

# Highlands County and Incorporated Areas Flood Map Modernization

FLOODPLAIN MAP STAKEHOLDER WORKSHOP  
January 19, 2012



# Agenda

- **Introductions**
- **Purpose – Process – Benefits**
- **Background - The Mapping Programs**
- **Flood Mapping Process**
- **Outreach**
- **Resources**
- **Questions**



# The Mapping Programs

## Before Flood Map Modernization

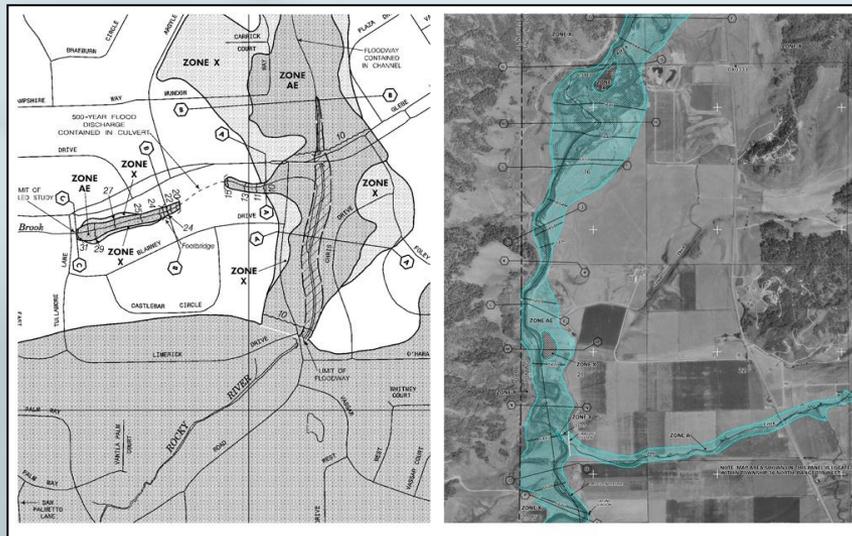
- Outdated Maps; 70% > 10 years old
- Unidentified floodplains; unregulated floodplains
- Building and development in floodplains
- Patchwork quilt of outdated flood studies
- Paper maps with little detail; hard to read



# The Mapping Programs

## Flood Map Modernization Results

- 92% US population will have digital flood maps
- Reduced mapping lifecycle time
- Seamless digital data on county-wide basis
- Integrate with other GIS-based data and maps
- More accurate; more easily accessible



# The Mapping Programs

## FEMA's Next Step – Risk MAP\*

- Mission
  - Deliver quality data that
  - Increases public awareness which
  - Leads to action, reducing risk to life and property
- Engineering Focus on:
  - Levees
  - Coastal
  - Watershed-based mapping

\*Mapping, Assessment & Planning



# Highlands County Mapping Players

## Community:

- Highlands County
- City of Avon Park
- City of Sebring
- Town of Lake Placid

## Unincorporated Areas (e.g.)

- Desoto
- Istokpoga
- Sun n' Lakes
- Palmdale

## Levee District

- Spring Lake Improvement District

## Agency:

- Southwest Florida Water Management District (SWFWMD)
- South Florida Water Management District (SFWMD)
- Federal Emergency Management Agency (FEMA)

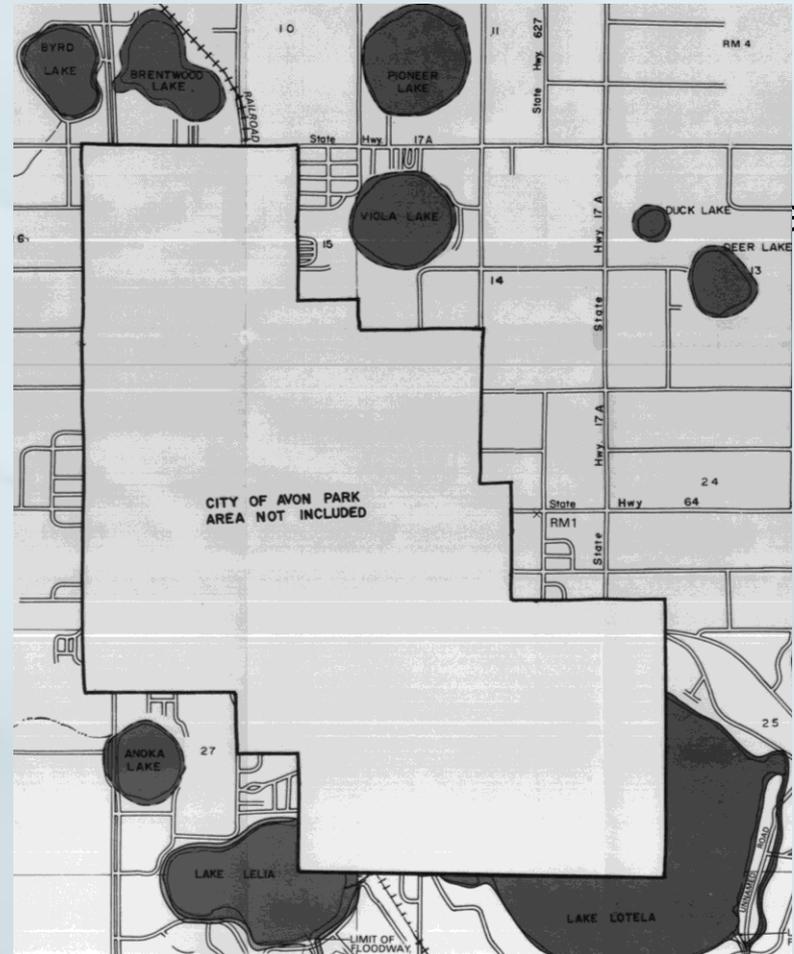
## Agency's Consultants:

- FEMA:
  - Mapping Contractor (Michael Baker, Jr., Inc.)
- SWFWMD:
  - Dewberry
  - Bender Consulting
- SFWMD:
  - Atkins



# Current Effective Map Status

- Map Current Effective Date: 02/16/1983
- Emergency Program:
  - Avon Park; Sebring
- Participating Communities:
  - Highlands County
  - Lake Placid
- Spring Lake Levee
  - Spring Lake Improvement District

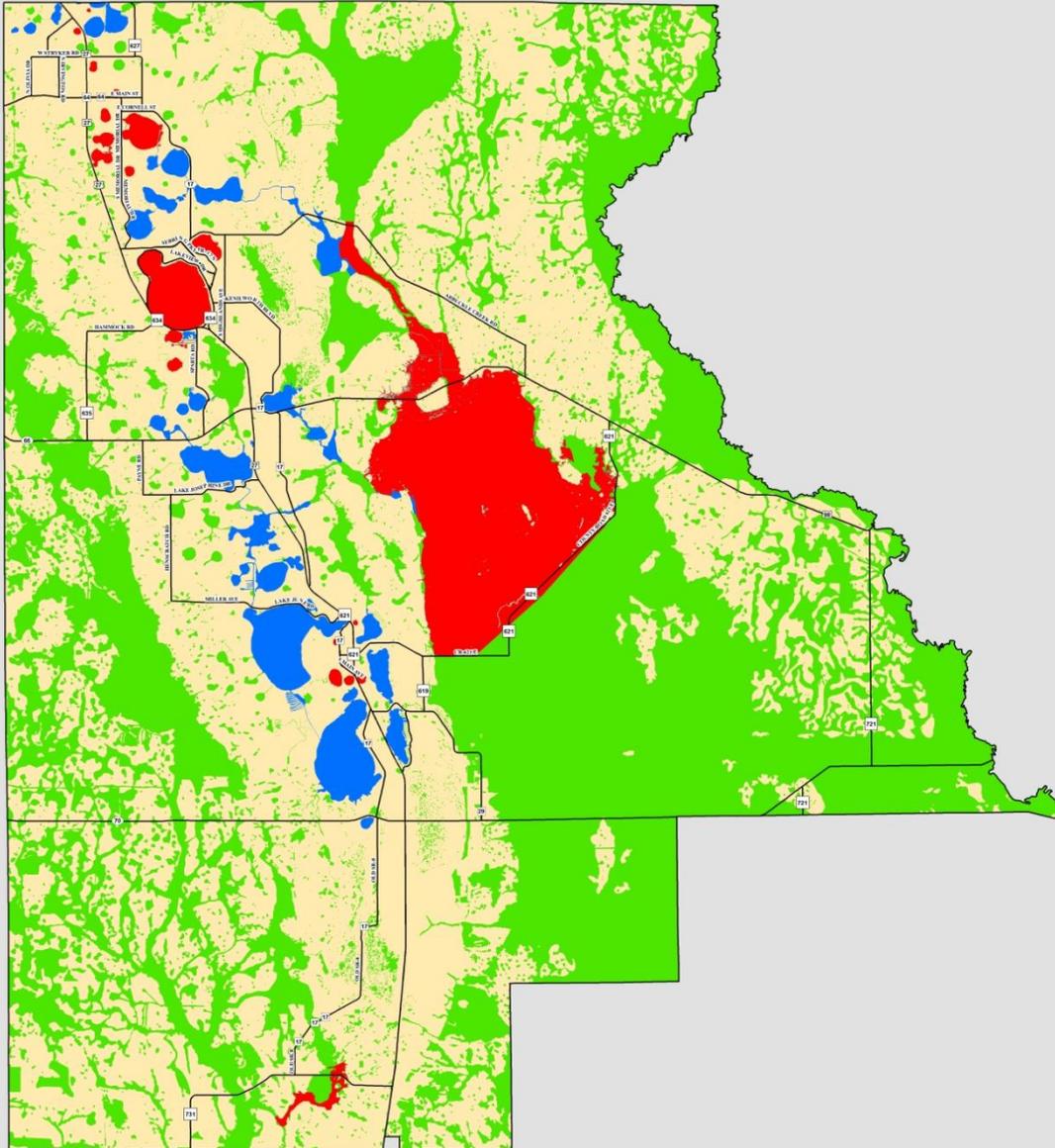


# Map Improvements

- New, more detailed topographic data from LiDAR
- New digital orthophotos for base map
- New detailed studies:
  - SWFWMD: 17 Lakes
  - SFWMD: Arbuckle Creek, Platt Branch, and Lake Istokpoga
- New Base Flood Elevations (BFEs) in some areas
- Redelineations
  - An existing Zone AE which was not restudied, but newer digital elevation data was used to remap the extents of the SFHA.
  - Use of effective Zone A and land use to determine extents of the existing and new SFHA (Historical).
- Incorporation of Letter of Map Changes
- Accreditation of SLID Levee



# Project Scoping

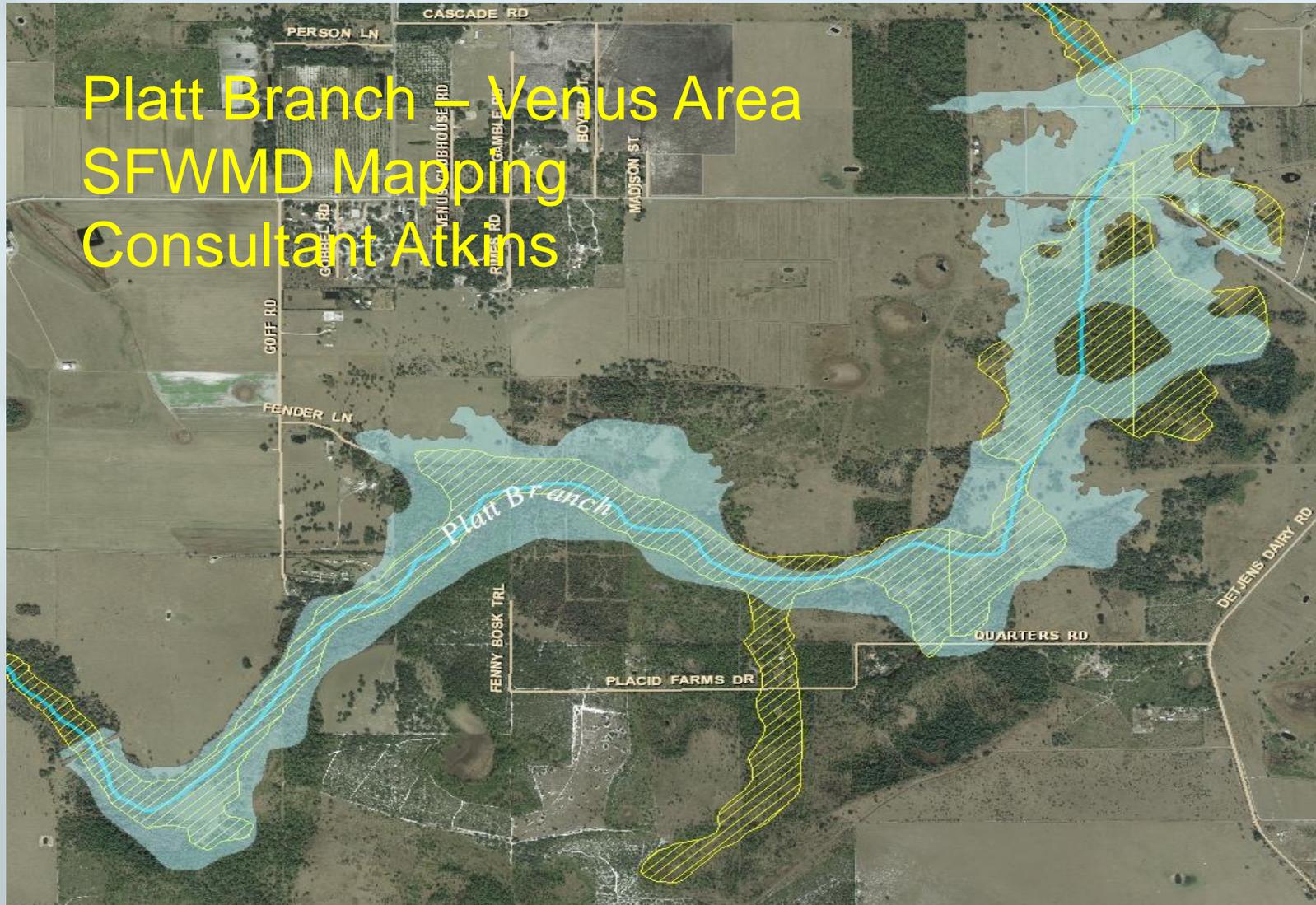


## Legend

-  Redelineation
-  Historical Delineation
-  Detailed Study
-  Highlands County

# SFWMD Detailed Studies

## Platt Branch – Venus Area SFWMD Mapping Consultant Atkins



# SFWMD Detailed Studies

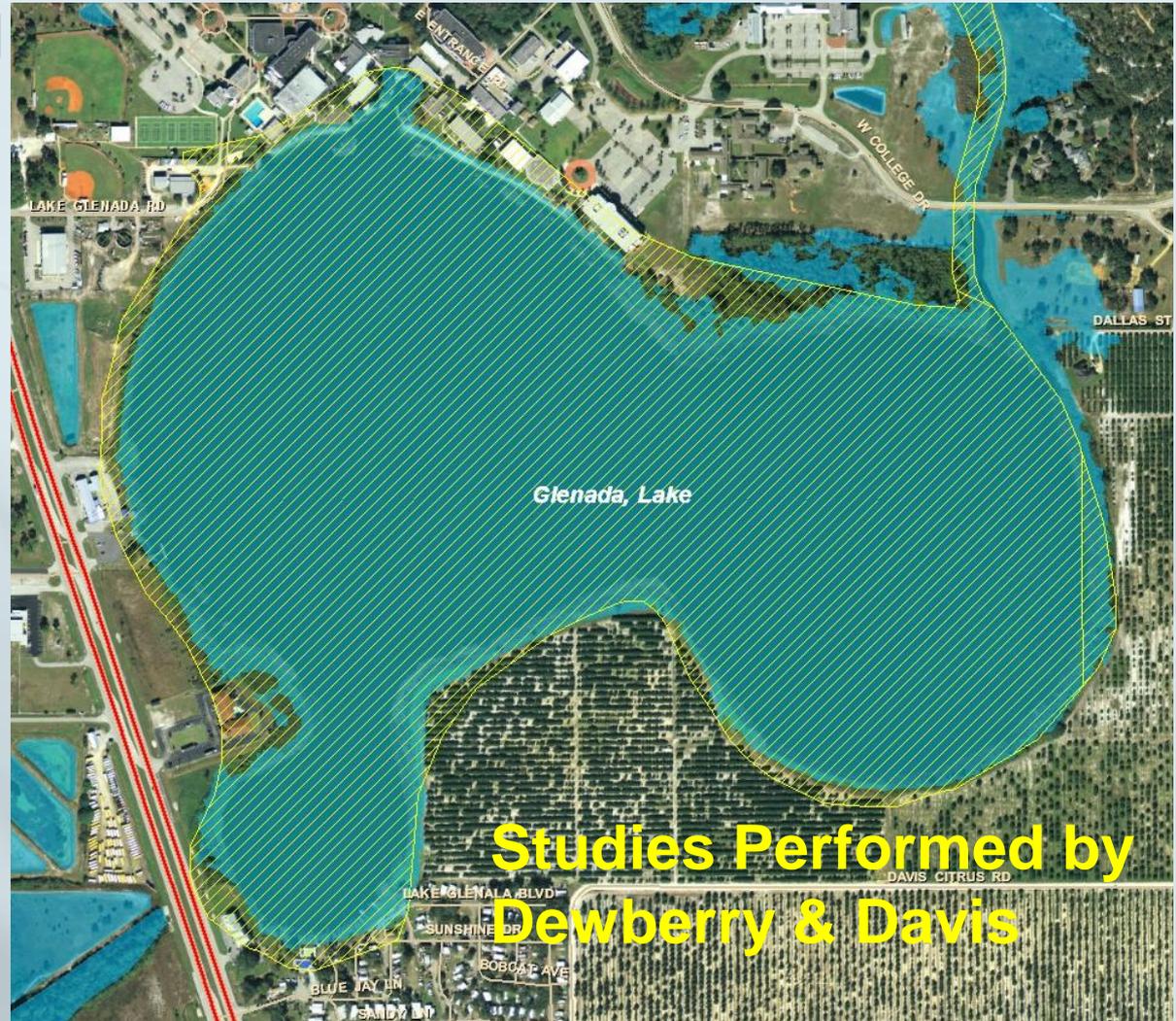
- Lake Istokpoga
- Arbuckle Creek
- Studies Performed by Atkins



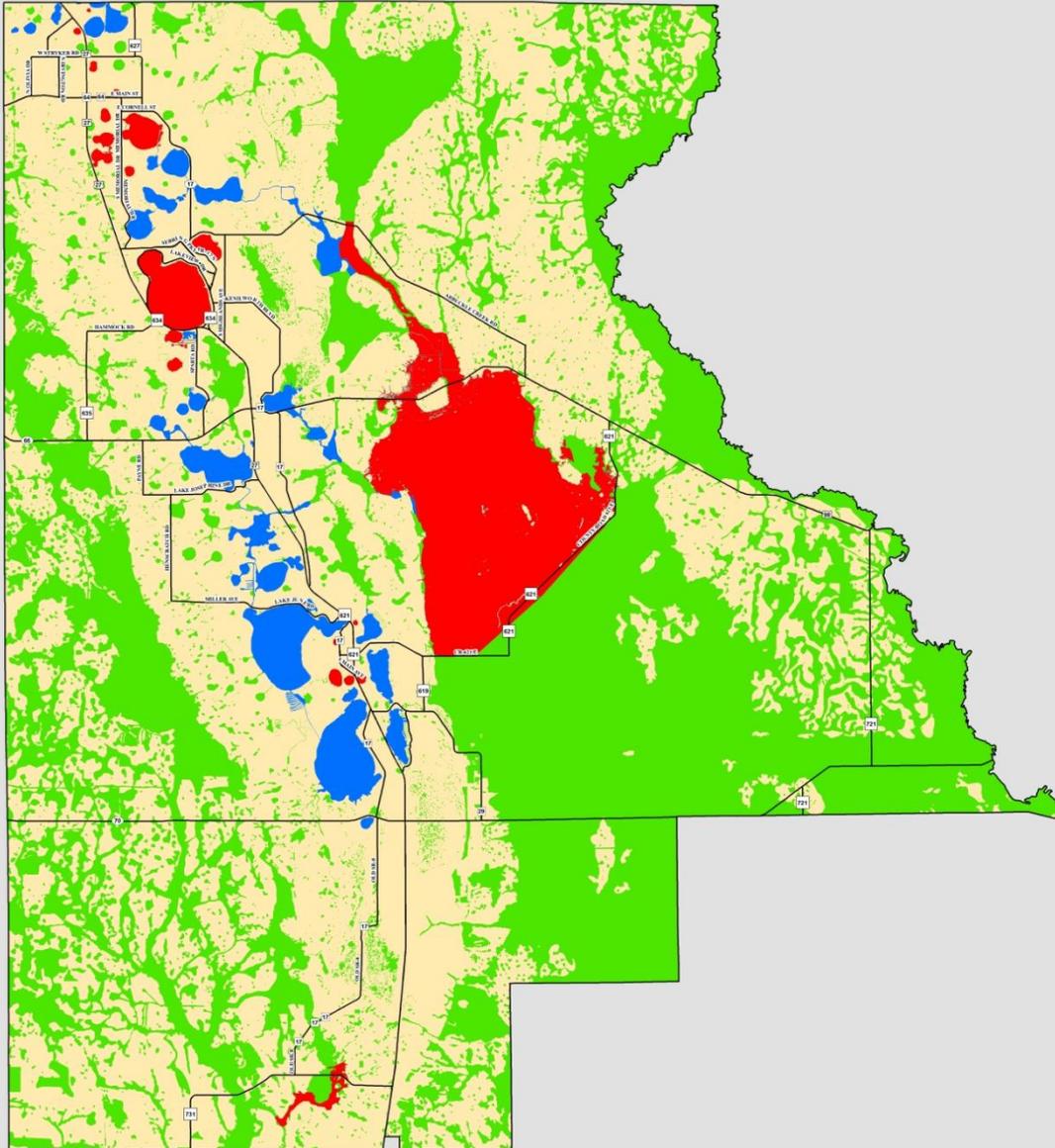
# SWFWMD Detailed Studies

- **17 Lakes Studied in Highlands County**

- Blue Lake
- Lake Denton
- Dinner Lake
- Lake Glenada
- Huckleberry Lake
- Lake Isis
- Lake Jackson
- Little Lake Jackson
- Lake Lachard
- Lake Lelia
- Lake Lillian
- Lake Lotela
- Lake McCoy
- Lake Pansy
- Lake Sirena
- Lake Tulane
- Lake Verona



# Redelineation



## Legend

-  Redelineation
-  Historical Delineation
-  Detailed Study
-  Highlands County

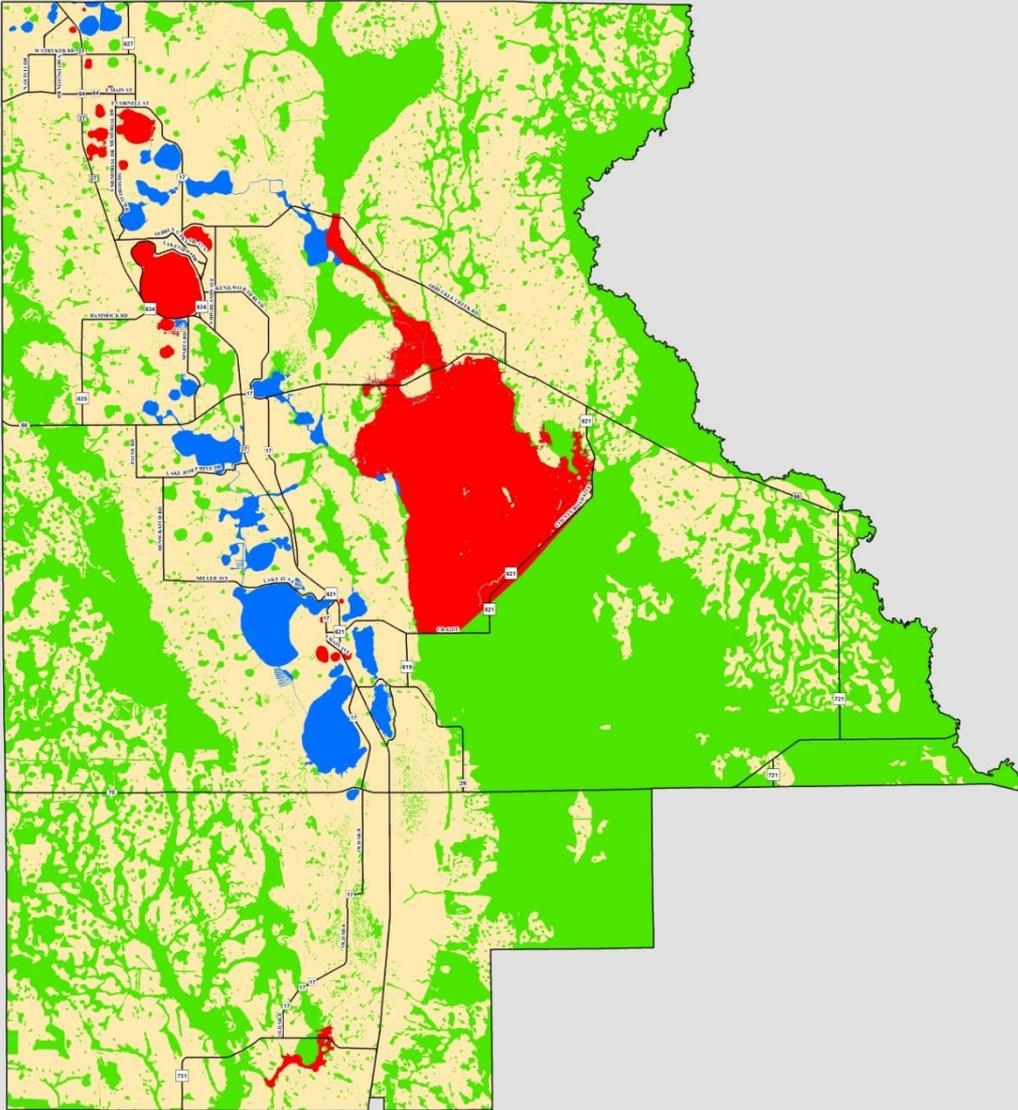
# Redelineation



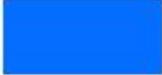
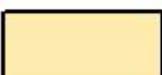
Areas Where Zone AE on Effective FIRMs (1983)  
and New Topographic Data is Available



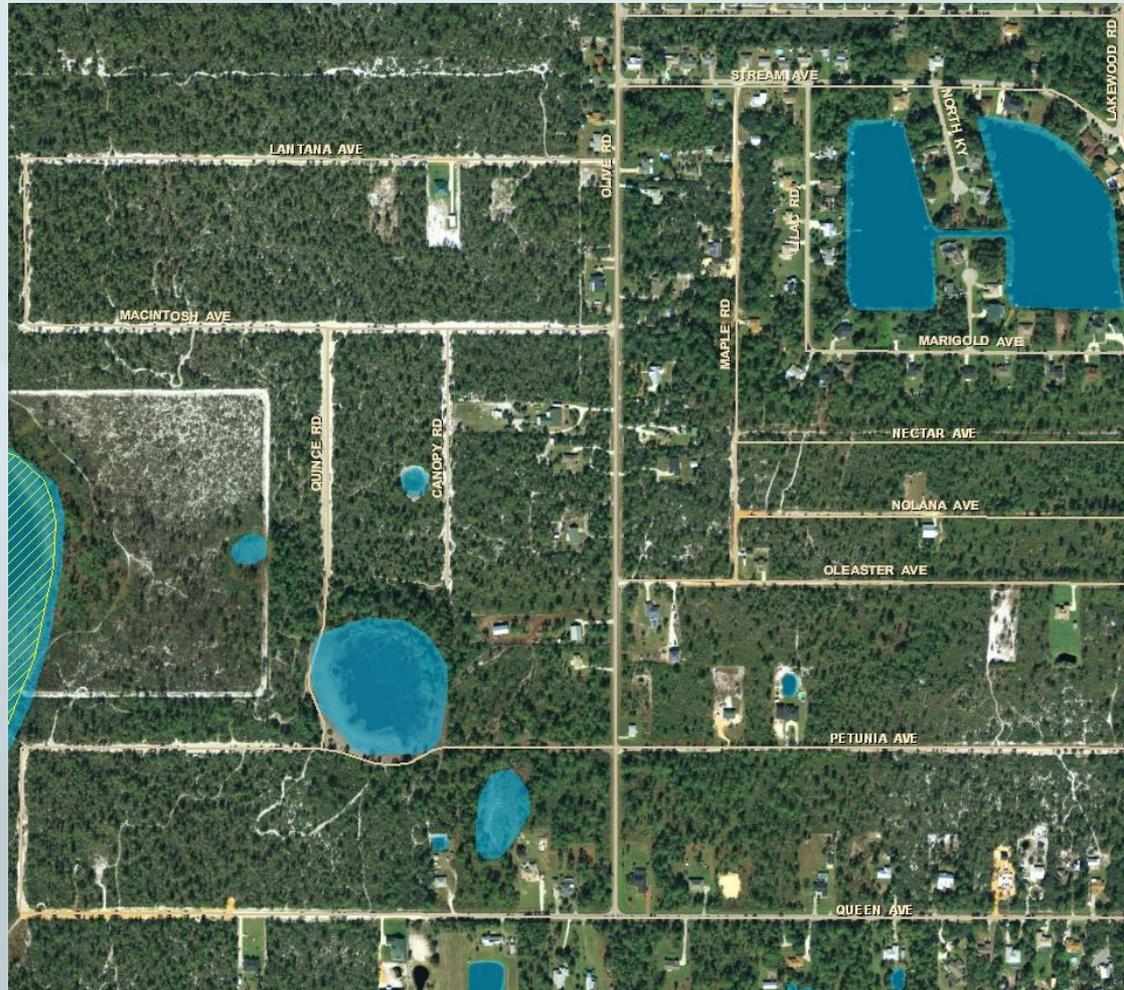
# Historical Delineation



## Legend

-  Redelineation
-  Historical Delineation
-  Detailed Study
-  Highlands County

# Historical Delineation

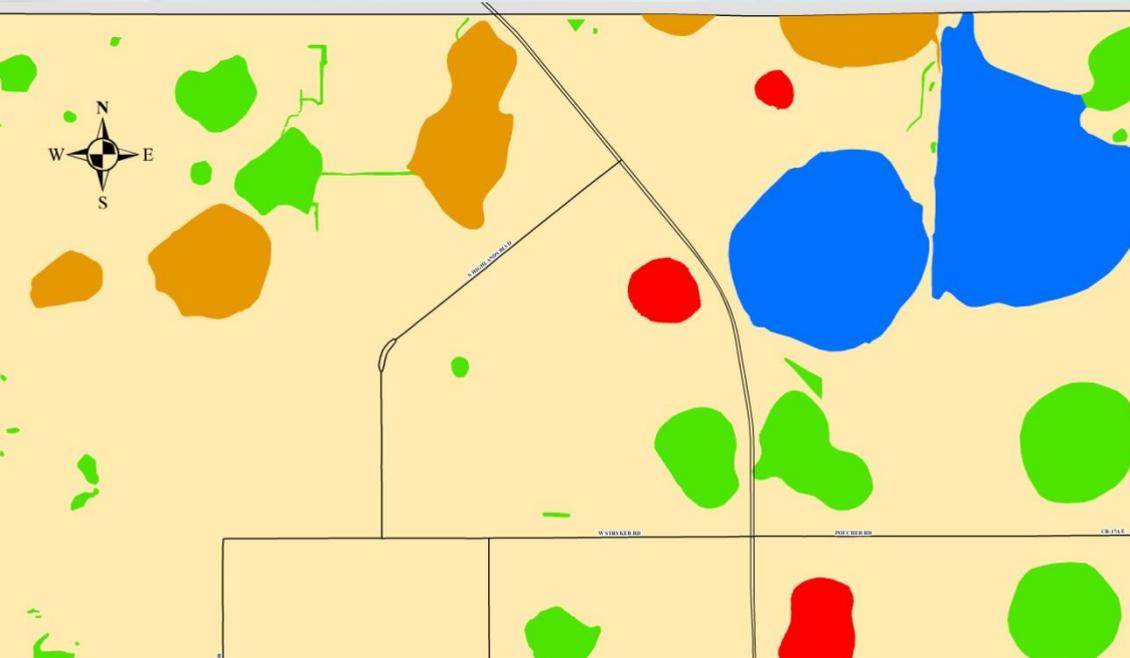


1) Wetlands and Water Bodies from Land Use / Land Cover Data were used to develop Zone A.

2) Effective Zone A were used to develop Zone A

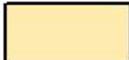


# Redelineation In Progress



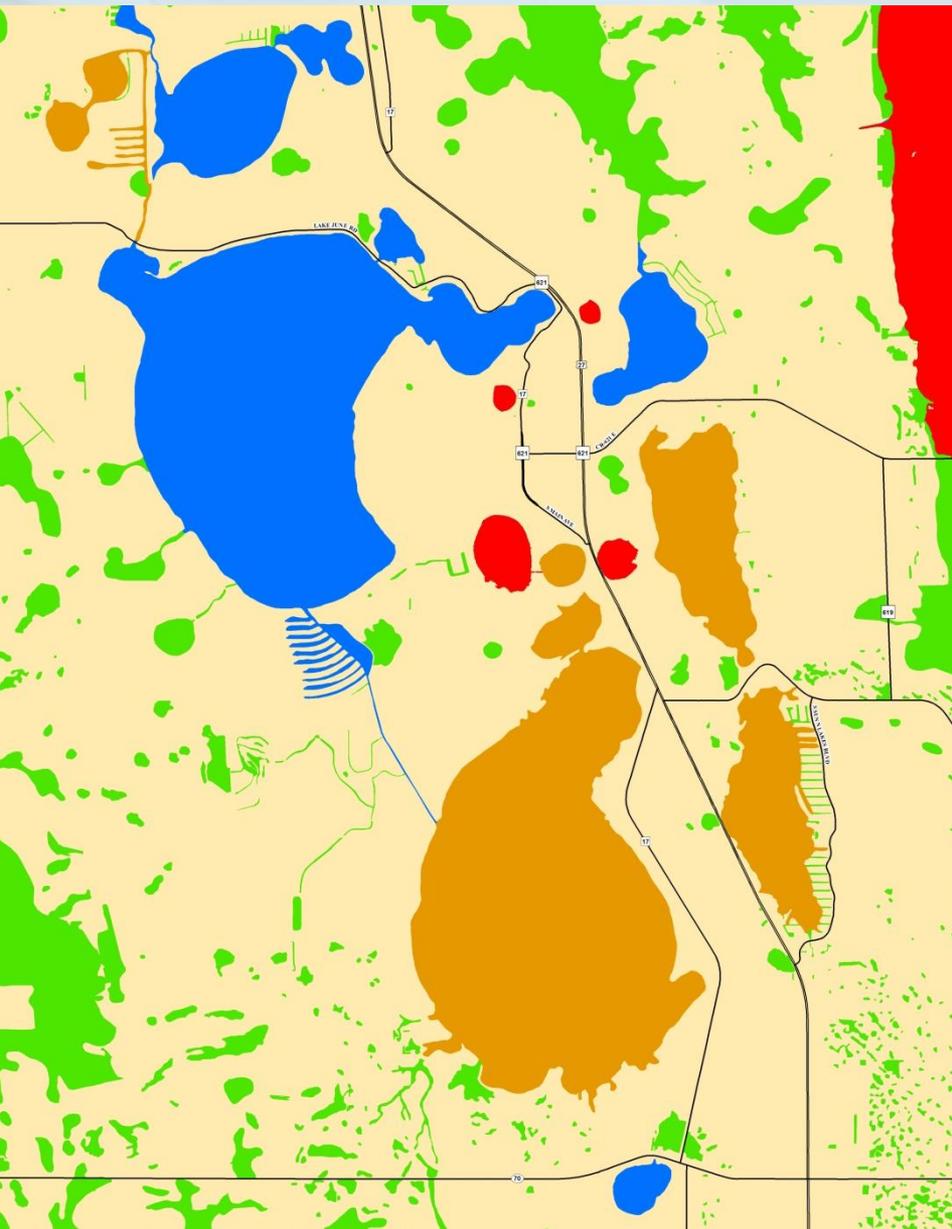
- Lake Adelaide
- Lake Chilton
- Lake Olivia
- Pabor Lake
- Trout Lake

## Legend

-  Redelineation
-  Historical Delineation
-  Detailed Study
-  Highlands County
-  Redelineation in Progress

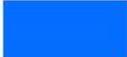
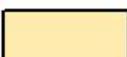


# Redelineation In Progress



- Lake Carrie
- Lake Pearl
- Lake Placid
- Grassy Lake
- Huntley Lake
- Mirror Lake
- Channels between Lake June-In-Winter and Lake Carrie

## Legend

-  Redelineation
-  Historical Delineation
-  Detailed Study
-  Highlands County
-  Redelineation in Progress



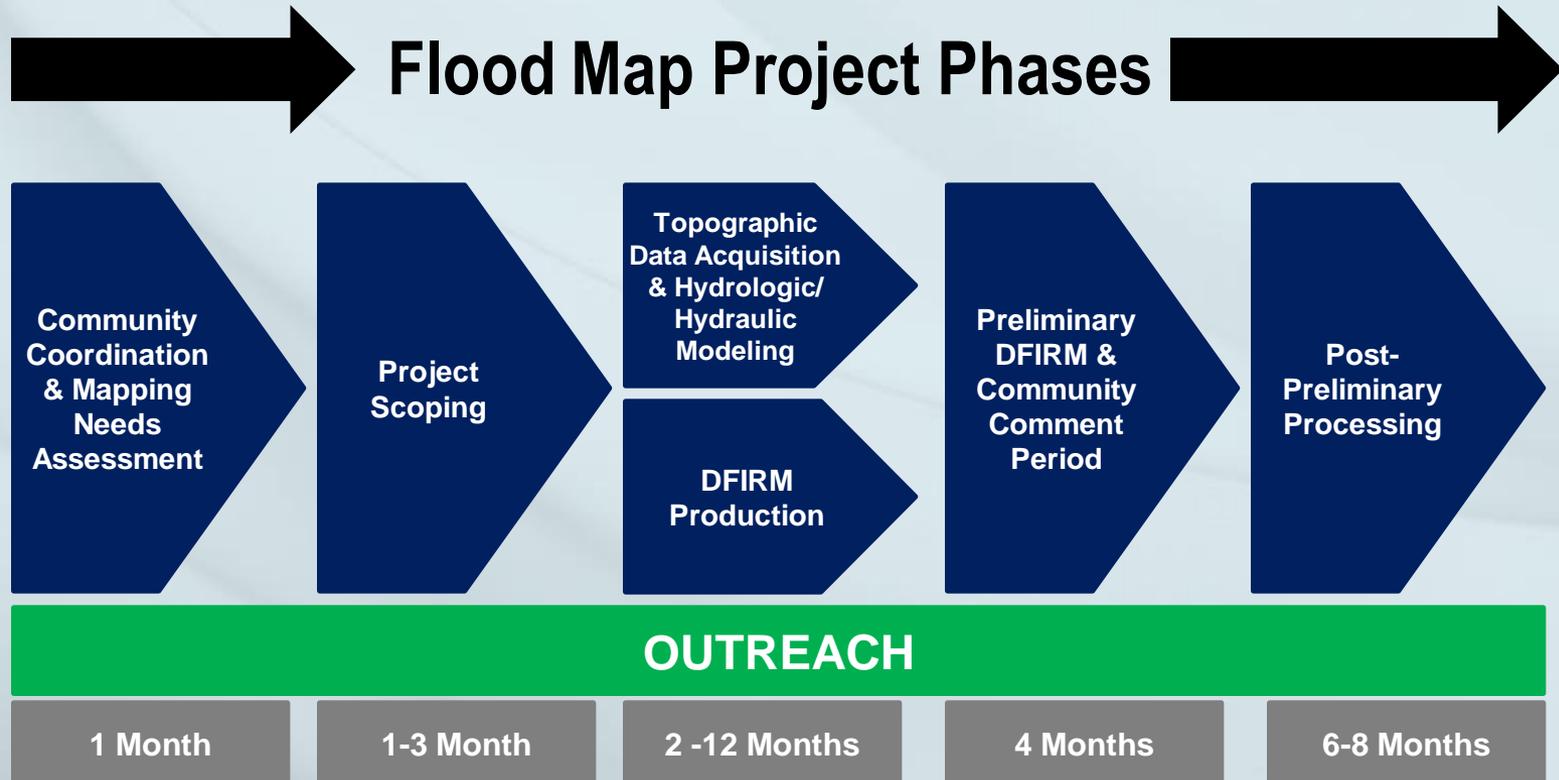
# Project Activity To-Date

<b>ACTIVITY</b>	<b>DATE</b>
<b>Scoping Meeting</b>	<b>June 2007</b>
<b>Stakeholder Meeting</b>	<b>September 2008</b>
<b>SFWMD Study Complete; Draft Maps to Highlands County</b>	<b>January 2011</b>
<b>SWFWMD Study Complete</b>	<b>April 2011</b>
<b>SWFWMD Peer Review Meeting</b>	<b>May 2011</b>
<b>Agency Coordination Meetings</b>	<b>June; August 2011</b>
<b>SFWMD FIRMs Delivered to FEMA</b>	<b>July 2011</b>
<b>Highlands County Project BCC Briefing</b>	<b>September 2011</b>
<b>SWFWMD Public Open House – Studied Area</b>	<b>October 2011</b>
<b>Mail 12,000+ Notices to Residents &amp; Businesses</b>	<b>January 2012</b>
<b>In-reach &amp; Stakeholder Meetings</b>	<b>January 2012</b>



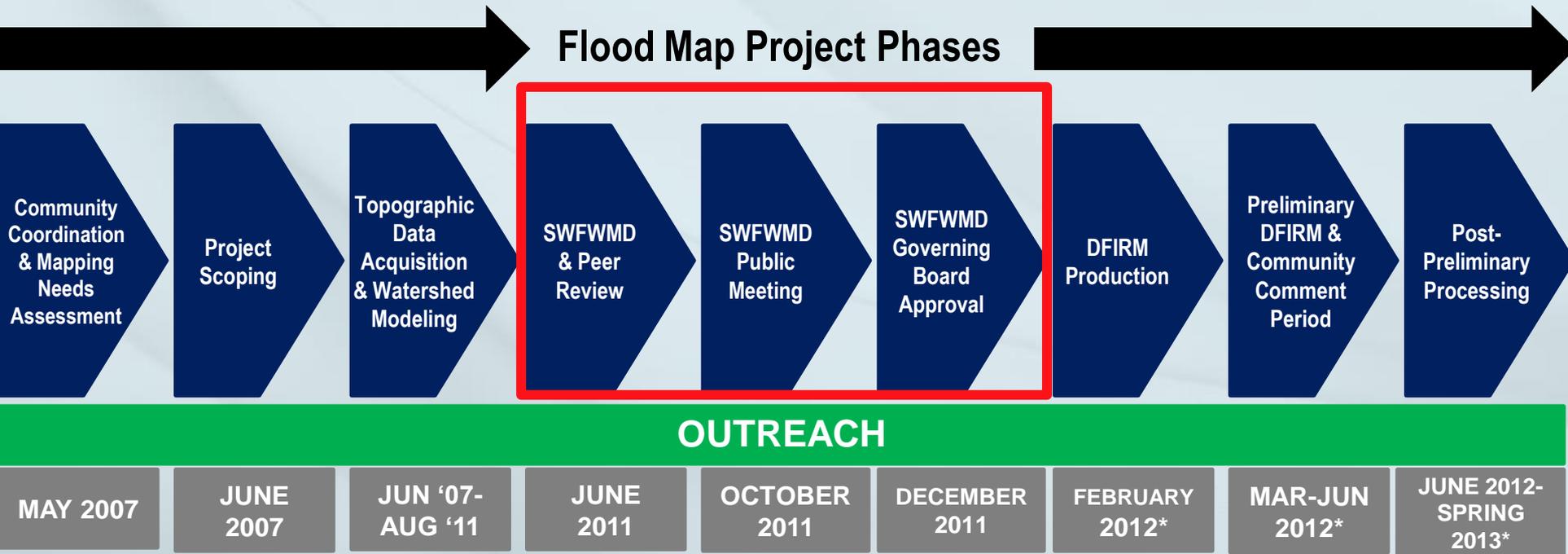
# The Flood Mapping Process

## FEMA's (& SFWMD) Mapping Lifecycle



# The Flood Mapping Process

## SWFWMD's Mapping Lifecycle



\*Date subject to change

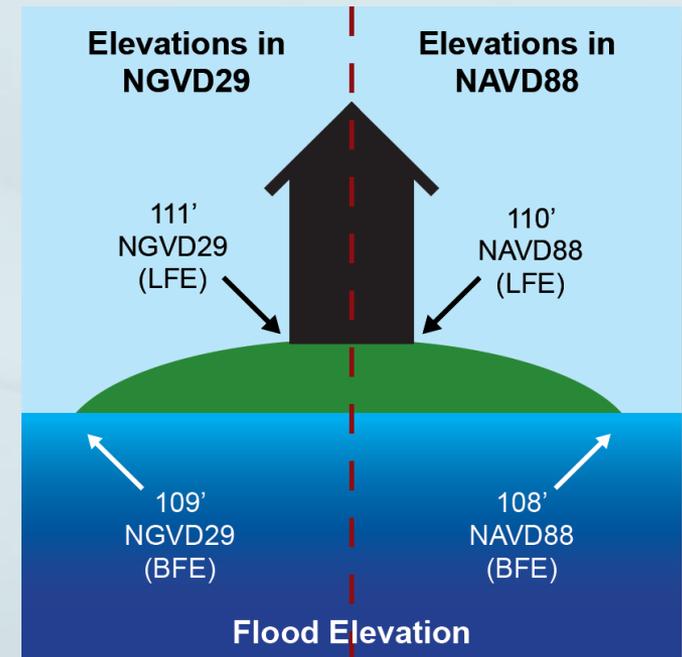


# **Effects of Map Changes on Building**



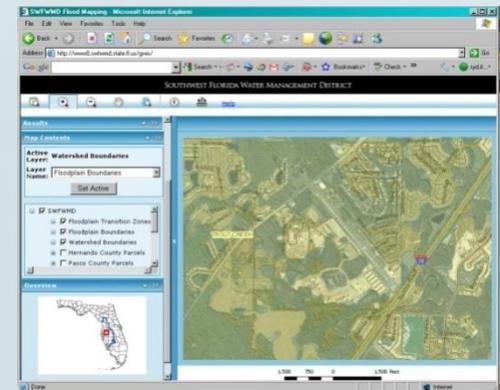
# Effects of Map Changes on Building

- Vertical Datum
  - Does **not** change the relationship of the ground heights to the water surface
  - Does change the value assigned to those heights that are printed on the maps and other supporting documents and data
  - Users of elevation data from multiple sources must take care that the elevation values are based on the same datum



# Effects of Map Changes on Building

- New or revised floodplain information
  - More areas with BFEs to guide development and planning
  - In areas without new detailed studies, water bodies and wetland areas defined as Zone A's
  - Development performed after the digital topographic data collected will be shown on flood maps as “Area Not Included,” but will be included in model
  - May be used for regulatory permitting prior to new FIRMs going effective



# **Effects of Map Changes on Insurance**



# Preferred Risk vs. Standard

- Preferred Risk Rates
  - Must be in Zone B, C, or X at time of application AND *each subsequent renewal*\*
  - Fixed premiums; fixed limits
  - Limited loss history
- Standard Rates
  - Rate Tables provided in Flood Insurance Manual
  - Risks not eligible for Preferred Risk Policy
  - Flexible limits

## NOTE:

\*Effective January 1, 2011:

PRP eligibility is extended *two policy years* after a map change; it then must be re-rated using standard rates.



# Effects of Map Changes on Insurance

## Effective Dates

- 30-days
- 1-day
- 0 days



# Effects of Map Changes on Insurance

1. Properties *move into a high-risk zone* (A or V) from a low- or moderate risk zone (B,C,X) (e.g. Grandfathering)
2. Properties *move into a low- or moderate risk zone* (B, C, X) from a high-risk zone (A or V) (e.g. Conversion)
3. There is a *change in Base Flood Elevation* (BFE)
4. There is a *change in vertical datum*
5. There is *no change*....but are they fully insured?



# Effects of Map Changes on Insurance

**Moderate- or Low-Risk (B, C, X zone)**



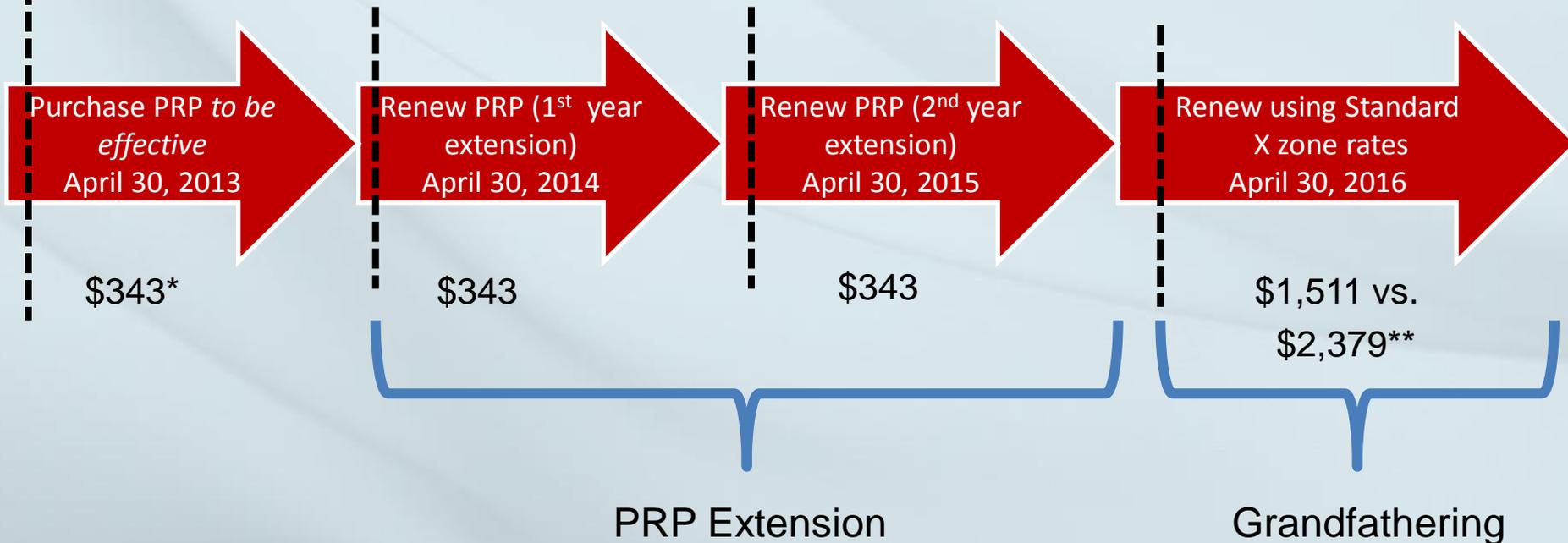
**High Risk (A, AE zone)**

- Federal Mandatory Purchase Requirement
- Risk increases so premium increases
- FEMA provides cost-saving options:
  - Preferred Risk Policy is extended 2 years for eligible properties; *THEN*
  - Eligible properties can *grandfather the lower risk zone* for future rating.
  - Use higher deductible (if allowed by lender)
  - Mitigation (e.g., elevate)



# PRP 2-Year Extension & Grandfathering

Map Effective  
May 1, 2013



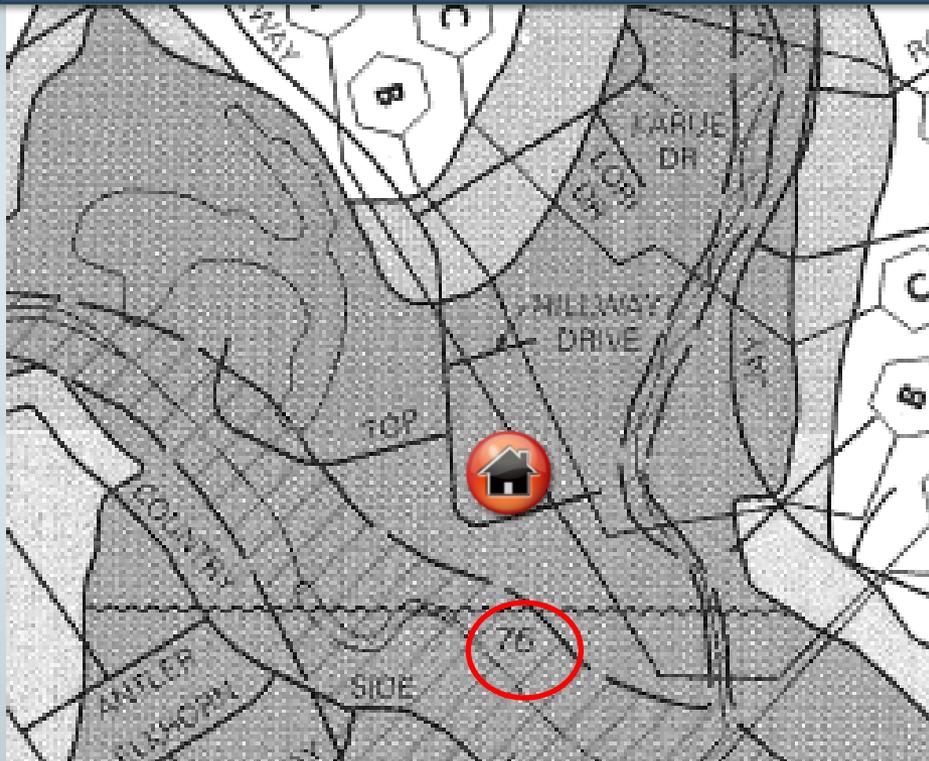
\*These premiums are for illustration purposes only; they actually could increase each year due to normal increases in rates for that zone. Premiums are for \$200,000 building/\$80,000 contents as of October 1, 2011.

\*\* Pre-FIRM A zone premium if not grandfathered (October 1, 2011 rates)



# Previous Map | Previous BFE

77'-76' = +1 (Elevation Difference)



Premium = \$834

NATIONAL FLOOD INSURANCE PROGRAM

**FIRM**  
FLOOD INSURANCE RATE MAP

City of Floodville

PANEL 290 OF 1135  
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS: COMMUNITY	NUMBER	PANEL	SUFFIX
HARRIS COUNTY UNINCORPORATED AREAS	48029T	0290	J
HOUSTON CITY OF	48029R	0290	J

MAP NUMBER  
48201C0290 J

MAP REVISED:  
NOVEMBER 6, 1996

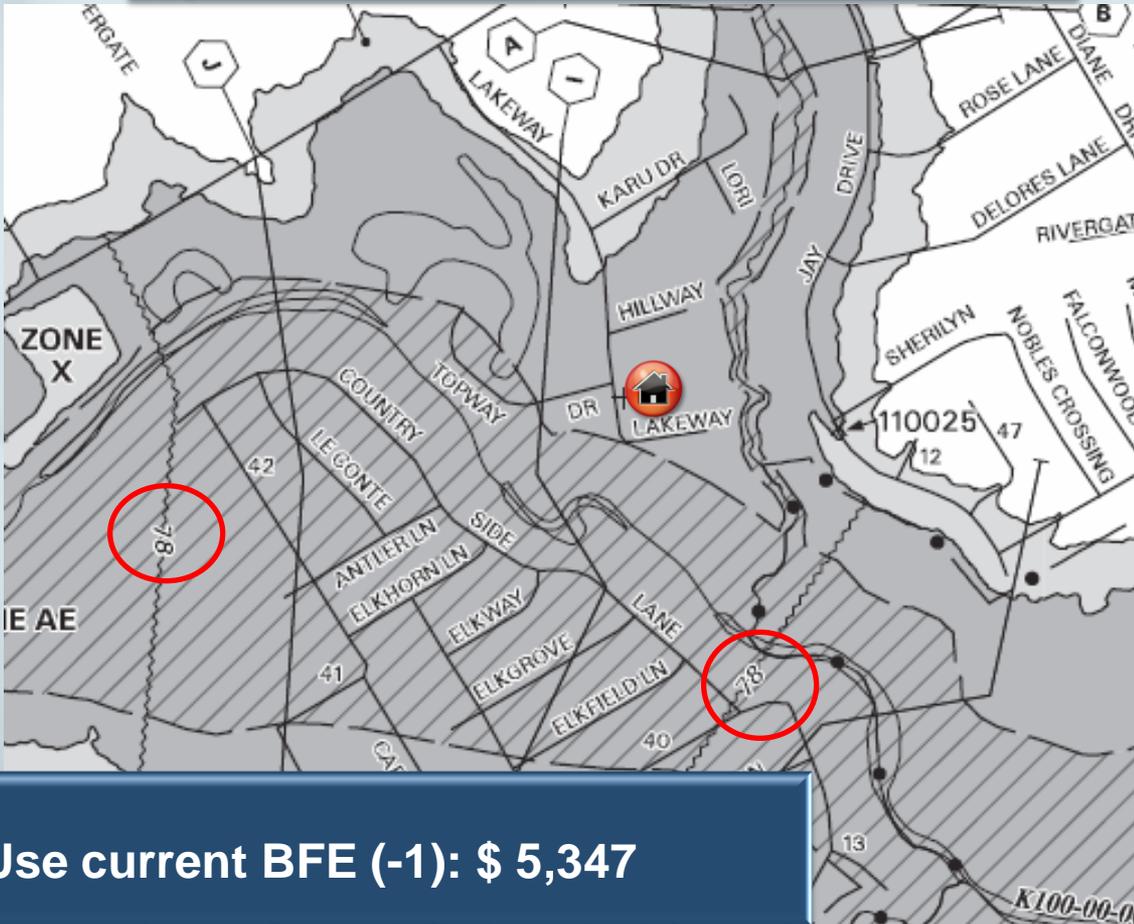


Federal Emergency Management Agency

\*Lowest Floor Elevation: 77 ft  
\*\*\$200K/\$80K Building/Contents Oct 2011

# New Map | New BFE

77'-78' = -1 (Elevation Difference)



Use current BFE (-1): \$ 5,347

Grandfathered BFE (+1): \$ 834

PANEL 0290L

## FIRM FLOOD INSURANCE RATE MAP

City of Floodville

PANEL 290 OF 1150

SEE MAP INDEX FOR FIRM PANEL LAYOUT

CONTAINS:

COMMUNITY	NUMBER	PANEL	SHEET
HARRIS COUNTY, UNINCORPORATED AREAS HOUSTON, CITY OF	48027 48028	0290 0291	L

Notes to User: The Map Number shown below should be used when citing map and/or the Generalized Number shown above should be used on insurance applications for the subject community.

 MAP NUMBER  
48201C0290L

MAP REVISED:  
January 15, 2011

Federal Emergency Management Agency

\*Lowest Floor Elevation: 77 ft

\*\*\$200K/\$80K Building/Contents Oct 2011

# Effects of Map Changes on Insurance

**High-risk (A, AE)**



**Moderate (shaded X)- or Low-Risk (X)**

- No longer the Federal Mandatory Purchase Requirement
- Lenders, however, can still require
- AND...the Risk is still there
  - It is reduced...*NOT REMOVED*
- Convert existing policy to PRP
  - No gaps in coverage
  - Policyholder gets a refund and maintains protection



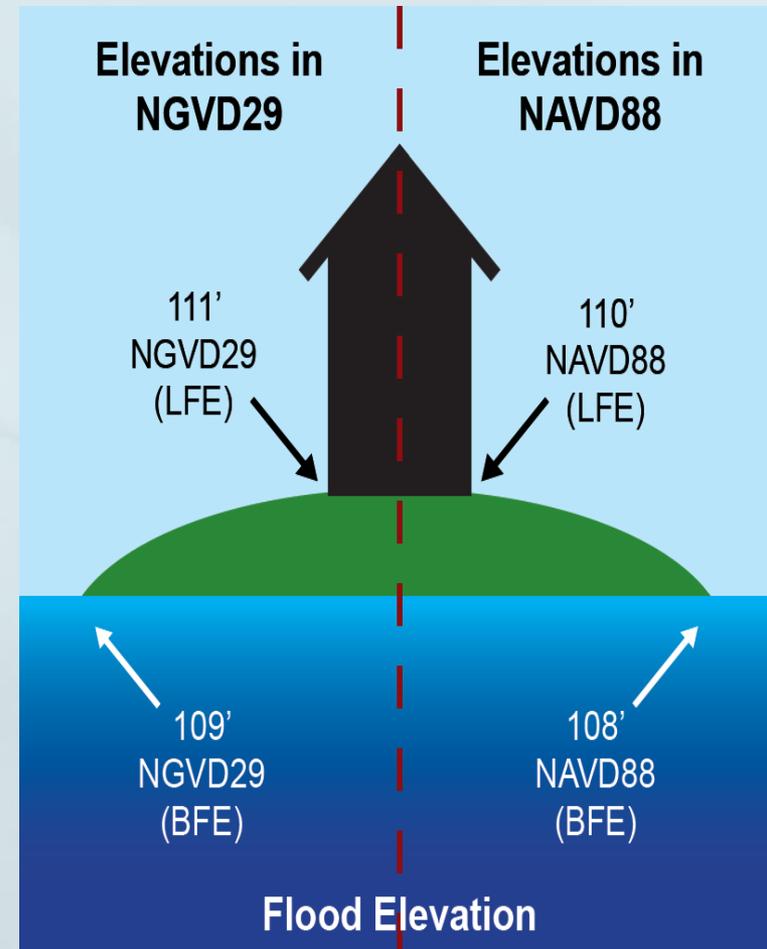
# INSURANCE OPTIONS

IF THE MAPS SHOW...	THESE REQUIREMENTS, OPTIONS AND SAVINGS APPLY
<p>Change from <b>moderate or low flood risk to high risk</b> (flood zone B, C, or X to zone A, AE, AH, AO, AR, A99, V or VE)</p>	<p><b>Flood insurance is mandatory.</b> Flood insurance will be federally required for most mortgage holders. Insurance costs may rise to reflect the true (high) risk.</p> <p><b>Rating Options can offer savings.</b> The National Flood Insurance Program has <b>PRP Extension and “grandfathering” rating options</b> to offer savings and recognize policyholders who built in compliance with the flood map in effect at the time of construction or who maintain continuous coverage. <i>Sometimes, though, using the new flood maps can actually result in a lower premium, especially if the home is high enough above the BFE.</i></p>
<p>Change from <b>high flood risk to moderate or low risk</b> (e.g., flood zone A, AE, AH, AO, A99, AR to X or shaded X)</p>	<p>Flood insurance is <b>optional but recommended</b>. The <b>risk has only been reduced, not removed</b>. Flood insurance can still be obtained, and at lower rates. Over 20percent of all flood insurance claims come from moderate-to-low-risk areas.</p> <p>Conversion offers savings. An existing policy can be easily converted to a lower-cost Preferred Risk Policy, if the building qualifies. Note that lenders always have the option to require flood insurance in these areas.</p>
<p><b>Increase in the Base Flood Elevation (BFE)</b></p>	<p>An increase in BFE can result in higher premiums; however, <b>“grandfathering” can offer savings</b>. The National Flood Insurance Program grandfathering rules allow policyholders who have built in compliance with the flood map in effect at the time of construction to keep the earlier base flood elevation to calculate their insurance rate. This could result in significant savings.</p>
<p><b>No change in risk level</b></p>	<p>No change in insurance rates. However, this is a <b>good time to review your coverages</b> and ensure that your building and contents are adequately protected.</p>

# Effects of Map Changes on Insurance

## Vertical Datum

- When rating, always look at the vertical datum used on the FIRM and on the EC
  - If they are the same (e.g. both NAVD88 or NGVD 29), no problem
  - If they are different, then you must convert one, or you will have a problem
    - Average conversion factor is on the map panel
    - Conversion factor is in the FIS



# Community Outreach & Engagement



# Maps are Changing; Know What To Say



# Engaging the Community

- Whom to reach out to
- How to deliver it
- When is it done – throughout the lifecycle!!
- What to say (and not say)
- Where to send public/stakeholders/media for more information



# Outreach to Whom?

## **Who to reach out and engage**

- Internal (“In-Reach”)
- Stakeholders
- Media
- Residents & Business Owners



# Outreach To Whom?

## “In-Reach”

- Elected Officials
  - County Commissioner
  - City Council
  - Mayor
  - Respective Staff
- City/County Managers
- Other Departments
  - Stormwater
  - Emergency Management
  - Permits
  - Communications/PIO



# Outreach To Whom

## Stakeholders

- Stakeholders/local organizations to include:
  - Insurance agents
  - Real Estate agents
  - Lenders
  - Chambers of Commerce
  - Civic Organizations
  - Builders/Engineers/Developers
  - Economic Development Councils



# Core Messages to the Public

- Maps are changing – and the changes affect Highlands County residents and business owners
- The flood hazard maps were last updated in 1983. Since then, drainage patterns have changed, new land development has occurred, and mapping and modeling technology has improved.
- The new flood maps will help property owners better understand their current flood risk in order to make more informed financial decisions about protecting their property.
- The risk is real, in both high- and moderate-to-low risk areas
- Flood map changes have construction and insurance implications
- Understand your flood insurance options – and how you can save money
- New maps = safer communities



# Core Messages For Stakeholders

- Insurance Professionals
- Real Estate & Lending Professionals
- Developers/Builders/Engineers/Surveyors



# TOP 3 QUESTIONS

- The most often asked questions in an Open House are around flood insurance:

- ***How am I affected?***
- ***How do I get out of it*** (when they find out they are mapped into a high-risk zone)?
- ***What's the cheapest cost*** (when they find out they can't get out of it)?

- Review the grandfathering and PRP Extension options

- Be ready to help guide them to find the best and least expensive option.



# What **NOT** to Say

- **You don't live in a flood zone.**
- **You are mapped out of (or into) a flood zone.**
- **You don't need flood insurance.**
- **Grandfathering lets you keep the same rate.**



# Where To Send For More Information

## Resources

- **For Information on the Web:**  
Central Florida Regional Planning Council  
[www.cfrpc.org/floodmapupdate](http://www.cfrpc.org/floodmapupdate)
- **For General Information:**  
Highlands County Board of County Commissioners  
Phone: (863) 402-6650  
[www.hcbcc.net](http://www.hcbcc.net)
- **For Technical Assistance:**  
Southwest Florida Water Management District  
Phone: (352) 796-7211, ext. 4297  
[www.watermatters.org/floodrisk](http://www.watermatters.org/floodrisk)
- **For Flood Insurance Information:**  
National Flood Insurance Program  
[www.FloodSmart.gov](http://www.FloodSmart.gov)
- **For Flood Mapping Information:**  
FEMA Flood Hazard Mapping Program  
[www.fema.gov/hazard/flood/index.shtm](http://www.fema.gov/hazard/flood/index.shtm)  
  
FEMA Map Information eXchange (FMIX):  
<http://msc.fema.gov>  
800-FEMA-MAP (336-2627)



# QUESTIONS?



**THANK YOU  
FOR  
YOUR SUPPORT**

