

# LRGVDC – Preparing for Regional Flood Planning

LRGV Stormwater Taskforce  
Symposium – May 20, 2021



Credit: [NWS - 2018 Floods:](#)  
Los Fresnos, TX



# LRGV Federally Declared Disaster Declarations – Severe Storms & Flooding

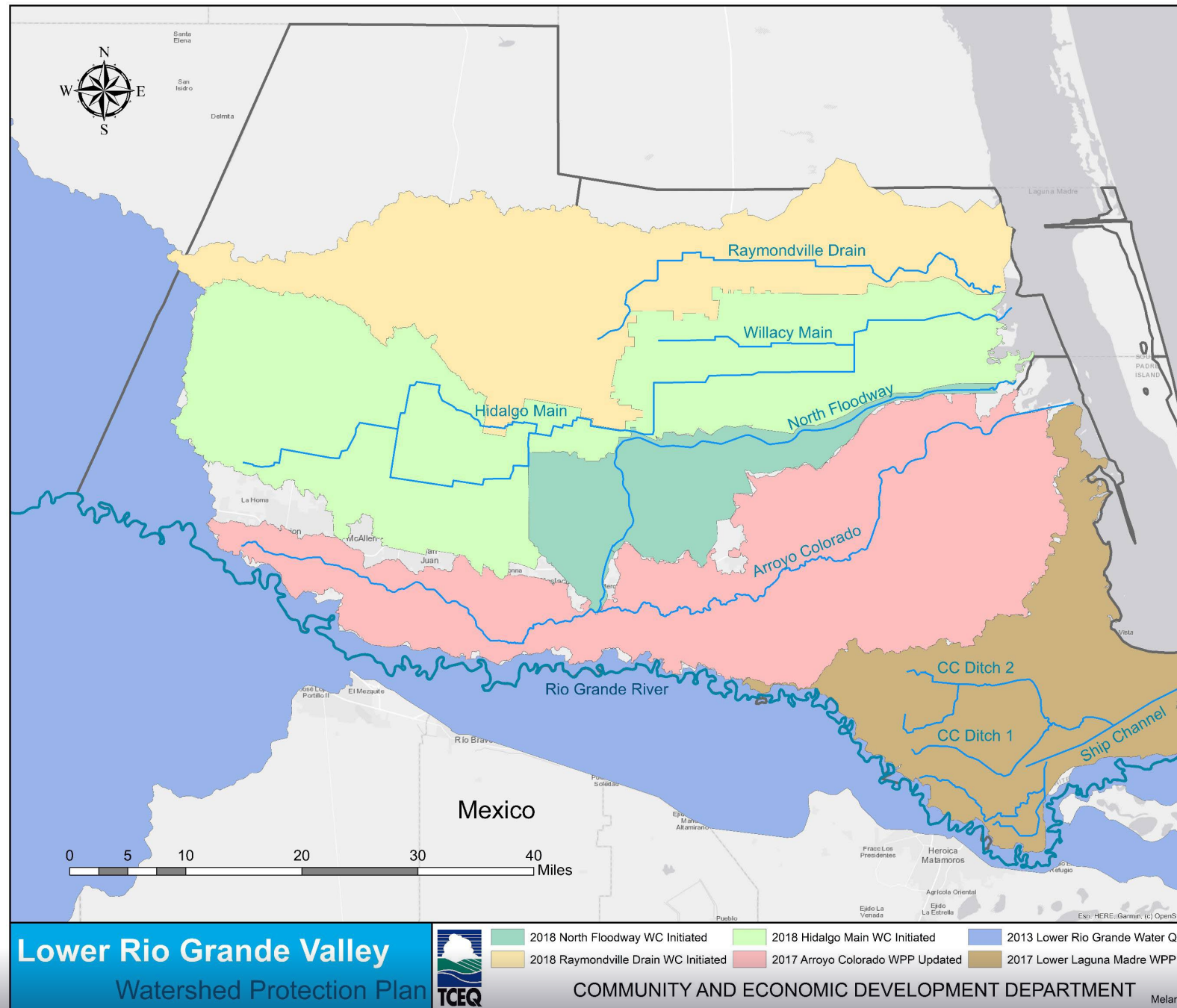
- The Lower Rio Grande Valley Region (LRGV) is at risk from severe storms and hurricanes.
- There have been five Presidentially Disasters Declared here since 2015.
- FEMA Damage from those five storms- \$98 Million Dollars (does not include Hurricane Hanna).
- Planning for flooding events is important to protect safety and welfare for LRGV residents.

DR Number	Disaster Declared Date	Individual Assistance \$	Public Assistance \$	Counties
4454	7/17/2019	\$25,812,074.32	\$0	Hidalgo, Cameron, Willacy
4377	7/6/2018	\$60,593,763.34	\$0	Hidalgo, Cameron
4272	6/11/2016	\$140,400.36	\$130,861.33	Hidalgo
4245	11/25/2015	\$7,746,214.64	\$4,558,538.89	Hidalgo, Cameron, Willacy
4223	5/29/2015	\$5,521,773.68	\$6,377,522.34	Hidalgo



# LRGV Flooding is Regional Flooding

- Five Watersheds crisscross the Lower Rio Grande Valley (LRGV)
- Any drainage infrastructure in Weslaco can have an effect downstream on Harlingen or Mercedes, and what happens in Edinburg or McAllen can impact Lyford.
- Regional cooperation is important to drain flood water safely from neighbor to neighbor.

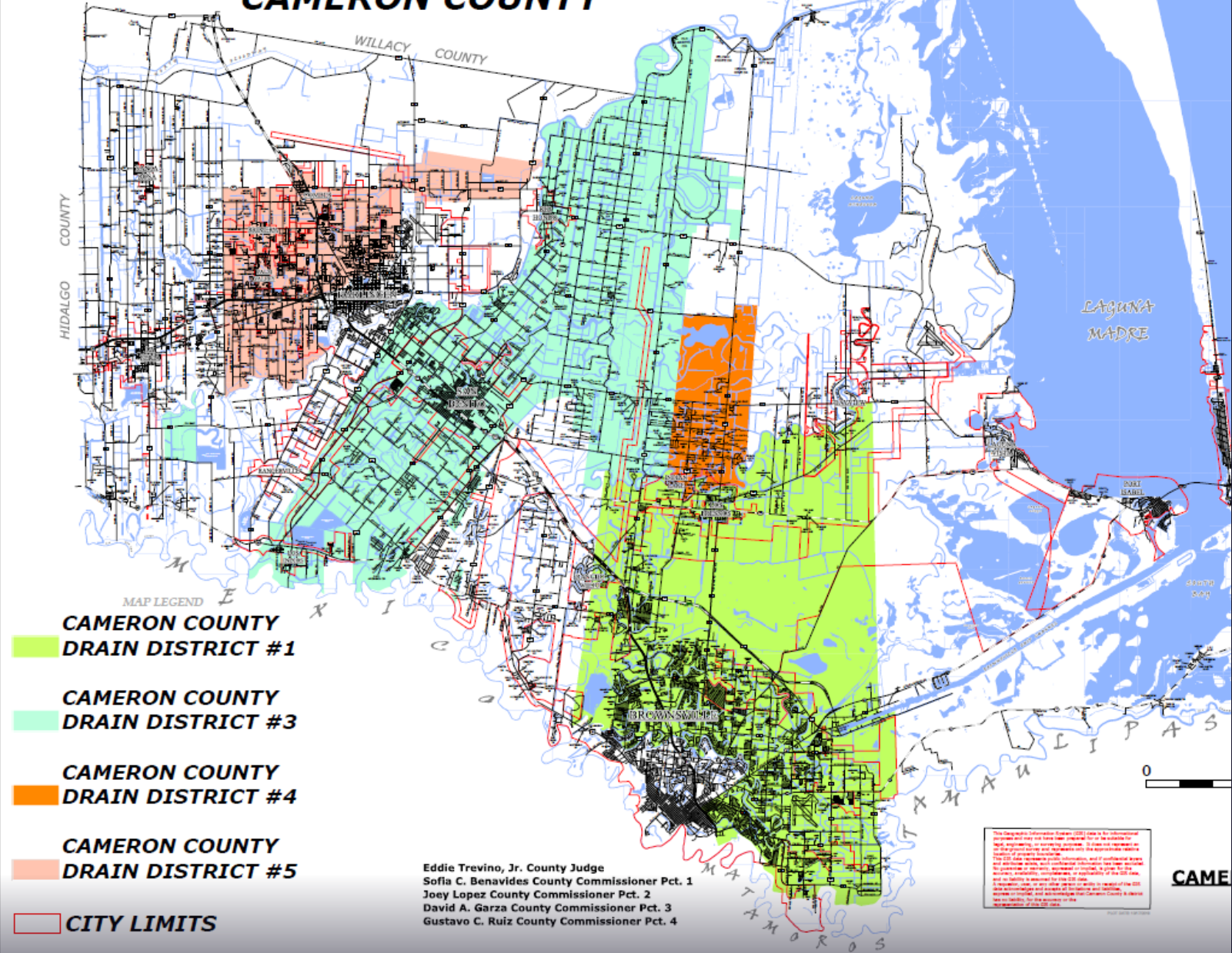


# Watersheds vs. Jurisdictions in the LRGV

- 42 Cities & Towns plus 3 Counties
- 2 Drainage Districts in Willacy County, 4 in Cameron County, 1 in Hidalgo County
- Numerous Irrigation Districts
- Jurisdiction Boundaries do not follow HUC – 10 Watershed Boundaries

Map Source: [Cameron County](#)

## DRAINAGE DISTRICTS IN CAMERON COUNTY



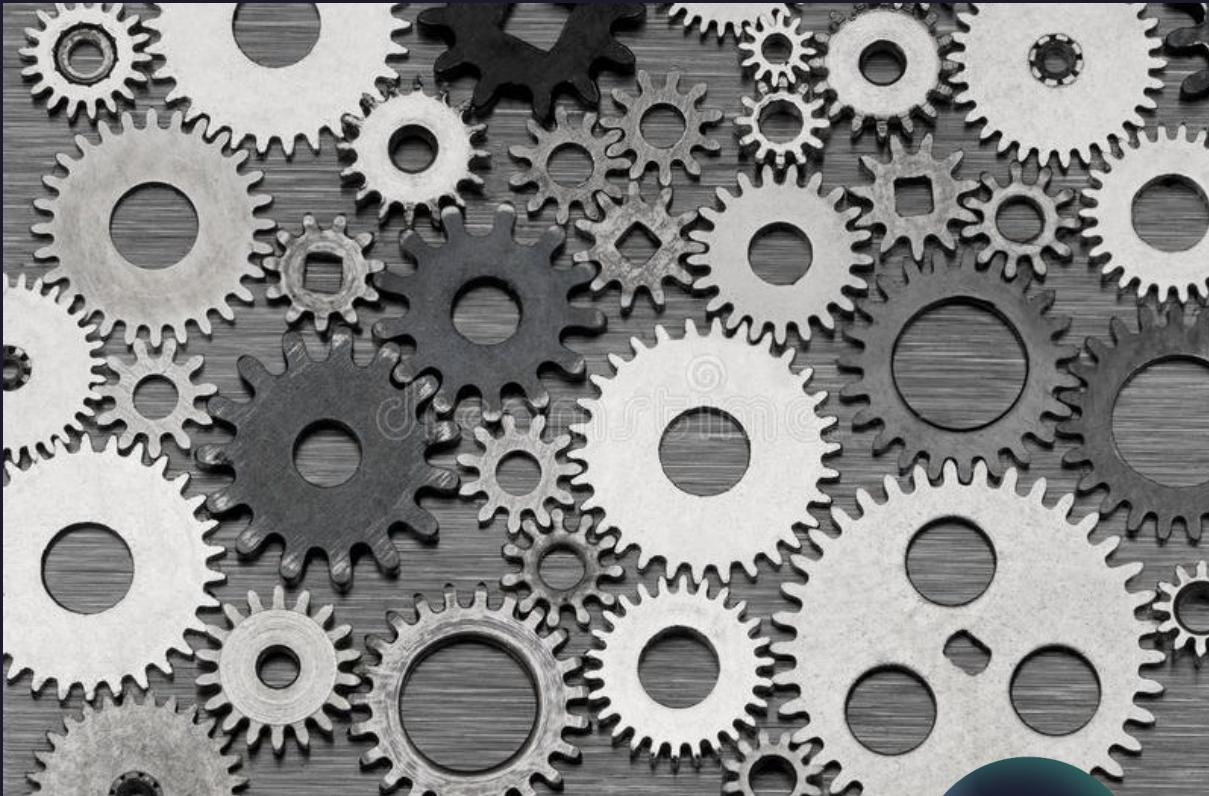




## About the Lower Rio Grande Valley Development Council (LRGVDC)

- LRGVDC was formed in 1967.
- LRGVDC is the Regional Council of Governments (COG) for Hidalgo, Cameron & Willacy Counties.
- Membership includes all the units of government in the LRGV region of Texas.
- LRGVDC promotes and encourages *cooperation* among local units of government in order to improve the region's health, safety, and general welfare & to plan for future development.

# A Regional Body for a Regional Problem



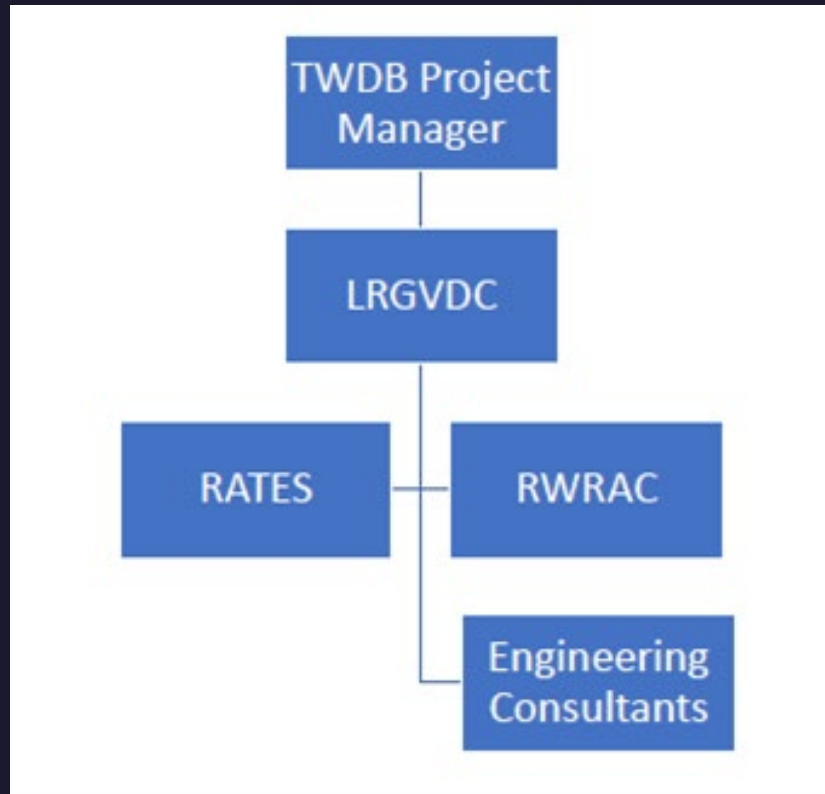
- As flood planning is regional, a group of Lower Rio Grande Valley organizations and governments entered a working partnership to work collaboratively on flooding issues under the LRGV Stormwater Taskforce.
- At the LRGV's Council of Governments, this team found another partner and a vehicle in their quest to plan for alleviating the Lower Rio Grande Valley's flooding issues.
- With the creation of Texas Water Development Board (TWDB)'s Flood Infrastructure Funding – Category 1 application, the team and LRGVDC saw an opportunity to plan for future flooding events.

# Flood Infrastructure Fund – History

- Senate Bill 7, then Proposition 8 amended the Texas Constitution to allow for a \$793 million Fund drawn from the Economic Stabilization Fund.
- This Fund is created outside of Texas' general revenue fund to be administered and used by the Texas Water Development (TWDB) for:
  - Planning and design activities
  - Work to obtain regulatory approval to provide nonstructural and structural flood mitigation and drainage
  - Construction of structural flood mitigation and drainage infrastructure



# Texas Water Development Board (TWDB) Flood Infrastructure Fund (FIF) Application – Cat 1



- “Lower Rio Grande Valley Regional Flood Protection Planning” Project – Category 1 for Regional H&H Flood Planning – Approved Dec 17, 2020
- Two phased approach which partners TWDB, LRGVDC, RWRAC and RATES on Regional Flood Protection Planning.
- Phase 1: Regional Coordination & Technical Infrastructure
- Phase 2: Regional Flood Control Projects





## The LRGVDC's Regional Water Resource Advisory Committee (RWRAC)

- Comprised of 17 local elected leaders and water resource professionals, which began on January 30, 2019.
- Purpose: “To educate, promote, foster, and coordinate community and regional planning efforts on the environmental, economic, and other social impacts of existing, new or proposed regulations, policies, and control regarding, water resources management.”

January 30, 2019 @LRGVDC

# RWRAC Composition = Regional Buy-in

- Hidalgo County
- Cameron County
- Willacy County
- City of Harlingen
- City of Edinburg
- City of Alamo
- International Boundary & Water Commission (USIBWC)
- Research, Applied Technology, Education & Service (RATES)
- City of Brownsville
- City of Mercedes
- Cameron County Drainage District #1
- Port Mansfield Navigation District
- Santa Cruz Irrigation District # 15
- Rio Grande Regional Water Planning Group (Region M)
- University of Texas at Rio Grande Valley
- South Texas College



# LRGV Watershed Coordinator

- Consortium position between LRGVDC, RATES, and others to collectively establish LRGV coordination on technical, educational and economic development tasks.
- Mutually beneficial relationship for the region on water i.e., water quality, flooding, education & outreach, etc.
- Developed to increase capacity for the LRGV region on water issues



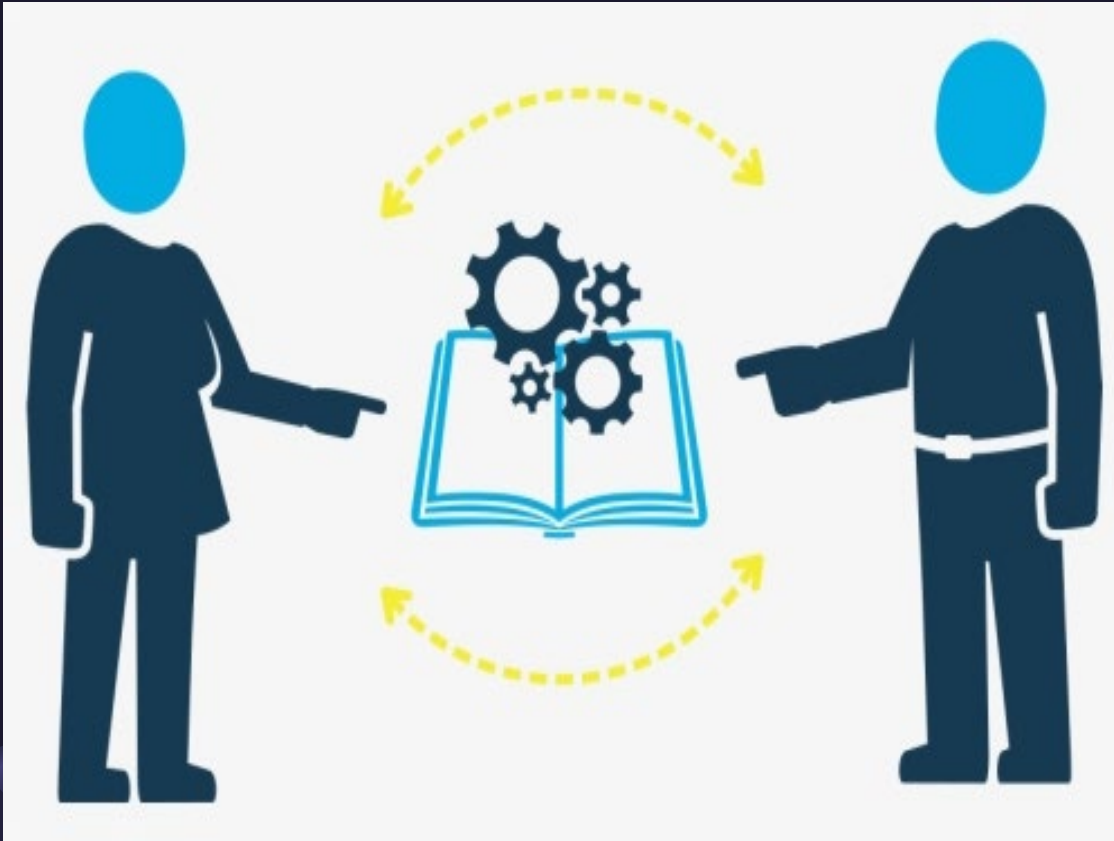


# LRGVDC's Staff Capacity Increases with FIF



- The TWDB's Flood Infrastructure Funding allows for the LRGVDC to devote a new full-time staffer plus three supporting staff to this project.
- LRGVDC staff will be advised through RWRAC, the LRGV Watershed Coordinator, and the new proposed RWRAC FIF Technical Advisory Subcommittee to manage:
  - Regional Flood Knowledgebase
  - Regional Network of Partners
  - Subcontractor Oversight & Interlocals

# Regional Flood Knowledgebase Management



- Collect existing GIS plans for baseline use
- Uploading, storage, and formatting of GIS Modeling through the cyberinfrastructure
- Packaging, uploading, and hand-offs for regional partners and their consultants to use for planning and design purposes
- Facilitating Stakeholder feedback meetings and follow-ups to create a centralized flood planning data library for regional use

# Collaborating with a Regional Network of Partners



- Leveraging LRGVDC's RWRAC, the LRGV Watershed Coordinator, & the FIF subcommittee to partner with political subdivisions, special government units, and the public to collaborate for knowledge sharing
- Identify flood planning needs of stakeholders, then identify projects needed
- Contacting and maintaining relationships with stakeholders to collect information for the regional H&H study and projects that may require a feasibility assessment or design development



# Subcontractor Oversight and Interlocals

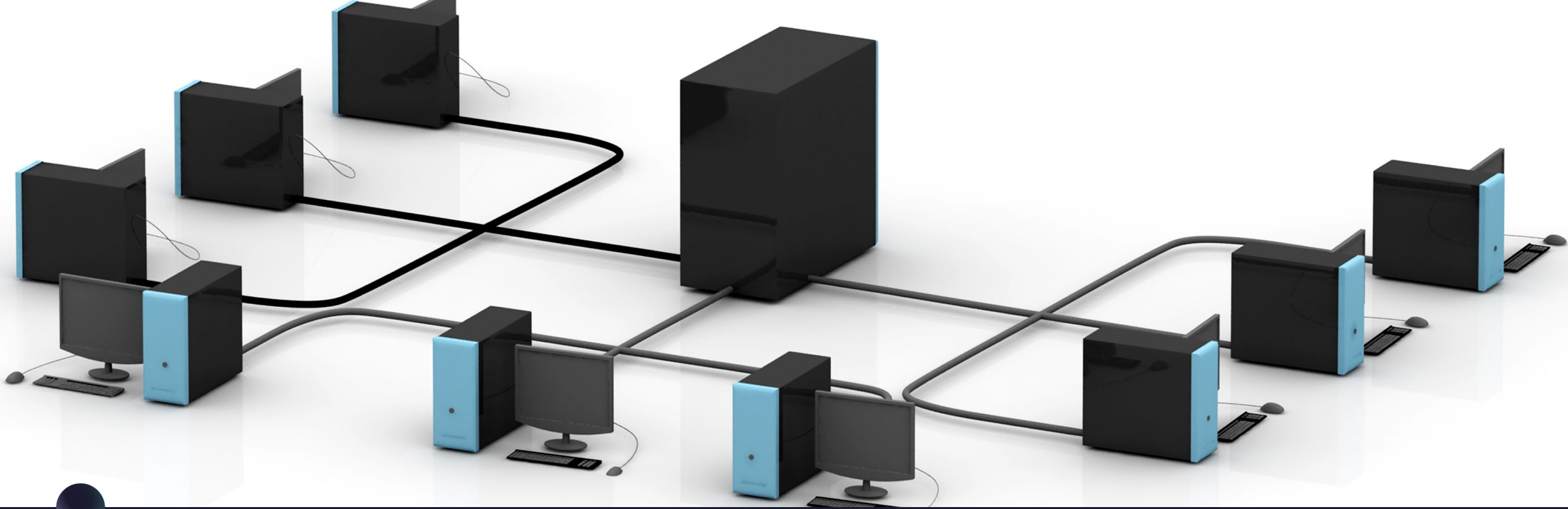


- Creating a filing system to track time schedules and reports
- Reviewing invoices and progress reports from sub contractors and awardees.
- Drafting Interlocals and/or RFQs as needed once the project identification phase begins
- Approximate number of project assessments = 25

# Why this Flood Study is Different – Capacity Building

- Apart from the innovative RTHS modeling procedure, LRGVDC's capacity building communicates the flood knowledgebase to various stakeholders through the flood distribution cyberinfrastructure.
- This planning study provides capacity to have the flood knowledgebase continually updated and maintained with capacity growth at the LRGVDC.
- Planning cannot be a one and done, but continuous and living.





# LRGVDC as Librarian for a “Living” Flood Model

- LRGVDC’s TWDB’s FIF grant provides the means to build capacity for the region’s ability to maintain and keep current flood data.
- LRGVDC, with regional partners, RWRAC, RATES, and the LRGV Watershed Coordinator, deliver the structure to continue expansion, upkeep, maintenance, and transmission of the flood planning data to regional partners across the Valley.



# LRGVDC Contact Information – Any Questions?

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