

Committee's Core Mission and Function – To organize and facilitate outreach opportunities allowing ECB membership to stay informed and promote sustainable engineering practices.

1. Call to Order & Approval of Agenda
2. Introductions
3. Meeting Minutes / Action Items – September 2022 Minutes (David) – approved
 - Aimee – PureCycle noted pickleballs are #4 plastic (LDPC) & does not work with PureCycle. Can reach out to Publix to see who recycles their #4 plastic bags. **Aimee** can reach out with **Keits** CCed. (brian.donnelly@publix.com; michael.hewett@publix.com)
 - Potential for an event, awareness, partnership potential as it progresses. Including an event and marketing tied with Publix.
4. News from the Branch / Section / Society – (Melissa / Steve)
 - ECB Hurricane Ian Relief Effort – Fund raising drive for Feeding America food bank in Fort Myers. Donations on website with ASCE branding and competition between branches. Site is live but email has not been sent. ECB to host Happy Hour event for fundraising. More details to come. **Melissa** to follow up.
 - ECB Golf Tournament – Rescheduled for Fri 12/16 at Celebration Golf Club
 - ECB Special Topic: Orange County Sales Tax Ballot Measure (Fraser) – no updates
 - ECB Icebreaker scheduled – May 11, 2023 at OCS
 - Section
 - Goal of getting every branch to have a representative at the Section's monthly Sustainability meetings
 - Contacted about helping form procurement language for municipalities
 - Section-level Sustainability Project award. Criteria in Draft form – planned to be advertised in 2023. Can start brainstorming projects to nominate. Steve provided draft of criteria, included in minutes.
 - Society Resources (Free **Virtual Events**)
 - Society SLC Meeting (TBD) – (Anna or Rex) – discussion of awards application prep
5. Events
 - September 26-30 – Stormwater Awareness Week (Anna)
 - October 19 – ECFRPC CDBG-MIT Meeting (Steve)
 - Establishing Statewide Regional evacuation study; Steve provided ASCE resources on the existing standards on hazard reduction. Steve provided slides, included in minutes.
 - Nov 10 – Environmental Excellence (E2) Day with METRA. In-person event: Winter Park Events Center. <https://www.metra.org/> (\$35 fee)
 - November – Society offering discounted ENV SP training and test – No updates
 - Fall - Possible joint event with EWRI for City of St Augustine Resiliency Tour
 - TBD – Fix It, Don't Pitch It event to be rescheduled, **Aimee** to update.
6. Committee Finances (ECB accounting code 6505) – (Madeline)
 - Account Balance (\$400) – no changes
7. Newsletter Content (Anna / Steve)
 - October sent out on 10/10
 - November Ideas – Due by 11/04
 - Events?
 - 10/29 10am-2pm – DEA National Rx Take Back Day – Search website for location nearest to you. (alternative link)
 - November 15 – 17, 2022 - [times vary] - ISI Virtual Conference 2022: Expecting More. Register for free online.
 - 11/10 - E2 Day with METRA (see above)
 - Interesting Reads?

- Stormwater Awareness Week video link
<https://www.stormwaterawareness.org/2022recordedworkshops>
 - All Fifty States Greenlit to Move EV Charging Networks Forward
 - Carrie Black welcome article: [Orange Co newsroom](#).
 - Spotlight
 - Spotlight Ideas: Jennifer Rupert (ECFRPC), Sara Miller (City of Winter Park), Chris Castro (Fmr. City Sust; New Federal role), Carrie Black (New County Sustainability Officer).
 - Invite to join committee and/or mailing list
8. Old / New Business / Agenda Items for next month
- Next Committee Meeting – **November 29, 2022.**
 - December meeting to be skipped.
 - Develop list of questions for sustainable / resiliency and coordinating events/venues – **David & Anna** – Goal to submit to ECB in early 2023. **All committee** to review for Nov meeting.
 - **Anna/Keits** to develop concepts for ASCE Sustainability Banner for marketing.
 - FYI/Reminder: Committee Roster, Partners, and Spotlight Ideas:
https://docs.google.com/spreadsheets/d/15fya7b65aqLwkxIsMdoxeih7x_8BhLbF3nDqlp034cE/edit?usp=sharing
 - David tracking, potentially add to Earth Month (April) ECB newsletter as a highlight in the opening remarks.
 - Sustainability Mailing List Update – 47 subscribers. Continue to get the word out. Goal of 60 by end of 2022!
 - Click / Share link to join mailing list:
https://lp.constantcontactpages.com/su/zfLM8Fh?source_id=61bb845f-011f-45e2-9dbd-cd1bf107af90&source_type=em&c=-1fcNWPJGlppO7EMkZfAaVzvwx01S15k1ISUP3mNhEJUqH4PLR8_kA==

Committee Members / Meeting Attendees:

1. Steve Sommerfeldt (Chair) - Present
2. Melissa Burns (BOD Rep) - Present
3. David Klawitter (Secretary) - Present
4. Anna Pepper (Newsletter Content) – Not Present
5. Madeline Batey (Treasurer) - Present
6. Kiets Miller (Special Events) - Not Present
7. Rex Robinson (USDA NRCS Civil Engineer) - Not Present
8. Catherine Felter – Not Present
9. Julia Felter - Not Present
10. Fraser Howe - Not Present
11. Ethan Kelly - Present
12. JR Rodriguez (EWRI) – Not Present
13. Aimee Kirvan (Orange Co EPD) – Present
14. Nash Glidewell (Past Space Coast Branch Sustainability Chair) - Not Present
15. Jenifer Rupert (ECFRPC Regional Resilience Officer) – Not Present



2022 Annual Awards

Sustainable Project of the Year

- Purpose:** To recognize creativity in the form of innovative sustainability on civil engineering projects in a Branch's geographic area and submit projects for consideration by the Awards Committee for the Section Project of the Year Award.
- Award:** The Award shall consist of a plaque suitably inscribed, to be presented at the Section Annual Meeting.
- Selection Procedure:** All nominees for consideration for Sustainable Project of the Year Award must be submitted by a Branch and must be a predominantly civil engineering project within the geographic boundary of the Branch.
- The nomination package shall not exceed a total of five pages, including the Nomination Form (first page). As this award seeks to recognize built infrastructure projects, nominations of plans, drawings or other pre-construction documents are not eligible.
- The Chairman of the Awards Committee will solicit nominations for Sustainable Project of the Year and provide members of the committee with copies for review and ranking. The Chairman will advise the Board no later than July 1 that a nomination has been selected to receive the award. The Chairman shall be responsible for obtaining the award plaque, with the assistance of the Section office. The Chairman shall also be responsible for encouraging the owner of the project and the civil engineer of record to attend the annual meeting where the award will be presented.
- Selection Criteria:** The award will be based on the civil engineering excellence according to the following guidelines:
- The extent to which innovative design or construction methods improve economic, social, and environmental sustainability 25 %
 - The promise shown by innovation to extend future developments in sustainability which may be evidenced in part by Envision rating and/or institute, section, or branch awards 25 %
 - The degree to which the project extends public at the planning, design, construction, and operations stages in the development of the project 25 %
 - Collaboration was an important aspect of the project as demonstrated by significant participation by other disciplines on the team 25 %

FL Section - ASCE

P.O. Box 1372, Lake Worth, FL 33460

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Tara McCue, ECFRPC

Jenifer Rupert

John Mulhall

Manuel Soto


Tessa Barnard

View

Recording

Mitigation Assessment and Planning through Regional Collaboration

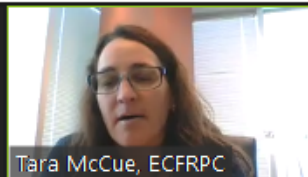
East Central, Treasure Coast, Northeast, Tampa Bay, Central, North Central RPCs







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Jenifer Rupert

Jenifer Rupert

John Mulhall

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Manuel Soto

Manuel Soto

Tessa Barnard

Tessa Barnard



Recording

Agenda

Regional Planning Council Overview and Collaborative Approach

Project Overview and Purpose

Project Goals and Value

Project Activities

Extreme Future Rainfall Impact Update

Multi-Regional Planning and Mitigation Assessment Overview

Regional Project List Criteria Input

Next Steps

Questions and Discussion

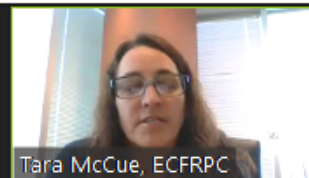
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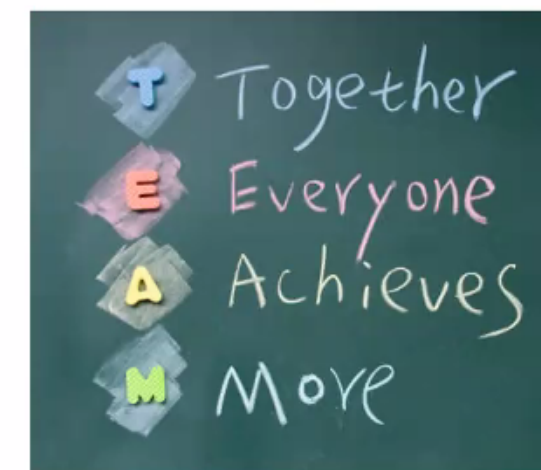
Regional Planning Council Overview and Collaborative Approach

10 RPCs across the state

Florida Regional Planning Councils

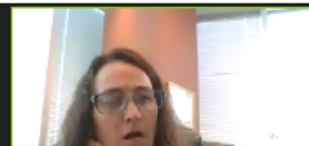


- Power and strength of regional collaboration
- Success in Statewide Projects
- Teams of subject matter experts





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Jenifer Rupert

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Recording

Project Overview and Purpose



Community Development Block Grant (CDBG) – Mitigation

Local – Regional Approach

Six Regional Planning Councils

East Central RPC *

Treasure Coast RPC

Tampa Bay RPC

Central Florida RPC

North Central RPC

Northeast RC

Timeline and Budget

Project Grant
Total: \$1.5 million
(\$1,499,000)



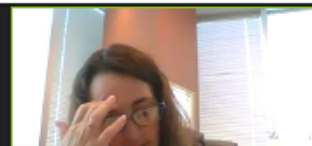
Project Start
April 2022



Project End
May 2025



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Jenifer Rupert

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Project Purpose


- Peril of Flood Legislation
- Resilient Florida Legislation 
- Coastal Focus & Inland Need
- Regional Resilience Entities
- Funding 



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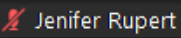


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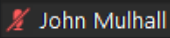


Tara McCue, ECFRPC

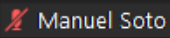
Jenifer Rupert



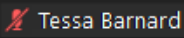
John Mulhall





Manuel Soto



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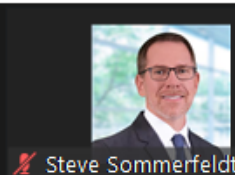




 Recording

Build	Build regional stakeholder collaboration and capacity building
Develop	Develop technical applications/tools to analyze vulnerabilities to extreme rainfall flooding
Develop	Develop a regional approach to mitigation planning that lead to innovative mitigation projects
Create	Create a Statewide regional framework to mitigation and resiliency planning

Project Goals and Value



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Jenifer Rupert

Jenifer Rupert

John Mulhall

John Mulhall

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Tessa Barnard



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Project Value

- **Addresses** an unmet need by examining impacts of flooding hazards to inland counties and portions of counties not exposed to coastal flooding.
- **Builds capacity** in the *regional* resilience planning process throughout the State, across disciplines and sectors in local government, business, and community populations.
- **Updates State Partners** on mitigation planning and projects, and mitigation strategies and needs of multiple regions.
- **Supplements** county and city preparedness plans, and supports mitigation plans that house risk and vulnerability information.

CEMPs - Comprehensive Emergency Management Plans and hazard specific plans

CRS - Community Rating System (NFIP) establishing need and prioritizing projects

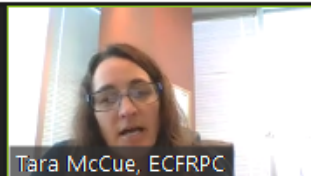
LMS - Local Mitigation Strategy

Post-Disaster Redevelopment Plans (PDRPs) - Enhances long-term Recovery and Action Plan Strategies

- **Advances** communities to comply with state legislation
- **Positions** projects for funding opportunities



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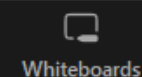
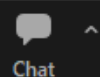
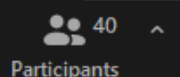
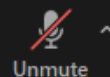
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Project Activities

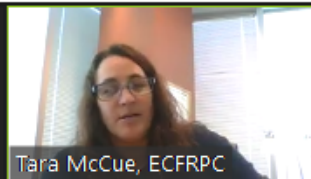
- Stakeholder Engagement
- Extreme Future Rainfall Impacts
- Regional Mitigation Needs Assessment
 - Regional Mitigation Project List
 - Mitigation Priority Areas
- Conceptual Small Area Mitigation Plans
- Interactive Mitigation Based Best Practice Application
- Regional Resilience Exposure Tool



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Extreme Future Rainfall Impacts

➤ Technical Advisory Meetings

➤ April

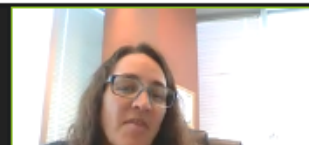
- Floodplain managers, water management districts, climatologists, etc.
- Duration and frequency
- Climate model discussions

➤ On-going

- FDEP, SFWMD, Flood Hub, UF, FIU, USF, RPCs
- Finalizing approach for climate model and change factors
- Duration / Frequency – Anticipate 100 year/24 hour



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What it is:

A Planning and Spatial Analysis framework for the identification and delineation of areas potentially exposed to the impacts of extreme rainfall, at scales relevant for statewide, regional, and local agencies.

Objectives include:

Development of a tool and application to generate, visualize and summarize areas exposed to extreme rainfall events and projected inundation/flooding effects from these events.

A process for prioritizing exposed areas for detailed analysis, characterization, and mitigation.

What it is not:

A framework for site level design, engineering, and construction.

State Tools

Utilities

Output Projection:

Master Cell Size: Ft Cnty:

Base Elevation: DEM

Processing in Horizontal Meters

Sea Level Rise Surge Rain

Duration: Rain Season:

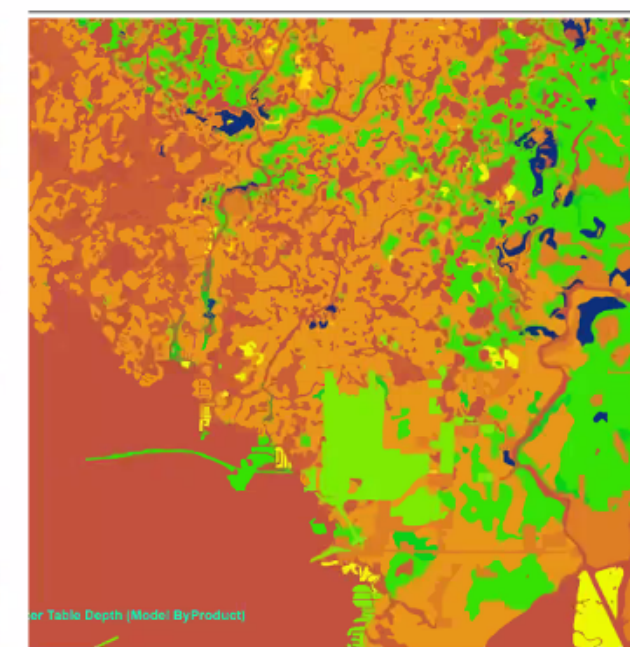
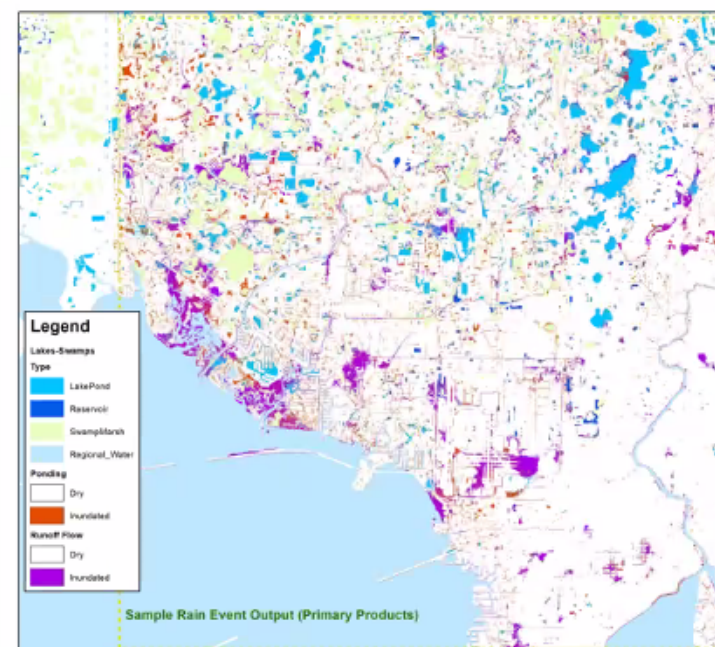
Inches: or use: Vary Poly ☐ Include Streams

Needed Layers: Rain Surf Soil LULC

Lake Points

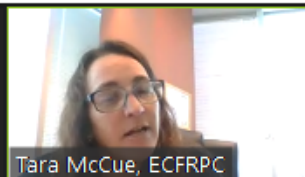
Needed Tables: Component Aggregated RunOff

Check process complete.





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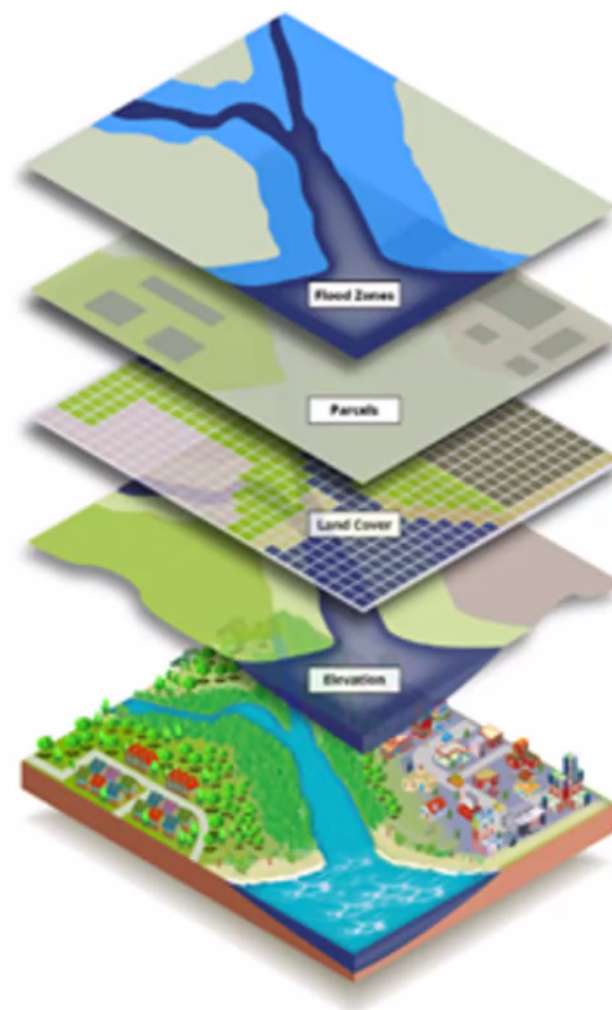
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GIS Analysis

Flood layer focus

- Extreme rainfall flood areas
- Other flood data (floodzones, floodways, water bodies, etc.)

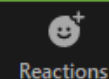
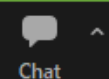
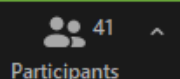


Other inundation will also be considered

- SLR
- Surge

Regional critical assets

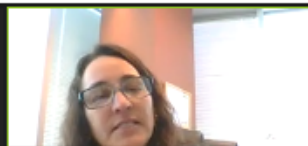
Result: Vulnerability assessment



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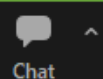
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Recording

Regional Mitigation Needs Assessment

- Regional Context
- Assessment Methodology and Vulnerability Findings (Future Extreme Rainfall, Flood Impacts)
- Current Capacity: Flood Mitigation Strategies/ Pathways
 - Federal , State, Regional & Local
 - Other Relevant Plans & Programs
- Gaps in Current Capacity (Stakeholder Input) 
- Funding
- Implementation Strategies
- Regional Priority Areas and Regional Project List



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Regional Stormwater Mitigation Project List Criteria



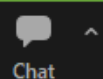
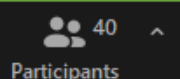
Multi-jurisdictional

Serves under represented communities


Co-benefits (hazard reduction and recreation)

Show ability to contribute financial


<https://survey123.arcgis.com/share/63f84b1a7eca4af099f254f0f312410a>



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Survey Results - Updated

ecfrpc.maps.arcgis.com/apps/dashboards/56a02081bb8c4d43aec41ae3a2468f40

Survey Results

9 of 10

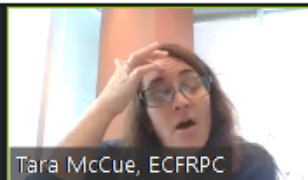
Results

1. What criteria should be met for a project to be on a regional mitigation list?	Can the project be replicated across the region?
2.	Does the project improve the body of knowledge?
3.	Can the project be scaled across Florida?
4.	Does the project have a quantifiable result?
Which RPC do you belong to?	East Central

Last edited on 10/19/2022, 11:27 AM.



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Web Applications

Mitigation Best Practice Website

- Policies/ Codes/ Ordinances
 - Plans and Manuals
 - Projects (Traditional and Green)
-
- **Do you have any recommendations of projects, policies or plans that should be included?**



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NEXT STEPS


Continued
stakeholder
coordination

- Continued Stakeholder Engagement and Input
 - Asset Review - current
 - Criteria for Regional Priority List
 - Identify Gaps in Mitigation Capacity
- Rainfall Technical Advisory Group and Flood Hub Recommendations for Vulnerability Assessment
 - Review and QC findings





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Project Managers



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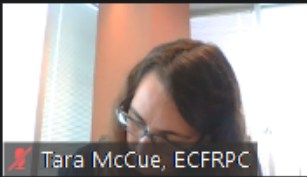


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Jenifer Rupert

Joshua Sheldon, ...
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Sarah Kraum
Sarah Kraum

John Mulhall
John Mulhall





Intersection & Consistency with the R2C Risk Assessment?

RISK = Threat * Vulnerability * Severity of Consequences

Quantifying the spatial and temporal aspects of hazards





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Jenifer Rupert

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Joshua Sheldon,...

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Sarah Kraum

Sarah Kraum

John Mulhall

John Mulhall



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RISK = Threat * Vulnerability * Severity of Consequences

1. 100 – Year Flooding

2. Flash Flooding

3. Sea Level Rise

4. Storm Surge

5. Severe Storms

6. Hurricane Wind

7. Earthquakes

8. Droughts

9. Wildfire

10. High Temperatures

11. Low Temperatures

12. Winter Weather

13. Tornadoes

14. Wind Events

15. Hail

16. Lightning

17. Sinkholes

18. Fog

Non-climate related, not collected sub-county, or possibly not freely available (possible inclusion)

1. Transportation Accidents

2. Hazardous Material Spills

3. Cyber incidents

4. Civil unrest

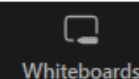
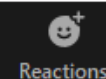
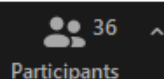
5. Mass shooting

6. Pandemic


7. Mass population surge

8. Pollution

9. Acts of Terror



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Joshua Sheldon, ECFRPC

Sarah Kraum


Sarah Kraum

John Mulhall

John Mulhall




 Recording




Critical Assets


Lifelines




Safety and Security




Communications




Food, Water, Sheltering




Transportation



Health and Medical



Hazardous Material



Energy (Power & Fuel)

FEMA Lifeline Category	Variable	FL Stature Required
Safety and Security	Law Enforcement	Yes
	Prisons/Correctional Facilities	Yes
	Fire/EMS	Yes
	Military Installations	Yes
	Local Govt Services - Courthouses	Yes
	State Government Facilities	Yes
	Local EOCs	Yes
	Community Safety - Convention Centers/Fairgrounds	
	Public Schools	Yes
	Private Schools	Yes
	Colleges and Universities	Yes
	Mobile Home Parks	
	Places of Worship	
	Nursing Homes	
Food, Water, Shelter	Food Stores	
	Nutrition Sites	
	Water Treatment and Water Supply Pump/Lift Stations	Yes
	Water Utility Convenance Systems	Yes
	Affordable Public Housing	Yes
	Shelter	Yes
Transportation	Roadways	Yes
	Railway	Yes
	Railway facilities	Yes
	Railroad bridges	Yes
	Aviation	Yes
	Bridges	Yes
	Bus Terminals	Yes
	Ports	Yes
Hazardous Materials	Marinas	Yes
	Toxic Release Inventory Sites	Yes
	Superfund Sites	Yes
	Solid Waste	Yes
Emergency Management Functions	Wastewater Treatment	Yes
	Disaster Debris Management Sites	Yes
	Disaster Recovery Centers	Yes
	Logistical Staging Areas	Yes
Natural, Cultural, and Historic Resources	Conservation Lands	Yes
	Parks	Yes
	Shorelines	Yes
	Surface Waters	Yes
	Wetlands	Yes
	Historical and Cultural Assets	Yes
Health & Medical	Medical Care	Yes
	Emergency Medical Service Facilities	Yes
	Hospitals	Yes
Energy	Electric Production and Supply Facilities	Yes
	Substations	Yes
	Gas Stations	
Communications & Finance	Communication Facilities Communication Lines	Yes
	Cellular Towers	Yes
	Banks and Finance	



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Sarah Kraum

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John Mulhall

John Mulhall



Recording



RISK = Threat * Vulnerability * Severity of Consequences

Social Vulnerability

Understanding where populations reside who have a lower ability to prepare for, respond to, and recover from disaster events – known as social vulnerability – can help decision makers distribute scarce resources before, during, or after disasters.

This representation of social vulnerability was derived from www.vulnerabilitymap.org

Population

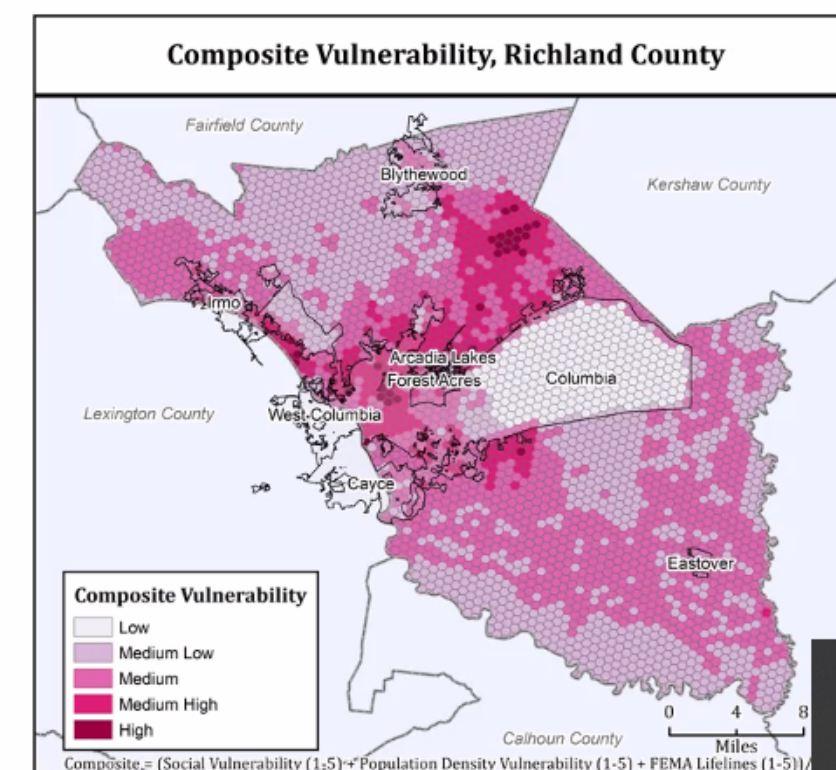
Understanding where your populations are in relation to threats aids in decision making. The utilitarian approach would aim to help the most people. Using Block level census data provides the highest resolution information on where people are.

Infrastructure

CDBG-MIT interest in lifelines required a deep dive into infrastructure locations across the island.

A variety of sources (federal, state, local) provided locations of infrastructure.

These were summed for each hex grid and show areas with higher density of infrastructure across Puerto Rico.



Outlook

AC Committee

RE: Mobility Week, Love to Ride, and Bike 50
Bikers of Inwood,
By now you have heard about the Love to Ride
Florida Bicycle Month Challenge <<https://www.floridabike.org/>>



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Unmute



Start Video



Participants 36



Chat



Share Screen



Reactions



Apps



Whiteboards



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Recording

Gaps in Stormwater Capacity Survey

As we wait, for everyone to join us, if you have not taken the "Gap in Stormwater Capacity Survey", please take this opportunity to provide your feedback.



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



Leave