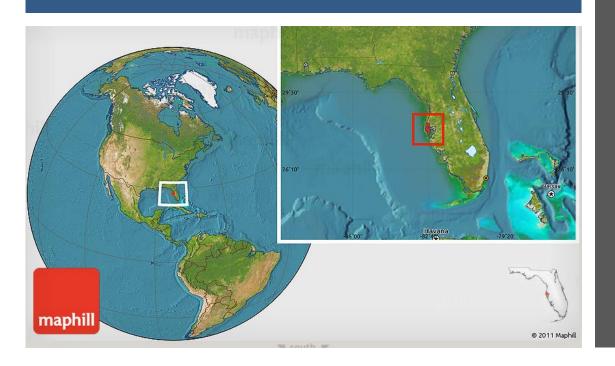




Maxine Moore, CFM
Floodplain Technician
MMoore@pinellas.gov
Thursday, November 30, 2023

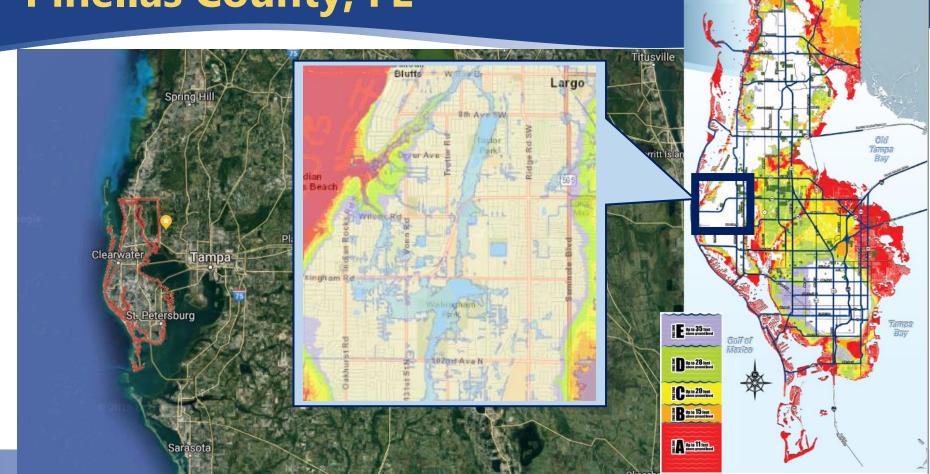


Pinellas County, FL



- Population: ~ 962K (2022)
- 2nd Smallest county in size
- Most densely populated county in Florida
 - ~ 3,425 people per square mile
- 280 square miles
- 588 miles of coastline
 - 35 miles of beaches
- 24 Municipalities

Pinellas County, FL













Types of Flood Risk



Riverine



Surface / Localized



Coastal

- Storm Surge
- Blue Sky

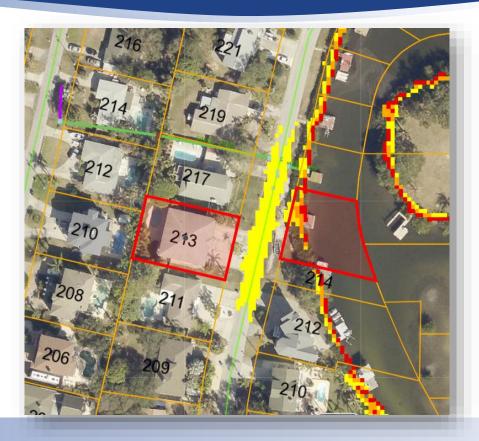
Blue Sky Flooding

Even when it doesn't rain, it can still flood.









Managing the Risk





Comprehensive Floodplain Management Program

- Flood Protection Level of Service
- Resiliency
- Federal Program Participation
 - Flood Insurance
 - Disaster Assistance
 - Flood Insurance Discounts

Federal Program Participation

Federal Emergency Management Agency (FEMA)

National Flood Insurance Program (NFIP)

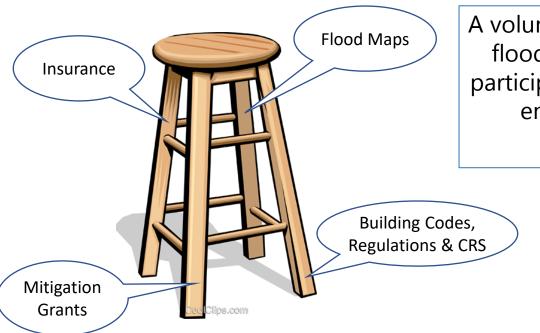
Maps and regulatory basis for local floodplain management

Community Rating System (CRS)

Incentive to go above and beyond NFIP minimum requirements

National Flood Insurance Program (NFIP)





A voluntary federal program that provides flood insurance to property owners in participating communities that adopt and enforce floodplain management regulations.

"Each leg represents a critical part of the balance of success."

- FEMA

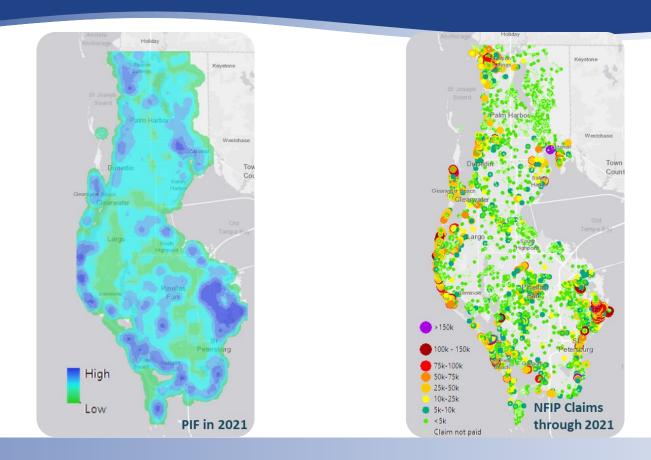
Community Rating System





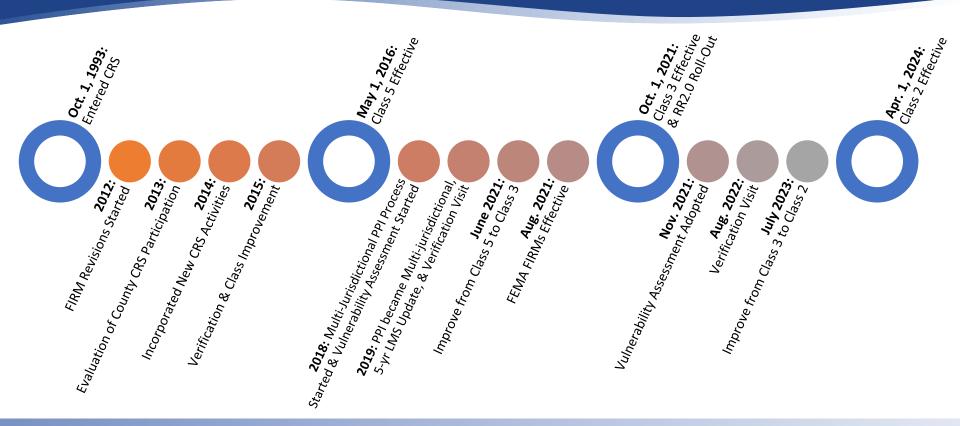
County NFIP Policies & Claims





CRS Timeline





CRS Class 2 Letter







COMMUNITY RATING SYSTEM

VERIFICATION REPORT

Pinellas County, FL

Verified Class 2

NFIP Number: 125139

Cycle

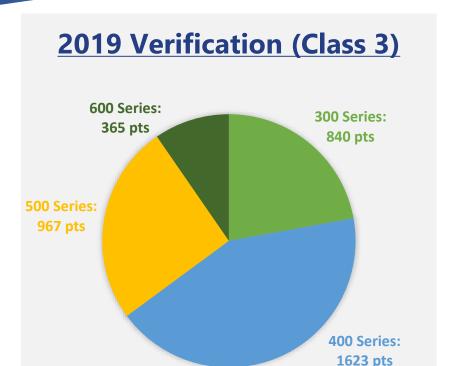
Date of Verification Visit: August 23, 2022

This Verification Report is provided to explain the recommendations of Insurance Services Office, Inc. (ISO) to DHS/FEMA concerning credits under the Community Rating System (CRS) for the above named community.

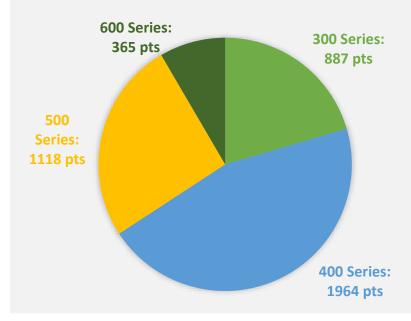
A total of 4334 credit points are verified which results in a recommendation that the community improve from a CRS Class 3 to a CRS Class 2. The community has met all Class 2 prerequisites. Please see Attachment A, Class 2 prerequisite information at the end of this report. The following is a summary of our findings with the total CRS credit points for each activity listed in parenthesis:

CRS Points Comparison



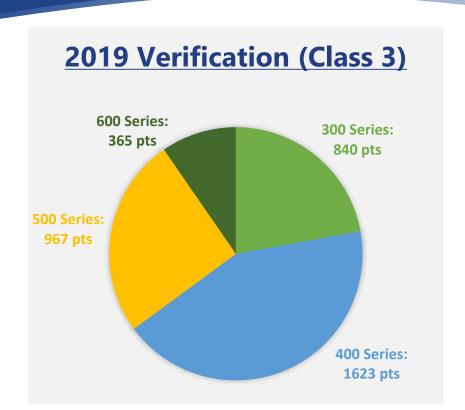






CRS Points By Series Comparison

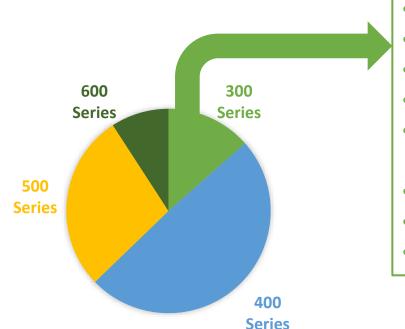






Flood Damage Reduction Activities (300 Series)

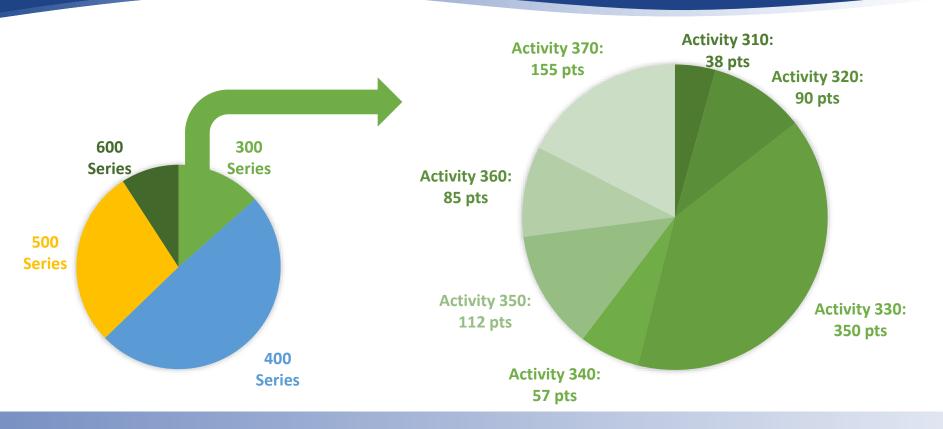




- Construction Certificates
- Pinellas County Flood Map Service
- Education and Outreach (FRMPIWG)
- Hazard Disclosure for Real Estate Professionals
- Floodplain-related publications available at the Public Library Cooperative
- Flood Information on County Website
- Providing on-on-one property protection advice
- Flood insurance assistance

Flood Damage Reduction Activities (300 Series)





300 Series Activities



Know Your Flood Risk



SECTION A - PROPERTY INFORMATION

A2. Building Street Address (including Apt., Unit. Suite, and/or Bldg, No.) or P.O. Route and Box No.:

A3. Property Description (e.g., Lot and Block Numbers or Legal Description) and/or Tax Parcel Number:

A1. Building Owner's Name:

A5. Latitude/Longitude: Lat.

U.S. DEPARTMENT OF HOMELAND SECURIT Federal Emergency Management Agenc National Flood Insurance Program

ELEVATION CERTIFICATE IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19 Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Flood Information



several inches of rain in a short period of time or after several days of continued rain. Huntcares, tropical atoms and other threatening wealther can present flood hazards to residents due to high tides, storm surges. caused by winds and heavy ramfall.

Flood zones are not the same as evecu for assessing a property's food risk, whi trootcal storms and furnisares. Evacual vulnerability to story; surge from a hurri which may be high, moderate or low ris

- · Find your flood zone:

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

lood Maps & Zores

End your execution accer.

Flood Insurance Discount

By providing the flood services mentioned in this by proving the noon services memorined in this brochure and participating in the National Flood Insurance Program Community Rating System (CRS), many residents and businesses throughout Pinellas County are eligible for a discount on their flood

Unincorporated residents and businesses may receive up to a 25 percent premium discount, which is a cumulative savings of more than \$5.5 million a year for policyholders. Discounts vary by municipality. so check with your flood insurance agent to make sure your flood insurance policy is rated correctly and you are receiving the correct CRS discount. With your continued support, there is an opportunity to save even more in the future. For more information about your flood risk, visit www.pinellascounty. org/flooding or contact the Flood Information Services at (727) 464-7700. Go to www.floodsmart. gov or call toll-free (888) 379-9531 for more













Welcome to the Pinellas County Flood Map Service

My Flood Risk

FEMA Flood Zones

Learn Nove About Pretminery Popul Dines



Preliminary FEMA FIRM



A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.): Long. Horizontal Datum: NAD 1927 NAD 1983 WGS 84 A6. Attach at least two and when possible four clear photographs (one for each side) of the building (see Form pages 7 and 8).

Flood Insurance Assistance

845 180th Ave E

Manatee Co



Dear Mrs. Foster:

I am pleased to serve on the Pinellas County Program for Public Information (PPI) and Flood Insurance Plan Committees. I will take part in three meetings per year to help the County develop, implement, and evaluate outreach projects and initiatives. I am also pleased to participate in the Pinellas County Flood Insurance Advocate Service to advise people in Pinellas County and its municipalities who have questions about flood insurance. I understand that Pinellas County Flood Insurance Advocate contact information will be made available to the public on the Pinellas County Flood Information website. I agree to respond to inquiries that I receive about flood insurance via phone, email, and in person and maintain records of this service.

12/31/2019 Insured

Sincerely,

Ashley Tharp

Ashley Tharp AIS, AINS, ANFI, CFM X

Corporate Agent Training Manager

800-820-3242 x 5510

Ashley.Tharp@weareflood.com

The flood insurance providers on the <u>Pinellas County Program for Public</u> Information (PPI). Committee serve as insurance advocates to the Count to advise people who have questions about flood insurance. The following PPI volunteers are prepared to answer questions you may have about floo insurance and the National Flood Insurance Program (NFIP). There is no

- Harr & Associates Insurance, Inc.
- Kimberly Harr (727) 393-9146 ~ <u>Kim@harrins.com</u>
- Insurance Resources, LLC
- Brian T. Ford, CPCU, CIC, MBA, ARM (727) 345-0242 - <u>BFord@InsuranceResources.com</u>
- Wright Flood

Referred by

Estate T

website

CeCe

 Ashley Tharp, AIS, AINS, ANFI, CFM, Corporate Agent Training Manager Ashley.Tharp@weareflood.com

	3/6/2020	Community (Noah)	City of St. Petersburg	City of St. Petersburg	Rating info/EC needed	Lisa Foster Ashle	y Tharp, Ale
	4/29/2020	realtor	Maderia Beach	Maderia Beach	Flood Insurance Requirement for unit owners	real estat (800)	820-3242 x 5510 - A
	5/4/2020	Insured	Lions Club Beach House	Treasure Island	Rating info/policy review - COVID 19 FEMA guidance	Lions club Member	phone
	5/19/2020	Insured	1545 Citrine Trl	Tarpon Springs	quote	website	email
Ì	5/28/2020	Insured	150 Annwood Rd	Palm Harbor	Flood zone risk factors	website	phone
	6/17/2020	community (LisaF)	Pinellas co	Pinellas county	Newly Mapped rating/handling	website	phone
	7/13/2020	Insured	Lions Club Beach House	Treasure Island	rating/policy information -	Lions club Member	email
	8/5/2020	community (LisaF)	Pinellas co	Pinellas county	CBRA insurance	website	email
	8/28/2020	Insured	923 Ivanhoe Way S	St. Petersburg	Cost of flood insurance	Lisa Foster	phone
	12/2/2020	Insured (Hollis)	847 180th Ave	Redington Shores	Claim handling	Lisa Foster	phone
	12/17/2020	Community (Lisa)	Pinellas co	Pinellas county	Claim handling	Lisa Foster	email
	12/17/2020	Community (Lisa)	Pinellas co	Pinellas county	Rep Loss/Claim Handling	Lisa Foster	email
	12/19/2020	Brian Murray	14033 E Parsley Dr	Maderia Beach	Claim handling	Lisa Foster	email
ĺ	12/21/2020	Anna	Maderia Beach	Maderia Beach	Claim handling	website	phone
ı	1/4/2021	Brian Murray	14033 E Parsley Dr	Maderia Beach	Claim handling	Lisa Foster	phone
ľ							

Flood policy

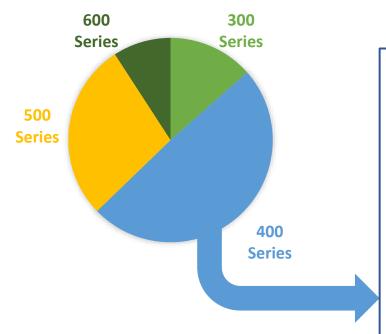
Rating info/map changes

Jurisdiction (City

City of St.

Flood Damage Reduction Activities (400 Series)

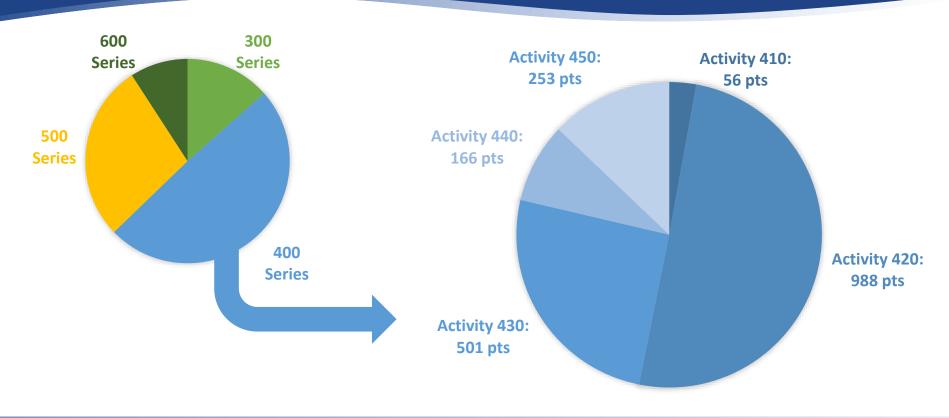




- Conducting and adopting flood studies
- Preserving floodplains as open space
- Freeboard requirements
- Lower substantial improvement threshold
- Coastal A Zone meeting V Zone requirements
- Enclosure limits
- Local drainage protection
- Soil and erosion control
- Water quality regulations
- Stormwater management regulations

Flood Damage Reduction Activities (400 Series)





Types of Flood Data





Pinellas County Floodplains – Coastal

- FEMA Flood Insurance Study (FIS) & Flood Insurance Rate Map (FIRM)
- Pinellas County Vulnerability Assessment



Pinellas County Floodplains – Non-tidal

- FEMA Flood Insurance Study (FIS) & Flood Insurance Rate Map (FIRM)
- Pinellas County Stormwater Master Plan (SWMP) and Watershed Management Plans (WMPs)

FEMA FIS and FIRM



- Coastal Update Only
 - Started in 2012, Became Effective August 2021
 - Base Flood Elevations (BFE) provided on Flood Map Service
 - Except for un-numbered A-zones
 - May need to add 0.4' to the BFE depending on Coastal Floodplain

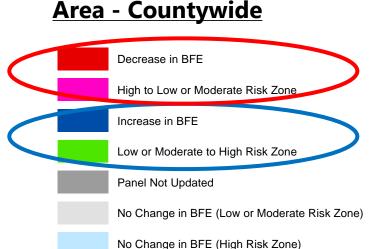
Uses:

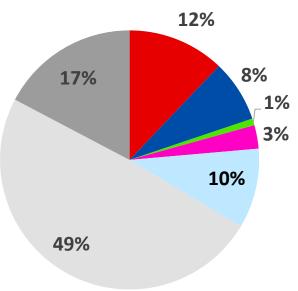
- Determining Federal Flood Insurance Requirements
- Building Regulations Minimum
 - When not superseded by Best Available Data

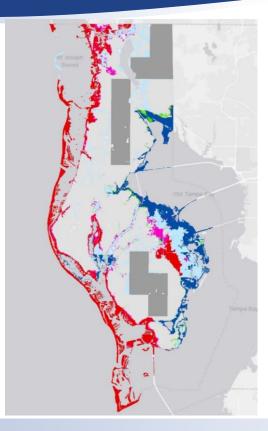
Flood Insurance Rate Map (FIRM) Update



Overview of Changes from 2009 FIRM to New FIRM





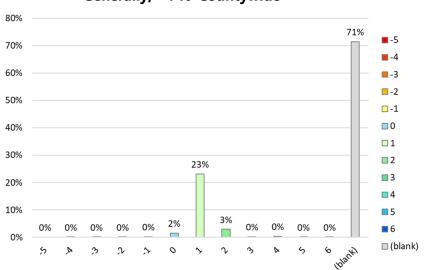


Pinellas County Vulnerability Assessment



BFE Difference from 2009 FIRM to Vulnerability Assessment

Generally, +1 ft Countywide





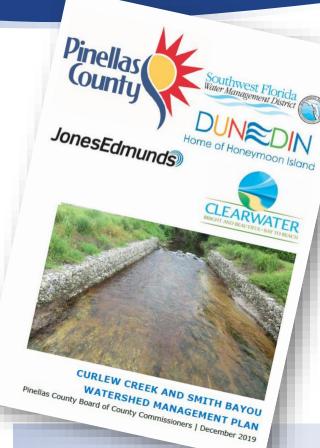


Watershed Management Plans (WMP)



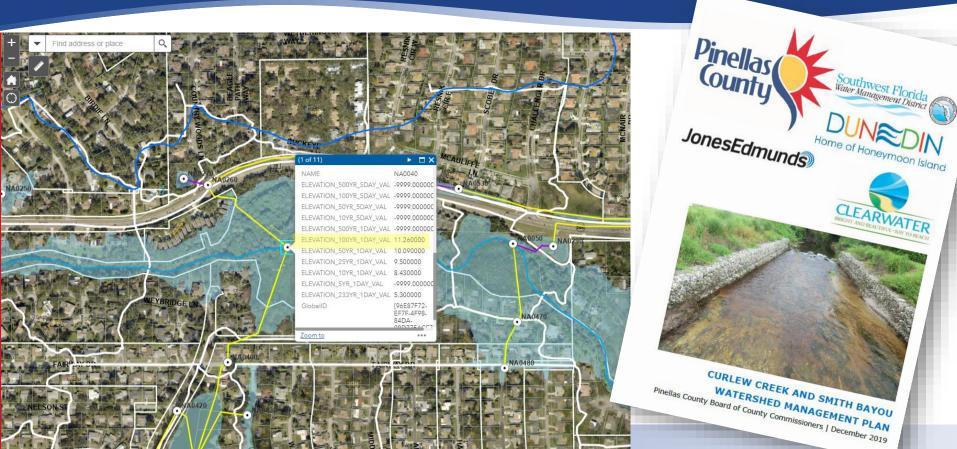
A Lump Sum Fee of: Three Hundred Seventy-Four Thousand Four Hundred Forty-Three and 00/100 Dollars (\$374,443.00) for the Task 2.1.4 – Watershed Management Plan Phase of the PROJECT.

2.1.4.1	Watershed parameterization	\$51,948.00	
2.1.4.2	Interim Preliminary Model Review	\$4,596.00	
2.1.4.3	Floodplain Analysis	\$62,598.00	
2.1.4.4	Public Notification	\$5,176.00	
2.1.4.5	Public Meeting	\$5,118.00	
2.1.4.6	Revised floodplain analysis and delineation	\$14,962.00	
2.1.4.7	Presentation to Governing Board	N/A	
2.1.4.8	Sea-level Rise (SLR) Scenarios (Future Task - \$13,528.00)	N/A	
2.1.4.9	Critical Storm Analysis (Future Task - \$13,128.00)	N/A	
2.1.4.10	Level of Service Determination	\$20,098.00	
2.1.4.11	Surface water resource assessment (water quality only)		
2.1.4.11.1	Water Quality and Watershed Assessment	\$25,080.00	
2.1.4.11.2	Pollutant Loading Estimates	\$68,440.00	
2.1.4.11.3	Water Quality Monitoring Plan	\$4,500.00	
2.1.4.12	Geomorphic Analysis (Future Task - \$118,035.00)	N/A	
2.1.4.13	Best Management Practices (BMP) alternative analysis	\$46,681.00	
2.1.4.14	Project management and quality assurance/control	\$29,656.00	
2.1.4.15	Final approved deliverables for the Watershed Management Plan	\$16,314.00	
2.1.4.16	Final Watershed Management Plan Report	\$19,276.00	



Watershed Management Plans (WMP)





Watershed Management Plans (WMP)



Best Management Practices (BMP) Analysis



Proposed Curb Proposed Drainage Pipe roposed Inlet

Figure 5.11 N. Disston Avenue Drainage Improvements Conceptual Layout





Management Plan February 2021 Figure 5.12 N. Disston Avenue pre/post Flood Extents 10yr 24 hr Design Storm Event

Stormwater Manual



■ Chapter 2 – Stormwater Quantity and Flood Control Requirements

2.1. Stormwater Quantity Introduction

This Chapter provides the design criteria and methodologies for meeting the water quantity and conveyance requirements of the County's Land Development Codes. The criteria are intended to govern the design of new systems as well as the analysis and/or redesign of existing systems.

- 2.2. Design criteria.
- 2.2.1. Discharges to open watershed basins.

The following criteria are for design of stormwater management systems that discharge to an open watershed basin:

The maximum allowable discharge for systems serving new developments and redevelopments will be limited to:

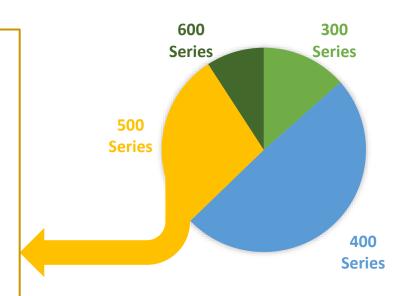
- The historic discharge (as defined in the SWFWMD ERP handbook, volume 2, page 15), which is the peak rate at which runoff leaves a parcel of land under existing site conditions, for the 10-year / 24-hour and 25-year / 24-hour storm events, or
- The allowable discharge per the last legally approved site plan at the time of application for the 10-year / 24-hour and the 25-year / 24-hour storm events.
- The rate of runoff leaving the site will not cause adverse off-site impacts.
- The Natural Resources Conservation Service (NRCS), formerly known as the Soil Conservation Service (SCS), type II Florida Modified 24-hour rainfall distribution with an antecedent moisture



Flood Damage Reduction Activities (500 Series)



- Repetitive loss area analysis
- Substantial Damage Management Plan
- Acquiring and relocating buildings
- Elevating building above the flood level
- Capital improvements program
- Prohibition of dumping regulations
- Channel debris inspection and removal
- Hotspot identification, inspection, and maintenance



Flood Damage Reduction Activities (500 Series)





Repetitive Loss Area Analysis





Repetitive Loss Area Name

PELICAN CREEK

Watershed Name

BEAR CREEK

Repetitive Loss Area UID

21001

Repetitive Loss Area 2022 Comments

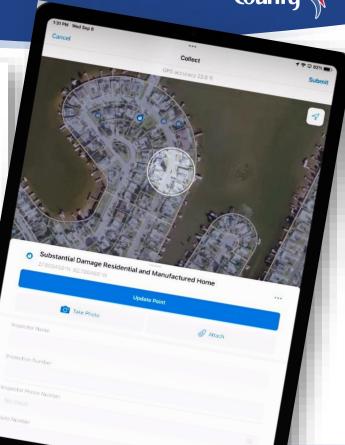
Add - Flooding with Eta; Low lying coastal area; Field inspection in 2021 - flume dishcarges into bear creek, tidally influenced and compound flooding with precip; no blockages

Substantial Damage Plan



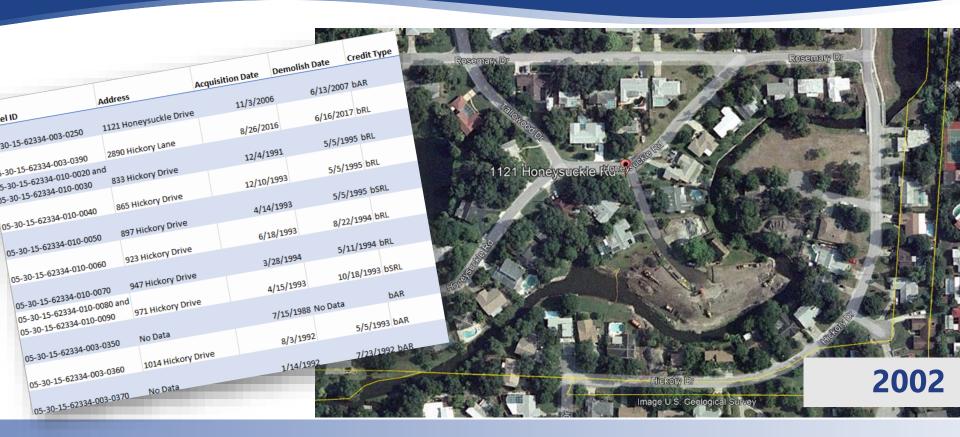
TABLE OF CONTENTS

1	Introduction	1	
1.1	Substantial Damage Definitions		
2	Pinellas County Substantial Damage Vulnerability	3	
2.1	Areas of Concern for Substantial Damage		
2.2	Consideration of Mitigation Alternatives		
3	Substantial Damage Management Team		
3.1	Staff and Resource Needs		
4	Property Database		
4.1	Sources of Information	10	
4.2	Compliance with the Federal Privacy Act	19	
APPEN	IDIX A Substantial Damage Areas		
APPEN	DIX B Substantial Damage Inspection Reference Materials		
APPEN	IDIX C Substantial Damage Determination Reference Materials		



Acquisition, Relocation, and Elevation





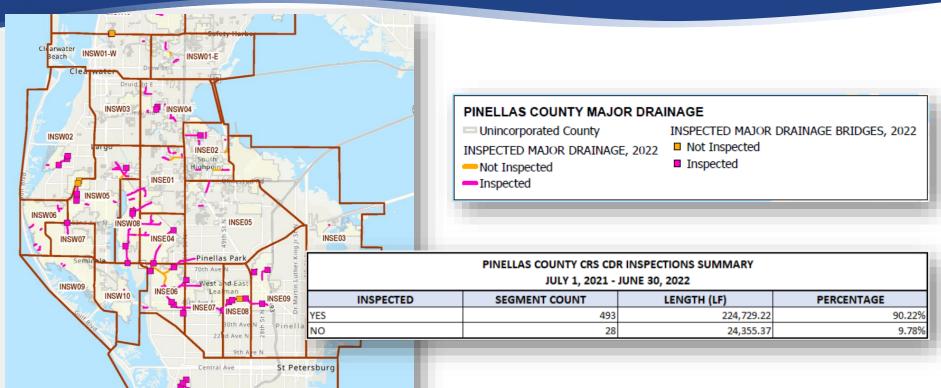
Acquisition, Relocation, and Elevation





Channels, Hotspots, and Storage Basins

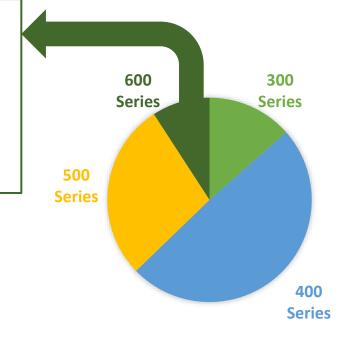




Flood Damage Reduction Activities (600 Series)



- Flood Warning and Response
- Identification of impending flood threats
- Monitoring gauge levels
- Coordinating flood response activities
- Annual flood exercise
- StormReady Community



600 Series Activities

Volun



Pinellas County Comprehensive Emergency Management Plan





The West Central and Southwest Florida Storm Read Advisory Board has Approved

Pinellas County

for

STORM READY RECOGNITION

until July 17, 2027





PUBLIC WORKS DEPARTMENT 2022

Approved Kelli Hammer Levy Emergency

Response Plan May 16, 2016 Incorporate Engineering, Construction Admin and Survey and Mapping Staff Incorporate SOG for PW Mutual Aid Deployment

"FOR OFFICIAL USE ONLY"

PROTECTED BY FLORIDA STATUTES CHAPTER 381301
EMERGENCY RESPONSE PLANS ARE NOT PUBLIC RECORDS
PLANS ARE CONTIDENTIAL, SECURED, PROTECTED DOCUMENTS

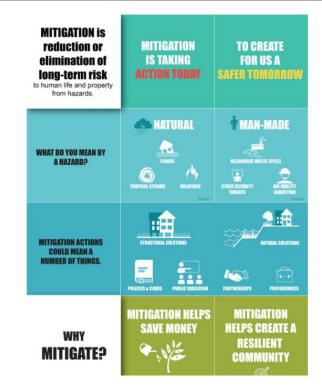
Appendix: Program for Public Information (PPI)

Flood Response Plan (330 FRP) Flood Insurance Improvement Plan (370 FIA, CP, & CPI)



Introduction Risk Overview Hazards Community Risks Mitigation Planning

WHAT IS MITIGATION?



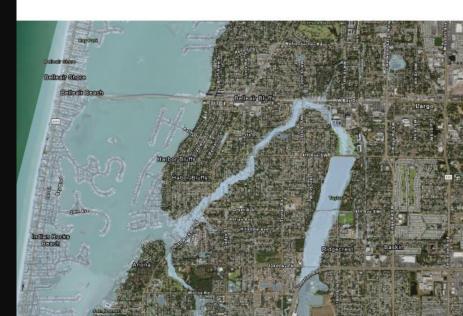
Flood Risk and Mitigation Public Information Working Group (FRMPIWG)

- 17 Municipalities plus County
- Meet three times per year
- 10 Topics with Key Messages

PINELLAS COUNTY MULTI-JURISDICTIONAL PROGRAM FOR PUBLIC INFORMATION

Pinellas County | November, 2019





Prerequisites



- Repetitive Loss Outreach for Category B or C (any repetitive loss properties) with sources of financial assistance identifies (grant programs, etc.)
- Receive 90% or higher on Construction Certificates
- Construction Certificate Management Procedures
- Flood insurance policies on community owned buildings in SFHA
- Show LiMWA on final FIRM
- 1 ft Freeboard (including mobile homes)

- BCEGS Classification
- Open Space AND Higher Development Regulations
- Watershed Master Plan (with future conditions consideration)
 - Must include sea level rise for coastal communities
- Water Quantity UP TO and INCLUDING 100-yr
- Floodplain Management Plan
- Flood Warning and Response Plan (with levees and/or dam failure threat)



Questions?

Maxine Moore, CFM
Floodplain Technician
(727) 464-8206
MMoore@Pinellas.gov



