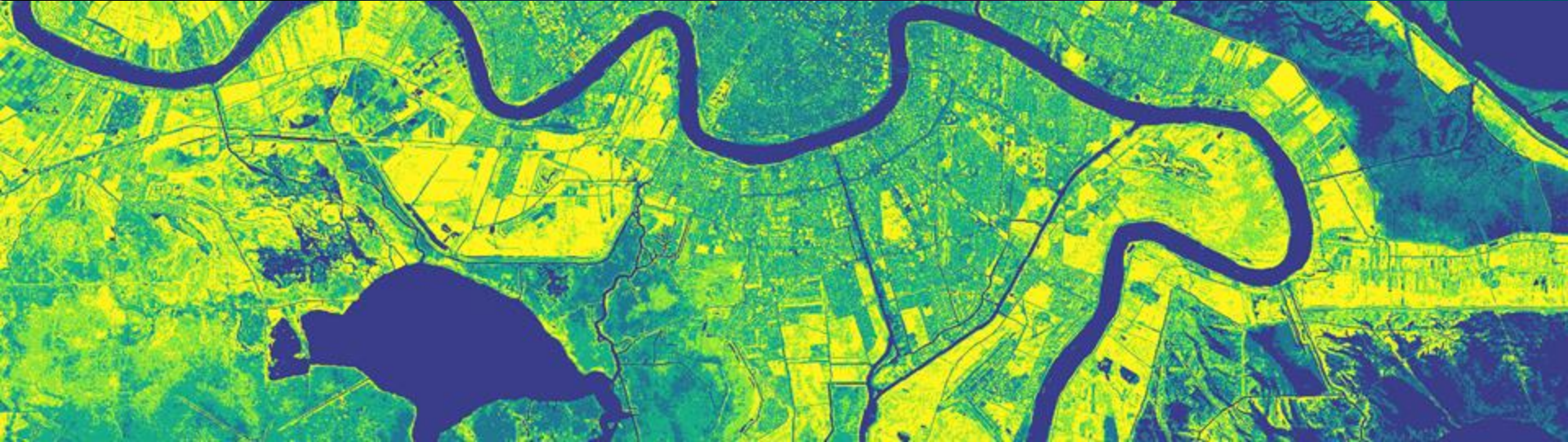


A BIRDS EYE VIEW

*EDUCATION & DEVELOPMENT OF GEOINFORMATICS
IN COASTAL LOUISIANA*



Dr. Balaji Ramachandran
Nicholls State University

Dr. Jacqueline Richard
Nunez Community College

Dr. Madeline Foster-Martinez
University of New Orleans

Kim A. Knight
T. Baker Smith

Arlo Townsley
L9 CSED

Arlo Townsley

Title:

- Director of Coastal Restoration

Affiliation:

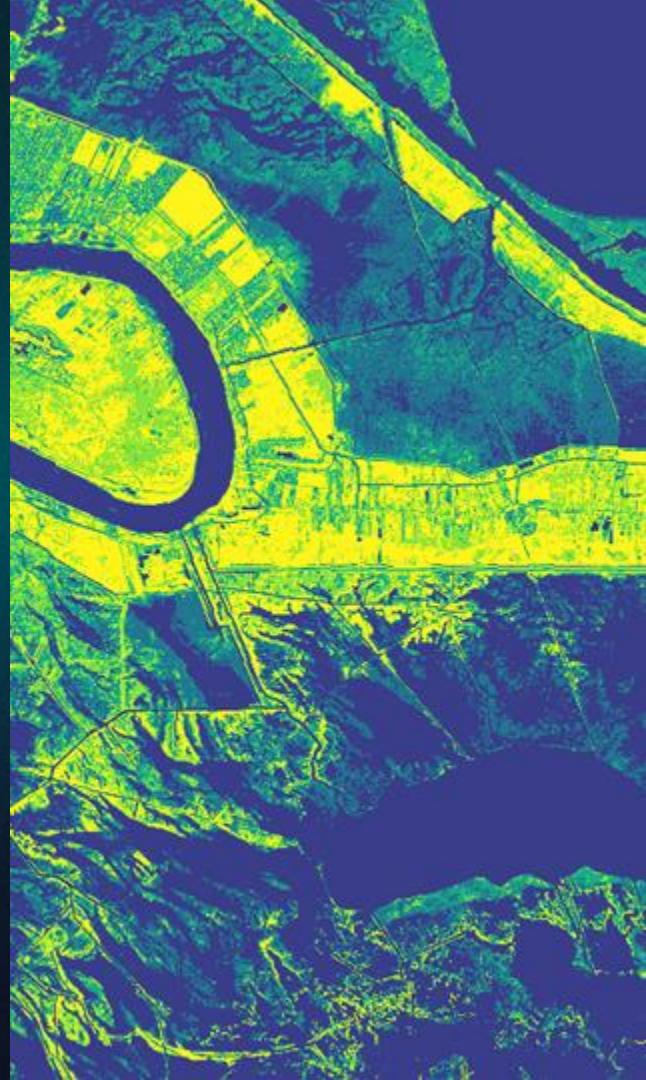
- L9 Center for Sustainable Engagement and Development

Focus area / projects:

- Community focused nature based solutions, native plants

Favorite Map:

- Louisiana Hydrological Series



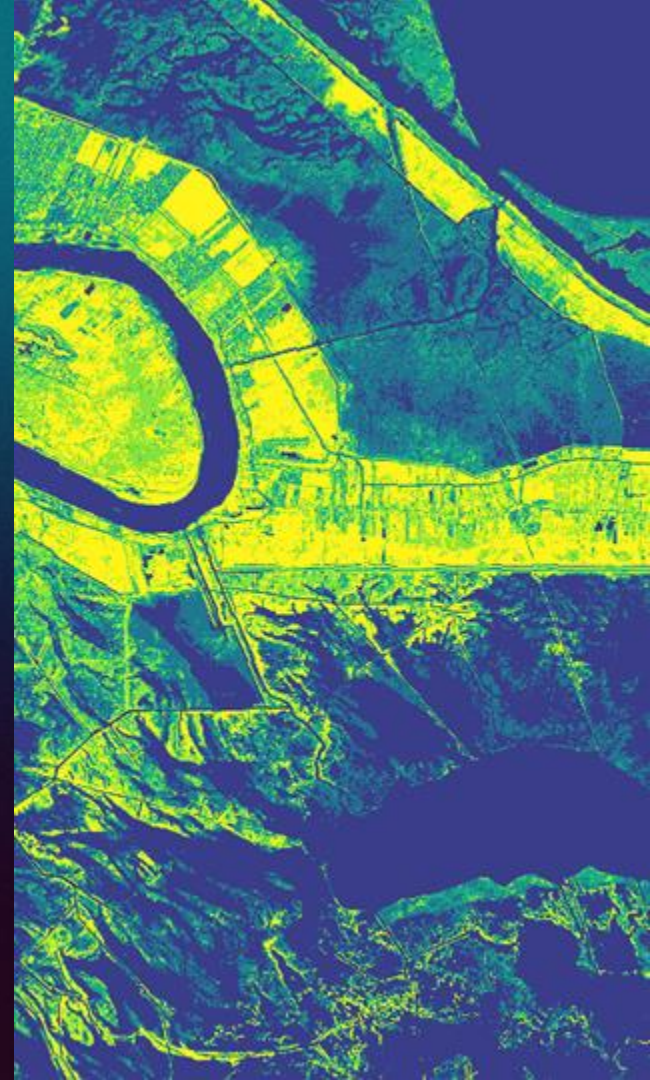


HYDROLOGICAL MAP
OF LOUISIANA

Overview

How can we develop a deeper understanding of geographic changes and analysis in Coastal Louisiana and build a workforce to meet the needs of a changing climate?

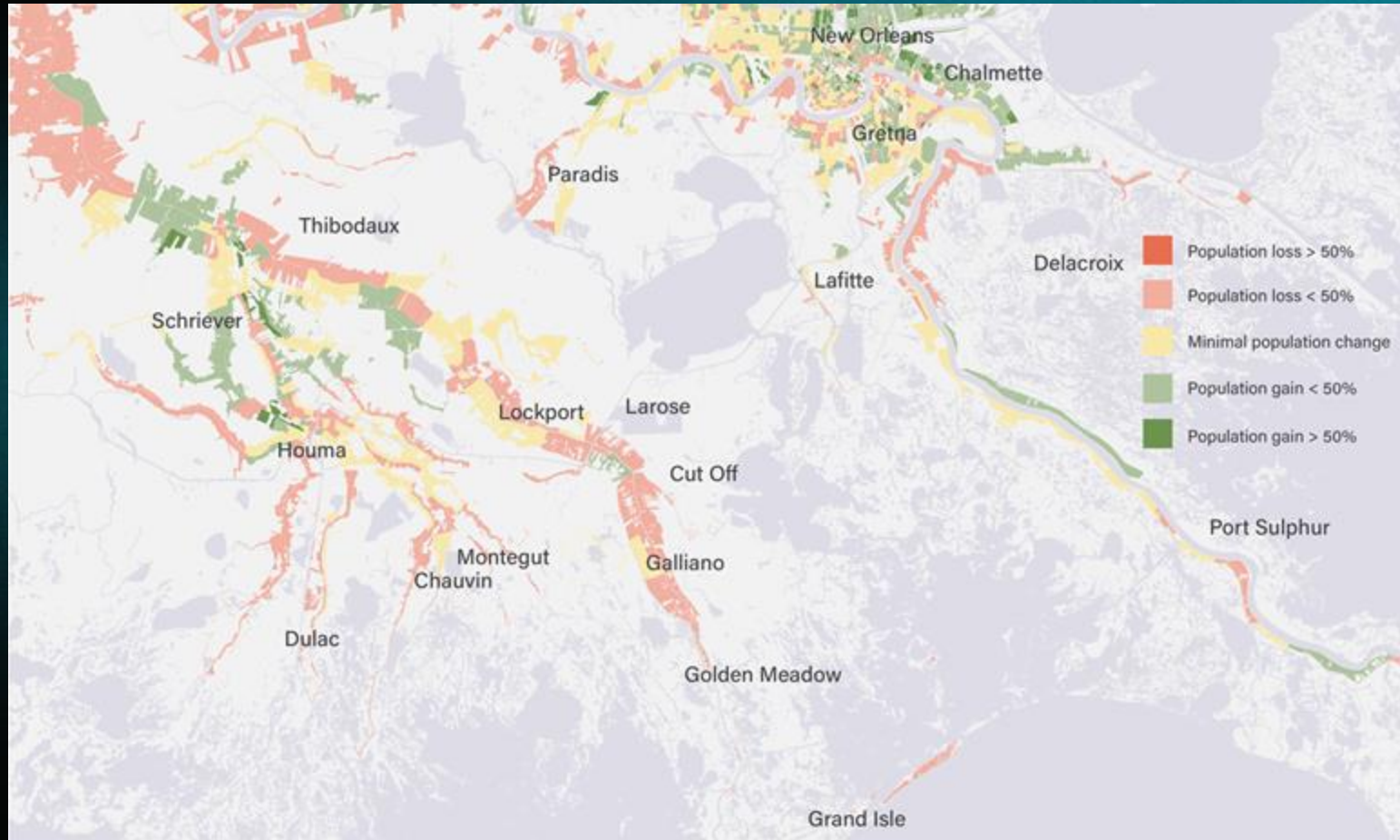
- **Our coast is rapidly changing**
- **need to study geographic changes**
- **Geoinformatics:** Geographic information systems (GIS), Aerial Photogrammetry, Remote Sensing (RS), Uncrewed Aerial Systems (UAS), Digital Twins, Geodesy, and Surveying
- **Panelists:** a cross section of educators, graduates/students and industry professionals on the leading edge of coastal studies in SELA



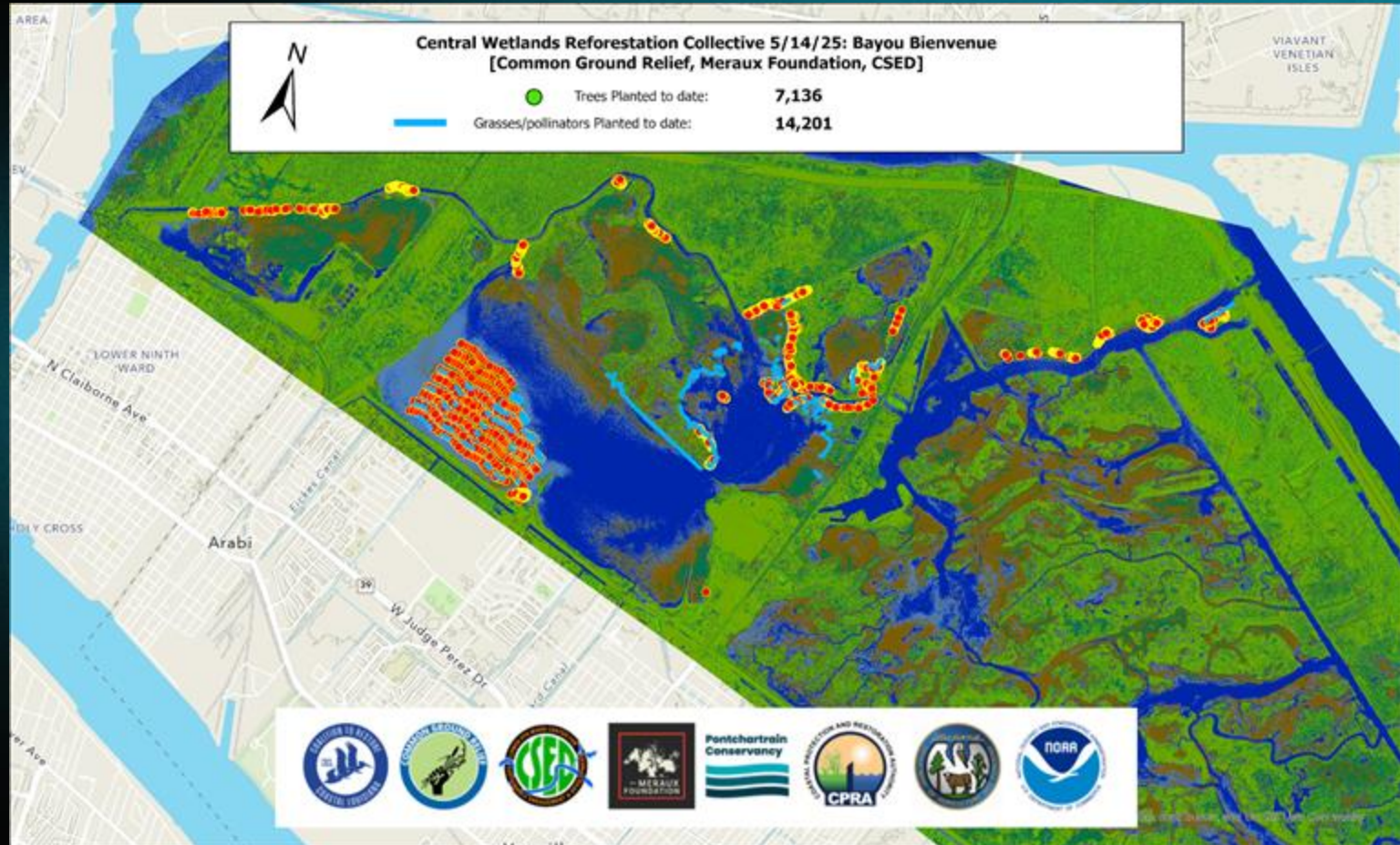
CPRA, 2023 Coastal Master Plan, 50year Land Loss Prediction (higher scenario)



Data Center, 2010-2020 population change



CWRC Planting Map



Jacqueline Richard

Title:

- Coastal Studies & GIS Technology Program Manager

Affiliation:

- Nunez Community College

Focus area / projects:

- Nature-based solutions, native plants, instructing students how to navigate the federal permitting process to establish coastal restoration projects

Favorite Map:

- Meander Maps of the Mississippi River, Harold Fisk, 1944

Dr. Balaji Ramachandran

Title:

- Research Associate Professor of Geomatics

Affiliation:

- Geomatics Program, Nicholls State University

Focus area / projects:

- Uncrewed Aerial Systems, Geospatial Technologies and GEOAI/ Technical Lead for Nicholls Coastal Data Refinery Project.

Favorite Satellite Image:

- *NASA Earth Observatory image by Wanmei Liang, using MODIS data from NASA EOSDIS LANCE and GIBS/Worldview Jan 24th, 2025*



*NASA Earth Observatory image by Wanmei Liang, using MODIS data from NASA EOSDIS LANCE and GIBS/Worldview
Jan 24th, 2025*

Dr. Madeline Foster-Martinez

Title:

- Assistant Professor

Affiliation:

- University of New Orleans
Earth and Environmental Sciences
Civil and Environmental Engineering

Focus area / projects:

- Nature-based coastal sustainability

Favorite Map:

- Hardee's 1985 Map of Louisiana

Kim Knight, PLS

Title:

- Sr. Project Manager

Affiliation:

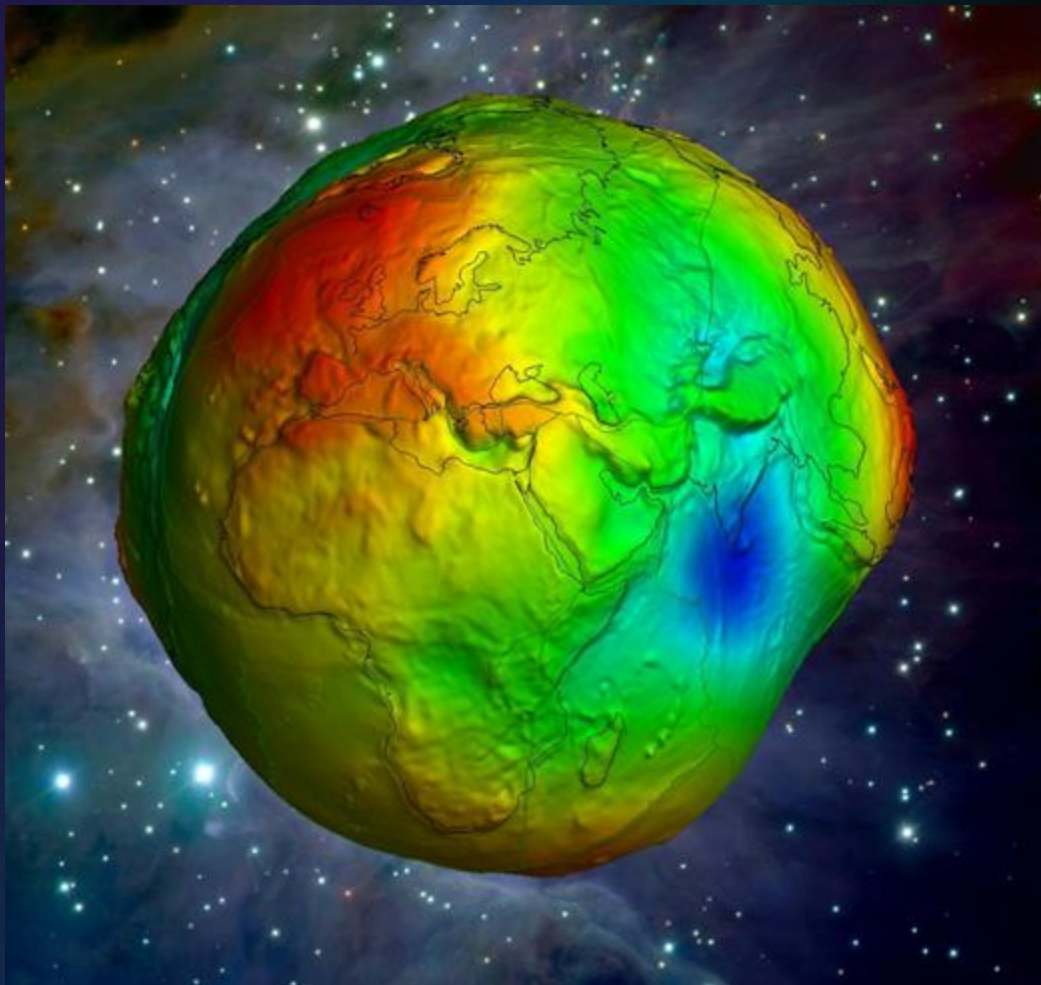
- T. Baker Smith, LLC

Focus area / projects:

- Data Collection and Digital Delivery of Topographic, Bathymetric, and Geodetic Control Surveys for Coastal Projects

Favorite Image:

- Screenshot of GEOID visualisation



Screenshot of Earth's GEOID visualisation

Panel Discussion

Q&A

THANK YOU