


NORTH CENTRAL TEXAS REGIONAL WET WEATHER CHARACTERIZATION PROGRAM

Planning for the Next Permit Term

Regional Stormwater Monitoring Task Force
Tuesday, August 25, 2015

A decorative graphic in the bottom right corner consisting of several overlapping triangles. The colors include a bright yellow-green, a red, and a golden-yellow. The triangles are arranged in a way that they appear to be layered, with some overlapping others, creating a modern, abstract design.

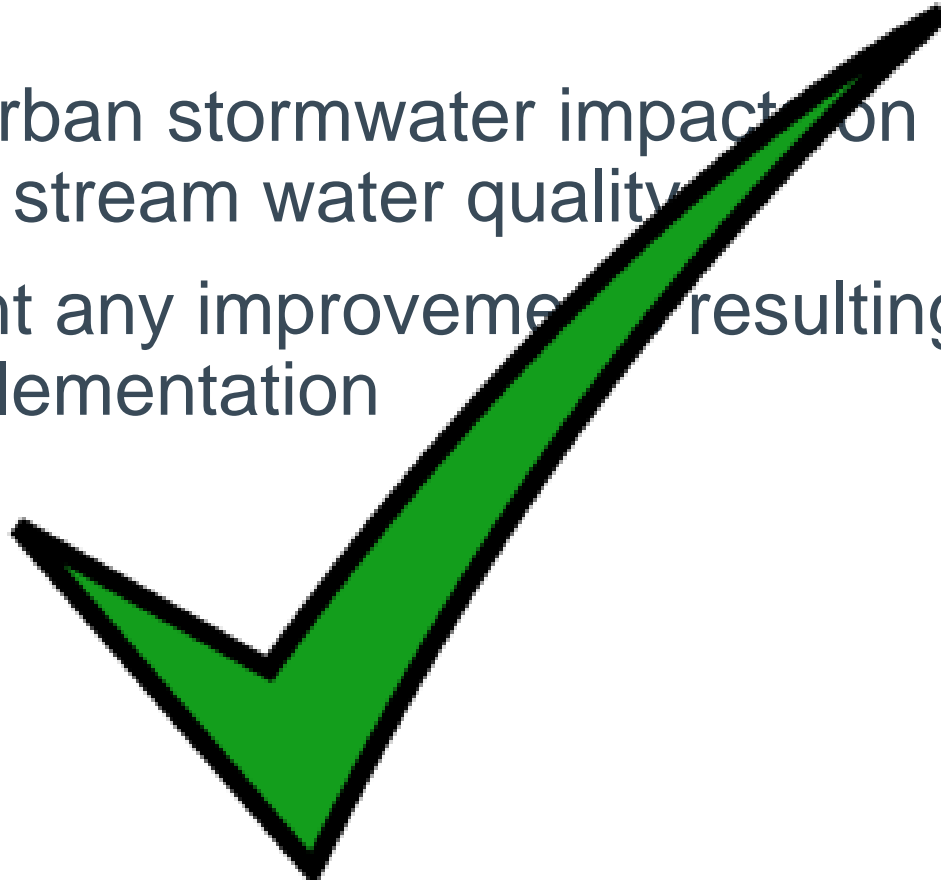
Agenda

- Web Survey Results and Discussion
 - Goals
 - Objectives
 - Impaired Waters
- Proposed Approach
- Proposed Timeline



Proposed Fourth Term RWWCP Goals

- 1) Assess urban stormwater impacts on receiving stream water quality
- 2) Document any improvements resulting from BMP implementation



Proposed Fourth Term RWWCP Objectives

- Should the objectives be followed by all participants?
- Continue baseline data collection ✓
- Evaluate the impact of urban runoff on biological species ?
- Estimate annual pollutant loads ?



Proposed Fourth Term RWWCP Objectives

- **Evaluate the impact of urban runoff on biological species**
- Not required by permit – optional
- Can we use national datasets instead?
- Is it more costly?
- Will it provide any information in relation to impairments?



Proposed Fourth Term RWWCP Objectives

- **Estimate annual pollutant loads**
- Permit requirement?
- TCEQ/EPA requested during 3rd term



Proposed Focus on Impaired Waterbodies

- What does this mean for each entity?
- Prioritize impaired waterbodies and existing TMDLs during watershed selection
- Additional sampling requirements?
- Additional costs to the program?
- Biomonitoring requirements?



Proposed Focus on Impaired Waterbodies

- Avoid legacy pollutants
 - Stormwater pollutants only
 - Bacteria
 - Total Dissolved Solids
 - Sulfate
 - No fish tissue
- Regionwide**
- East Fork Trinity River**



Proposed Focus on Impaired Waterbodies

- Entities with no impairments
- Add existing stormwater TMDLs
- Watersheds draining to impairments and existing TMDLs
- All entities affected
- “Priority Watersheds”



Regional Existing TMDLs

- Dallas & Tarrant County Legacy Pollutants
- Fort Worth Legacy Pollutants
- Greater Trinity Region Bacteria
- Lake Worth Watershed Legacy Pollutants

Regional Regional TMDLs (Stormwater)

Watershed	Stream Segment Group
Upper Trinity River	0805
Cottonwood Branch	0822A
Grapevine Creek	0822B
Lower West Fork Trinity River	0841
Bear Creek	0841B
Arbor Creek	0841C
Copart Branch Mountain Creek	0841E
Dalworth Creek	0841G
Delaware Creek	0841H
Estelle Creek	0841J
Johnson Creek	0841L
Kee Branch	0841M
Rush Creek	0841R
Village Creek	0841T
West Irving Creek	0841U

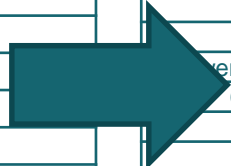
2014 TCEQ Regional Impairments Stormwater

Watershed	Stream Segment Group	Stormwater Impairment
Sycamore Creek	0806E	Bacteria
East Fork Trinity River	0819	Sulfate & TDS
Rowlett Creek	0820B	Bacteria
Cottonwood Branch	0822A	Bacteria
Grapevine Creek	0822B	Bacteria
Village Creek	0828A	Bacteria
Walnut Creek	0838C	Bacteria
Lower West Fork Trinity River	0841	Bacteria
Cottonwood Creek	0841F	Bacteria
Dalworth Creek	0841G	Bacteria
Delaware Creek	0841H	Bacteria
Estelle Creek	0841J	Bacteria
Fish Creek	0841K	Bacteria
Johnson Creek	0841L	Bacteria
Kee Branch	0841M	Bacteria
Kirby Creek	0841N	Bacteria
Rush Creek	0841R	Bacteria
Village Creek	0841T	Bacteria
West Irving Creek	0841U	Bacteria
Crockett Branch	0841V	Bacteria

Combination

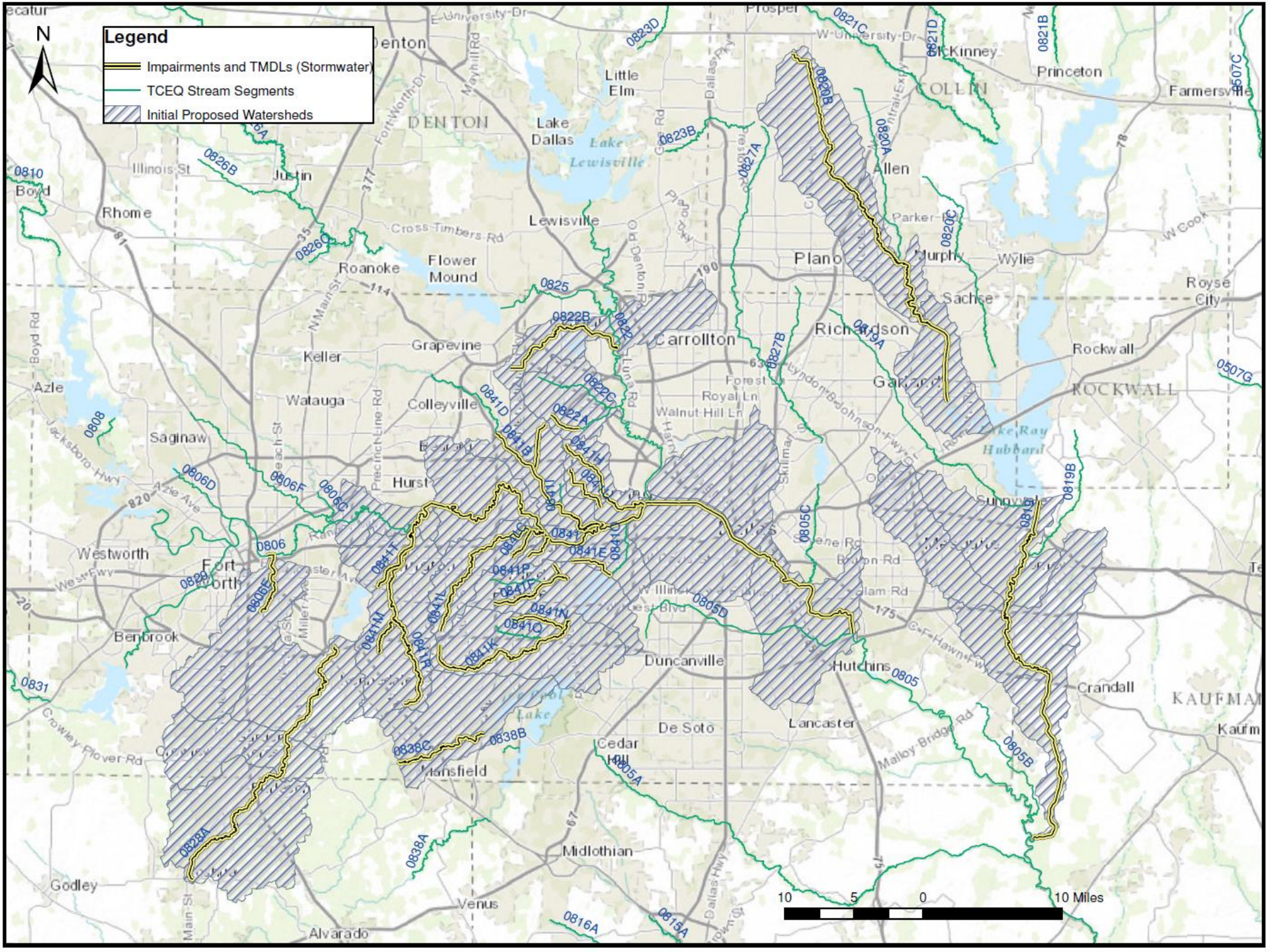
Watershed	Stream Segment Group
Upper Trinity River	0805
Cottonwood Branch	0822A
Grapevine Creek	0822B
Lower West Fork Trinity River	0841
Bear Creek	0841B
Arbor Creek	0841C
Copart Branch Mountain Creek	0841E
Dalworth Creek	0841G
Delaware Creek	0841H
Estelle Creek	0841J
Johnson Creek	0841L
Kee Branch	0841M
Rush Creek	0841R
Village Creek	0841T
West Irving Creek	0841U

Watershed	Stream Segment Group	Stormwater Impairment
Sycamore Creek	0806E	Bacteria
East Fork Trinity River	0819	Sulfate & Total Dissolved Solids
Rowlett Creek	0820B	Bacteria
Cottonwood Branch	0822A	Bacteria
Grapevine Creek	0822B	Bacteria
Village Creek	0828A	Bacteria
Walnut Creek	0838C	Bacteria
Lower West Fork Trinity River	0841	Bacteria
Cottonwood Creek	0841F	Bacteria
Dalworth Creek	0841G	Bacteria
Delaware Creek	0841H	Bacteria
Estelle Creek	0841J	Bacteria
Fish Creek	0841K	Bacteria
Johnson Creek	0841L	Bacteria
Kee Branch	0841M	Bacteria
Kirby Creek	0841N	Bacteria
Rush Creek	0841R	Bacteria
Village Creek	0841T	Bacteria
West Irving Creek	0841U	Bacteria
Crockett Branch	0841V	Bacteria



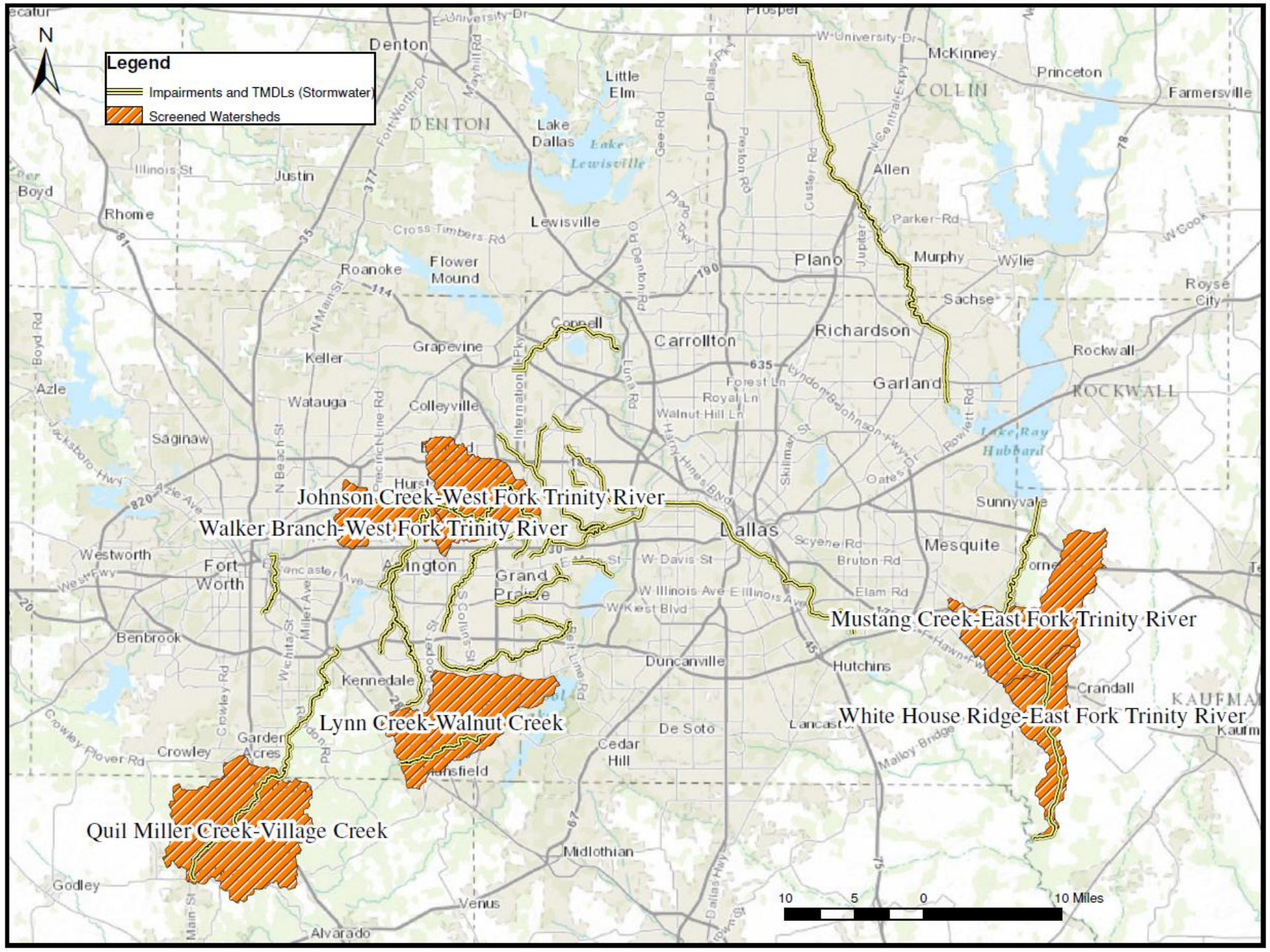
Priority Watershed Identification

Existing Regional TMDLs (Stormwater)	2014 Impaired Waterbody (Stormwater)	HUC-12 Watershed
	0820B Rowlett Creek	Brown Branch Rowlett Creek
0822A Cottonwood Branch	0822A Cottonwood Branch	Cottonwood Branch-Hackberry Creek
	0841F Cottonwood Creek; 0841V Crockett Branch	Cottonwood Creek-Mountain Creek Lake
	0828A Village Creek	Deer Creek-Village Creek
0841 Lower West Fork Trinity River; 0841E Copart Branch; 0841G Dalworth Creek; 0841H Delaware Creek; 0841U West Irving Creek	0841 Lower West Fork Trinity River; 0841G Dalworth Creek; 0841H Delaware Creek; 0841U West Irving Creek	Delaware Creek-West Fork Trinity River
0841B Bear Creek; 0841J Estelle Creek	0841J Estelle Creek	Estelle Creek-Bear Creek
	0841K Fish Creek; 0841N Kirby Creek	Fish Creek-Mountain Creek Lake
0805 Upper Trinity River		Five Mile Creek-Trinity River
0822B Grapevine Creek	0822B Grapevine Creek	Grapevine Creek-Elm Fork Trinity River
	0820B Rowlett Creek	Headwaters Rowlett Creek
	0806E Sycamore Creek	Headwaters Sycamore Creek
0805 Upper Trinity River		Headwaters Turtle Creek
0841C Arbor Creek; 0841L Johnson Creek	0841L Johnson Creek	Johnson Creek
0841 Lower West Fork Trinity River		Johnson Creek-West Fork Trinity River
	0838C Walnut Creek	Lynn Creek-Walnut Creek
	0819 East Fork Trinity River	Mustang Creek-East Fork Trinity River
	0819 East Fork Trinity River	North Mesquite Creek-East Fork Trinity River
	0828 A Village Creek	Quil Miller Creek-Village Creek
	0820B Rowlett Creek	Rowlett Creek-Lake Ray Hubbard
0841M Kee Branch; 0841R Rush Creek; 0841T Village Creek	0841M Kee Branch; 0841R Rush Creek; 0841T Village Creek	Rush Creek-Village Creek
	0819 East Fork Trinity River	South Mesquite Creek
0805 Upper Trinity River		Turtle Creek-Trinity River
	0828 A Village Creek	Village Creek-Lake Arlington
0841 Lower West Fork Trinity River		Walker Branch-West Fork Trinity River
	0819 East Fork Trinity River	White House Ridge-East Fork Trinity River



Priority Watershed Screening

HUC-12 Watershed	Comment
Johnson Creek-West Fork Trinity River	Consists mainly of Lower West Fork Trinity River main stem – too large for wet weather monitoring
Lynn Creek-Walnut Creek	Only small portion of Arlington drains to Walnut Creek at downstream end – few to no monitoring locations
Mustang Creek-East Fork Trinity River	Consists mainly of Mustang Creek (not impaired) and East Fork Trinity River main stem – too large for wet weather monitoring
Quil Miller Creek-Village Creek	Only small portion of Fort Worth drains to Village Creek at downstream end – few to no monitoring locations
Walker Branch-West Fork Trinity River	Consists mainly of West Fork Trinity River main stem – too large for wet weather monitoring
White House Ridge-East Fork Trinity River	Consists mainly of East Fork Trinity River main stem – too large for wet weather monitoring



Legend

- Impairments and TMDLs (Stormwater)
- Screened Watersheds

Johnson Creek-West Fork Trinity River

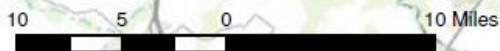
Walker Branch-West Fork Trinity River

Lynn Creek-Walnut Creek

Quil Miller Creek-Village Creek

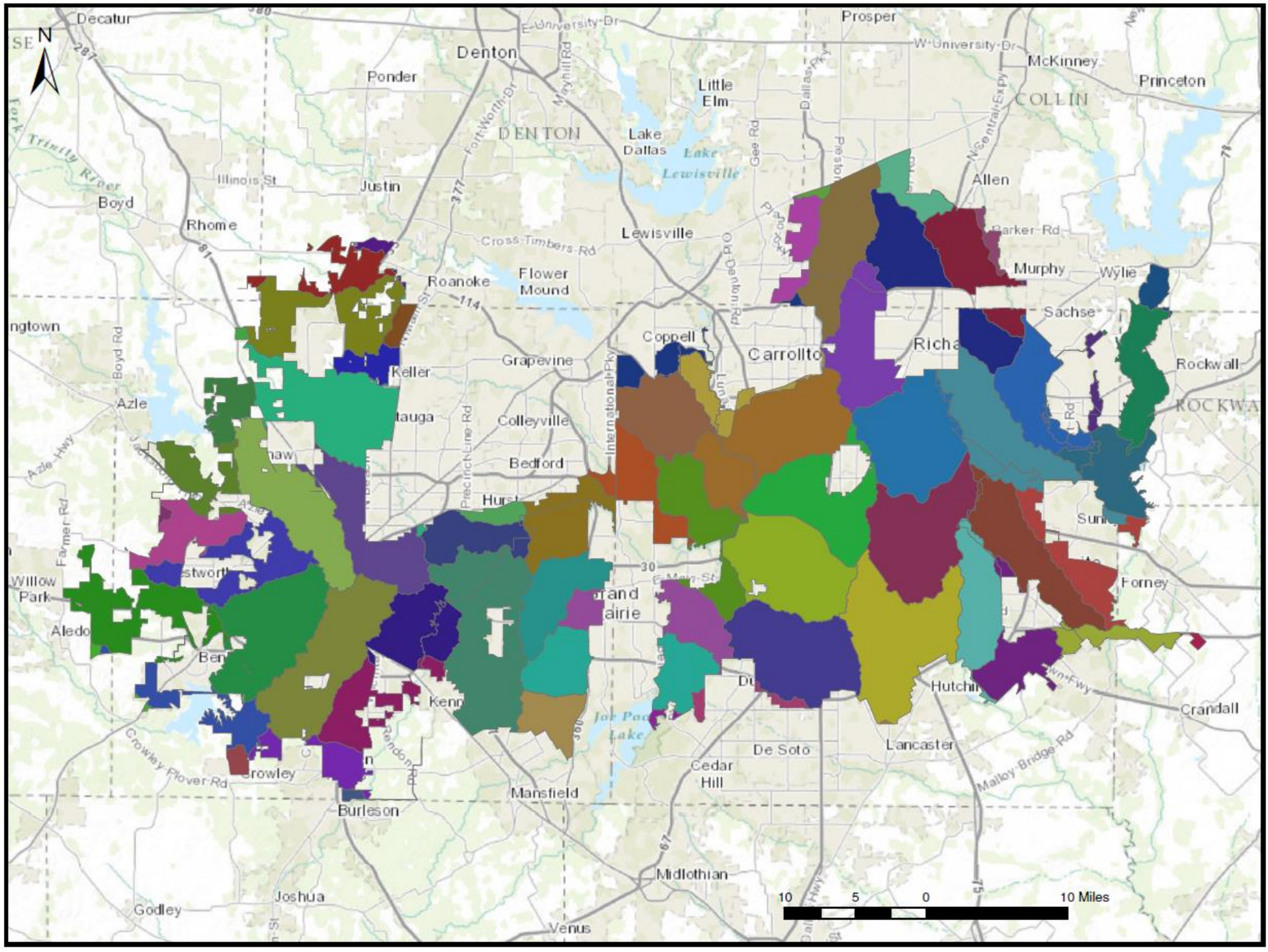
Mustang Creek-East Fork Trinity River

White House Ridge-East Fork Trinity River



Priority Watershed Selection

- Impaired Waterbodies and TMDLs
- 12-digit HUCs from the Watershed Boundary Dataset of NRCS
- Coverage of jurisdictional area



	Percentage of City								
HUC-12 Watershed	Arlington	Dallas	Fort Worth	Garland	Irving	Mesquite	Plano	NTTA	TxDOT
Brown Branch Rowlett Creek				5.325%			21.232%		
Cottonwood Branch-Hackberry Creek		0.039%			29.716%				
Cottonwood Creek-Mountain Creek Lake	4.588%	3.165%							
Deer Creek-Village Creek			2.390%						
Delaware Creek-West Fork Trinity River	0.003%	1.530%			22.057%				
Estelle Creek-Bear Creek			0.421%		19.333%				
Fish Creek-Mountain Creek Lake	13.278%	3.012%							
Five Mile Creek-Trinity River		10.801%							
Grapevine Creek-Elm Fork Trinity River		0.778%			4.808%				
Headwaters Rowlett Creek							11.018%		
Headwaters Sycamore Creek			10.064%						
Headwaters Turtle Creek		7.384%			0.004%				
Johnson Creek	17.502%								
North Mesquite Creek-East Fork Trinity River		0.376%				26.282%			
Rowlett Creek-Lake Ray Hubbard		0.629%		29.972%					
Rush Creek-Village Creek	35.220%		2.309%						
South Mesquite Creek		0.223%				52.572%			
Turtle Creek-Trinity River		8.951%							
Village Creek-Lake Arlington	1.312%		3.882%						

Watershed Selection

- All priority watersheds assigned (with screening exceptions)
- Entities with the most jurisdictional coverage generally assigned that watershed
- Credit applied for other entities monitoring overlapping watersheds
- Selected minimum number of watersheds for each entity to total minimum program coverage of 50%
- Transportation agencies assigned priority watersheds and balance coverage between the cities

	Percentage of City								
HUC-12 Watershed	Arlington	Dallas	Fort Worth	Garland	Irving	Mesquite	Plano	NTTA	TxDOT
Brown Branch Rowlett Creek				5.325%			21.232%		
Cottonwood Branch-Hackberry Creek		0.039%			29.716%			X	
Cottonwood Creek-Mountain Creek Lake	4.588%	3.165%						X	
Deer Creek-Village Creek			2.390%						
Delaware Creek-West Fork Trinity River	0.003%	1.530%			22.057%				
Estelle Creek-Bear Creek			0.421%		19.333%				
Fish Creek-Mountain Creek Lake	13.278%	3.012%							
Five Mile Creek-Trinity River		10.801%							
Grapevine Creek-Elm Fork Trinity River		0.778%			4.808%				
Headwaters Rowlett Creek							11.018%		
Headwaters Sycamore Creek			10.064%						
Headwaters Turtle Creek		7.384%			0.004%				
Johnson Creek	17.502%								
North Mesquite Creek-East Fork Trinity River		0.376%				26.282%			X
Rowlett Creek-Lake Ray Hubbard		0.629%		29.972%					X
Rush Creek-Village Creek	35.220%		2.309%						
South Mesquite Creek		0.223%				52.572%			
Turtle Creek-Trinity River		8.951%							
Village Creek-Lake Arlington	1.312%		3.882%						
City of Dallas - White Rock Creek		9.029%							
Headwaters Five Mile Creek		9.000%							
Lake Como - Clear Fork Trinity River			9.766%						
Whites Branch - Big Fossil Creek			9.602%						
Marine Creek-West Fork Trinity River			8.495%						
Sycamore Creek - West Fork Trinity River			6.664%						
Duck Creek		0.925%		42.240%					
Pittman Creek - Spring Creek				15.899%			25.550%		
Independent Coverage	66.000%	45.165%	50.863%	42.240%	46.197%	52.572%	57.799%	N/A	N/A
Program Coverage	71.902%	55.844%	53.593%	93.436%	75.918%	78.854%	57.799%	N/A	N/A

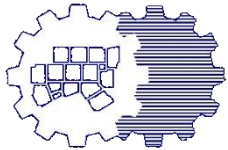
Proposed Watershed Options

- All blue watersheds should be monitored unless there are no locations or other sufficient support for not monitoring
- Entities can trade watersheds
- Total program coverage should equal 50% for each municipality
 - Green watersheds may be changed or additional added
- If transportation agencies modify, it will affect some municipalities

Next Steps

- Review proposed watersheds
- Reach agreement on proposed watersheds
- Draft presentation/handout for TCEQ meeting
- Consider number of monitoring sites, types of monitoring, frequency of sampling, and number of years per watershed

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