



LEVERAGING RESOURCES

Utilizing Disaster Recovery Funds for Stormwater Infrastructure Projects

PRESENTATION

- Background of Richland County
- The Stormwater Management Division
- What Changed in October 2015
- How We Adapted
- How to Leverage Disaster Recovery Resources
- Lessons Learned



About Richland County, SC

Named for the “rich land” for indigo and cotton plantations

Population of over 400,000

Capital county

Home of the Gamecocks (Go Cocks!)

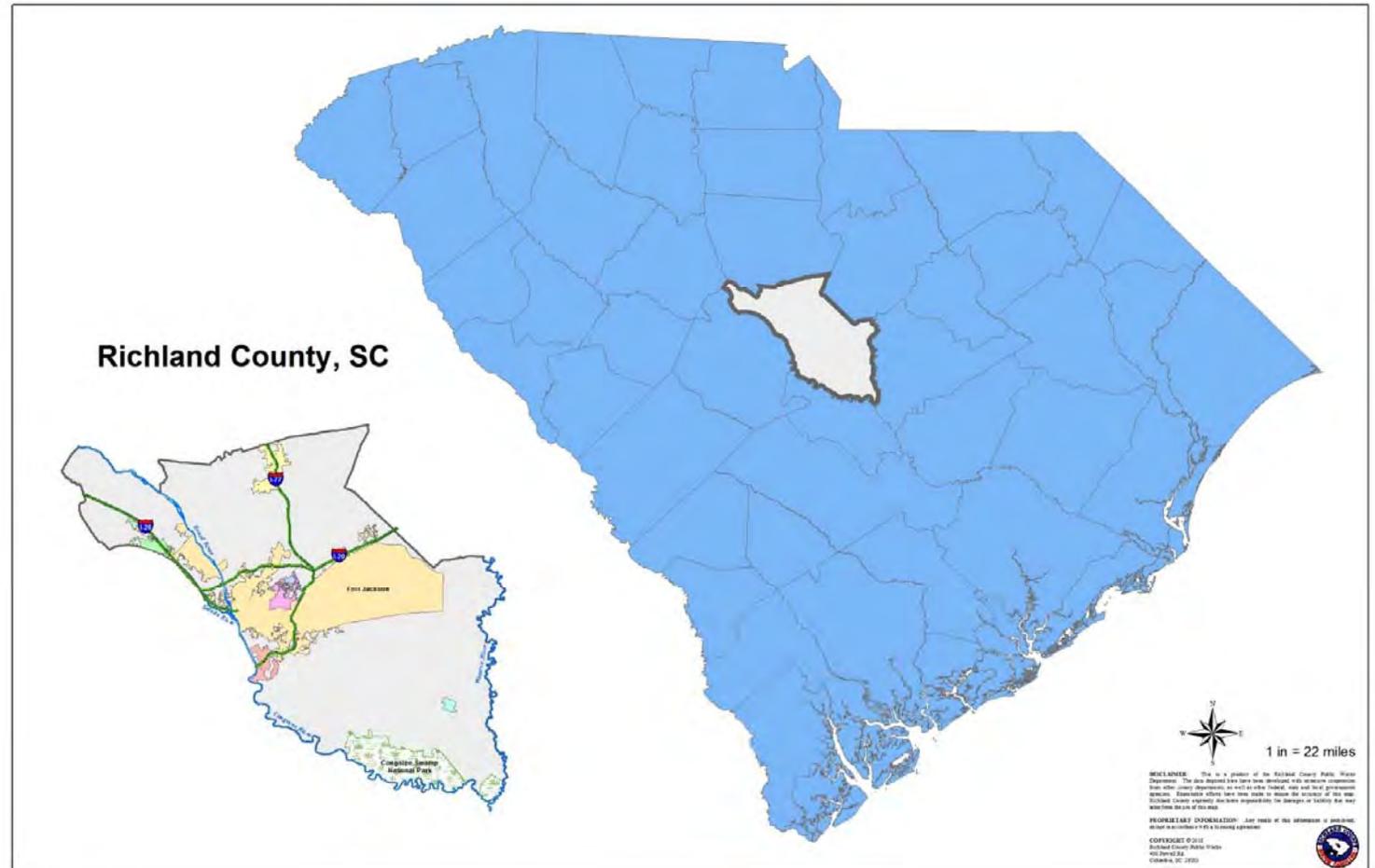
Fort Jackson

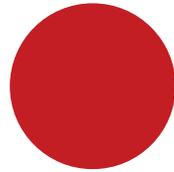
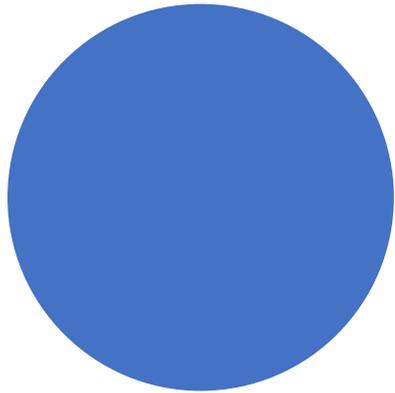
Congaree National Park

11 Council members

5 Municipalities

Phase I MS4



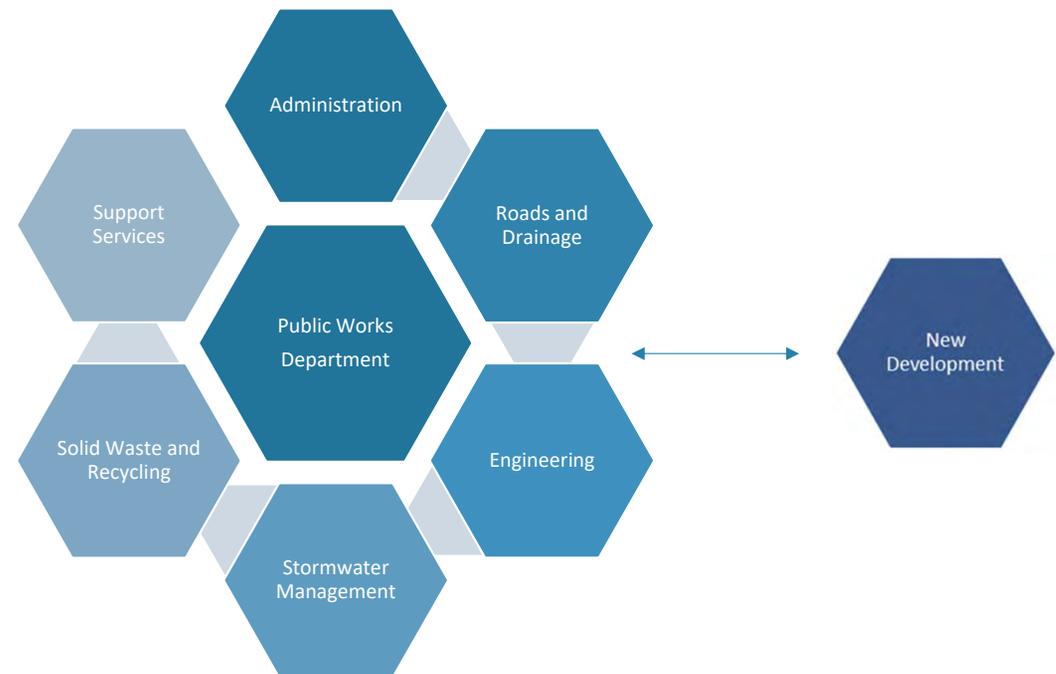


THE STATUS QUO

Before The Storm

STORMWATER MANAGEMENT PROGRAM

- Stormwater Management Division is part of the Public Works Department.
- Responsible for NPDES MS4 Phase I implementation and compliance.
- No construction plan review/inspections.
- Manages a CIP program.
- Oversee recovery management for the Public Works Department.



Stormwater Capital Improvement Project Process



Service Request Received by Ombudsman's office.



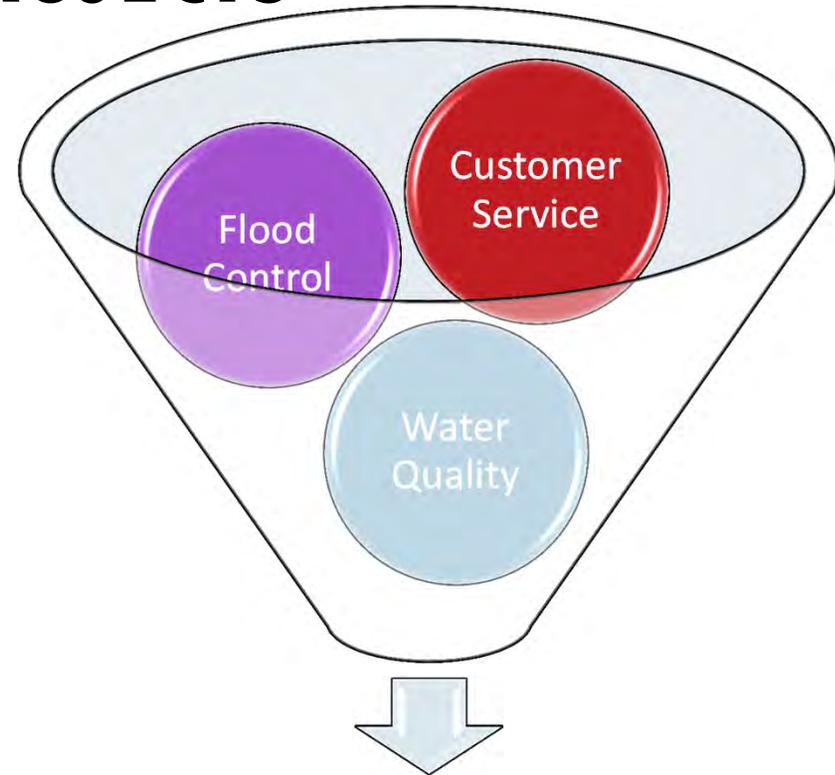
Request is investigated by the Department of Public Works.



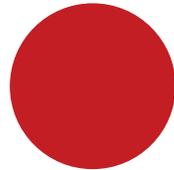
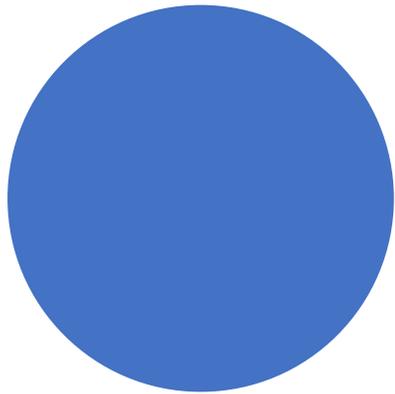
Request becomes an In-House Project or Capital Project.

SELECTING CAPITAL PROJECTS

- Twenty-five year Stormwater strategic plan
 - Identified high risk infrastructure
 - Road map for upcoming Stormwater needs
- Project ranking database
- Project report generated
 - Cut sheet for easy explanation to administration and council.
- Streamlined development of 5 and 10 year CIP project list.
 - Biennial budget process



Approved CIP



THEN OCTOBER 2015 HAPPENED

After the Storm



AFTER THE FLOOD

- Over 20 dam failures.
- 50 road closures.
- 267 Roads damaged.
- 247 Individuals sheltered.
- 304 Wells tested positive for coliform.
- Unprecedented mosquito count.

LONG ROAD TO RECOVERY

- Public Works Emergency Operations Center
- Road evaluations became the main objective.
- Completed comprehensive road evaluations.
 - 3310 County roads inspected.
- Progress report submitted daily to administration and the PIO office.
- What do we fix first?



FUNDING POURED INTO THE COUNTY

HAZARD MITIGATION GRANT PROGRAM (HMGP)

- Help communities implement hazard mitigation measures following a Presidential major disaster declaration.
- Reduce or eliminate long term risk.
- FEMA pays 75% County covers 25%.

COMMUNITY DEVELOPMENT BLOCK GRANT – DISASTER RECOVERY (CDBG-DR)

- Funding from the U.S. Department of Housing and Urban Development.
- Address unmet needs after a disaster.
- The County leveraged CDBG-DR as 25% of HMGP.
- Identified other project areas (infrastructure included).



HEY! YOU'VE WON A PIG!

What are you going to do now that we've given you millions of dollars....oh and a bunch of federal regulations!



Richland County Government
Confidential and Privileged

FLOOD RECOVERY WORKING GROUP



- Created an internal work group.
 - Various departments
- Set recovery project priorities.
- Ranked each priority
- Each participating department/division had to bring a project.
- Blue Ribbon Committee
 - Government
 - Non-profits
 - Citizens
 - Watershed groups



PROJECT PRIORITIES

Priority Ranking	Project Category
1	Residential Property Acquisition/Buyouts
2	Storm Water Drainage Management  Who you gonna call? Stormwater!
3	Housing Reconstruction/Rehabilitation
4	Non-Residential Property Acquisition/Buyouts
5	Data/Offsite IT Infrastructure
6	Flood Studies
7	Mitigation of Flood Damage to Fire Suppression Water Capacity & Supply Systems
8	Conservation Easements
9	Public Outreach
10	Replacing County Emergency Operations Center (EOC)



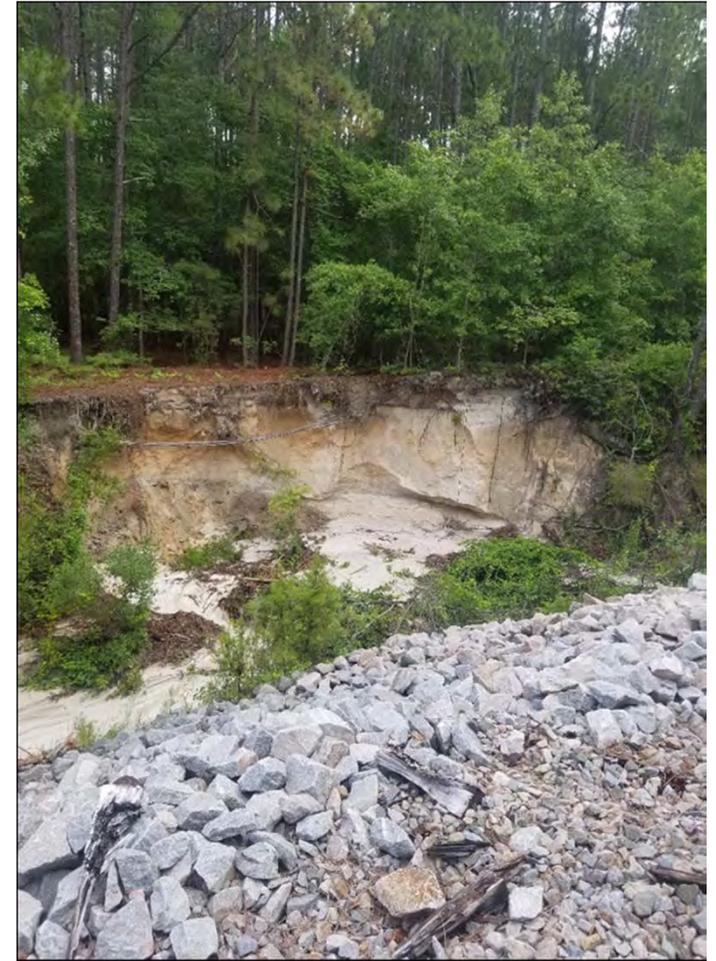
STORMWATER WAS READY!

- Stormwater Management brought valuable insight on the problems with our infrastructure and where projects needed to happen.
- We brought multiple projects to the table, but only a few survived.



LITTLE JACKSON CREEK - HMGP

- Ditch between a major state road and a subdivision with a history of erosion and sedimentation.
- Plans to stabilize using Regenerative Stormwater Conveyance.
- Already designed!
- Estimated cost of \$900,000.
- No funding in the Stormwater budget.
- HMGP funding approved as a sediment reduction project.



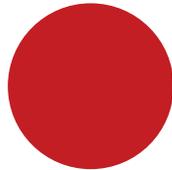
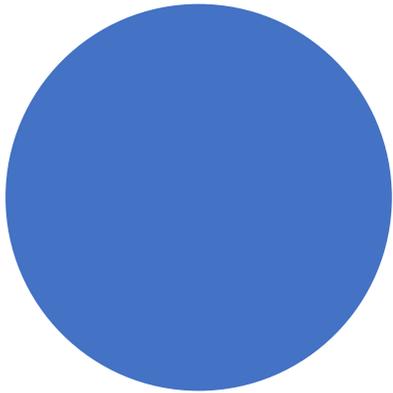
DANBURY DRIVE – CDBG-DR

- Localized flooding in the neighborhood.
- Area was previously studied with multiple recommendations.
- Located in a Low to Moderate Income (LMI) area.
- The Stormwater Division submitted recommendations to retrofit regional detention pond and upsize system.
- The only infrastructure project submitted under this program.



Richland County Government
Confidential and Privileged





AND THEN CAME MATTHEW

Another Hurricane

POST-MATTHEW

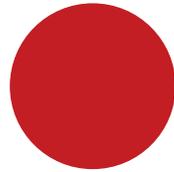
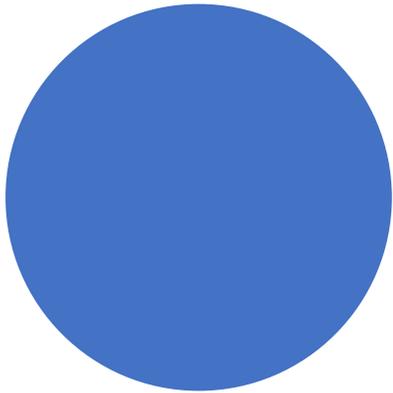
- Implement lessons learned from 2015 flood.
 - Cost benefit analysis
- County received another HMGP allocation.
- Utilized the same process with internal group and Blue Ribbon Committee.
- Knollwood Drive Project



KNOLLWOOD DRIVE PROJECT

- Localized flooding in a neighborhood built in 1965.
- FEMA regulated stream flows through neighborhood.
- Residents located in a floodplain.
- The County completed two previous infrastructure projects in 1976 and 1996.
- Study evaluated options including buy-outs.
- Submitted buy-out recommendation for HMGP funding.





NOW WE'RE
EXPERTS?

Not really, but who
doesn't like being called
an expert?

LESSONS LEARNED

- Have an idea of infrastructure that would benefit from flood mitigation.
- Don't overlook "on the shelf" projects that previously lacked funding.
- Request a cost-benefit analysis when completing a study.
- Work closely with the grants department.
- Remember: The consultant works for you!
- Understand the budgeting process.
- You'll need staffing to handle grant and project expectations.
 - Procurement, Budget & Finance, Public Information, Planning, etc.
- Managing expectations is key.



KNOW WHAT FITS WHERE

HMGP

- Not for maintenance projects.
- Look at projects with flood control benefits.
- Estimate the cost to implement.
- Return on investment is what's most important.

CDBG-DR

- Understand all requirements.
- Work closely with CDBG staff.
- Clearly identify stakeholders.
- Public information necessary.
- Identify who's responsible for project oversight vs money oversight.



NEXT STEPS

- Knollwood Drive – delay in demolition and neighborhood concerns.
- Danbury Drive – Under design; lack of trust in government.
- Little Jackson Creek – Still working out permits including receiving an easement from the railroad.
- County receiving an additional \$21 million allocation from CDBG-DR.
 - You're a recovery expert!





CLOSING

- Recovery efforts pose unique opportunities for Stormwater Managers.
- Don't leave disaster recovery efforts to Emergency Management and Public Works Department alone.
- Bring "real" information to the table.
- Why repair/rebuild houses without mitigating the flooding?





QUESTIONS?

SYNITHIA WILLIAMS
STORMWATER MANAGER
WILLIAMS.SYNITHIA@RICHLANDCOUNTYSC.GOV
803-576-2465