

Use Attainability Analysis

for

WBID 2393 Little Flat Creek

Submitted by

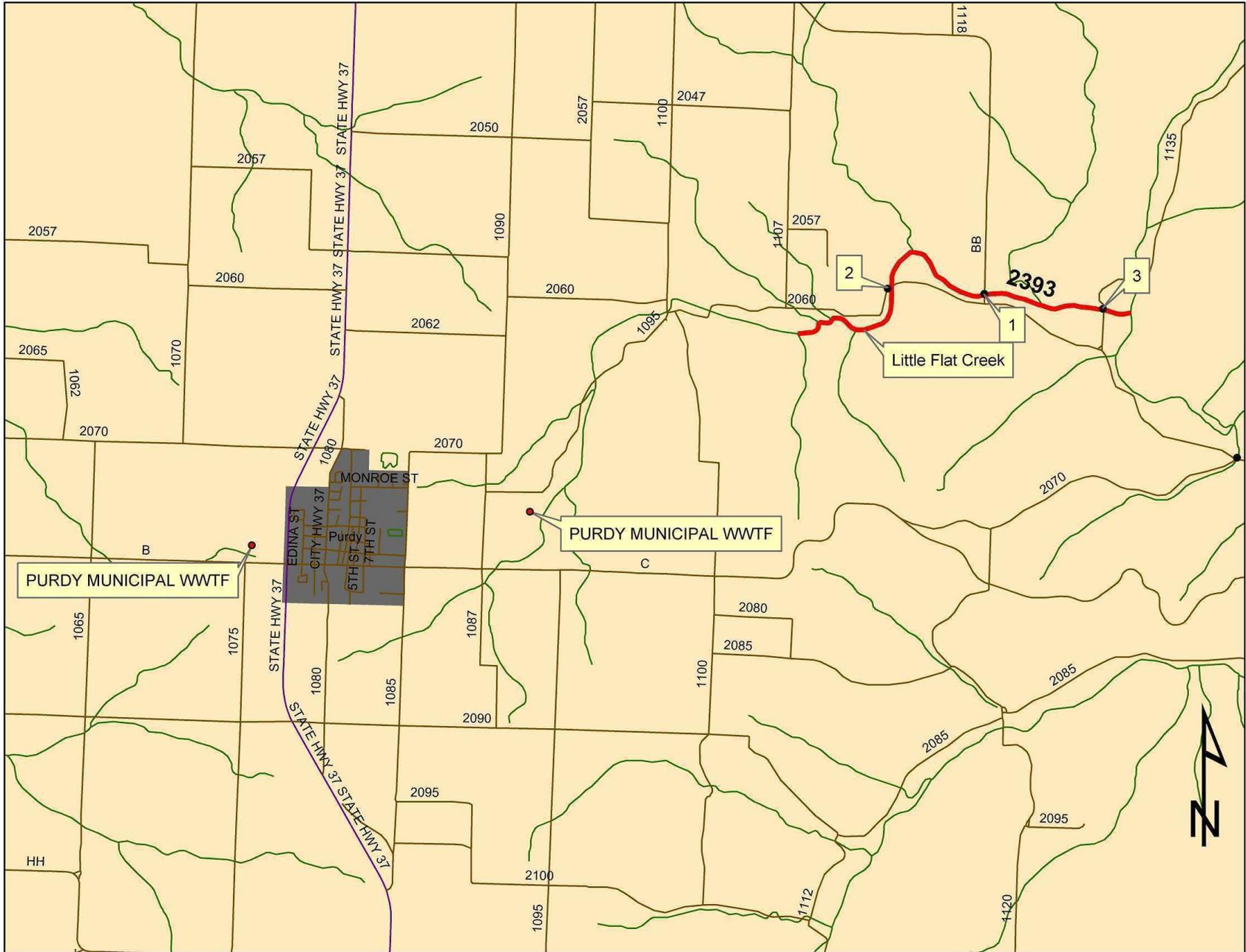
SES, Inc.

To

Missouri Department of Natural Resources

Water Protection Program

Date Received: June 4, 2007



Field Data Sheets for Recreation Use Stream Surveys
Data Sheet A - Water Body Identification
(For water body being surveyed)

Water Body Information

Water Body Name: Little Flat Creek	WBID: 2393
8 digit HUC code: 11010002	County: Barry
Upstream Legal Description 25N 27W 34	
Downstream Legal Description 25N 27W 25	
Number of Sites Evaluated 3	
List all site numbers, listed upstream to downstream	2,1,3

Discharger Facility Information

Discharger Facility Name(s): Purdy Municipal WWTF
Discharger Permit Number(s): MO0043222

UAA Surveyor

Name of Surveyor: Nolan Pringle	Telephone Number: (913)307-0046
Organization/Employer: SES, Inc.	
Position: Field Team Leader	

Signed: _____ Date: _____

Field Data Sheets for Recreational Use Stream Surveys
Data Sheet B - Site Characterization
(must be completed for each site)

WBID 2393
 Site # 1

Date and Time: 5/21/2007 9:45

Current Weather Conditions sunny, clear

Weather Conditions for Past 10 days: Rained about 0.65 inches on 5/15

Drought Conditions? No

Site Location (e.g. road crossing) At road crossing Hwy. BB

GPS Mark: 53

Upstream Photo 105 Downstream Photo 104

Uses Observed (Uses actually observed at time of survey) Circle

Swimming	Skin Diving	SCUBA diving	Tubing
Water Skiing	Wind Surfing	Kayaking	Boating
Wading	Rafting	Hunting	Trapping
Fishing	None of the Above	Other	

Surrounding Conditions

City/county parks	Playgrounds	MDC conservation lands	Urban areas
Campgrounds	Boating accesses	State parks	National Forests
Nature trails	Stairs/walkway	No trespass sign	Fence
Steep slopes	None of the Above	Other	

Indications of Human Use

Roads	Rope swings	Foot paths/prints	Dock/platform
Livestock Watering	RV/ATV Tracks	Camping Sites	Fire pit/ring
NPDES Discharge	Fishing Tackle	Other:	None of the Above

WBID # 2393 **Site #** 1
Mark # 53 **Dissolved Oxygen (ppm)** N/A
Upstream Views Physical Dimensions: Is there any water present at this view? no
 If so, is there an obvious current? no

Select one of the following channel features:

	% of Channel Feature				
Riffle	0				
Run	0				
Pool	0				

Downstream View's Physical Dimensions: Is there any water present at this view?
 If so, is there an obvious current?

Substrate:

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

Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site)

Vegetation scattered in dry stream.

Water Characteristics

Odor Sewage Musky Chemical **None** Other
 Color Clear Green Gray Milky **Other: N/A**
 Bottom Deposit Sludge Solids Fine Sed. **None** Other
 Surface Deposit Oil Scum Foam **None** Other

Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)

Site # 1

Mark # 53

Depth (m)		Depth (m)		Depth (m)	
Transect 1	0.00	Transect 5	0.00	Transect 9	0.00
Substrate:	0.00	Substrate:	0.00	Substrate:	0.00
gravel/cobble	0.00	gravel/cobble	0.00	gravel/cobble	0.00
Water Clarity:	0.00	Water Clarity:	0.00	Water Clarity:	0.00
	0.00		0.00		0.00
Channel Feature:	0.00	Channel Feature:	0.00	Channel Feature:	0.00
	0.00		0.00		0.00
Channel Width:	0.00	Channel Width:	0.00	Channel Width:	0.00
	0.00		0.00		0.00
0.00	0.00	0.00	0.00	0.00	0.00
Transect 2	0.00	Transect 6	0.00	Transect 10	0.00
Substrate:	0.00	Substrate:	0.00	Substrate:	0.00
gravel/cobble	0.00	gravel/cobble	0.00	gravel/cobble	0.00
Water Clarity:	0.00	Water Clarity:	0.00	Water Clarity:	0.00
	0.00		0.00		0.00
Channel Feature:	0.00	Channel Feature:	0.00	Channel Feature:	0.00
	0.00		0.00		0.00
Channel Width:	0.00	Channel Width:	0.00	Channel Width:	0.00
	0.00		0.00		0.00
0.00	0.00	0.00	0.00	0.00	0.00
Transect 3	0.00	Transect 7	0.00	Transect 11	0.00
Substrate:	0.00	Substrate:	0.00	Substrate:	0.00
gravel/cobble	0.00	gravel/cobble	0.00	gravel/cobble	0.00
Water Clarity:	0.00	Water Clarity:	0.00	Water Clarity:	0.00
	0.00		0.00		0.00
Channel Feature:	0.00	Channel Feature:	0.00	Channel Feature:	0.00
	0.00		0.00		0.00
Channel Width:	0.00	Channel Width:	0.00	Channel Width:	0.00
	0.00		0.00		0.00
0.00	0.00	0.00	0.00	0.00	0.00
Transect 4	0.00	Transect 8	0.00	Site Median	Site Maximum
Substrate:	0.00	Substrate:	0.00	0.00	0.00
gravel/cobble	0.00	gravel/cobble	0.00		
Water Clarity:	0.00	Water Clarity:	0.00		
	0.00		0.00		
Channel Feature:	0.00	Channel Feature:	0.00		
	0.00		0.00		
Channel Width:	0.00	Channel Width:	0.00		
	0.00		0.00		
0.00	0.00	0.00	0.00		

**Field Data Sheets for Recreational Use Stream Surveys
Data Sheet B - Site Characterization
(must be completed for each site)**

WBID 2393
Site # 2

Date and Time: 5/21/2007 10:15

Current Weather Conditions sunny, clear

Weather Conditions for Past 10 days: Rained about 0.65 inches on 5/15

Drought Conditions? No

Site Location (e.g. road crossing) At crossing 2060

GPS Mark: 54

Upstream Photo 106 Downstream Photo 107

Uses Observed (Uses actually observed at time of survey) Circle

Swimming	Skin Diving	SCUBA diving	Tubing
Water Skiing	Wind Surfing	Kayaking	Boating
Wading	Rafting	Hunting	Trapping
Fishing	None of the Above	Other	

Surrounding Conditions

City/county parks	Playgrounds	MDC conservation lands	Urban areas
Campgrounds	Boating accesses	State parks	National Forests
Nature trails	Stairs/walkway	No trespass sign	Fence
Steep slopes	None of the Above	Other	

Indications of Human Use

Roads	Rope swings	Foot paths/prints	Dock/platform
Livestock Watering	RV/ATV Tracks	Camping Sites	Fire pit/ring
NPDES Discharge	Fishing Tackle	Other: None of the Above	

WBID # 2393 **Site #** 2
Mark # 54 **Dissolved Oxygen (ppm)** N/A
Upstream Views Physical Dimensions: Is there any water present at this view? no
 If so, is there an obvious current? no

Select one of the following channel features:

	% of Channel Feature				
Riffle	0				
Run	0				
Pool	0				

Downstream View's Physical Dimensions: Is there any water present at this view?

If so, is there an obvious current?

Substrate:

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

Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site)

Vegetation scattered throughout dried stream bed.

Water Characteristics

Odor	Sewage	Musky	Chemical	None	Other
Color	Clear	Green	Gray	Milky	Other:N/A
Bottom Deposit	Sludge	Solids	Fine Sed.	None	Other
Surface Deposit	Oil	Scum	Foam	None	Other

*** NOTES:** Creek goes underground and flows only once a year, according to local. Needs at least 6 inches of rainfall.

Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)

Site # 2

Mark # 54

Transect 1		Transect 5		Transect 9	
Depth (m)		Depth (m)		Depth (m)	
0.00		0.00		0.00	
Substrate:	0.00	Substrate:	0.00	Substrate:	0.00
gravel/cobble	0.00	gravel/cobble	0.00	gravel/cobble	0.00
Water Clarity:	0.00	Water Clarity:	0.00	Water Clarity:	0.00
	0.00		0.00		0.00
Channel Feature:	0.00	Channel Feature:	0.00	Channel Feature:	0.00
	0.00		0.00		0.00
Channel Width:	0.00	Channel Width:	0.00	Channel Width:	0.00
	0.00		0.00		0.00
0.00	0.00	0.00	0.00	0.00	0.00
Transect 2	0.00	Transect 6	0.00	Transect 10	0.00
Substrate:	0.00	Substrate:	0.00	Substrate:	0.00
gravel/cobble	0.00	gravel/cobble	0.00	gravel/cobble	0.00
Water Clarity:	0.00	Water Clarity:	0.00	Water Clarity:	0.00
	0.00		0.00		0.00
Channel Feature:	0.00	Channel Feature:	0.00	Channel Feature:	0.00
	0.00		0.00		0.00
Channel Width:	0.00	Channel Width:	0.00	Channel Width:	0.00
	0.00		0.00		0.00
0.00	0.00	0.00	0.00	0.00	0.00
Transect 3	0.00	Transect 7	0.00	Transect 11	0.00
Substrate:	0.00	Substrate:	0.00	Substrate:	0.00
gravel/cobble	0.00	gravel/cobble	0.00	gravel/cobble	0.00
Water Clarity:	0.00	Water Clarity:	0.00	Water Clarity:	0.00
	0.00		0.00		0.00
Channel Feature:	0.00	Channel Feature:	0.00	Channel Feature:	0.00
	0.00		0.00		0.00
Channel Width:	0.00	Channel Width:	0.00	Channel Width:	0.00
	0.00		0.00		0.00
0.00	0.00	0.00	0.00	0.00	0.00
Transect 4	0.00	Transect 8	0.00	Site Median	Site Maximum
Substrate:	0.00	Substrate:	0.00		
gravel/cobble	0.00	gravel/cobble	0.00	0.00	0.00
Water Clarity:	0.00	Water Clarity:	0.00		
	0.00		0.00		
Channel Feature:	0.00	Channel Feature:	0.00		
	0.00		0.00		
Channel Width:	0.00	Channel Width:	0.00		
	0.00		0.00		
0.00	0.00	0.00	0.00		

**Field Data Sheets for Recreational Use Stream Surveys
Data Sheet B - Site Characterization
(must be completed for each site)**

WBID 2393
Site # 3

Date and Time: 5/21/2007 10:45

Current Weather Conditions sunny, clear

Weather Conditions for Past 10 days: Rained about 0.65 inches on 5/15

Drought Conditions? No

Site Location (e.g. road crossing) At road crossing

GPS Mark: 56

Upstream Photo 108 Downstream Photo 109

Uses Observed (Uses actually observed at time of survey) Circle

Swimming	Skin Diving	SCUBA diving	Tubing
Water Skiing	Wind Surfing	Kayaking	Boating
Wading	Rafting	Hunting	Trapping
Fishing	None of the Above	Other	

Surrounding Conditions

City/county parks	Playgrounds	MDC conservation lands	Urban areas
Campgrounds	Boating accesses	State parks	National Forests
Nature trails	Stairs/walkway	No trespass sign	Fence
Steep slopes	None of the Above	Other	

Indications of Human Use

Roads	Rope swings	Foot paths/prints	Dock/platform
Livestock Watering	RV/ATV Tracks	Camping Sites	Fire pit/ring
NPDES Discharge	Fishing Tackle	Other:	None of the Above

WBID # 2393 **Site #** 3
Mark # 56 **Dissolved Oxygen (ppm)** N/A
Upstream Views Physical Dimensions: Is there any water present at this view? no
 If so, is there an obvious current? no

Select one of the following channel features:

	% of Channel Feature				
Riffle	0				
Run	0				
Pool	0				

Downstream View's Physical Dimensions: Is there any water present at this view?
 If so, is there an obvious current?

Substrate:

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

Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site)

Vegetation scattered throughout dried stream bed.

Water Characteristics

Odor	Sewage	Musky	Chemical	None	Other
Color	Clear	Green	Gray	Milky	Other: N/A
Bottom Deposit	Sludge	Solids	Fine Sed.	None	Other
Surface Deposit	Oil	Scum	Foam	None	Other

Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)

Site # 3

Mark # 56

Depth (m)		Depth (m)		Depth (m)	
Transect 1	0.00	Transect 5	0.00	Transect 9	0.00
Substrate:	0.00	Substrate:	0.00	Substrate:	0.00
gravel/cobble	0.00	gravel/cobble	0.00	gravel/cobble	0.00
Water Clarity:	0.00	Water Clarity:	0.00	Water Clarity:	0.00
	0.00		0.00		0.00
Channel Feature:	0.00	Channel Feature:	0.00	Channel Feature:	0.00
	0.00		0.00		0.00
Channel Width:	0.00	Channel Width:	0.00	Channel Width:	0.00
	0.00		0.00		0.00
0.00	0.00	0.00	0.00	0.00	0.00
Transect 2	0.00	Transect 6	0.00	Transect 10	0.00
Substrate:	0.00	Substrate:	0.00	Substrate:	0.00
gravel/cobble	0.00	gravel/cobble	0.00	gravel/cobble	0.00
Water Clarity:	0.00	Water Clarity:	0.00	Water Clarity:	0.00
	0.00		0.00		0.00
Channel Feature:	0.00	Channel Feature:	0.00	Channel Feature:	0.00
	0.00		0.00		0.00
Channel Width:	0.00	Channel Width:	0.00	Channel Width:	0.00
	0.00		0.00		0.00
0.00	0.00	0.00	0.00	0.00	0.00
Transect 3	0.00	Transect 7	0.00	Transect 11	0.00
Substrate:	0.00	Substrate:	0.00	Substrate:	0.00
gravel/cobble	0.00	gravel/cobble	0.00	gravel/cobble	0.00
Water Clarity:	0.00	Water Clarity:	0.00	Water Clarity:	0.00
	0.00		0.00		0.00
Channel Feature:	0.00	Channel Feature:	0.00	Channel Feature:	0.00
	0.00		0.00		0.00
Channel Width:	0.00	Channel Width:	0.00	Channel Width:	0.00
	0.00		0.00		0.00
0.00	0.00	0.00	0.00	0.00	0.00
Transect 4	0.00	Transect 8	0.00	Site Median	Site Maximum
Substrate:	0.00	Substrate:	0.00	0.00	0.00
gravel/cobble	0.00	gravel/cobble	0.00		
Water Clarity:	0.00	Water Clarity:	0.00		
	0.00		0.00		
Channel Feature:	0.00	Channel Feature:	0.00		
	0.00		0.00		
Channel Width:	0.00	Channel Width:	0.00		
	0.00		0.00		
0.00	0.00	0.00	0.00		

WBID# 2393 Little Flat Creek



Site# 1 Photo ID# 105, Downstream



Site# 1 Photo ID# 104, Upstream



Site# 2 Photo ID# 107, Downstream



Site# 2 Photo ID# 106, Upstream

WBID# 2393 Little Flat Creek



Site# 3 Photo ID# 109, Downstream



Site# 3 Photo ID# 108, Upstream