

Summary of Findings from the Recreational Use Attainability Analysis on Rocky Creek (1602B)

Summary of Findings from the Rocky Creek (1602B) RUAA Surveys – Task 4 of the project “Basin Approach to Address Bacterial Impairments in Basins 15, 16, and 17”

Performing Party: Texas A&M AgriLife Research/Texas Water Resources Institute (TWRI)
Umbrella Contract No.: 582-14-42129
Work Order No.: 10 (PCR70305)
Federal Grant No.: I-98665308
CFDS No.: 66.419

Background

For assessment purposes by the Texas Commission on Environmental Quality (TCEQ), Rocky Creek (1602B) is an unclassified water body in the Lavaca River Basin. As described by the 2014 Texas Integrated Report of Surface Water Quality (TCEQ, 2014a), water body 1602B is a perennial stream extending from the confluence with the Lavaca River to immediately above Farm-to-Market Road 533 west of Shiner, Texas (Figure 1). Just under 36 river miles long, the majority of Rocky Creek resides within Lavaca County while a small portion extends into Gonzales County.

Rocky Creek (1602B) was first listed as impaired for bacteria on the 2014 Texas 303(d) list. There are no additional impairments for Rocky Creek (1602B). Rocky Creek has a presumed use of primary contact recreation based on the *Texas Surface Water Quality Standards* (TSWQS) (TCEQ, 2014a). Prior to June 2010 only two categories of recreation use, contact and noncontact, existed in Texas. In June 2010, the TCEQ adopted revisions to the TSWQS that expanded the designation of contact recreation into three categories (primary contact recreation, secondary contact recreation 1, and secondary contact recreation 2) based on varying degrees of interaction with the water, while maintaining a fourth category of noncontact recreation. These revisions were codified in the Texas Administrative Code (TAC), Title 30 Chapter 307 and became effective as a state rule on July 22, 2010 (TCEQ, 2010). As a result of these revisions to the TSWQS, all water bodies listed as impaired based on bacteria for contact recreation are scheduled to undergo a standards review to determine if primary contact recreation is appropriate or if a revision to the use category for recreation should be considered.

Use attainability analyses (UAAs) are studies to evaluate the designated or presumed uses of a water body. In order to identify and assign attainable uses and criteria to individual water bodies, UAAs evaluate physical, chemical, biological, and economic factors affecting use attainment of a water body (40 Code of Federal Regulations §131.10(g)). A recreational use attainability analysis (RUAA) is a specific

Attachment 1: Rocky Creek Contact Information Form

type of UAA focused on determining the appropriate recreational use category of a water body, a summary of the findings of which are presented within this deliverable for Rocky Creek (1602B).

The RUAA for these Rocky Creek is being conducted under the TCEQ funded project, *Basin Approach to Address Bacterial Impairments in Basins 15, 16, and 17*.

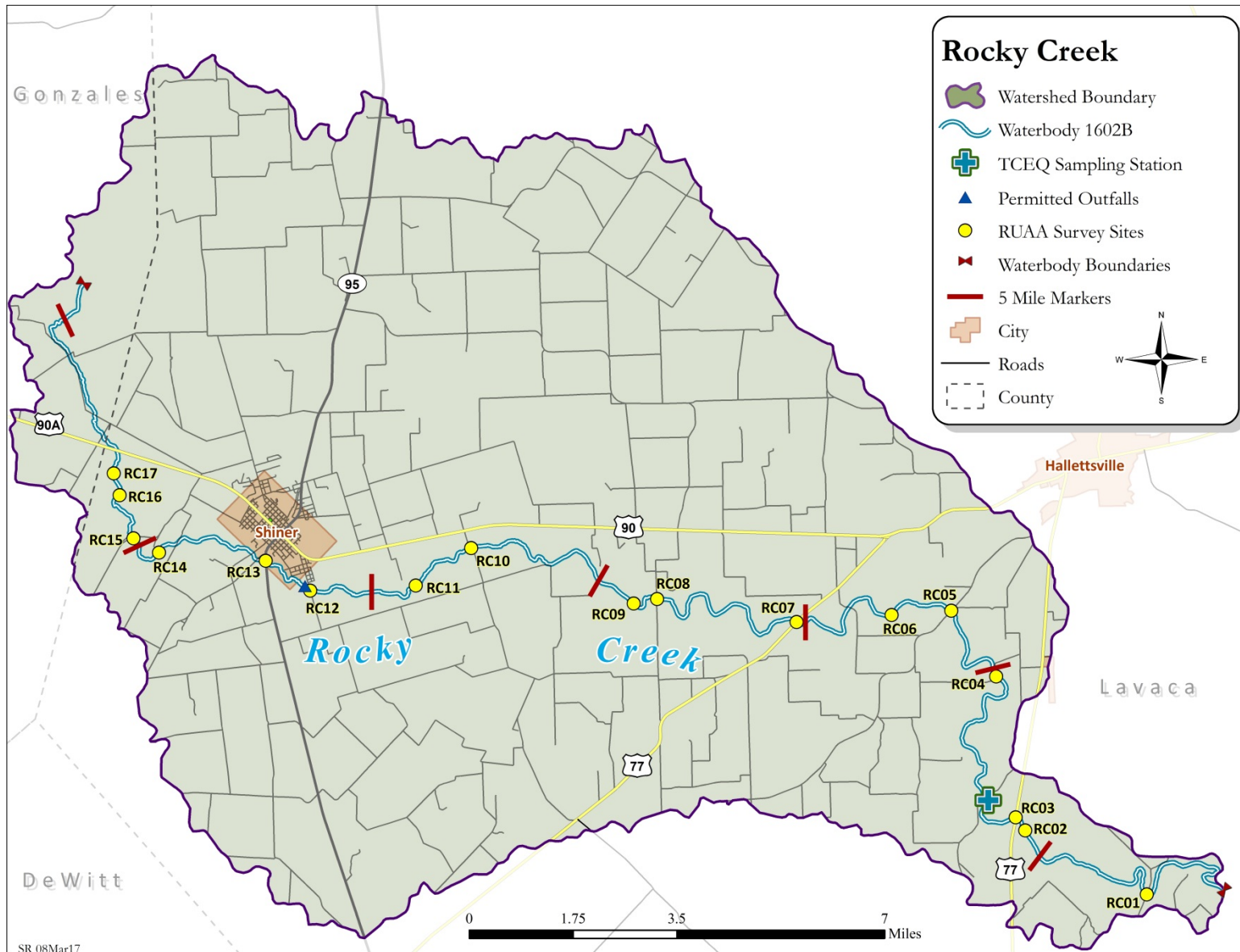


Figure 1 Watershed of Rocky Creek (1602B).

Objectives

The objective of this deliverable is to present a summary of the findings from a Comprehensive RUAA for Rocky Creek following the TCEQ March 2014 *Procedures for a Comprehensive RUAA and a Basic RUAA Survey* (TCEQ, 2014b). An RUAA consists of three parts: interviews with stakeholders regarding past and current use of the water body, a historical review regarding recreational use of the water body, and field surveys to document water body characteristics and signs of recreation. All components of this RUAA were performed by Texas Institute for Applied Environmental Research (TIAER), which is located on the campus of Tarleton State University in Stephenville, Texas. Field surveys and interviews for the RUAA were conducted under a TCEQ and Texas Water Resource Institute (TWRI) approved Quality Assurance Project Plan (QAPP; TIAER, 2017). Per the TCEQ March 2014 *Procedures for a Comprehensive RUAA and a Basic RUAA Survey* (TCEQ, 2014b), entities listed on the Contact Information Form (provided in the procedures) must be notified that an RUAA is being planned for an individual water body. The Contact Information Form can be found in Appendix A.

Stakeholder and Agency Involvement

From the inception of this project, the project team sought to ensure that stakeholders were informed and involved. TIAER provided coordination for public participation for this project.

A public meeting focusing specifically on the RUAA was held at Wied Hall located in Lavaca County, Texas on February 21, 2017. At this meeting input was sought on the proposed survey sites for the Rocky Creek RUAA. Attendees provided information regarding activities that typically occur within the watershed and offered assistance in accessing the stream via privately owned property. Watershed stakeholders were invited to attend the public meeting through mailed invitations, public announcements (TIAER website), and individual phone calls.

A summary of recreational activities along Rocky Creek as noted by stakeholders in interviews is located in Table 1 and Figure 2. Activities are listed as the number of times personal use, observed use, and/or heard of use was documented from interviews for a given location or the whole assessment unit. Blank cells in Table 1 indicate no interviewed feedback for that location was given. An * indicates recreation reported from an interview for another location.

Table 1 – Summary of recreational activities noted in interviews for Rocky Creek

Site Name	Number of Interviews	Swimming	Adult Wading	Children Wading	Hunt	Fish	Boat, Canoe, Kayak, Rafting	Tubing
RC01								
RC02								
RC03	1			1,0,0		1,0,0		
RC04	1	1,0,0	1,0,1	1,0,0	1,0,0	1,0,1	1,0,1	1,0,1
RC05								
RC06	1	1,1,1	1,1,1	1,1,1		0,1,1	1,0,0	
RC07								
RC08	1	1,1,1	1,1,1	1,1,1		0,1,1		
RC09	1							
RC10	1							
RC11	1	1,0,0	1,0,0	1,0,0		0,1,0	1,1,0	
RC12	1	0,1,0				1,1,0		
RC13								
RC14	1			1,0,0				
RC15								
RC16								
RC17	1							
General AU	*	*,*,*	*,*,*	*,*,*		0,*,*	*,0,0	
Totals	10	4,3,2	4,2,3	6,2,2	1,0,0	3,3,3	3,1,1	1,0,1

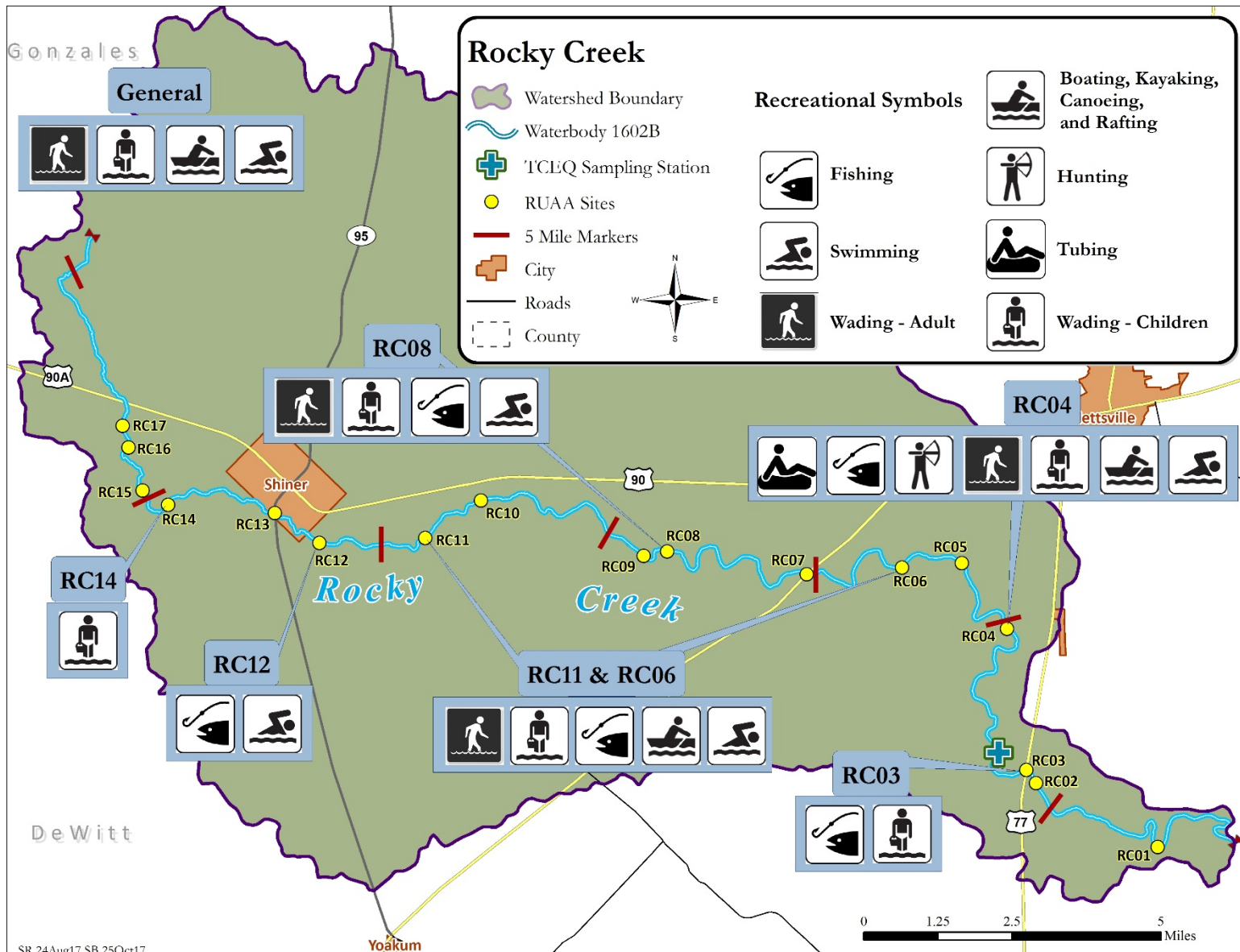


Figure 2 Summary of observed and interviewed human activities on Rocky Creek (1602B).

Historical Information on Recreational Use

A review of historical information was performed regarding recreational water uses for Rocky Creek. The review considered the time period of November 28, 1975 to the present in accordance with 40 CFR Part 131 (EPA standards regulation). Government offices, libraries, and newspapers were searched and contacted in addition to generic internet searches. The following is a summary of the review and searches.

Government Sources

City of Shiner

City of Shiner Homepage: <http://www.shinertx.com/city>

Search retrieved no results.

Lavaca County

Lavaca County Homepage: <http://www.co.lavaca.tx.us/>

Search retrieved no results.

Gonzales County

Gonzales County Homepage: <http://www.co.gonzales.tx.us/>

Search retrieved no results.

Library Sources

The City of Shiner Public Library

The City of Shiner Public Library Homepage: <http://shinerpubliclibrary.org/>

Search retrieved no results.

Internet Sources

Texas Home Town Locator

Link to Texas Home Town Locator: <http://texas.hometownlocator.com/maps/feature-map,ftc,1,fid,1375803,n,rocky%20creek.cfm>

Nothing significant found in search.

LavacaCountyHistory.org

Link to LavacaCountyHistory.org: <http://www.lavacacountyhistory.org/creeks.htm>

Nothing significant found in search.

The Handbook of Texas Online

Link to The Handbook of Texas Online: <https://tshaonline.org/handbook/online/articles/rbr92>

Nothing significant found in search.

Texas Escapes Online Magazine

Link to Texas Escapes Online Magazine:

<http://www.texasescapes.com/MurrayMontgomeryLoneStarDiary/Old-Iron-Bridges-of-Lavaca-County.htm>

Nothing significant was found.

Field Survey Data Collection Activities

As specified in the procedures for a Comprehensive RUAA (TCEQ, 2014b), two separate field surveys occurred at each selected survey site during the warm season (air temperature greater than or equal to 70 degrees Fahrenheit or 21 degrees Celsius) when human recreational activities were most likely to occur (May - September). Ideally, field surveys were to be conducted when stream flow conditions were normal.

TIAER performed the first RUAA survey on May 16, 2017 and the second survey on July 25, 2017. Photographic records of each site during the site surveys were created by TIAER at each site on these dates. Photographs were intended to clearly depict the characteristics of the channel and any evidence of observed uses or indications of human use, hydrologic modifications, etc. Photographs were taken specifically at the 0-m, 150-m, and 300-m transects (as described in the Field Data Sheets). Any items of interest, e.g., obstructions, were also photographed. Photographs were used to document evidence of recreational use (e.g., fishing tackle) and actual recreation. Photographs were also used to document a lack of use (e.g., dry creek beds) or impediments to recreational use. All photographs were labeled in a manner that indicated the date, site location, orientation to the stream, and photo's subject and are attached as an attachment to this summary.

Data collection activities at each RUAA site for both field surveys included the following:

- Measurement of average depth at thalweg (deepest depth),
- Measurement of depths, lengths, and widths of substantial pools,
- Documentation of observational/anecdotal data required on the RUAA field data sheets,
- Photographs of any signs of recreation and
- Photographs of site conditions including upstream, downstream, left bank, and right bank photos at the 0-m, 150-m, and 300-m transects.

Anecdotal information was recorded on field data sheets during all surveys using the field data sheets from the TSSWCB-approved QAPP (TIAER, 2014). Types of observational and anecdotal records included, but were not limited to, the following:

- Channel flow status as indicated by flow severity
- Stream type (e.g., ephemeral, intermittent, etc.)
- Riparian zone characteristics (forest, pasture, eroded banks, etc.)
- Stream accessibility
- Substrate type
- Anecdotal information related to observed human contact activities

Attachment 1: Rocky Creek Contact Information Form

A summary of the RUAA field survey results is presented in the following tables:

- Table 2 displays a brief description and location of each RUAA survey site.
- Table 3 describes the stream channel and corridor characteristics at each site.
- Table 4 notes the average thalweg depth by site during each survey and the access to the stream, whether public or private, and the ease of bank access.
- Tables 5 and 6 document the maximum, minimum, and average stream widths at each site for each survey and observed flow conditions.
- Tables 7 and 8 note stream aesthetics, wildlife observations and tracks, and the presence of garbage by site observed during each survey.

Table 2 – Description and location of RUAA field survey sites for Rocky Creek, Water Body 1602B

Site ID	Site Description	Latitude	Longitude	Distance From Confluence (mi²)	Distance from Previous Site (mi²)	Access	Private Access Landowner Approved
RC01	Rocky Creek 2.38 miles from confluence with the Lavaca River at County Road 1	29.337155	-96.930457	2.38	N/A	Public*	Yes - upstream
RC02	Rocky Creek on private property	29.353346	-96.964094	5.5	3.12	Private	Yes - downstream
RC03	Rocky Creek at US Highway 77	29.356606	-96.966657	5.79	0.29	Public	Yes - at bridge
RC04	Rocky Creek on private property (at decommissioned CR 154)	29.391146	-96.971419	9.85	4.06	Private	Yes - upstream and downstream
RC05	Rocky Creek at FM 318	29.407394	-96.983671	11.68	1.83	Public	Yes - upstream at bridge
RC06	Rocky Creek on private property	29.406596	-97.000354	12.84	1.16	Private	Yes - downstream of western most fence line
RC07	Rocky Creek at US Highway 77 Alternate	29.405305	-97.026948	15.18	2.34	Public*	Yes - downstream at bridge
RC08	Rocky Creek at CR 312	29.411472	-97.06583	18.71	3.53	Public*	Yes - downstream at bridge
RC09	Rocky Creek on private property	29.410471	-97.072387	19.28	0.57	Private	Yes
RC10	Rocky Creek at FM 531	29.424703	-97.117523	22.81	3.53	Public*	Yes - downstream at bridge
RC11	Rocky Creek on private property	29.415731	-97.133169	24.09	1.29	Private	Yes - upstream
RC12	Rocky Creek at CR 300	29.414904	-97.162722	26.18	2.09	Public*	Yes - downstream at bridge
RC13	Rocky Creek at State Highway 95	29.422412	-97.175012	27.27	1.09	Public*	Yes - downstream at bridge

Attachment 1: Rocky Creek Contact Information Form

RC14	Rocky Creek on private property	29.424816	-97.204768	29.42	2.15	Private	Yes
RC15	Rocky Creek at FM 533	29.428387	-97.211874	30.16	0.74	Public*	Yes - upstream at bridge
RC16	Rocky Creek on private property	29.438975	-97.215571	31.18	1.02	Private	Yes
RC17	Rocky Creek on private property	29.444344	-97.217104	31.61	0.43	Private	Yes - at bridge

²Distances 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.

*Indicates public access is limited to the bridge area due to fenced private property upstream and downstream of the crossing.

Table 3 – Stream Channel and Corridor Characteristics for Each Site along Rocky Creek

Site Number	Stream Channel Appearance	Dominant Substrate	Corridor Appearance	Riparian Size	Park	Landscape Surroundings
RC01	Natural	Sand	Forest/Shrub dominated corridor	Large	No	Native
RC02	Natural	Sand	Forest/Pasture	Large	No	Native
RC03	Natural	Sand	Forest/Pasture	Large	No	Native
RC04	Natural	Sand	Forest/Pasture/Shrub dominated corridor	Large	No	Native
RC05	Natural	Sand	Forest/Pasture	Large	No	Native
RC06	Natural	Sand/Silt	Shrub dominated corridor/Pasture	Large	No	Native
RC07	Natural	Sand	Forest/Pasture	Large	No	Native
RC08	Natural	Gravel	Forest	Large	No	Native
RC09	Natural	Sand/Gravel	Shrub dominated corridor/Pasture/Forest	Large	No	Native
RC10	Natural	Sand/Silt/ Bedrock	Forest/Pasture	Large	No	Native
RC11	Natural	Sand/Silt/Mud/ Clay	Shrub dominated corridor/Pasture/Forest	Large	No	Native/Improved Pasture
RC12	Natural	Bedrock/Rock	Forest	Large	No	Native
RC13	Natural	Sand/Gravel	Forest on bank top/Pasture	Large	No	Native

Attachment 1: Rocky Creek Contact Information Form

Site Number	Stream Channel Appearance	Dominant Substrate	Corridor Appearance	Riparian Size	Park	Landscape Surroundings
RC14	Natural	Sand/Mud/Clay	Forest/Pasture	Large	No	Native
RC15	Natural	Mud/Clay/ Bedrock	Forest/Pasture	Large	No	Native
RC16	Natural	Mud/Clay	Shrub dominated corridor/Pasture	Large	No	Native
RC17	Natural	Mud/Clay/Gravel	Forest/Shrub dominated corridor/Pasture	Large	No	Native

Table 4 – Thalweg depth, stream flow type, and site accessibility during both surveys of Rocky Creek

Stream flow type represents TCEQ descriptions (TCEQ, 2014c). Under general access, * indicates that the site was publically accessible at a road crossing but that further access was limited by fencing of private property. For bank access, E = Easy, ME = Moderately Easy, MD = Moderately Difficult, and D = Difficult.

Site	Transect length (m)	# of Transects	# of Recreational Areas at Site	Avg. Site Thalweg Depth (m) for Trip 1	Avg. Site Thalweg Depth (m) for Trip 2	Stream Flow Type Survey 1	Stream Flow Type Survey 2	General Access	Bank Access
RC01	300	11	0	0.14	0.01	Intermittent	Intermittent	Public*	ME
RC02	300	11	0	0.4	0.49	Intermittent	Intermittent	Private	MD
RC03	300	11	0	0.12	0.07	Intermittent	Intermittent	Public	ME
RC04	300	11	0	0.21	0.13	Perennial	Perennial	Private	ME
RC05	300	11	0	0.16	0.20	Intermittent	Intermittent	Public	MD
RC06	300	11	0	0.12	0.09	Perennial	Perennial	Private	ME
RC07	300	11	0	0.25	0.23	Intermittent	Intermittent	Public*	MD
RC08	300	11	0	0.2	0.16	Intermittent	Intermittent	Public*	D
RC09	300	11	0	0.22	0.14	Perennial	Intermittent	Private	Me
RC10	300	11	0	0.49	0.41	Perennial	Perennial	Public	D
RC11	300	11	0	0.53	0.41	Perennial	Perennial	Private	MD
RC12	300	11	0	0.51	0.36	Intermittent	Intermittent	Public*	D
RC13	300	11	0	0.76	0.56	Intermittent with perennial pools	Intermittent with perennial pools	Public*	D
RC14	300	11	0	0.2	0.03	Intermittent	Intermittent	Private	MD
RC15	300	11	0	0.57	0.44	Intermittent	Intermittent	Public*	MD
RC16	300	11	0	0.39	0.24	Perennial	Perennial	Private	MD
RC17	300	3	0	0.4	0.25	Perennial	Intermittent	Private	D

Table 5 – Description of surveyed stream sites along Rocky Creek during the first survey performed on May 16, 2017

Site Number	Maximum Width (m)	Minimum Width (m)	Typical Average Width (m)	Observed Flow	Wadeable
RC01	7 m	2.5 m	3.5 m	Low	Yes
RC02	10 m	2 m	6 m	Low	Yes
RC03	10 m	3.5 m	6 m	Low	Yes
RC04	9.5 m	4 m	5.3 m	Normal	Yes
RC05	7.5 m	2.5 m	4 m	Low	Yes
RC06	6.8 m	2.6 m	4.5 m	Normal	Yes
RC07	12 m	3.5 m	8 m	Low	Yes
RC08	10.5 m	3.5 m	8 m	Low	Yes
RC09	9 m	3.6 m	6 m	Normal	Yes
RC10	8 m	4 m	6 m	Normal	Yes
RC11	8 m	2.32 m	5.5 m	Normal	Yes
RC12	14 m	1 m	4.5 m	Low	Yes
RC13	9.5 m	1.5 m	6.5 m	Low	Yes
RC14	4 m	0.70 m	2 m	Normal	Yes
RC15	10 m	1 m	3.5 m	Low	Yes
RC16	6 m	0.5 m	3 m	Normal	Yes
RC17	7 m	0.5 m	3 m	Normal	Yes

Table 6 - Description of surveyed stream sites along Rocky Creek during the second survey performed on July 25, 2017

Site Number	Maximum Width (m)	Minimum Width (m)	Typical Average Width (m)	Observed Flow	Wadeable
RC01	3 m	0 m	0 m	No Flow	Yes
RC02	9.5 m	0.40 m	Below 150 m transect = 0.60/ Above the 150 m transect = 9 m	Low	Yes
RC03	5.5 m	0.10 m	0.30 m	Low	Yes
RC04	4.5 m	0.40 m	1.5 m	Normal	Yes
RC05	8 m	0.90 m	3 m	Low	Yes
RC06	3 m	1 m	1.5 m	Normal	Yes
RC07	13 m	1.2 m	6 m	Low	Yes
RC08	8.5 m	1.3 m	3.5 m	Low	Yes
RC09	9 m	2 m	4 m	Normal	Yes
RC10	10 m	4 m	6 m	Normal	Yes
RC11	9 m	1.5 m	8 m	Normal	Yes
RC12	9 m	2.7 m	4.5 m	Low	Yes
RC13	5.5 m	0.20 m	4.5 m	No Flow	Yes
RC14	2.5 m	0 m	2 m	No Flow	Yes
RC15	10 m	0.10 m	3 m	Extremely Low	Yes
RC16	4.5 m	0.2 m	2 m	Normal	Yes
RC17	2.5 m	0.8 m	1.5 m	Normal	Yes

Table 7 – Stream aesthetics and wildlife along Rocky Creek during the first survey performed on May 16, 2017

A = absent, R = rare, C = common, Ab = abundant, N = none, NW = no water, SP = slight presence, MP = moderate presence, LP = large presence from Field Data Sheet – Sect. F.

Site	Aquatic Vegetation	Algae Cover	Odor	Color	Bottom Deposit	Water Surface	Reptiles	Water Dependent Birds	Mammals	Evidence of Wildlife	Large Garbage in Channel	Small Garbage in Channel	Bank Garbage
RC01	A	R	N	Clear	Fine Sediment	Clear	SP	N	N	Tracks/Fecal Droppings	N	R	N
RC02	R	R	N	Clear	Fine Sediment	Clear	N	N	MP	Tracks/Fecal Droppings	N	R	N
RC03	R	A	N	Clear	Fine Sediment	Clear	N	N	N	Tracks/Fecal Droppings	N	R	N
RC04	R	R	N	Clear	Fine Sediment	Clear	N	SP	N	Tracks/Fecal Droppings	R	R	R
RC05	R	R	N	Clear	Fine Sediment	Clear	N	N	N	Tracks/Fecal Droppings	N	R	R
RC06	C	R	N	Clear	Fine Sediment	Clear	SP	N	N	Tracks/Fecal Droppings	R	R	R
RC07	R	C	N	Clear	Fine Sediment	Clear	N	N	SP	Tracks/Fecal Droppings	R	R	C
RC08	R	C	N	Clear	Fine Sediment	Clear	N	N	N	Tracks/Fecal Droppings	R	R	R

Attachment 1: Rocky Creek Contact Information Form

Site	Aquatic Vegetation	Algae Cover	Odor	Color	Bottom Deposit	Water Surface	Reptiles	Water Dependent Birds	Mammals	Evidence of Wildlife	Large Garbage in Channel	Small Garbage in Channel	Bank Garbage
RC09	R	R	N	Clear	Fine Sediment	Clear	N	N	SP	Tracks/Fecal Droppings	R	R	N
RC10	C	C	N	Clear	Fine Sediment	Clear	SP	N	N	Tracks/Fecal Droppings/Bird Nests	R	R	N
RC11	R	Ab	N	Clear	Fine Sediment	Clear	N	SP	N	Tracks/Fecal Droppings	R	R	N
RC12	C	C	N	Clear	Fine Sediment	Clear/Scum	N	N	N	Tracks/Fecal Droppings	N	R	R
RC13	Ab	Ab	N	Clear	Fine Sediment	Clear	SP	N	MP	Tracks	N	N	N
RC14	C	R	N	Clear	Fine Sediment	Clear/Scum	SP	N	N	Tracks/Fecal Droppings	N	N	N
RC15	Ab	Ab	N	Clear	Fine Sediment	Clear	SP	N	N	Tracks/Fecal Droppings	N	N	R
RC16	C	R	N	Clear	Fine Sediment	Clear	N	N	N	Tracks/Fecal Droppings	N	R	N
RC17	C	Ab	C	Clear	Sludge/Fine Sediment	Clear/Scum	N	N	N	Tracks/Fecal Droppings	N	N	N

Table 8 - Stream aesthetics and wildlife along Rocky Creek during the first survey performed on July 25, 2017

A = absent, R = rare, C = common, Ab = abundant, N = none, NW = no water, SP = slight presence, MP = moderate presence, LP = large presence from Field Data Sheet – Sect. F.

Site	Aquatic Vegetation	Algae Cover	Odor	Color	Bottom Deposit	Water Surface	Reptiles	Water Dependent Birds	Mammals	Evidence of Wildlife	Large Garbage in Channel	Small Garbage in Channel	Bank Garbage
RC01	A	R	N	Brown	Fine Sediment	Clear	N	N	SP	N	N	R	N
RC02	R	R	N	Clear/ Brown	Fine Sediment	Clear	N	N	N	Tracks/Fecal Droppings	N	R	N
RC03	A	A	N	Brown	Fine Sediment	Scum	N	N	N	Tracks/Fecal Droppings	R	R	R
RC04	C	A	N	Clear	Fine Sediment/ Gravelly/Sand	Clear/Scum/Oil	N	N	SP	Tracks/Fecal Droppings	R	R	N
RC05	R	R	N	Clear	Fine Sediment	Clear	N	N	N	Tracks	N	C	C
RC06	C	A	N	Clear	Fine Sediment	Clear	N	N	N	Tracks/Fecal Droppings/Bird Nests	R	R	N
RC07	R	C	N	Clear/ Brown	Fine Sediment	Clear	N	N	SP	Tracks/Fecal Droppings	R	N	C

Attachment 1: Rocky Creek Contact Information Form

Site	Aquatic Vegetation	Algae Cover	Odor	Color	Bottom Deposit	Water Surface	Reptiles	Water Dependent Birds	Mammals	Evidence of Wildlife	Large Garbage in Channel	Small Garbage in Channel	Bank Garbage
RC08	R	R	N	Clear/ Brown	Fine Sediment	Clear	N	N	N	Tracks/Fecal Droppings	R	R	R
RC09	R	C	N	Clear	Fine Sediment	Clear/Foam	N	N	SP	Tracks	R	C	N
RC10	C	C	C	Clear	Fine Sediment	Clear/Foam	N	N	N	Tracks	R	R	N
RC11	C	C	N	Clear	Solids/Fine Sediment	Clear	SP	N	SP	Tracks/Fecal Droppings	R	R	N
RC12	C	C	N	Clear/ Brown	Fine Sediment	Clear	N	N	SP	Tracks/Fecal Droppings	N	R	R
RC13	C	C	N	Clear/ Brown	Fine Sediment	Clear	N	SP	N	Tracks/Fecal Droppings	N	N	N
RC14	C	R	N	Clear/ Brown	Fine Sediment	Clear	N	N	N	N	N	N	N
RC15	C	C	N	Clear/ Brown	Fine Sediment	Clear	N	N	N	Tracks	N	N	N
RC16	C	A	N	Clear	Fine Sediment	Clear	N	N	N	Tracks/Fecal Droppings	N	R	N
RC17	C	A	C	Clear	Fine Sediment	Clear	N	N	N	N	N	N	N

RUAA Summary
(Not part of the Field Data Sheet)

This form should be filled out after RUAA data collection is completed. Use the Contact Information Form, Field Data Sheets from all sites, Historical Information Review, and other relevant information to answer the following questions on the water body.

Name of water body: Rocky Creek
Segment No. of Nearest Downstream Segment No.: 1602B
Classified?: No
County: Lavaca, Gonzales

1. Observations on Use

- a. Do primary contact recreation activities occur on the water body?
 frequently seldom not observed or reported unknown
- b. Do secondary contact recreation 1 activities occur on the water body?
 frequently seldom not observed or reported unknown
- c. Do secondary contact recreation 2 activities occur on the water body?
 frequently seldom not observed or reported unknown
- d. Do noncontact recreation activities occur on the water body?
 frequently seldom not observed or reported unknown

2. Physical Characteristics of Water Body

- a. What is the average thalweg depth? 0.29 meters
- b. Are there substantial pools deeper than 1 meter? Yes No
- c. What is the general level of public access?
 easy moderate very limited

3. Hydrological Conditions of site visits (Based on Palmer Drought Severity Index)

- Mild-Extreme Drought
- Incipient dry spell
- Near Normal
- Incipient wet spell
- Mild-Extreme Wet

References

- TCEQ, Texas Commission on Environmental Quality. 2014a. 2014 Texas Integrated Report of Surface Water Quality for Clean Water Act Sections 305(b) and 303(d), approved November 19, 2015. Available at https://www.tceq.texas.gov/assets/public/waterquality/swqm/assess/14txir/2014_303d.pdf (link verified August 4, 2017).
- TCEQ, Texas Commission on Environmental Quality. 2014b. Recreational Use-Attainability Analyses (RUAAs) - Procedures for a Comprehensive RUAA and a Basic RUAA Survey. (March 2014). Available on-line at: http://www.tceq.state.tx.us/assets/public/waterquality/standards/ruaa/Recreational%20UAA%20Procedures_Final_2014.pdf (link verified August 4, 2017).
- TCEQ, Texas Commission on Environmental Quality. 2014c. 2014 Texas Integrated Report - Water Bodies Evaluated, approved November 19, 2015. Available on-line at: http://www.tceq.state.tx.us/assets/public/waterquality/standards/ruaa/Recreational%20UAA%20Procedures_Final_2014.pdf (link verified August 4, 2017).
- TIAER, Texas Institute for Applied Environmental Research. 2017. Basin Approach to Address Bacterial Impairments in Basins 15, 16, 17: Recreational Use Attainability Analysis, Quality Assurance Project Plan, Rev. 0. Prepared by TIAER, Tarleton State University, Stephenville, TX.

Appendix A

Rocky Creek Contact Information Form

Contact Information Form

(This form must be completed prior to conducting a RUAA survey.)

River or stream name: Rocky Creek (1602B)

Notify the contacts that a recreational use-attainability analysis is being planned for the river or stream. Document whether or not the entity was notified, the name of the person contacted, and the date they were notified about the proposed RUAA project.

Required Local Contacts:

TCEQ region staff

Notified: Yes No Date: 31Jan2017
Name: See attached

Clean Rivers Program Partners
(River Authority and other local partners)

Notified: Yes No Date: 31Jan2017
Name: See attached

Texas Parks and Wildlife Department
Point of Contact: Cindy Hobson
512.389.8195
cindy.hobson@tpwd.texas.gov

Notified: Yes No Date: 31Jan2017
Name: See attached

Texas State Soil and Water Conservation Board
Point of Contact: TJ Helton
254.773.2250 ext. 234
thelton@tsswcb.texas.gov

Notified: Yes No Date: 31Jan2017
Name: See attached

Suggested Additional Contacts to Notify (Notify the contacts that a recreational use-attainability analysis is being planned for the river or stream. If contacted, include whether or not the entity was notified, the name of the person contacted, and the date they were notified about the proposed RUAA project on a separate page and attach is to this form):

Local Parks and Recreation Departments	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Local Government/Jurisdiction	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Local Recreation Groups	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Conservation Groups	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Local County Extension Agent	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Local Soil and Water Conservation Districts	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Watershed Groups	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Long-term Landowners/Adjacent Landowners	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Texas Stream Team	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Canoe Clubs	Yes <input type="checkbox"/>	No <input type="checkbox"/>
City Commissioners Office	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Real estate agents	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Local non-profits	Yes <input type="checkbox"/>	No <input type="checkbox"/>
City/county offices (Engineer, Health, Law Enforcement)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Flood control districts	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Councils of Government	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
TPWD Game Warden	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Other: <u>See attached</u>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Councils of Government

Gonzales County

Precinct 1 County Commissioner on 1/31/2017 (Contact: K.O. "Dell" Whiddon)

Lavaca County

Designated Rep. OSSF on 1/31/2017 (Contact: Gary Etzler)

Lavaca County FSA Executive Director on 1/31/2017 (Contact: Dawna Winkler)

Precinct 1 County Commissioner on 1/31/2017 (Contact: Edward Pustka)

Precinct 2 County Commissioner on 1/31/2017 (Contact: Ronald Berckenhoff)

Precinct 3 County Commissioner on 1/31/2017 (Contact: R.W. Brown)

Precinct 4 County Commissioner on 1/31/2017 (Contact: Dennis Kocian)

Jackson County

Former Jackson County Judge on 1/31/2017 (Contact: Harrison Stafford, II)

Septic and Development Permitting on 1/31/2017 (Contact: Lori McLennan)

DeWitt County

Precinct 2 County Commissioner on 1/31/2017 (Contact: James Pilchick, Sr.)

City of Hallettsville

Director of Public Works on 1/31/2017 (Contact: Otto Cervenka)

City Of Yoakum

Mayor on 1/31/2017 (Contact: Anita Rodriguez)

Council Members on 1/31/2017 (Contacts: Rodney Jahn, Tim McCoy, and Carl O'Neill)

Director of Public Works on 1/31/2017 (Contacts: Michael Bennett)

Water and Waste Water Superintendent on 1/31/2017 (Contact: Richard Clark)

City Of Moulton

Mayor on 1/31/2017 (Contact: Ervic Patek)

Council Members on 1/31/2017 (Contacts: Diane C. Rothbauer and Kelley Moeller)

Texas A&M AgriLife Extension Service

Lavaca County Extension Agent on 12/19/2016 (Contact: Shannon Deforest)

Gonzales County Extension Agent on 1/31/2017 (Contact: Dwight Sexton)

Texas State Soil and Water Conservation Board (TSSWCB)

Field Representative on 1/31/2017 (Contact: Brian Koch)

Texas State Soil and Water Conservation District (SWCD)

Gonzales SWCD on 1/31/2017 (Contact: J.D. Selman, Secretary)

Lavaca SWCD on 1/31/2017 (Contacts: Dennis Evins, Michael, Hanslik, Leon Jurena, Dennis Haas, Daniel Rother, and Phillip Geissen)

Jackson SWCD on 1/31/2017 (Contact: Pam Hiller)

Natural Resource Conservation Service

Hallettsville Center on 1/31/2017 (Contact: Chis Janak, Alice Wagner, James Smith, and Millie Stevens)

District Conservationist on 1/31/2017 (Contact: James Davis)

USDA Rural Development on 1/31/2017 (Contact: Dorothy Aupperle)

River Authority

Lavaca – Navidad River Authority (LNRA) on 1/31/2017 (Contacts: Doug Anders, Karen Gregory, and Brandon Byler)

Lavaca Regional Water Planning Group (LRWPG) on 1/31/2017 (Contacts: Jack Maloney, Ron Ellis)

Texas Commission on Environmental Quality (TCEQ)

Clean Rivers Program on 1/31/2017 (Contact: Kelly Rodibaugh)

Project Manager on 1/31/2017 (Contact: Lauren Ortel)

Texas Parks and Wildlife Department (TPWD)

Lavaca & Gonzales Counties Wildlife Biologist on 1/31/2017 (Contact: Brent Pierce)

Long-term Landowners/Adjacent Landowners/Local Businesses

Mail outs were sent to all 133 landowners on 1/31/2017

El Campo Farmer on 1/31/2017 (Contact: L.G. Raun)

Jackson Electric Cooperative, Inc. on 1/31/2017 (Contact: Jim Coleman)

El Campo Pharmacy on 1/31/2017 (Contact: Ed Weinheimer)