Characterization of Middle Yegua, Davidson, and Deer Creeks

Stephanie deVilleneuve Texas Water Resources Institute April 11, 2019





Middle Yegua, Davidson, and Deer Creek Impairments

- Deer Creek was listed as impaired on the 2006 Texas 303(d) List for not meeting the primary contact recreation bacteria standard while Middle Yegua and Davidson Creek were listed on the 2010 Texas 303(d) List.
- Davidson Creek was listed as impaired for depressed dissolved oxygen in 2010.
- Screening level concerns for habitat in Middle Yegua Creek and use concerns for the macrobenthic community in Deer Creek.
- Screening level concerns for low dissolved oxygen in Middle Yegua and Davidson Creeks.





Significance of Impairments

 E. coli data collected indicate that levels in these watersheds are higher than state standards

 Actions must be taken to improve water quality to meet state standards or regulatory measures are likely



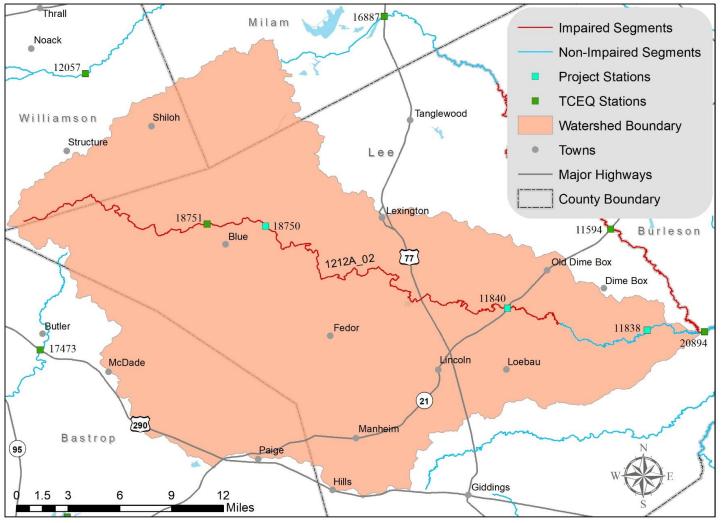


Middle Yegua Creek





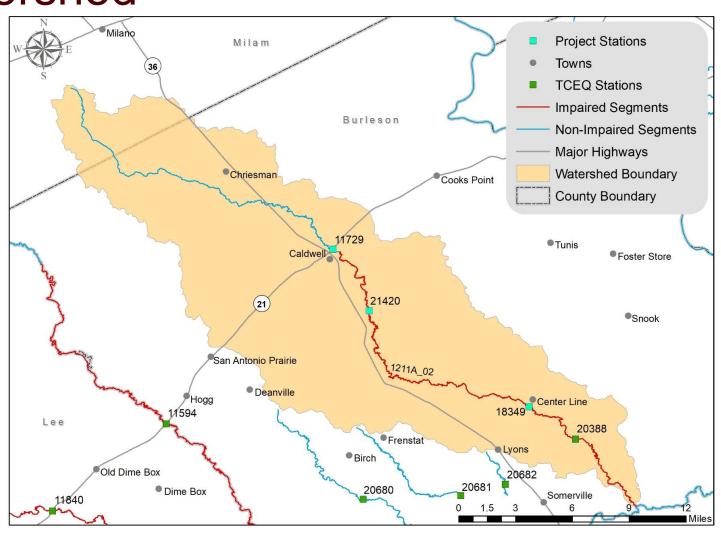




Davidson Creek Watershed



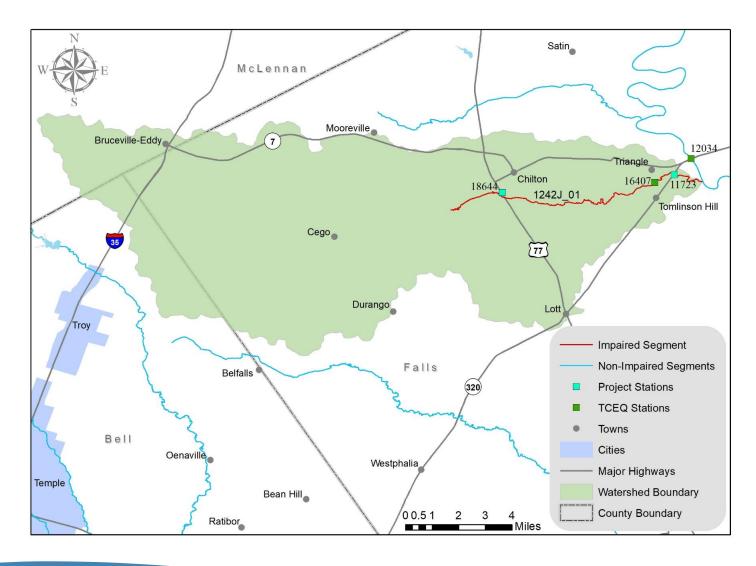








Deer Creek Watershed



Public Outreach, Education, and Involvement





- Host one education event annually per watershed.
 - Davidson Creek: TWON in September 2018
 - Middle Yegua Creek: Feral Hog Workshop May 2019
 - Deer Creek: TWON in February 2019
- Direct mailings to key stakeholders
 - Attend SWCD meetings
- Host a project webpage





Additional Actions

- Load Duration Curves (LDCs)
- Utilization of Geographic Information System (GIS)
 - Identify and spatially depict potential causes and sources of pollutant contributors

- Estimate potential pollutant loadings
- Potential for WPP or TMDL if stakeholder opinion is favorable

Thanks for your time!

Questions?

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