Missouri
Department of
Natural Resources

# Use Attainability Analysis

for

WBID 0531U-02 Tributary to Brushy Creek (Unclassified)

Submitted by
Alliance Water Resources, Inc.

To
Missouri Department of Natural Resources
Water Protection Program

Date Received: February 25, 2005

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WATER PROTECTION PROGRAM

February 22, 2005

Alliance Water Resources, Inc
PO Box 245 – 2311 East Grand Avenue
Cameron, MO 64429

Mr. Phil Schroeder
Missouri Department of Natural Resources
Water Protection Program
PO Box 176
Jefferson City, MO 65102

Dear Mr. Schroeder:

Over the past several weeks a Use Attainability Analysis (UAA) has been conducted on Brushy Creek. Brushy Creek is located in SE DeKalb and NW Caldwell counties. The UAA focused on a 3.5 mile stretch of Brushy Creek that begins at the City of Cameron WWTP 001 discharge (located in DeKalb County) to the second Brushy Creek, Highway 36 overpass (located in Caldwell County). The UAA was performed on a section of Brushy Creek that is currently unclassified. Brushy Creek becomes a classified stream at the confluence of Long Brach Creek, which is located approximately ~~3.8~~ 2.7 miles downstream from the City of Cameron WWTP 001 discharge.

The purpose of the UAA is to determine what uses are currently being attained in the abovementioned section of Brushy Creek. To determine the current attainment of uses, a creek survey was performed, and interviews with landowners and users of Brushy Creek were conducted. Data collected from these two activities is presented in this report.

If you have any questions, or find that there is insufficient data in the UAA to determine a use, please call me at 816-632-7361.

Sincerely,

Phil Webster, Alliance Water Resources, Inc. Local Manager, Cameron Division

**Use Attainability Analysis**
**Brushy Creek**

## Statement of the Issue

The UAA consisted of four steps: reviewing UAA protocol, conducting a survey of Brushy Creek, conducting interviews with landowners and creek users, and compiling the data into the final report.
The survey conducted on Brushy Creek occurred on October 31, 2004. The main purpose of the survey was to collect data on creek depths, signs of human use, and catalogue creek sites by location, description and photographic record. During the survey, observed signs of human use were two ATV crossings. The first located approximately 1.5 miles (2.4 km) from the WWTP 001 discharge, and the second, located approximately 3.2 miles (5.1 km) from the WWTP 001 discharge. Maximum water depths in the creek were measured at 3 feet (0.92 m), and the average depth of the creek was calculated at 1.38 feet (0.42 m). Maximum and average water depths listed in criteria #2 of the evaluation protocol for recreational use attainability analysis, are 3.28 feet (1 m), and 1.64 feet (0.5 m) respectively.[1]

For the interview phase of the study, a set of "open ended" questions was developed for people (young and old) who either: owned land around the creek, lived near the creek, or had a history of using the creek for recreational attainment. A total of 7 interviews were conducted. The interviews revealed that the primary uses of the creek were for agriculture (watering cows), and providing a preferred route of transportation for area hunters.

Based on data collected from the creek survey and interviews, the following attainment of uses were documented:[2]

- Use #2: Livestock and Wildlife Watering
- Use #9: Boating and Canoeing
- Use #13: Habitat for resident and migratory wildlife species
- Use #14: Recreational, cultural, educational, scientific, and natural aesthetic values and uses.

1- Recreation Use Attainability Analysis Protocol, Missouri Department of Natural Resources, Water Protection Program, September 29, 2004. Page 11.

2 - Recreation Use Attainability Analysis Protocol, Missouri Department of Natural Resources, Water Protection Program, September 29, 2004. Pages 7, 8, & 9.

## Presentation and Evaluation of Data

Brushy Creek Study Area

Brushy Creek begins in NE Clinton County as a Class C stream. As the creek flows north into extreme SE DeKalb County, the City of Cameron WWTP 001 discharge enters the creek. At this point the creek becomes a class P stream. The creek flows along the border between DeKalb and Caldwell Counties, and crosses Highway 36, flowing north. The creek meanders through agriculture land and bends to the east. At approximately 2 miles downstream from the 001 discharge, the creek flows under Sale Barn Road. The creek continues to meander east through more agriculture land. At approximately 3 miles (4.8 km) downstream from the 001 discharge the creek bends to the south and crosses under Highway 36 again. At approximately 3.8 miles (6.11 km) from the 001 discharge, Long Branch Creek enters Brushy Creek.

Brushy Creek is located geographically in the glaciated plains of NW Missouri. The topography of the area is gently rolling hills with steep to broad valleys. Land use in the area is predominately agricultural, with row cropping and beef production making up most of the agriculture economy. Creek channels tend to be cut well into the topography, and are typically lined with stands timber. There is abundant wildlife in the area, making hunting a popular activity. The area around the study area is lightly populated, typically a house for every 100 or so acres of ground.

Picture 1

A downstream view of Brushy Creek (location: 39 45 04 N; 94 12 19 W). This view is very typical of the first mile of the creek. Cobble and gravel predominate, with the creek meandering between pool and riffle. Maximum pool depth measured 2.5 feet (0.76 m).

Picture 2

A downstream view of Brushy Creek (location: 39 45 43 N, 94 11 42 W). This view is very typical of the second mile of the creek. Maximum pool depths measured 1.9 feet (0.58 m), Riffles becoming less predominant with pools being connected by narrow runs. Bars are composed of mud and sand. Creek bottom is composed of gravel overlaid in places by mud and sand.

Picture 3

Downstream view of Brushy Creek (location: 39 45 37 N; 94 10 44 W). This view is very typical of the third mile of the creek. Maximum pool depth measured 3 feet (0.92 M). Riffles are few, the creek meanders from run to pool. Bars are composed mostly of sand.

## Map

Copy of USGS topographic map (scale 1:24,000) . Map depicts study area with sites identified. Site #1 is the Cameron WWT plant 001 outfall structure. Site #12 is the second highway 36 overpass.

## Field Data Sheet for Recreational Use Stream Surveys

### Field Sheet A – Water Body Identification

**Water Body Name**: Brushy Creek
**8 Digit HUC:** 10280101
**Missouri WBID#:** 00531

DOQQ
KC East
- Winston
- Cameron East

**County**: DeKalb and Caldwell

**Upstream Legal Description:**

- SE1/4, SW1/4, Sec. 13, T57N, R30W, DeKalb County

**Downstream Legal Description:** All of the following:

- SE1/4, Sec. 13, T57N, R30W, DeKalb County
- NW1/4, Sec. 18, T57N, R29W, Caldwell County
- SE1/4, Sec. 7, T57N, R29W, Caldwell County
- SW1/4, Sec. 8, T57N, R29W, Caldwell County
- NE1/4, Sec. 17, T57N, R29W, Caldwell County

**Upstream Coordinates:** NA
**Downstream Coordinates:** Presented in Brushy Creek Survey data

**Discharger Facility Name:** Cameron Wastewater Treatment Facility
**Discharger Permit #:** MO-0104299

**Number of Sites Evaluated**: 12

**Name of Surveyor and Telephone Number:** Phil Webster, 816-632-7361
**Organization**: Alliance Water Resources, Inc.

**Position:** Local Manager

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: _____

Date: 2-23-05

**Brushy Creek Survey**

General Notes:

- Phil Webster conducted a survey of Brushy Creek on October 31, 2004. The survey started at 12:00 pm and ended at 3:30 pm.
- The survey began at the Cameron WWT plant 001 discharge structure (site #1) and concluded at the second highway 36 overpass (site #12), covering a distance of approximately 3.4 miles.
- The survey was conducted by physically walking the creek in order to take digital pictures, water depth measurements and GPS readings at significant locations.
- There were 3 road overpasses, one abandoned RR overpass, and two ATV crossings encountered during the survey.
- No other evidence of human use was observed. The surveyor specifically looked for burnt wood, fire rings, rope swings, trash (beer cans, bottles, etc.), footpaths, and foot tracks.
- Several species of wildlife and several schools of fish were observed during the survey.
- Field Data Sheet B – Site Characterization, is incorporated into the presentation of data collected from the Brushy Creek Survey.

Data

- Widths and lengths of runs, riffles and pools are approximations. Maximum depths are accurate measurements taken to the nearest inch. Average depth was calculated by averaging all depth measurements recorded during the survey. Flow was approximately by using daily flow data from the Cameron WWT plant.

**Weather**

- Weather for the day of the survey and the previous 7 days is listed in the table below:

| Date | Precipitation (inches) | Min. Temp | Max. Temp | Barometric Pressure | Wind |
|---|---|---|---|---|---|
| 10-24-04 | | 44 | 68 | 29.88 | 6mph-SSE |
| 10-25-04 | | 48 | 66 | 29.96 | 7mph-NNE |
| 10-26-04 | 0.64 | 55 | 65 | 29.93 | 5mph-NE |
| 10-27-04 | 0.35 | 57 | 63 | 30.04 | 7mph-ENE |
| 10-28-04 | | 57 | 72 | 29.96 | 9mph-SSE |
| 10-29-04 | 0.46 | 55 | 79 | 29.60 | 14mph-SSW |
| 10-30-04 | | 45 | 61 | 29.79 | 23mph-W |
| 10-31-04 | | 40 | 66 | 29.89 | 2mph-ESE |

- At the time of the survey, the temperature was in the 60's, with cloudy skies and light and variable winds.

Site #1

Location: 001 Discharge Structure

| | |
|---|---|
| Site GPS Coordinates | 39 44 58 N; 94 12 28 W |
| Date & Time | 10-31-04; 12 noon |
| Personnel | Phil Webster |
| Uses Observed | None |
| Surrounding Conditions | Stairs |
| Evidence of Human Use | NPDES Discharge |

Picture 4

Upstream View

Upstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Pool | 10 feet | ND | ND | ND |

Picture 5

Downstream View

Downstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Pool | 20 feet | 40 feet | 2.16 feet | 1.08 feet |

Substrate

| Cobble | Gravel | Sand | Silt | Mud/Clay | Bedrock |
|---|---|---|---|---|---|
| | 50% | | 10% | 40% | |

Water Characteristics

| Odor | Color | Bottom Deposit | Surface Deposit |
|---|---|---|---|
| None | Clear | Fine Sediments | None |

Aquatic Vegetation: Algae growth on approximately 25% of the creek bottom.
Flow: 2.4 $ft^3$/sec

Site #2

Location: Waterfall (downstream)

| | |
|---|---|
| Site GPS Coordinates | 39 45 04 N 94 12 19 W |
| Date & Time | 10-31-04 |
| Personnel | Phil Webster |
| Uses Observed | None |
| Surrounding Conditions | None |
| Evidence of Human Use | None |

Picture 6

Upstream View

Upstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Run | 15 feet | 50 feet | 1.33 feet | 0.67 feet |

Picture 7

Downstream View

Downstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Riffle | 15 feet | 40 feet | 0.58 feet | |

Substrate

| Cobble | Gravel | Sand | Silt | Mud/Clay | Bedrock |
|---|---|---|---|---|---|
| 50% | 50% | | | | |

Water Characteristics

| Odor | Color | Bottom Deposit | Surface Deposit |
|---|---|---|---|
| None | Clear | None | None |

Aquatic Vegetation: None
Flow: 2.4 $ft^3$/sec

Site #3

Location: Highway 36 Overpass

| | |
|---|---|
| Site GPS Coordinates | 39 45 04 N 94 12 19 W |
| Date & Time | 10-31-04 |
| Personnel | Phil Webster |
| Uses Observed | None |
| Surrounding Conditions | Steep Slopes |
| Evidence of Human Use | None |

Picture 8

Upstream View

Upstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Run | 10 feet | 40 feet | 1.25 feet | 0.63 feet |

Picture 9

Downstream View

Downstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Concrete Channel | 12 feet | 250 feet | ND | ND |

Substrate

| Cobble | Gravel | Sand | Silt | Mud/Clay | Bedrock |
|---|---|---|---|---|---|
| | 60% | | | 40% | |

Water Characteristics

| Odor | Color | Bottom Deposit | Surface Deposit |
|---|---|---|---|
| None | Clear | None | None |

Aquatic Vegetation: None
Flow: 2.4 $ft^3$/sec

Site #4

Location: Abandoned RR Crossing

| | |
|---|---|
| Site GPS Coordinates | 39 45 06 N 94 12 19 W |
| Date & Time | 10-31-04 |
| Personnel | Phil Webster |
| Uses Observed | None |
| Surrounding Conditions | Steep Slopes |
| Evidence of Human Use | None |

Picture 10

Upstream View

Upstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Pool | 20 feet | 50 feet | 2.31 feet | 1.16 feet |

Picture 11

Downstream View

Downstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Riffle | 7 feet | 15 feet | .41 feet | |

Substrate

| Cobble | Gravel | Sand | Silt | Mud/Clay | Bedrock |
|---|---|---|---|---|---|
| | 50% | | 25% | 25% | |

Water Characteristics

| Odor | Color | Bottom Deposit | Surface Deposit |
|---|---|---|---|
| None | Clear | Fine Sediments | None |

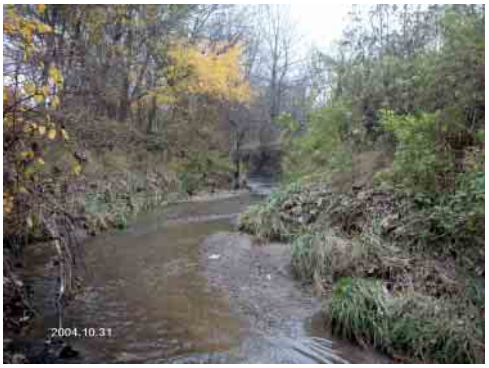
Aquatic Vegetation: None
Flow: 2.4 $ft^3$/sec

Site #5

Location: Another Creek #1

| | |
|---|---|
| Site GPS Coordinates | 39 45 33 N 94 12 07 W |
| Date & Time | 10-31-04 |
| Personnel | Phil Webster |
| Uses Observed | None |
| Surrounding Conditions | Steep Slopes |
| Evidence of Human Use | None |

Picture 12




Upstream View

Picture 13

Another Creek #1

Upstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Pool | 20 feet | 40 feet | 1.75 feet | 0.89 feet |

Picture 14

Downstream View

Downstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Run | 8 feet | 100 feet | 2.72 feet | 1.36 feet |

Substrate

| Cobble | Gravel | Sand | Silt | Mud/Clay | Bedrock |
|---|---|---|---|---|---|
| | 60% | 20% | | 20% | |

Water Characteristics

| Odor | Color | Bottom Deposit | Surface Deposit |
|---|---|---|---|
| None | Clear | None | None |

Aquatic Vegetation: None
Flow: 2.4 $ft^3$/sec

Site #6

Location: Another Creek #2

| | |
|---|---|
| Site GPS Coordinates | 39 45 38 N 94 11 52 W |
| Date & Time | 10-31-04 |
| Personnel | Phil Webster |
| Uses Observed | None |
| Surrounding Conditions | Steep Slopes |
| Evidence of Human Use | None |

Picture 15

Upstream View

Picture 16

Another Creek #2

Upstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Riffle | 10 feet | 20 feet | 0.5 feet | |

Picture 17

Downstream View

Downstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Run | 20 feet | 75 feet | 1.92 feet | 0.96 feet |

Substrate

| Cobble | Gravel | Sand | Silt | Mud/Clay | Bedrock |
|---|---|---|---|---|---|
| | 50% | 20% | | 30% | |

Water Characteristics

| Odor | Color | Bottom Deposit | Surface Deposit |
|---|---|---|---|
| None | Clear | None | None |

Aquatic Vegetation: None
Flow: 2.4 $ft^3$/sec

Site #7

Location: ATV Crossing #1

| | |
|---|---|
| Site GPS Coordinates | 39 45 42 N 94 11 20 W |
| Date & Time | 10-31-04, 2:00 pm |
| Personnel | Phil Webster |
| Uses Observed | ATV Tracks |
| Surrounding Conditions | ATV Tracks |
| Evidence of Human Use | ATV Crossing |

Picture 18

ATV Tracks

Upstream Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Riffle | 20 feet | 15 feet | 0.41 feet | |

Picture 19

Downstream

Downstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Run | 20 feet | 50 feet | 1.5 feet | 0.75 feet |

Substrate

| Cobble | Gravel | Sand | Silt | Mud/Clay | Bedrock |
|---|---|---|---|---|---|
| 75% | 25% | | | | |

Water Characteristics

| Odor | Color | Bottom Deposit | Surface Deposit |
|---|---|---|---|
| None | Clear | None | None |

Aquatic Vegetation: None
Flow: 2.4 $ft^3$/sec

Site #8

Location: Sale Barn Road Overpass

| | |
|---|---|
| Site GPS Coordinates | 39 45 39 N 94 11 10 W |
| Date & Time | 10-31-04, 2:20 pm |
| Personnel | Phil Webster |
| Uses Observed | None |
| Surrounding Conditions | Steep Slopes |
| Evidence of Human Use | None |

Picture 20

Upstream View

Upstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Run | 20 feet | 75 feet | 1.5 feet | 0.75 feet |

Picture 21

Downstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Run | 20 feet | 100 feet | 2.31 feet | 1.16 feet |

Substrate

| Cobble | Gravel | Sand | Silt | Mud/Clay | Bedrock |
|---|---|---|---|---|---|
| | 60% | 15% | | 25% | |

Water Characteristics

| Odor | Color | Bottom Deposit | Surface Deposit |
|---|---|---|---|
| None | Clear | Fine Sediments | None |

Aquatic Vegetation: None
Flow: 2.4 $ft^3$/sec

Site #9

Location: First Bend Past 'Boat Creek'

| | |
|---|---|
| Site GPS Coordinates | 39 45 40 N 94 10 52 W |
| Date & Time | 10-31-04 |
| Personnel | Phil Webster |
| Uses Observed | None |
| Surrounding Conditions | None |
| Evidence of Human Use | None |

Picture 22

Upstream View

Upstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Pool | 25 feet | 40 feet | 2.23 feet | 1.12 feet |

Picture 23

Downstream View

Downstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Riffle | 12 feet | 20 feet | 0.58 feet | |

Substrate

| Cobble | Gravel | Sand | Silt | Mud/Clay | Bedrock |
|---|---|---|---|---|---|
| | 50% | 25% | | 25% | |

Water Characteristics

| Odor | Color | Bottom Deposit | Surface Deposit |
|---|---|---|---|
| None | Clear | Fine Sediments | None |

Aquatic Vegetation: None
Flow: 2.4 $ft^3$/sec

Site #10

Location: Approximately 3 Miles Downstream From 001 Discharge Structure

| | |
|---|---|
| Site GPS Coordinates | 39 45 22 N 94 10 14 W |
| Date & Time | 10-31-04, 3:10 pm |
| Personnel | Phil Webster |
| Uses Observed | None |
| Surrounding Conditions | None |
| Evidence of Human Use | None |

Picture 24

Upstream View

Upstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Run | 20 feet | 50 feet | 0.58 feet | |

Picture 25

Downstream View

Downstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Run | 20 feet | 50 feet | 0.58 feet | |

Substrate

| Cobble | Gravel | Sand | Silt | Mud/Clay | Bedrock |
|---|---|---|---|---|---|
| | 50% | 25% | | 25% | |

Water Characteristics

| Odor | Color | Bottom Deposit | Surface Deposit |
|---|---|---|---|
| None | Clear | Fine Sediments | None |

Aquatic Vegetation: None

Flow: 2.4 $ft^3$/sec

Site #11

Location: ATV Crossing #2

| | |
|---|---|
| Site GPS Coordinates | 39 44 18 N 94 10 08 W |
| Date & Time | 10-31-04 |
| Personnel | Phil Webster |
| Uses Observed | None |
| Surrounding Conditions | None |
| Evidence of Human Use | ATV Crossing |

Picture 26

ATV Tracks

Upstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Run | 15 feet | 40 feet | 1.5 feet | 0.75 feet |

Picture 27

Downstream View

Downstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Run | 15 feet | 40 feet | 1.58 feet | 0.79 feet |

Substrate

| Cobble | Gravel | Sand | Silt | Mud/Clay | Bedrock |
|---|---|---|---|---|---|
| | 50% | 25% | | 25% | |

Water Characteristics

| Odor | Color | Bottom Deposit | Surface Deposit |
|---|---|---|---|
| None | Clear | Fine Sediment | None |

Aquatic Vegetation: None
Flow: 2.4 $ft^3$/sec

Site #12

Location: Highway 36 Overpass

| | |
|---|---|
| Site GPS Coordinates | 39 45 07 N 94 10 05 W |
| Date & Time | 10-31-04, 3:30 pm |
| Personnel | Phil Webster |
| Uses Observed | None |
| Surrounding Conditions | None |
| Evidence of Human Use | None |

Picture 28

Upstream View

Upstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Run | 15 feet | 40 feet | 3.0 feet | 1.5 feet |

Picture 29

Downstream View

Downstream View Physical Dimensions

| Feature | Width | Length | Max. Depth | Avg. Depth |
|---|---|---|---|---|
| Run | 15 feet | ND | ND | |

Substrate

| Cobble | Gravel | Sand | Silt | Mud/Clay | Bedrock |
|---|---|---|---|---|---|
| | 25% | 50% | | 25% | |

Water Characteristics

| Odor | Color | Bottom Deposit | Surface Deposit |
|---|---|---|---|
| None | Clear | Fine Sediments | None |

Aquatic Vegetation: None
Flow: 2.4 $ft^3$/sec

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on the UAA datasheets for sites 1 through 12, is true and accurate.

Signed: _____

Date: 2-23-05

Organization: Alliance Water Resources, Inc.

Position: Local Manager - Cameron Division

**Interviews**

The following interviews were conducted with landowners and/or creek users. Phil Webster conducted all interviews.

A specific set of questions was developed for the interviews. These questions are as follows:

- How do you utilize the creek?
- What value does the creek have to you?
- How many times do you use the creek?
- What are these uses?
- Do you know anyone who uses the creek?
- Do you plan to use the creek in the future?
- If, so what for?

The interviews consisted of me (Phil Webster), asking the questions, and writing down the answers to these questions. The interviews were either conducted in person or over the telephone. The results of the interviews are presented below in narrative form.

**Name: Cory Stuedel**
Date: 11-24-04

Note: Cory is a local resident, and a senior in high school.

Cory uses the creek to trap furbearers. Cory sets his traps in the creek at the second highway 36-bridge crossing, and at the old highway 36-bridge crossing. Cory stated that he would get creek water splashed on him while running his traps. Cory stated that he has set traps in the creek for several years and plans to continue to use the creek for trapping. Cory stated that he does not see any future changes in how he is using the creek.

**Name: Gene Robeson**
Date: 11-3-04

Note: Gene is a landowner.

Gene stated that he uses the creek to water his cows from late December to March. He also uses the creek to trap minnows. The creek is valuable to Gene because it saves him money when he uses the creek to water his cows. Gene uses the creek for approximately 3 months, every winter. Gene stated that he does not know of anyone who uses the creek other than his son (Scott). His son uses the creek when hunting. Gene stated that Cory Stuedel asked if he could run traps in the creek on Gene's property, but Gene denied the request because he does not want his dogs to get caught in the traps. Gene stated that he does not anticipate any changes in how he currently utilizes the creek.

**Name: Scott Robeson**
Date: 11-11-04

Note: Scott is Gene's son. He is a sophomore in college.

Scott stated that he uses the creek as a convenient way to get around when hunting. Scott stated that he used the creek to swim in once, about 6 or 7 years ago. Scott stated that he uses the creek every (deer) hunting season. Scott stated that a friend of his, Luke Schlorf, also uses the creek for hunting. Scott does not anticipate any changes in the way he uses the creek. Scott stated that he does not anticipate anyone using the creek for at least the next 10 to 15 years.

**Name: Mike Earley**
Date: 10-25-04

Note: Mike is a landowner.

Mike stated that he does not utilize the creek. Mike row crops in a field adjacent to the creek and stated that in dry years he can raise more crops (bushel per acre) because of the influence the creek has on increasing soil moisture. Mike stated that another landowner; Bill Watkins may utilize the creek. Mike stated that he may use the creek in the future for irrigation, but had no immediate plans to do so.

**Name: Betsy McClure**
Date: 10-25-04

Note: Betsy is a landowner.

Betsy stated that she does not utilize the creek. Betsy has seen hunters around the creek, but does not know who they are, and stated that she does not allow anyone to walk on her property in order to access the creek. Betsy remembers playing in the creek in the late 1970's.

**Name: Steve Heldenbrand**
Date: 10-27-04

Note: Steve is a landowner.

Steve stated that he does not use the creek but does hunt around it. Steve stated that he has no future plans to utilize the creek except, maybe for irrigation. Steve does not know of anyone who uses the creek.

**Name: Bill Watkins**
Date: 11-2-04

Note: Bill is a landowner.

Bill stated that he does not use the creek at all and that all it can be used for is to maybe catch minnows. Bill claims that the creek is too shallow for fishing. Bill stated that he has never used the creek, does not plan to use the creek, and does not know of anyone who uses the creek.