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Canadian River Basin

Texas Institute for Applied Environmental Research
Stephenville, Texas

March 2014





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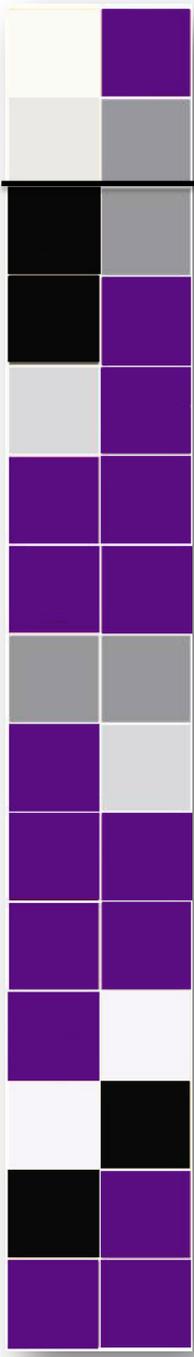


Dixon Creek (0101A)

Recreational Use Attainability Analysis Summary of Findings

Texas Institute for Applied Environmental Research
Stephenville, Texas





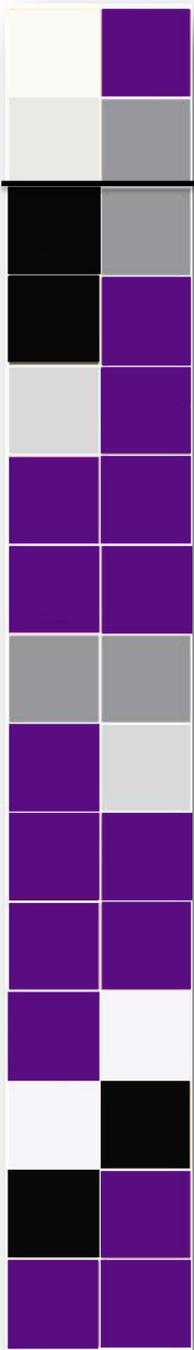
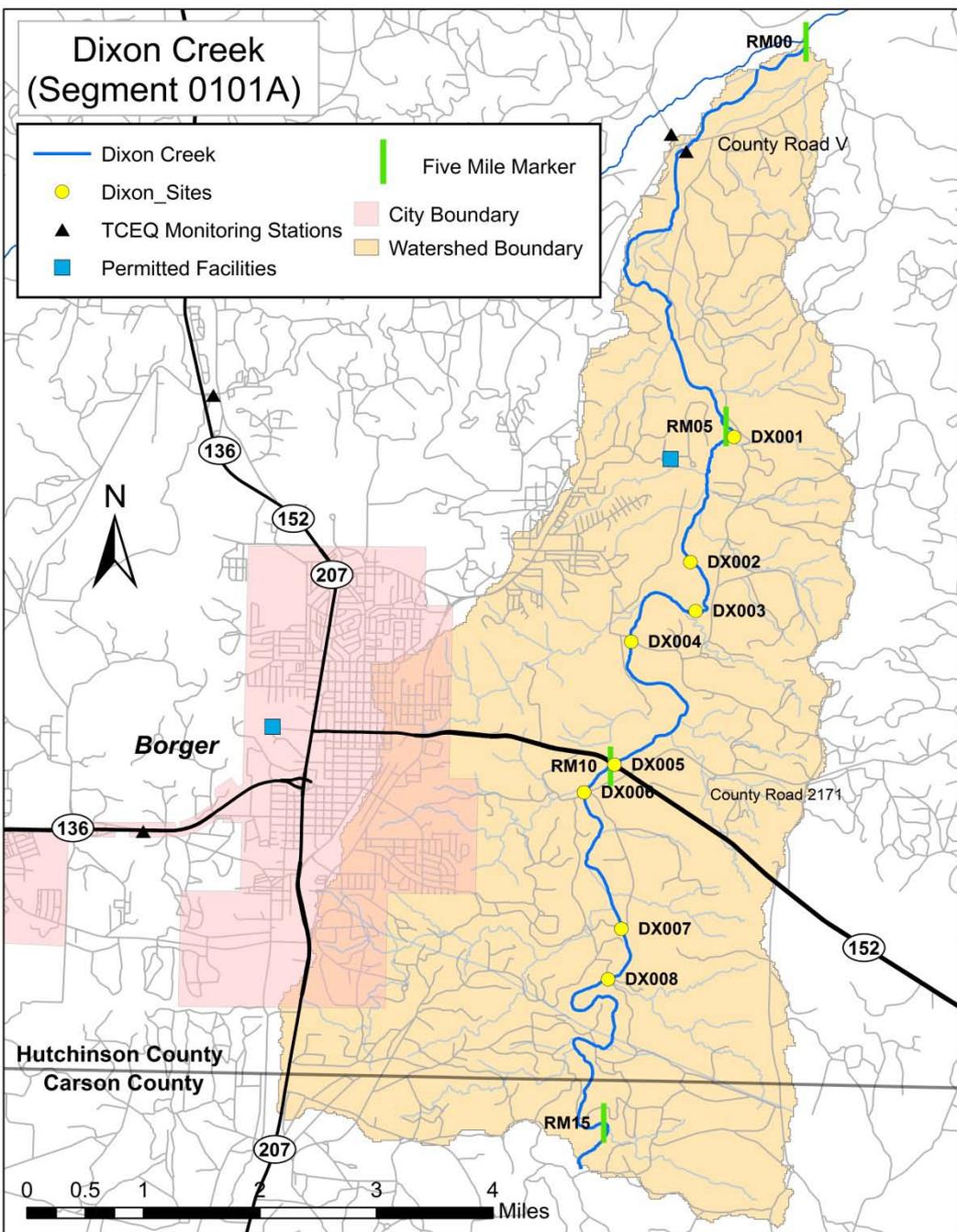
Field Survey Dates for Dixon Creek

- 2013 – First RUAA Survey
 - Data Collected May 25th
- 2013 – Second RUAA Survey
 - Scheduled for July 27th



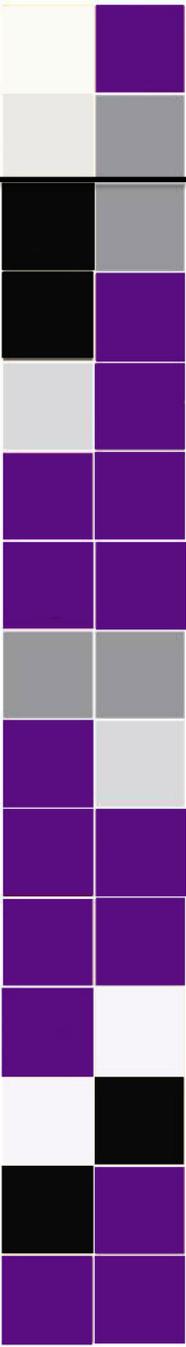
Dixon Creek (Segment 0101A)

 Dixon Creek	 Five Mile Marker
 Dixon_Sites	 City Boundary
 TCEQ Monitoring Stations	 Watershed Boundary
 Permitted Facilities	



TCEQ ID	Site ID	Site Description	Latitude	Longitude	Distance from Previous Site (mi) ¹	Distance from Confluence (mi) ¹	Distance from Upper Reach (mi) ¹	Access
	DX001	Dixon Creek 4.84 river miles north of Hwy 152	35.706302	-101.334300	-	5.12	9.99	Private
	DX002	Dixon Creek 3.46 river miles north of Hwy 152	35.690383	-101.340472	1.38	6.5	8.61	Private
	DX003	Dixon Creek 2.86 river miles north of Hwy 152	35.684227	-101.339494	0.60	7.10	8.01	Private
	DX004	Dixon Creek 1.95 river miles north of Hwy 152	35.680161	-101.34921	0.91	8.01	7.10	Public
17045	DX005	Dixon Creek at SH 152, west of RR 2171, East of Borger	35.664585	-101.35132	1.95	9.96	5.15	Public
	DX006	Dixon Creek 0.36 river miles south of Hwy 152	35.661016	-101.355854	0.36	10.32	4.79	Private
	DX007	Dixon Creek 1.81 river miles north of CR 2171	35.643897	-101.349651	1.39	11.71	3.40	Private
	DX008	Dixon Creek 1.23 river miles north of CR 2171	35.637501	-101.351495	0.58	12.29	2.82	Private

¹ Distances were digitally estimated using the measuring tool in ArcGIS 9.3 with the 2010 NAIP 1m DOQQs and the NHD stream layer as reference guides.



RUAA Field Survey Findings

- Summary
 - Limited water for recreation
 - No direct recreation observed
 - Limited public access, mostly private property



Dixon Creek Photographs



Up Stream at DX003



Down Stream at DX003



Dixon Creek Photographs



Cattle tracks at DX004



Up Stream Pool at DX004



Dixon Creek Photographs



Obstruction at DX006



Child's ball at DX005



Dixon Creek Photographs



Left bank at DX007



Oil pipe line at DX007



Dixon Creek Photographs

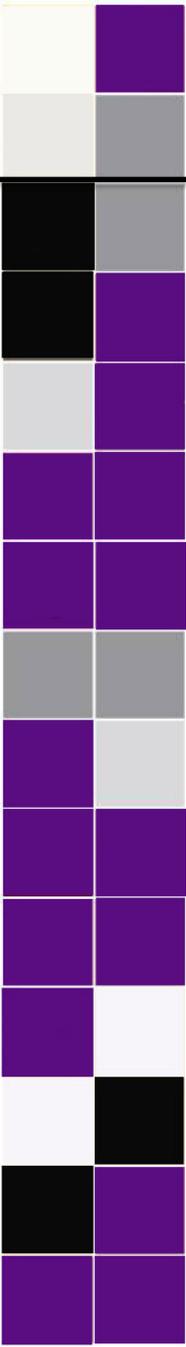


Dog tracks at DX008



Oil pipe line at DX008





Next Steps

- Final Technical Report Submitted to TSSWCB for Review
- 30 Day Stakeholder Comment Period on Final Technical Report
- Conduct Final Public Meeting for Dixon Creek RUAA
 - Tentatively Scheduled: **June 12, 2014**





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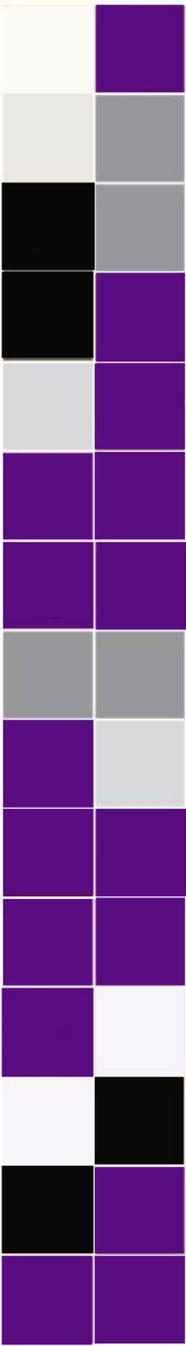


Red River Basin

Recreational Use Attainability Analysis Projects

Texas Institute for Applied Environmental Research
Stephenville, Texas

March 2014



Red River Basin Creeks Overview

- Summary of FY '12 Red River Basin RUAA Findings
 - Buffalo Creek
 - Paradise Creek
 - Sweetwater Creek
- Summary of FY '14 Red River Basin RUAA Projects
 - Smith Creek
 - Bois d'Ark Creek
 - Choctaw Creek
 - Iron Ore Creek
 - Mud Creek



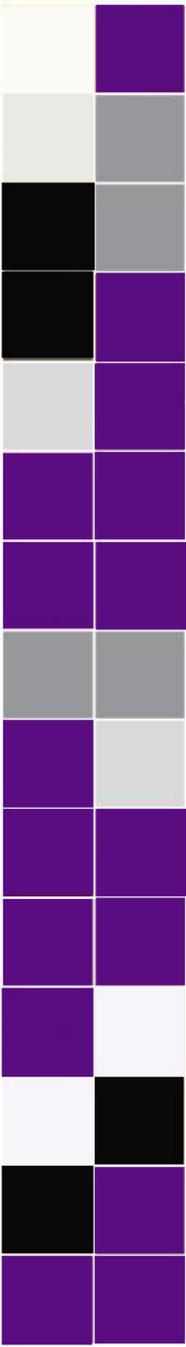
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Buffalo Creek

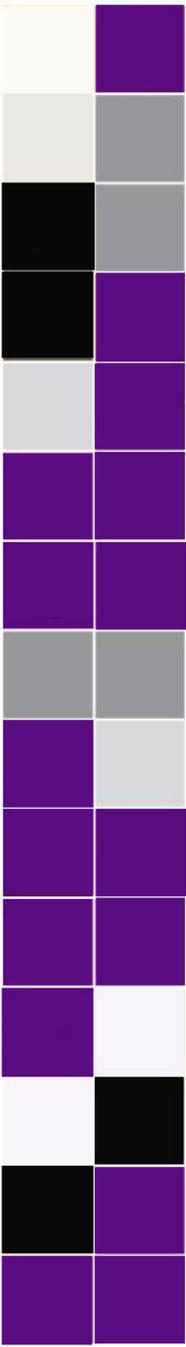
Recreational Use Attainability Analysis Summary of Findings

Texas Institute for Applied Environmental Research
Stephenville, Texas



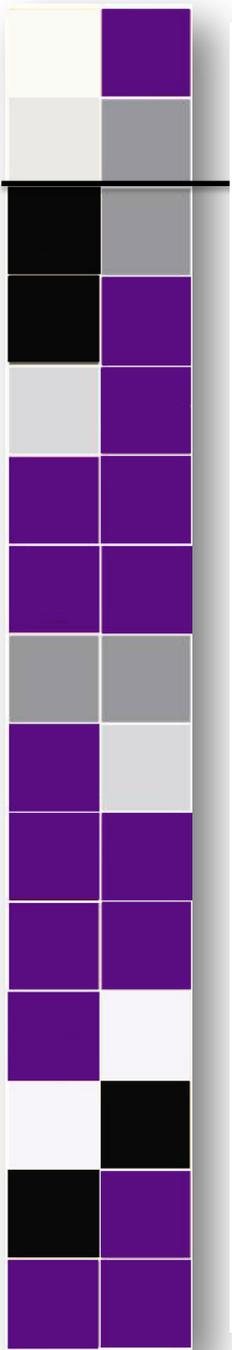
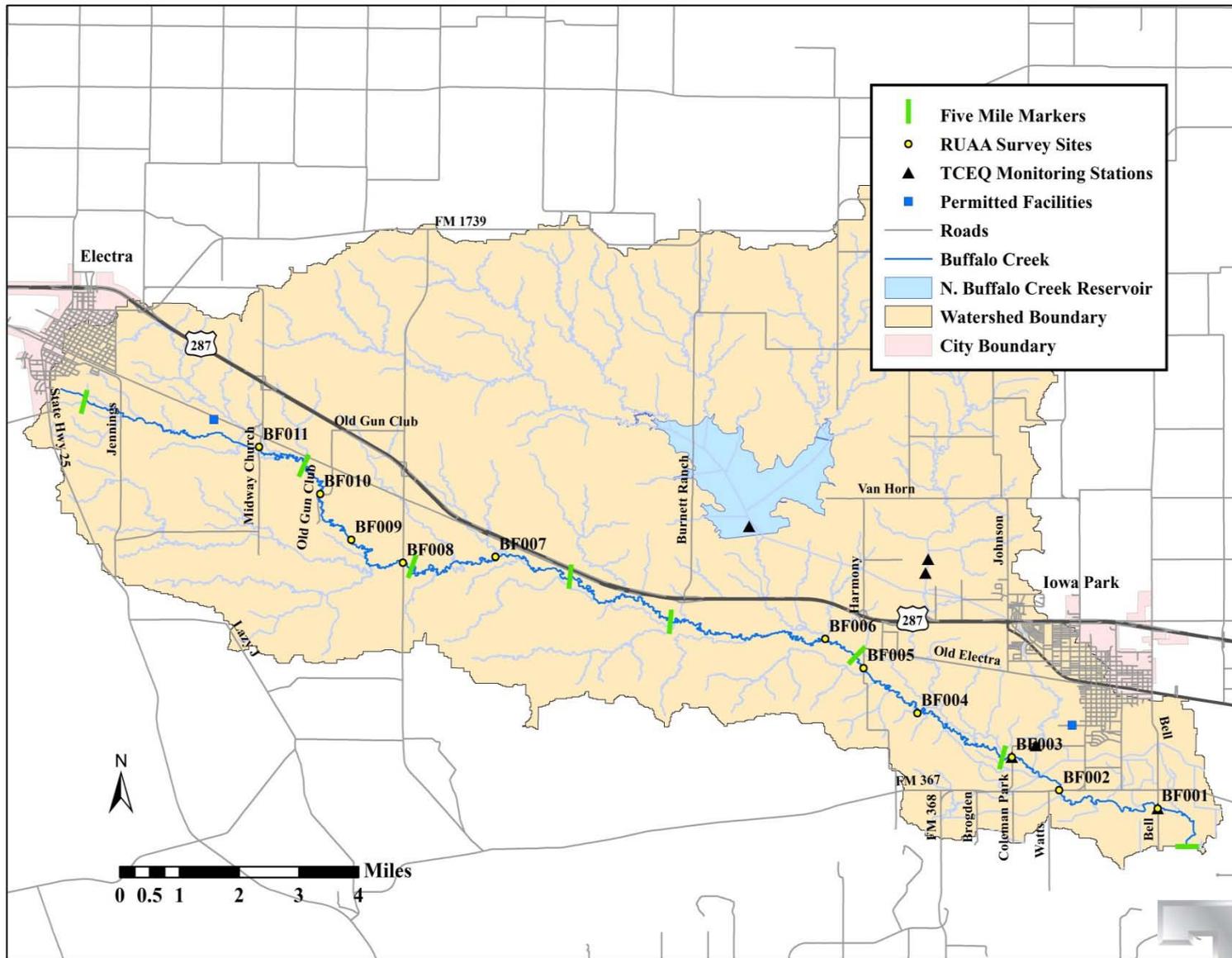
Why are we here?

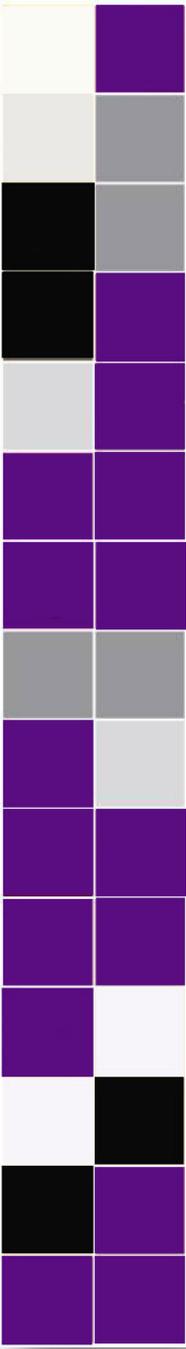
- Buffalo Creek listed as impaired
 - 2010 Texas Water Quality 303(d) List
 - Impaired for primary recreation
 - Based on elevated levels of bacteria



Survey Dates for Buffalo Creek

- 2013 – First RUAA Survey
 - Data Collected June 8th - 11th
 - (Saturday through Tuesday)
- 2013 – Second RUAA Survey
 - Data Collected July 20th – 21st
 - (Saturday and Sunday)





Findings RUAA Survey

- Summary
 - Limited & difficult access to water
 - No direct recreation observed
 - Heavy debris & many obstructions

Buffalo Creek Photographs

Upstream at BF010



Lion Scat at BF010



Buffalo Creek Photographs

Obstruction at BF009



Upstream BF008



Buffalo Creek Photographs

Cattle Crossing at BF008



Beaver Gnaw BF007



Buffalo Creek Photographs

Water Gap at BF006



Down Stream at BF006



Buffalo Creek Photographs

No Trespassing Sign at BF005



Debris Pile at BF005



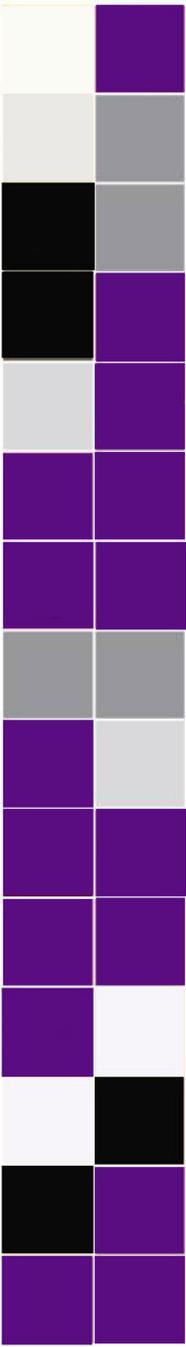
Buffalo Creek Photographs

Obstruction at BF002



Down Stream at BF001





Next Steps

- Final Technical Report Submitted to TSSWCB for Review
- 30 Day Stakeholder Comment Period on Final Technical Report
- Conduct Final Public Meeting for Buffalo Creek RUAA
 - Tentatively Scheduled: [June 9, 2014](#)



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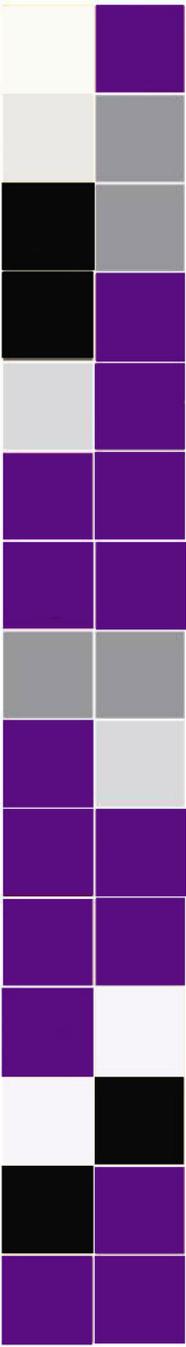


Paradise Creek

Recreational Use Attainability Analysis Summary of Findings

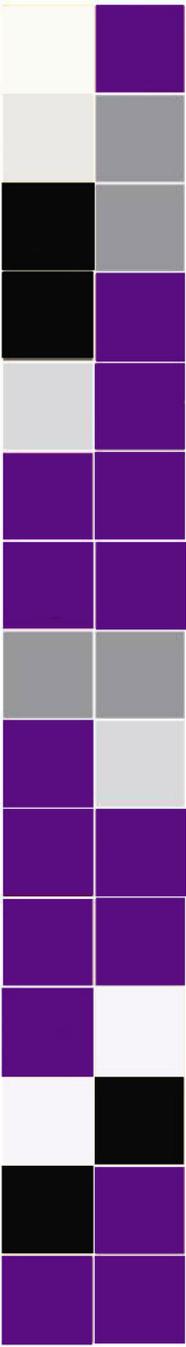
Texas Institute for Applied Environmental Research
Stephenville, Texas





Why are we here?

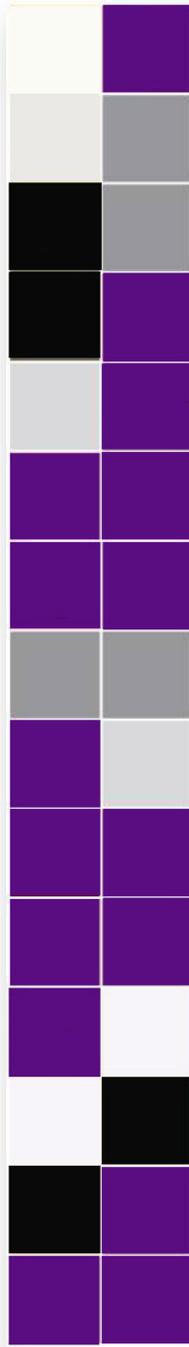
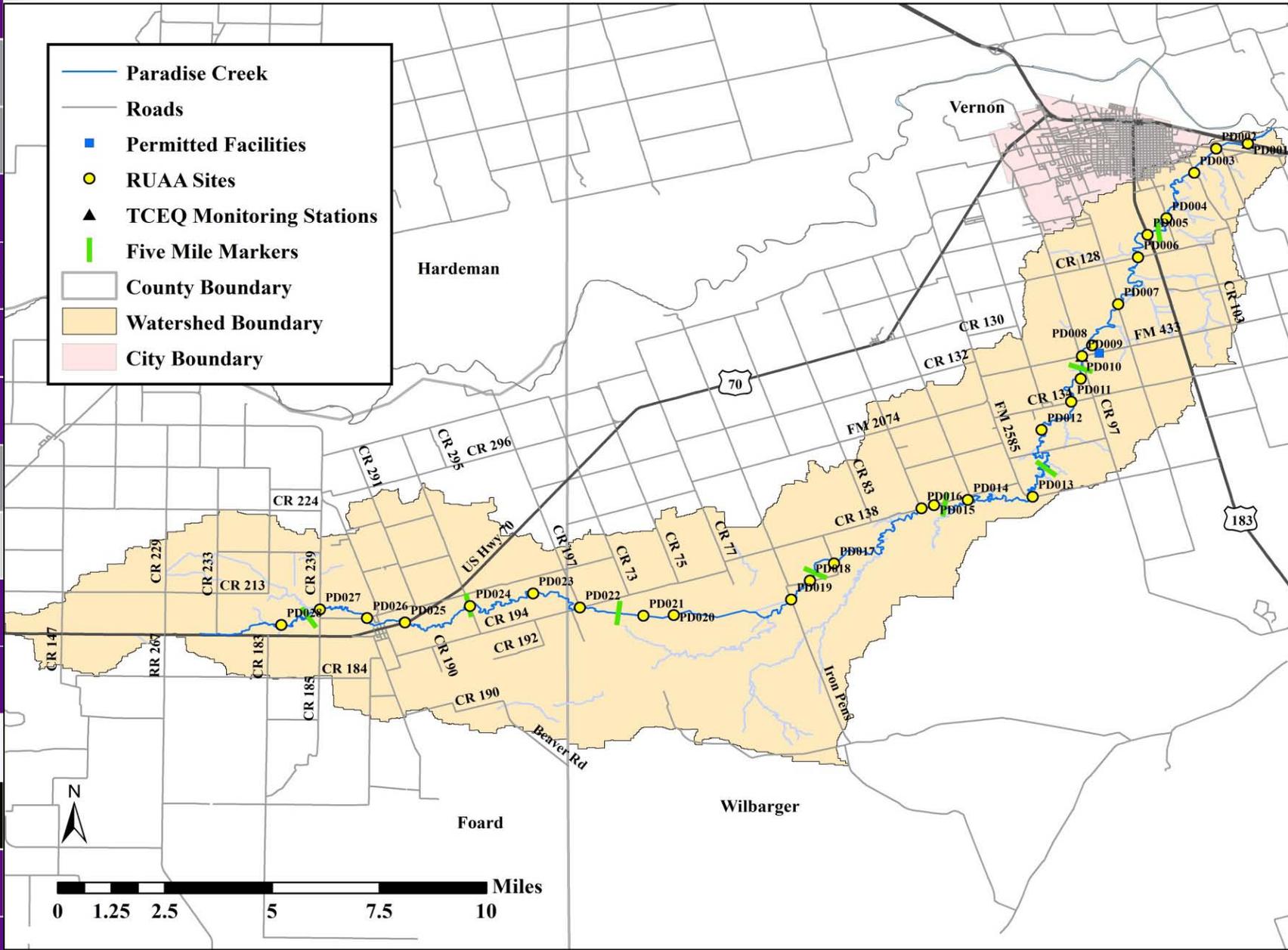
- Paradise Creek listed as impaired
 - 2006 Texas Water Quality 303(d) List
 - Impaired for primary recreation
 - Based on elevated levels of bacteria

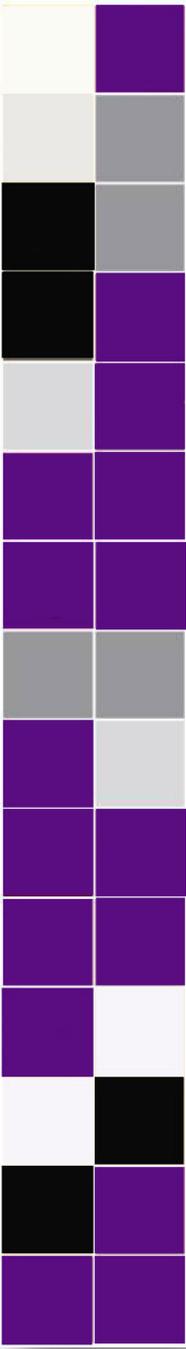


Survey Dates for Paradise Creek

- 2013 – First RUAA Survey
 - Data Collected June 8th - 11th
 - (Saturday through Tuesday)
- 2013 – Second RUAA Survey
 - Data Collected August 11th – 13th
 - (Sunday through Tuesday)

-  Paradise Creek
-  Roads
-  Permitted Facilities
-  RUAA Sites
-  TCEQ Monitoring Stations
-  Five Mile Markers
-  County Boundary
-  Watershed Boundary
-  City Boundary





Findings RUAA Survey

- Summary
 - Limited water
 - Limited access to stream
 - No direct recreation observed
 - Dense brush

Paradise Creek Photographs

Upstream at PD028



Down Stream PD001



Paradise Creek Photographs

Shotgun Shell at PD021



Duck Decoys at PD007



Paradise Creek Photographs

300m Upstream at PD026



300m Downstream at PD002



Paradise Creek Photographs

300m Upstream at PD012



300m Downstream at PD016



Paradise Creek Photographs

150m Upstream at PD016



Water Gap at PD018



Paradise Creek Photographs

Oil & Gas Pipe at PD015



Brush Obstruction at PD018



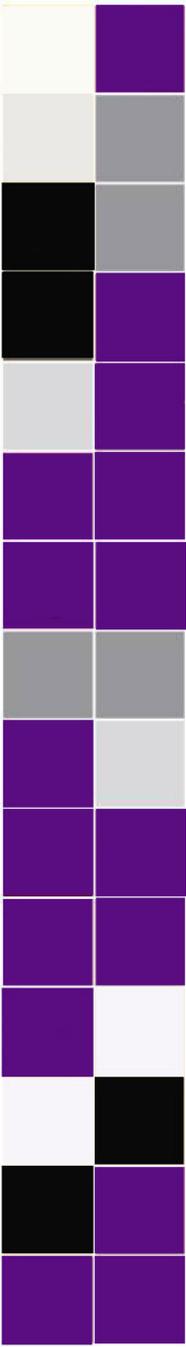
Paradise Creek Photographs

**Tires & Trash near
Bridge at PD013**



Trash at Bridge at PD006





Next Steps

- Final Technical Report Submitted to TSSWCB for Review
- 30 Day Stakeholder Comment Period on Final Technical Report
- Conduct Final Public Meeting for Paradise Creek RUAA
 - Tentatively Scheduled: [June 10, 2014](#)



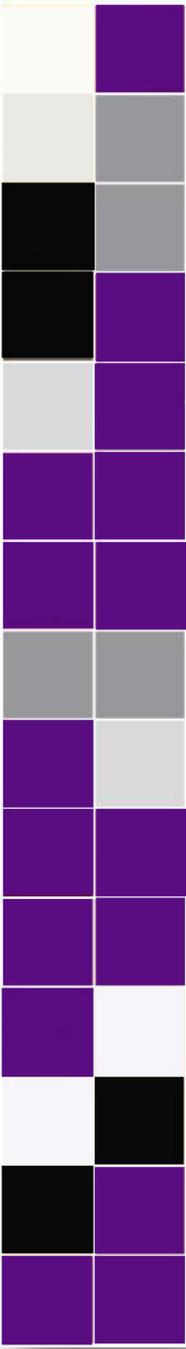
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Sweetwater Creek

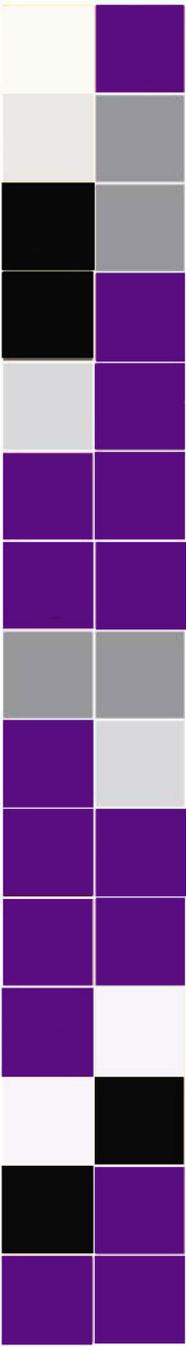
Recreational Use Attainability Analysis Summary of Findings

Texas Institute for Applied Environmental Research
Stephenville, Texas



Why are we here?

- Sweetwater Creek listed as impaired
 - 2000 Texas Water Quality 303(d) List
 - Impaired for primary recreation
 - Based on elevated levels of bacteria

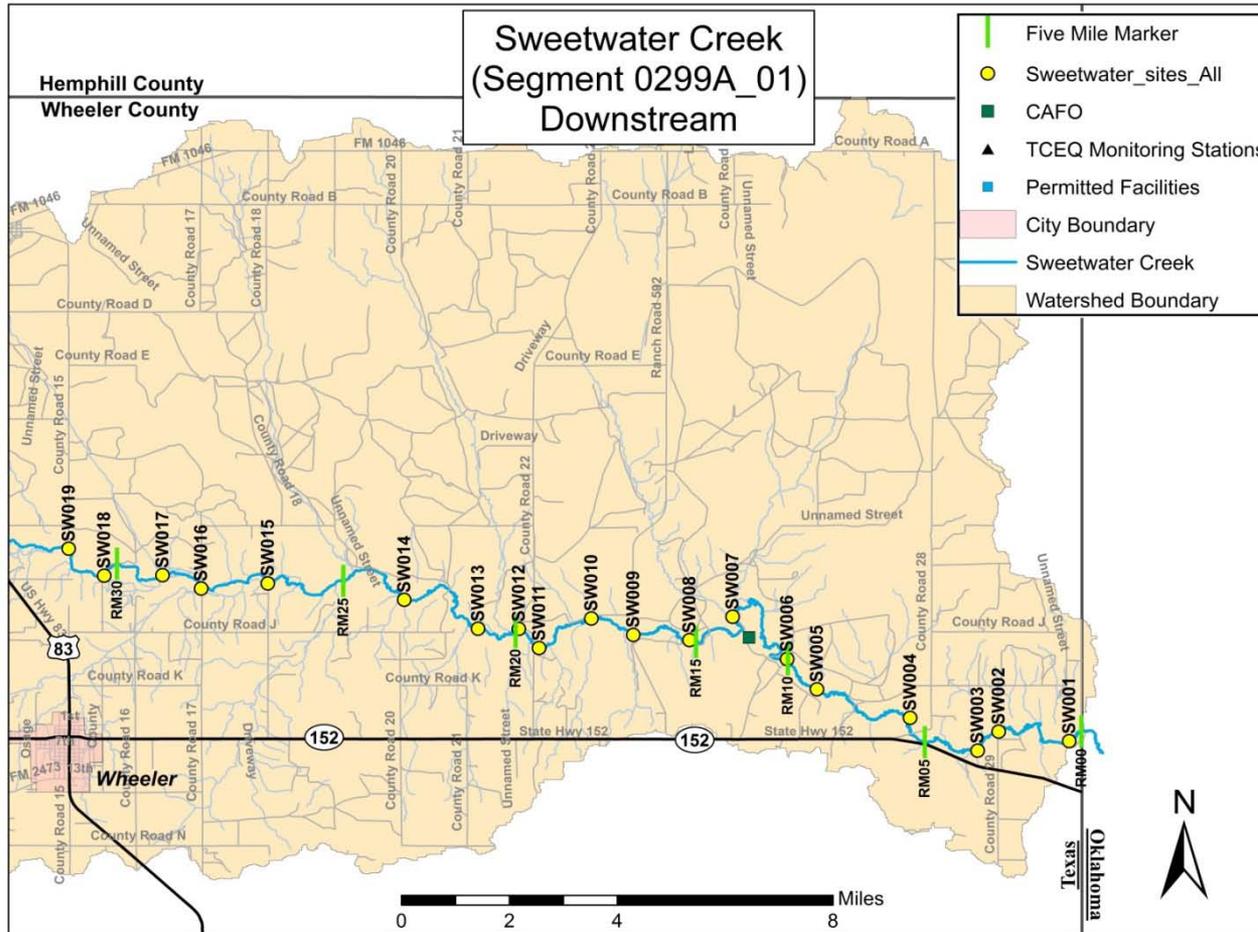


Survey Dates for Sweetwater Creek

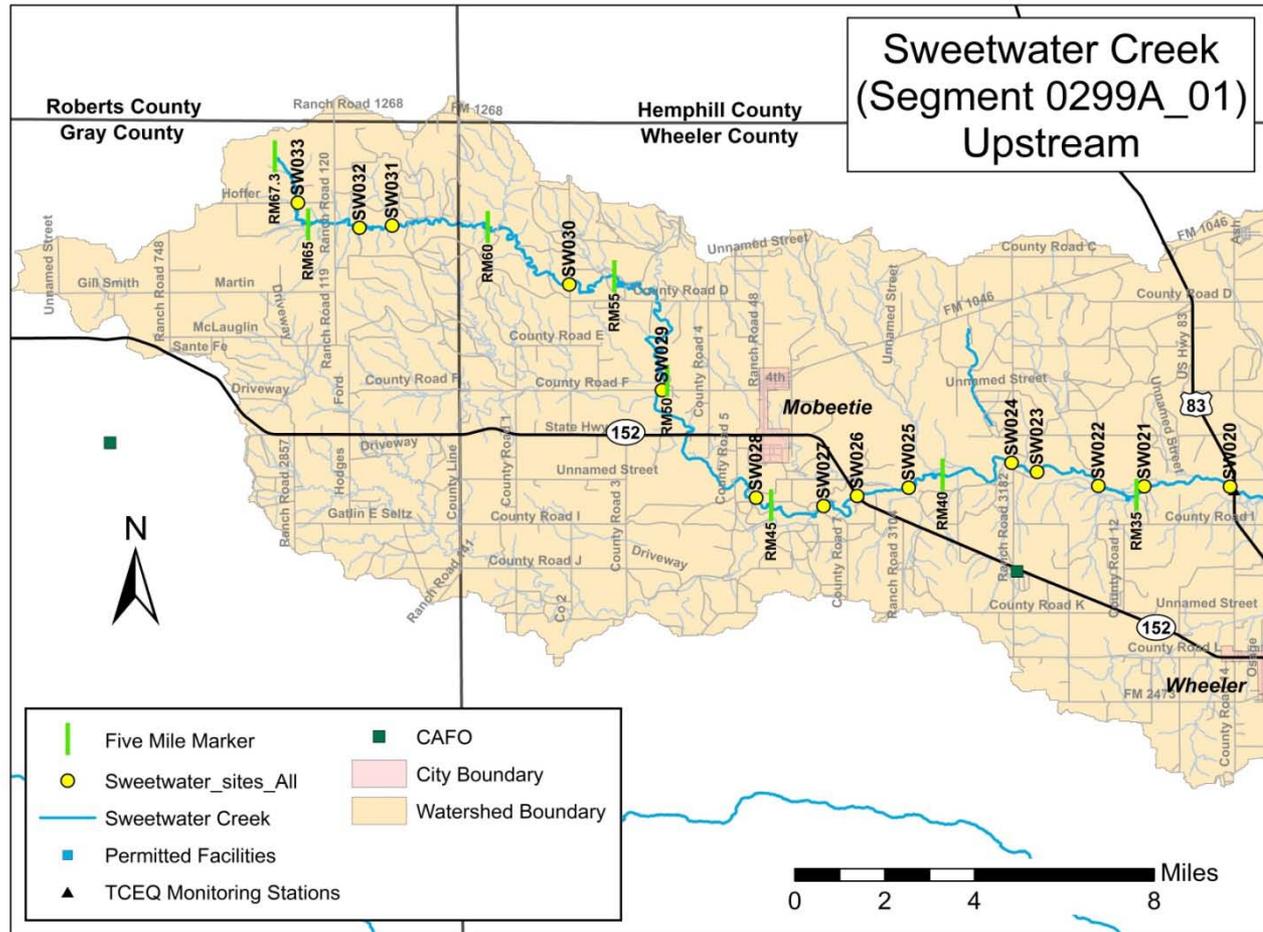
- 2013 – First RUAA Survey
 - Data Collected May 25th – 28th
 - (Saturday through Tuesday)

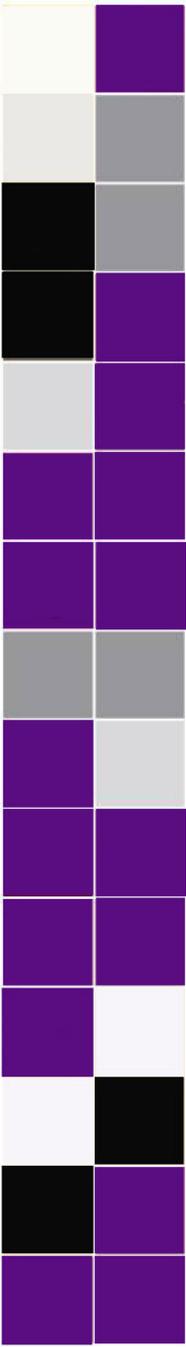
- 2013 – Second RUAA Survey
 - Data Collected July 28th – 30th
 - (Sunday through Tuesday)

Sweetwater Creek Downstream



Sweetwater Creek Upstream





Findings RUAA Survey

- Summary
 - Limited water for recreation
 - No direct recreation observed
 - Limited public access, mostly private property

Sweetwater Creek Photographs

Downstream at SW001



Steep Banks at SW001



Sweetwater Creek Photographs

Hydrophytes and surface scum at SW009



Obstruction at SW011



Sweetwater Creek Photographs

Upstream at SW 013



Beaver Activity at SW020

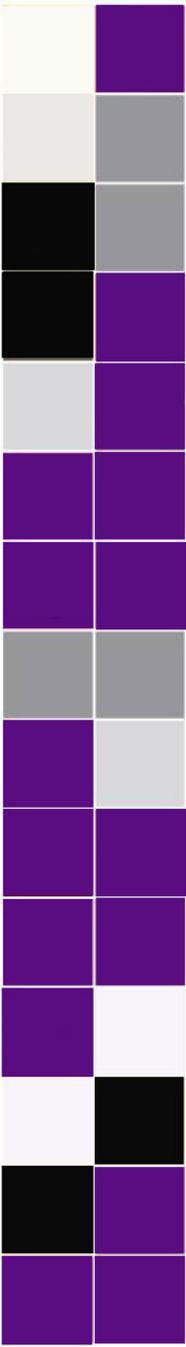


Sweetwater Creek Photographs

Downstream at SW030

Upstream at SW033





Next Steps

- Final Technical Report Submitted to TSSWCB for Review
- 30 Day Stakeholder Comment Period on Final Technical Report
- Conduct Final Public Meeting for Sweetwater Creek RUAA
 - Tentatively Scheduled: [June 11, 2014](#)





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Choctaw Creek & Iron Ore Creek

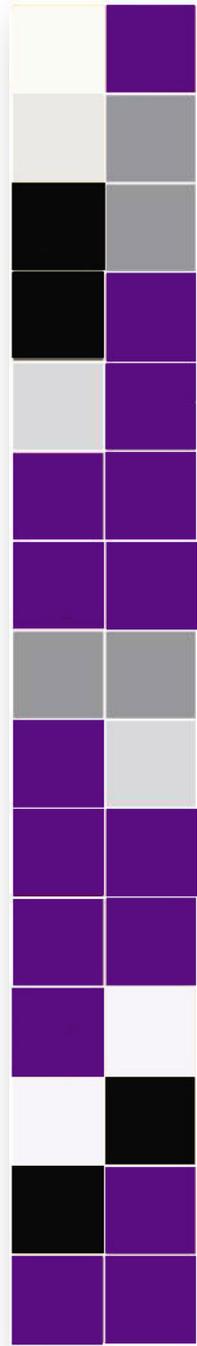
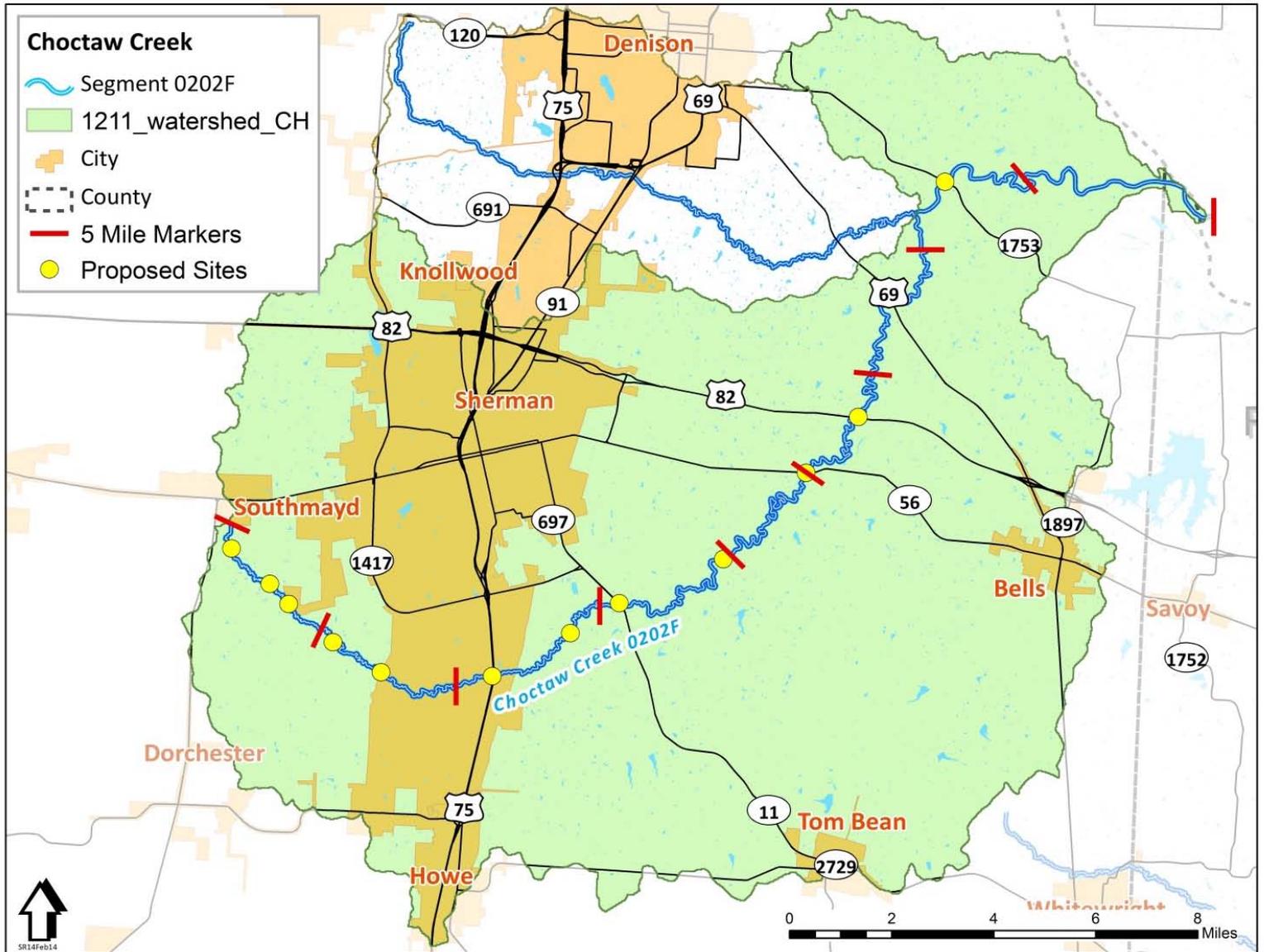
Recreational Use Attainability Analysis Overview

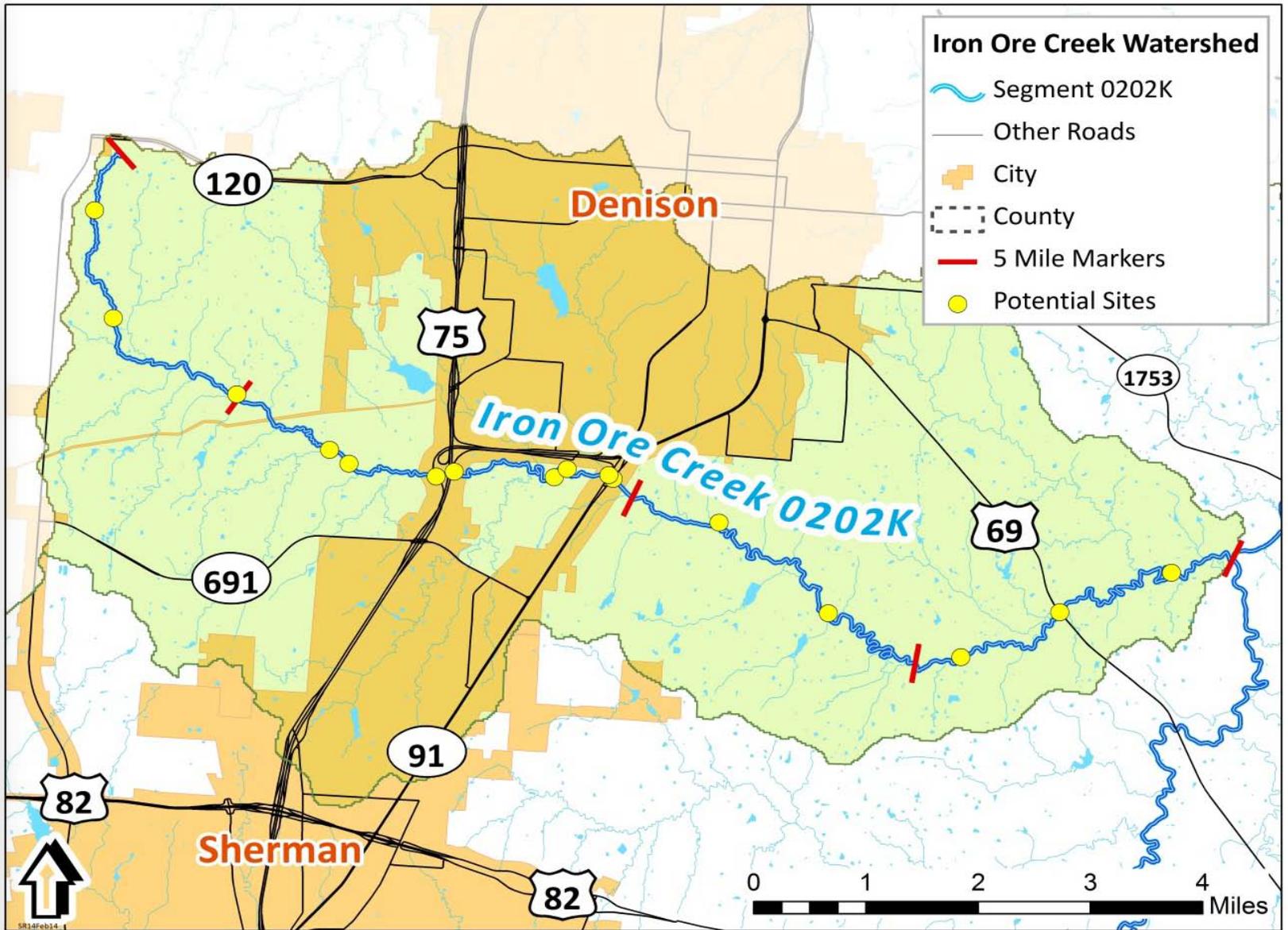
Texas Institute for Applied Environmental Research
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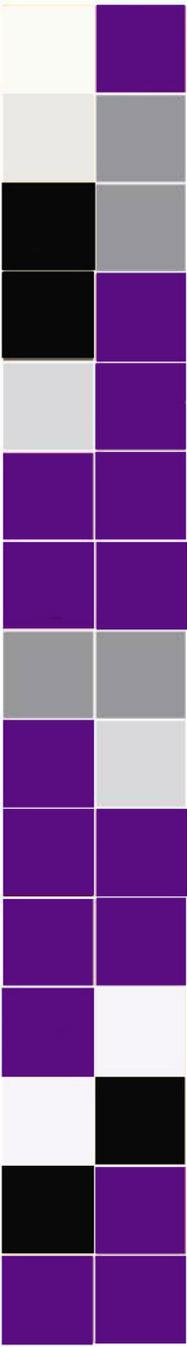
March 2014

Impaired Stream Segments

- Choctaw Creek & Iron Ore Creek are impaired for primary contact recreation
 - Choctaw Creek (0202F)
 - 2010 Texas Water Quality 303(d) List
 - Bacteria
 - » Current Geometric mean = 204 cfu/ 100mL (0202F_01)
 - » Current Geometric mean = 154 cfu/ 100 mL (0202F_02)
 - Iron Ore Creek (0202K)
 - 2010 Texas Water Quality 303(d) List
 - Bacteria
 - » Current Geometric mean = 327 cfu/ 100mL







RUAA Site Selection Guidelines

- Goal for RUAA Survey
 - 3 sites for every 5 miles of stream
- Choctaw Creek is about 44 river miles long
 - Goal: 26 sites
- Iron Ore Creek is about 19 river miles long
 - Goal: 11 sites

Time Frame

- Proposed Field Survey Dates

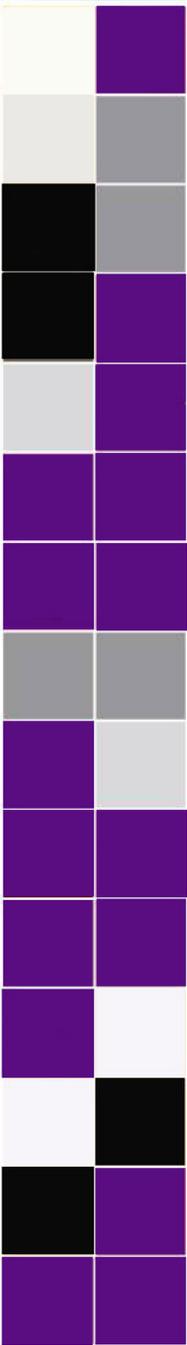
- May 20 – 25, 2014

- July 15 – 19, 2014

Or

- June 16 – 21, 2014

- August 11 – 16, 2014





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Bois d'Arc Creek

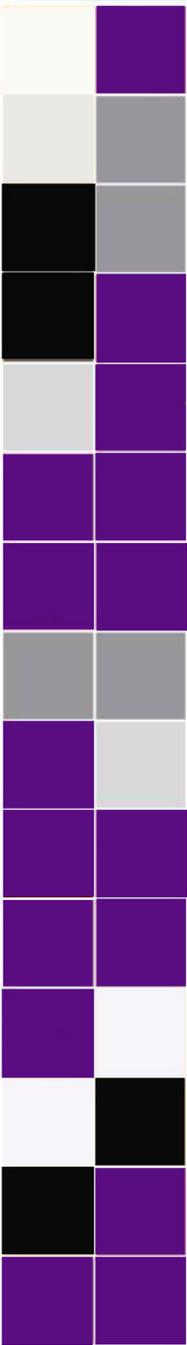
Recreational Use Attainability Analysis Overview

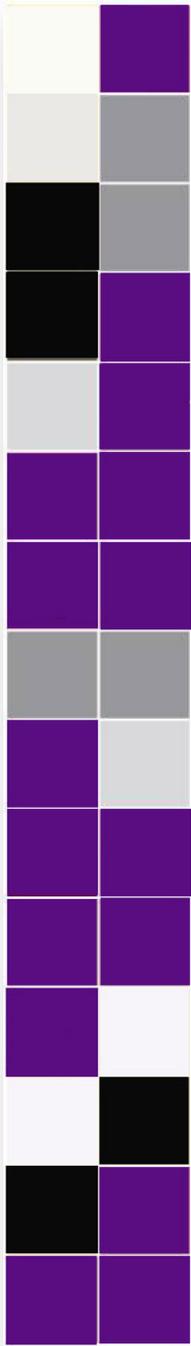
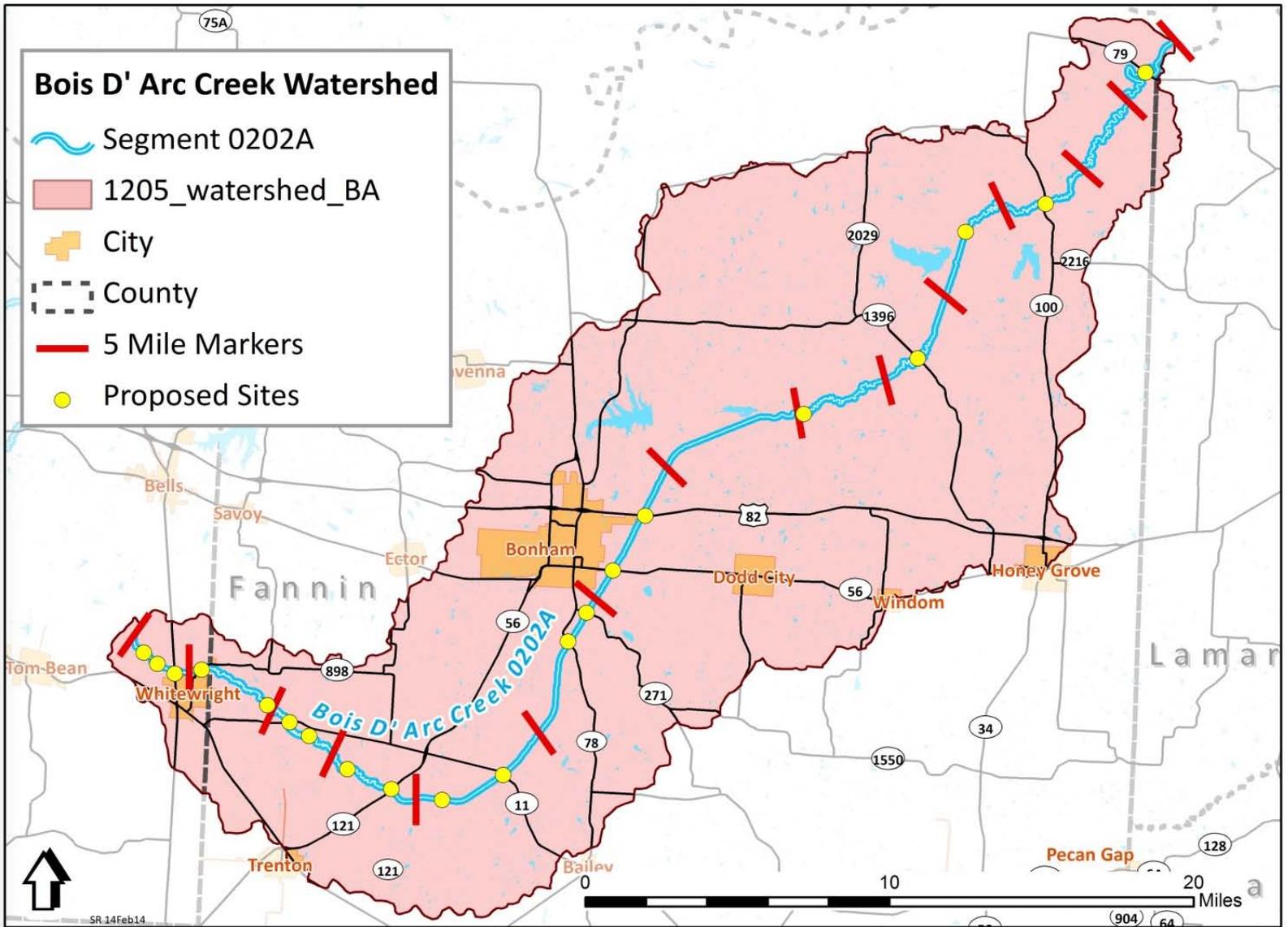
Texas Institute for Applied Environmental Research
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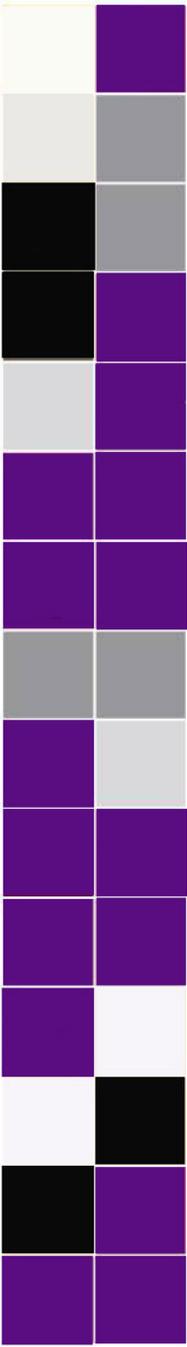
March 2014

Impaired Stream Segments

- Bois d' Arc Creek (0202A) is listed as impaired for primary contact recreation
 - 2010 Texas Water Quality 303(d) List
 - Bacteria
 - Current Geometric mean = 177 cfu/ 100mL







RUAA Site Selection Guidelines

- Goal for RUAA Survey
 - 3 sites for every 5 miles of stream
- Bois d' Arc Creek is approximately 68 river miles long
 - Goal: 41 sites

Time Frame

- Proposed Field Survey Dates

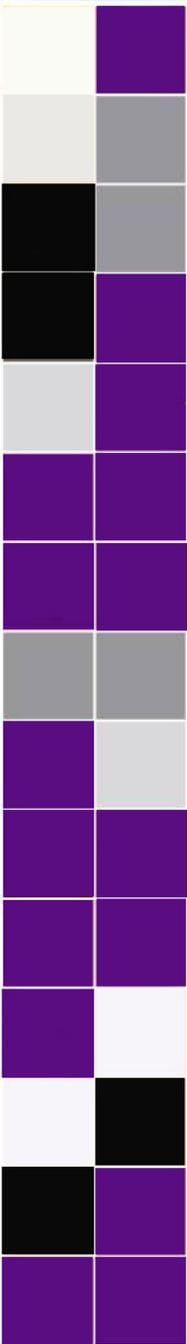
- May 20 – 25, 2014

- July 15 – 19, 2014

Or

- June 16 – 21, 2014

- August 11 – 16, 2014





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Smith Creek

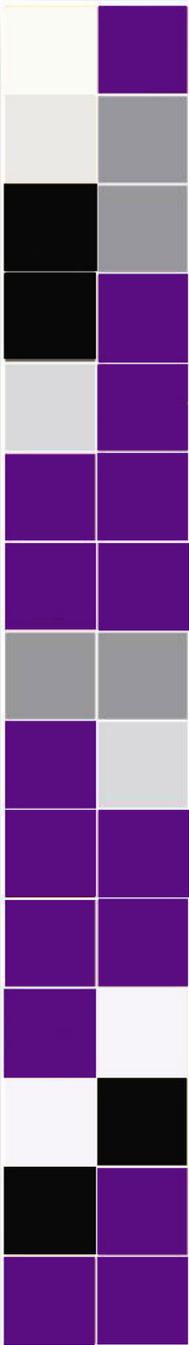
Recreational Use Attainability Analysis Overview

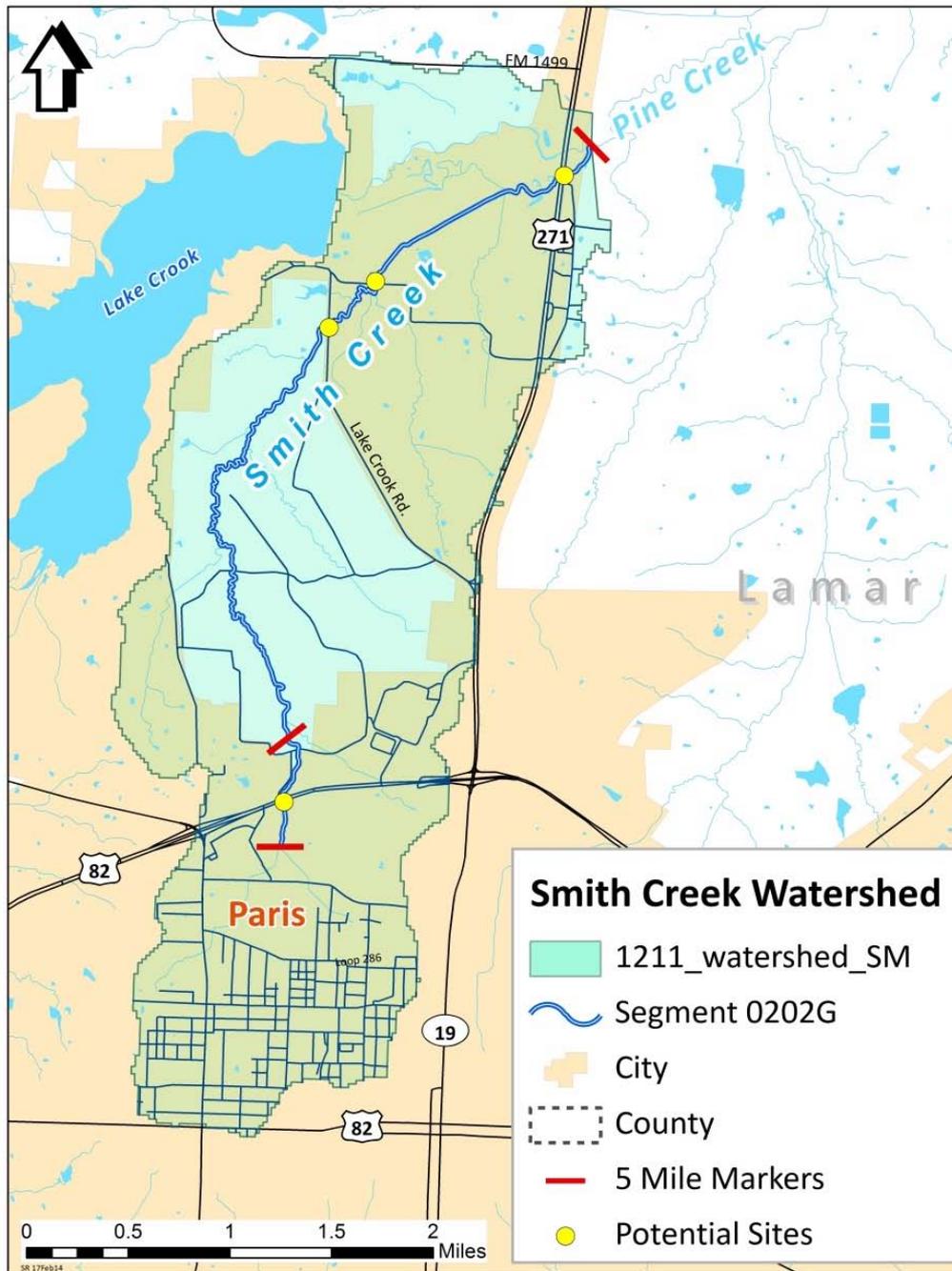
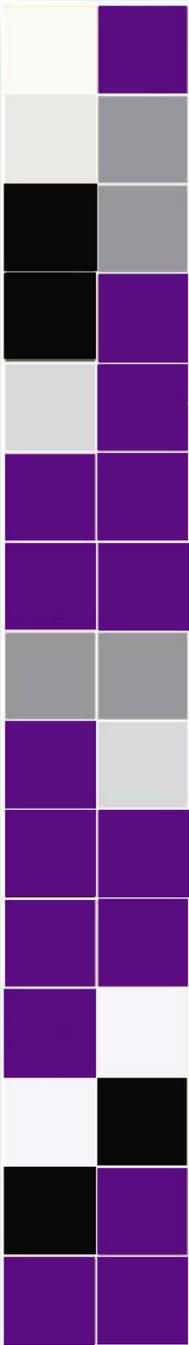
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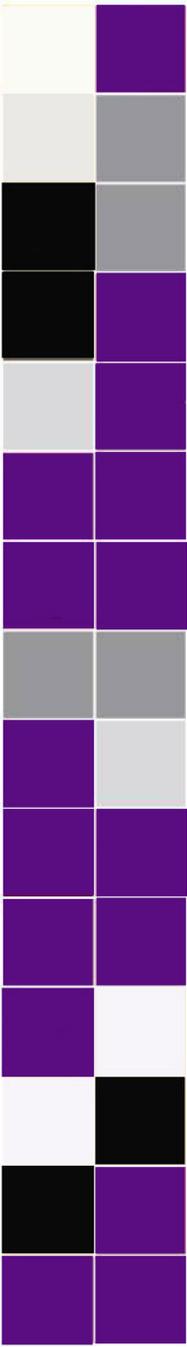
March 2014

Impaired Stream Segments

- Smith Creek (0202G) is impaired for primary contact recreation
 - 2006 Texas Water Quality 303(d) List
 - Bacteria
 - Current Geometric mean = 987 cfu/ 100mL





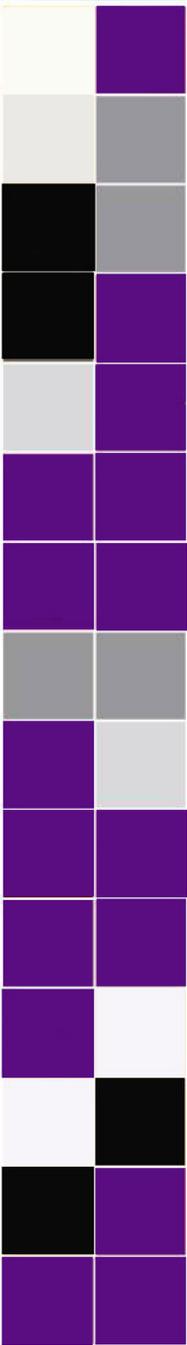


RUAA Site Selection Guidelines

- Goal for RUAA Survey
 - 3 sites for every 5 miles of stream
- Smith Creek is about 6 river miles long
 - Goal: 3 sites

Time Frame

- Proposed Field Survey Dates
 - May 20 – 25, 2014
 - July 15 – 19, 2014Or
 - June 16 – 21, 2014
 - August 11 – 16, 2014





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Mud Creek

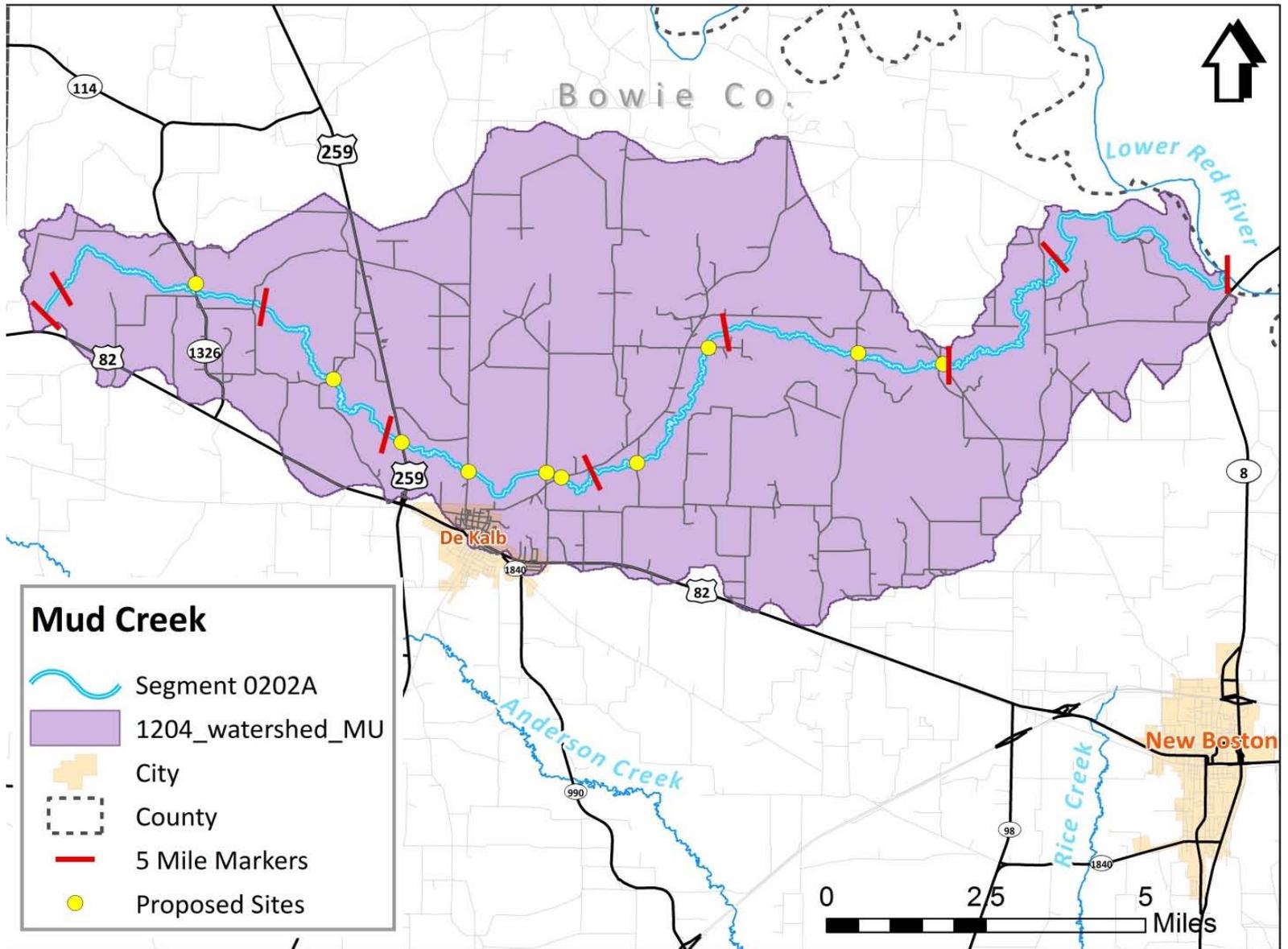
Recreational Use Attainability Analysis Overview

Texas Institute for Applied Environmental Research
Stephenville, Texas

March 2014

Impaired Stream Segments

- Mud Creek (0201A) is listed as impaired for primary contact recreation
 - 2002 Texas Water Quality 303(d) List
 - Bacteria
 - Current Geometric mean = 204 cfu/ 100mL



RUAA Site Selection Guidelines

- Goal for RUAA Survey
 - 3 sites for every 5 miles of stream
- Mud Creek is about 36 river miles long
 - Goal: 21 sites

Time Frame

- Proposed Field Survey Dates
 - May 20 – 25, 2014
 - July 15 – 19, 2014
- Or
 - June 16 – 21, 2014
 - August 11 – 16, 2014

Questions?

Contact Information

Nikki Jackson, Project Manager

njackson@tiaer.tarleton.edu

254-968-1902

Project Website

www.tiaer.tarleton.edu/ruaa