

DeSoto County Vulnerabi lity Assessmen t Update

Central Florida
Regional Planning
Council

August 11, 2026



RESILIENT FLORIDA PROGRAM

Florida Statutes 380.093 (Established in 2021)



Building a stronger, more resilient Florida.

The Resilient Florida Program supports counties and municipalities in preparing for flooding, sea level rise, and extreme weather through planning, assessments, and infrastructure investments.



State-funded through the Florida Department of Environmental Protection (FDEP).

Empowering communities. Protecting Florida's future.



This program helps counties and municipalities make informed decisions today to protect our communities, infrastructure, economy, and quality of life for tomorrow.

THE RESILIENT FLORIDA PROGRAM SUPPORTS:



VULNERABILITY ASSESSMENTS

Identify flooding risks to critical infrastructure, community assets, and natural resources.



ADAPTATION PLANNING

Develop strategies and projects to reduce risk and build long-term community resilience.



STATEWIDE RESILIENCE PLANNING

Create consistent data, tools, and priorities to strengthen Florida's resilience statewide.



REGIONAL & LOCAL PARTNERSHIPS

Coordinate efforts across state agencies, regional entities, and local governments.



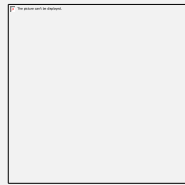
FUNDING & INVESTMENT SUPPORT

Position communities to compete for state and federal funding opportunities.

AWARDED VULNERABILITY ASSESSMENT PROJECTS



Awarded to DeSoto County
(includes City of Arcadia)



CFRPC and Stakeholders
developed the
Vulnerability Assessment



FY 2022/2023 FDEP Funded
through Resilient
Florida Program

WHY DOES THIS ASSESSMENT MATTER

Protection

Protecting Critical Infrastructure

- Identifies Potential Flooding Impacts to Critical Infrastructure

Investment

Supporting Smarter Investments

- Helps to prioritize flood mitigation efforts and resiliency projects

Funding

Strengthening Grant Competitiveness

- FDEP's Resilient Florida, FDEM, Others

Long-Term

Long-Term County and Municipal Planning

- CIPs, LMS, Comprehensive & Transportation Planning, Stormwater Planning, Adaptation Planning

Prepare

Preparing for Future Conditions

- Evaluates future rainfall and flooding conditions

Project Partners

Public safety

Transportation

Utilities

Building &
Housing

Community &
Economic
Development

Education

Environment

Planning

Parks,
Recreation &
Cultural
Resources

Human &
Social
Services

Local Elected
Officials

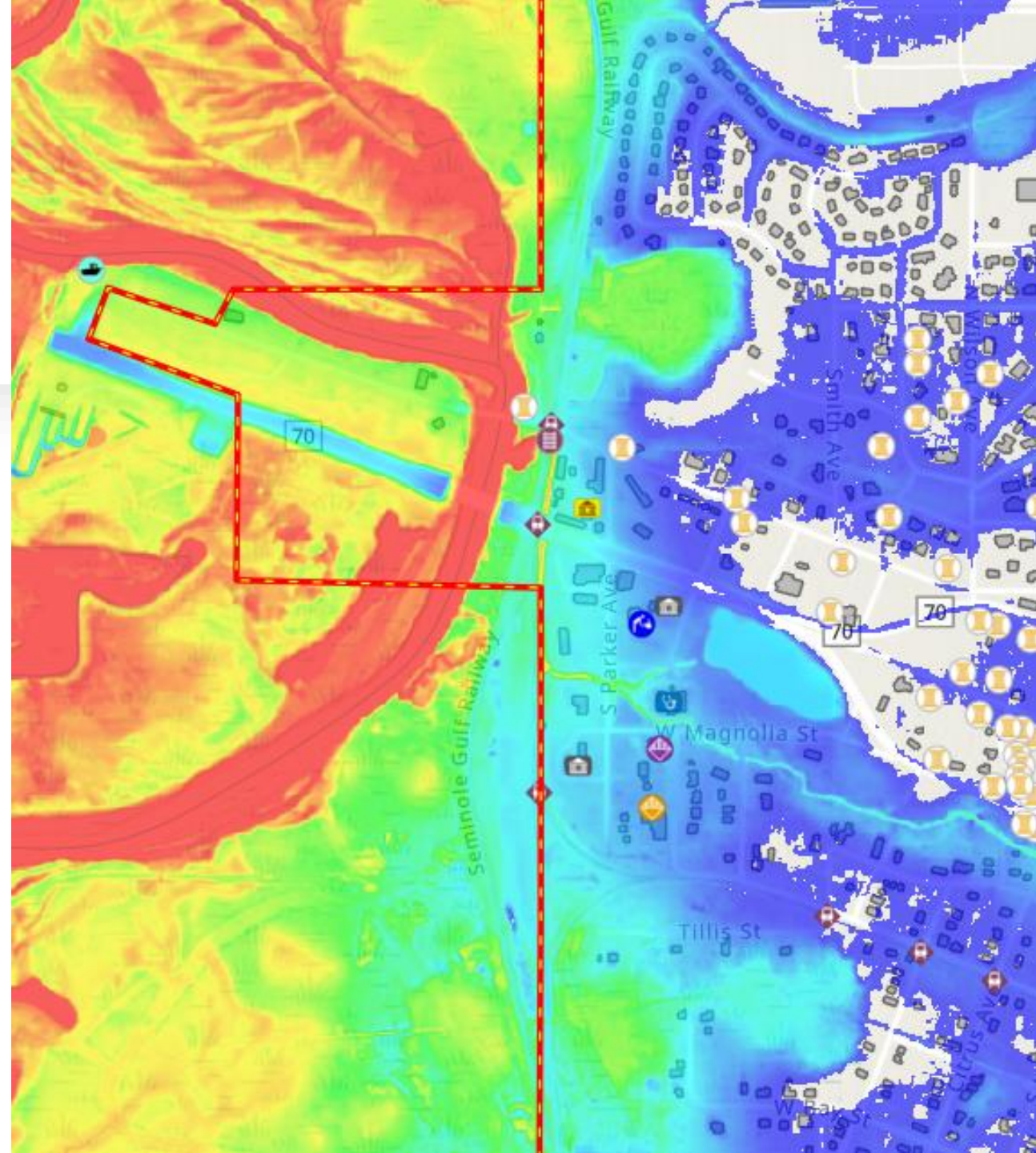
Community
Leaders or
Champions

Researchers &
Scientists

State and
Federal
Governments,
NGO's

HOW THE VULNERABILITY ASSESSMENT WORKED

- Identified critical assets
 - Transportation and Evacuation Routes
 - Critical Infrastructure
 - Critical Community and Emergency Facilities
 - Natural, Cultural, and Historical Resources
- Modeled future flood conditions (2040 & 2070)
 - 100-Yr/24-Hr 200-Yr/24-Hr
500-Yr/24-Hr
- Evaluated which assets are most exposed or sensitive to



VULNERABILITY ASSESSMENT INTERACTIVE DATA VIEWER

<https://experience.arcgis.com/experience/78efcea42a884e578914bc48391f86f7/>

Vulnerability Assessment Map

DeSoto County - Florida

Arcadia

Find address or place

Find Asset by CFRPC ID #

Myakka City

Hidden River

Myakka River

Point Assets: 1,236

Polyline Assets: 10,080

Polygon Assets: 11,857

Transportation Assets: 6,810

Myakka River State Park

State Road 72

72

Orange Hammock Ranch

75

North Port

Veterans Blvd

75

Port Charlotte

Kings Hwy

776

Peace River Shores

Prairie Creek

76 ft

Rooney Slough

76 ft

State Road 70 W

84 ft

DeSoto County

Arcadia

5 mi

Esri, NASA, N

IGS | University of South Florida, FDEP, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS. Powered by Esri



DeSoto County - Vulnerability Assessment

DeSoto County Vulnerability Assessment includes the City of Arcadia.

What is a Vulnerability Assessment?
Florida Statutes Section 380.093 provides the details behind Resilient Florida Grant Program; comprehensive statewide flood vulnerability and sea level rise data set and assessment; Statewide Flooding and Sea Level Rise Resilience Plan; and regional resilience entities.

Vulnerability Assessments (VA) serve as a tool to identify populations and geographic regions that may be at risk of flooding so that communities can become more prepared and resilient to hazards, like extreme weather.

☐ Don't show this again

OK



KEY FINDINGS



Flooding risks are increasing in the future and affect multiple infrastructure systems across the Region.



Critical facilities and transportation networks may face operational impacts during major storm events into the future.



The VA can provide a prioritization for future resilience planning and investment decisions.



The assessment positions the jurisdictions to pursue future state and federal grant funding opportunities.



Coordination across jurisdictions and agencies is essential for long-term resilience planning.

WHAT STAGE ARE WE IN

Vulnerability Assessment

- Approved by FDEP

Adaptation Action Area Plans

- Finalized and Up
Next

March 2026

DeSoto County **Vulnerability Assessment**

FDEP AGREEMENT: 23PLN109



Prepared For:
DeSoto County

201 East Oak Street,
Suite 201, Arcadia, FL
34266

Prepared By:
CFRPC

555 E Church Street,
Bartow, Florida 33830





Coastal & Heartland National Estuary Partnership

Adaptation Action Area Plans

Coastal & Heartland National Estuary Partnership



- Part of US EPA National Estuary Program, funded by US Congress
- Across 10 counties in Central and Southwest Florida, including the Peace River basin.



Uniting Central and Southwest Florida to Protect Water and Wildlife

THE POWER OF PARTNERSHIP

CHNEP is

- Public-private partnership
- Consensus-based
- Non-regulatory
- Science-based
- Citizen-supported



Coastal & Heartland National Estuary Partnership
Uniting Central and Southwest Florida to protect water and wildlife

CHNEP COMMITTEE MEMBERS



Uniting Central and Southwest Florida to Protect Water and Wildlife

CHNEP'S ROLE IN THIS PROJECT

- For this project, CHNEP is providing:
 - Funding for Contractors' work
 - Project management support
 - Technical review of deliverables
 - Public education and outreach
 - Public project data access on CHNEP Water Atlas



DeSoto
COUNTY FL

CHNEP is also planning to assist long-term in the implementation of County's Vulnerability Assessment and Adaptation Action Area Plans.



Uniting Central and Southwest Florida to Protect Water and Wildlife

Kimley»»Horn

**Kimley-Horn and
Associates**

Hardee County Adaptation Action Area Plans



Adaptation Action Area Plans: Identification, Ranking, and Proposed Adaptive Strategies

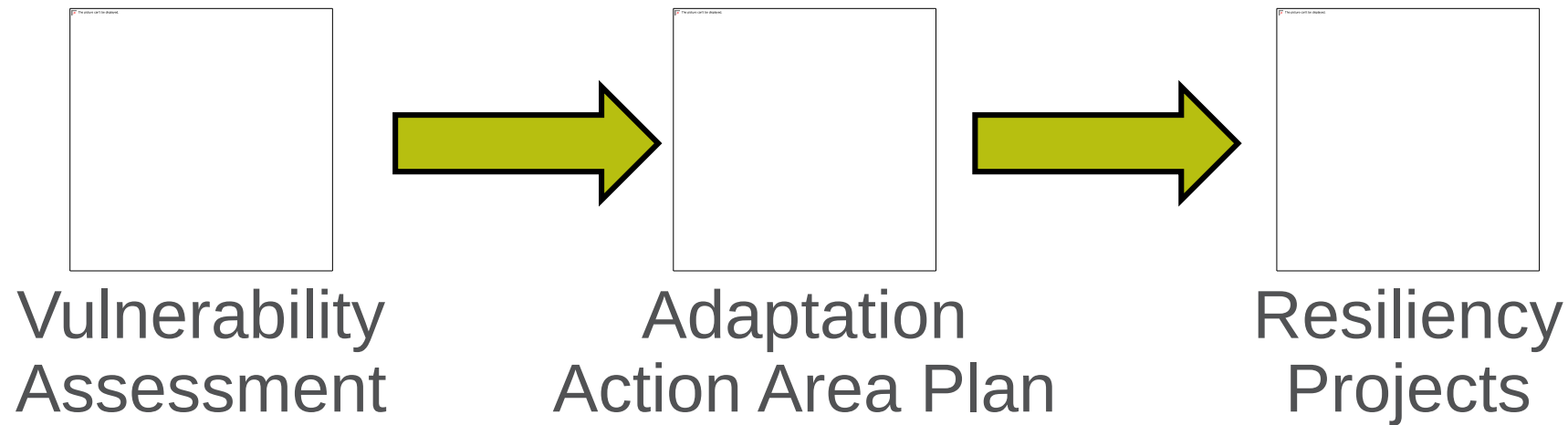
BOCC Meeting – Desoto County

Date: 8/11/2026

Kimley»Horn

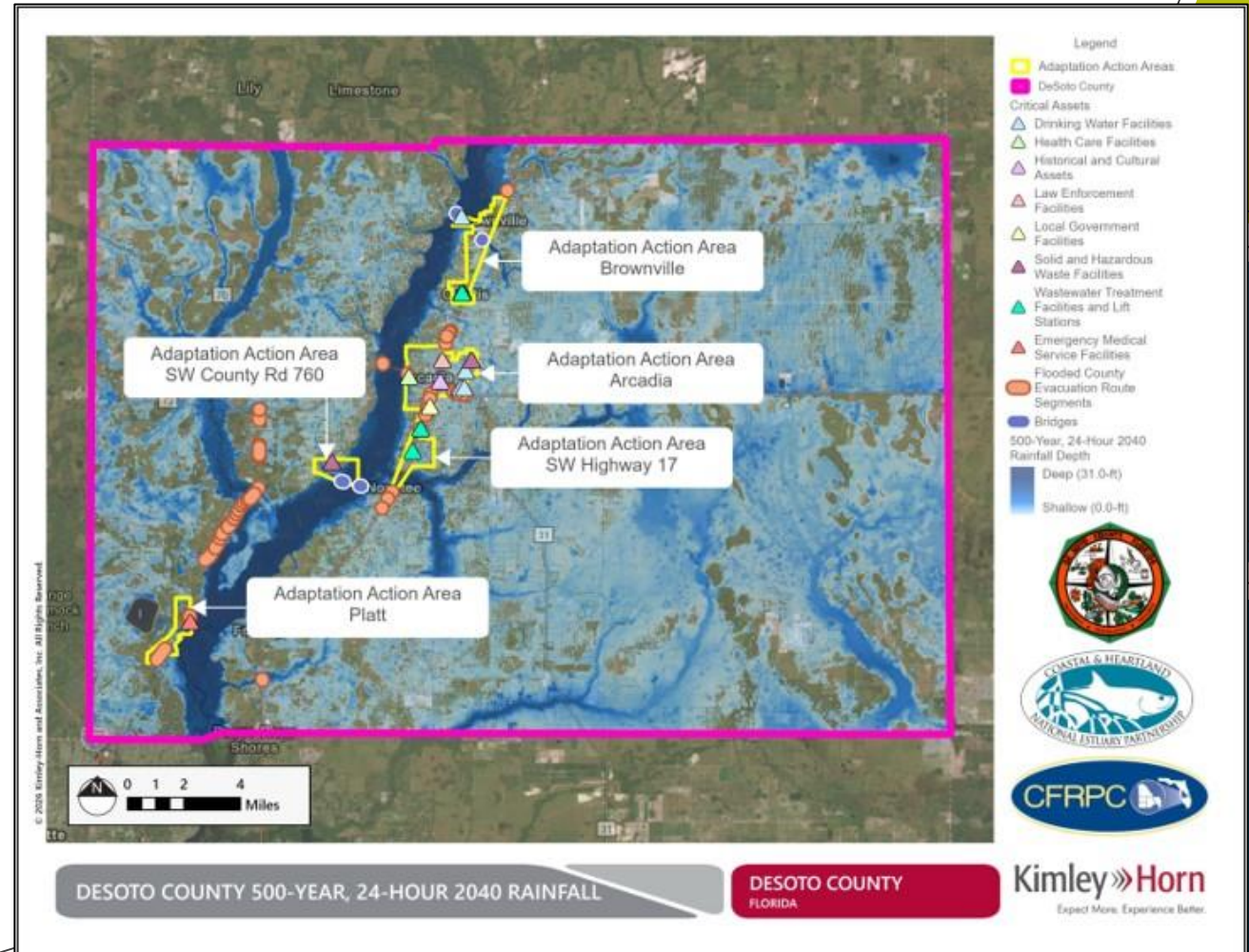
Adaptation Action Area Plan Overview

- Adaptation Action Area Plans provide a framework to respond to the findings of the Vulnerability Assessment



Adaptation Action Areas: Identification

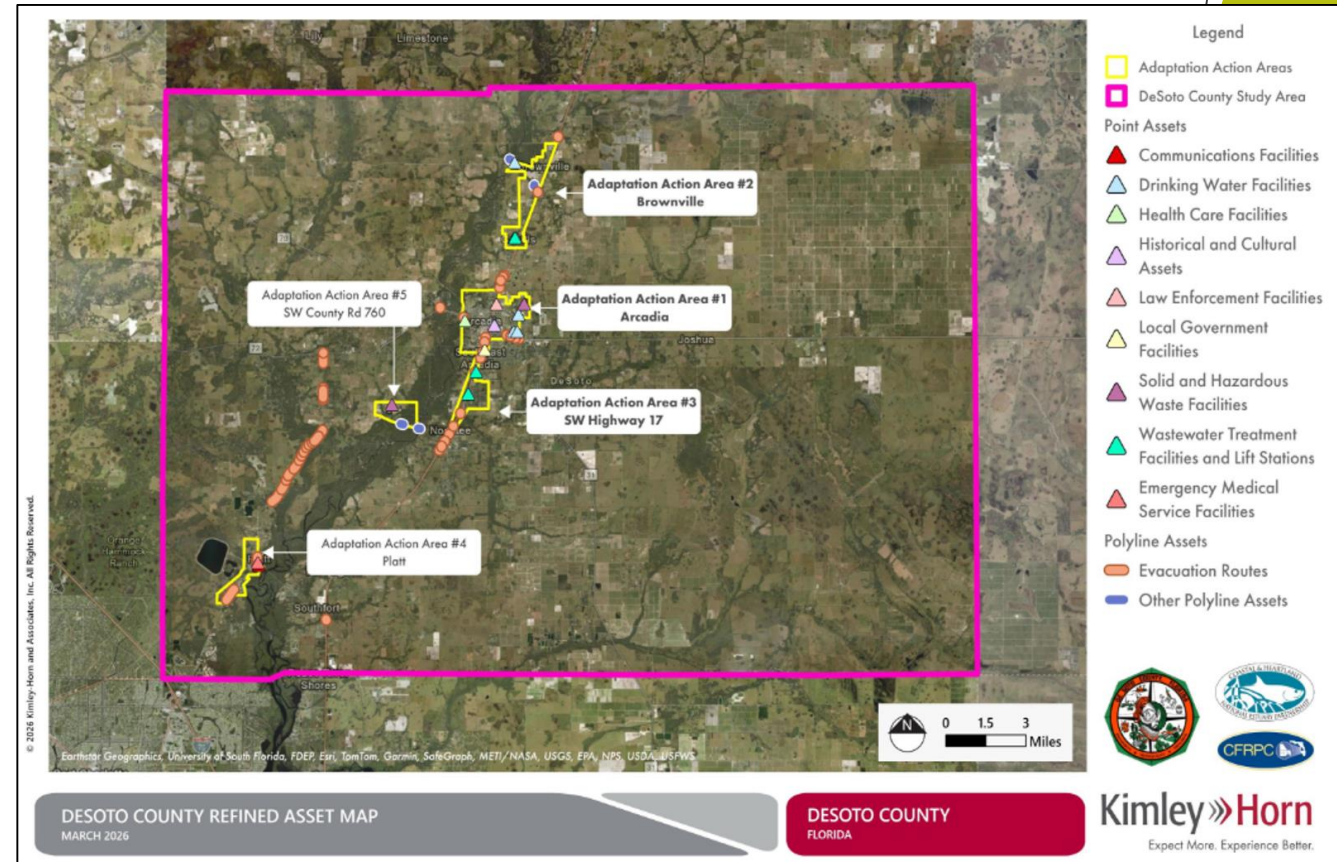
- Adaptation Action Areas (AAA) were defined to group critical assets for targeted Adaptation Plans
- AAAs were defined using:
 - Flood Extents
 - Critical Asset Distribution
 - Municipal and Parcel Boundaries
- The following AAAs were delineated:
 - Arcadia
 - Brownville
 - SW Highway 17
 - Platt
 - SW County Rd 760



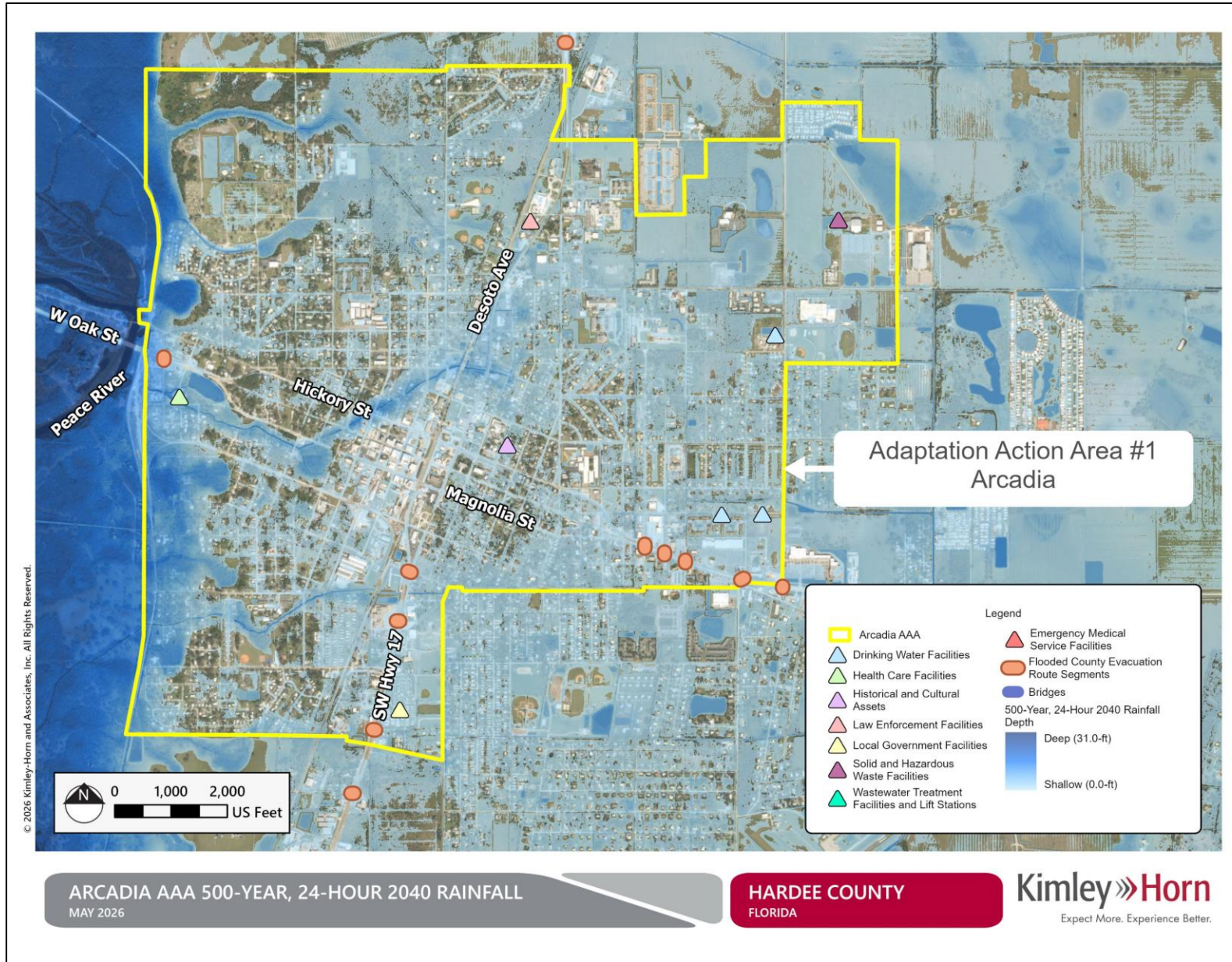
Adaptation Action Areas: Ranking

- A multi-criterion weighted matrix was developed to rank the AAAs
 - Used data from the DeSoto County VA and public outreach comments.
- Weighted final scores were totaled to determine AAA rank

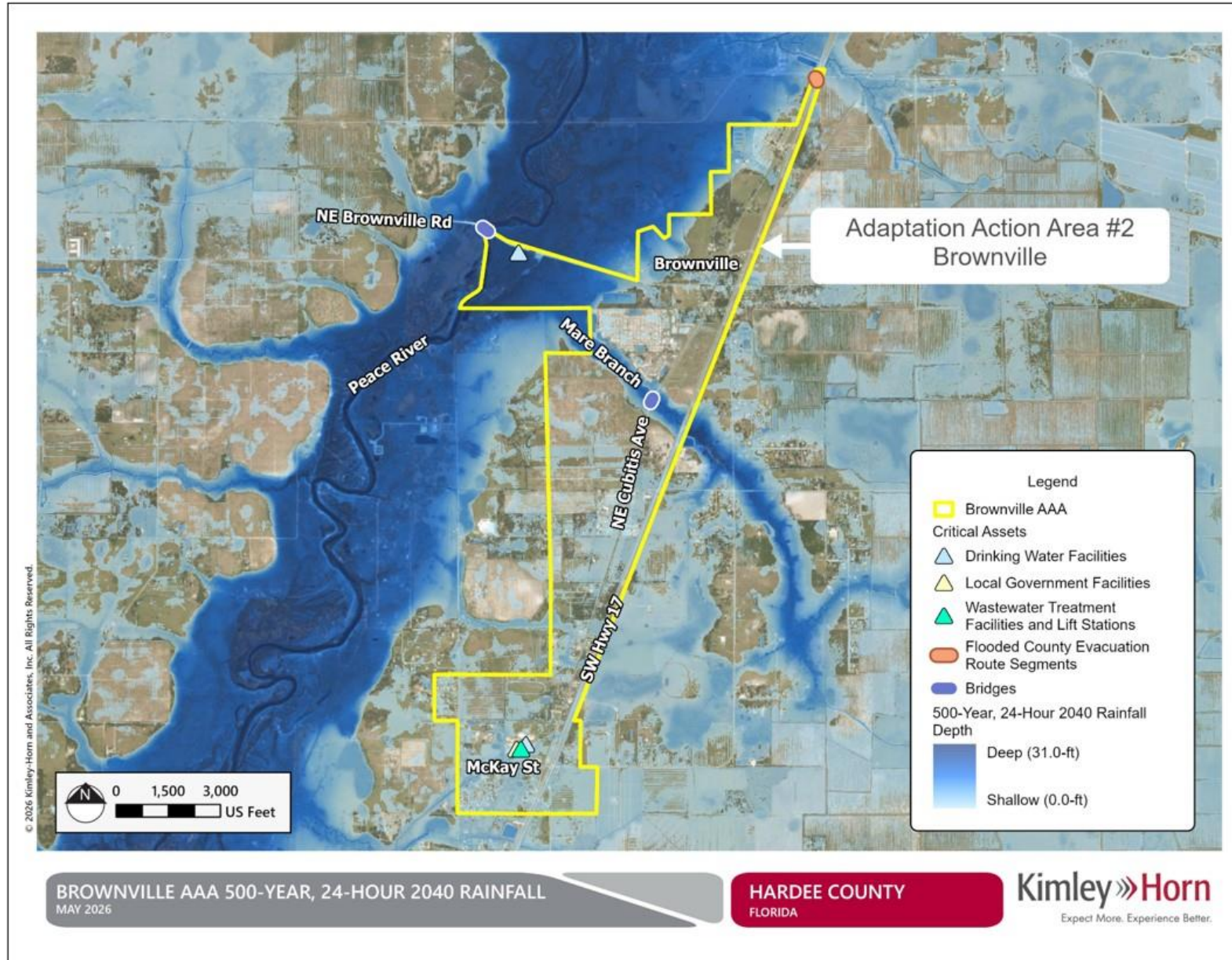
Criteria	Weight
Exposure Analysis (100-Year)	25%
Exposure Analysis (500-Year)	20%
Sensitivity Analysis	20%
Asset Ownership	10%
Asset Relevancy	5%
Asset Group	5%
Length of Inundated Evacuation Routes	5%
Length of Inundated Polyline	5%
Quantity of Public Comments	5%
Total	100%



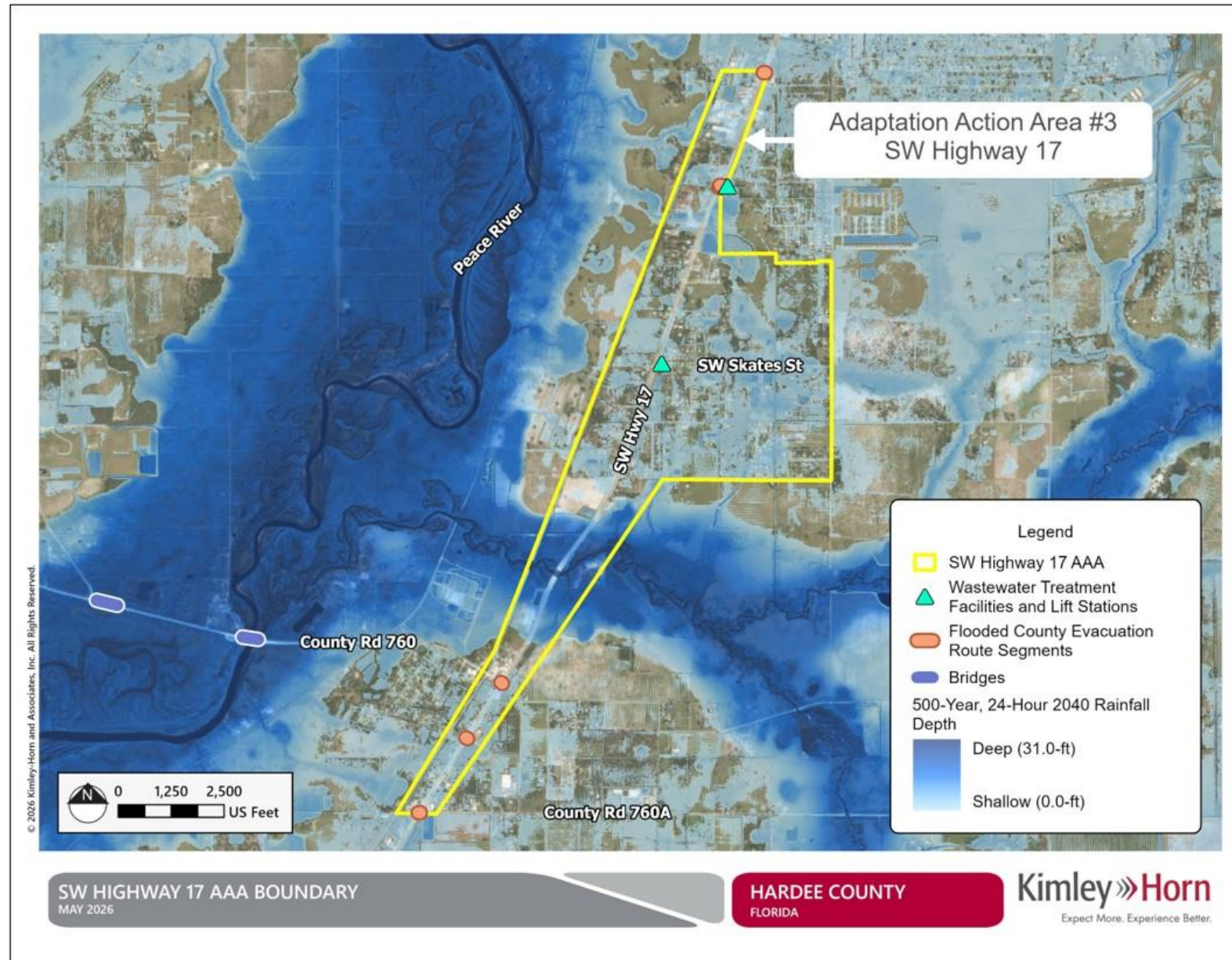
Adaptation Action Area #1 Arcadia



Adaptation Action Area #2 Brownville

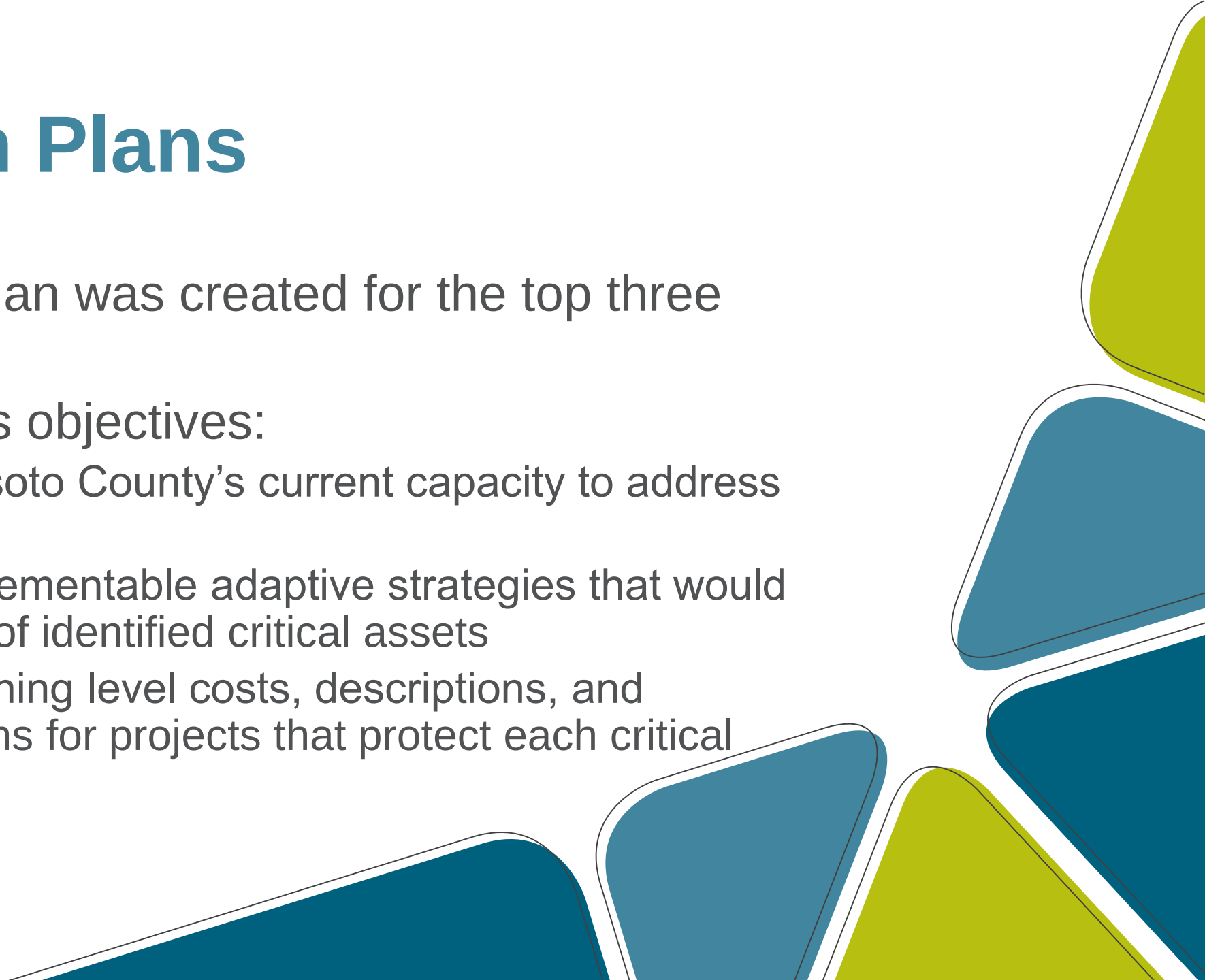


Adaptation Action Area #3 SW Highway 17



Adaptation Plans

- An Adaptation Plan was created for the top three ranked AAAs
- Adaptation Plans objectives:
 - To Highlight Desoto County's current capacity to address flood resiliency
 - To propose implementable adaptive strategies that would reduce flood risk of identified critical assets
 - To develop planning level costs, descriptions, and conceptual designs for projects that protect each critical asset



Adaptive Strategies: Arcadia

- Install Deployable Flood Barriers at Arcadia Police Department
 - Cost effective temporary solution to increase flood resiliency during and after major storm events



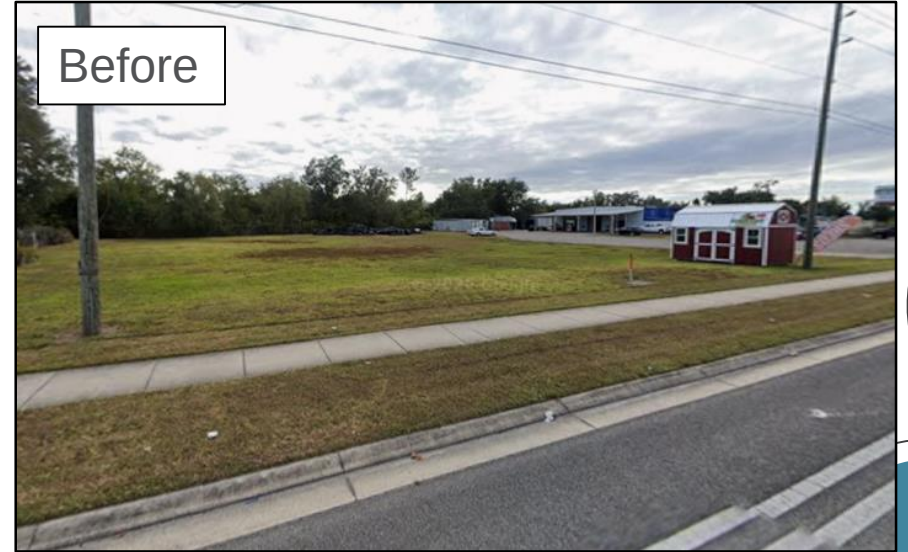
Adaptive Strategies: Brownville

- Implement Low Impact Development Improvements at the DeSoto County Road & Bridge Department, Wash Bay, and Well
 - Better utilizes open space
 - Improves stormwater quality and creates additional storage
 - Reduces stormwater runoff and localized flooding



Adaptive Strategies: SW Highway 17

- Implement New Roadside Swales and Detention Ponds
 - Stores and attenuates stormwater runoff during peak rainfall events
 - Reduces depth and duration of flooding on roadway surfaces



WHAT HAPPENS NEXT

Need to coordinate with
counties, municipalities
and partners on projects
crossing jurisdictional
boundaries

PURSUE IMPLEMENTATION GRANTS

i.e. Resilient Florida
Grants

Implementation Projects:

Applications accepted
July 1 - September 1,
2026



Arcadia - Post Hurricane Ian