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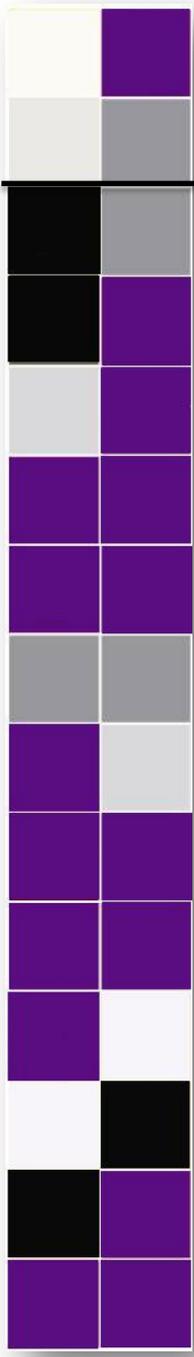
Paradise Creek

Recreational Use Attainability Analysis Summary of Findings (First Survey Event)

Texas Institute for Applied Environmental Research
Stephenville, Texas

July 11, 2012

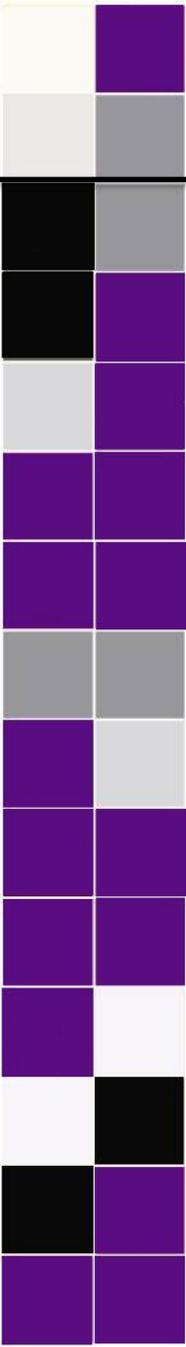




Why are we here?

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

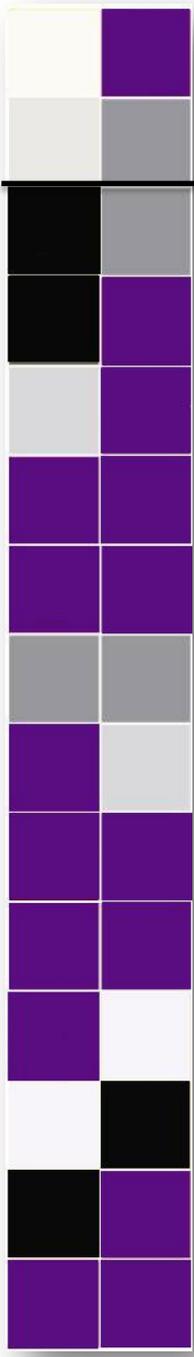




Why are we here?

- One potential way to get Paradise Creek off the impaired list
 - Assess recreational use, via a recreational use attainability analysis (RUAA)
 - Primary contact recreation is assumed

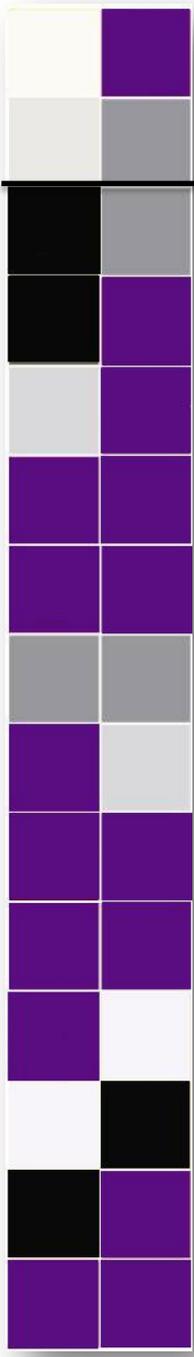




Purpose of RUAA

- Collect information that will:
 1. Confirm or deny primary contact recreation
 2. Provide evidence to support a change in recreational use category of Paradise Creek
- Recreational Use Categories:
 1. Primary Contact Recreation
 2. Secondary Contact Recreation I
 3. Secondary Contact Recreation II
 4. Non-Contact Recreation

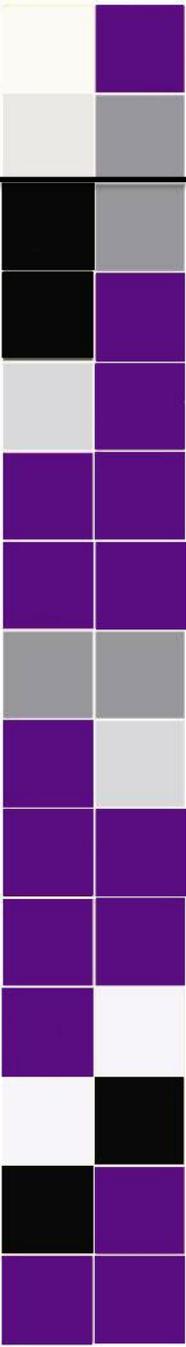




Components of a RUAA

- **Field Surveys** – to document current stream conditions and uses
- **Historical Information Review** – to document past recreational uses
- **Interviews** – to obtain feedback from stakeholders on current and past recreational uses of Paradise Creek

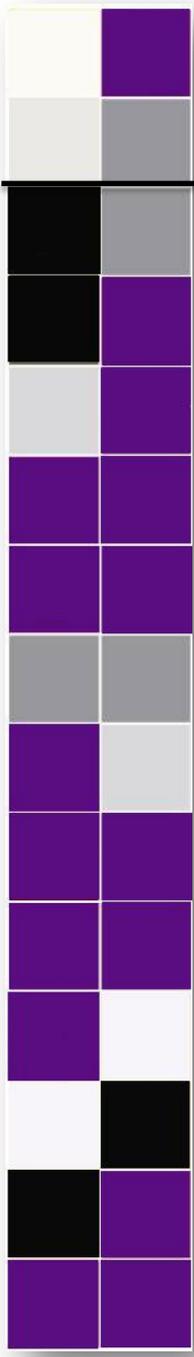




Field Surveys

- Components:
 - Goal: 3 sites for every 5 miles
 - At each site:
 - 300 meter reach traversed
 - Document
 - Stream characteristics that may promote or hinder recreational use (Field Data Sheets)
 - Observations of direct use or signs of recreational use (Photographs)
 - Interviews with individuals (Interview Forms)

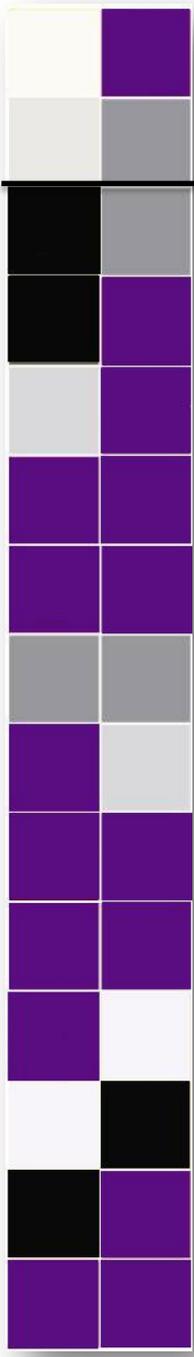




Field Data Sheet Information

- Steamflow and stream type
- Riparian zone, ease of bank access, dominant substrate
- Stream channel and pool measurements
- Types of recreation observed or signs of recreation
- Factors that may promote or impede recreation

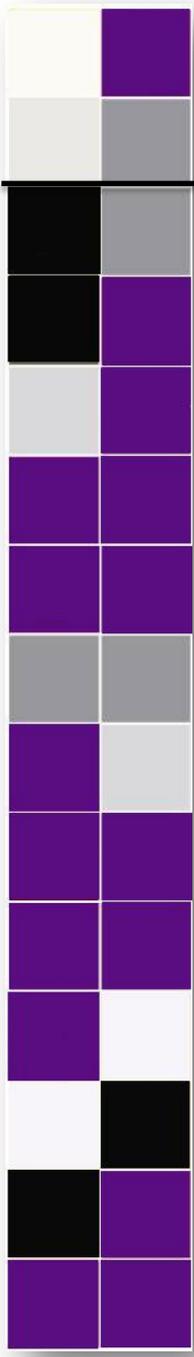




Field Surveys

- Complete field data sheet
- Document weather conditions
- Photograph stream conditions
 - Transects - upstream, downstream, left bank, and right bank
 - Evidence of human use
- Interview stakeholders present at time of survey





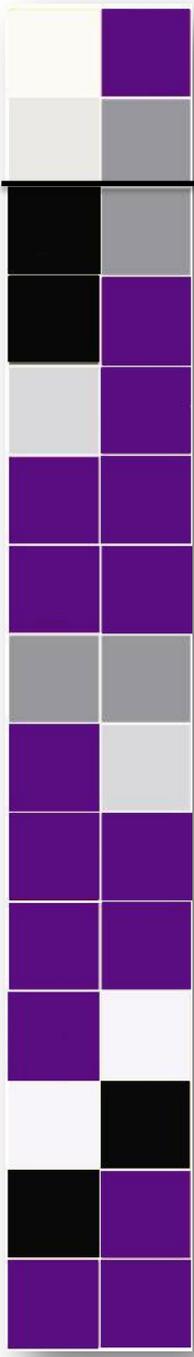
Sampling Conditions for Surveys

1. Air temperature over 70° F
2. Sustained or typical dry, warm-weather streamflow
3. Performed when use is likely (Spring Break, Weekends, Holidays & Summer)



Any Questions on RUAA
Background?





Survey Dates for Paradise Creek

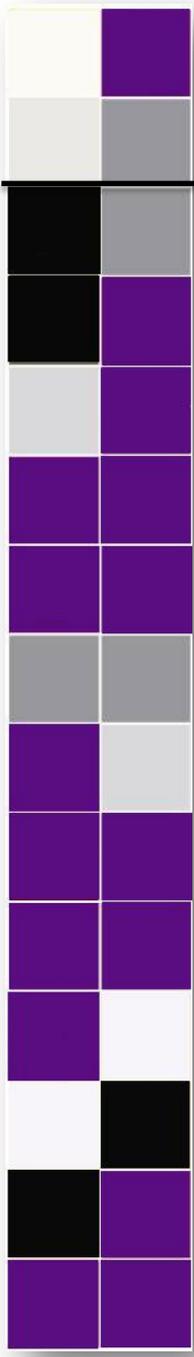
- 2013 – First RUAA Survey
 - Data Collected June 8th - 11th
 - (Saturday through Tuesday)
- 2013 – Second RUAA Survey
 - Scheduled for July 18th – 21st
 - (Thursday through Sunday)



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
	0230A AU_03							
10094	PD001	Paradise Creek at US Hwy 287	34.152518	-99.245708	-	0.62	43.02	Public
	PD002	Paradise Creek at State Loop 488, south of road	34.150771	-99.256401	0.70	1.32	42.32	Public
	PD003	Paradise Creek at Summerour Rd, east of road	34.142409	-99.263835	0.76	2.08	41.56	Public
	PD004	Paradise Creek at Eagle St, west of road	34.126706	-99.273206	2.21	4.29	39.35	Public
	PD005	Paradise Creek at US Hwy 183, east of road	34.120926	-99.279594	0.84	5.13	38.51	Public
	PD006	Paradise Creek at CR 128, south of road	34.113162	-99.282745	0.99	6.12	37.52	Public
	0230A AU_04							
	PD007	Paradise Creek at old CR 99 S	34.096945	-99.289448	1.46	7.58	36.06	Private
	PD008	Paradise Creek 0.4 river miles northeast of FM 433 bridge	34.082657	-99.298264	1.48	9.06	34.58	Private

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
17600	PD009	Paradise Creek at FM 433, north of road	34.078991	-99.301707	0.40	9.46	34.18	Public
	PD010	Paradise Creek 0.68 river miles southwest of CR 97 S	34.071150	-99.302150	0.68	10.14	33.5	Private
	PD011	Paradise Creek at CR 134, south of road	34.063181	-99.305328	0.99	11.13	32.51	Public
	PD012	Paradise Creek 1.5 river miles south of CR 134	34.053478	-99.315339	1.50	12.63	31.01	Private
	PD013	Paradise Creek at FM2585	34.030332	-99.318321	3.01	16.48	27.16	Public
	PD014	Paradise Creek 1.35 river miles southeast of CR 138	34.029279	-99.340239	2.29	18.77	24.87	Private
	PD015	Paradise Creek at CR 138 west of CR 89, south of road	34.027440	-99.351650	1.35	20.12	23.52	Public
	PD016	Paradise Creek at CR 138 near intersection with CR 85 S, north of road	34.026317	-99.355889	0.33	20.45	23.19	Public
	PD017	Paradise Creek at CR 81, east of road	34.007302	-99.385386	3.78	24.23	19.41	Public
	PD018	Paradise Creek at CR 140, north of road	34.001297	-99.393540	1.12	25.35	18.29	Public
	PD019	Paradise Creek at RR 1207, west of road	33.994768	-99.399824	0.75	26.1	17.54	Public
	PD020	Paradise Creek 1.8 river miles east of CR 138	33.989388	-99.439459	2.43	28.53	15.11	Private
	PD021	Paradise Creek 1.2 river miles east of CR 138	33.989163	-99.449744	0.60	29.13	14.51	Private

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
	PD022	Paradise Creek 0.11 river miles northwest of CR 138	33.992020	-99.471200	1.31	30.44	13.2	Private
	PD023	Paradise Creek 2.23 river miles east of CR 195	33.996853	-99.486981	3.1	33.54	10.1	Private
	PD024	Paradise Creek at CR 195, west of road	33.992512	-99.508263	2.23	35.77	7.87	Public
	PD025	Paradise Creek at US Hwy 70 east of Thalia	33.986851	-99.530203	2.01	37.78	5.86	Public
	PD026	Paradise Creek at CR 288, west of road	33.988370	-99.543021	0.96	38.74	4.90	Public
	PD027	Paradise Creek at CR 239, east of road	33.991364	-99.558936	1.41	40.15	3.49	Public
	PD028	Paradise Creek 1.57 river miles west of CR 239	33.98600	-99.572000	1.57	41.72	1.92	Private



Findings First RUAA Survey

- Conducted June 8th – 11th
 - (Saturday thru Tuesday)
- Summary
 - Limited water
 - Limited access to stream
 - No direct recreation observed
 - Dense brush



Paradise Creek Photographs

PD028_300m Upstream



PD001_30m Down Stream



Paradise Creek Photographs

PD021_Shotgun Shell



PD007_Duck Decoys



Paradise Creek Photographs

PD026_300m Upstream



PD002_300m Downstream



Paradise Creek Photographs

PD012_300m Upstream



PD016_300m Downstream



Paradise Creek Photographs

PD016_150m Upstream



PD018_Water Gap



Paradise Creek Photographs

PD015_Oil & Gas Pipe



PD018_Brush Obstruction



Paradise Creek Photographs

PD015_Deer Droppings



PD015_Hog Tracks



Paradise Creek Photographs

PD014_Tile Drain



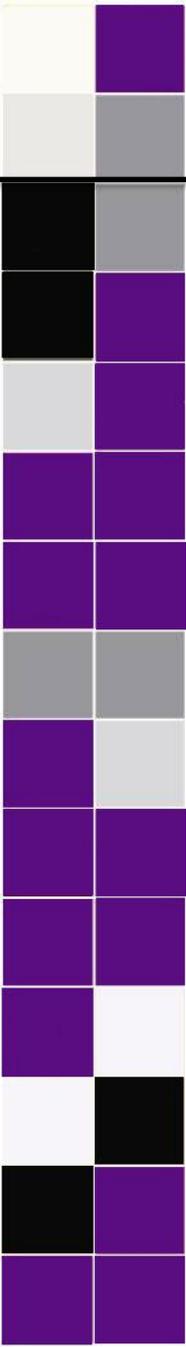
Paradise Creek Photographs

PD013_Tires & Trash near Bridge



PD006_Trash at Bridge

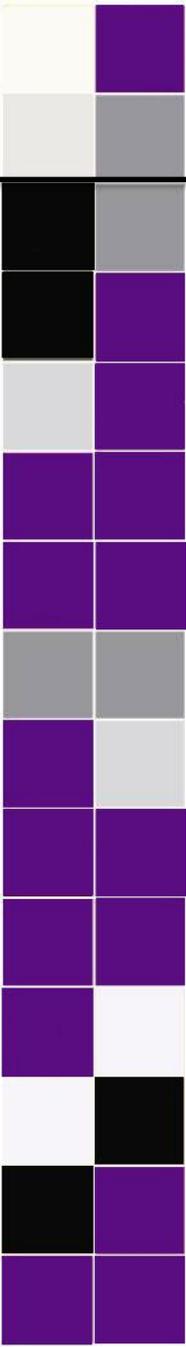




Next Steps

- Second Field Survey
 - Scheduled for July 18th – 21st
 - (Thursday thru Sunday)
- Historical Review – on-going
 - Request information on past recreational use of Paradise Creek





Next Steps

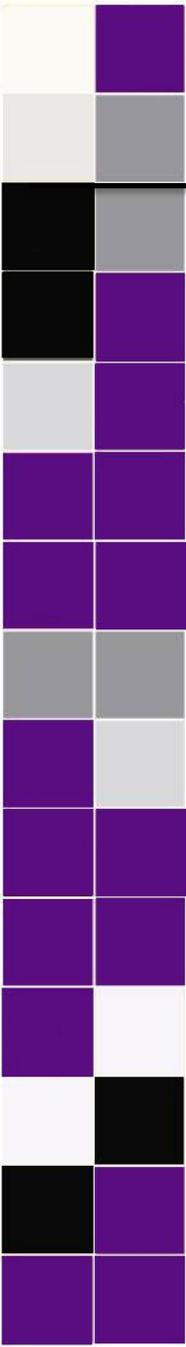
- Interviews – on-going
 - We need feedback on current and past recreational uses of Paradise Creek

***Interview Forms can be requested
from TIAER**

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254.968.1921





Contact Information

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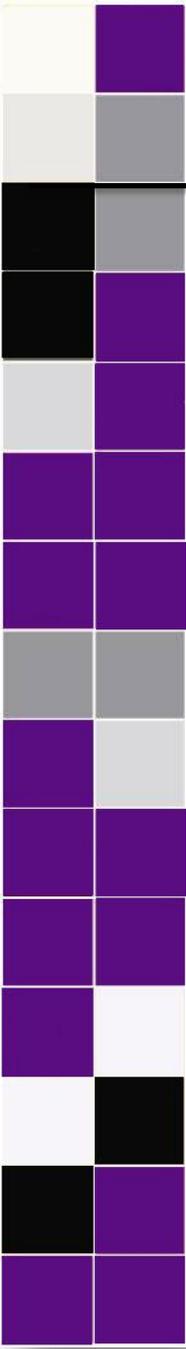
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Questions?

Thank You

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