

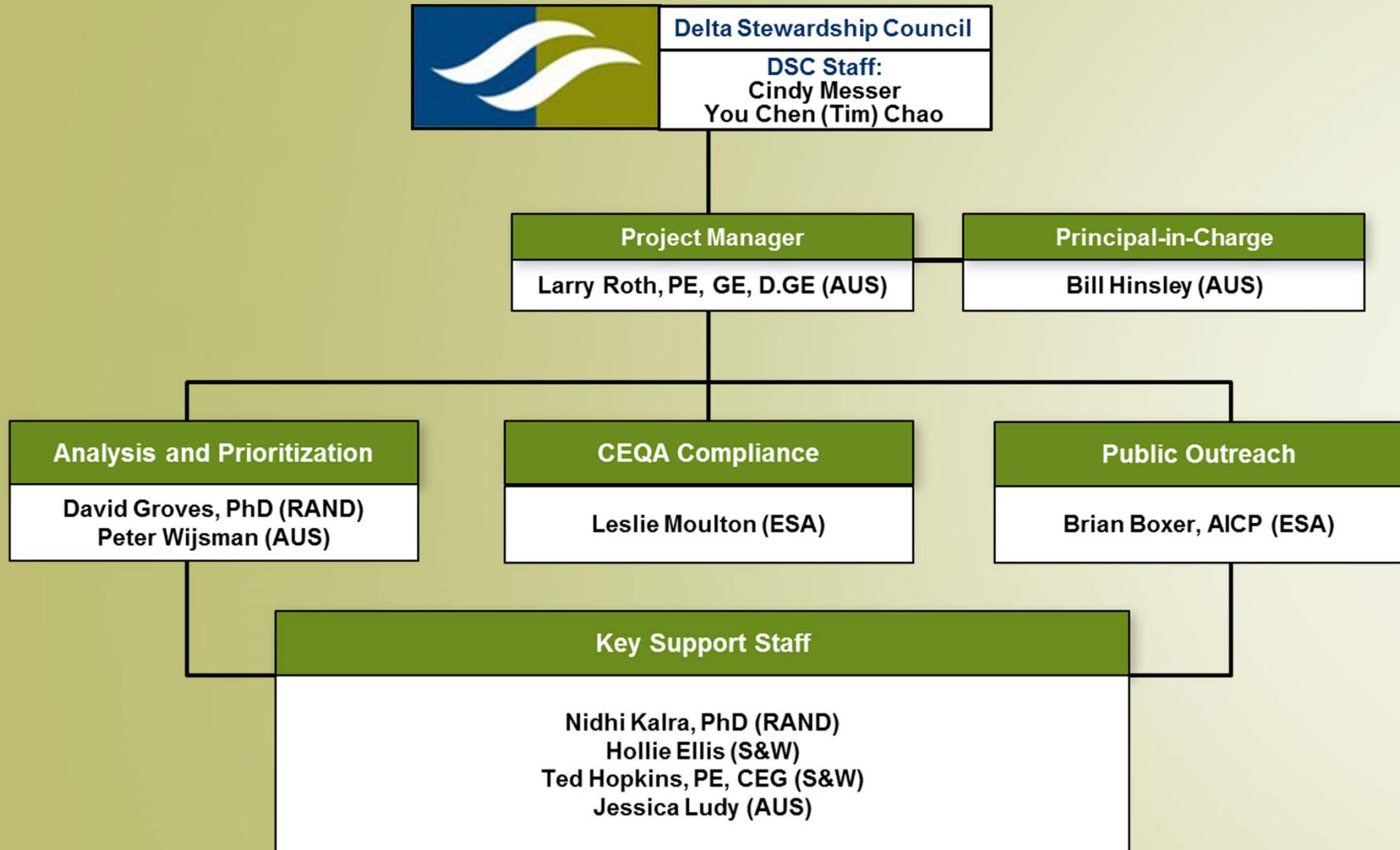


DELTA STEWARDSHIP COUNCIL

# Levee Investment Prioritization

*Helping Achieve the Coequal Goals in an Evolving Delta*

# Expert Team Designed to Deliver



## The ARCADIS Team Delivers:

**World Class Tool for Prioritizing Investments**

**Independent Analysis and Review of Existing Data**

**Solid Public and Stakeholder Engagement**

**Focused CEQA Compliance**

**Assured Quality**

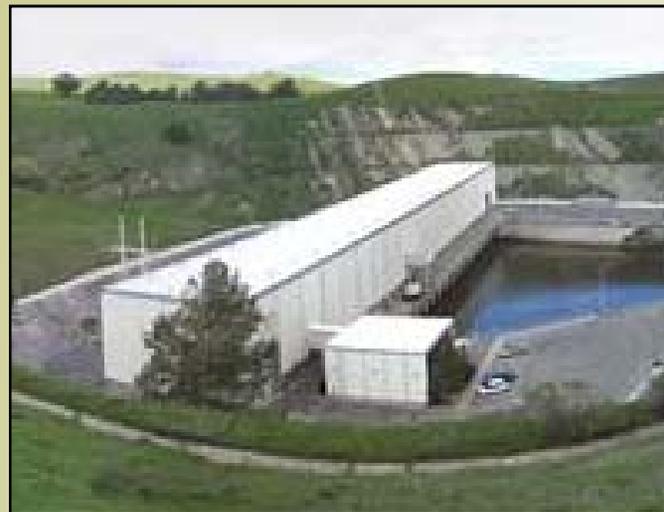


**Resilient Levees in an Evolving Delta**

# No Levees, No Delta



# Resilient Levees are Required for Coequal Goals



# All Who Benefit Should Contribute



# Priorities Guide State Investment



# So How Do We Prioritize?



# Numerous Challenges to Prioritizing Investments in the Delta

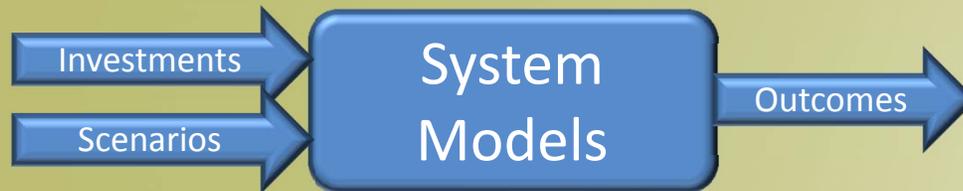
Hundreds of  
costly options

Diverse and  
conflicting goals

Significant  
uncertainty about  
the future

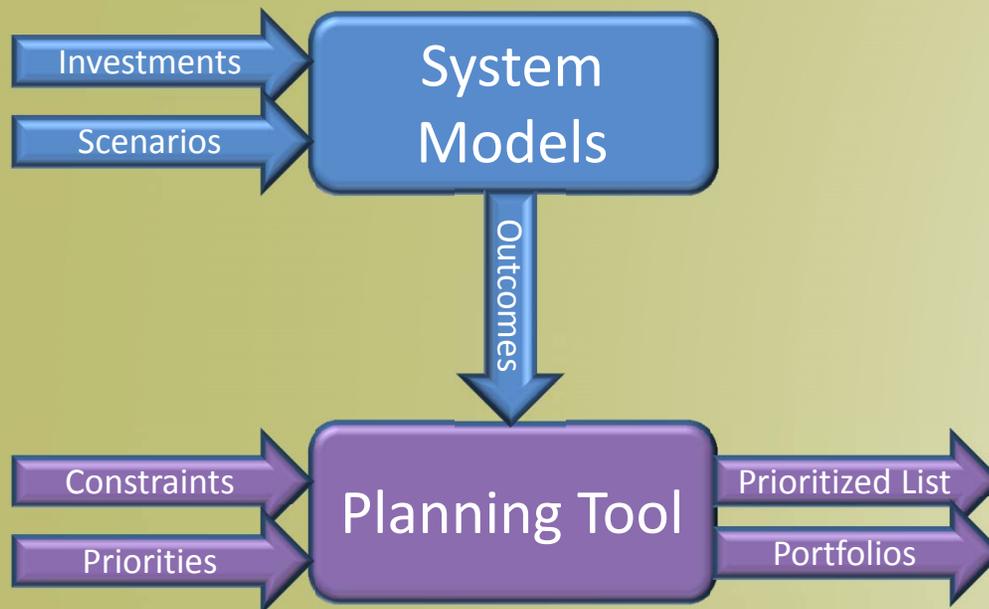
Large amount of  
detailed, technical  
information

## It Is Difficult to Prioritize Investments with System Models Alone



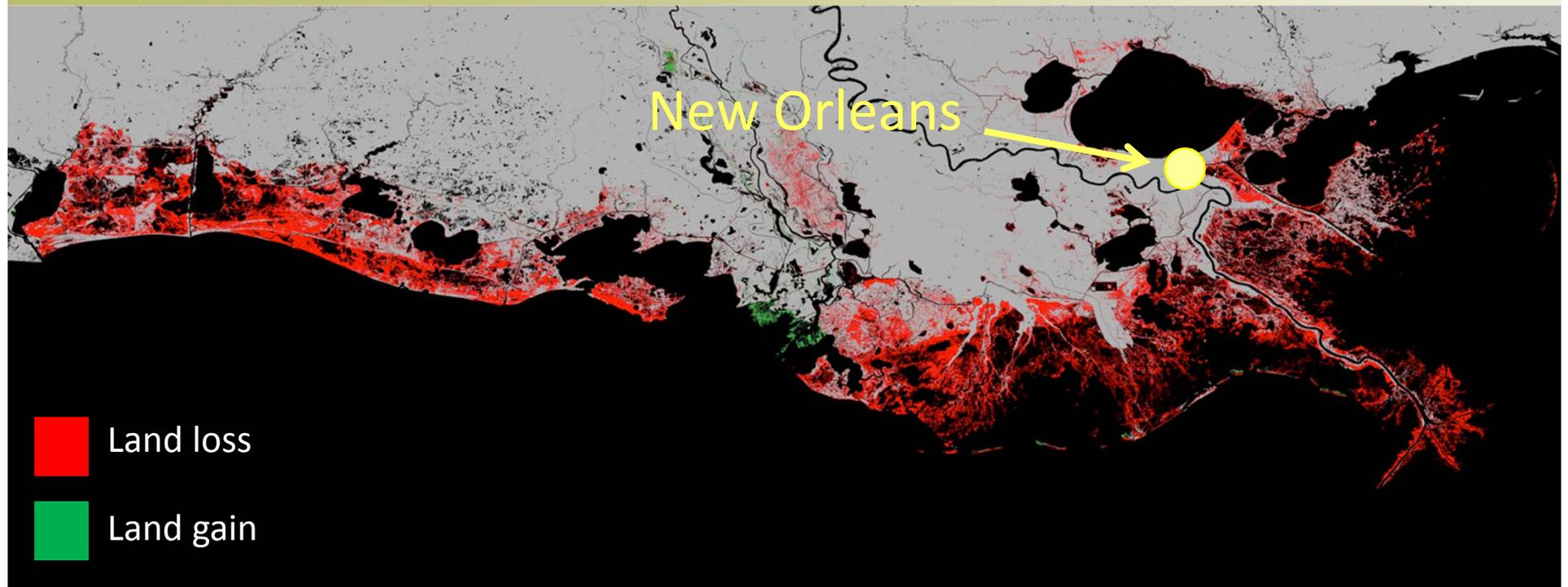
- ***What are the tradeoffs among multiple goals?***
- ***What combination of investments best balances our goals within a budget and other constraints?***

# A Planning Tool Can Answer These Questions and Help Prioritize Levee Investments in the Delta



***Supports  
“Deliberation  
with Analysis”***

# Real World Example Using Planning Tool



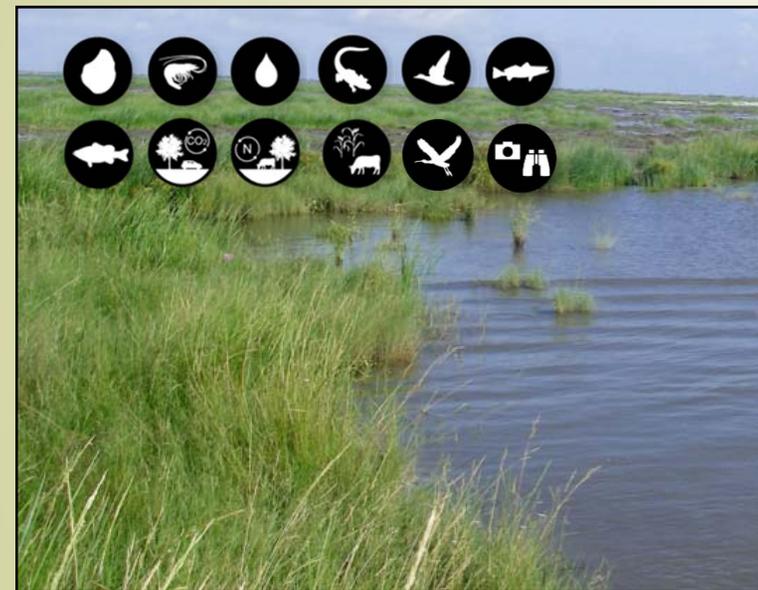
**Coastal Louisiana could lose up to 1,800 square miles  
of land by 2060**

# Land Loss and Changes in Coastal Storms Exacerbate Flood Risks and Ecosystem Degradation

Expected flood damages could increase by between \$5 billion/year and \$19 billion/year

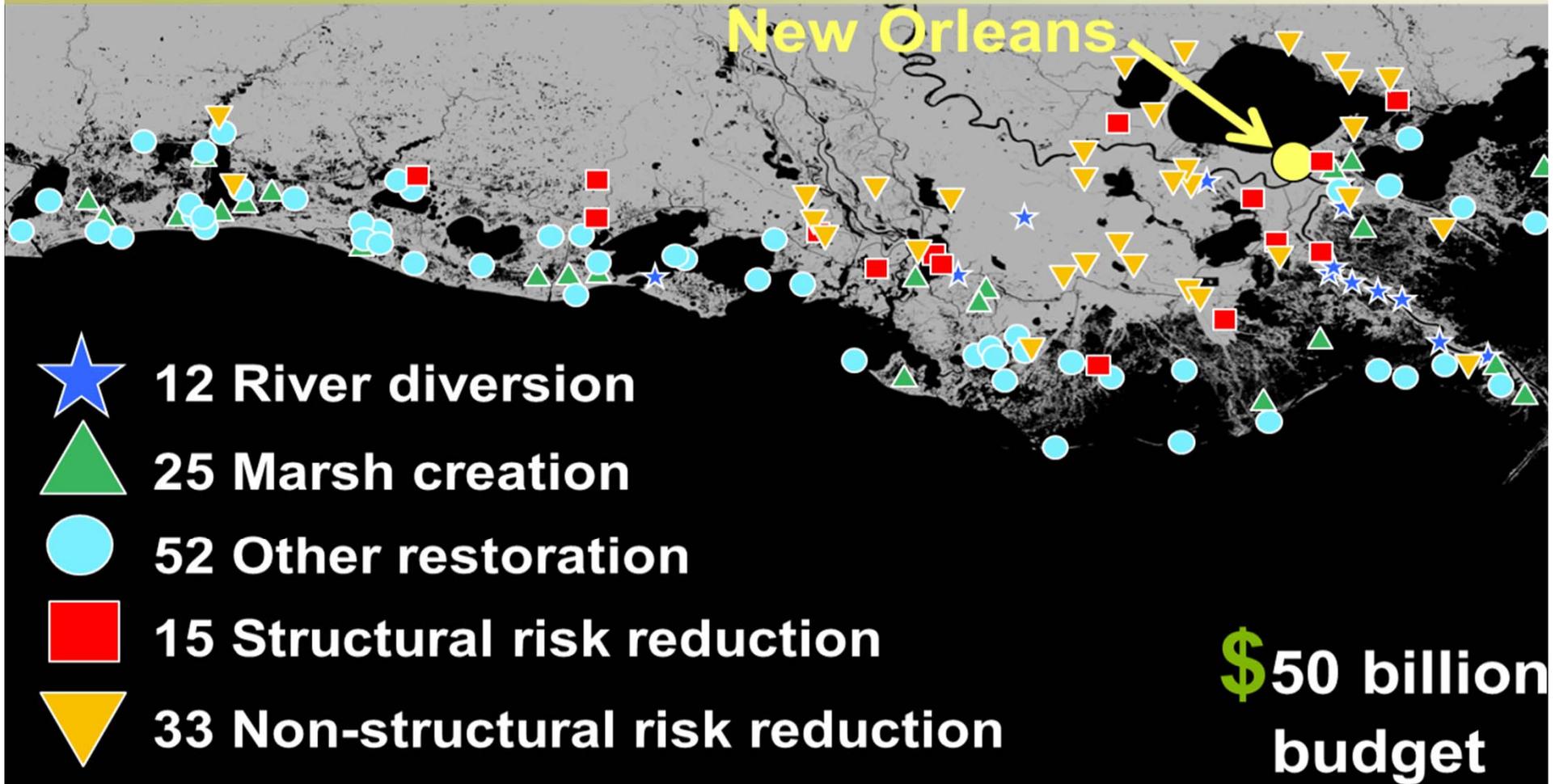


Numerous ecosystem services at risk



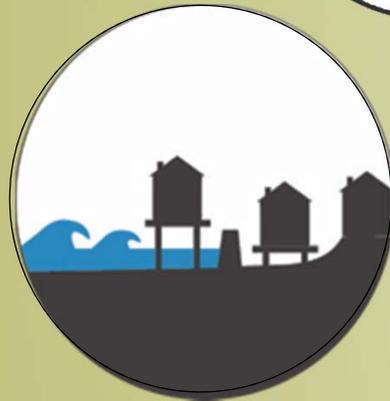
# Which Projects Should Louisiana Choose to Maximize Risk Reduction and Land Building?

New Orleans

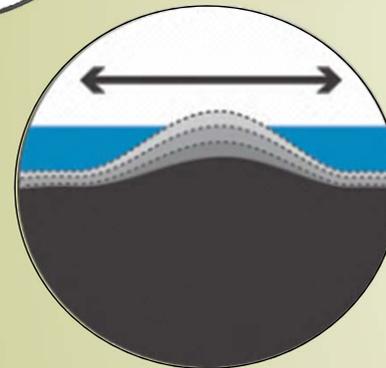


# Planning Tool Helped Louisiana Balance Its Coequal Goals

## *Planning Tool*

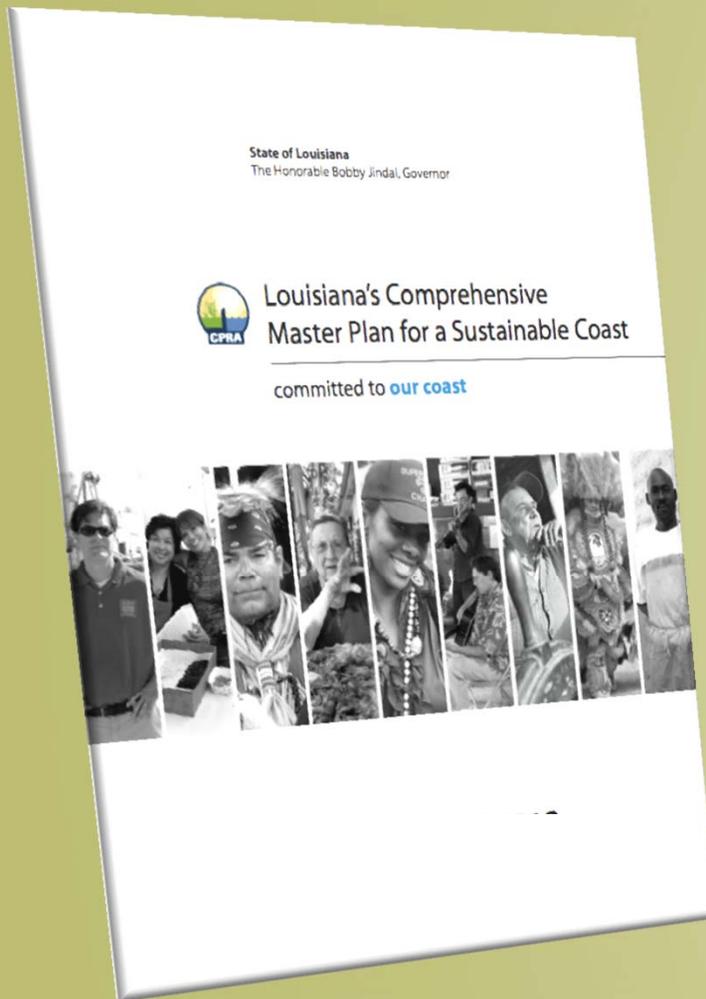


**Risk Reduction**



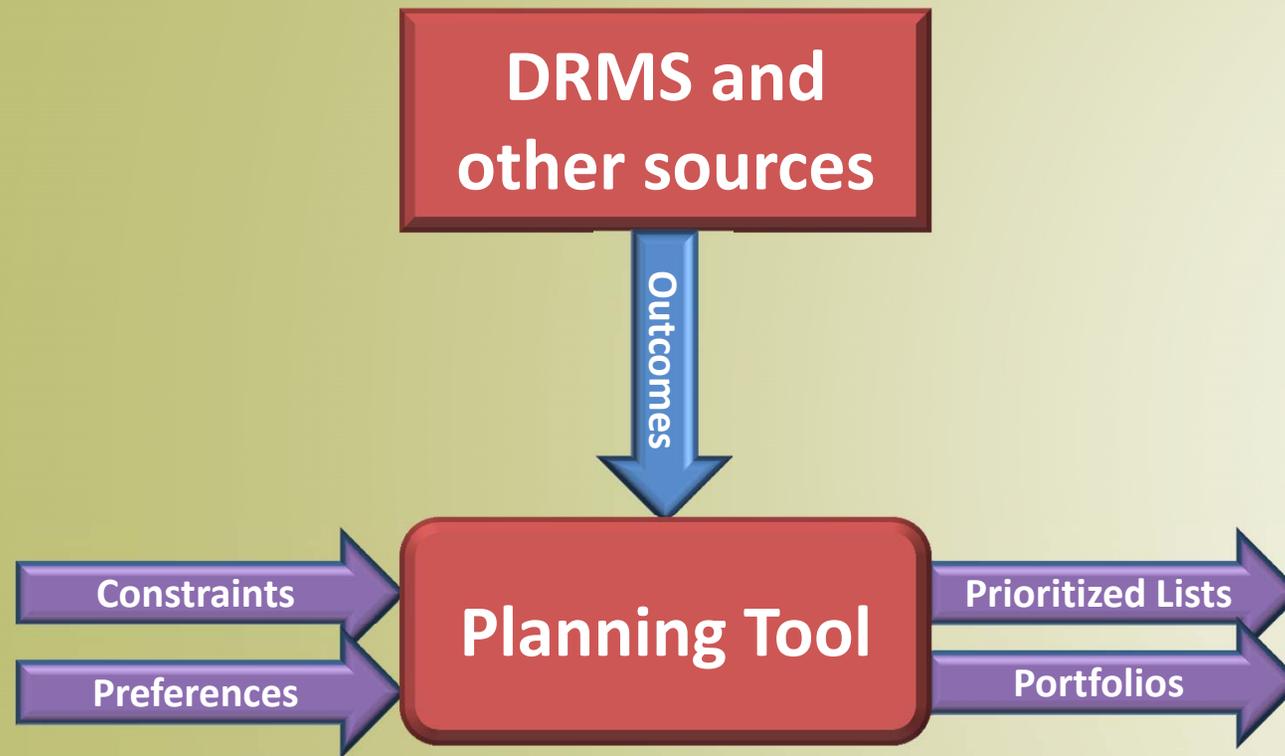
**Land Building**

# The Louisiana Planning Tool Helped Develop the 50-year, \$50 Billion 2012 Master Plan Louisiana

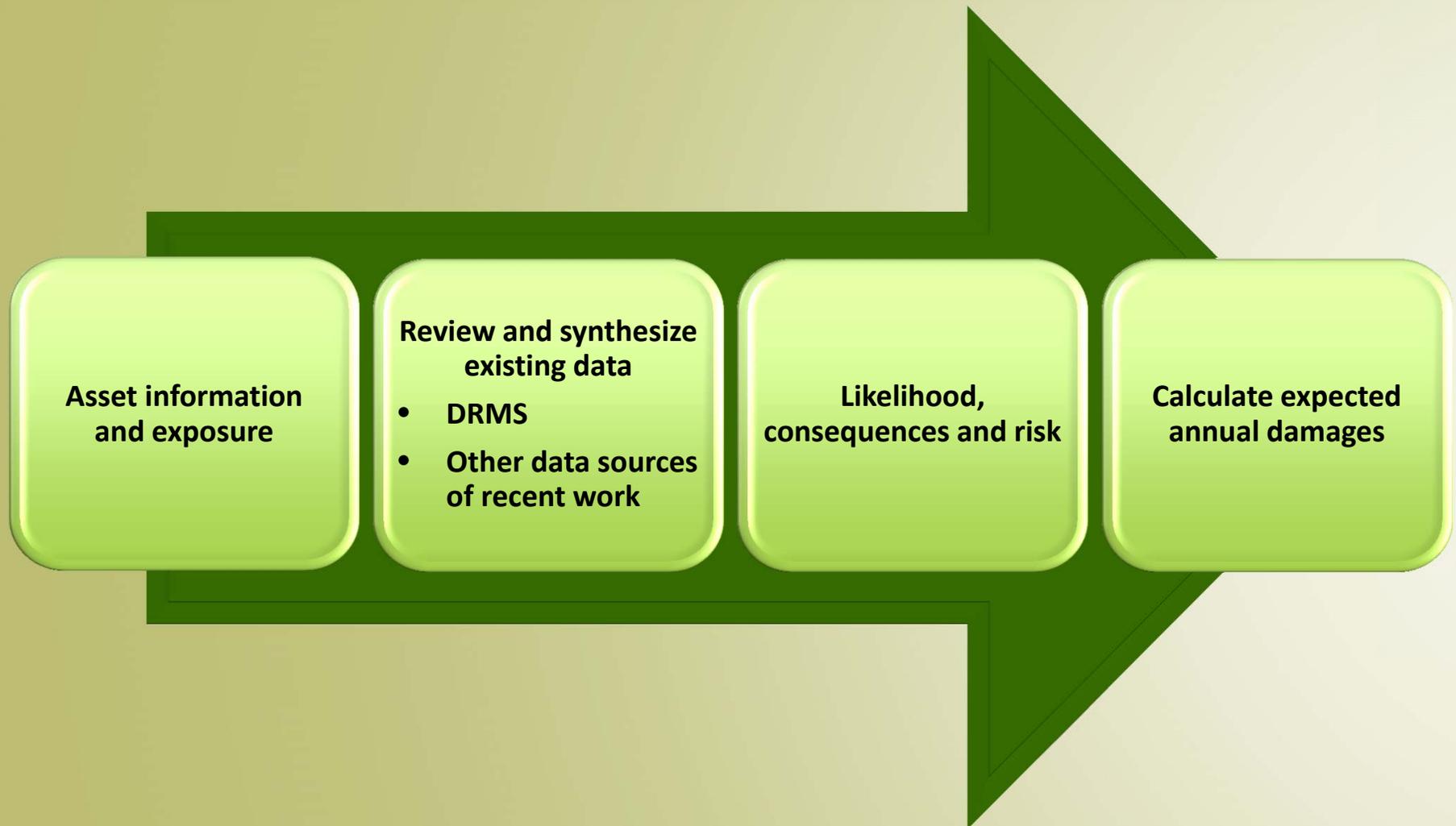


- Unanimously passed the Louisiana legislature in 2012
- Implementation underway
- Planning Tool continues to support plan refinement

# A Planning Tool Would Use Best Available Information to Prioritize Investments for the Delta



# Gathering and Developing Data to Put the Tool to Work



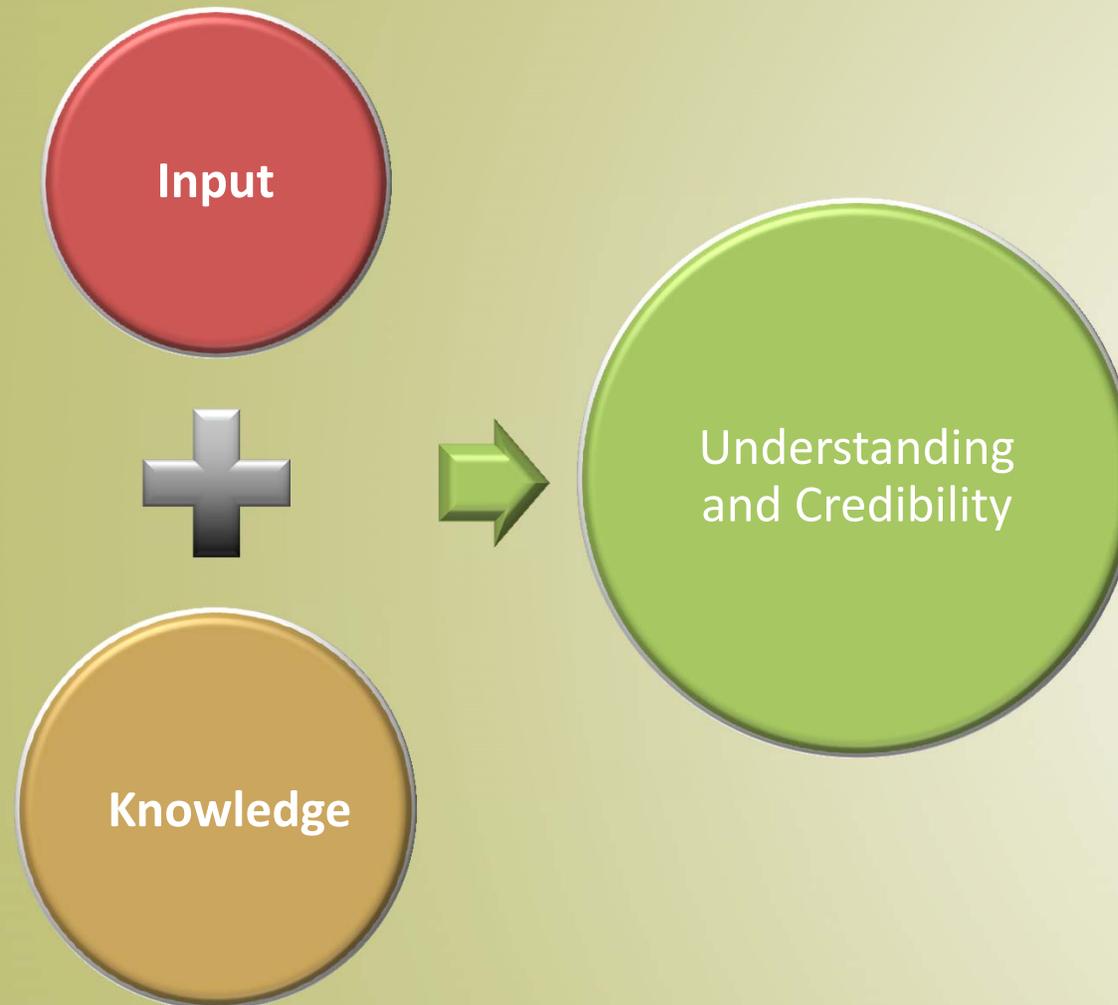
# Appropriate Level of Protection

Based on:

- Life safety, damages, and Delta values
- Recent experience in the US and elsewhere
- Consistency with other state policies
- Stakeholder engagement



# Stakeholder and Public Engagement Builds Credibility for Priorities and Allocation

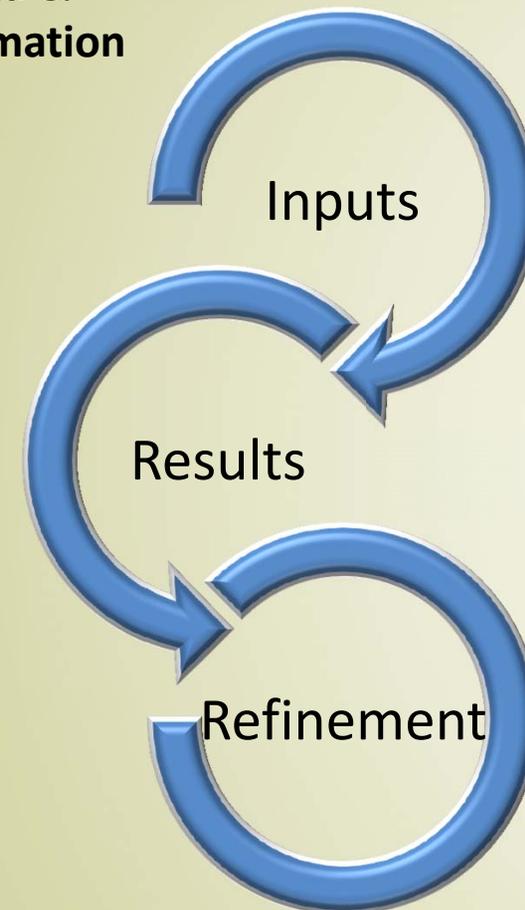


# Iterative Engagement Builds Trust in the Tool and Results



**Data &  
Information**

**Preferences  
& Values**



## Engagement Happens at Multiple Levels

### Project Meetings

- Council Staff
- DWR staff

### Work Groups

- Agencies
- Technical Experts

### Workshops

- Beneficiaries
- Community Members & Interest Groups

### Briefings & One-on-Ones

- Elected Officials
- Technical Experts

# We Will Build on Existing Information to Deliver a Focused, Quality Environmental Assessment for CEQA Compliance

## DSC Levee Investment Prioritization Environmental Assessment Report

Delta Plan and EIR

BDCP and EIR/EIS

CVFPP and EIR

DRMS

SAFCA, SJAFCA, DWR  
levee projects

# International Experts Assure Quality

**Dr. Gerry Galloway**



- Brigadier General USA Retired
- Worldwide Flood Expert
- Research Professor, University of Maryland

**Dr. Greg Baecher**



- Geotechnical Engineering, Reliability and Risk Analysis
- Key Advisor on DRMS
- Research Professor, University of Maryland

**Dr. Ed Link**



- Served as PM for USACE Risk Assessment following Hurricane Katrina
- Research Professor, University of Maryland

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**Resilient Levees in an Evolving Delta**



Thank You!

Q&A