Use Attainability Analysis

for

Water Body Identification # 3113

Lateral Ditch #2

Conducted by:

Environmental Resources Coalition

To:

Missouri Department of Natural Resources
Water Protection Program

Submitted: July 14, 2005

Environmental Resources Coalition

Stream Description - WB ID: 3113 – Lateral Ditch #2

Lateral Ditch # 2 (WB 3113) is located in the Mississippi Lowlands physiographic region (Thom and Wilson 1980), which is characterized by rich alluvial soil and relatively level topography. The upstream portion of the water body is located in the city of Malden in northeastern Dunklin County and flows southwest into Main Ditch. Lateral Ditch # 2 is a three mile channelized class C stream of which one mile of the water body lies upstream of the Malden wastewater treatment facility (WWTF) (MO0100030) and the two remaining miles are below. The beginning of the reach is located at Highway J in the Malden city limits, and several residences are located nearby. The remaining two sites are located on county roads, and farm fields line the banks of the water body. Primary surroundings include the city of Malden and crop land.

Thom, R. H. and J. H. Wilson. 1980. The Natural Divisions of Missouri. Trans. Mo. Acad. Sci. 14: 9-23.

Note: During the first visit to each site, ERC selected an assessment location (either upstream or downstream) based on which side appeared deepest and or most likely for whole body recreation.

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet A: Water Body Identification

Water Body Name: Lateral Ditch # 2
8 – digit HUC: 08020204
Missouri WBID # 3113
County: Dunklin
Upstream Legal Description: Sec. 9, T22N, R10E, Dunklin County
Downstream Legal Description: Sec. 18, T22N, R10E, Dunklin County
Upstream Coordinates: Latitude 36.5641668 ° N , Longitude 89.9843053 ° W
Downstream Coordinates: Latitude 36.5432621 ° N , Longitude 90.0273773 ° W
Discharger Facility Name(s): Malden WWTF
Discharger Permit Number(s): MO0100030
Number of Sites Evaluated: 3
Name of Surveyor and Telephone Number: Robert R. Bacon, (573) 634-7078
Organization: Environmental Resources Coalition (ERC)
Position: Director of Aquatic Services

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

Signed: Robert R. Bacon

Date: 7-14-2005

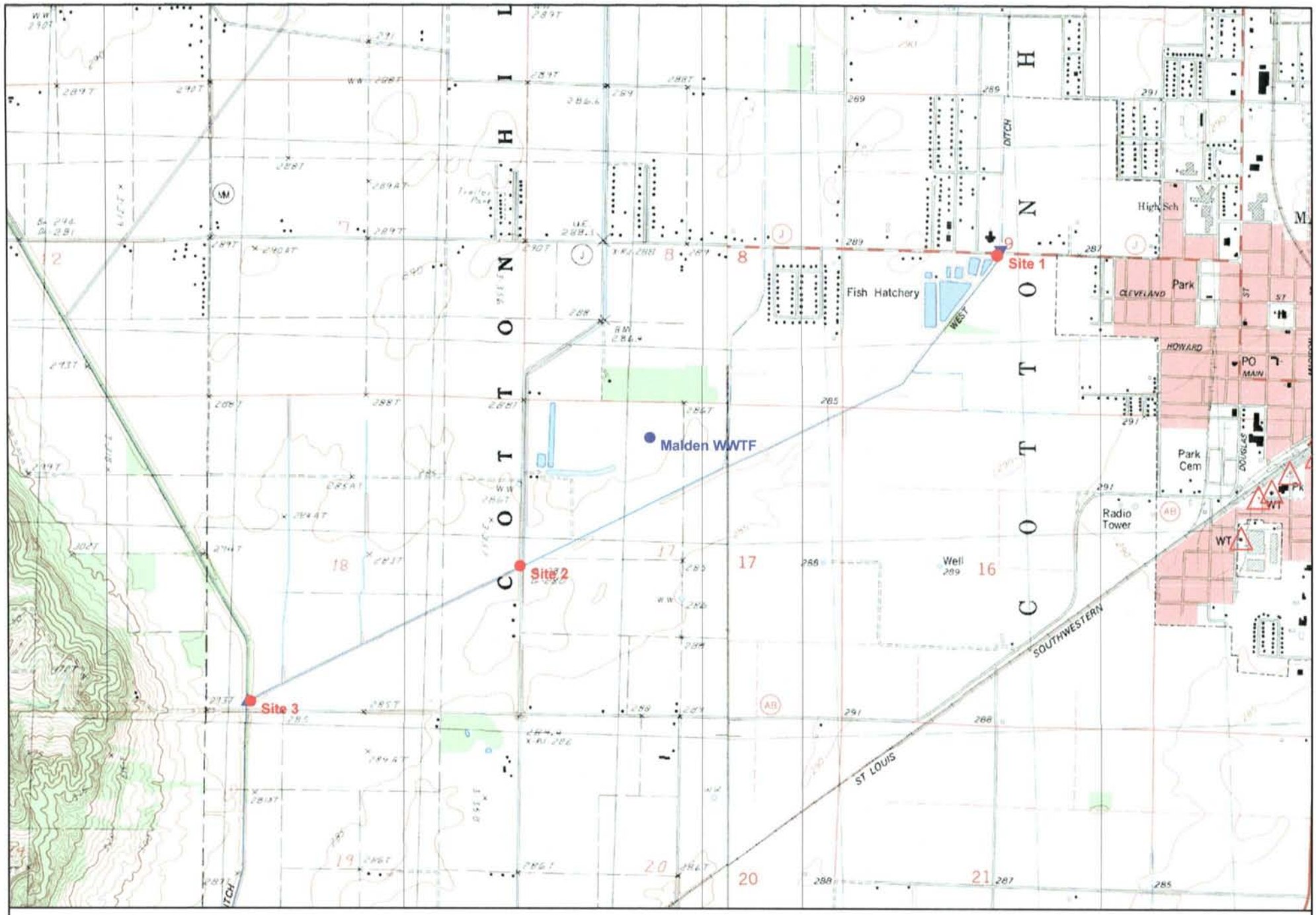
Weather Conditions

Weather conditions for the field surveys and the previous ten days are listed in the tables below.

Data from the Midwestern Regional Climate Center
Malden Municipal Airport, Station ID: 235207

Date	Precipitation (Inches)	Min. Temp (°F)	Max. Temp (°F)	Average Temp (°F)
04/05/2005	0	54	74	64
04/06/2005	0.31	56	73	65
04/07/2005	0.13	56	64	60
04/08/2005	0.26	52	62	57
04/09/2005	0	52	63	58
04/10/2005	0	54	69	62
04/11/2005	0	54	79	67
04/12/2005	0.85	57	65	61
04/13/2005	0.03	51	67	59
04/14/2005	0	45	55	50
04/15/2005	0	45	67	56

Date	Precipitation (Inches)	Min. Temp (°F)	Max. Temp (°F)	Average Temp (°F)
05/23/2005	0.01	63	89	76
05/24/2005	0	56	73	65
05/25/2005	0	56	64	60
05/26/2005	0	52	62	57
05/27/2005	0	52	63	58
05/28/2005	0	54	69	62
05/29/2005	0	54	79	67
05/30/2005	0	57	65	61
05/31/2005	0	51	67	59
06/01/2005	0	45	55	50
06/02/2005	0	45	67	56



Name: VALLEY RIDGE
Date: 7/4/2005
Scale: 1 inch equals 2000 feet

Location: 036.5545375° N 090.0039168° W

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WB # 3113 – Lateral Ditch # 2

Site # 1 - Off Hwy J

GPS Location	**36.563931 North**
	89.984501 West
Elevation (feet)	**352.1**

Upstream Views

**** Upstream views were out of the classified reach**

Downstream Views

04/15/05

06/02/05

Physical Dimensions – Site # 1

	04/15/05	06/02/05
Assessment Location	Downstream	Downstream
Time	11:55AM	2:21PM
Stream Type	Run	Run
Width (m)	7.47	3.05
Length (m)	91.44	91.44
Ave Depth (cm)	32.36	9.55
Maximum Depth (cm)*	48.5	16.0
Flow Present	No	No
Flow (cfs)	-	-
SUBSTRATE		
Cobble	0%	0%
Gravel	0%	0%
Sand	0%	0%
Silt	0%	0%
Mud / Clay	100%	100%
Bedrock	0%	0%
	100%	100%
OTHER		
Uses Observed	None	None
Evidence of Human Use (WBCR)	None	None
Aquatic Vegetation	30-40% cover (coontail) Duckweed (wolfia sp.)	95% cover Duckweed
Water Characteristics		
Odor	None	None
Color	Clear	Green (top cover)
Bottom Deposits	None	None
Surface Deposits	None	None

* Maximum depth is maximum measured depth within the stream cross-section

NOTES: Site # 1 uppermost point on Lateral Ditch # 2

4/15/05

- Stream 1.5-2 feet higher than previous visit 3/11/2005 (initial reconnaissance visit)

WB # 3113 – Lateral Ditch # 2

Site # 2 - County Rd 239

GPS Location 36.5495269 North
90.0119101 West

Upstream Views

04/15/05

06/02/05

Downstream Views

04/15/05

06/02/05

Physical Dimensions – Site # 2

	04/15/05	06/02/05
Assessment Location	Downstream	Downstream
Time	12:15PM	2:31PM
Stream Type	Run	Run
Width (m)	5.79	4.27
Length (m)	91.44	91.44
Ave Depth (cm)	17.95	16.27
Maximum Depth (cm)*	38.0	35.0
Flow Present	No	No
Flow (cfs)	-	-
SUBSTRATE		
Cobble	0%	0%
Gravel	0%	0%
Sand	0%	0%
Silt	80%	90%
Mud / Clay	20%	10%
Bedrock	0%	0%
	100%	100%
OTHER		
Uses Observed	None	None
Evidence of Human Use (WBCR)	None	None
Aquatic Vegetation	80% cover sub- and emergent, large mats of floating algae	60% cover sub- and emergent plants
Water Characteristics		
Odor	Strong sulfur smell	Sewage/trash
Color	Clear	Clear/murky
Bottom Deposits	Soft fluffy sediment/sludge	Spongy sediment
Surface Deposits	None	None

* Maximum depth is maximum measured depth within the stream cross-section

NOTES:

WB # 3113 – Lateral Ditch # 2

Site # 3 - County Rd 239

GPS Location **36.5432858 North**
90.0273507 West

Upstream Views

04/15/05

06/02/05

Downstream Views

**** Downstream views were out of the classified reach**

Physical Dimensions – Site # 3

	04/15/05	06/02/05
Assessment Location	Upstream	Upstream
Time	1:00 PM	3:05 PM
Stream Type	Run	Run
Width (m)	3.05	3.66
Length (m)	182.88	182.88
Ave Depth (cm)	21.67	21.31
Maximum Depth (cm)*	43.0	38.0
Flow Present	No	No
Flow (cfs)	-	-
SUBSTRATE		
Cobble	0%	0%
Gravel	0%	0%
Sand	0%	0%
Silt	40%	30%
Mud / Clay	60%	70%
Bedrock	0%	0%
	100%	100%
OTHER		
Uses Observed	None	None
Evidence of Human Use (WBCR)	None	None
Aquatic Vegetation	40-60% emergent plants	50% emergent plants
Water Characteristics		
Odor	None	None
Color	Murky	Turbid
Bottom Deposits	None	None
Surface Deposits	None	Foam

* Maximum depth is maximum measured depth within the stream cross-section

NOTES:

Site Descriptions

Site #1: Site #1 of Lateral Ditch #2 is located on Highway J in the city limits of Malden, and is the uppermost site of the reach. The banks were mowed due to city or nearby residence. This site is upstream of the Waste Water Treatment Facility (WWTF).

Site #2: Site #2 of Lateral Ditch #2 is located on County Road 239 and is surrounded by farm fields. There were numerous bags of trash on the banks as well as in the water body. When conducting the cross-section, the assessor sank approximately 2-2.5 feet due to soft bottom deposits, causing anoxic gases to emerge. After the assessor crossed the water body, the water appeared black due to resuspended bed material.

Site #3: Site #3 of Lateral Ditch #2 is located off Country Road 239, at which point it empties into Main Ditch. The banks of the stream are moderately steep, 6 to 8 feet and vegetated. There were several bags of trash at the site. Local residents frequent the site to shoot guns, which was evident in the numerous shotgun shells present. During the April 15th visit, a path from Lateral Ditch #2 to Main Ditch was visible, but was overgrown with plant growth by the second visit.

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

Signed: Robert R Bam

Date: 7-14-2005

Organization: ERC

Position: Dir of Aquatic Services

Summaries of Interviews

The following interviews were conducted by Robert Bacon, Abby Welschmeyer, and Anna Welschmeyer with landowners and creek users during the months of April and June of 2005. Questions were asked of the interviewee either in person or over the phone. Survey sheets were completed based on the information acquired by the interviewer. The questions asked are as follows:

- How long have you lived near this body of water?
- Do you or your family utilize this body of water for recreational activities?
- If not used, why?
- If used, what types of activities, what seasons, how many times per period, and what flow conditions (low, medium, or high)?
- Have you witnessed other people utilizing the water body? (If so, the aforementioned questions apply.)

To assist in the collection of interviews letters were developed detailing the water quality rule, our affiliation with the Missouri Department of Natural Resources and our contact information. These letters were left at residences nearby the water body where nobody answered the door. This turned out to be a very effective way of quickly collecting key interviews of people most familiar with the resource.

Date: 06/02/05
Time: 3:34 PM
Name: Bill Chambers
Reason for Interview: lives near site #1

Bill Chambers has lived near site #1 of Lateral Ditch #2 for 15 years and owns 32 acres adjacent to the water body. He does not use this stream for recreational activities, citing its unclean conditions. Mr. Chambers also commented that he has not witnessed any use of the stream.

Date: 06/02/05
Time: 3:52 PM
Name: Steve Santie
Reason for Interview: farms land near site #2

Steve Santie farms 1.5 miles along Lateral Ditch #2 near site #2, and has done so for 15 years. Mr. Santie stated that he does not need to use the water body and has never recreated in it. He remarked that he has seen locals fishing from the stream in the spring and summer months, or when the water body is at low flowing conditions.

Summaries of Interviews (cont'd)

Date: 06/02/05
Time: 3:12 PM
Name: Mary Reaves
Reason for Interview: owns land and lives near site #2

Mary Reaves has lived near and owned land along Lateral Ditch #2 for 40 years. She currently owns 113 acres near the water body, extending from the Waste Water Treatment Facility to site #2 (approximately 0.5 miles). Mrs. Reaves does not use the water body for recreating, stating that she has no need. She said she has seen people fishing from the stream in the spring, summer, and fall months.

Date: 06/02/05
Time: 3:00 PM
Name: Charles Miller
Reason for Interview: drove by site #2 during assessment- Chief Operator at Malden WWTF

Charles Miller has lived near Lateral Ditch #2 for 17 years and is the current chief operator at the Waste Water Treatment Facility in Malden. Mr. Miller says he does not use the stream for recreational use for several reasons, including the WWTF running into it, trash that locals dump in and near it, and several five to six foot long water moccasins that live nearby. Mr. Miller stated that no one gets in the water body because it is too trashy and there are too many snakes. "Only water goes in here," he commented.

Date: 06/02/05
Time: 3:05 PM
Name: David Cross
Reason for Interview: drove by site #2 during assessment- Malden WWTF Operator

David Cross has lived near Lateral Ditch #2 for 34 years and is a Waste Water Treatment Facility operator in Malden. He does not use the stream for recreation, stating that it is too trashy, has too many snakes leaving nearby, there is no depth to the water body, and he has no real need to frequent it. Mr. Cross said he has not seen anyone in the stream, and says the likely reason is because there are too many snakes, causing the water body to be unsafe.

Summaries of Interviews (cont'd)

Date: 04/16/05
Time: 12:10 PM
Name: Michael Smiley
Reason for Interview: was near site #3 at time of assessment

Michael Smiley has lived near Lateral Ditch #2 for 35 years. He does not use the stream for recreational activities, stating that it is 'nasty' and snake infested. Mr. Smiley commented that he has not seen anyone use the water body for recreation due to the snakes and the poor quality of the stream.