

BUILDING ON SUCCESSES & CHARTING NEW PATHS

Stephanie Bray, NFRMP & FPMS

National PM

Jared Lopes, SAS & Trevor

Lancaster, SAW

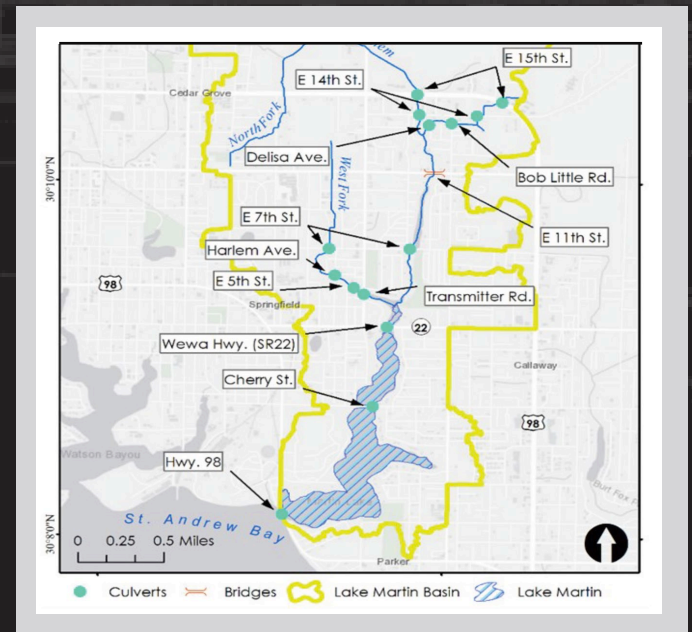
Greg Mausolf, LRE

Meredith LaDart, SWD

Rachel Orellana, SPK

JULY 13, 2023

2:30-3:30 PM EDT



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USACE SME RESOURCES

- Environmental Justice POCs
- Tribal Liaisons
- Climate Preparedness and Resilience CoP
- Engineer Research and Development Center
- Water Management and Reallocation Center of Expertise
- Hydrology Hydraulics and Coastal CoP
- Collaboration and Public Participation Center of Expertise
- Risk Management Center
- National Nonstructural Committee
- Planning Centers of Expertise

SEA LEVEL CHANGE VULNERABILITY ASSESSMENTS

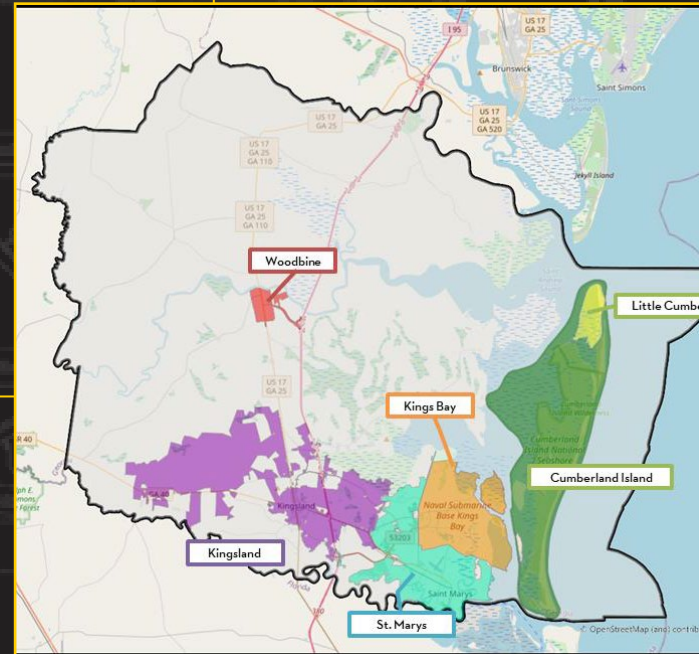
FPMS INTERAGENCY NONSTRUCTURAL

July 13, 2023

Presented By:

Jared M. Lopes, SAS

Trevor Lancaster, SAW



US Army Corps
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ERDC COASTAL HAZARDS SYSTEM



<https://chs.erdcdren.mil/>

COASTAL HAZARDS SYSTEM, V2.0

Home Web-Tool Studies Tools Library Help Logoff

/ Web-Tool / Study

Update: Filters must be applied below before viewing conditions.
Status: See Quick Start Guide in Help Menu for guidance.
SACS: Tropical Historic data has been broken out into their own Model Condition/Area for ease of access.

Regional Coastal Studies

Instructions

CHS - South Atlantic Coastal Study (CHS-SACS)

Save Point (Model Condition/Area)

Instructions

Apply Filter

Name	Select	Results	Statistics
▼ CHS-PR (PR & USVI)			
Tropical Historic ⓘ	<input type="checkbox"/>	≡	🗑️
Base Conditions ⓘ	<input checked="" type="checkbox"/>	≡	🗑️
Base Conditions + SLC1 ⓘ	<input type="checkbox"/>	≡	🗑️

Lat/Lon 34.248 -88.088 | Scale 1:9244649 | Zoom 6

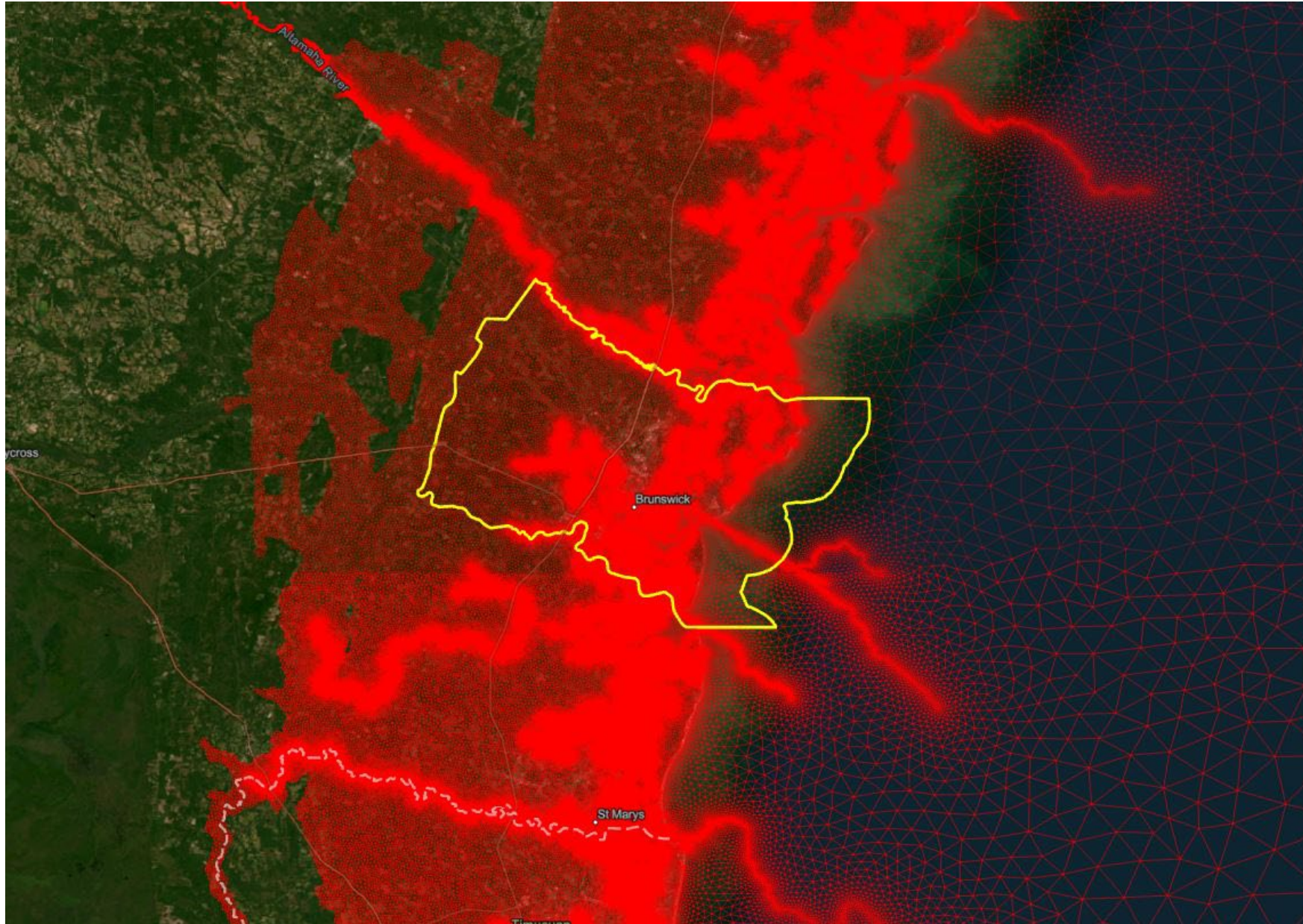
Earthstar Geographics | Esri, HERE, Garmin

Powered by Esri



ADCIRC
Model Mesh

CHS NODAL HAZARDS

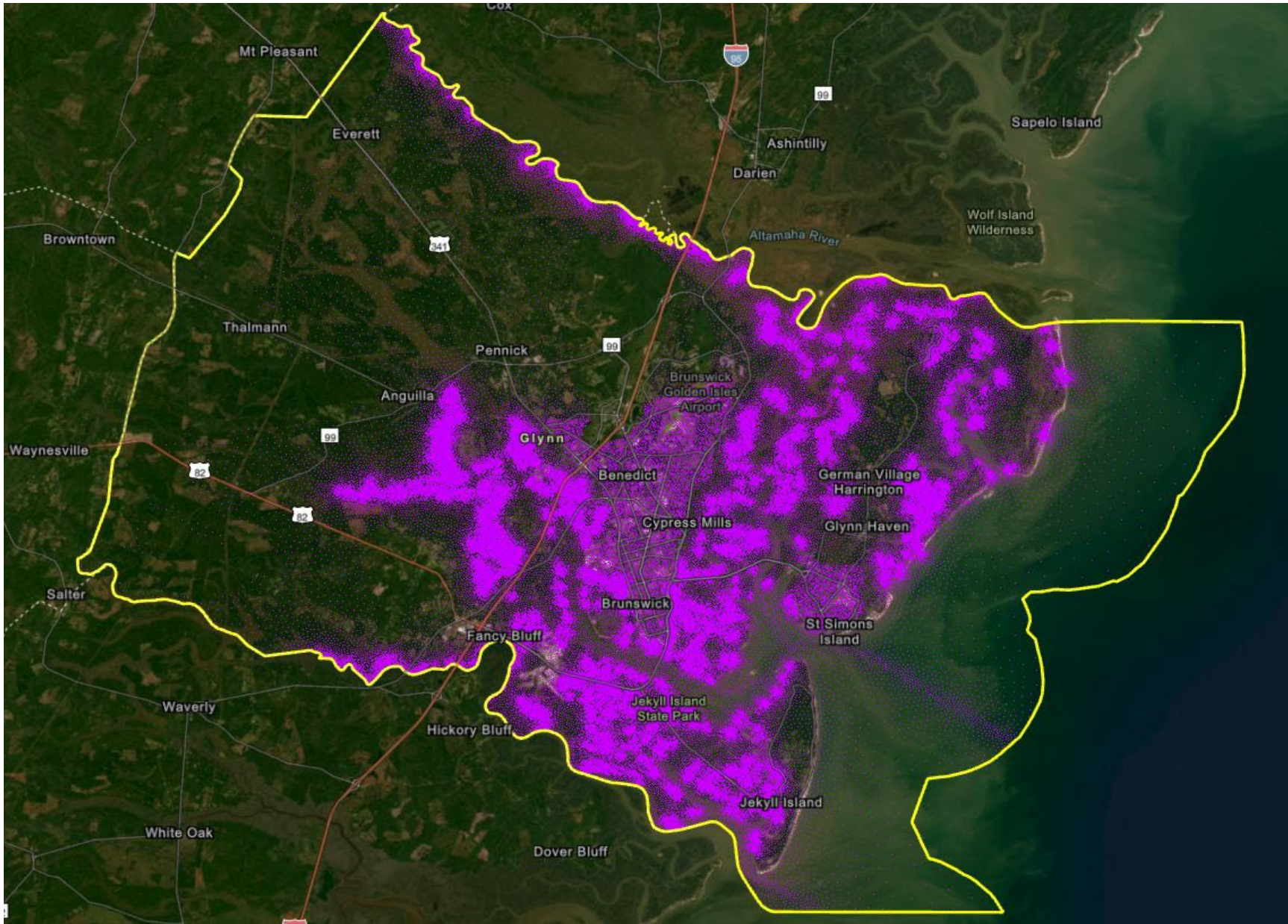




CHS NODAL HAZARDS



Nodal Hazards in Glynn County, GA

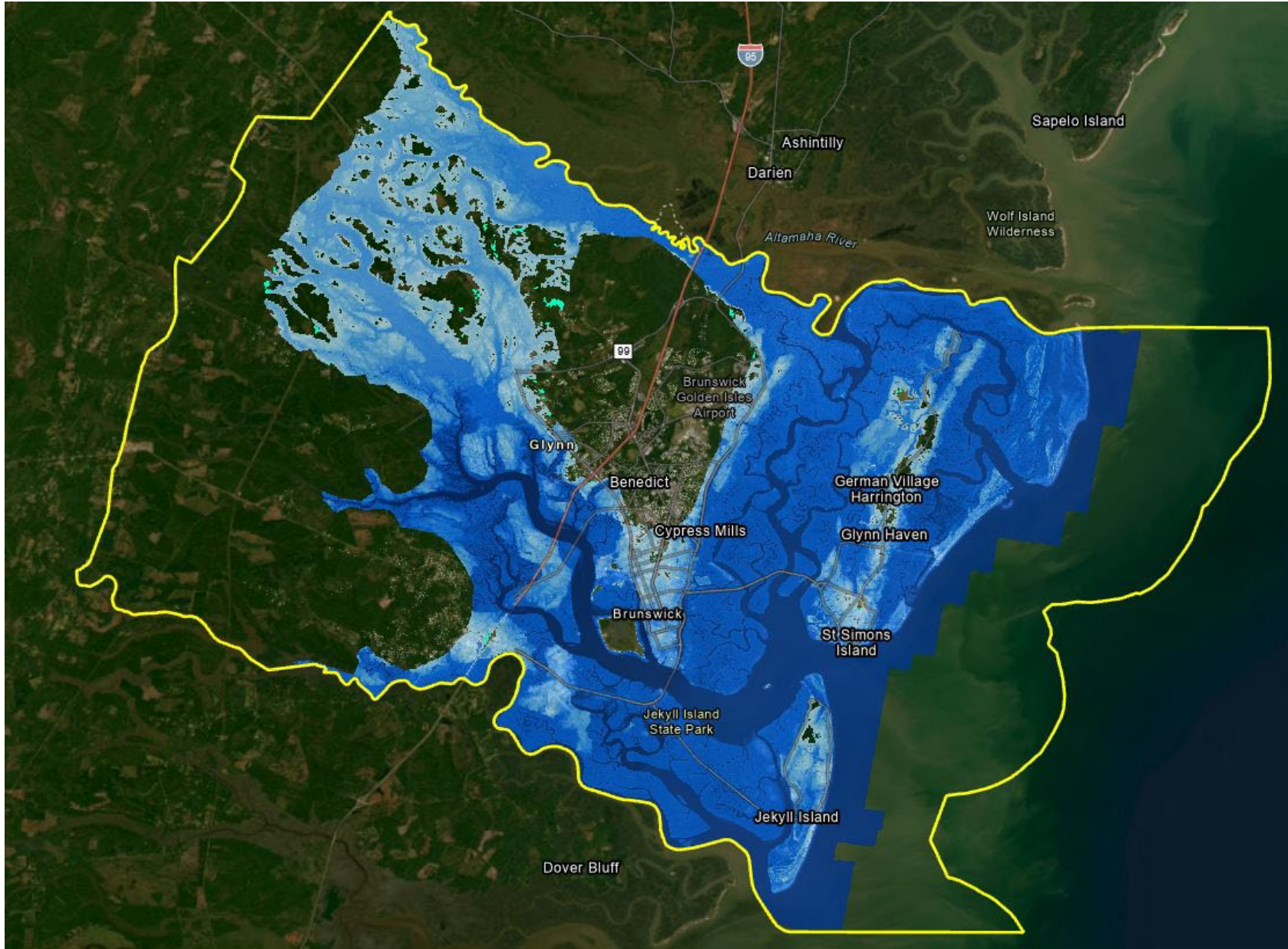




CHS NODAL HAZARDS



Interpolated
depth grid for
AEP100 –
year 2100.

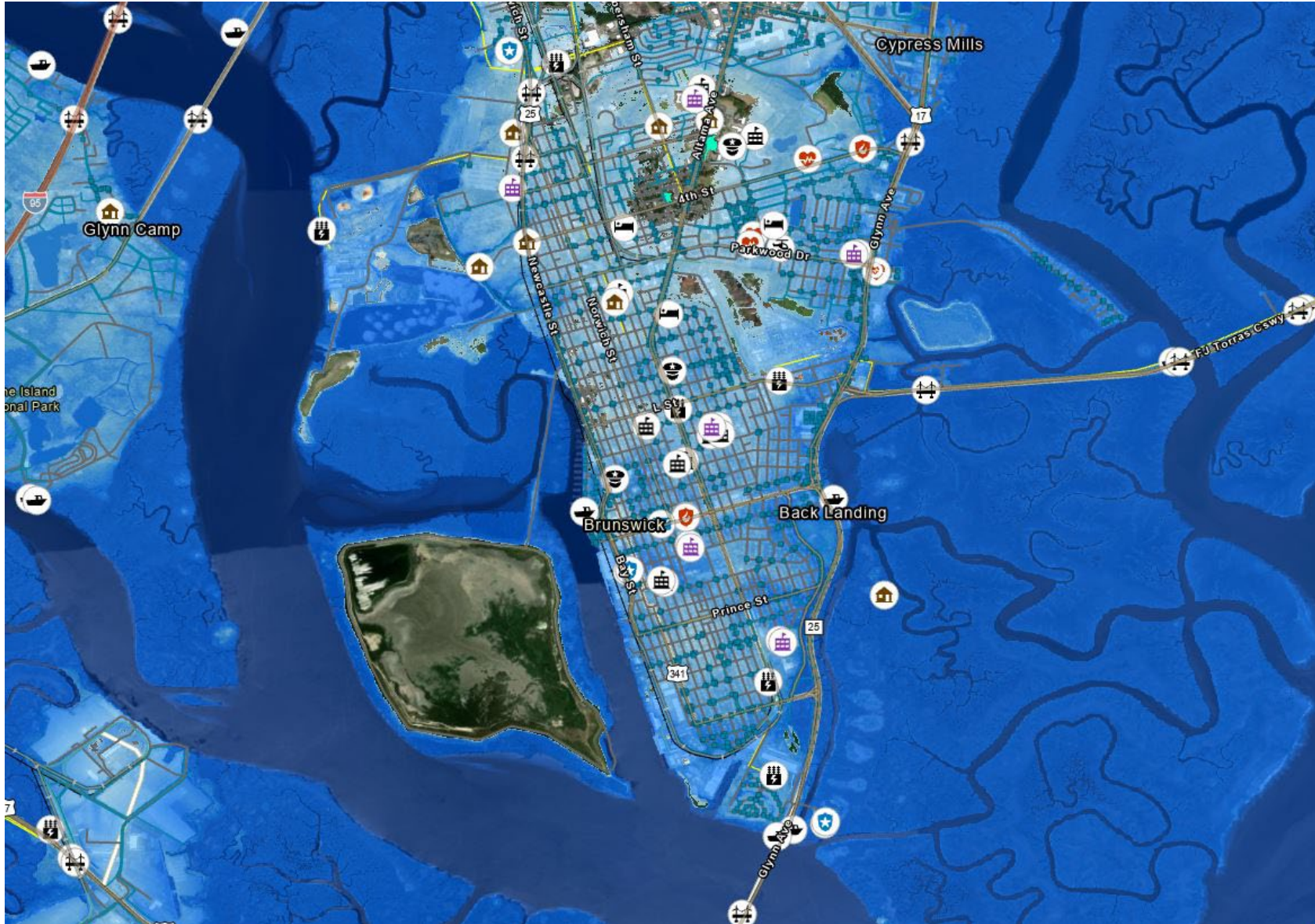




CHS NODAL HAZARDS



Interpolated depth grid for AEP100 – year 2100 in the town of Brunswick with critical infrastructure.



INCORPORATING INDIGENOUS KNOWLEDGE INTO A PAS PROJECT

Gregory Mausolf
Detroit District
PAS Program Manager



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INCORPORATING INDIGENOUS KNOWLEDGE INTO A PAS PROJECT

- Lac Vieux Desert PAS Wild Rice Studies
- LVD Tribe relies on wild rice as an important food source and cultural resource
- Production Study (\$455,000 waiver)
- Monitoring Study (\$455,000 waiver)





INCORPORATING INDIGENOUS KNOWLEDGE INTO A PAS PROJECT

- Incorporating Indigenous Knowledge into Scoping
- We Have to Listen
- Executing the PAS Study





INCORPORATING INDIGENOUS KNOWLEDGE INTO A PAS PROJECT

- Build a relationship
- Have lots of Open Communications
- Ask Questions
- Involve Tribes



WATER MANAGEMENT AND REALLOCATION STUDIES PLANNING CENTER OF EXPERTISE (WMRS PCX)

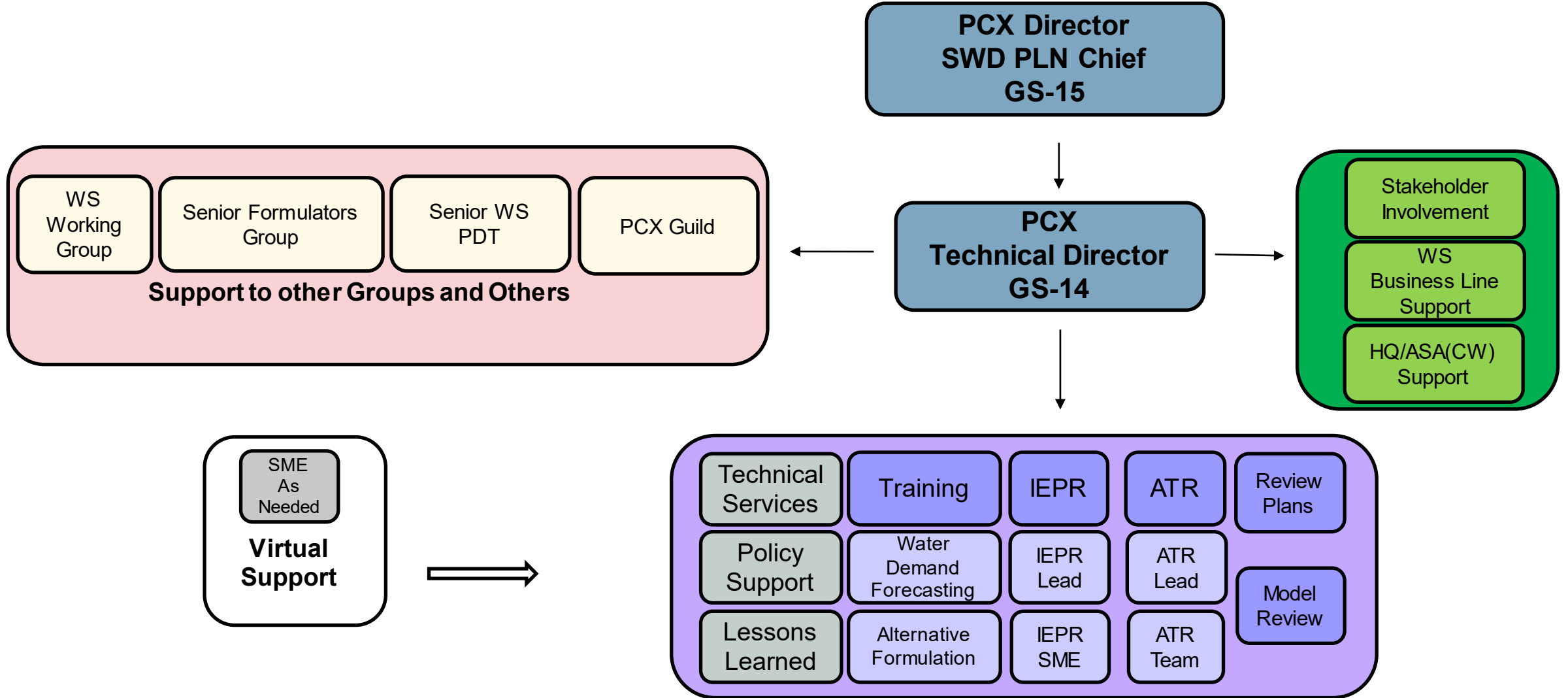
Meredith LaDart,
Technical Director, WMRS PCX
13 July 2023



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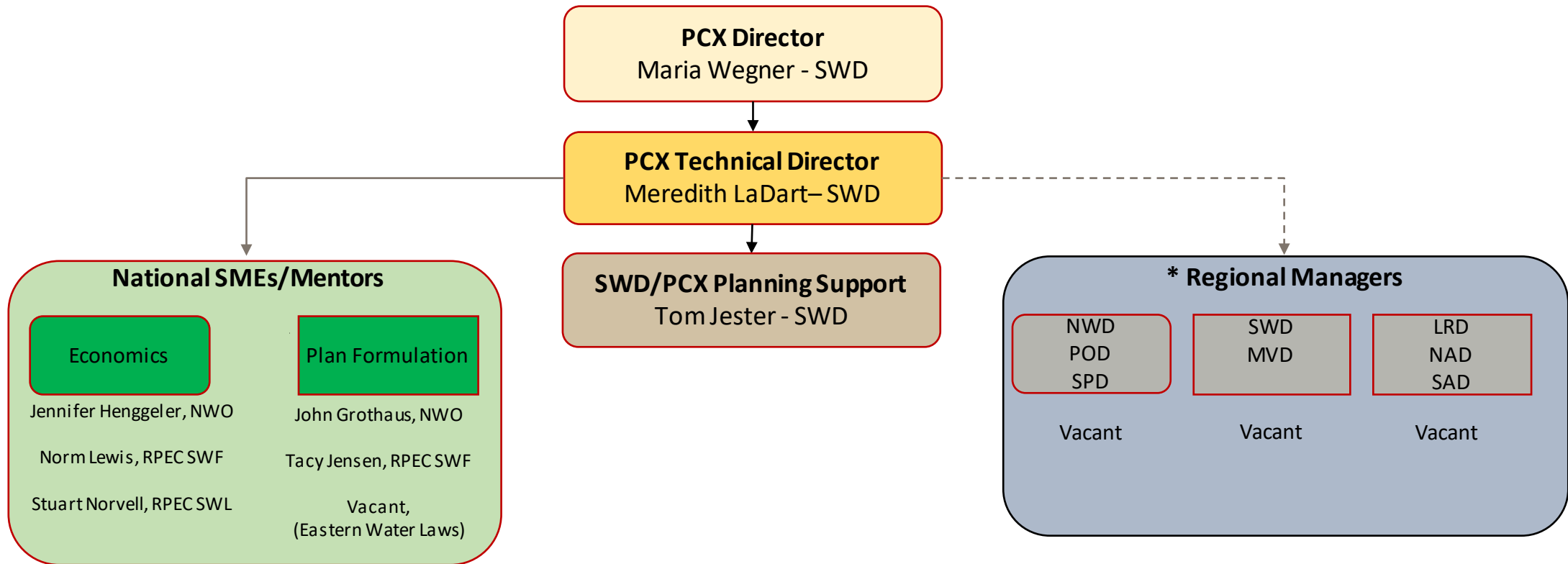


THE WMRS PCX – WHO WE SUPPORT.





WMRS-PCX STRUCTURE AND PERSONNEL



Position Type	Permanent	Permanent	Permanent (2020)	Reviews/ PDT Support	* Regional Managers
PCX Commitment (~% FTE)	5-10%	100%	25%	15%	0% (20-25%)
Primary Funding Source(s)	GE Funded	GE Funded	GE Funded	Project Funded	GE, Project, PSP Funded

* Not in place currently, but developing these positions and structure



WMRS-PCX PREVIOUS PAS EFFORTS



SWF - Cypress Bayou

SWL -Tri-State Water Coalition Water Study

SWG - Matagorda County PAS

SWT - OK Comprehensive Water Plan

SWT - Sunflower Coalition water supply study, KS

SWT – Oklahoma Comp Water Plan Phase 2

SWL – Tri-State Water Coalition Water

SWL - State Water Plan Comp Update- AR

SWF - Lake Palestine Hydro Survey

SWF - Sulphur River Water Supply Study

SWF – Brazos River Env Study

SWF – Rainwater Harvesting

SWF - Lake Tyler Hydro Survey

SAS – Savannah River Basin Water Use and Demand

Forecast

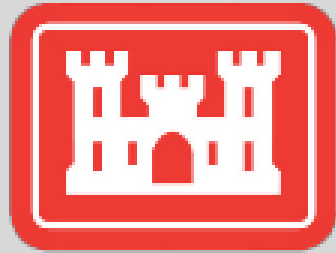
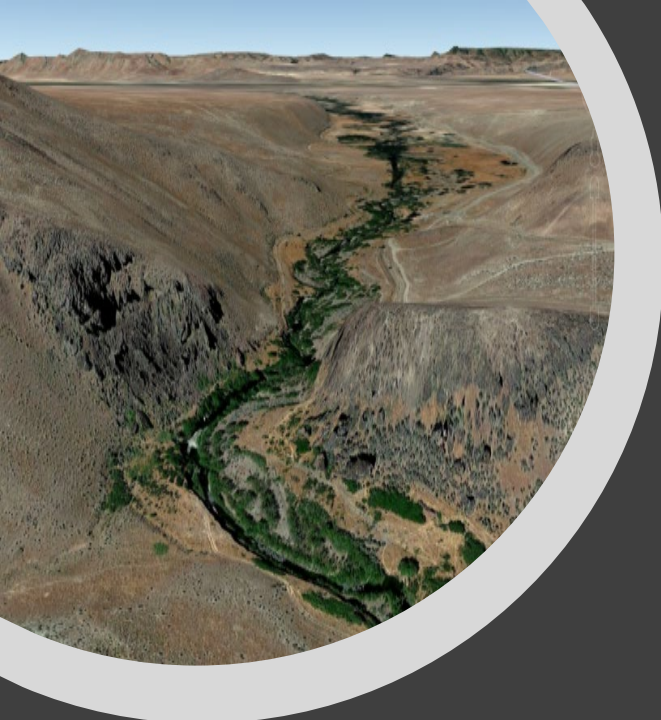


HOW CAN WE HELP



- Provide support for writing your technical scope
- Identify within USACE SME resources to support the effort
- Provide water demand modeling and model review
- Identify A/E contract capability to support development of water use data collection, demand forecasting, and state water plans.

Please reach out : Meredith.h.ladart@usace.army.mil or 251-463-8052



**U.S. Army Corps
of Engineers**
Sacramento District



Sacramento District Planning Assistance to States Support of Drought Resiliency

Rachael Orellana, PE
Flood Risk Program Manager



Planning Assistance to States and Tribes

- Comprehensive Water Resources Planning
- Technical Assistance Supporting State Water Resource Management Plans
 - (In-Kind Credit not Allowed)
- 50% Federal; 50% Non-Federal
- Up to \$665,000 Cost-share Waiver for Tribes (updated annually to account for inflation)
- ***NEW*** Federal cost share waived for economically disadvantaged communities



Sacramento District Flood Risk Management Program

Floodplain Management Services (FPMS)

Planning Assistance to States (PAS)

Silver Jackets

Continuing Authorities Program (CAP)

Tribal Partnership Program (TPP)



US Army Corps of Engineers



SACRAMENTO DISTRICT FLOOD RISK PROGRAM MANAGEMENT TEAM



Section Chief

Sarah Ross
Arrouzet



Program
Manager

Rachael
Orellana



Project
Manager

Michelle
Brown



PM
Specialist

Danae
Olsen



Program
Analyst

LaQuita
Moore



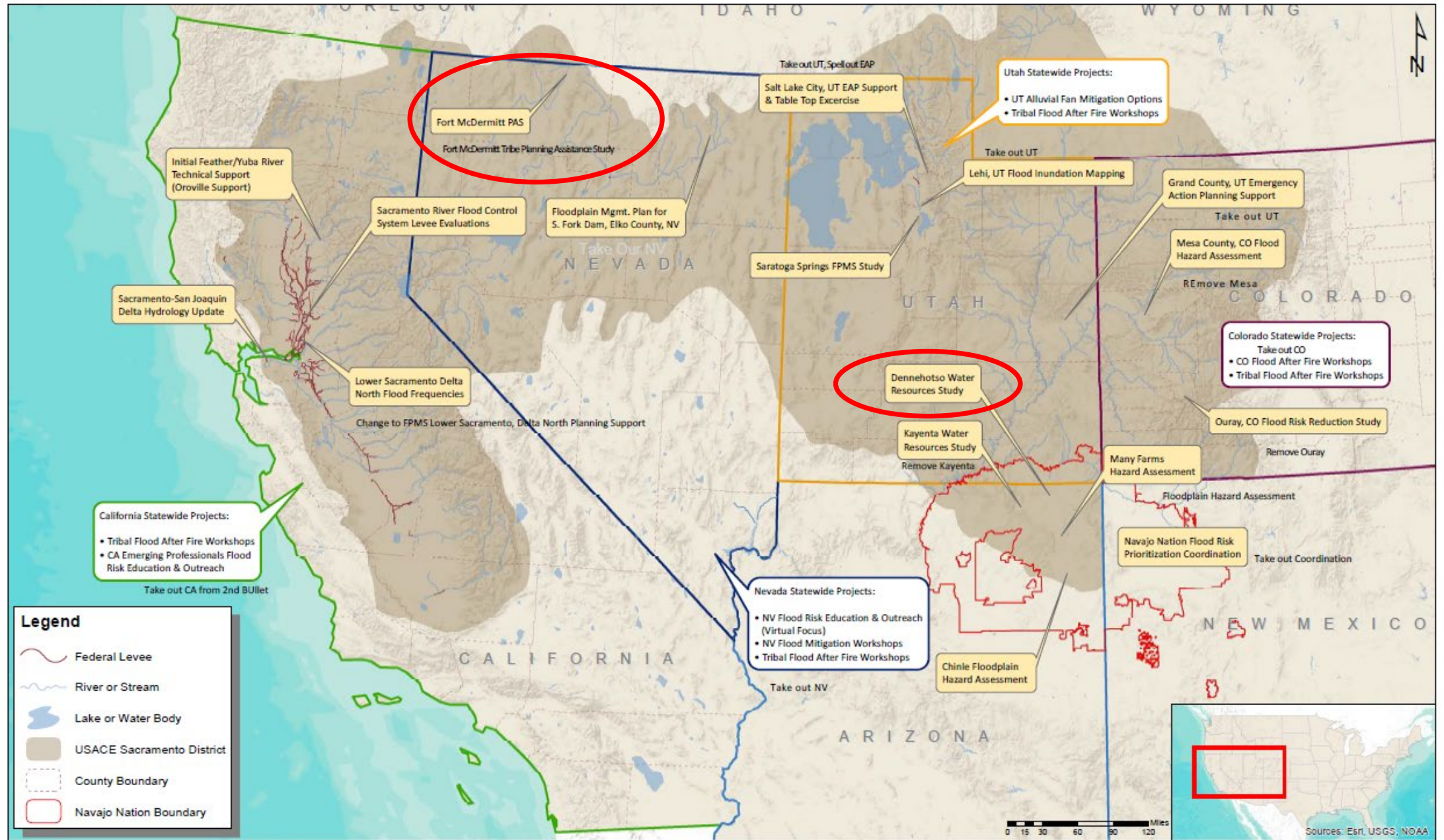
Flood Risk
Management
Program Intern

Lacey
Weber





FY22 SACRAMENTO DISTRICT FLOOD RISK MANAGEMENT PROGRAM PROJECTS



COLLABORATION CONTINUUM

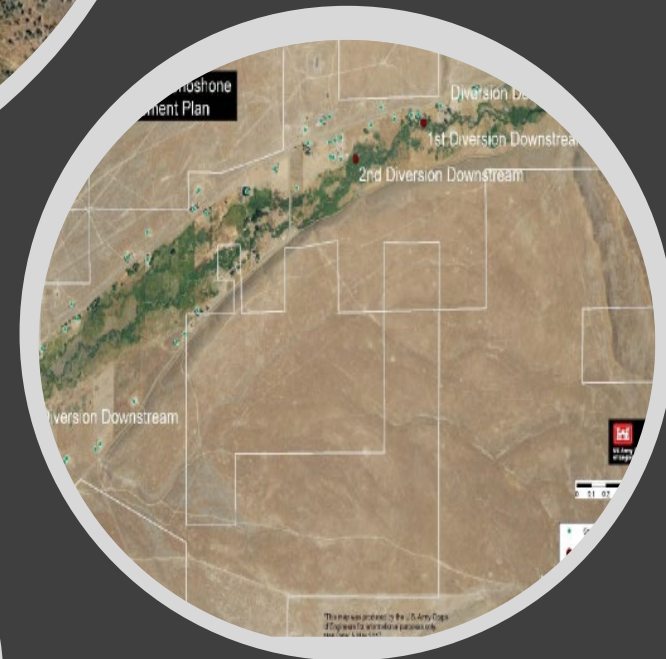
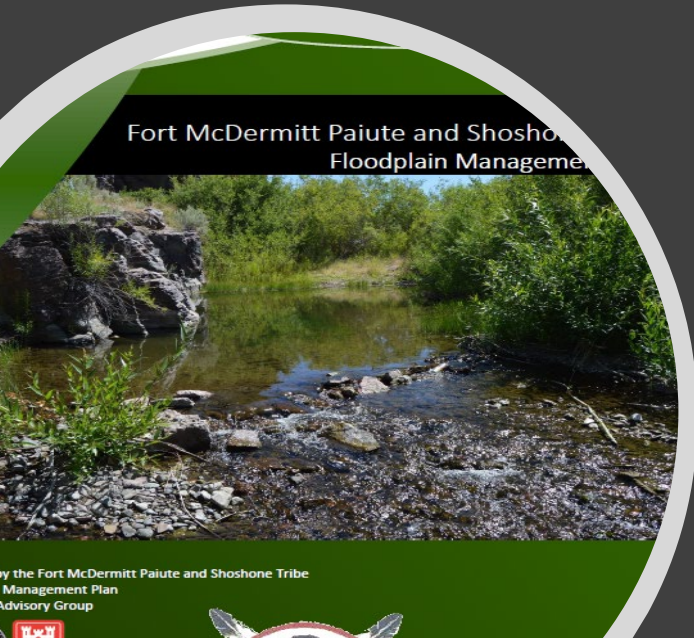


Developing Partnerships: Fort McDermitt Pauite and Shoshone Tribe

From Coexistence to Communication

- Small Tribal Community in Nevada
- 1997 Flood Destroyed Diversion Dam → lost flood protection and water supply for agriculture
- FPMS Interagency Project to Develop a Floodplain Management Plan





Developing Partnerships

From Communication to Cooperation and Collaboration

- FPMS Interagency Project to Produce Floodplain Maps
- Collaboration with NRCS



Developing Partnerships

Ongoing Partnerships

- Planning Assistance to States Project
- Technical Assistance to Support Existing Planning Efforts
- Project aimed to identify Options to Reduce Flood Risk and Increase Water Supply Reliability
- Partnership with NRCS Watershed Prevention and Flood Operations Program





DENNEHOTSO CHAPTER OF NAVAJO NATION PLANNING ASSISTANCE TO STATES PROJECT



Technical Assistance

Partner: Dennehotso Chapter of Navajo Nation

Project Description: The Chapter relied on irrigation water from Laguna Creek, which was diverted by an irrigation dam. In recent years, the dam's sluice gates failed, and the dam's reservoir filled in with sediment. This resulted in Laguna Creek becoming disconnected from the irrigation system. The Chapter requested support from USACE in identifying options to reduce their flood risk and improve their water supply reliability.

Objectives/Outcomes:

This project identified options to reduce flood risk and increase water supply reliability for the Tribe.

Status:

Final report is routing. Projected completion by the end of FY23.



WINNEMUCCA INDIAN COLONY – SITE VISIT



Tribe requested assistance with 3 items:

1. Hydrology study of the surface and groundwater of Water Canyon
2. Professional assistance in where to install a groundwater monitoring well
3. Ecosystem restoration plan or watershed assessment

Site visit with SPK Tribal Liaison, SPK Flood Risk Management Program Project Manager and Senior Hydrologist next week. The team has been coordinating with Steve Turnbull from ERDC who is exploring what he can assist with around items 1 & 2.





DROUGHT RESILIENCY SUPPORT OUTREACH



Example: Presentation to tribal rural community assistance non-profit

On May 3, 2023, I presented to the Fort McDermitt Paiute and Shoshone Tribes of the Fort McDermitt Indian Reservation, S. Fork Indian Reservation and Rural Communities Assistance Corporation (RCAC) on opportunities to partner with USACE on projects. Presentations were also made by USDA, Bureau of Reclamation, Indian Health Services and US Bureau of Reclamation.





Comprehensive Planning Assistance

Partner: Teec Nos Pos Chapter of Navajo Nation

Project Description: The Chapter is facing multiple water resources challenges – drought, a lack of water supply for irrigation, surface and groundwater quality concerns, and invasive species. The Chapter requested support from USACE to develop a comprehensive water resources plan.

Objectives/Outcomes:

This project will develop a comprehensive water resources plan with options for tackling their water resources challenges.

Status: A site visit was conducted in July 2021. A routing package has been developed and is waiting for feedback from the Chapter and an official request letter to route.

TEEC NOS POS CHAPTER OF NAVAJO NATION PLANNING ASSISTANCE TO STATES PROJECT





IDEAS TO INCREASE DROUGHT RESILIENCY SUPPORT



- Offer a free USACE specific workshop (similar to this workshop) that:
 - bring in other agencies who have more expertise in this area (focus on practical solutions)
 - Other District successes in supporting drought resiliency
 - Local community successes in drought resiliency
- Create an interagency support network for drought resiliency, similar to Silver Jackets
- Offer prospect courses to build internal USACE capacity to support drought resiliency

QUESTIONS?

Rachael Orellana, PE

Flood Risk Management Program Manager

Sacramento District

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916-557-7009