



Resiliency SURVEY

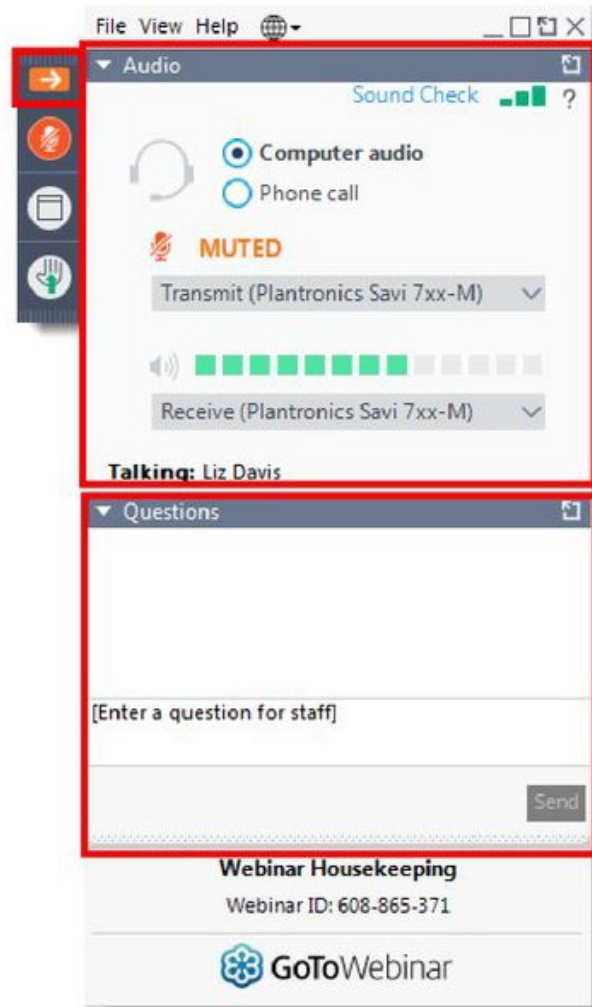
Stormwater Capacity

**Please take this survey
while we wait for
everyone to join us**

<https://arcg.is/1i9XW>



Housekeeping



Your Participation

Open and close your control panel

Join audio:

- Choose **Mic & Speakers** to use VoIP
- Choose **Telephone** and dial using the information provided

Submit questions and comments via the Questions panel

Agenda

Welcome

Heartland 2060: Building a Resilient Region

Heartland Regional Resiliency Coalition

Hurricane Ian Impacts

Regional Resiliency Efforts & Resilience Activities

Path Forward: Developing a Regional Resiliency Action Plan

Next Steps

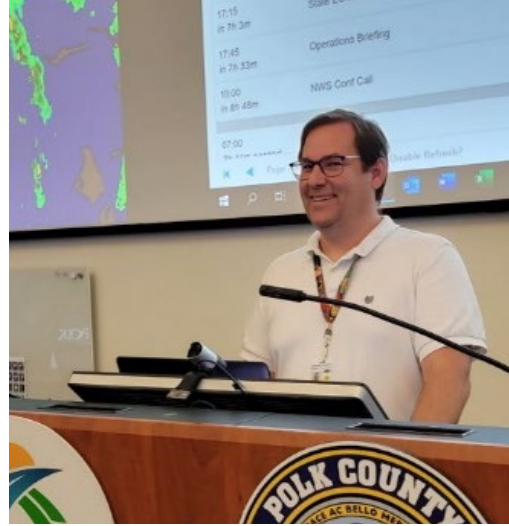

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Welcome



Jennifer Codo-Salisbury
Executive Director



Curtis Knowles
**Emergency Preparedness
Program Manager**



Sheila McNamara
**Regional Resiliency
Manager**



Central Florida Regional Planning Council



Regional Convening



Transportation



Quality of Life



Emergency Preparedness



Economic Development

Interconnected & Interdependent

Polk
Hardee
Highlands
Okeechobee
Desoto
Glades
Hendry



- 7 counties
- 28 cities
- Tribal Communities
- 2 water management districts
- Peace River Basin
- Kissimmee River Basin
- Lake Okeechobee
- Headwaters of the Everglades
- Military Installation

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Interconnected & Interdependent



- Transportation systems
- Water management
- Critical habitat & aquatic systems
- Communities & economies
- Shared vulnerabilities



Build and Enlist Partnerships

Communicate

- Communicate with, convene and foster public, private, and non-profit partnerships to support diversified economic health

Connect

- Act as the liaison with local, state, and federal partners to develop goals and identify actions to promote regional economic development

Build

- Identify existing opportunities at the local, regional and statewide level focused on building economic resilience

Support

- Identify resources and grant eligible projects and provide technical assistance



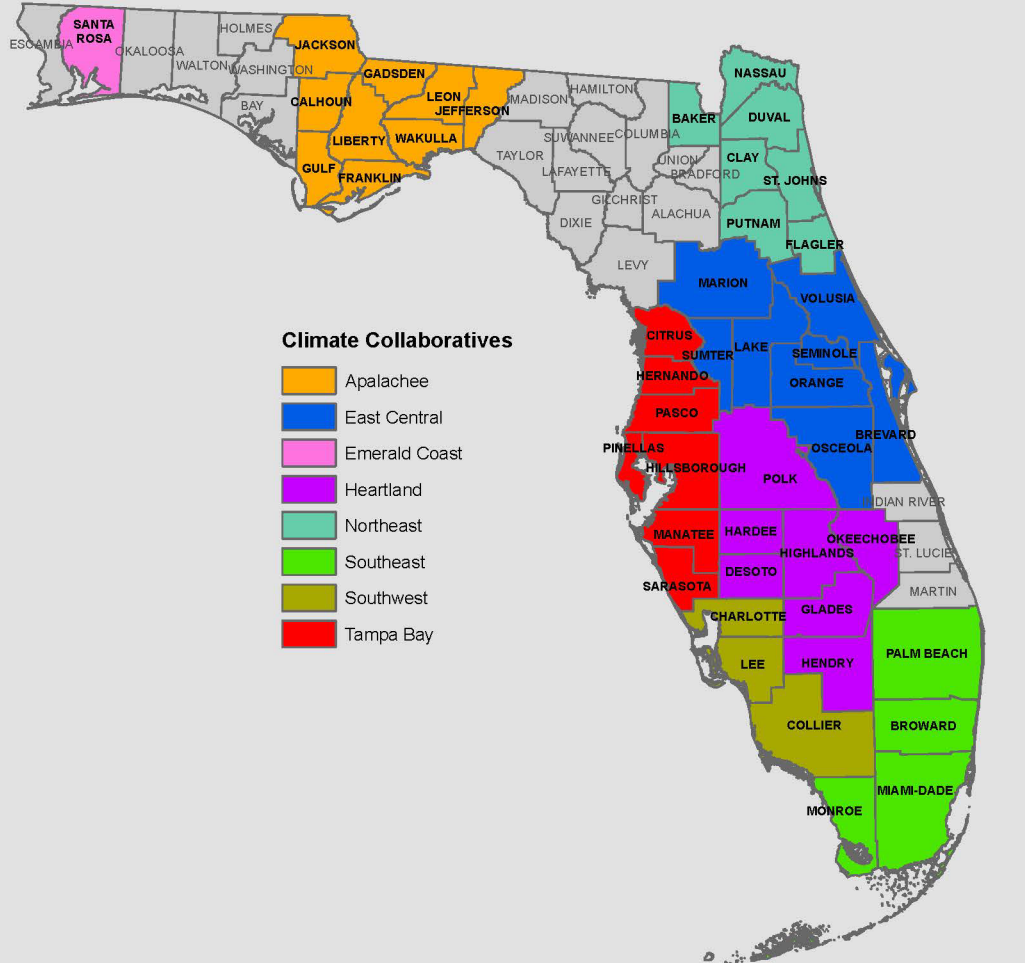
The background of the slide features a close-up, high-speed photograph of water splashing, with numerous droplets and ripples visible. The water is a deep blue color. A large, white, semi-transparent circle is centered on the page, containing the title text.

Heartland Regional Resiliency Action Plan Formation

Resiliency is...

- “... the ability to recover from or adjust easily to misfortune or change.” - *Webster’s Dictionary*
- “...the power or ability to return to the original form, position, etc., after being bent, compressed, or stretched; elasticity.” - *Dictionary.com*
- “...an objective of design, maintenance and restoration for buildings and infrastructure, as well as communities. It is the ability to absorb or avoid damage without suffering complete failure.” - *Wikipedia*

CLIMATE & RESILIENCE COLLABORATIVES



regional collaboratives

- SE FL Regional Climate Compact
- Tampa Bay Regional Resiliency Coalition
- East Central FL Regional Resilience Collaborative
- Public/Private Regional Resiliency (P2R2) Committee
- Capital Area Sustainability Compact
- SW FL Regional Resiliency Compact

Florida Chamber Foundation 2030 Plan Includes Resilience Goals

Preparing Florida's infrastructure for smart growth and development

Diverse, attainable housing
to meet future demand

Every resident has access to **public and private mobility services**

All major population and economic centers connected to regional, national, and global markets by **high-capacity corridors**

World's **most capable spaceport; top-tier airports, seaports, and surface transportation hubs** in U.S.

100% of Florida residents have access to **high-speed communications connectivity**

Diverse and reliable energy, water, and waste management resources to meet future demand

All Florida residents protected by **resiliency plans**



Timeline of Resiliency Actions

Heartland
2060 –
Building a
Resilient
Region

Completed 2014

Heartland
2060 -
Revisited

Completed 2019

Heartland
Resiliency
Summit

January 2022

Heartland
Regional
Resiliency
Coalition
created

April 2022

Heartland
Regional
Resiliency
Action
Plan
Kickoff

January 2023

Heartland
Regional
Resiliency
Action
Plan

Summer 2023



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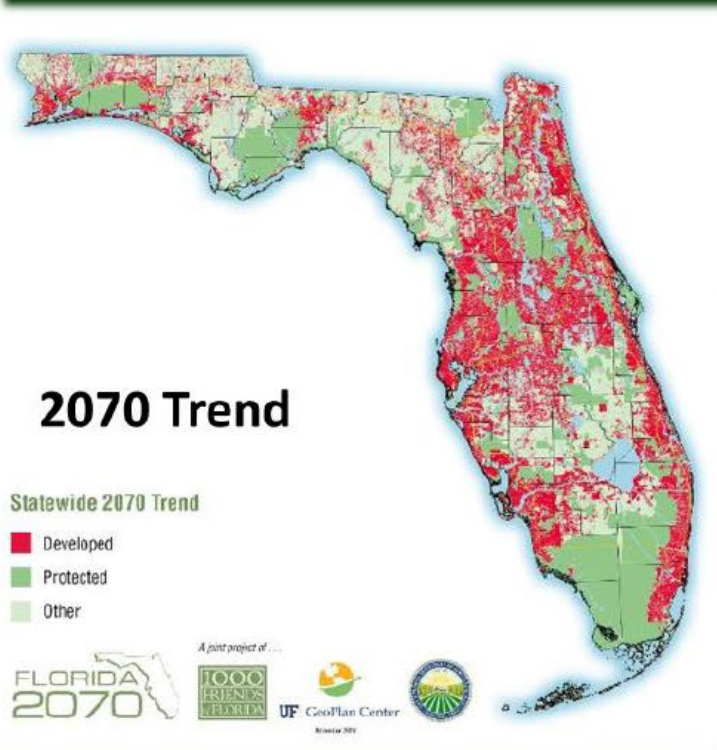
Polk
Hardee
Highlands
Okeechobee
Desoto
Glades
Hendry



Heartland2060.org

Where Will Our Future Take Us?

33 million people by 2070



How we grow makes all the difference.

Education, Workforce, and Economic Development



Economic Diversification

Infrastructure to Support
Diversified Economy

Early Learning, K-16,
Lifelong Education

Environment and Natural Resources



Water

Sustainable and Viable
Natural Systems

Agriculture

Energy/Climate

Transportation & Land Use



Integrating with
Natural Resources Planning

Supporting Economic
Development

Ensuring Multimodal
Connectivity

Enhancing and Creating
Sustainable Communities

Community Resources



Health Care

Community Identity

Our Heartland Core Values



*Ensuring our environment,
wildlife, and natural spaces
for future generations*



*Providing water supply for
people, industry and agriculture,
and water quality for our lakes
and streams*

Our Heartland Core Values



Respect for Agriculture

*Important to our history,
vital for our future*



Our Communities

*Celebrating our people,
our places, and our traditions*

Our Heartland Core Values



Future for our Children

Education and job opportunities for all



Our Values

Our Heartland Core Values have guided all our work supporting consensus building, development of plans and programs, support of existing and new initiatives, and continuing conversations.





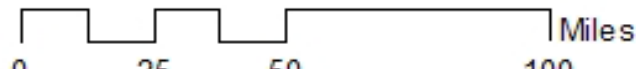
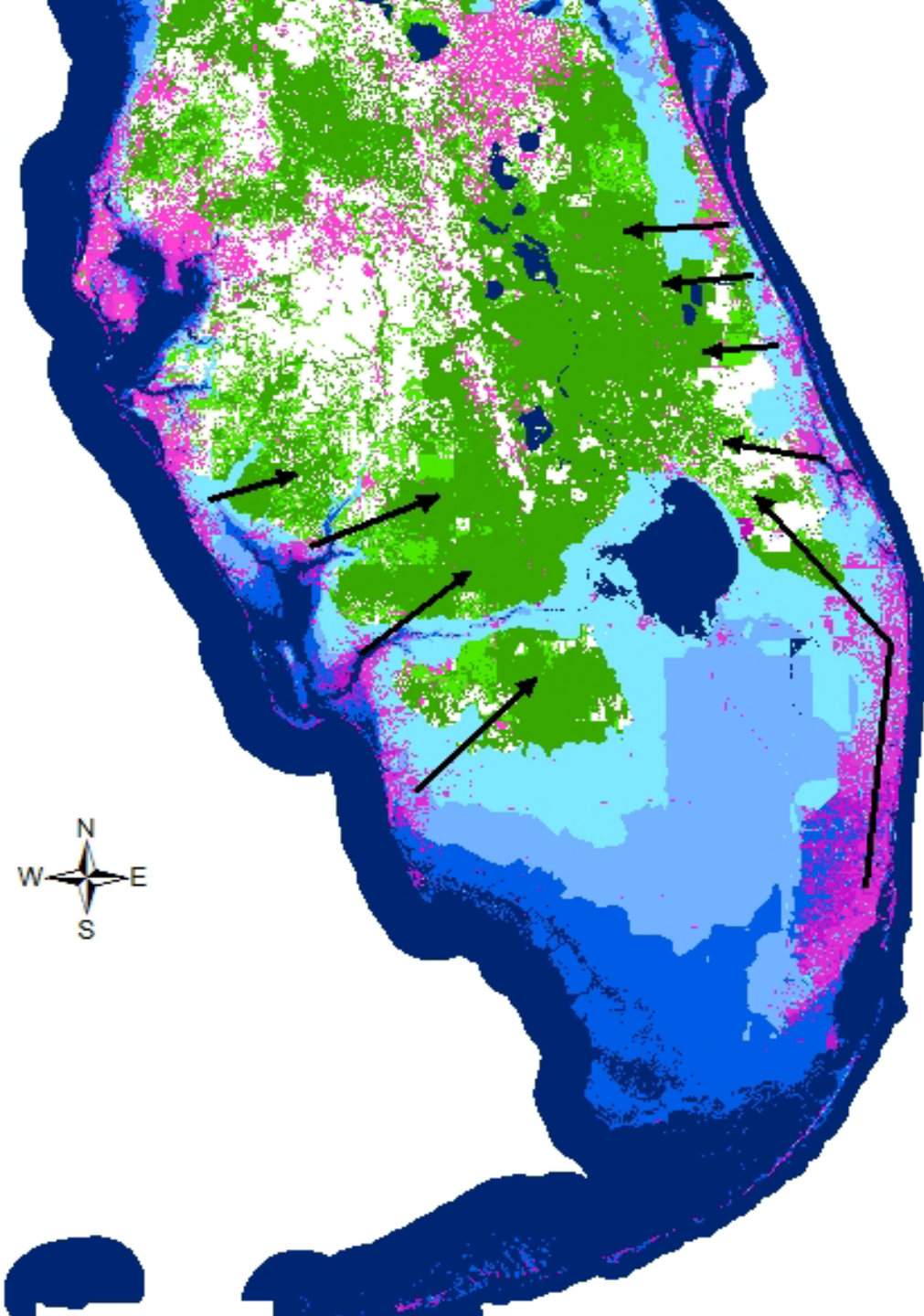
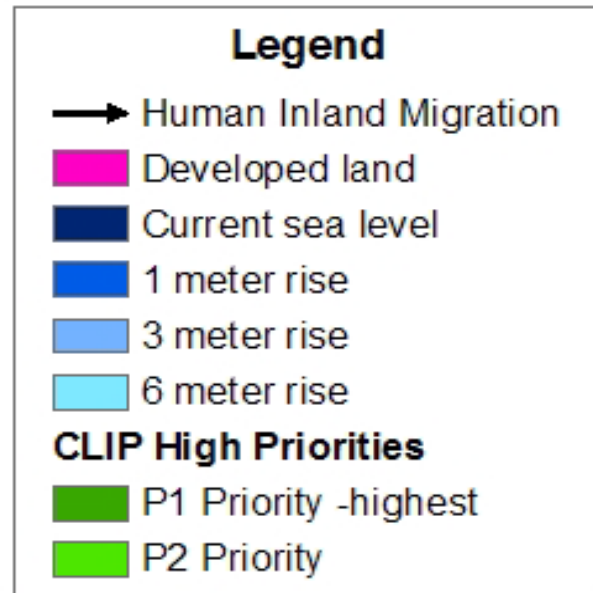
The Future of our PEOPLE AND COMMUNITIES

The Heartland's population will increase by more than

551,000 residents
by 2060



Potential Human Population Shifts due to Sea Level Rise



The Future of our ECONOMY

Job growth nationwide is shifting toward **non-routine activities**, particularly those requiring **specialized skills or knowledge**.

(Source: Federal Reserve Bank of St. Louis)

TARGET INDUSTRY CLUSTERS



The Heartland **workforce will increase from 391,000 workers in 2019 to 636,400 in 2060**. More than 30% will be over the age of 55, compared to the current 24%.

(Source: Central Florida Regional Planning Council)

More than **1/2 of all jobs nationwide could be automated today** using current technologies. (Source: McKinsey Global Institute)

More than **9.2 million jobs nationwide could be in the “gig” economy** – flexible, on-demand positions- by 2025.

(Source: Emergent Research and Intuit)



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Building a Resilient Region
Revisited



- Archbold Biological Station
- CareerSource Heartland
- Early Learning Coalition of the Heartland
- Florida Fish and Wildlife Conservation Commission
- Florida Heartland Economic Region of Opportunity (FHRO)
- Heartland Educational Consortium
- Polk Vision
- Sebring Regional Airport
- South Florida Water Management District
- Southwest Florida Water Management District
- The Nature Conservancy
- Winter Haven Economic Development Council



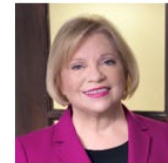
Central Florida Resiliency Summit



Monday,
January 31, 2022



Welcome



Heartland 2060

Pat Steed
Executive Director, CFRPC



Liz Cassin
American Flood
Coalition



Sean Sullivan
Tampa Bay
Regional
Resiliency
Coalition



Jenifer Rupert
East Central
Florida Resiliency
Collaborative



Jennifer Hecker
Coastal &
Heartland
National Estuary
Program



Mike Britt
City of Winter
Haven One Water



Heartland Regional Resiliency Coalition

Jennifer Codo-Salisbury
Deputy Director, CFRPC

Summit Survey Results

What benefits could a resiliency coalition have for our region?

78% Preparedness for natural disasters

74% Avoidance of property damage

100% Reliability of infrastructure

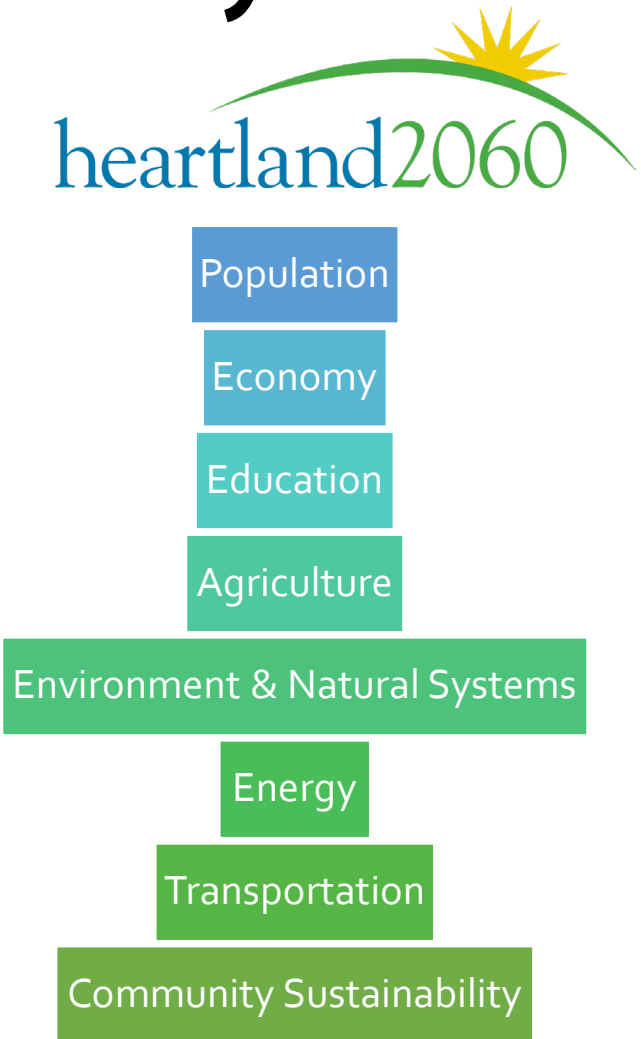
85% Preservation of community assets

22% Other

- Data all jurisdictions can accept/support and include as part of land use planning
- Increased education efforts.
- Environmental improvements



Resiliency Focused Collaboration



Heartland Resiliency Coalition

- Natural Disaster Threats
 - Flooding
 - Wind damage
 - Extreme weather

...the Impacts to:

- Infrastructure
- Agriculture
- Essential Buildings
- Housing
- Community assets
- Military Installations

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Creating a Heartland Regional Resiliency Coalition

**Sheila McNamara
Regional Resiliency Manager**

Benefits of a Regional Approach

Unified Voice to Address Challenging Issues and Policies

Advanced Planning

Leverage Resources

Build Capacity

Expand Expertise

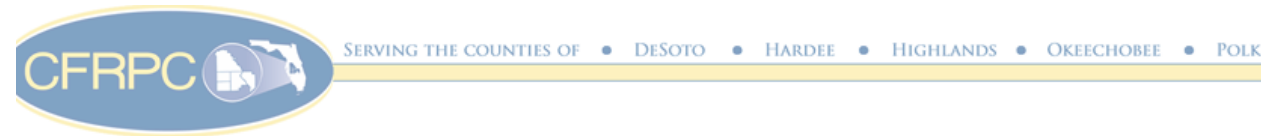
Broadened Partnerships

Increase Innovation



Heartland Regional Resiliency Coalition

The Board of CFRPC Approved Formation through a Memorandum of Understanding (MOU) among Local Governments in the Heartland and CFRPC



RESOLUTION 2021-9B

A RESOLUTION OF THE CENTRAL FLORIDA REGIONAL PLANNING COUNCIL AUTHORIZING THE EXECUTIVE DIRECTOR TO PROCEED WITH THE FORMATION OF THE HEARTLAND REGIONAL RESILIENCY COALITION

WHEREAS, the Heartland Region including the counties of DeSoto, Glades, Hardee, Hendry, Highlands, Okeechobee and Polk is home to more than 1,015,841 residents as of 2020, approximately 4.7% of the 2020 population of the State of Florida, and includes recreational spaces, state parks, wildlife preserves, protected natural areas, significant agricultural lands, a military [installation](#); and

WHEREAS, the Heartland Region of Florida consists of seven inland counties, six of which are largely rural, and the economy is driven by natural resource-based industries including forestry, fishing, and agriculture; key industries such as aviation, manufacturing, logistics; state colleges and other academic institutions; and



Memorandum of Understanding (MOU)

Heartland Regional Resiliency Coalition will provide a formal platform for local governments to:

- Work together to create guidelines for the development of resilient communities
- Learn **“Best Practices”** from each other and from other regions
- Leverage regional resilience efforts, to enhance funding and increase competitiveness for grant funds.



MOU Key Points

✓ **Regional Cooperation**

- Identify vulnerabilities to the effects of weather events in our communities
- Identify common vulnerability assessment methodologies
- Plan for mitigation and adaptation actions
- Pursue public private partnerships

✓ **Regional Resiliency Action Plan**

- Develop an Action Plan with strategies for coordinated regional preparation for and adaption to a rapidly changing environment

✓ **Basis of Planning**

- Base strategies and actions on commonly accepted and valid technical data
- Identify experts for guidance, use recognized and consistent projections to assess vulnerability and inform planning efforts.

MOU Key Points

✓ **Strategy**

- Develop a strategy recognizing region-specific vulnerabilities to the impacts of weather events
- Include recommendations for the pursuit of state and federal resources

✓ **Community Involvement**

- Recognize, engage the regional community, involving a diverse stakeholder representation in developing policies, recommendations for implementation of Regional Resilience Action Plan.

✓ **No Commitment of Local Funding or Staff**



MOU Key Points

Intent

*Coalition Members each join the Heartland Regional Resiliency Coalition as expression of intent and commitment to **work together** on a regional level to identify **opportunities and solutions for ensuring regional resiliency to threats while leveraging resources.***



Signors of the MOU

Click to edit master title style
 Schedule of MOU Approvals by Heartland Counties and Agencies

Local Government/Agency	Date MOU Approved/Scheduled
DeSoto County	April 2022
Glades County	April 2022
Hardee County	March 2022
Hendry County	To be Determined
Highlands County	April 2022
Okeechobee County	March 2022
Polk County	May 2022
Heartland Regional Transportation Planning Organization	March 2022
Polk Transportation Planning Organization	April 2022
Coastal and Heartland National Estuary Program	September 2022
City of Winter Haven, City of Lakeland	April 2022, October 2022



Resiliency Return on Investment (ROI)

UN Secretary-General António Guterres' message for the International Day for Disaster Risk Reduction, observed on 13 October 2019: *I have seen the devastating and life-changing impact of the climate emergency on vulnerable communities. Disasters inflict horrendous suffering and can wipe out decades of development gains in an instant.*

Climate resilience and disaster risk reduction must be central to this investment.

There is a strong economic case for such steps making infrastructure more climate-resilient can have a benefit-cost ratio of about 6 to 1.

For every dollar invested, six dollars can be saved.

***This means that investing in climate resilience creates jobs and saves money.
And it is the right thing to do: it can ease and prevent human misery.***

[For Every Dollar Invested in Climate-Resilient Infrastructure Six Dollars Are Saved, Secretary-General Says in Message for Disaster Risk Reduction Day | UN Press](#)



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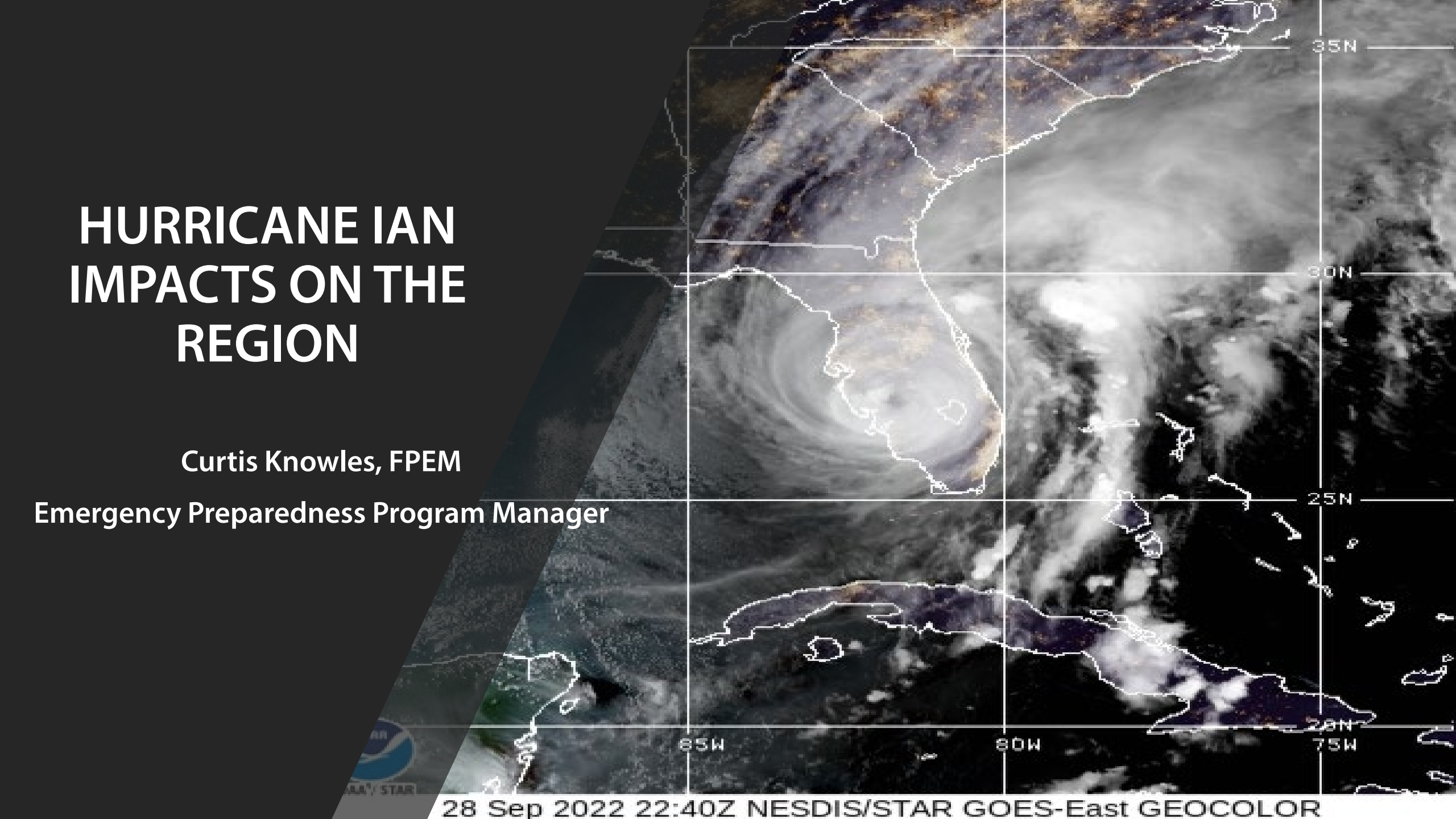
HURRICANE IAN IMPACTS ON THE REGION

Curtis Knowles, FPEM

Emergency Preparedness Program Manager

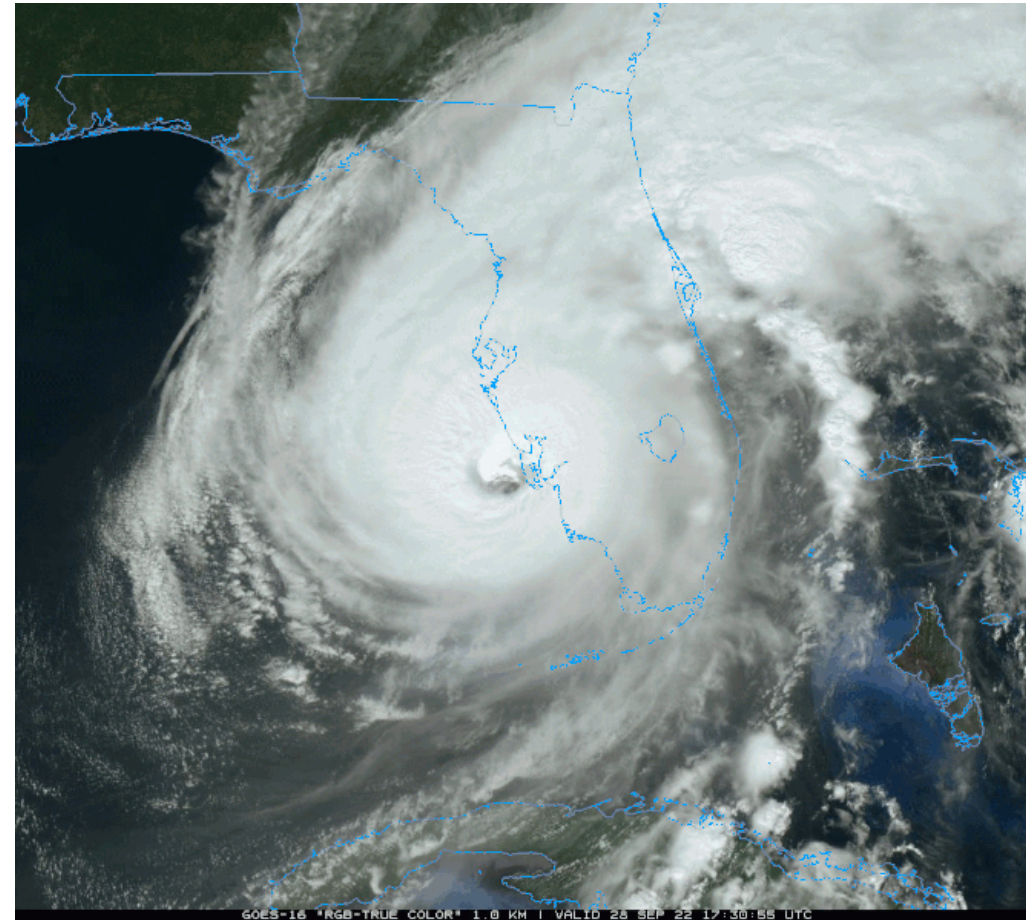


28 Sep 2022 22:40Z NESDIS/STAR GOES-East GEOCOLOR



HURRICANE IAN SEPTEMBER 28, 2022

- **1st landfall at Cayo Costa Island**
- **Sustained winds of 150 mph**
- **2nd landfall just south of Punta Gorda near Pirate Harbor with 145 mph sustained winds**
- **1st Category 4 hurricane to impact Southwest Florida since Hurricane Charley in 2004**



IMPACTS TO THE REGION MAINLY DUE TO EXTENSIVE FLOODING, HIGH WINDS, and POWER OUTAGES

Homes &
Businesses

Water/Wastew
ater Systems

Roadways

Electric
Utilities

Government
Buildings

Farmlands /
Ranches

River/Creek
Systems

Debris
(Organic and
Non-Organic)

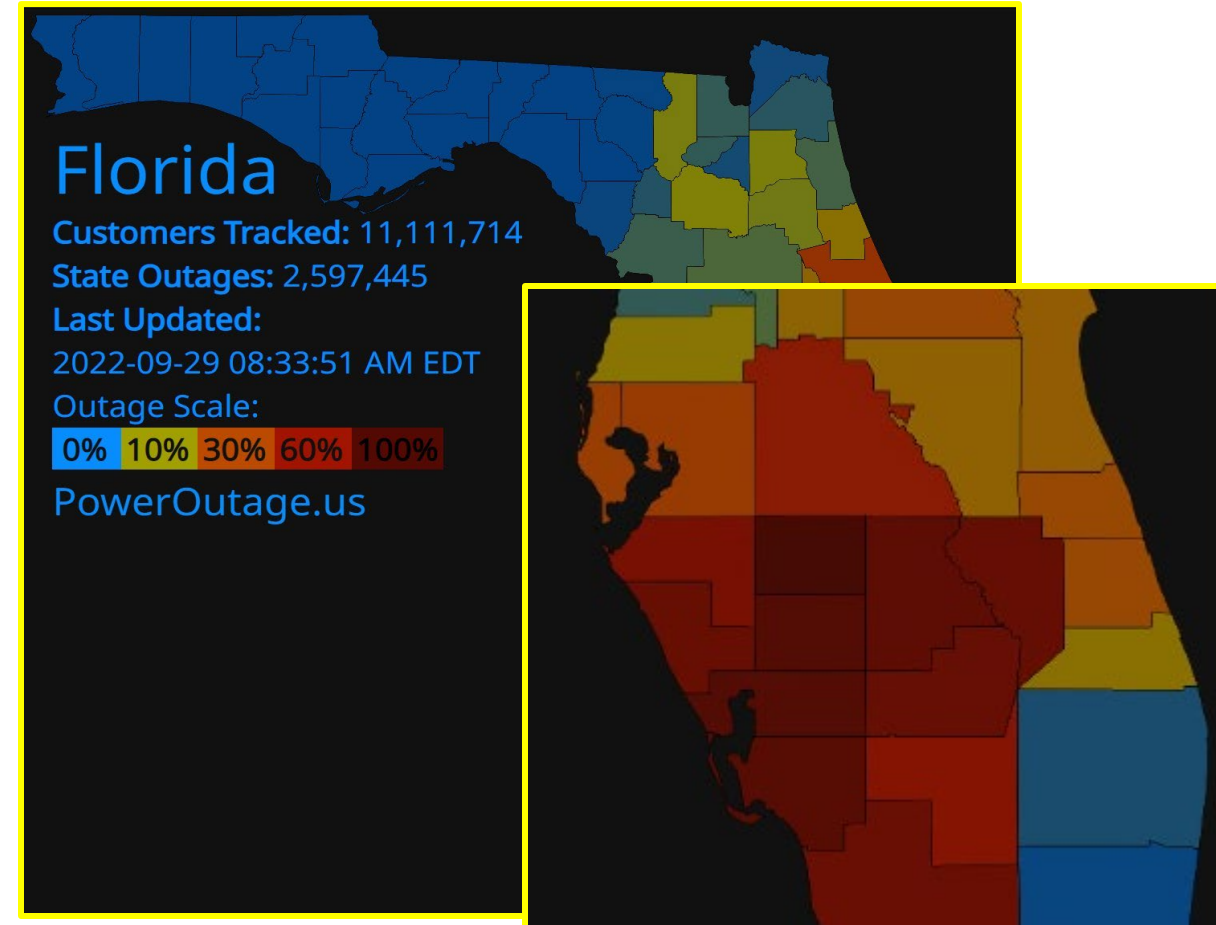


Arcadia - DeSoto County
SR 72 at SR 70
Photo Credit: Steve Rogers

PEAK FLORIDA POWER OUTAGE

- **As of 8:30 am on September 29, 2022:**
 - Just over 2.59 million were without power
 - CFRPC Region is at 60%* or higher

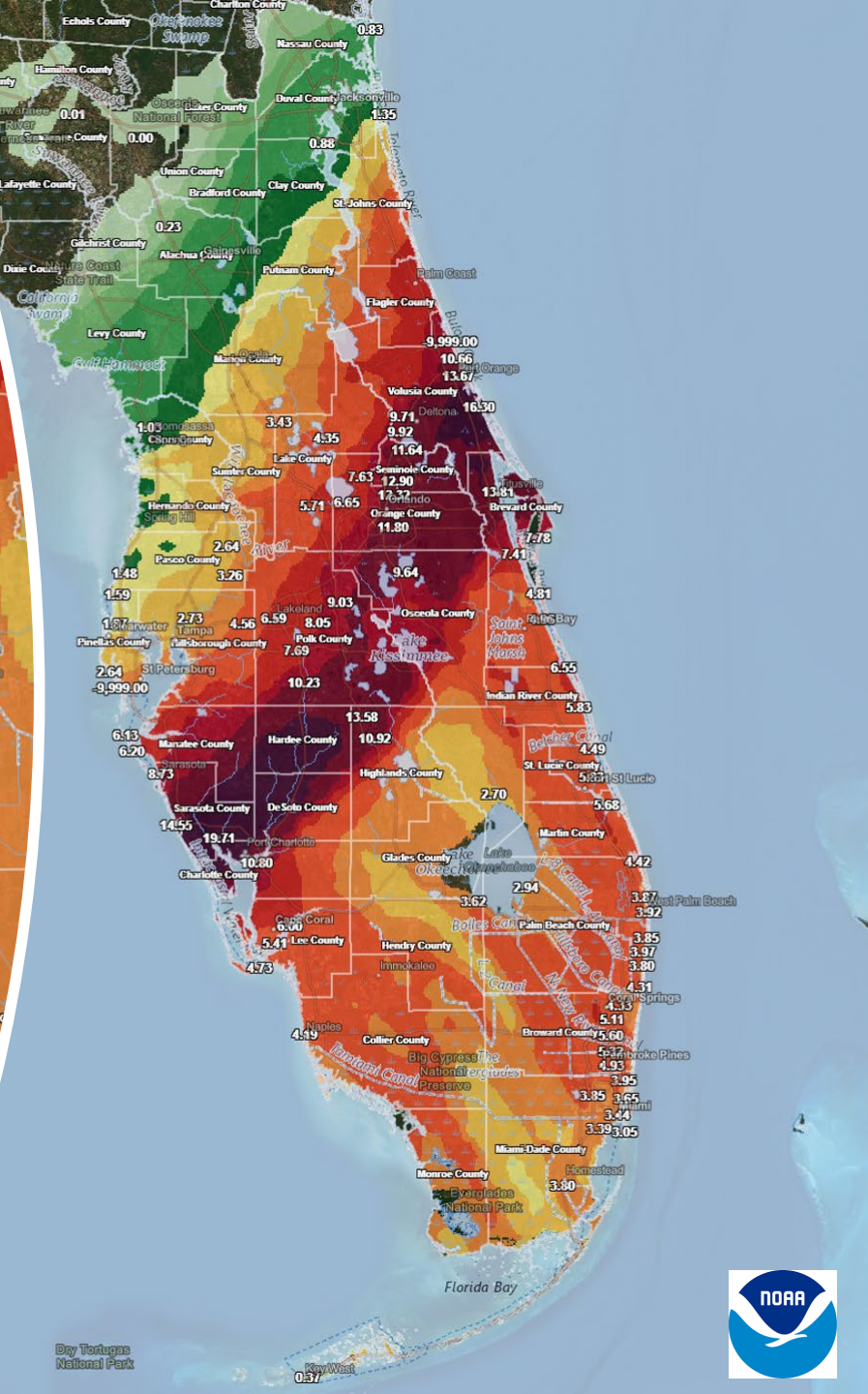
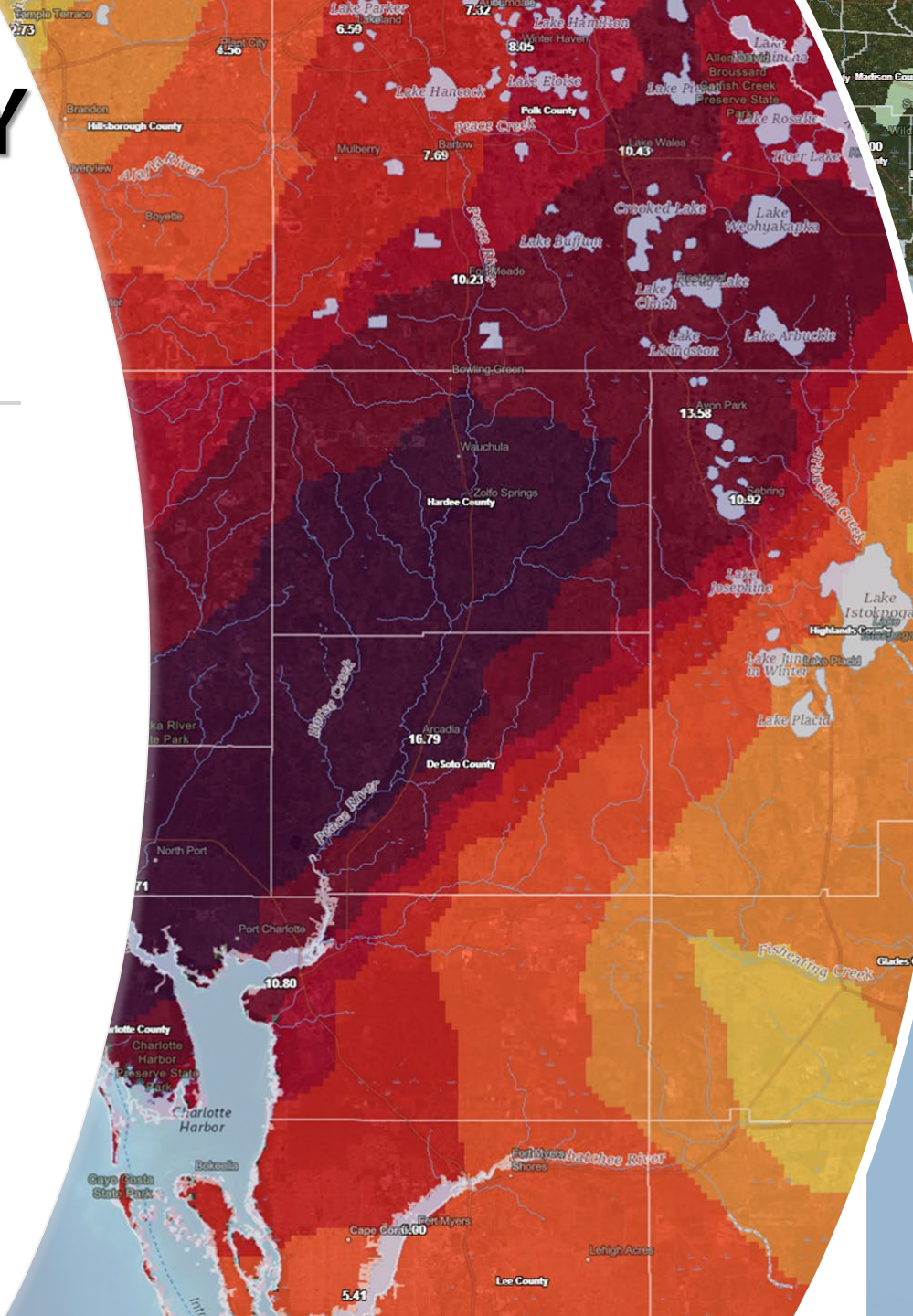
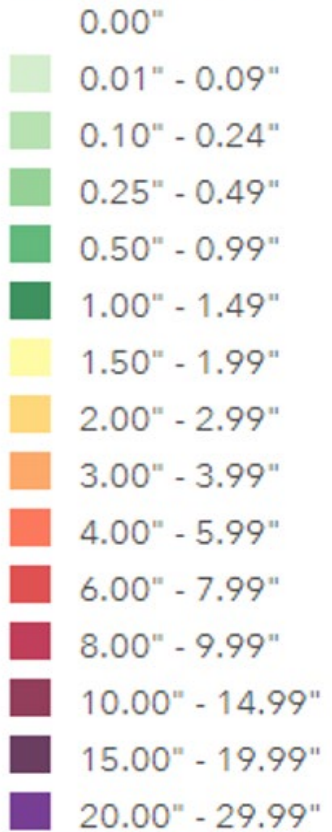
* Does not include numbers for Bartow Electric, Ft. Meade, Wauchula

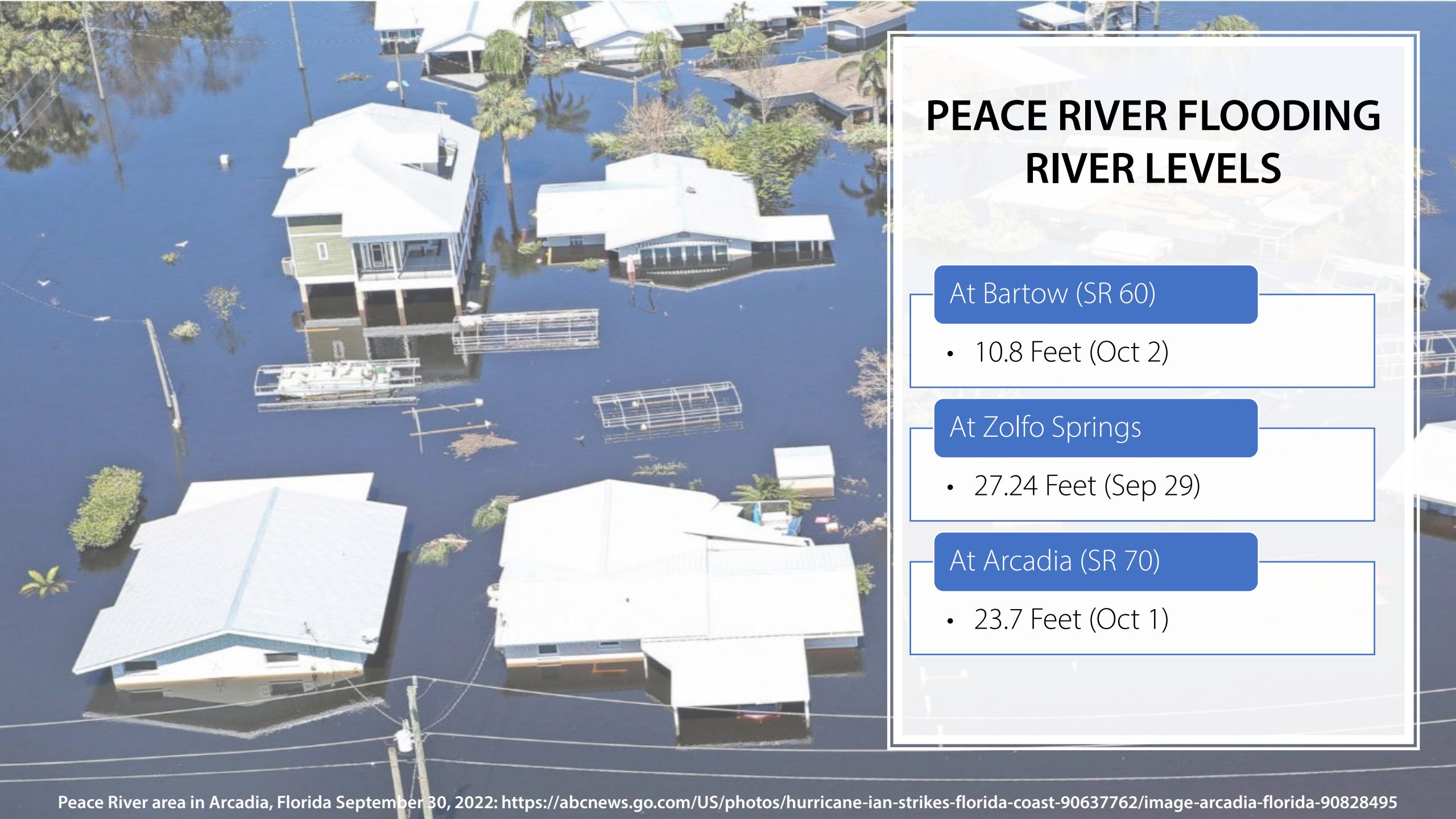


PRELIMINARY RAINFALL AMOUNTS

Ian Rainfall Total Grid

Rainfall Analysis 0" - 50"





PEACE RIVER FLOODING RIVER LEVELS

At Bartow (SR 60)

- 10.8 Feet (Oct 2)

At Zolfo Springs

- 27.24 Feet (Sep 29)

At Arcadia (SR 70)

- 23.7 Feet (Oct 1)

ESTIMATED FLORIDA AGRICULTURE IMPACTS

~ 5 million acres of agricultural land were affected

Total crop loss:

- \$686,788,157 to \$1,246,549,185

Total agriculture production and infrastructure loss:

- \$1,180,714,303 to \$1,888,305,886

Citrus:

- Estimated value: \$416,905,273 to \$675,529,404
- ~8-11% loss of trees

Animal and Animal Products (including Aquaculture and Dairy):

- Estimated value: \$337,385,791 to \$492,051,186
- Estimated 250 beef cattle animal losses
- 24 of the 53 dairy farmers suffered significant damage to their infrastructure

Forestry (Timber) :

- Estimated value: \$32,735,554



Hurricane Ian Top 20 Counties with Insurance Claims Data as of January 20, 2023

County	Number of Claims Reported	Number of Open Claims with Payment	Number of Open Claims without Payment	Number of Claims Closed with Payment	Number of Claims Closed without Payment	Percent of Claims Closed
7. Polk	26,409	1,996	3,703	12,631	8,079	78.4%
12. Highlands	6,538	465	879	3,584	1,610	79.4%
13. DeSoto	6,404	763	830	3,897	914	75.1%
20. Hardee	2,757	298	468	1,485	506	72.2%
All Other top 20 Insurance Claims Counties	38,395	3,445	5,509	18,381	11,060	76.7%
TOTALS	683,456	78,557	87,810	347,734	169,355	75.7%

Source: Florida Office of Insurance Regulations, <https://www.floir.com/home/ian>, January 2023



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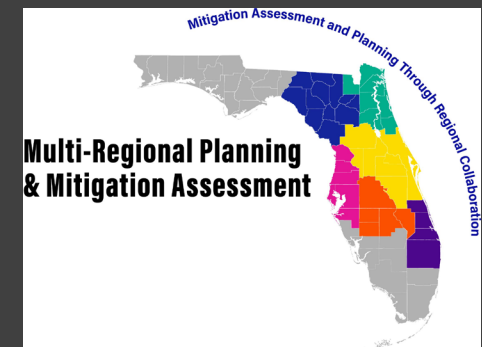
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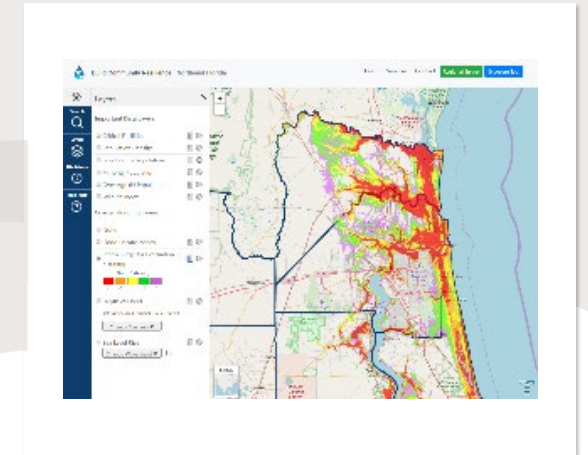
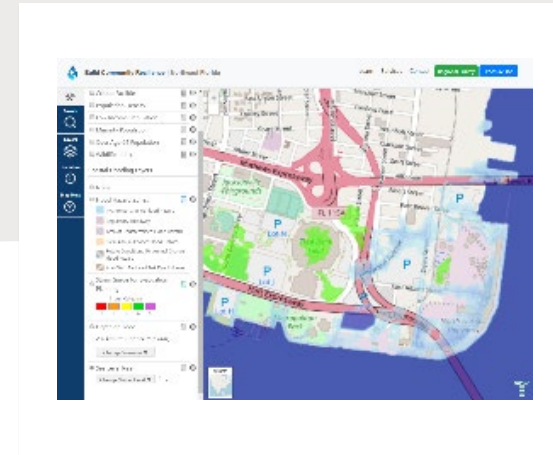
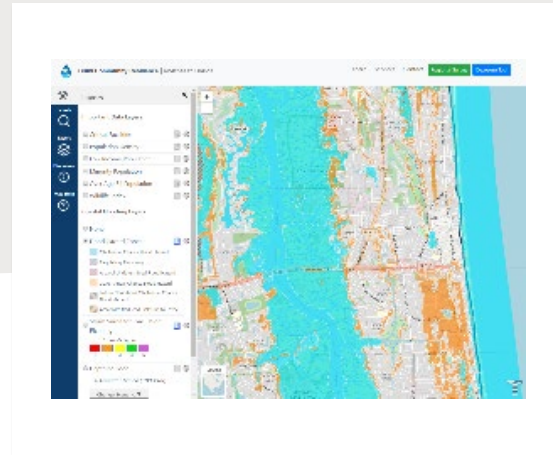
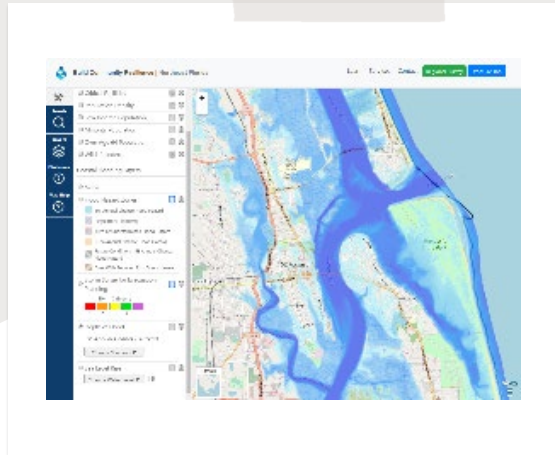




MITIGATION ASSESSMENT & PLANNING THROUGH REGIONAL COLLABORATION



Regional Resilience Exposure Tool



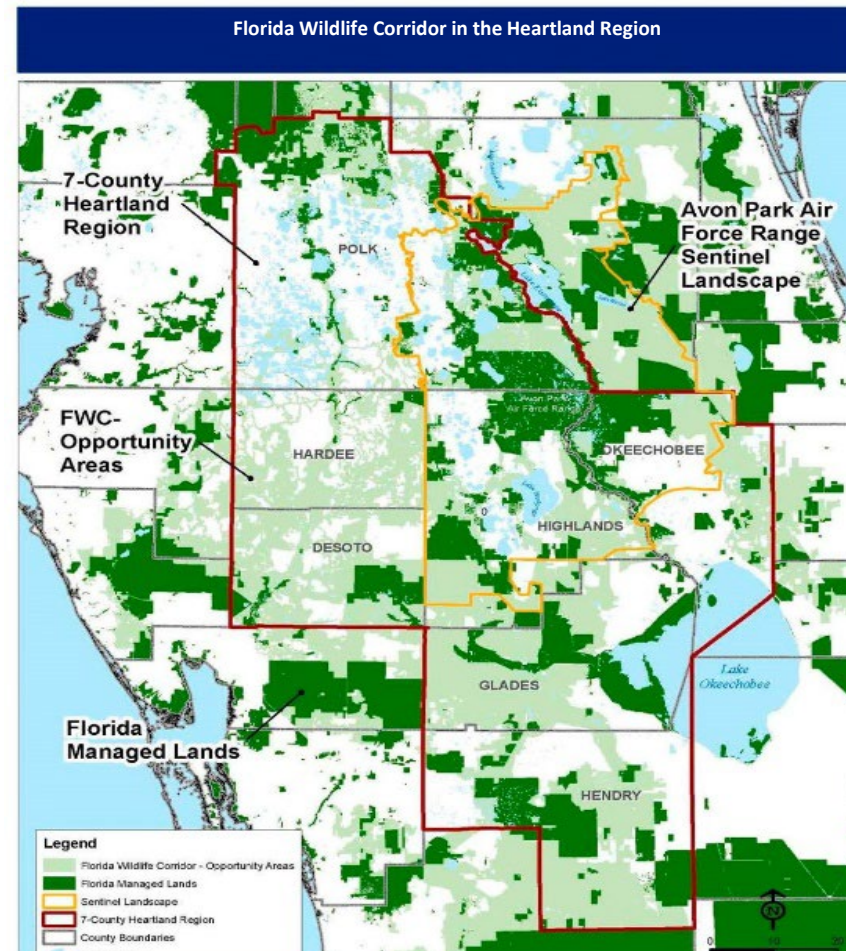
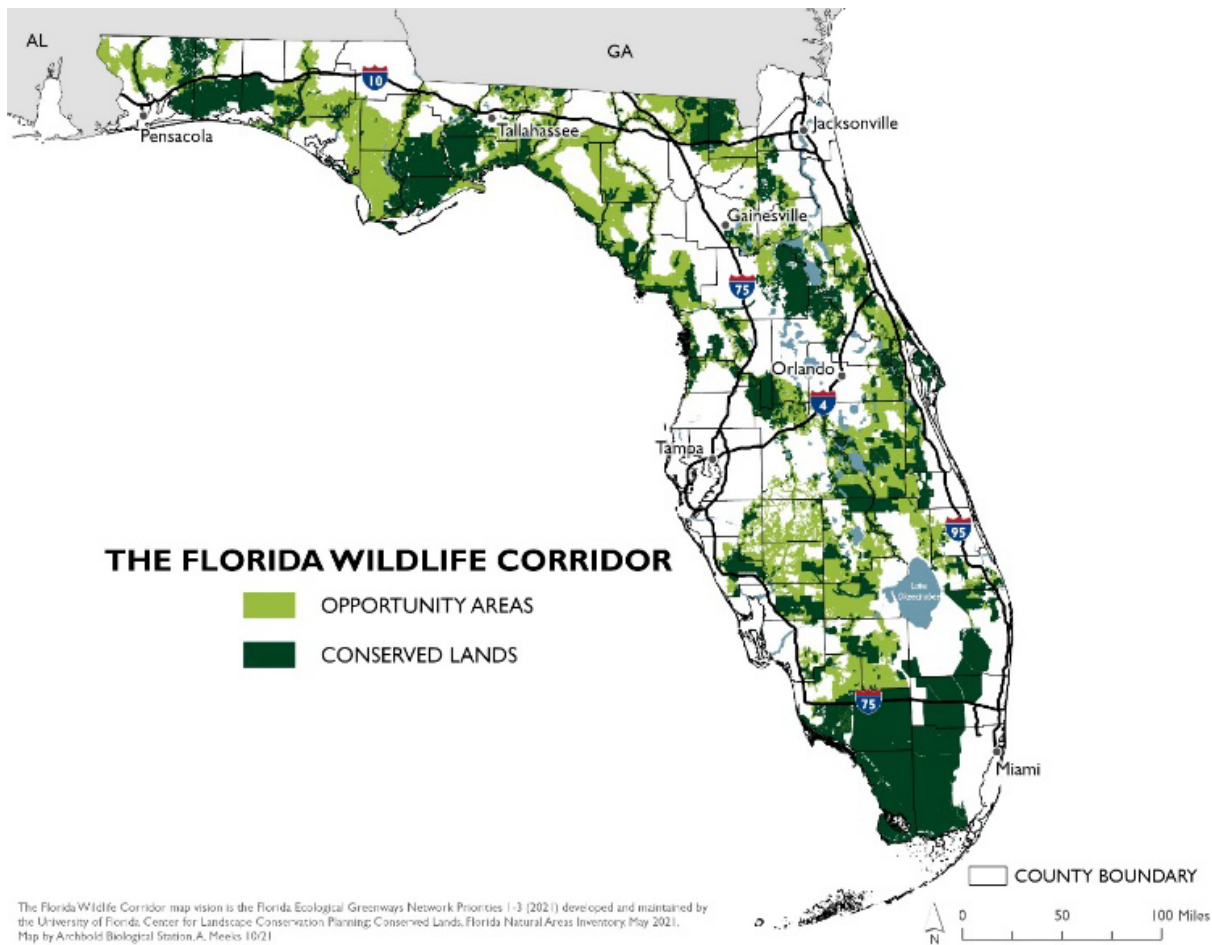
- Map tool showcasing flood exposure
- Flood layers can be overlaid with other data layers such as population density, critical infrastructure, and priority environmental habitats
 - Best Practice projects

Peril (Hazard) of Flood

- The Florida Legislature recognizes adverse impacts of flooding & sea level rise affect coastal & **inland communities** all across Florida. (F.S. 380.093)
- Coordinated approach needed to maximize efforts to address such impacts & to improve Florida's resilience to flooding and sea level rise.
 - Consider future flood risks
 - Include principles, strategies, and solutions to reduce the flood risk
 - Identify site development techniques and best practices to reduce losses
 - Provide consistency with flood requirements from Florida Building Code
 - Encourage participation in National Flood Insurance Program Community Rating System



Florida Wildlife Corridor



One Water – A 50 Year Adaptive Plan

An integrated approach to **green infrastructure** & sustainable water management



ONE • WATER
WINTER HAVEN

Restore

Restoring lakes and wetlands that provide natural water storage

Recharge

Replenishing the natural aquifers using green infrastructure

Reclaim

Modernizing reclaim and wastewater treatment technology

Reuse

Increasing the life cycle of water as a renewable resource in Winter Haven



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Developing a Heartland Resiliency Action Plan

- **Create a vision of resilient inland communities encompassing urban, suburban and rural communities.**
- **Define both local and regional goals, objectives, strategies, and actions to support alignment of critical issues.**
- **Consider federal and state planning requirements.**
- **Define best practices, national metrics, and certification requirements.**
- **Include a scorecard to measure progress and achievements.**
- **Develop actional strategies for the next five years.**



The Action Plan will:

- Focus on current conditions
- Be a living document that will be updated as data becomes available
- Will provide considerations for implementation

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Next Steps

Formation of Resiliency Workgroups

(Please select 3)

- Infrastructure/Stormwater
- Transportation
- Land Use and Design
- Natural Resources

Next Steps

- ✓ Identification of community needs
- ✓ Current and planned resiliency activities
- ✓ Reports/studies in process or completed – ex. drainage basin studies, stormwater master plans, etc.
- ✓ Survey forthcoming – questions you would like included?
- ✓ Formation of working committees – please choose 3

Thank you!

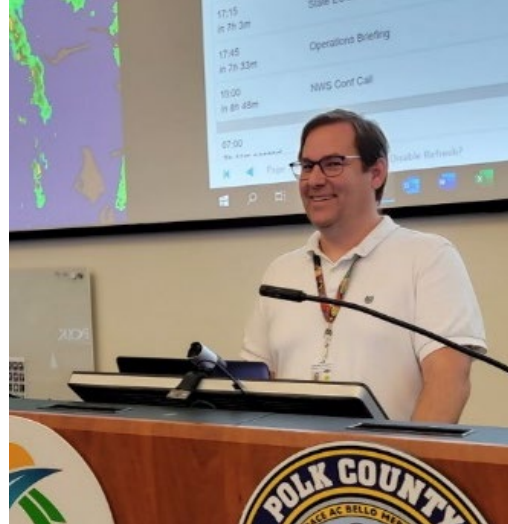


Contact



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