivan	\$ 44,788
69	MILTON	325706650	09/16/2004	H. Ivan	\$ 214,362
70	MILTON	325706655	09/16/2004	H. Ivan	\$ 32,452
71	MILTON	325705914	09/19/2004	H. Ivan	\$ 52,013
72	MILTON	325830000	09/16/2004	H. Ivan	\$ 70,000
73	MILTON	325704459	09/16/2004	H. Ivan	\$ 23,646
74	MILTON	325704459	09/16/2004	H. Ivan	\$ 18,940
75	MILTON	325838549	09/16/2004	H. Ivan	\$ 83,000
76	MILTON	325830000	09/15/2004	H. Ivan	\$ 60,000
77	MILTON	325838800	09/16/2004	H. Ivan	\$ 35,970
78	MILTON	325704986	11/16/2004		\$ 9,388
79	MILTON	325830000	07/11/2005	H. Dennis	\$ 25,058
80	MILTON	325700000	07/10/2005	H. Dennis	\$ 11,333
81	MILTON	325705063	07/11/2005	H. Dennis	\$ 1,529
82	MILTON	325700000	07/10/2005	H. Dennis	\$ -
83	MILTON	325830000	07/10/2005	H. Dennis	\$ 26,200
84	MILTON	325830000	07/10/2005	H. Dennis	\$ 6,450
85	MILTON	325830000	07/10/2005	H. Dennis	\$ -
86	MILTON	325833303	08/29/2005	H. Katrina	\$ -

City of Miltron NFIP Flood Insurance Claims 1978-2008

Flood Insurance Claim #	City	Zip Code	Date of Loss	Event	Total \$ amount of Claim Paid
87	MILTON	325830000	08/29/2005	H. Katrina	\$ 3,959
88	MILTON	325705253	08/29/2005	H. Katrina	\$ 7,066
89	MILTON	325700000	08/29/2005	H. Katrina	\$ 11,320
90	MILTON	325705063	08/29/2005	H. Katrina	\$ 20,000
91	MILTON	325705063	08/29/2005	H. Katrina	\$ 1,778
92	MILTON	325830000	08/29/2005	H. Katrina	\$ 26,200
93	MILTON	325830000	08/29/2005	H. Katrina	\$ 1,097
94	MILTON	325700000	08/29/2005	H. Katrina	\$ 26,200
95	MILTON	325704459	08/24/2005	H. Katrina	\$ -
96	MILTON	325704459	08/29/2005	H. Katrina	\$ -
97	MILTON	325704459	08/24/2005	H. Katrina	\$ -
98	MILTON	325704459	08/29/2005	H. Katrina	\$ -
99	MILTON	325830000	09/24/2005		\$ 10,347
100	MILTON	325702224	04/05/2008	Heavy Rain	\$ 12,994
			TOTAL		\$ 3,369,396

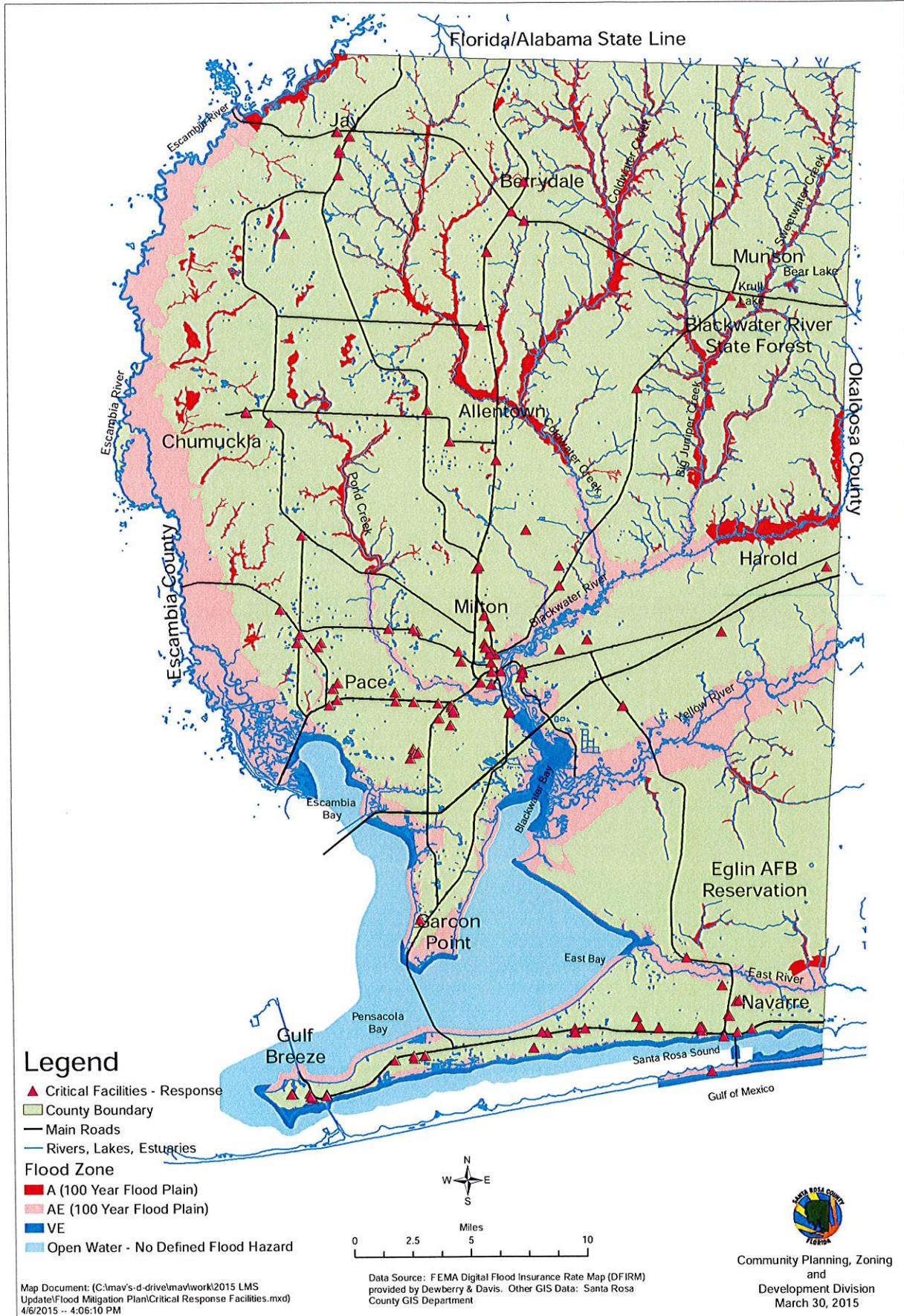
Appendix K

Flood Mitigation Plan

Critical Response Facilities, Lift Stations and Storage Facilities Maps



Santa Rosa County Flood Mitigation Plan Critical Response Facilities



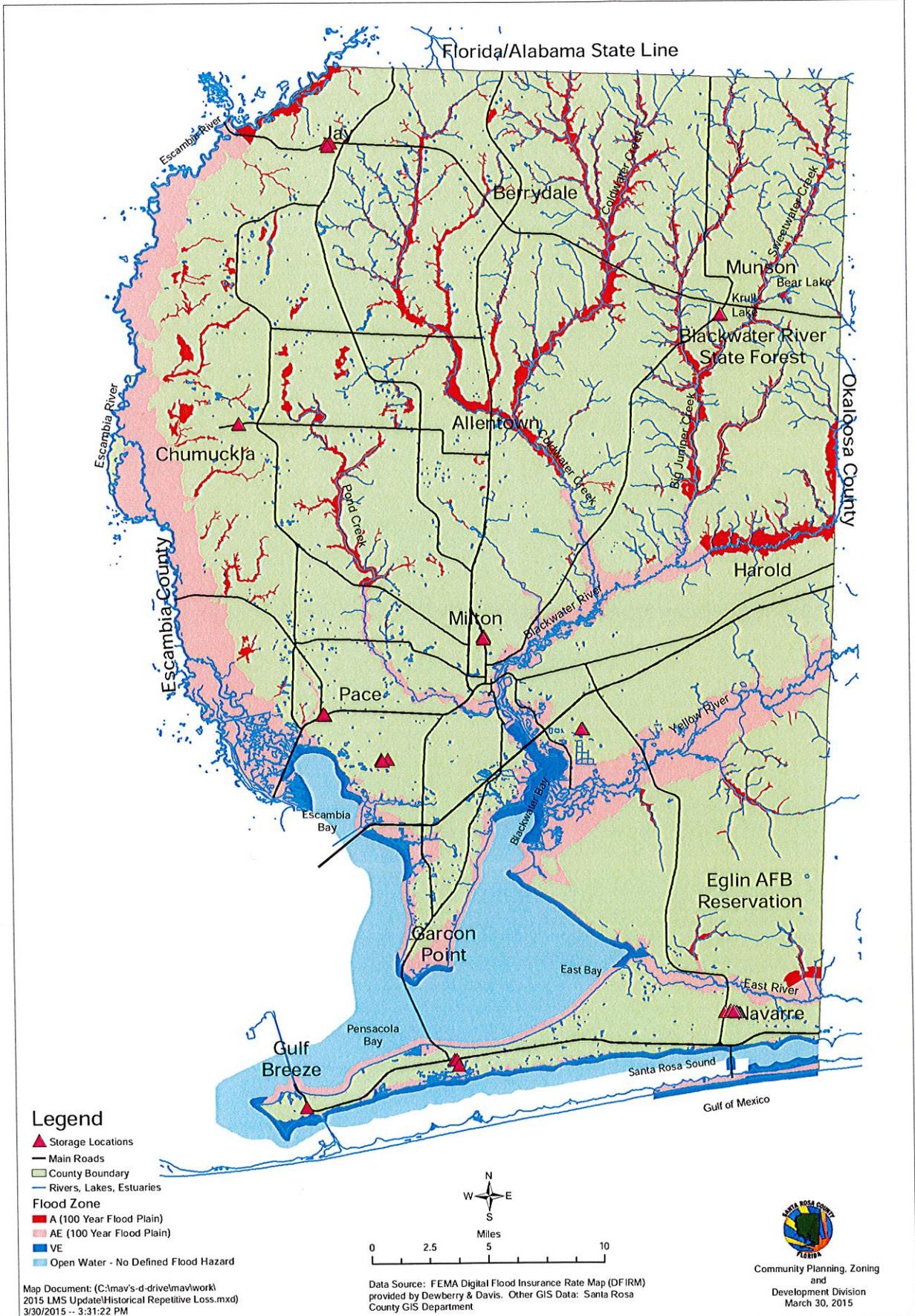


Santa Rosa County Flood Mitigation Plan Critical Facilities - Lift Stations



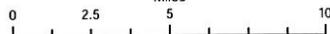


Santa Rosa County Flood Mitigation Plan Critical Facilities - Storage Locations



Legend

- ▲ Storage Locations
- Main Roads
- ▭ County Boundary
- Rivers, Lakes, Estuaries
- Flood Zone**
- A (100 Year Flood Plain)
- AE (100 Year Flood Plain)
- VE
- Open Water - No Defined Flood Hazard



Map Document: (C:\mav's-d-drive\mav\work\2015 LMS Update\Historical Repetitive Loss.mxd)
3/30/2015 -- 3:31:22 PM

Data Source: FEMA Digital Flood Insurance Rate Map (DFIRM) provided by Dewberry & Davis. Other GIS Data: Santa Rosa County GIS Department



Community Planning, Zoning and Development Division
March 30, 2015



Appendix L

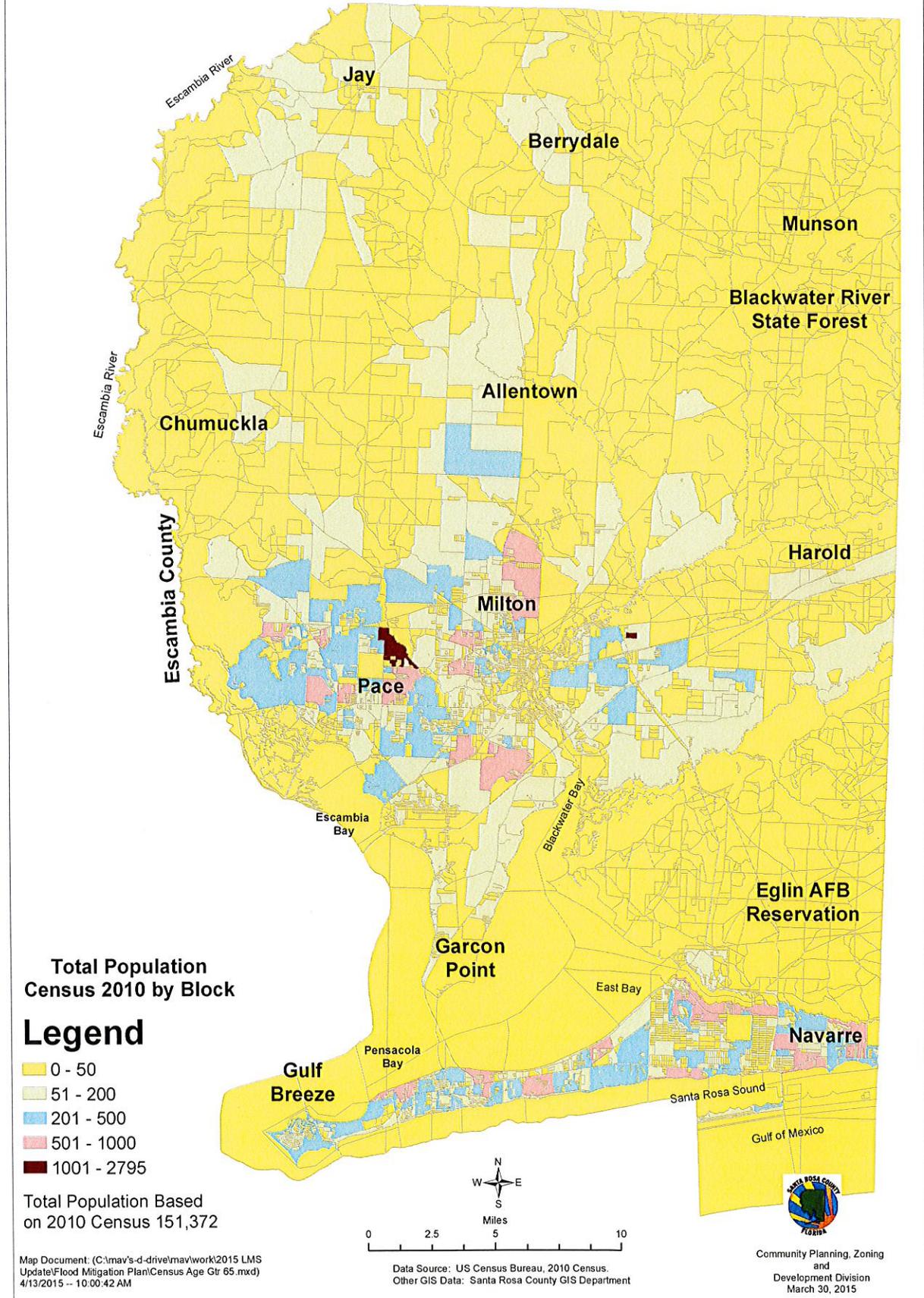
Flood Mitigation Plan

Population Density Maps



Santa Rosa County Flood Mitigation Plan Population Age by 2010 Census Block

Florida/Alabama State Line



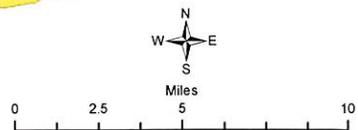
**Total Population
Census 2010 by Block**

Legend

- 0 - 50
- 51 - 200
- 201 - 500
- 501 - 1000
- 1001 - 2795

Total Population Based
on 2010 Census 151,372

Map Document: (C:\mav's-d-drive\mav\work\2015 LMS
Update\Flood Mitigation Plan\Census Age Gr 65.mxd)
4/13/2015 -- 10:00:42 AM



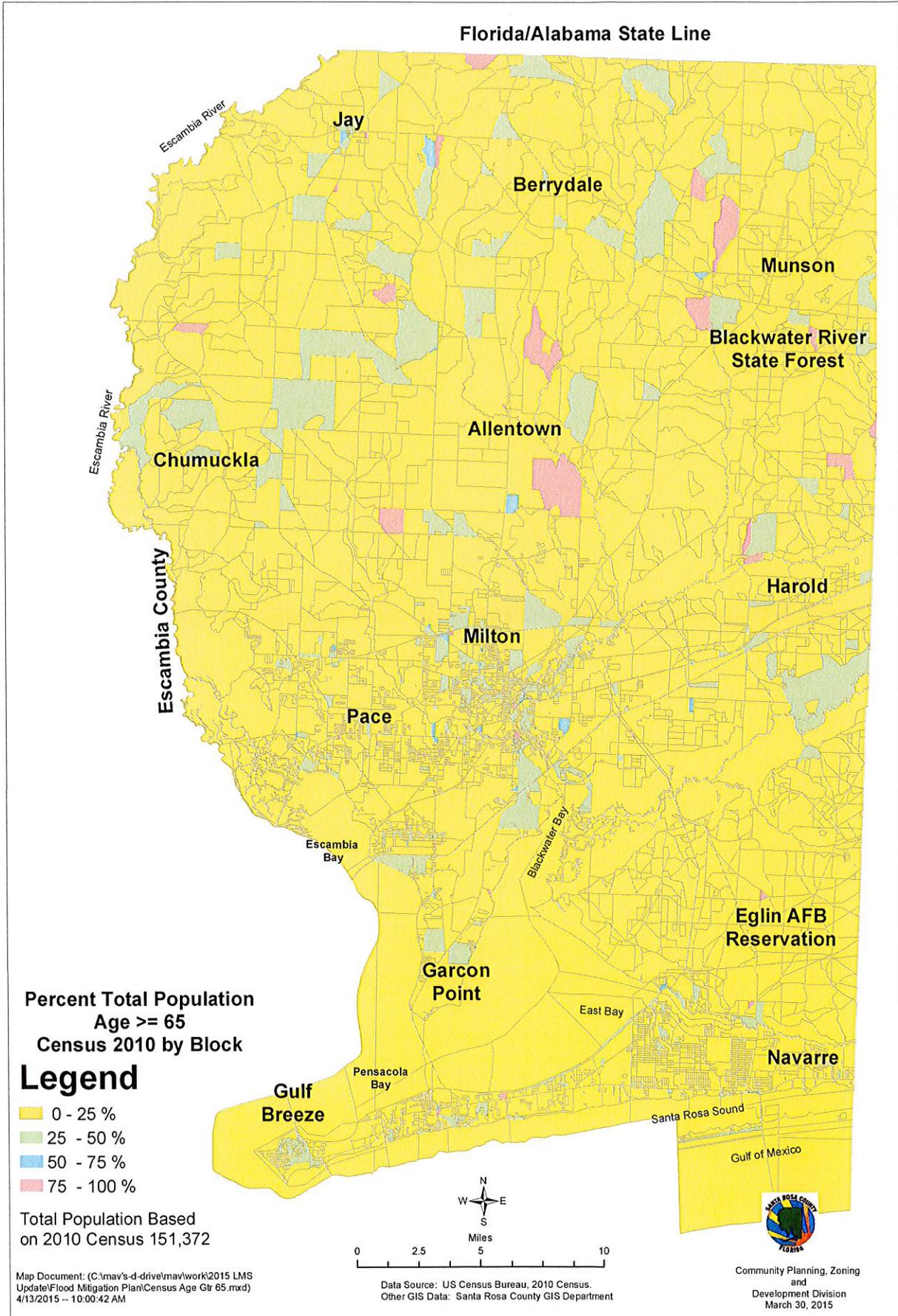
Data Source: US Census Bureau, 2010 Census.
Other GIS Data: Santa Rosa County GIS Department



Community Planning, Zoning
and
Development Division
March 30, 2015

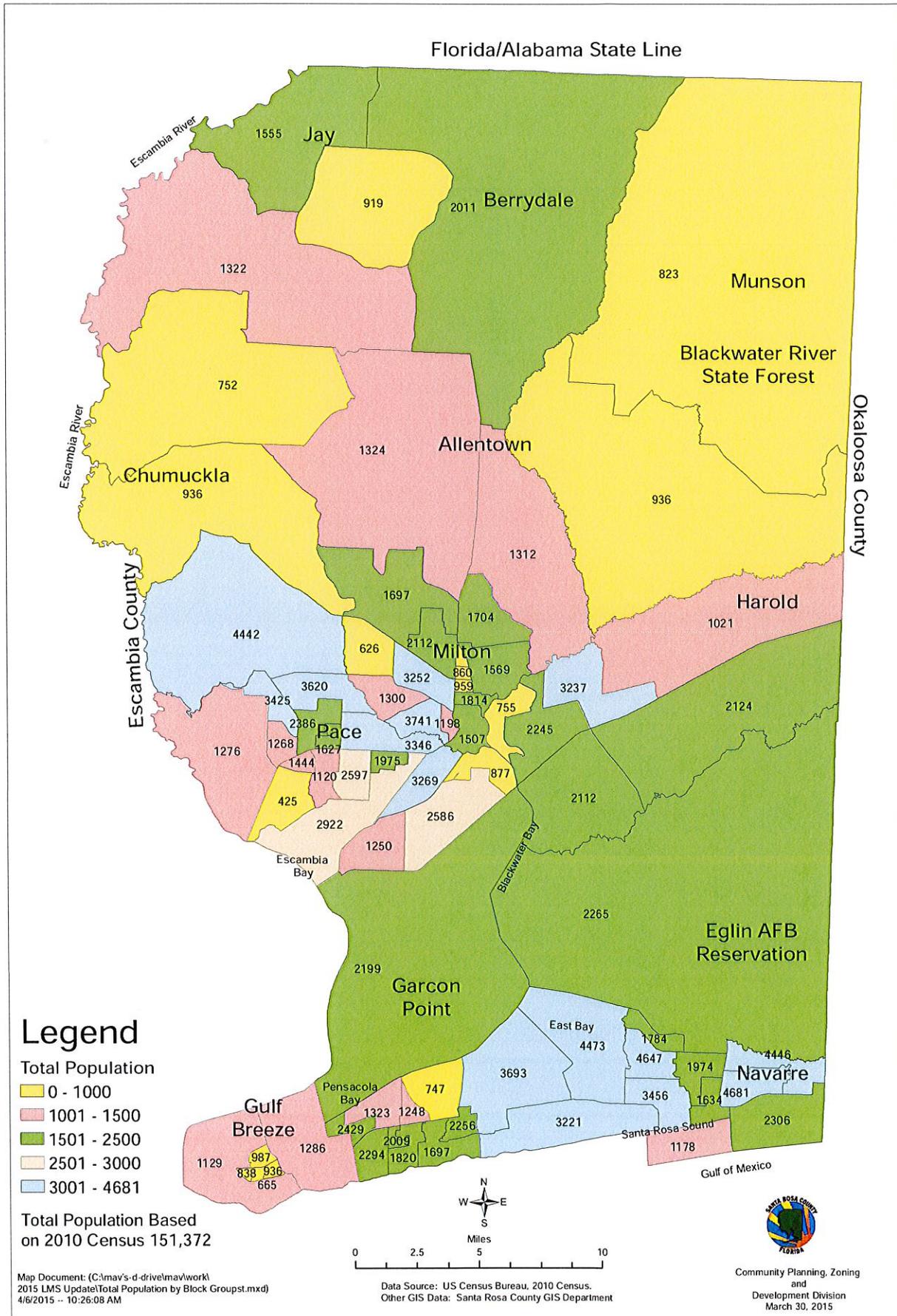


**Santa Rosa County
Flood Mitigation Plan
Percent of Population Age >= 65 by 2010 Census Block**





Santa Rosa County Flood Mitigation Plan Total Population By 2010 Census Block Groups





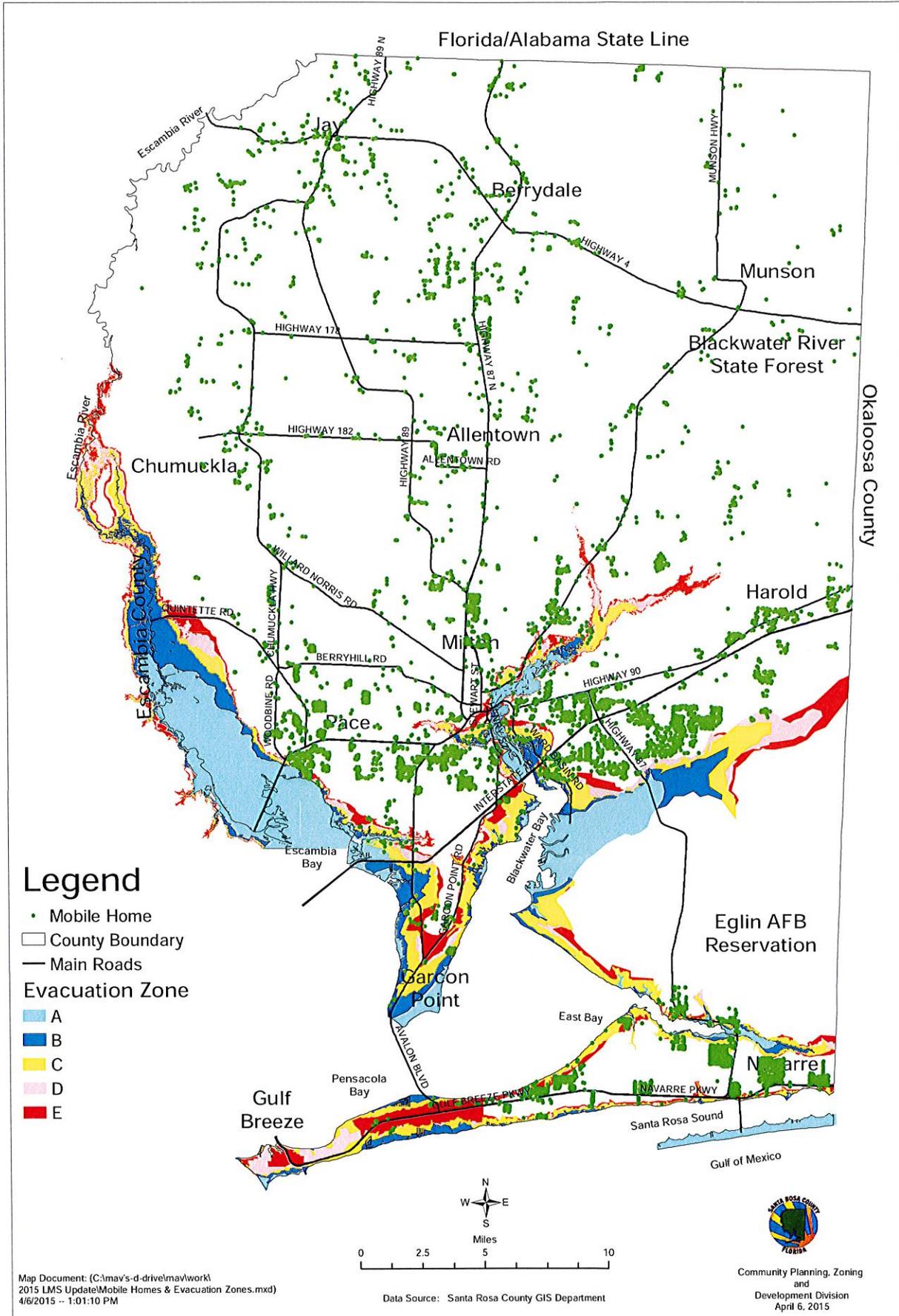
Appendix M

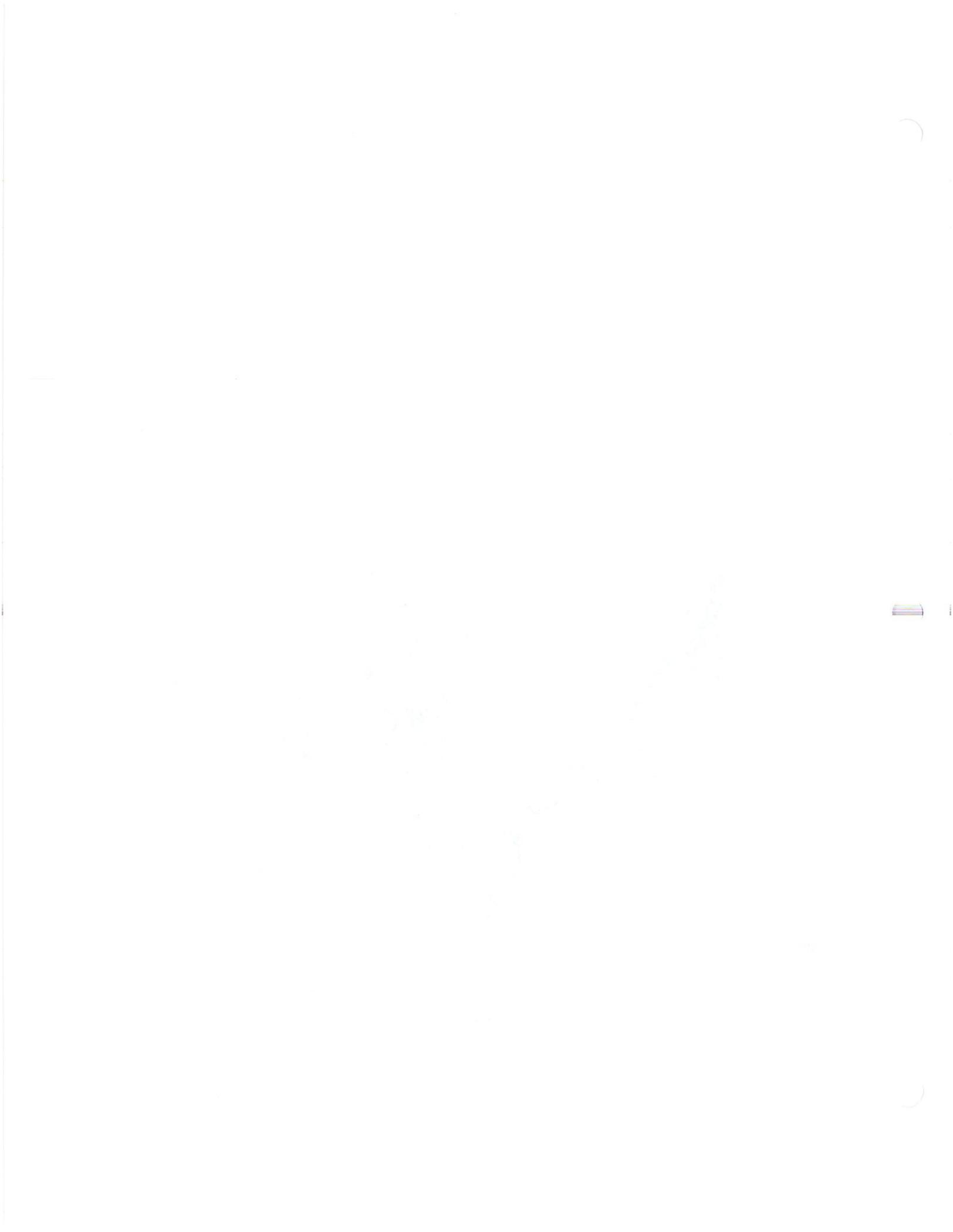
Flood Mitigation Plan

Mobile Homes & Evacuation/Surge Zone Maps



Santa Rosa County Flood Mitigation Plan Mobile Homes & Evacuation Zones







Appendix N

Flood Mitigation Plan

HAZUS-MH Hurricane Event Report

Hazus-MH: Hurricane Event Report

Region Name: Hurricane Ivan Probabilistic

Hurricane Scenario: Probabilistic 10-year Return Period

Print Date: Wednesday, July 29, 2015

Disclaimer:

This version of Hazus utilizes 2010 Census Data.

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique.

Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Hurricane. These results can be improved by using enhanced inventory data.

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General Description of the Region

Hazus is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency and the National Institute of Building Sciences. The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The hurricane loss estimates provided in this report are based on a region that includes 1 county(ies) from the following state(s):

- Florida

Note:

Appendix A contains a complete listing of the counties contained in the region .

The geographical size of the region is 1,023.40 square miles and contains 25 census tracts. There are over 56 thousand households in the region and has a total population of 151,372 people (2010 Census Bureau data). The distribution of population by State and County is provided in Appendix B.

There are an estimated 63 thousand buildings in the region with a total building replacement value (excluding contents) of 15,936 million dollars (2010 dollars). Approximately 93% of the buildings (and 86% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 63,711 buildings in the region which have an aggregate total replacement value of 15,936 million (2006 dollars). Table 1 presents the relative distribution of the value with respect to the general occupancies. Appendix B provides a general distribution of the building value by State and County.

Table 1: Building Exposure by Occupancy Type

Occupancy	Exposure (\$1000)	Percent of Tot
Residential	13,646,958	85.6%
Commercial	1,519,336	9.5%
Industrial	344,380	2.2%
Agricultural	52,394	0.3%
Religious	224,073	1.4%
Government	63,177	0.4%
Education	85,353	0.5%
Total	15,935,671	100.0%

Essential Facility Inventory

For essential facilities, there are 4 hospitals in the region with a total bed capacity of 210 beds. There are 42 schools, 11 fire stations, 7 police stations and no emergency operation facilities.

Hurricane Scenario

Hazus used the following set of information to define the hurricane parameters for the hurricane loss estimate provided in this report.

Scenario Name: Probabilistic
Type: Probabilistic

Building Damage

General Building Stock Damage

Hazus estimates that about 54 buildings will be at least moderately damaged. This is over 0% of the total number of buildings in the region. There are an estimated 1 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 6 of the Hazus Hurricane technical manual. Table 2 below summarizes the expected damage by general occupancy for the buildings in the region. Table 3 summarizes the expected damage by general building type.

Table 2: Expected Building Damage by Occupancy : 10 - year Event

Occupancy	None		Minor		Moderate		Severe		Destruction	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	213	98.84	2	0.98	0	0.13	0	0.05	0	0.00
Commercial	2,822	98.37	40	1.40	6	0.22	0	0.01	0	0.00
Education	79	98.88	1	1.04	0	0.08	0	0.00	0	0.00
Government	75	98.67	1	1.25	0	0.08	0	0.00	0	0.00
Industrial	1,025	98.66	13	1.22	1	0.11	0	0.01	0	0.00
Religion	301	98.88	3	1.04	0	0.07	0	0.00	0	0.00
Residential	58,491	98.92	591	1.00	44	0.07	1	0.00	1	0.00
Total	63,006		651		52		1		1	

Table 3: Expected Building Damage by Building Type : 10 - year Event

Building Type	None		Minor		Moderate		Severe		Destruction	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	2,437	98.47	34	1.38	3	0.14	0	0.00	0	0.00
Masonry	34,950	98.86	371	1.05	33	0.09	1	0.00	0	0.00
MH	8,173	99.94	4	0.04	1	0.01	0	0.00	0	0.00
Steel	1,693	98.35	24	1.42	4	0.22	0	0.01	0	0.00
Wood	13,410	98.82	152	1.12	8	0.06	1	0.00	0	0.00

Essential Facility Damage

Before the hurricane, the region had 210 hospital beds available for use. On the day of the hurricane, the model estimates that 210 hospital beds (only 100.00%) are available for use. After one week, 100.00% of the beds will be in service. By 30 days, 100.00% will be operational.

Table 4: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		Probability of at Least Moderate Damage > 50%	Probability of Complete Damage > 50%	Expected Loss of Use < 1 day
Fire Stations	11	0	0	11
Hospitals	4	0	0	4
Police Stations	7	0	0	7
Schools	42	0	0	42

Induced Hurricane Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the hurricane. The model breaks the debris into four general categories: a) Brick/Wood, b) Reinforced Concrete/Steel, c) Eligible Tree Debris, and d) Other Tree Debris. This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 158,703 tons of debris will be generated. Of the total amount, 143,362 tons (90%) is Other Tree Debris. Of the remaining 15,341 tons, Brick/Wood comprises 15% of the total, Reinforced Concrete/Steel comprises 0% of the total, with the remainder being Eligible Tree Debris. If the building debris tonnage is converted to an estimated number of truckloads, it will require 90 truckloads (@25 tons/truck) to remove the building debris generated by the hurricane. The number of Eligible Tree Debris truckloads will depend on how the 13,102 tons of Eligible Tree Debris are collected and processed. The volume of tree debris generally ranges from about 4 cubic yards per ton for chipped or compacted tree debris to about 10 cubic yards per ton for bulkier, uncompacted debris.

Social Impact

Shelter Requirement

Hazus estimates the number of households that are expected to be displaced from their homes due to the hurricane and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 1 households to be displaced due to the hurricane. Of these, 0 people (out of a total population of 151,372) will seek temporary shelter in public shelters.

Economic Loss

The total economic loss estimated for the hurricane is 36.4 million dollars, which represents 0.23 % of the total replacement value of the region's buildings.

Building-Related Losses

The building related losses are broken into two categories: direct property damage losses and business interruption losses. The direct property damage losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the hurricane. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the hurricane.

The total property damage losses were 36 million dollars. 0% of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 96% of the total loss. Table 4 below provides a summary of the losses associated with the building damage.

Table 5: Building-Related Economic Loss Estimates
(Thousands of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
<u>Property Damage</u>						
	Building	27,894.59	630.10	90.11	92.32	28,707.11
	Content	5,512.81	120.21	23.43	12.92	5,669.37
	Inventory	0.00	1.81	4.51	0.55	6.87
	Subtotal	33,407.40	752.12	118.04	105.79	34,383.35
<u>Business Interruption Loss</u>						
	Income	0.00	126.06	0.49	4.21	130.76
	Relocation	1,024.28	80.17	4.33	7.81	1,116.59
	Rental	567.67	46.07	0.34	0.38	614.46
	Wage	0.00	86.83	0.86	35.48	123.17
	Subtotal	1,591.95	339.13	6.02	47.89	1,984.99
<u>Total</u>						
	Total	34,999.34	1,091.25	124.07	153.67	36,368.33

Appendix A: County Listing for the Region

Florida
- Santa Rosa

Appendix B: Regional Population and Building Value Data

	Building Value (thousands of dollars)			Total
	Population	Residential	Non-Residential	
Florida				
Santa Rosa	151,372	13,646,958	2,288,713	15,935,671
Total	151,372	13,646,958	2,288,713	15,935,671
Study Region Total	151,372	13,646,958	2,288,713	15,935,671

Hazus-MH: Hurricane Event Report

Region Name: SRC Worst Case Scenario 07302015 II

Hurricane Scenario: DENNIS_2005_stm_1907PM

Print Date: Friday, July 31, 2015

Disclaimer:

This version of Hazus utilizes 2010 Census Data.

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique.

Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Hurricane. These results can be improved by using enhanced inventory data.

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- Florida

Note:

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There are an estimated 63 thousand buildings in the region with a total building replacement value (excluding contents) of 15,936 million dollars (2010 dollars). Approximately 93% of the buildings (and 86% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 63,711 buildings in the region which have an aggregate total replacement value of 15,936 million (2006 dollars). Table 1 presents the relative distribution of the value with respect to the general occupancies. Appendix B provides a general distribution of the building value by State and County.

Table 1: Building Exposure by Occupancy Type

Occupancy	Exposure (\$1000)	Percent of Tot
Residential	13,646,958	85.6%
Commercial	1,519,336	9.5%
Industrial	344,380	2.2%
Agricultural	52,394	0.3%
Religious	224,073	1.4%
Government	63,177	0.4%
Education	85,353	0.5%
Total	15,935,671	100.0%

Essential Facility Inventory

For essential facilities, there are 4 hospitals in the region with a total bed capacity of 210 beds. There are 42 schools, 11 fire stations, 7 police stations and no emergency operation facilities.

Hurricane Scenario

Hazus used the following set of information to define the hurricane parameters for the hurricane loss estimate provided in this report.

Scenario Name: DENNIS_2005_stm_1907PM
Type: Forecast/Advisory
Maximum Peak Gust in Study Region: 201 mph
Storm Information: HURREVAC Storm Advisory Download; FILE PATH:
 ftp://ftp.hurrevac2.com/D_2005.stm

User Defined Storm Track Input Data

Point	Latitude	Longitude	Time Step (hour)	Translation Speed (mph)	Radius To Max Winds (miles)	Max. Sustained Wind Speed (mph @ 10m)	Central Pressure (mBar)	Profile Parameter	Radius to Hurricane Force Winds (miles)
1	26.30	-85.10	118.00	--	--	112.82	942.00	--	30.80
2	26.60	-85.30	120.00	--	--	113.85	941.00	--	30.80
3	27.00	-85.60	122.00	--	--	121.10	937.00	--	30.80
4	27.40	-85.90	124.00	--	--	130.41	934.00	--	30.80
5	27.80	-86.10	126.00	--	--	140.00	932.00	--	30.80
6	28.20	-86.20	128.00	--	--	150.00	920.00	--	30.80
7	28.70	-86.40	130.00	--	--	155.00	918.00	--	30.80
8	29.40	-86.70	132.00	--	--	160.00	915.00	--	30.80
9	29.60	-86.90	134.00	--	--	170.00	910.00	--	30.80
10	30.20	-87.29	136.00	--	--	180.00	909.00	--	30.80
11	30.42	-87.30	138.00	--	--	185.00	908.00	--	17.71
12	30.65	-87.35	140.00	--	--	120.00	930.00	--	0.00
13	30.89	-87.42	142.00	--	--	100.00	935.00	--	0.00
14	30.91	-87.45	144.00	--	--	80.00	960.00	--	0.00

Building Damage

General Building Stock Damage

Hazus estimates that about 32,835 buildings will be at least moderately damaged. This is over 52% of the total number of buildings in the region. There are an estimated 8,642 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 6 of the Hazus Hurricane technical manual. Table 2 below summarizes the expected damage by general occupancy for the buildings in the region. Table 3 summarizes the expected damage by general building type.

Table 2: Expected Building Damage by Occupancy

Occupancy	None		Minor		Moderate		Severe		Destruction	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	43	19.91	42	19.74	45	21.08	58	27.09	26	12.18
Commercial	618	21.54	392	13.68	635	22.14	1,054	36.75	169	5.89
Education	17	20.82	11	13.92	16	20.56	33	41.05	3	3.65
Government	19	25.20	11	14.91	16	20.79	27	35.83	2	3.27
Industrial	236	22.75	139	13.41	203	19.53	420	40.46	40	3.86
Religion	66	21.69	55	18.19	69	22.63	102	33.59	12	3.89
Residential	15,735	26.61	13,490	22.81	12,206	20.64	9,307	15.74	8,390	14.19
Total	16,734		14,142		13,191		11,002		8,642	

Table 3: Expected Building Damage by Building Type

Building Type	None		Minor		Moderate		Severe		Destruction	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	673	22.92	359	12.22	629	21.41	1,266	43.08	11	0.38
Masonry	8,413	23.21	8,620	23.78	7,783	21.47	6,284	17.34	5,147	14.20
MH	7,499	89.82	156	1.87	213	2.55	66	0.79	415	4.97
Steel	460	21.97	226	10.80	434	20.75	865	41.31	108	5.17
Wood	3,148	22.36	3,490	24.78	3,075	21.83	2,338	16.60	2,031	14.42

Essential Facility Damage

Before the hurricane, the region had 210 hospital beds available for use. On the day of the hurricane, the model estimates that 0 hospital beds (only 0.00%) are available for use. After one week, 14.00% of the beds will be in service. By 30 days, 14.00% will be operational.

Table 4: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		Probability of at Least Moderate Damage > 50%	Probability of Complete Damage > 50%	Expected Loss of Use < 1 day
Fire Stations	11	7	1	7
Hospitals	4	3	2	0
Police Stations	7	4	0	5
Schools	42	33	3	0

Induced Hurricane Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the hurricane. The model breaks the debris into four general categories: a) Brick/Wood, b) Reinforced Concrete/Steel, c) Eligible Tree Debris, and d) Other Tree Debris. This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 3,087,443 tons of debris will be generated. Of the total amount, 2,002,242 tons (65%) is Other Tree Debris. Of the remaining 1,085,201 tons, Brick/Wood comprises 69% of the total, Reinforced Concrete/Steel comprises of 8% of the total, with the remainder being Eligible Tree Debris. If the building debris tonnage is converted to an estimated number of truckloads, it will require 33792 truckloads (@25 tons/truck) to remove the building debris generated by the hurricane. The number of Eligible Tree Debris truckloads will depend on how the 240,394 tons of Eligible Tree Debris are collected and processed. The volume of tree debris generally ranges from about 4 cubic yards per ton for chipped or compacted tree debris to about 10 cubic yards per ton for bulkier, uncompacted debris.

Social Impact

Shelter Requirement

Hazus estimates the number of households that are expected to be displaced from their homes due to the hurricane and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 17,646 households to be displaced due to the hurricane. Of these, 3,779 people (out of a total population of 151,372) will seek temporary shelter in public shelters.

Economic Loss

The total economic loss estimated for the hurricane is 8035.4 million dollars, which represents 50.42 % of the total replacement value of the region's buildings.

Building-Related Losses

The building related losses are broken into two categories: direct property damage losses and business interruption losses. The direct property damage losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the hurricane. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the hurricane.

The total property damage losses were 8,035 million dollars. 2% of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 81% of the total loss. Table 4 below provides a summary of the losses associated with the building damage.

Table 5: Building-Related Economic Loss Estimates
(Thousands of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
<u>Property Damage</u>						
	Building	4,123,835.44	434,783.45	96,879.16	95,251.58	4,750,749.62
	Content	1,738,551.56	365,851.30	93,010.81	71,001.68	2,268,415.35
	Inventory	0.00	6,911.88	14,788.83	1,191.05	22,891.76
	Subtotal	5,862,387.00	807,546.63	204,678.80	167,444.31	7,042,056.73
<u>Business Interruption Loss</u>						
	Income	4,229.26	87,716.56	1,415.41	1,341.62	94,702.85
	Relocation	494,049.82	59,418.67	6,542.62	17,379.70	577,390.81
	Rental	164,007.46	38,920.81	1,099.42	1,881.72	205,909.40
	Wage	9,918.22	97,712.70	2,376.42	5,303.93	115,311.26
	Subtotal	672,204.76	283,768.74	11,433.87	25,906.96	993,314.33
<u>Total</u>						
	Total	6,534,591.76	1,091,315.37	216,112.67	193,351.27	8,035,371.06

Appendix A: County Listing for the Region

Florida
- Santa Rosa

Appendix B: Regional Population and Building Value Data

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
Florida				
Santa Rosa	151,372	13,646,958	2,288,713	15,935,671
Total	151,372	13,646,958	2,288,713	15,935,671
Study Region Total	151,372	13,646,958	2,288,713	15,935,671



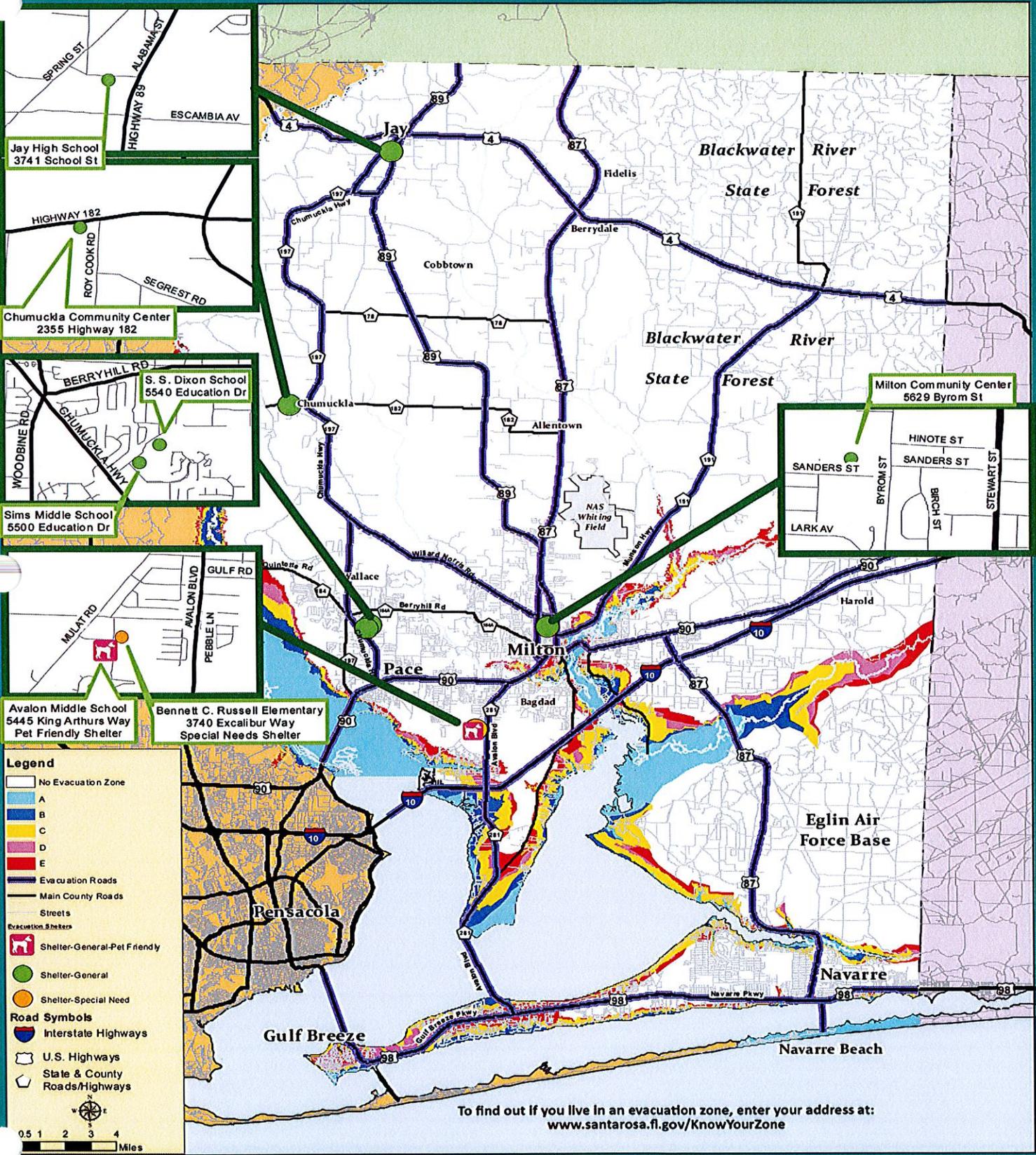
Appendix O

Flood Mitigation Plan

Evacuation Zones, Routes & Shelters Map



Evacuation Zones, Routes & Shelters



To find out if you live in an evacuation zone, enter your address at:
www.santarosa.fl.gov/KnowYourZone

Do not go to a shelter until you have verified it is open. Monitor local media for announcements from emergency management officials, visit www.santarosa.fl.gov or call the citizen information line at (850) 983-INFO or 4636.



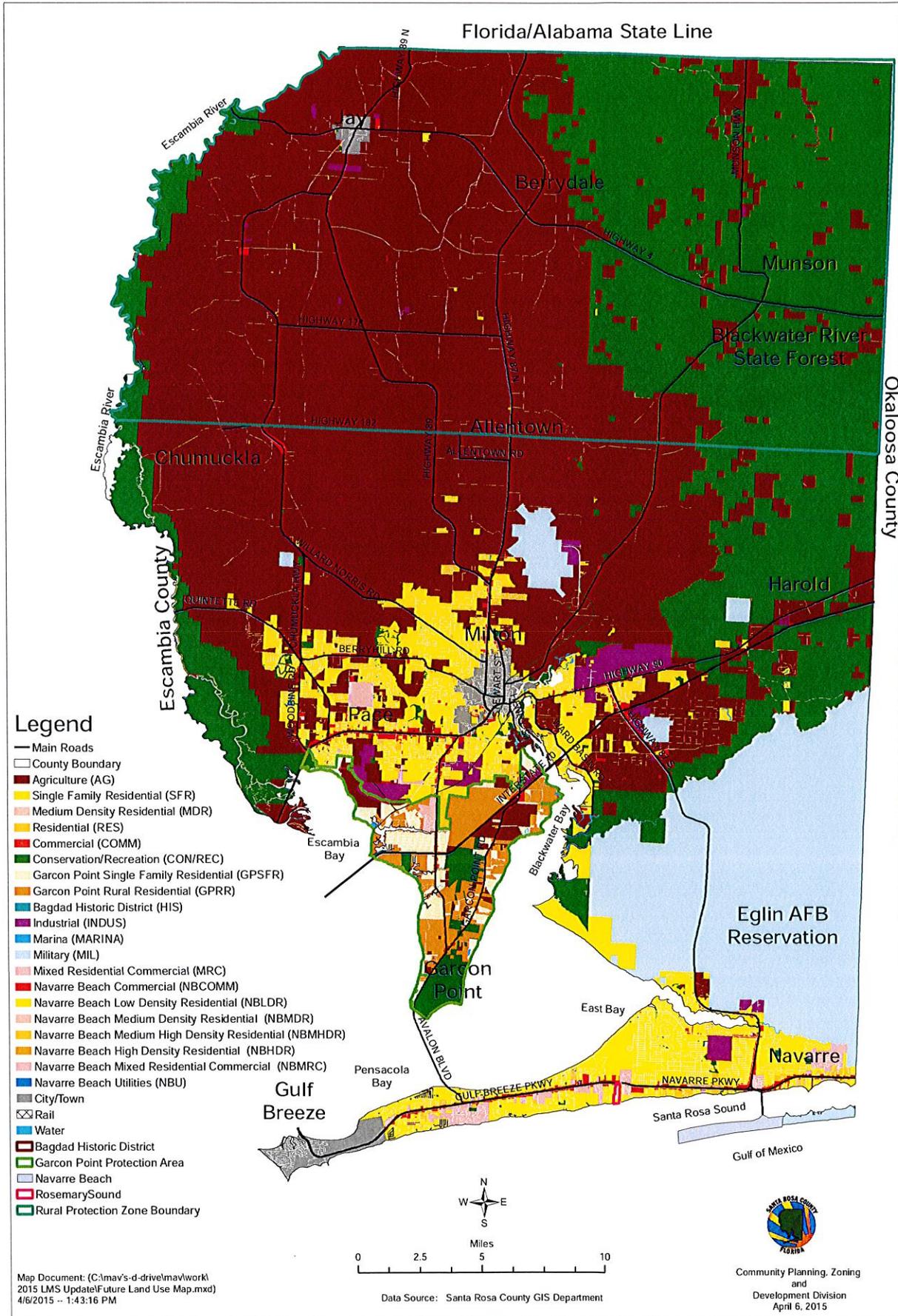
Appendix P

Flood Mitigation Plan

Future Land Use Map

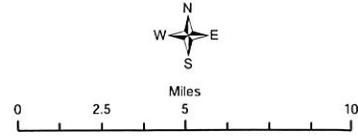


Santa Rosa County Flood Mitigation Plan Future Land Use Map



Legend

- Main Roads
- County Boundary
- Agriculture (AG)
- Single Family Residential (SFR)
- Medium Density Residential (MDR)
- Residential (RES)
- Commercial (COMM)
- Conservation/Recreation (CON/REC)
- Garcon Point Single Family Residential (GPSFR)
- Garcon Point Rural Residential (GP RR)
- Bagdad Historic District (HIS)
- Industrial (INDUS)
- Marina (MARINA)
- Military (MIL)
- Mixed Residential Commercial (MRC)
- Navarre Beach Commercial (NBCOMM)
- Navarre Beach Low Density Residential (NBLDR)
- Navarre Beach Medium Density Residential (NBMDR)
- Navarre Beach Medium High Density Residential (NBMHDR)
- Navarre Beach High Density Residential (NBHDR)
- Navarre Beach Mixed Residential Commercial (NBMRC)
- Navarre Beach Utilities (NBU)
- City/Town
- ⊠ Rail
- Water
- Bagdad Historic District
- Garcon Point Protection Area
- Navarre Beach
- Rosemary Sound
- Rural Protection Zone Boundary



Map Document: (C:\mav's-d-drive\mav\work\2015 LMS Update\Future Land Use Map.mxd)
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Data Source: Santa Rosa County GIS Department



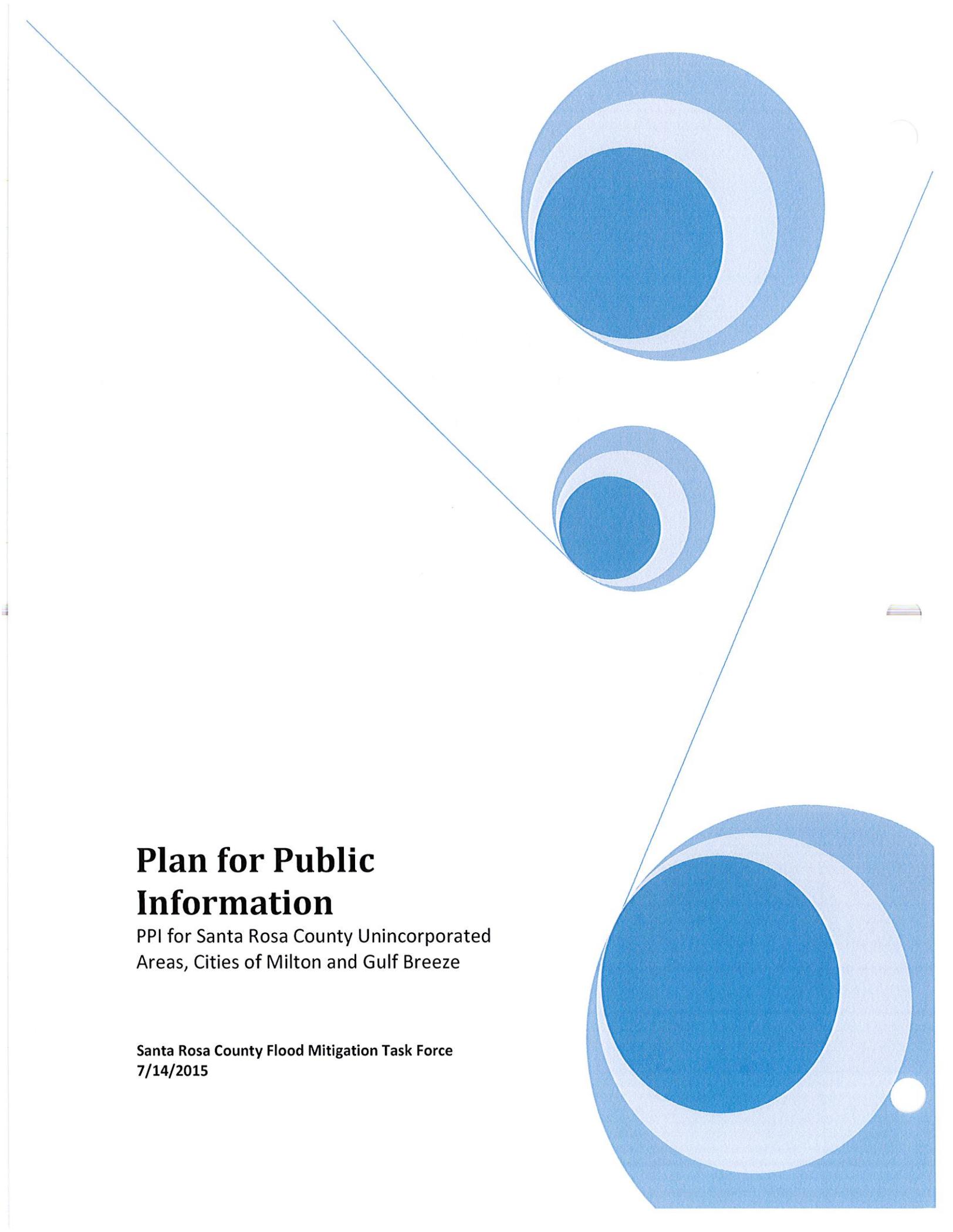
Community Planning, Zoning and Development Division
April 6, 2015



Appendix Q

Flood Mitigation Plan

Plan for Public Information



Plan for Public Information

PPI for Santa Rosa County Unincorporated
Areas, Cities of Milton and Gulf Breeze

Santa Rosa County Flood Mitigation Task Force
7/14/2015

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I. Background

Santa Rosa County and the Cities of Gulf Breeze and Milton, located within Santa Rosa County, are all impacted by flooding, both coastal and riverine, during all times of the year. Historically, the communities initiated their own flood hazard outreach and education efforts prior to hurricane season in the spring months. The individual jurisdictions contacted their citizens in flood prone or repetitive loss areas utilizing their own methods.

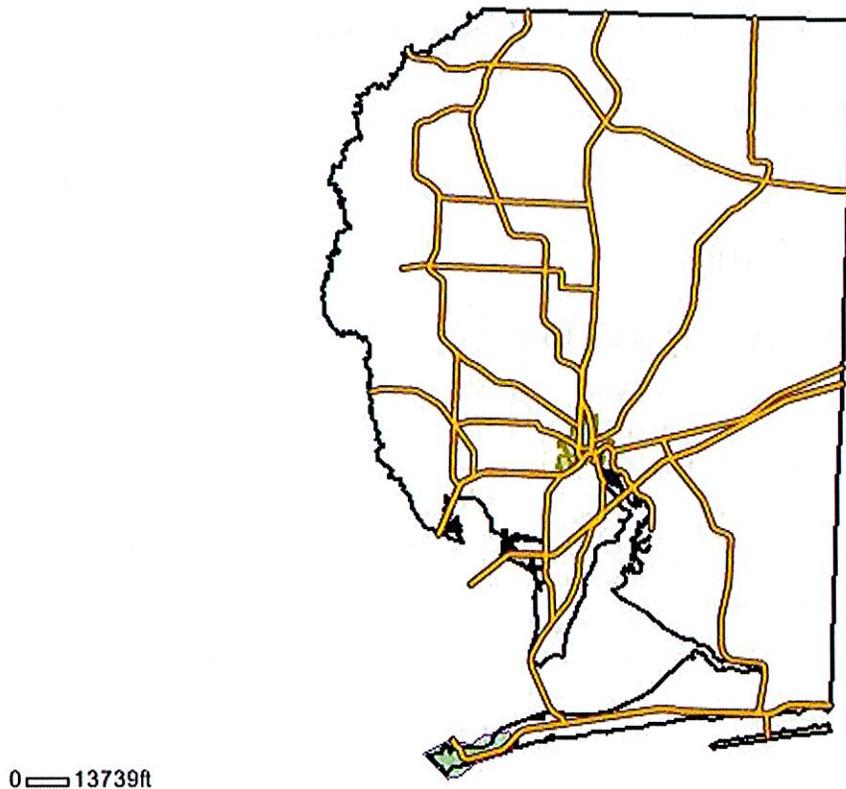


Figure 1. Location Map: Santa Rosa County with the Cities of Gulf Breeze and Milton

As part of the revisions to the Community Rating System (CRS) Program which became effective in 2013, the Program for Public Information (PPI) was introduced by the Federal Emergency Management Agency (FEMA) as a new planning tool to provide a step-by-step coordinated approach to flood hazard outreach. The PPI can be developed and implemented by a single community or with other communities as a multi-jurisdictional effort. The purpose is the same: to improve communication with citizens, and to provide information about flood hazards, flood safety, flood insurance and ways to protect property and natural floodplain functions to those who can benefit from it. The intent of the CRS Program, and the PPI, is to reduce injury to people and damage to property from future floods. Coordination between jurisdictions

through Multi-Jurisdictional Program for Public Information (MJ-PPI) further increases efficiency in resource use and improves communication with citizens.

When the PPI was introduced in fall of 2013 to the Local Mitigation Strategy Task Force (a multi-jurisdictional body) three jurisdictions participated in the CRS Program: City of Milton, City of Gulf Breeze and the County, which has jurisdiction over the unincorporated area. For the jurisdictions involved a number of factors supported the need to develop an overall, coordinated flood hazard outreach plan. First, the jurisdictions are generally not in a position to address flooding problems through structural means as often as in the past. New practices in urban stormwater management and floodplain management, which typically address flooding in rural settings are moving away from approaches that require more infrastructure to channel water. A common objective of both fields is finding cost effective methods of addressing flooding primarily through avoidance or reduction measures, which often have less long term costs associated with them. Second, the recent economic downturn has left the jurisdictions with fewer resources (staff, budget and grant availability) to address future flooding.

The importance of public safety and the need to reduce future flood damage has not diminished. Reducing future flood damage requires a partnership with the public, and an educated public is an important component for success. Willing homeowners can make modifications to their homes and property that will improve flood resiliency, however, they need clear, relevant facts and in some cases, financial assistance.

A MJ-PPI can offer the jurisdictions the benefit of clear, coordinated messages and a more comprehensive approach in getting information out in a consistent, cost-effective manner. The six priority topics of the revised CRS program are essentially best management practices for households – actions that can be taken by homeowners or renters to avoid or reduce flood damage.

II. Goals of the Santa Rosa County/Gulf Breeze/Milton Multi-Jurisdictional PPI Plan

The plan participants share a common vision for a better informed citizenry that is knowledgeable about the flood risks, what they can do to decrease future flood damage, and the benefits of flood insurance. Staff from Santa Rosa County, and the Cities of Gulf Breeze and Milton are recommending two goals and supporting objectives.

- Coordinate and synchronize the preparedness messaging of Santa Rosa County and the Cities of Gulf Breeze and Milton for a more comprehensive approach to building community resilience to flooding.

- Cross-Jurisdictionally identify the most at risk and through the outreach materials and methods, encourage residents to adopt behaviors that improve flood hazard preparedness and decrease future flood damage.

III. Multi-Jurisdictional Flood Mitigation Task Force (FMTF).

The Flood Mitigation Task Force was established in 2009, as an extension of the Local Mitigation Strategy Group, to develop a Multi-Jurisdictional Flood Mitigation Plan (Activity 510). The FMTF continues to meet regularly to maintain the Flood Mitigation Plan. This task force is an extension of the Local Mitigation Strategy group and in March of 2015 the Flood Mitigation Task Force undertook the process of developing a Multi-Jurisdictional Plan for Public Information which will meet the requirements of Activity 330.

The Task Force was established using the requirements of the CRS manual and consists of the following representatives:

Karen Thornhill, CFM	Floodplain Manager	Santa Rosa County
Sheila Fitzgerald	Special Projects and Grants	Santa Rosa County
Joy Tsubooka	Public Information Officer	Santa Rosa County
Daniel Hahn	Emergency Mgmt Plans Chief	Santa Rosa County
Stephen Furman	Public Works	Santa Rosa County
Glenn Bailey	Public Works	Santa Rosa County
Shawn Ward	Planning and Zoning	Santa Rosa County
Elizabeth Brumfield	GIS	Santa Rosa County
Tim Milstead	Planning	City of Milton
Randy Jorgenson	Planning	City of Milton
Curt Carver	Dept. City Manager	City of Gulf Breeze
Jim Cox	Resident	City of Gulf Breeze
Lou Greene	Resident	Navarre
Don Richards	President	United Peninsula Association
Cathi Schulz	Insurance Agent & Resident	Bearman Insurance
Ginny Cannon	Resident	City of Milton
Earl Dean	Resident	Holley by the Sea HOA
Courtney Winstead	Resident	Santa Rosa County
Kyle Holley	Resident	North End Tourism Development Council
Doug Lassater	Resident	Milton- Bagdad Waterfronts
Ken Cromer		American Red Cross
Morrell Holland	Stormwater Section	FDEP
Trent Mathews		USDA-NCRS/Blackwater SWCD
Scott Kemp	Resident and QAQC	Lockheed/Martin

The role of FMTF members was to assist in developing the MJ-PPI plan by providing feedback, from their perspective, on areas of their larger community that should be targeted for outreach, what type of message should be delivered and how often. FMTF members were also asked to share information on any efforts related to this work that have occurred or are occurring within their communities.

County staff developed the agendas and facilitated the FMTF meetings. Prior to setting each meeting date, an email request for attendance went out to ensure that the FMTF's efforts met the attendance requirements outlined in the new CRS manual.

The process of developing the MJ-PPI plan and the Flood Insurance Coverage credit in Activity 370, began with representatives from participating jurisdictions completing their respective CRS Community Self – Assessments and bringing the results to the first MJ-PPI task force meeting. That initial meeting was held on March 5, 2015 at the Public Services Building in the Development Services Media Room in Milton. The agenda followed the required elements in the CRS Manual for development of a PPI. This meeting presented the PPI and the Flood Insurance Assessment requirements to the FMTF. The CRS Community Self-Assessments were reviewed for each of the jurisdictions – agreement on the five target audiences the PPI plan would focus on are presented in the sections below. It was determined that monthly meetings would be held in order to facilitate the creation of the MJ-PPI, FIA and update the Flood Mitigation Plan.

The second meeting, held May 7, 2015, continued with the required elements of the CRS Manual specifically the development phase. During this meeting, members reviewed the six messages of the CRS Program and matched the topics to the five target audiences, developing specific messages. This work is detailed under the “Target Audiences” section below. The Task Force informally inventoried the current outreach projects and noted where they would fit into the PPI Plan or if they needed to be modified to better fit the plan. The discussion also included program development. Representatives from the jurisdictions and organizations discussed what actions they could take to deliver specific messages to target audiences. The outcome of this work is presented in Appendix 2: PPI Worksheet.

Based on the discussion during the second meeting, County staff assembled the first draft of the Santa Rosa County, City of Milton, and City of Gulf Breeze Multi-Jurisdictional Program for Public Information. The draft was first circulated to the cities to confirm and complete some facts. A revised copy was sent out to the entire FMTF. Suggestions for corrections and additions were solicited, compiled and then presented to the FMTF at the June 4th meeting for final approval. The PPI Plan was then submitted to the governing bodies of each jurisdiction for approval.

IV. The Communities, and Highlights of their CRS Community Self Assessment

Santa Rosa County Unincorporated and the Cities of Milton and Gulf Breeze are vulnerable to most types of flooding. Over the years we have implemented stronger regulatory standards for construction. By maintaining and reevaluating which standards work and which need improvement and by improving communication between citizens and staff by emphasizing the importance of flood insurance and mitigation of flood risks, we can become more flood resilient.

V. Flood Insurance Assessment for Santa Rosa County, City of Milton, City of Gulf Breeze

A flood insurance assessment (FIA) is an analysis of a community's level of flood insurance coverage that identifies where increased coverage would be beneficial. It is the first step toward developing a flood insurance coverage improvement plan in the community. This FIA is a Multi-Jurisdictional look at the overall flood insurance for Santa Rosa County, the City of Milton, and the City of Gulf Breeze.

i. Collect Flood Insurance Data

The flood insurance information was obtained from FEMA Region IV and summarizes the data on every issued policy in all the jurisdictions as of March 3, 2015. Please note that although the information has been collected that only generic totals will be used in this assessment. Property-specific policy information that includes policy holder addresses is protected under the Privacy Act of 1974 and cannot be shared with the public.

ii. Determine Level of Flood Insurance Coverage

Using the flood insurance information obtained as referenced above; staff created the following tables used by the FMTF to determine the level of coverage and the locations to target for outreach.

Santa Rosa County

	Policies in Force	SFHA buildings	Total Number of Buildings	Premium	Insurance in Force	Average Coverage
A1-30 & AE	4,421	5813	N/A	\$2,006,042	\$1,204,158,600	\$272,372
A Zone	42	195	N/A	\$32,148	\$9,191,600	\$218,847
AO Zone	4	4	N/A	\$1,600	\$1,284,200	\$321,050
V1-30 & VE	334	882	N/A	\$1,118,653	\$90,000,900	\$269,463
B,C, X	7323	0	83290	\$3,190,397	\$2,167,473,600	\$295,981

Total	12,124	6890	90180	\$6,348,840	\$3,472,108,900	\$286,383

City of Milton

A1-30 & AE	55	N/A	N/A	\$71,634	\$15,042,200	\$273,494
A Zone	0	N/A	0	0	0	0
AO Zone	0	N/A	0	0	0	0
V1-30 & VE	0	N/A	0	0	0	0
B,C, X	112	N/A	N/A	\$50,426	\$26,973,800	\$240,837
Total	167	N/A	N/A	\$122,060	\$42,016,000	\$251,592

City of Gulf Breeze

A1-30 & AE	242	N/A	N/A	\$106,600	\$60,767,200	\$251,104
A Zone	0	N/A	0	0	0	0
AO Zone	0	N/A	0	0	0	0
V1-30 & VE	48	N/A	N/A	\$231,697	\$13,318,000	\$277,458
B,C, X	786	N/A	N/A	\$361,181	\$235,574,500	\$299,713
Total	1076	N/A	N/A	\$699,478	\$309,659,700	\$287,787

**NOTE: Tables will be updated as data becomes available.

Conclusions and Recommendations

Santa Rosa County

Conclusion: The numbers of policies for structures in the VE Zones are less than half the level of insurable buildings.

- Recommendation: An effort should be made to inform citizens in the VE Zone about the advantages of having a flood insurance policy.
- Recommendation: Reach out to renters and inform them of contents coverage availability.

Conclusion: The numbers of flood insurance policies in the B, C or X zones are very low.

- Recommendation: An effort should be made to inform property owners about the potential flood hazard and that homeowners insurance does not cover flooding damages.
- Recommendation: Reach out to renters and inform them of contents coverage availability.

Conclusion: The numbers of policies in the A, AE Zones are relatively low.

- Recommendation: An effort should be made to encourage policy holders to maintain their flood insurance.
- Recommendation: An effort should be made to inform property owners who do not have flood insurance due to various reasons, to purchase flood insurance.
- Recommendation: Reach out to renters and inform them of contents coverage availability.

City of Milton

Conclusion: There are no VE Zones within the jurisdiction of the City of Milton. Therefore, there are no recommendations for this zone.

Conclusion: The numbers of flood insurance policies in the B, C or X zones are very low.

- Recommendation: An effort should be made to inform property owners about the potential flood hazard and that homeowners insurance does not cover flooding damages.
- Recommendation: Reach out to renters and inform them of contents coverage availability.

Conclusion: The numbers of policies in the A, AE Zones are relatively low, most are not covered by flood insurance.

- Recommendation: An effort should be made to encourage policy holders to maintain their flood insurance.
- Recommendation: An effort should be made to inform property owners who do not have flood insurance due to various reasons, to purchase flood insurance.
- Recommendation: Reach out to renters and inform them of contents coverage availability.

City of Gulf Breeze

Conclusion: The numbers of policies for structures in the VE Zones are less than half the level of insurable buildings.

- Recommendation: An effort should be made to inform citizens in the VE Zone about the advantages of having a flood insurance policy.
- Recommendation: Reach out to renters and inform them of contents coverage availability.

Conclusion: The numbers of flood insurance policies in the B, C or X zones are moderate in relation to the total number of buildings.

- Recommendation: An effort should be made to inform property owners about the potential flood hazard and that homeowners insurance does not cover flooding damages.
- Recommendation: Reach out to renters and inform them of contents coverage availability.

Conclusion: The numbers of policies in the A, AE Zones are relatively low, most are not covered by flood insurance.

- Recommendation: An effort should be made to encourage policy holders to maintain their flood insurance.
- Recommendation: An effort should be made to inform property owners who do not have flood insurance due to various reasons, to purchase flood insurance.
- Recommendation: Reach out to renters and inform them of contents coverage availability.

Summary

According to the data compiled approximately 75% of all Santa Rosa County buildings (including the Cities) in the A, AE zones are covered by flood insurance. In the VE Zone approximately 35% are insured. In the non-special flood hazard areas only 9% are insured.

Education of the target audiences regarding flood insurance availability is essential to flood resilience in the future.

Plan shall be sent to the FEMA Regional Insurance Specialist for review.

VI. Target Audiences

After consideration of the Community Assessment results and the Flood Insurance Assessment the FMTF agreed upon five key target audiences that would benefit most from public information outreach:

- Prospective Buyers-through education of realtors and insurance agents
- Repetitive Loss Area Residents
- Potential Flood Insurance Policy Holders
- Floodplain Residents
- The Community at Large

VII. Other Public Information Efforts

As noted above, the purpose of the PPI is to build community resilience to flooding by influencing residents to adopt behaviors to improve flood hazard preparedness and decrease future flood damages.

The FMTF developed the MJ-PPI plan beginning by inventorying the current outreach projects that supported the goal and CRS messages. These would supplement the project list, which would also incorporate new approaches to delivering priority messages.

Jurisdiction	Project	Message
Santa Rosa County	Annual Repetitive Loss Mailing	Flood Insurance, Property Protection
	Disaster Guide – Grant by FDEM	Flood Preparedness, Flood insurance, recovery, safety, Flood maps, mitigation measures, grants, warning.
	Flood Information Website	Flood Preparedness, Flood insurance, recovery, safety, Flood maps, mitigation measures, grants, warning.
	Flood Safety Awareness Week	Flood Preparedness, Flood Insurance, Mitigation, Flood Risk Awareness
	High Water Mark Initiative	Flood Risk Awareness
	SAFER Expo	Flood preparedness, safety, maps, insurance, mitigation, grants, recovery, elevation certificates
	Yellow Pages	Flood risk awareness, safety, mitigation, maps, elevation certificates
	Tweets, News Releases, Media Blasts, Facebook	Various
Home Depot	Health and Safety Day	Flood risk awareness, safety, construction in a SFHA
City of Milton	Annual Repetitive Loss Mailing	Flood Insurance, Property Protection
	High Water Mark Initiative	Flood Risk Awareness
	Yellow Pages	Flood risk awareness, safety, mitigation, maps, elevation certificates
Home Depot	Health and Safety Day	Flood risk awareness, safety, construction in a SFHA

	SAFER Expo	Flood preparedness, safety, maps, insurance, mitigation, grants, recovery, elevation certificates
City of Gulf Breeze	Annual Repetitive Loss Mailing	Flood Insurance, Property Protection
	High Water Mark Initiative	Flood Risk Awareness
	Yellow Pages	Flood risk awareness, safety, mitigation, maps, elevation certificates
Home Depot	Health and Safety Day	Flood risk awareness, safety, construction in a SFHA
	SAFER Expo	Flood preparedness, safety, maps, insurance, mitigation, grants, recovery, elevation certificates

VIII. Communication Strategy, Projects and Initiatives

The focus of the MJ-PPI plan is to encourage flood preparedness best practices for the following key audiences:

- Prospective Buyers-through education of realtors and insurance agents
- Repetitive Loss Area Residents
- Potential Flood Insurance Policy Holders
- Floodplain Residents
- The community at large

The FMTF selected six key messages that need to be disseminated to the audiences. These six are the same as the six priority messages for the CRS.

- Know your flood hazard
- Insure your property for your flood hazard
- Protect people from the flood hazard
- Protect your property from the flood hazard
- Build responsibly
- Protect Natural floodplain functions

The overall strategy is to make information more readily available to the target audiences in a manner that will equip and encourage these audiences to adopt behaviors to improve preparedness and decrease future flood damages. The PPI Worksheet (Appendix A) provides a comprehensive list of the program elements, which include various public information pieces, and information package covering all aspects of flood recovery, website enhancements, and neighborhood meetings.

Some new proposed projects, developed through discussions at the meetings, are highlighted below:

- Add flyers regarding flood risk and flood insurance to the housing office at the Military Bases to assist incoming military personnel to find out about flood insurance, the hazard and who to contact for more information.
- Add flyers regarding flood risk and flood insurance to the Economic Development Offices, Chamber of Commerce Offices and to the kiosks in the County BOCC offices and City Halls.
- Update the websites and including more social media outreach (Facebook, Twitter, etc)
- Add outreach materials to Utility Bills

IX. Annual Evaluation

The Flood Mitigation Task Force will meet at least once a year, to evaluate the plan and incorporate any needed revisions. The evaluation will cover:

- A review of the projects that were completed
- Progress toward the desired outcomes
- Recommendation regarding projects not completed
- Changes in the target audiences or projects

The jurisdictions should refresh their CRS Community Self Assessment at least once every two years, and bring the results to the Annual Evaluation. The County will coordinate and facilitate this meeting, and afterward, provide a summary and updated PPI worksheet reflecting the FMTF's decisions.

An annual report of the evaluation of the plan will be prepared by the FMTF. This evaluation report will be submitted to the Santa Rosa County Board of County Commissioners and the City Council of the City of Milton and Gulf Breeze. Typically, this is submitted between July and August each year, prior to the CRS recertification in October.

X. Plan Adoption

This document will become effective upon approval by the Santa Rosa Board of County Commissioners, the Milton City Council and the Gulf Breeze City Council.

Approval dates and governing bodies are as follows:

Governing Body	Date Approved
Santa Rosa County Board of County Commissioners (Agenda from BOCC Meeting attached)	7/23/2015
Milton City Council	10/13/2015
Gulf Breeze City Council (Email confirming approval from Curt Carver)	08/17/2015

Number	Target Audience	Message	Outcome	Project(s) proposed to support the messages	Assignment	Proposed Schedule	Stakeholder	CRS Communi
1	#1 Prospective Buyers #2 Repetitive Loss Area Residents #3 Potential Flood Insurance Policy Holders #4 Floodplain Residents #5 Community @ Large	Topic # 1: Know your flood hazard Topic # 2: Insure your property for your flood hazard Topic #3: Protect people from the flood hazard Topic #4: Protect your property from the flood hazard Topic #5: Build Responsibly Topic #6: Protect Natural Floodplain functions	Better informed public leading to more insurance policies, better resiliency in flood events, less losses.	SAFER EXPO	Karen Thornhill, Dan Hahn, Navarre CERT	Annually		120274 120275 120276
2	#2, 3, 4	# 1, 2, 3, 4	More flood insurance policies, less losses	Annual Repetitive Loss Mailings ** Investigate the possibility of including this information into the Trim Notices. Investigate possibility of using postcards for mail outs.	Karen Thornhill, City of Milton, City of Gulf	Annually		120274 120275 120276

3	# 5	#1, 2, 3, 4, 5, 6	Better prepared public, more insurance policies, less risk	Disaster Guide-	Breeze SRC DEM	Annually	DHS funded	120274
4	#1, 2, 3, 4, 5	#1, 2, 3, 4, 5, 6	Better informed public leading to more insurance policies, better resiliency in flood events, less losses.	Websites (SRC - http://www.santarosa.fl.gov/developmentsservices/floodmanagement.cfm) Post flyers, and other documents covering all six topics and links to other local sites, floodsmart.gov, State DEM, FEMA and other pertinent websites. Update at least 1 time per year – more frequently as needed. Stream Dumping shall be on both the flood web page and the Road and Bridge Web page.	GIS Departments of SRC/Cities	As needed		120274 120275 120276
5	#1, 2, 3, 4, 5	#1, 2	Better informed public leading to more insurance policies, better resiliency in flood events, less losses.	High Water mark Initiative	Public Works Departments	On Going	DHS funded	120274 120275 120276
6	#1, 2, 3, 4,	#1, 2, 3, 4, 5, 6	Better informed	Flood Safety Awareness Week – in coordination with the National Flood Safety	Karen Thornhill,	Annually	NOAA	120274 120275

	5			public leading to more insurance policies, better resiliency in flood events, less losses.	Awareness Week done by NOAA	City of Milton, City of Gulf Breeze			120276
7	#1, 2, 3, 4, 5	#1, 2, 3, 4, 5, 6	Better informed public leading to more insurance policies, better resiliency in flood events, less losses.	Yellow Pages- Updated Annually and is now on the web as well as in print. This will have stream dumping regulations included in it.		PIO	Annually	Bellsouth	120274 120275 120276
8	#1, 2, 3, 4, 5	#1, 2, 3, 4, 5, 6	More views, hits, follows Leading to increased awareness of flood risk, increase in flood policies,	Social Media, (News releases, Media Blasts, Email, Tweets, Facebook) – more social media is needed. Most everyone carries a smart phone now.		Various staff and citizen organizations	OnGoing Updated and released as needed	Holley by the Sea HOA, United Pennisula Association, Navarre Board of Realtors, Bearman insurance, FEMA Videos	120274 120275 120276

9	#1, 2, 3, 4, 5	#1, 2, 3, 4, 5, 6	and resilience to flood damages Better informed public leading to more insurance policies, better resiliency in flood events, less losses.	Flyer Cards - Kiosks in BOCC lobby, City Halls, Military Housing office, Chamber of Commerce offices	Various staff and citizens	On Going	FDEM funded	120274 120275 120276
10	#1, 2, 3, 4, 5	#1, 2, 3, 4, 5, 6	Better informed public leading to more insurance policies, better resiliency in flood events, less losses.	Public Service Announcements – Radio and TV Spots	FDEM	OnGoing	FDEM	120274 120275 120276
11	#1, 2, 3, 4, 5	#1, 2, 3, 4, 5, 6	Better informed public leading to more insurance	Adding outreach materials to Utility Bills	Karen Thornhill, various citizens	Ongoing	Local Utility Companies	120274 120275 120276

12	#1, 3, 4, 5	#1, 2, 3, 4, 5, 6	<p>policies, better resiliency in flood events, less losses.</p> <p>Better informed public leading to more insurance policies, better resiliency in flood events, less losses.</p>	<p>Speaking to various agencies, HOA's, Realtors, Insurance Agents, CERT Teams, and other interested parties.</p> <p>Realtors should agree to advise house hunters regarding the flood hazards in the area and hand out REB (Currently on web – brochure in production).</p>	<p>Karen Thornhill, Daniel Hahn, Citizens, Insurance Agents</p>	<p>Ongoing</p>	<p>Depending on the speaker. Check documentation</p>	<p>120274 120275 120276</p>
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Appendix R

Flood Mitigation Plan

Post Disaster Mitigation Policy and Procedure

Post Disaster Mitigation Policy and Procedures

Following a major flooding disaster, Santa Rosa County workers responsible for assessing damage look at the resulting damage with an intent towards identifying mitigation projects. This is especially essential as additional mitigation opportunities may become apparent and grant monies for funding such projects will be available through federal funding sources, such as the Flood Mitigation Assistance (FMA) Program. The post-disaster window is considered an opportune time to make a community more disaster resilient. Information obtained post-disaster may serve to validate or revise the community's mitigation priorities as stated in the Local Hazard Mitigation Plan (LMS), and/or the Flood Mitigation Plan (FMP) and will likely result in additional projects being added to the LMS and FMP Task Force's Project Priorities list.

Santa Rosa County uses two teams for uncovering mitigation opportunities after a disaster. The first is the Mitigation Assessment Team, which collects information about resulting damage. The second is the Mitigation Analysis Team, which analyzes the information collected and determines possible mitigation actions that could be explored for further development and proposal to the LMS Task Force. The goal is to assess damage, determine the root causes of damage where possible, and to identify potential mitigation projects that could reduce or eliminate similar damage from a subsequent event, such as elevation, acquisition and relocating of damaged structures.

The Mitigation Assessment Team collects information about damages within their normal scope of duties. The Santa Rosa County Building Inspectors Department is the lead County department responsible for post-disaster mitigation assessment. The building inspectors assess damaged properties through two assessments; a Post-Disaster Habitability Inspection (initial damage assessment) and a Substantial Damage Assessment, as required by the National Flood Insurance Program (NFIP). During this time, the Teams take the opportunity to complete the mitigation assessment form to be used later in determining potential mitigation projects. The building inspectors submit the form to the Santa Rosa County Emergency Management Director for further analysis by the Mitigation Analysis Team. Additional departments' participation is dependent on the particular damages that have resulted. For instance, if damages were observed to the county roadway infrastructure, Santa Rosa County Roads and Bridges Department would become involved.

The Public Works crews are considered members of the Mitigation Assessment Team, however they do not complete the mitigation assessment forms. Their damage reports are submitted directly to the EOC through the Public Works and Engineering Emergency Support Function (ESF 3) representative and are documented by the Information and Planning Emergency Support Function (ESF 5) in the situation report (SITREP). Mitigation input is provided verbally or by email to the Emergency Management Director or to the Santa Rosa County Grants Coordinator.

Following the Habitability Inspection, the Damage Assessment Teams conduct a second assessment called a Substantial Damage Assessment. This is an in-depth assessment of

the damage to a structure. The Teams follow the Florida Building Code and the NFIP requirements in determining the percentage of damage to the components of a structure. The structures in the hardest hit areas and those that appear substantially damaged, or those for which the Inspectors have received specific calls, are inspected. The definitions of substantial damage and improvement from the Santa Rosa County Land Development Code, Article 3 follow:

- **SUBSTANTIAL DAMAGE:** Damage of any origin sustained by a building whereby the cost of restoring the building to its before-damaged condition would equal or exceed 50 percent of the market value of the building before the damage occurred. The damage can be from any cause – flood, fire, earthquake, wind, rain, or other natural or human-induced hazard.
- **SUBSTANTIAL IMPROVEMENT:** Any reconstruction, rehabilitation, addition, or other improvement of a building, the cost of which exceeds 50 percent of the market value of the building before the “start of construction” of the improvement. Substantial improvement includes buildings that have incurred “substantial damage,” regardless of the actual repair work performed.

The substantial damage rule applies to all buildings in a flood hazard area, regardless of whether the building was covered by flood insurance.

The Building Inspection Department subsequently sends a report to the owner. If the homeowner disagrees with the Inspectors’ determination, an appeal process can be initiated through the Building Official, Deputy Building Official, or Floodplain Manager. As owners rebuild, Santa Rosa County Code Enforcement ensures that the process adheres to the most current standards.

Santa Rosa County has taken action to create a one-stop shop called the “Recovery Information Center (RIC)” for contractors and homeowners needing permits following a disaster. Located at the Public Services Building in the Building Inspections Department, the following entities will co-locate for a period of time as determined by each department to expedite the permitting process:

- Santa Rosa County Building Inspections and Compliance Department
- Santa Rosa County Floodplain Management
- Santa Rosa County Health Department
- Santa Rosa County Code Enforcement
- Santa Rosa County Planning and Zoning
- State of Florida Department of Environmental Protection

Mitigation information will be available at the RIC in the form of brochures, pamphlets, or other means. In addition, either the Assistant Building Official or the Planning and Zoning Director may be present to counsel residents on recovery actions that can be taken during the rebuilding phase and to answer questions.

Within 45 days of the disaster, the Santa Rosa County Grants Coordinator calls for a meeting of the Santa Rosa County Post-Disaster Mitigation Analysis Team. This analysis team is lead by the Santa Rosa County Grants Coordinator and is composed of the Emergency Management Director, the Planning Director, the Assistant Public Works Director, Engineering Director (or designee), and the Assistant Building Officer. These individuals will meet to discuss observations, root causes of damage, and potential mitigation projects. Those potential actions that may warrant further development will be sent to the relevant county departments for further development. A project proposal will be drafted in conjunction with the Santa Rosa County Grants Coordinator. The County Grants Coordinator presents all project proposals to the LMS Task Force, which will determine whether each project will be added to the Project Priorities list and what priority it should receive. For priority projects, the County Grants Coordinator searches for a potential funding source, and completes and submits the applications for grants. Once awarded, project implementation continues through the relevant departments.

Redevelopment within Santa Rosa County following a flood event will likely reflect existing development with regard to land use. However, redevelopment of substantially damaged structures will require that current building codes be adhered to. Codes and ordinances are the regulatory means of conducting mitigation within the community. The following codes and ordinances deal with mitigation for various hazards and were evaluated during the development of the Santa Rosa County Local Mitigation Strategy update for 2005. County staff noted no conflicts among the codes and ordinances or limitations associated with them. Any determinations of possible improvements to be made to the codes and ordinances will be addressed as needed.

The Santa Rosa County Building code and ordinances adopt the use of the Florida Building Code pursuant to F.S. 553. This Building Code is enforced by the Santa Rosa County Building Inspections Department. The Santa Rosa County Land Development Code (Original Ordinance # 91-24 with amendments) deals with reducing the potential for disasters or hazards in new construction or reconstruction of damaged properties. In addition, Article 10 of the Santa Rosa County Land Development Code with amendments constitutes the National Flood Insurance Program implementing documents.

Growth Management Plan and Mitigation

Policy 3.1.A.8	Provides for future land use categories that limit density and intensity of uses in areas subject to flooding and other disasters
Policy 3.1.E.6	Requires that development be limited in flood prone areas
Policy 3.1.F.3	Requires that densities and intensities of land use maintain roadway clearance times
Policy 6.3.B.3.	Establishes stormwater management standards that are among the most stringent in the state

Policy 6.3.B.4.	Prohibits the reduction of flood storage capacity of floodplains
Policy 6.4.E.3.	Establishes wellhead protection areas and limits development within those areas
Policy 7.1.A.4	Limits development and redevelopment in the CHHA
Policy 7.1.A.6	Requires the County to consider the relocation, mitigation, or replacement of infrastructure currently present within the CHHA where state funding is anticipated to be needed.
Policy 7.1.A.7	Requires implementation of the Local Hazard Mitigation Strategy and update of that strategy to meet Disaster Mitigation Act of 2000 (DMA2K) requirements
Policy 7.1.C.6	Provides for the purchase of property and development rights when feasible to limit development in sensitive coastal areas
Policy 7.1.D.2	Requires that at least 34% of land on Navarre Beach will remain as Conservation/Recreation land use
Policy 7.1.D.4	Encourages the protection and restoration of coastal dunes
Policy 7.1.D.6	Requires that any time development would alter coastal dunes, that a restoration plan be required
Policies 7.1.E. – 7.1.E.3	Limits land use designation along shorelines
Policies 7.1.F.2, 7.1.F.3 and others	Relates to the maintenance of hurricane evacuation times
Policy 7.1.F.7	Requires the county to coordinate with the school board to ensure that new schools are located in areas not vulnerable to natural hazards
Policy 7.1.G.5	Requires the county to maintain an inventory of areas that experience repeat damage from coastal storms and to seek grant funding to limit redevelopment in those areas
Policy 7.1.G.7	Requires that structures in the CHHA damaged more than 50% must be rebuilt to current standards
Objective 10.1.B.	Requires the limitation of public expenditures that subsidize development in the CHHA

The following documents offer expanded information regarding the Post Disaster Plan in Santa Rosa County and are available on the County's website:

- *Santa Rosa County Post Disaster Plan, Building Inspection Department*

- *Comprehensive Emergency Management Plan (CEMP), Mitigation Element*
- *Santa Rosa County Disaster Guide 2009*

These documents include immediate actions necessary to restore essential services, provide emergency assistance to disaster victims, and return day-to-day operations to normal as quickly as possible.

