



Nueces River Authority

***Aransas Creek
Recreational Use Attainability
Analysis (RUAA)
Field Survey Update***

Study Team:
Nueces River Authority - Coastal Bend Division
Corpus Christi, Texas

September 27, 2012

Components of a RUAA

- Conduct Two Field Surveys
- Historical Information Review
- Interviews from Users and Others Present During Surveys
- Technical RUAA Report to be Submitted to TSSWCB

Field Surveys

- What it entails
 - Transects
 - 300 meter reach per site
 - 11 transects spaced 30 meters apart
 - Interviews
 - Individuals that are physically at the site
 - Individuals familiar with the segment

Field Surveys

- *What kind of information is gathered at each survey station?*
 - Stream Characteristics
 - Primary/Secondary Contact Water Recreation
 - Stream and Pool Measurements
 - Additional Information
 - Stream Flow Measurement
 - Interviews

Stream Characteristics

- Determine the following:
- Ephemeral – Flows occur after a rain event only.
- Intermittent – A stream that has no flow for at least one week during most years.
- Intermittent with perennial pools – An intermittent stream that has persistent pools during no flow conditions.
- Perennial – A stream that flows continuously year round.
- Designated or Unclassified Tidal Stream – Tidally influenced stream that may flow to a bathing beach.

Stream Characteristics

- Stream flow – If there's flowing water, we measure it.
- Air/Water Temp – We target warm/hot months when recreation is likely to occur.
- Riparian Zone – determine if the stream bank is vegetated and to what degree and by what.
- Ease of Bank Access – document any impedances that effect accessibility.
- Dominant Primary Substrate – determine if the stream bank is cobble, sand, silt, mud/clay, gravel, bedrock, rip rap, or concrete.

Recreation Use Tiers

- Primary Contact Recreation – includes wading by children, swimming, water skiing, tubing, kayaking, canoeing, rafting. Is there a potential for ingestion?
- Secondary Contact Recreation 1 – fishing, commercial or recreational boating, limited body contact incidental to shoreline activity.
- Secondary Contact Recreation 2 – Occur less frequently than SCR-1 due to physical characteristics of the water body or limited public access.
- Non Contact Recreation – Activities that do not involve a significant risk of water ingestion. Includes birding, hiking, biking.

Stream Channel and Substantial Pools Measurements

- Determine Thalweg depth – is the depth greater than 0.5 meters (1 ' 8 ")?
- Take pictures facing upstream, downstream, left bank, right bank at 30m, 150m, 300m.
- Measure pools – Length, width, and depth.
- Measure thalweg at 30m intervals to 300m (30m, 50m, 90m, 120m, 150m, 180m, 210m, 240m, 270m, 300m)
- Measure the widest and narrowest width of the stream.

Additional Information

- Any modifications to the stream? Obstructions?
- Any impedances of recreational activity?
- Human Use – roads, trails, RV/ATV tracks, fire rings, camping, fishing tackle, children's toys, remnants of kids play, NPDES discharges?
- Aquatic vegetation, algae cover, odor, color, bottom deposit, water surface?
- Any Vertebrates observed? Snakes, Birds, Alligators?
- Any Mammals observed? – wild, domestic pigs, livestock, feral hogs?
- Garbage – Large, small, bank garbage?

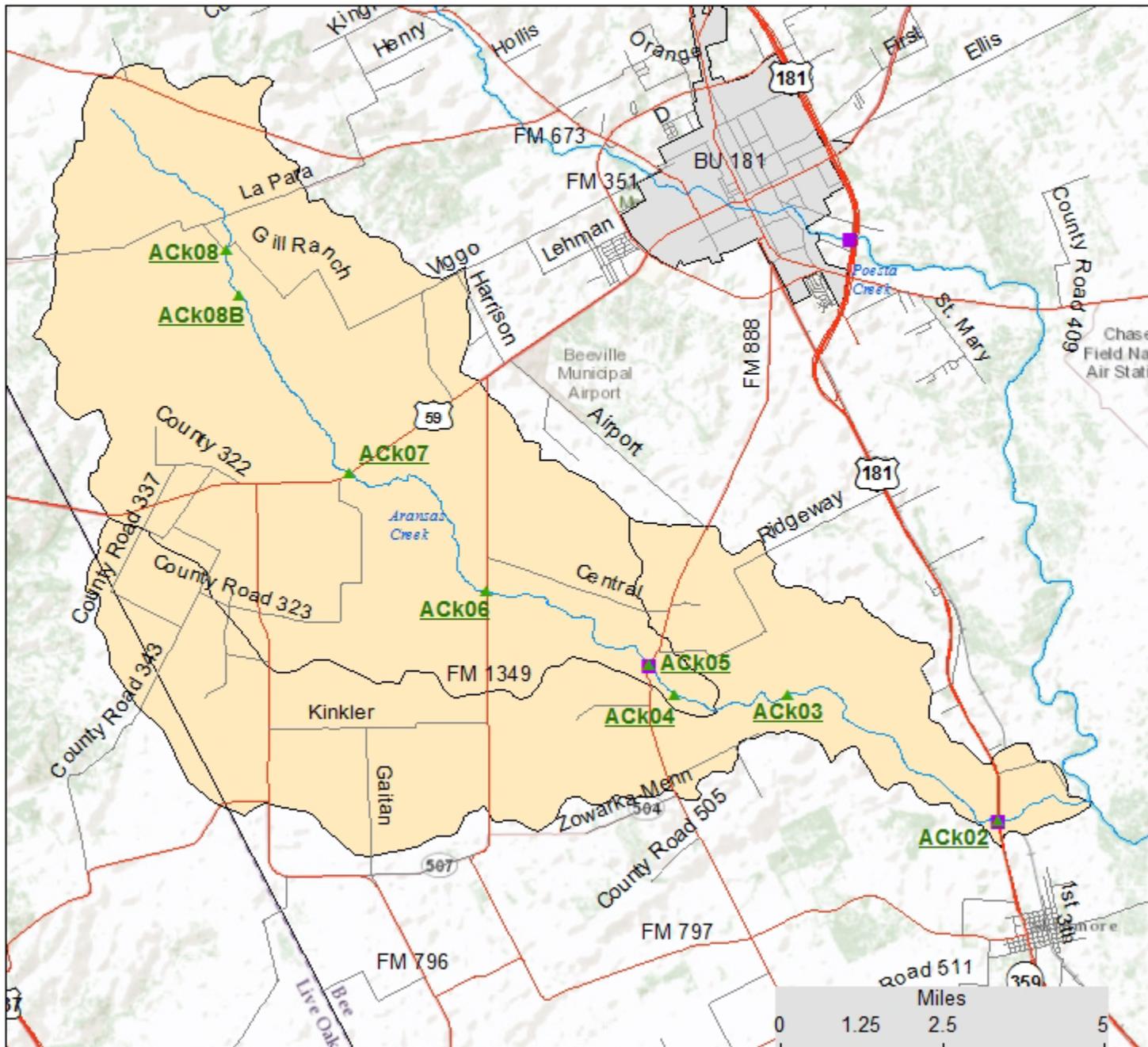
Survey Dates for Aransas Creek

- The First Field Survey Event Occurred on Labor Day Weekend August 31st –September 1st, 2012.
- The Second Field Survey Event is planned for September 28th -29th, 2012.

Summary of RUAA Sites on Aransas Creek

TCEQ ID	Map Legend	Site Description	Latitude	Longitude	Distance to Previous Station (km)	Distance from Upper Segment Boundary (km)	Distance from Lower Segment Boundary (km)	Private or Public Access	Private Access Landowner Approved
---	---	[SEGMENT & AU01 upper headwaters of the stream about 10 km upstream of US HWY 59]	---	---	---	0.0	32.92	---	---
	ACK08	Aransas Creek at Gill Ranch Road	28.391117	-97.864800	4.50	4.50	28.42	Public	Yes
	ACK08B	Aransas Creek South of Gill Ranch Road	28.381850	-97.861783	1.22	5.72	27.2	Private	Yes
	ACK07	Aransas Creek at US 59	28.346333	-97.837133	5.00	10.72	22.20	Public	Yes
	ACK06	Aransas Creek at FM 1349	28.322733	-97.806517	5.21	15.93	16.99	Public	Yes
20066	ACK05	Aransas Creek at FM 888	28.307841	-97.770129	4.63	20.56	12.36	Public	Yes
	ACK04	Aransas Creek downstream of FM 888	28.301938	-97.764333	0.90	21.46	11.46	Private	Yes
	ACK03	Aransas Creek midway between US 181 and FM 888	28.301938	-97.739100	2.93	24.39	8.53	Private	Yes
12941	ACK02	Aransas Creek at US 181	28.276667	-97.691950	6.28	30.60	2.25	Public	Yes
---	---	[SEGMENT & AU01 lower boundary with Poesta Creek and Aransas River]	---	---	.28	32.92	0.00	---	---

Aransas Creek Watershed



ACk08 Upstream View



ACk08 Right Bank View



ACk08 Left Bank View



ACk08 Downstream View



ACk08 Upstream View at 300m



ACk08 Downstream View at 300m



ACk08B Upstream View



ACk08B Downstream View



ACk07 Upstream View



ACk07 Downstream View



ACk06 Upstream View at 300m



ACk06 Right bank View at 300m



ACk06 Left bank View at 300m



ACk06 Downstream View at 300m



ACk05 Upstream View



ACk05 Downstream View











ACk04 Upstream View



ACk04 Downstream View





ACk03 Upstream View



ACk03 Downstream View



ACk03 Upstream View at 300m



ACk03 Right Bank View at 300m



ACk03 Left Bank View at 300m



ACk03 Downstream View at 300m









ACk02 Upstream View







ACk02 Downstream View





Interview Information

- No recreators were present at the time of the field survey.
- Interview forms have revealed that the following activities have occurred within Aransas Creek:
 - Fishing(NRA did not observe any fishing)

Next Steps

- 2nd Field Survey
 - Tentatively set for Sept. 28-29, 2012
- Historical Information Review
 - (Winter 2012/13)
- Bacteria Source Survey
 - (Fall/Winter 2012/13)
- Technical RUAA Report (Spring 2013)
- Final Report Meeting (Spring 2013)

Acknowledgements

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Questions?

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