# FY-2015 First Year Report: Summary of the State of the Basin

A Basin Approach to Address Bacterial Impairments in the Upper Trinity River Basin





Prepared for Total Maximum Daily Load Program Texas Commission on Environmental Quality MC-203 P.O. Box 13087

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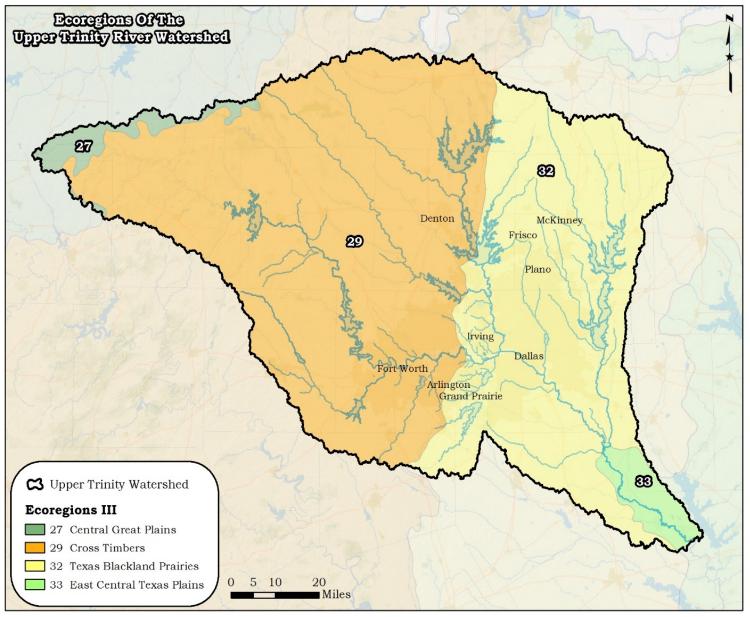


June 2015

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  - Water Quality Dataset Acquisition & Grooming
  - Data Analysis Methodology





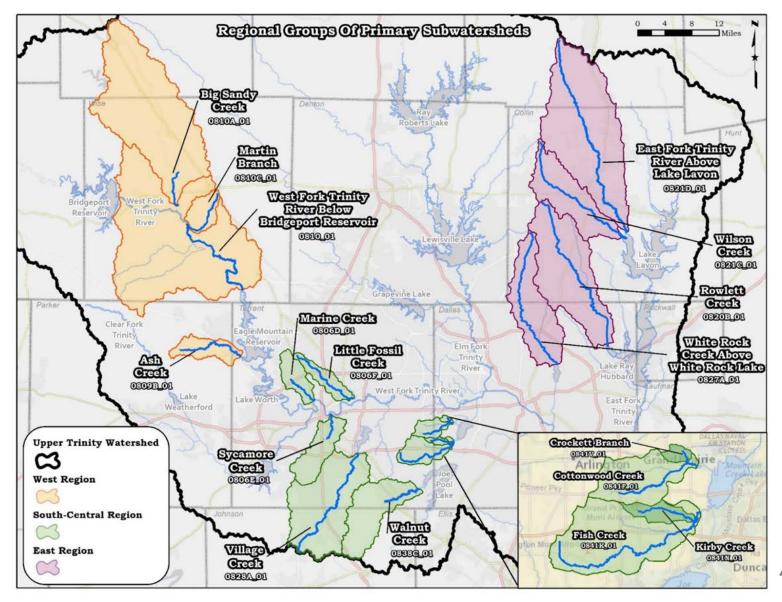
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#### Land use codes, categories, groups and descriptions

NLCD Code	NLCD Classification Category	Groups Used In Report	Group Description		
23	Developed, Medium Intensity	Developed (high)	Areas with 20 - 100% impervious cover		
24	Developed, High Intensity	Developed (high)			
21	Developed, Open Space	Developed (low)	Areas with less than 20% impervious cover. Commonly includes large-lot single-family housing,		
22	Developed, Low Intensity	Developed (low)	golf courses, and vegetation for recreation, erosion control, or aesthetic purposes.		
31	Barren Land	Barren	Bedrock, desert pavement, gravel pits and other accumulations of earthen material; vegetation generally < 15%		
81	Hay/Pasture	Hay/ Pasture	Grasses, legumes or mixtures planted for grazing, seed, or hay crops; vegetation ≥ 20%		
82	Cultivated Crops	Cropland	Annual crops and perennial woody crops > 20% of total vegetation		
52	Shrub/Scrub	Shrub/ Grassland	Vegetative cover exceeds 20% and is comprised of		
71	Herbaceous	Shrub/ Grassland	mostly low-profile (< 5 m tall) shrubs, scrub, and young trees		
41	Deciduous Forest	Forest			
42	Evergreen Forest	Forest	Trees, generally > 5 m, comprise 20% of vegetative cover		
43	Mixed Forest	Forest			
90	Woody Wetlands	Wetlands			
95	Emergent Herbaceous Wetlands	Wetlands	Forest or shrubland (> 20%) that are saturated or covered intermittently or perennially with water.		
11	Open Water	Water	Open water, generally < 25% of vegetation or soil cover.		



⊙ Regionalization



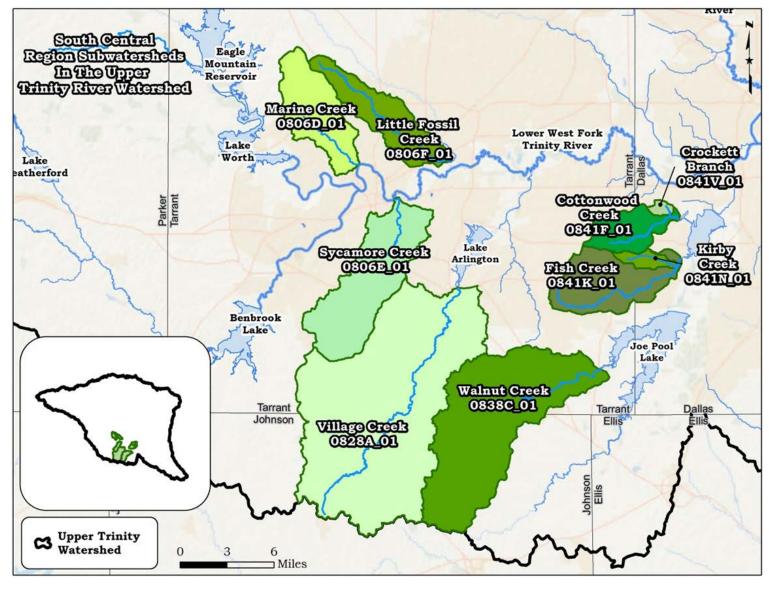
TEXAS A&M

RESEARCH

- 3. Water Quality Analysis
  - West Region General Characteristics
  - General Characteristics: Ash Creek (0809B\_01)
  - General Characteristics: West Fork Trinity River Below Bridgeport Reservoir (0810\_01
  - General Characteristics: Big Sandy Creek (0810A\_01)
  - General Characteristics: Martin Branch (0810C\_01)
  - South-Central Region General Characteristics
  - General Characteristics: Marine Creek (0806D\_01
  - East Region General Characteristics
  - General Characteristics: Rowlett Creek (0820B\_01)



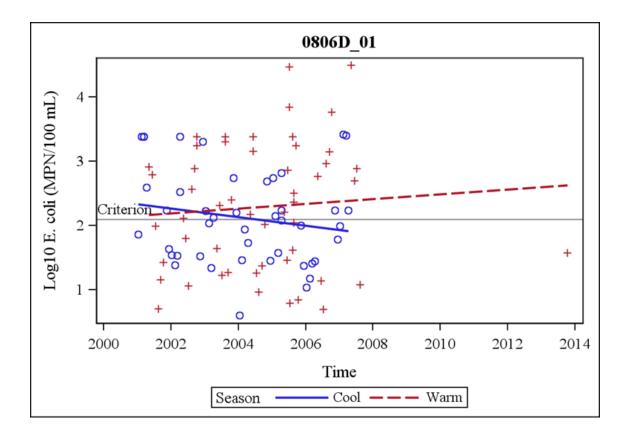
### South-Central Region General Characteristics





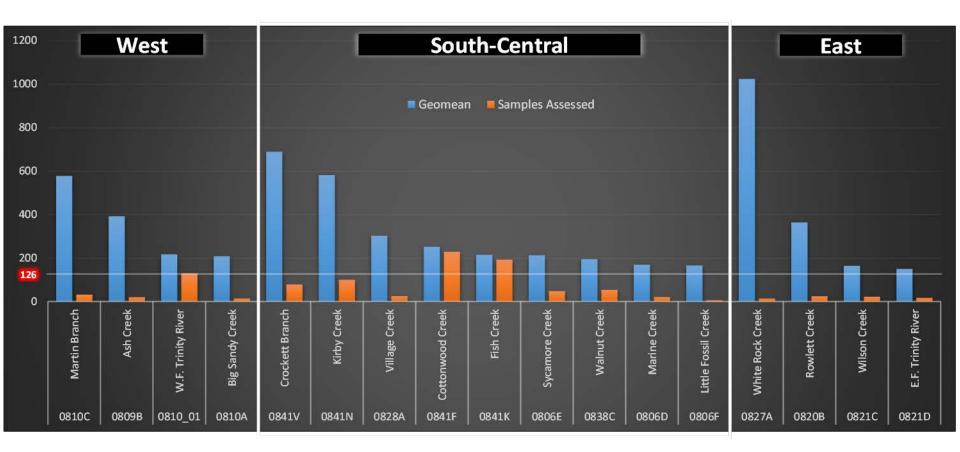
#### Data Type (Marine Creek Example)

AU	Analyte	Station	POR		Warm			Cool			
AU			n	dir	sig	n	dir	sig	n	dir	sig
0806D_01	Log <sub>10</sub> <i>E. coli</i> (MPN/100 mL)	17370	95	Up	NS	51	Up	NS	44	Dn	NS





6. Summary Description of Water Quality Data and Analyses





### 7. Watershed Management in the Upper Trinity River Basin

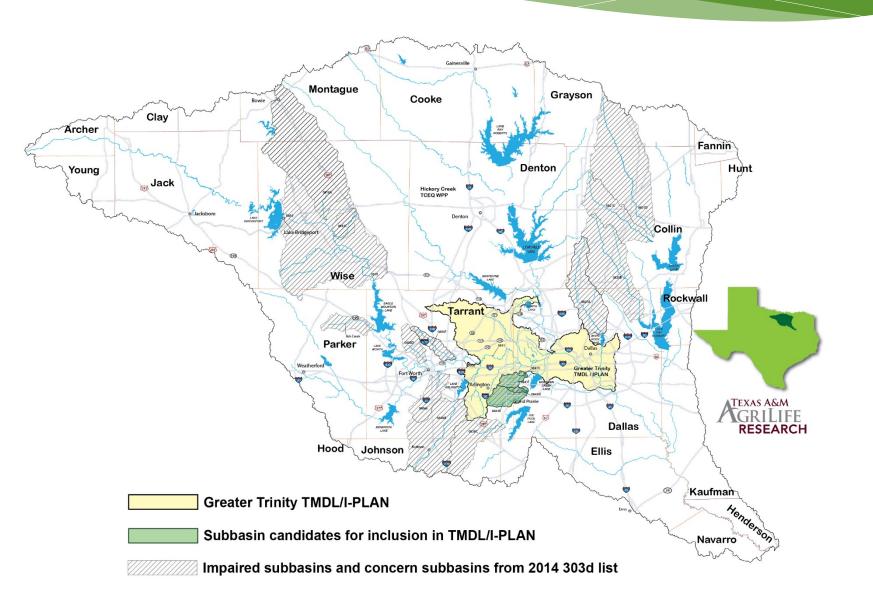
- Public Education and Outreach
- Basin Stakeholder Meetings
- Coordinating Committee Development

Basin-Wide Primary Stakeholder Locations, Histories, and Activities

- 1) City of Dallas
- 2) City of Denton
- 3) North Central Texas Council of Governments
- 4) North Texas Municipal Water District
- 5) Tarrant Regional Water District
- 6) Trinity River Authority
- 7) Trinity River Vision Authority
- 8) Upper Trinity River Water District

Impaired Segments, Segments of Concern, WPP's and TMDL/I-Plan areas in Basin 8, Upper Trinity







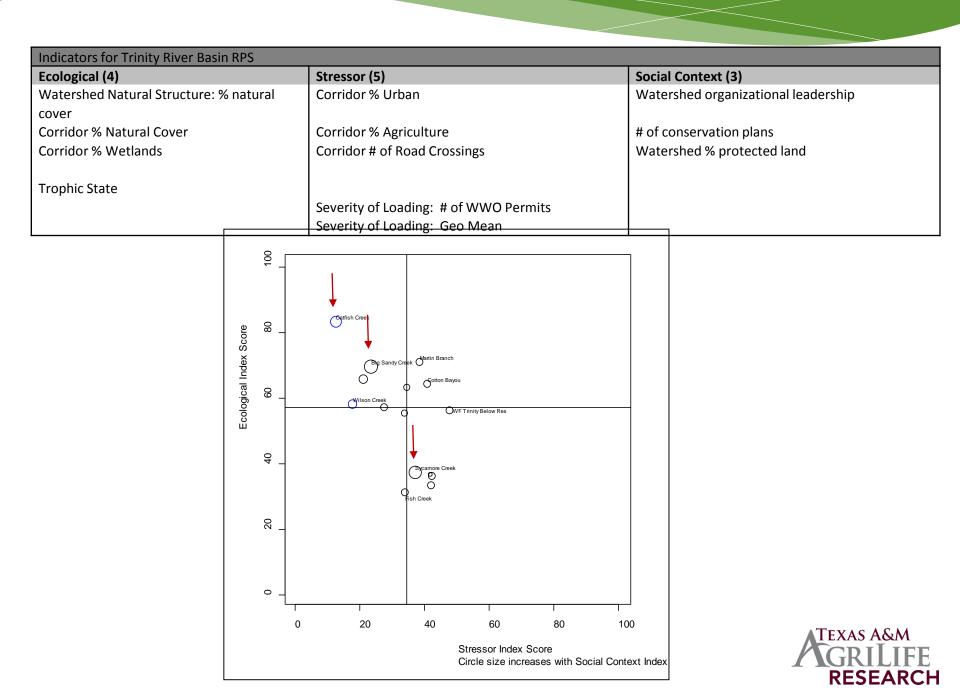
- 7.3 Texas State Stream Team
  - Background
  - Volunteer Certification
  - Volunteer Monitoring Kits
  - o Data Delivery
  - Available Datasets
  - Upper Trinity River Basin Groups
  - Upper Trinity River Basin Partners
  - o E. coli Sampling Capacity



#### 8. EPA: Recovery Potential Screening Tool: Basin Impairments

- o Introduction
- Background & Examples
- Methodology Seven Step Process
  - Define the Scope
  - Design Analytic Approach
  - Remaining Steps





### 9. RUAAs CURRENT STATUSES AND ECOMMENDATIONS

Texas Surface Water Quality Standards (TSWQS) Categories

- Primary Contact Recreation
- Secondary Contact Recreation 1
- Secondary Contact Recreation 2
- Noncontact Recreation

Recommendations on where new RUAAs should be developed will be done with stakeholder input.



## 9.2 Status of Completed RUAAs

AU	Name	Status
0806E	Sycamore Creek	TCEQ is Developing a Recommendation
<mark>0810</mark>	W. Fork Trinity River Below Bridgeport Reservoir	Recommended to Retain PCR
<mark>0810A</mark>	Big Sandy Creek	Recommended to Change to SCR1
<mark>0810B</mark>	Garrett Creek	Recommended to Change to SCR1
<mark>0810C</mark>	Martin Branch	Recommended to Retain PCR
<mark>0810D</mark>	Salt Creek	Recommended to Change to SCR1
0822A	Cottonwood Branch	TCEQ is Developing a Recommendation
0822B	Grapevine Creek	TCEQ is Developing a Recommendation
0838C	Walnut Creek	TCEQ is Developing a Recommendation
0841E	Copart Branch Mountain Creek	TCEQ is Developing a Recommendation
0841F	Cottonwood Creek	TCEQ is Developing a Recommendation
0841G	Dalworth Creek	TCEQ is Developing a Recommendation
0841H	Delaware Creek	TCEQ is Developing a Recommendation
0841J	Estelle Creek	TCEQ is Developing a Recommendation
0841K	Fish Creek	TCEQ is Developing a Recommendation
0841Q	North Fish Creek	TCEQ is Developing a Recommendation
0841N	Kirby Creek	TCEQ is Developing a Recommendation
0841U	West Irving Creek	TCEQ is Developing a Recommendation



#### SCORE CARD FOR PROGRESS TRACKING

Impaired/Concern Watershed	AU#	Square Miles	Projected Completion Year	Percent Area
Cottonwood Creek	0841F	11.5	2016	
Fish Creek	0841K	26.0	2016	
Kirby Creek	0841N	3.1	2016	
Crocket Branch	0841V	1.2	2016	
Subtota	I	41.7		03%
West Fork Trinity River below Bridgeport Reservoi	r 0810	309.4	2017	
Big Sandy Creek	0810A	227.8	2017	
Martin Branch	0810C	21.3	2017	
Ash Creek	0809B	26.6	2017	
Subtota	I	585.2		42%
Village Creek	0828A	121.4	2018	-
Walnut Creek	0838C	67.3	2018	
Subtota	I	188.7		13%
Marine Creek	0806D	<mark>21.9</mark>	<mark>2019</mark>	
Little Fossil Creek	0806F	<mark>19.7</mark>	<mark>2019</mark>	
Sycamore Creek	0806E	37.1	2019	
Subtota	I	78.6		06%
Rowlett Creek	0820B	136.8	2020	
White Rock Creek above White Rock Lake	0827A	<mark>84.3</mark>	<mark>2020</mark>	
Subtota	I	221.1		16%
Wilson Creek	0821C	76.4	2021	
East Fork Trinity above Lake Lavon	0821D	209.4	2021	
Subtota		285.8		20%
Tota	1	1401		100%

