

Use Attainability Analysis

for

WBID 2168 Flat River Creek

Submitted by

Missouri Department of Natural Resources Staff

To

Missouri Department of Natural Resources  
Water Protection Program

**Field Data Sheets for Recreational Use Stream Surveys**

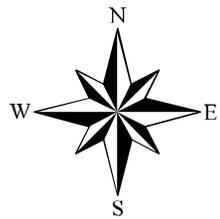
**Data Sheet A - Water Body Identification**

Water Body Name: (from USGS 7.5' quad)	Flat River Creek
8-digit HUC:	7146104 ?
Missouri WBID #:	2168
County:	St. Francois
Upstream Legal Description:	
Downstream Legal Description:	
Upstream Coordinates: (UGS 84, ddd.dddd)	001 90.58854 / 37.81567
Downstream Coordinates: (UGS 84, ddd.dddd)	007 90.50335 / 37.88350
Discharger Facility Name(s):	
Discharger Permit Number(s):	
Number of Sites Evaluated:	7
Name of Surveyor and Telephone Number:	Mary Clark 573-526-1002
Organization:	MONR
Position:	EST

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

Signed: Mary Clark Date: 6-17-05

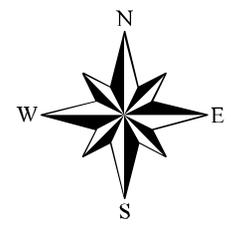
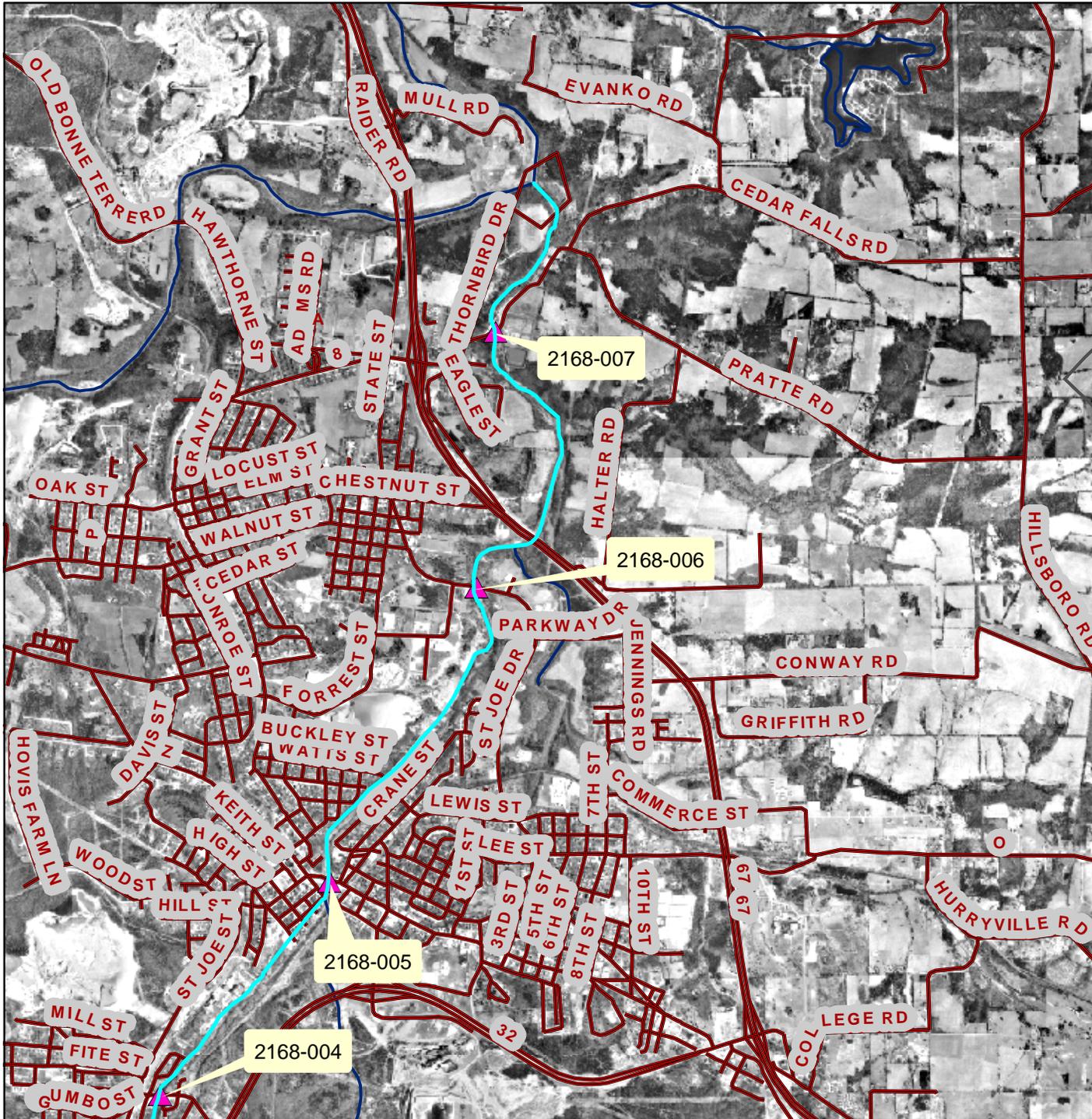
# Flat River Creek (C) #2168 St. Francois County Part One



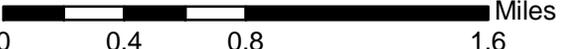
## Legend

-  Roads
  -  Classified Waterbodies
- 0 0.35 0.7 1.4 Miles

# Flat River Creek (C) #2168 St. Francois County Part Two



## Legend

-  Roads
  -  Classified Waterbodies
-  Miles  
0 0.4 0.8 1.6

**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B - Site Characterization**  
(A separate data sheet must be completed for each site)

Missouri WBID #: <i>216P-001</i>	Site Location Description:	
Site GPS Coordinates: <i>90, 58654/37.61567</i>	<i>Dennis Crossing over Flat R. Creek</i>	
Date & Time: <i>6-16-05 11:30 am</i>	Facility Name:	
Personnel: <i>Mary Clark</i>	Permit Number:	
Current Weather Conditions: <i>pt cldy</i>	Weather Conditions for Past 7 days: <i>?</i>	
Photo Ids: Upstream: <i>381</i>	Downstream: <i>379</i>	Other: <i>380 H. branch</i>

**Uses Observed\*:**

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

**Evidence of Human Use\*:**

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

**Stream Morphology:**

Upstream View Physical Dimensions: *fence across creek*

<input checked="" type="checkbox"/> Riffle	Width (ft): 12	Length (ft): 8	Avg. Depth (ft): 0.33	Max. Depth (ft): 0.5
<input checked="" type="checkbox"/> Run	Width (ft): 18	Length (ft): 75	Avg. Depth (ft): 1	Max. Depth (ft): 1.5
<input checked="" type="checkbox"/> Pool	Width (ft): 30	Length (ft): 15	Avg. Depth (ft): 1	Max. Depth (ft): 1.75
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Estimated (velocity): <i>vel ± 1ft/sec</i>	

**Downstream View Physical Dimensions:**

<input checked="" type="checkbox"/> Riffle	Width (ft): 6	Length (ft): 12	Avg. Depth (ft): 0.2	Max. Depth (ft): 0.33
<input checked="" type="checkbox"/> Run	Width (ft): 6	Length (ft): 30	Avg. Depth (ft): 0.25	Max. Depth (ft): 0.5
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Estimated (velocity): <i>vel ~ 1ft/sec below riffle</i>	

**Substrate\*:** (These values should add up to 100%)

40 % Cobble	40% Gravel	10 % Sand	% Silt	% Mud/Clay	10% Bedrock
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**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

*some Lemna in pool; floating algal mats; 85% of stream macroin creek both sides of bridge; eared w/algae*

**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Other: <i>algae</i>

**Comments:** Please attach additional comments (including information from interviews) to this form.

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

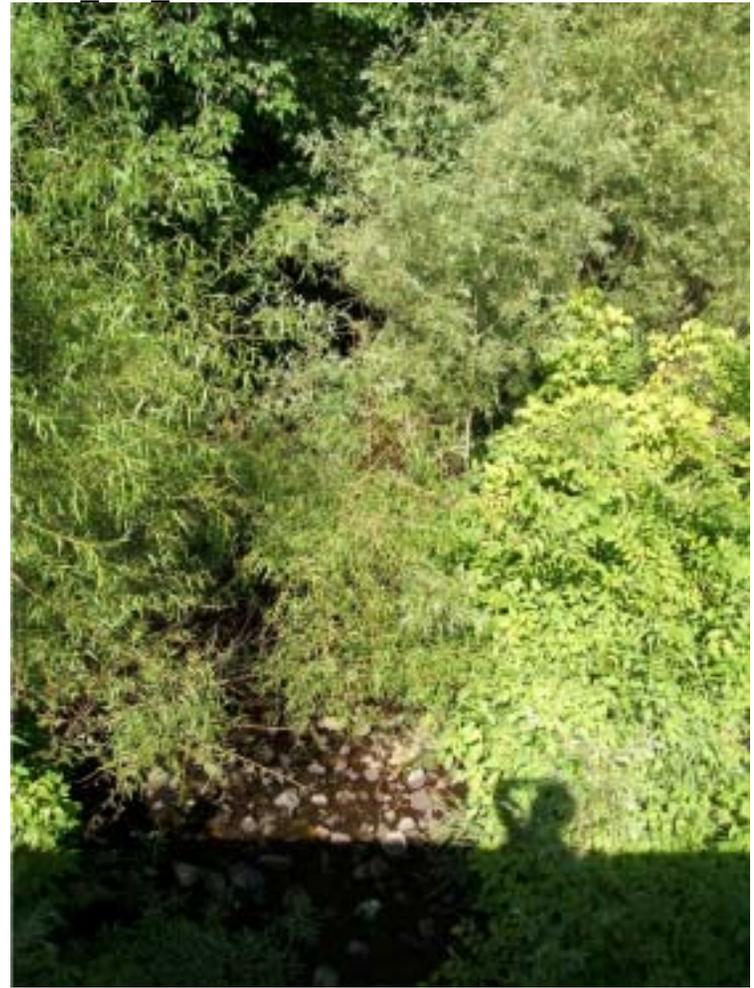
Signed: *Mary Clark* Date: *6-16-05*

Organization: *MONK* Position: *ESTII*

2168\_001\_US



2168\_001\_DS



2168\_001\_DS



**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: <i>2168-002</i>	Site Location-Description: <i>north of Old Bismark Rd.</i>	
Site GPS Coordinates: <i>90.57048/37.61804</i>	<i> Hwy 32 crossing Plat r. cr.</i>	
Date & Time: <i>10-10-05 4:00</i>	Facility Name:	
Personnel: <i>Mary Clarke</i>	Permit Number:	
Current Weather Conditions: <i>pt, cldy</i>	Weather Conditions for Past 7 days: <i>&gt;</i>	
Photo Ids: Upstream: <i>377</i>	Downstream: <i>378</i>	Other: <i>-</i>

**Uses Observed\*:**

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

*trailer #1 is next to Hwy.*

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input checked="" type="checkbox"/> Campgrounds ?
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

*trailer  
see  
along  
rte.*

**Evidence of Human Use\*:**

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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**Stream Morphology:**

**Upstream View Physical Dimensions:**

ear ridge up st.

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>15</u>	Length (ft): <u>50</u>	Avg. Depth (ft): <u>71.0</u>	Max. Depth (ft): <u>71.5</u>
<input checked="" type="checkbox"/> Pool	Width (ft): <u>50</u>	Length (ft): <u>30</u>	Avg. Depth (ft): <u>1.5</u>	Max. Depth (ft): <u>≤ 3</u>
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec):		<u>very slow vel. in pool</u>

Big fish

**Downstream View Physical Dimensions:**

ear ridge DS

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>35</u>	Length (ft): <u>60</u>	Avg. Depth (ft): <u>1</u>	Max. Depth (ft): <u>≤ 3</u>
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec):		

**Substrate\*:** (These values should add up to 100%.)

<u>30</u> % Cobble	<u>30</u> % Gravel	<u>5</u> % Sand	% Silt	% Mud/Clay	<u>35</u> % Bedrock
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**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

floating algal mats (yellow green) also rust colored algal mats. macro in stream + edges. 50% of bed covered w/ algae.

**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear <u>&amp; in bed green</u>	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Other: <u>algae</u>

**Comments:** Please attach additional comments (including information from interviews) to this form.

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

Signed: Mary Clow E Date: 6-16-05

Organization: MORRIS Position: ES III

2168\_002\_US



2168\_002\_DS



**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B - Site Characterization**  
(A separate data sheet must be completed for each site)

Missouri WBID #: <i>2168-003</i>	Site Location Description: <i>near Rt. B</i>
Site GPS Coordinates: <i>90.53778/37.82644</i>	<i>Highway 32 Bridge near Flat R. ch.</i>
Date & Time: <i>6-16-05 3:15</i>	Facility Name:
Personnel: <i>Mary Clark</i>	Permit Number:
Current Weather Conditions: <i>cloudy</i>	Weather Conditions for Past 7 days: <i>?</i>
Photo Ids: Upstream: <i>374375</i> Downstream: <i>376</i> Other:	

**Uses Observed\*:**

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

*At entrance to St. Joe State Park - St. P. Boundary signs along S. side of bridge row*

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input checked="" type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input checked="" type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other: <i>picnic table, launch chain in island of creek</i>	

**Evidence of Human Use\*:**

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other: <i>picnic tables, launch chain in island of creek</i>				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

much of stream is dead-rock-covered by cobble gravel on end.

Stream Morphology:

**Upstream View Physical Dimensions:** Bedrock cascade

<input checked="" type="checkbox"/> Riffle	Width (ft): 12	Length (ft): 8	Avg. Depth (ft): 0.2	Max. Depth (ft): 0.3
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Estimated (ft <sup>3</sup> /sec): 0.1 ft / sec	

**Downstream View Physical Dimensions:**

<input checked="" type="checkbox"/> Riffle	Width (ft): 5	Length (ft): 5	Avg. Depth (ft): 0.1	Max. Depth (ft): 0.25
<input checked="" type="checkbox"/> Run	Width (ft): 20	Length (ft): 45	Avg. Depth (ft): 0.75	Max. Depth (ft): 2.1
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Estimated (ft <sup>3</sup> /sec):	

**Substrate\*:** (These values should add up to 100%) easy access to OS

5 % Cobble	15 % Gravel	5 % Sand	% Silt	% Mud/Clay	75 % Bedrock
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**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

macro-willows, algae - 10% covered

**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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

Signed: Mary Clark Date: 6-16-05

Organization: MONK Position: EST

2168\_003\_US



2168\_003\_US



2168\_003\_DS



**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B - Site Characterization**  
(A separate data sheet must be completed for each site)

*in Port Hills*

Missouri WBID #: <i>2168-004</i>	Site Location Description: <i>at River St.</i>	
Site GPS Coordinates: <i>no GPS</i>	<i>E Elvins rd Bridge over Flatk</i>	
Date & Time: <i>6-17-05 (10:30<sup>AM</sup>)</i>	Facility Name:	
Personnel: <i>Mary Clark</i>	Permit Number:	
Current Weather Conditions: <i>Sunny</i>	Weather Conditions for Past 7 days: <i>?</i>	
Photo Ids: Upstream: <i>16</i>	Downstream: <i>17</i>	Other:

**Uses Observed\*:**

*my camera*

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

*House + business adjacent to creek*

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input checked="" type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: <i>new bridge</i>	

*minnows, large banded water snake*

**Evidence of Human Use\*:**

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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**Stream Morphology:**

**Upstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): 35	Length (ft): 125	Avg. Depth (ft): 0.33	Max. Depth (ft): 0.5
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Estimated (ft <sup>3</sup> /sec): <i>vel below riffle &lt; 1 ft/sec</i>	

**Downstream View Physical Dimensions:**

<input checked="" type="checkbox"/> Riffle	Width (ft): 6	Length (ft): 3	Avg. Depth (ft): 0.1	Max. Depth (ft): 0.25
<input checked="" type="checkbox"/> Run	Width (ft): 25	Length (ft): 100	Avg. Depth (ft): 0.33	Max. Depth (ft): 0.5
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Estimated (ft <sup>3</sup> /sec):	

**Substrate\*:** (These values should add up to 100%.)

10 % Cobble	10 % Gravel	% Sand	% Silt	% Mud/Clay	80 % Bedrock
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**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

90-100% covered w/ algae. Surface floating algae, also near bank algae

**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other: <i>algae</i>
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Other: <i>algae</i>

**Comments:** Please attach additional comments (including information from interviews) to this form.

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

Signed: Mary Clark Date: 6-17-05

Organization: MDNR Position: ES III

Stream Morphology: *Wetlands Downstream with large gravel bar in middle*  
*Wetlands upstream too*

Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>18</u>	Length (ft): <u>76</u>	Avg. Depth (ft): <u>6.5</u>	Max. Depth (ft): <u>1.0</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Estimated (ft <sup>3</sup> /sec):	

Downstream View Physical Dimensions:

*from  
washed  
15 ft  
ridge*

<input checked="" type="checkbox"/> Riffle	Width (ft): <u>2</u>	Length (ft): <u>20</u>	Avg. Depth (ft): <u>0.33</u>	Max. Depth (ft): <u>0.5</u>
<input checked="" type="checkbox"/> Run	Width (ft): <u>25</u>	Length (ft): <u>125</u>	Avg. Depth (ft): <u>0.4</u>	Max. Depth (ft): <u>≥ 0.5</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Estimated (ft <sup>3</sup> /sec): <u>vel ≤ 1 ft/sec</u>	

*rice edge fish downstream*

Substrate\*: (These values should add up to 100%.)

<u>30</u> % Cobble	<u>10</u> % Gravel	<u>10</u> % Sand	% Silt	% Mud/Clay	<u>50</u> % Bedrock
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Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

*wetland w/ lots of macro - willow, sp. grass, some  
algae cover 50% of open area - mostly along flowing*

Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments <sup><i>coarse bottom</i></sup>	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

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

Signed: May S. Clark *estimated based on my observations* Date: 6-16-05

Organization: MONK Position: ES III

**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: <i>2108-605</i>	Site Location Description: <i>(West of Harley St.)</i>	
Site GPS Coordinates: <i>90.51259/37.85531</i>	<i>Jessie St. Bridge, Desloge, area Flat x</i>	
Date & Time: <i>10-16-05</i>	Facility Name:	
Personnel: <i>Mary Clark</i>	Permit Number:	
Current Weather Conditions: <i>cldy</i>	Weather Conditions for Past 7 days:	
Photo Ids: Upstream: <i>372</i>	Downstream: <i>373</i>	Other:

**Uses Observed\*:**

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input checked="" type="checkbox"/> Other: <i>kids playing at creek / Bridges - say they play in creek</i>

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

*kids playing at creek / Bridges - say they play in creek*

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input checked="" type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: <i>easy access to Flat R.</i>	

*Park users along creek in town*

**Evidence of Human Use\*:**

<input checked="" type="checkbox"/> Roads	<input checked="" type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input checked="" type="checkbox"/> Other: <i>new Bridge w/ walk way</i>				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

2168\_005\_US



2168\_005\_DS



**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B - Site Characterization**  
(A separate data sheet must be completed for each site)

Missouri WBID #: <i>216F-006</i>	Site Location Description:	
Site GPS Coordinates: <i>90.50514/37.86660</i>	<i>State St. Bridge (Desloge) over Flatk</i>	
Date & Time: <i>6-16-05 1:00 pm</i>	Facility Name:	
Personnel: <i>Mary Clark</i>	Permit Number:	
Current Weather Conditions: <i>cldy</i>	Weather Conditions for Past 7 days: <i>?</i>	
Photo Ids: Upstream: <i>378</i>	Downstream: <i>369</i>	Other:

**Uses Observed\*:**

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input checked="" type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other: <i>lots of fish, minnows, tadpoles</i>	

*\* fill over left to creek using tailings on field*

**Evidence of Human Use\*:**

<input checked="" type="checkbox"/> Roads	<input checked="" type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input checked="" type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other: <i>in town businesses &amp; homes near creek, key chain car keys at creek</i>				

*sewer line Xmp creek 300ft up stream.*

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

**Stream Morphology:**

**Upstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>25</u>	Length (ft): <u>300</u>	Avg. Depth (ft): <u>2.0</u>	Max. Depth (ft): <u>2.75</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Estimated ( <del>ft</del> ^3/sec): <u>up ~ 25 ft/sec just above the bridge</u>	

**Downstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>30</u>	Length (ft): <u>200</u>	Avg. Depth (ft): <u>2</u>	Max. Depth (ft): <u>≤ 3</u>
<input checked="" type="checkbox"/> Pool	Width (ft): <u>15</u>	Length (ft): <u>30</u>	Avg. Depth (ft): <u>2.5</u>	Max. Depth (ft): <u>≥ 3</u>
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Estimated (ft <sup>3</sup> /sec):	

*under bridge*

**Substrate\*:** (These values should add up to 100%.)

<u>5</u> % Cobble	<u>10</u> % Gravel	<u>5</u> % Sand	<u>      </u> % Silt	<u>      </u> % Mud/Clay	<u>70</u> % Bedrock
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**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

*macroalgae around bridge, 80% of stream bed covered w/ algae  
10% filamentous*

**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear <i>up st</i>	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<i>murky around bridge</i>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Other: <i>@ algae</i>
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

**Comments:** Please attach additional comments (including information from interviews) to this form.

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

Signed: Mary Clark Date: 6-16-05

Organization: MDNR Position: ESIT

2168\_006\_US



2168\_006\_DS



**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B - Site Characterization**  
(A separate data sheet must be completed for each site)

*mineral therapy*

Missouri WBID #: <i>2168-007</i>	Site Location Description: <i>next to WWTP</i>	
Site GPS Coordinates: <i>70.50335/37.88350</i>	<i>Cedar Falls bridge over Flat river</i>	
Date & Time: <i>6-16-05 11:10</i>	Facility Name:	
Personnel: <i>Mary Clark</i>	Permit Number:	
Current Weather Conditions: <i>cldy</i>	Weather Conditions for Past 7 days:	
Photo Ids: Upstream: <i>3679</i>	Downstream: <i>368</i>	Other:

**Uses Observed\*:**

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input checked="" type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other: <i>WWTP</i>	

**Evidence of Human Use\*:**

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other: <i>easy access from WWTP roads, camps, camp under bridge</i>				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

**Stream Morphology:**

**Upstream View Physical Dimensions:**

slow  
edge

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>30</u>	Length (ft): <u>25</u>	Avg. Depth (ft): <u>1.25</u>	Max. Depth (ft): <u>2.0</u>
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Estimated (ft <sup>3</sup> /sec):	

**Downstream View Physical Dimensions:**

<input checked="" type="checkbox"/> Riffle	Width (ft): <u>20</u>	Length (ft): <u>80</u>	Avg. Depth (ft): <u>≤ 1</u>	Max. Depth (ft): <u>1.5</u>
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Estimated (ft <sup>3</sup> /sec): <u>vel ≥ 2 ft/sec below riffle</u>	

**Substrate\*:** (These values should add up to 100%.)

<u>20</u> % Cobble	<u>20</u> % Gravel	<u>20</u> % Sand	% Silt	% Mud/Clay	<u>40</u> % Bedrock
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**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

80% algae covered; significant macro algae stream

**Water Characteristics\*:** (Mark all that apply.)

Hard to tell if it is the plant or the H<sub>2</sub>O

Odor: <u>very slight</u>	<input checked="" type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Other: <u>algae</u>
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

back  
a cup  
water  
had  
a 20%  
slight

**Comments:** Please attach additional comments (including information from interviews) to this form.

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

Signed: Mary Clark Date: 6-16-05

Organization: MONK Position: E 5 III

2168\_007\_US



2168\_007\_DS



2168\_007\_US\_WWTP



2168\_007\_DS\_WWTP

