



A Regional Watershed Approach to Disaster Recovery

June 21, 2018

Shona M. Gibson, PE
FEMA Region 6

Requirements, guidance,
and new data working
together to support
critical community
recovery and rebuilding
decisions



AGENDA



- Background
- Methodology
- Interagency Collaboration
- O³
 - Outcomes
 - Outreach
 - Other Considerations



FEMA

Background



■ Mission

- Deliver quality data that leads to action to reduce risk, increase resiliency and improve coordination

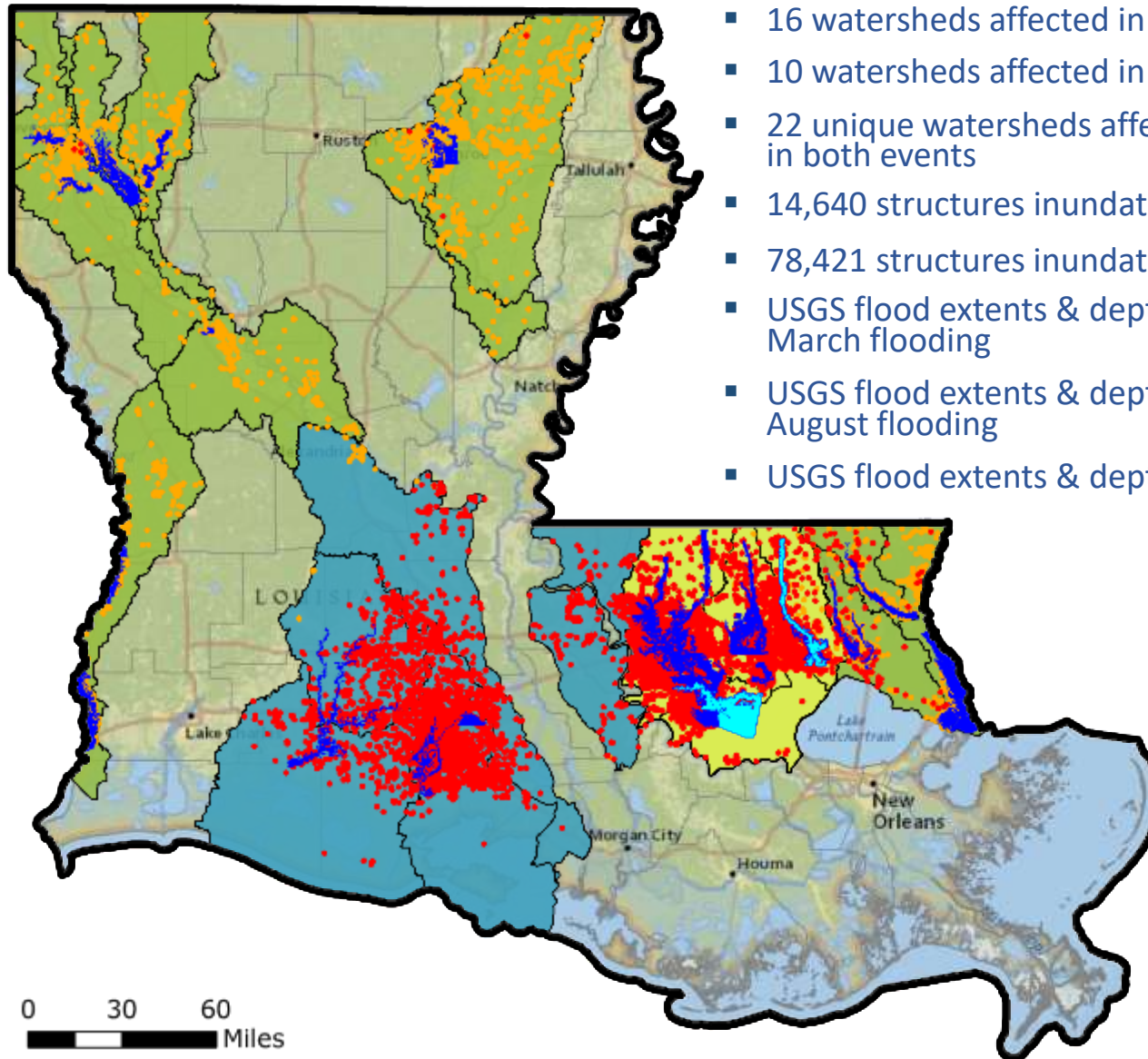
■ Overall Goals

- Increase watershed resilience
- Provide data that informs disaster funding
- Increase community cohesion
- Enhance environmental quality and minimize degradation of the watershed



FEMA

LaWRS – 22 Watersheds



- 16 watersheds affected in March flooding (DR-4263-LA)
- 10 watersheds affected in August flooding (DR-4277-LA)
- 22 unique watersheds affected; 4 watersheds affected in both events
- 14,640 structures inundated in March flooding
- 78,421 structures inundated in August flooding
- USGS flood extents & depth grids used for analysis in March flooding
- USGS flood extents & depth grids used for analysis in August flooding
- USGS flood extents & depth grids in both events

Background Louisiana Watershed Resiliency Study



195 Incorporated Communities

52 Parishes

22 Watersheds

8 Planning Districts

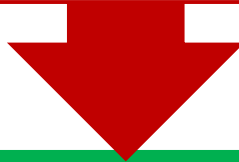
4 USACE Districts

Background



Louisiana Watershed Resiliency Study (LaWRS)

Louisiana Resilient Recovery Pilot



Louisiana Resilient Recovery Initiative

Vermilion Watershed & Amite Watershed



Actions and Projects

Regional Actions & State Actions

Methodology



- A framework to guide decisions and efforts to protect and restore watersheds and increase resiliency
- Focused on flood risk reduction and resilience
- Emphasis on communities
- Expanded outreach and community engagement
- It is however NOT hydrologic and hydraulic modeling
- It is NOT a funding source

“A more holistic approach to resiliency”



FEMA

Methodology



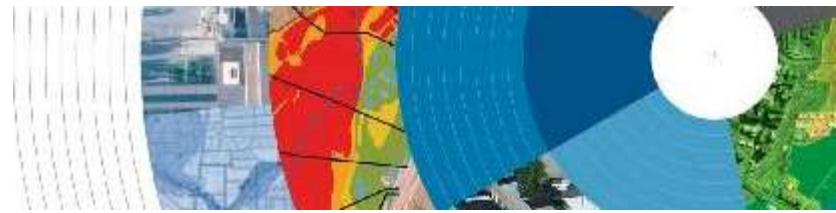
- HUC-8 (Hydrologic Unit Code/from USGS)
- Solicit State and Regional “Champion”
- Establish key State Stakeholders and Influencers
- Resource Project
 - Develop Steering Committee
 - Establish Leadership
 - Staff the Task Force
 - Reach out to other programs leadership and OFAs for support and data
- Perform Research
- Program Management



FEMA

Methodology Process Framework

Information in the study



Watershed Characteristics

- % of Floodplain
- Topography / Elevation
- Geology
- Soils
- Wetlands
- Land Cover/Impervious Surface Change
- Levee/Dams/Flood Control/Reservoirs
- Aquifers / Waterwells

Weather/Water & Event Specific

- Climate 30-yr normals
- Harvey Rainfall Totals
- NFIP Claims
- Repetitive Loss
- Individual Assistance (IA) Registration /Claims
- Channel Conditions
- Public Assistance (PA) Claims/406 Mitigation Grants
- Disaster Grants -HMGP
- Non-Disaster Grants / Other Agency Grants
- River Gage Data
- Inundation- SHFA and Harvey
- Structure Impact Analysis

Economic/Social data

- GDP (Economics)
- Population / Census
- Superfund/Brownfield Sites
- Building Codes/Freeboard
- Critical/Emergency Facilities
- Parks and Recreation
- Transportation Network
- SOVI
- Socio-Economics / Demographics
- Energy Infrastructure – Oil, Gas, Electric

Interagency Coordination



Stakeholders



OCIA



Office of
Community
Development

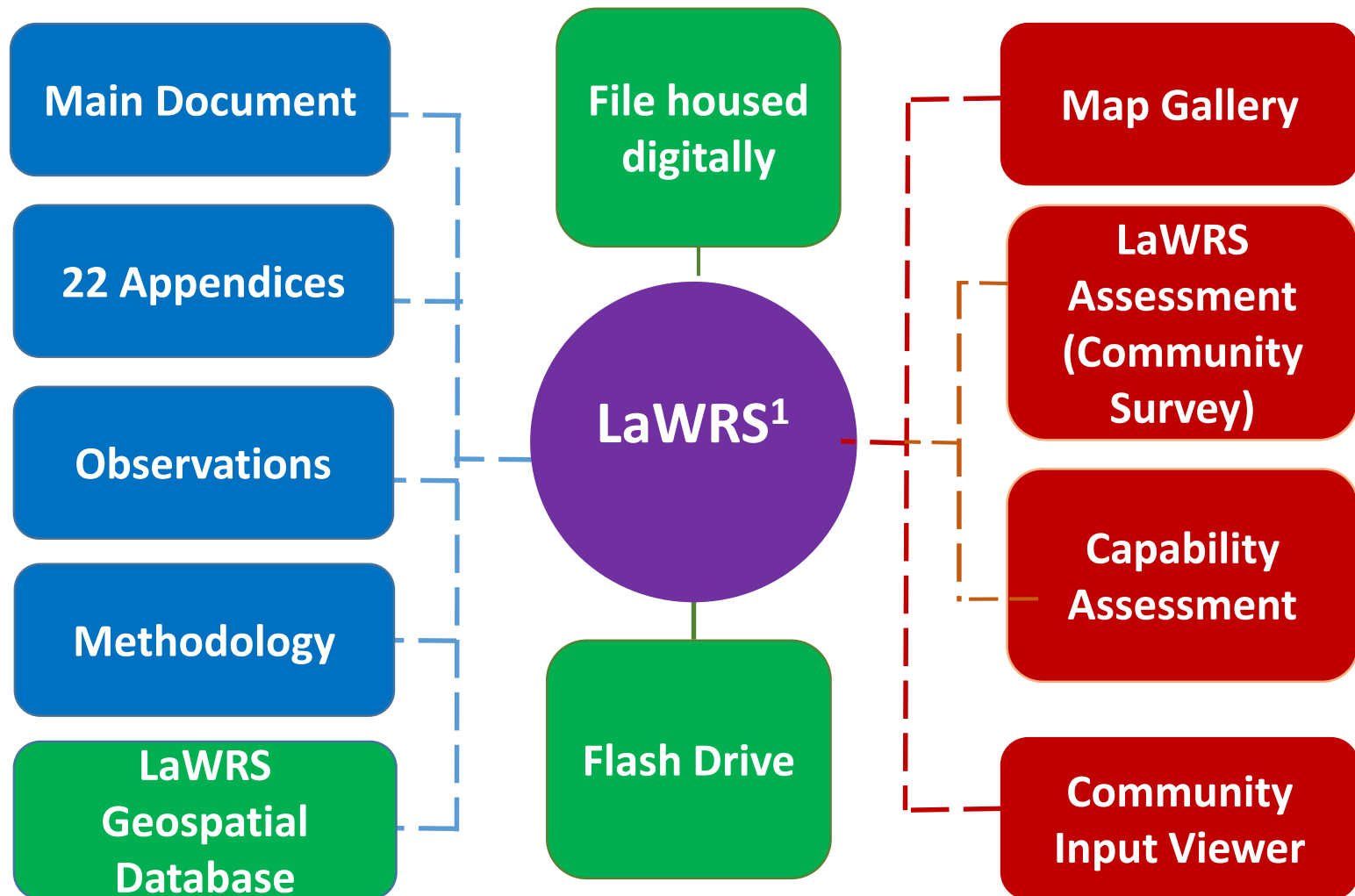


US Army Corps
of Engineers®



Primary---Planning Team--Secondary

LaWRS Components



¹<https://data.femadata.com/Region6/mitigation/riskmap/lawrs/>

Outreach



- State NFIP Coordinator and SHMO, as well as agency responsible for administering CDBG-DR funds
- Determine the AUDIENCE:
 - Local Communities impacted by the event
 - State Agencies
 - Other Influencers
- Coordinated, well-informed efforts
 - Public Sectors
 - Private Sectors
 - Non-Profits



FEMA

Outcomes



Provide Data that Leads to Action to
Reduce Risk and Increase Resiliency



Mitigation Plans * Recovery Plans * Resiliency Plans

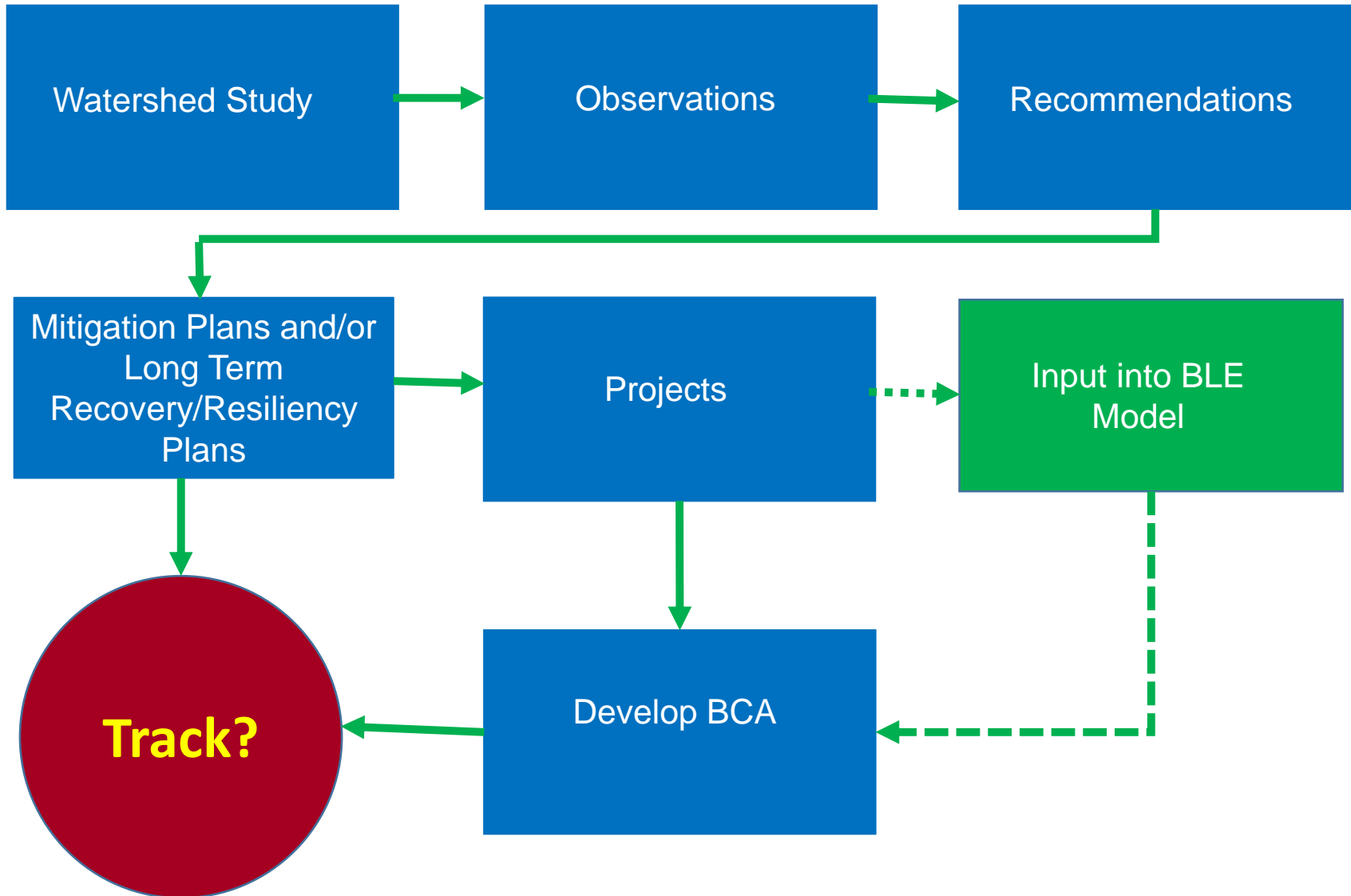


Collaboration and coordination among agencies &
communities



Projects * Actions * Policies

Outcome Process



Background Louisiana Watershed Resiliency Study Outcomes



Statewide Initiatives

- CDBG funding allocated specifically for watershed projects and hydraulic studies
- Long Term Resiliency Guide created and includes chapters addressing watersheds, land use & other non-structural approaches
- **Executive Order JBE-18-16 signed May 18, 2018 ordering the development and implementation of a statewide, watershed-based floodplain management program.**

Watershed Initiatives Vermilion

- HMGP funding allocated (not awarded) to communities that make up Vermilion watershed.
- Evaluates all HMGP project proposals based on the overall benefit to the watershed through a technical committee
- Technical Committee prioritizes projects based on overall benefit to watershed and awards funds to community based on the prioritization .

Watershed Initiatives Amite

- Watershed wide hydrology & hydraulics model being developed to evaluate the impacts of proposed projects & development within watershed
- Amite summit April 4.

Other Considerations



Resourcing

- Multiple Disasters
- Breadth and Depth
- FEMA Corps
- Leverage Experience



Data

- USGS Flood Extent/Area/Contractors
- Where will it be housed long term
- Who will maintain long term
- Handling of FOUO information
- You just never know what piece of data will drive a community to take action.

Other Considerations

Interagency Coordination



- Fully engage and use recovery support functions in NDRS. Their knowledge can be invaluable.
- Reach out to OFA and State Agencies that have information to provide
- Steering committee made up of external and internal partners to drive and direct the project

Outreach/Communication



- Focused Strategic Outreach with Dedicated Resources and a State Champion
- Outreach plan/strategy defined up front
- Link w/other advisory products/Risk Map/BLE



We're Taking Moonshots



Double Coverage
by 2023

+5M Policies
Nationally

Increase Public &
Private Investments



**INCREASE
INVESTMENT**

in Mitigation **x4**
by 2023

Moving Forward



"The ti
regio

trans
mo
mus
co
flo

— Kenny

"Watershed planning is not the politically right thing to do, but it's the right thing to do"

Guy Cormier
St. Martin Parish, President

Questions



Shona M. Gibson, PE

Region 6 Civil Engineer

Louisiana Risk Map POC

Shona.Gibson@fema.dhs.gov

O: (940)312-3224

C: (940)383-7326



FEMA