



**BIOLOGICAL & AGRICULTURAL
ENGINEERING**
TEXAS A & M UNIVERSITY

Rowlett Creek Watershed Characterization Project Stakeholder Meeting #5

Wednesday September 28th, 2022



SMU



Agenda

- 2:00 Welcome/Introductions
- 2:10 Key elements for a successful WPP and Rowlett Creek Characterization project update
- 3:40 Discussion & Next Steps
- 4:00 Adjourn

Funding Sources

- Funding provided by the Texas Commission on Environmental Quality through a Clean Water Act Section 319(h) grant from the U.S. Environmental Protection Agency, with local match funding from Texas A&M AgriLife Extension, Southern Methodist University and the City of Plano



EPA's 9 Key Elements for a Successful WPP

Minimum elements in Section 319-funded watershed plans for threatened and impaired waters

- Designed to restore water quality from nonpoint source impairments
- Utilizes stakeholder process to engage all that are affected by the impairments
- Clearly articulates the problems and describes what needs to be done to achieve water quality standards

Element A- Causes/Sources of Pollution Identified

- Sampling data
- Land use characterizations
- Identify and quantify sources of pollution
- Serves as baseline to determine if water quality goals are met



Element B- Expected Load Reductions for Solutions Identified

- Determine which BMPs are appropriate for reducing pollutant loads using available models
- Make sure the load reductions are for the pollution identified in Element A
- Identify expected load reduction
- Determine if each BMP is appropriate for the watershed
- Determine if estimates and assumptions are cited and verifiable

Element C- Nonpoint Source Management Measures Identified

- Waterbody load reductions depend on sufficient water quality data and appropriate modeling
- List and describe BMPs that address the sources of pollution identified in Element A
- Map BMPs in the watershed
- Document selection method- are they applicable and feasible?

Element D- Technical and Financial Assistance

- Funding provided by the Texas Commission on Environmental Quality through a Clean Water Act Section 319(h) grant from the U.S. Environmental Protection Agency, with local match funding from Texas A&M AgriLife Extension, Southern Methodist University and the City of Plano

Element E- Education and Outreach

- Identify relevant stakeholders- *active* and *diverse*
- Public education as plan is implemented
- Continued participation by stakeholders and landowners throughout implementation
- Prepare stakeholders for orientation and maintenance of BMPs

Element F- Implementation Schedule

- Develop detailed schedule
- Does the schedule meet the goals of the project?
- Is the schedule appropriate for the project?



Element G- Milestones Identified

- Develop interim milestones for BMP implementation
- Milestones should be measurable and attainable
- Verify BMPs are effective for targeted load reduction
- Introduce corrections or adjustments if necessary to achieve pollution reduction goals

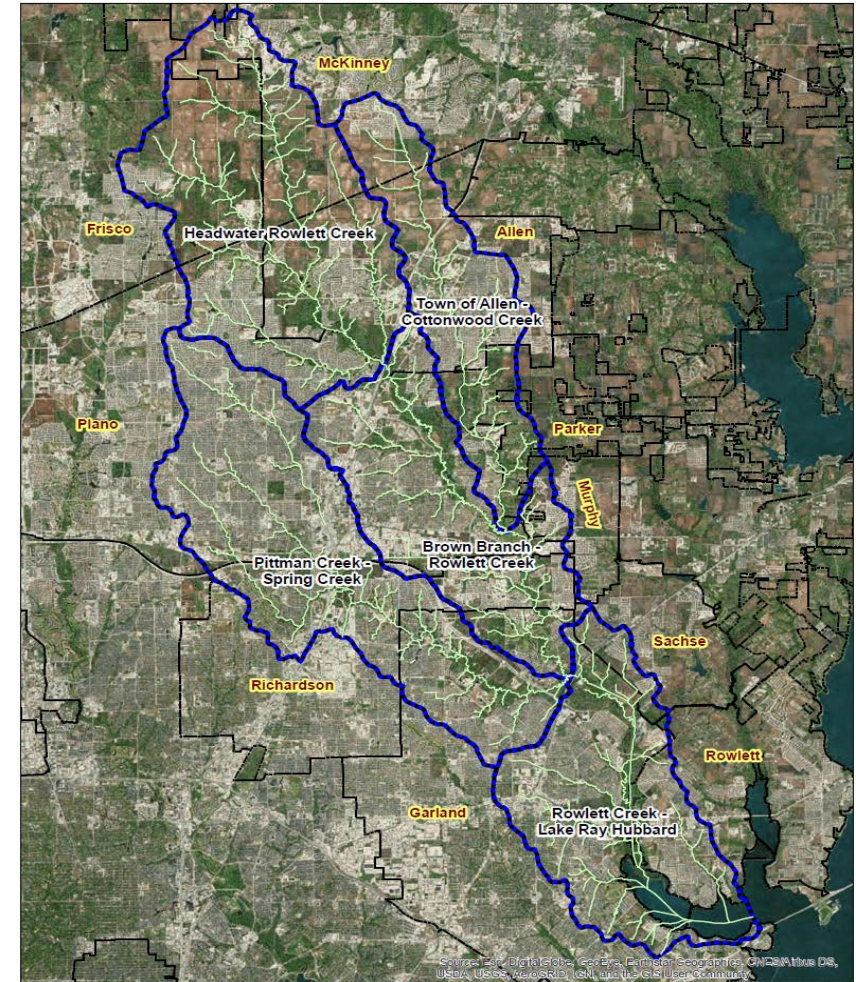
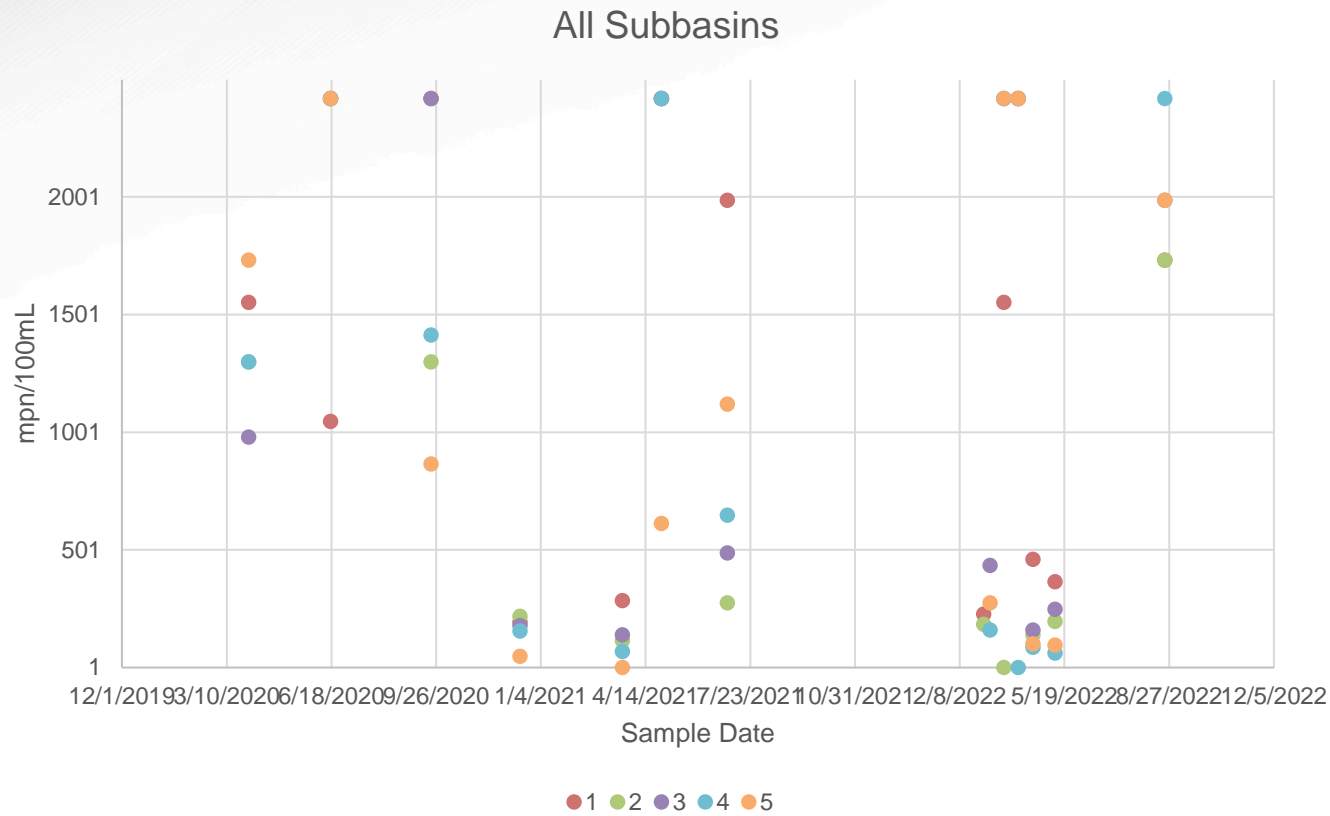
Element H- Load Reduction Evaluation Criteria

- Does the proposed criteria effectively measure progress towards load reduction goal?
- Include a review process to determine if anticipated reductions are being met
- Revise as necessary if reductions are not being met

Element I- Monitoring

- Use monitoring to evaluate effectiveness of implementation efforts
- Verify number of sites, frequency of sampling, and parameters are appropriate
- Link load reduction from implementation to improvements in the watershed

E. Coli Load Values by Date- AgriLife Samples

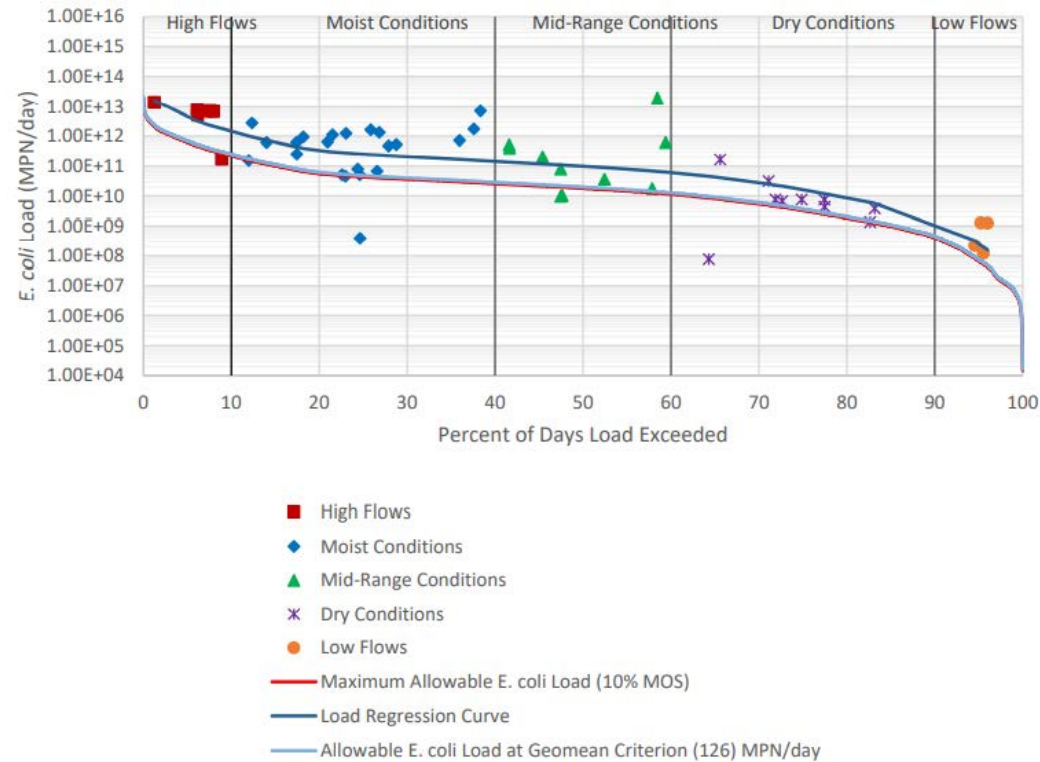


Source: 2019 Digital Globe imagery, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



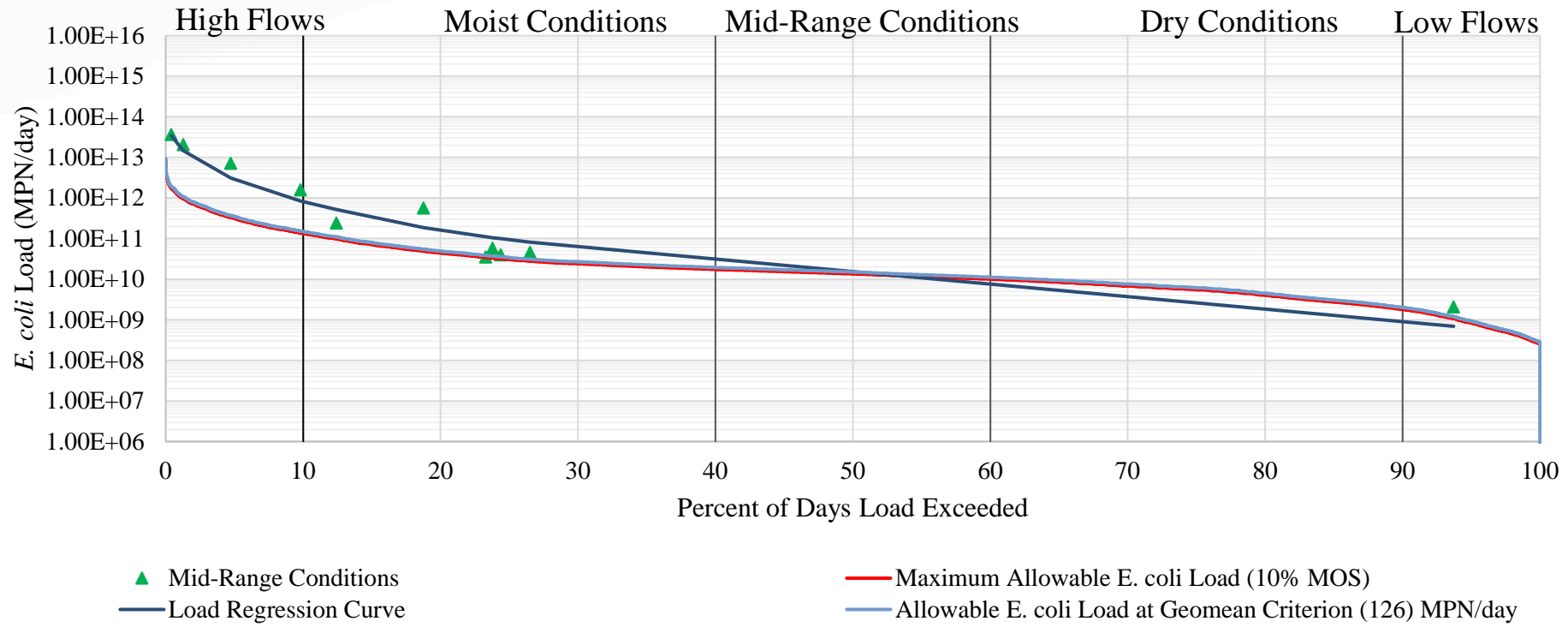
LDC Site 1

Load Duration Curve: Site 01, *E. coli*



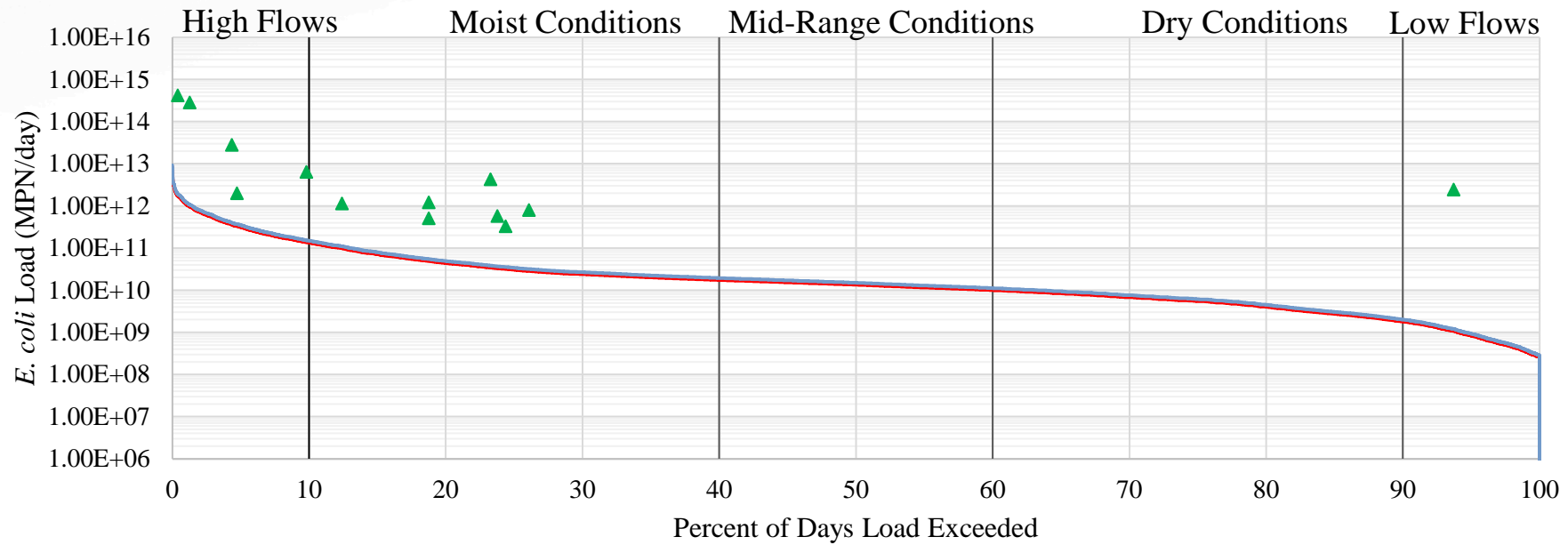
LDC Site 2

Load Duration Curve: Site 02, *E. coli*



LDC Site 3

Load Duration Curve: Site 03, *E. coli*



- ▲ Mid-Range Conditions
- Allowable *E. coli* Load at Geomean Criterion (126) MPN/day
- Maximum Allowable *E. coli* Load (10% MOS)



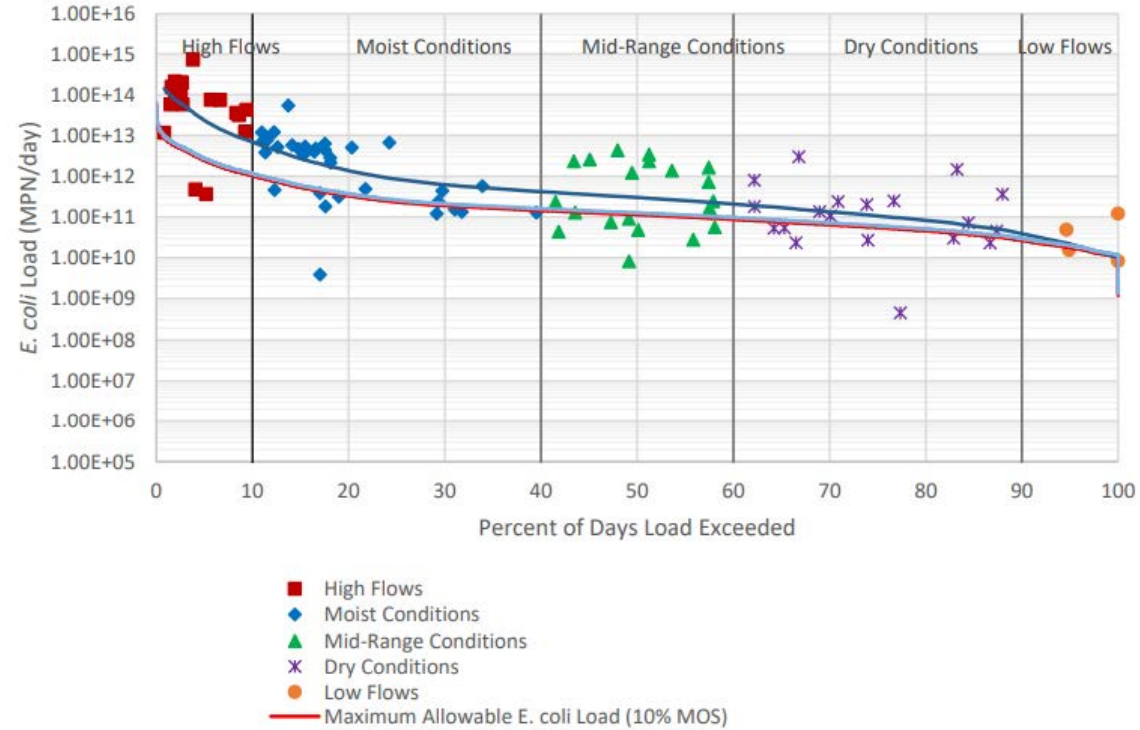
LDC Site 4

- In progress...



LDC Site 5

Load Duration Curve: Site 5, *E. coli*



Steering Committee Members

- **Contributing Partners**
 - City #1 :Keith White (Plano)
 - City #2 : Wade Williams (Murphy)
 - City #3: Sean Aucoin (Frisco)
 - City #4: Jessica Staggs (Dallas)
- **Counties**
 - Collin
 - Dallas: Nathan Davidson
- **Water Authority**
 - NTMWD: David Cowan
- **Education**
 - Collin College: Kenny Neal
 - Plano ISD: Mark Yoder
- **Private Owners/Residents**
 - Rep #1: Mikel Wilkins
 - Rep #2: Pete McKone
 - Rep #3: Mary Jo Pilch
 - Rep #4
- **Local Agencies**
 - SWCD Rep: Rick Foster
 - AgriLife Extension Agents: Brad Voss; Chase Brooks
 - TPWD: Adam Whisenant
- **Industry/Businesses**
 - Rep #1: Mayra Lopez (Raba Kistner)
 - Rep #2
- **NGOs**
 - Jordan Bach (North Texas paddling)

Upcoming Calendar

- Draft Report Posted for Review End of November
- Steering Committee Meeting #2 (December 6th, 10:30am)
- Stakeholder Meeting # 6 (December 14th, 10am)
- Comments integrated into Draft Report
- Report with integrated comments sent to TCEQ for approval
- With approval, this phase is complete

Questions, Discussion





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