



Missouri  
Department of  
Natural Resources

Use Attainability Analysis

for

WBID 1032 Sanford Creek

Submitted by  
SES, Inc.

To

Missouri Department of Natural Resources  
Water Protection Program

Date Received: September 10, 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:	Sanford Creek	WBID:	1032
8 digit HUC code:	10290111	County:	Cole
Upstream Legal Description	T43N	R10W	Sec 4
Downstream Legal Description	T44N	R10W	Sec 34
Number of Sites Evaluated	3		
List all site numbers, listed upstream to downstream			
	1	2	3

**Discharger Facility Information**

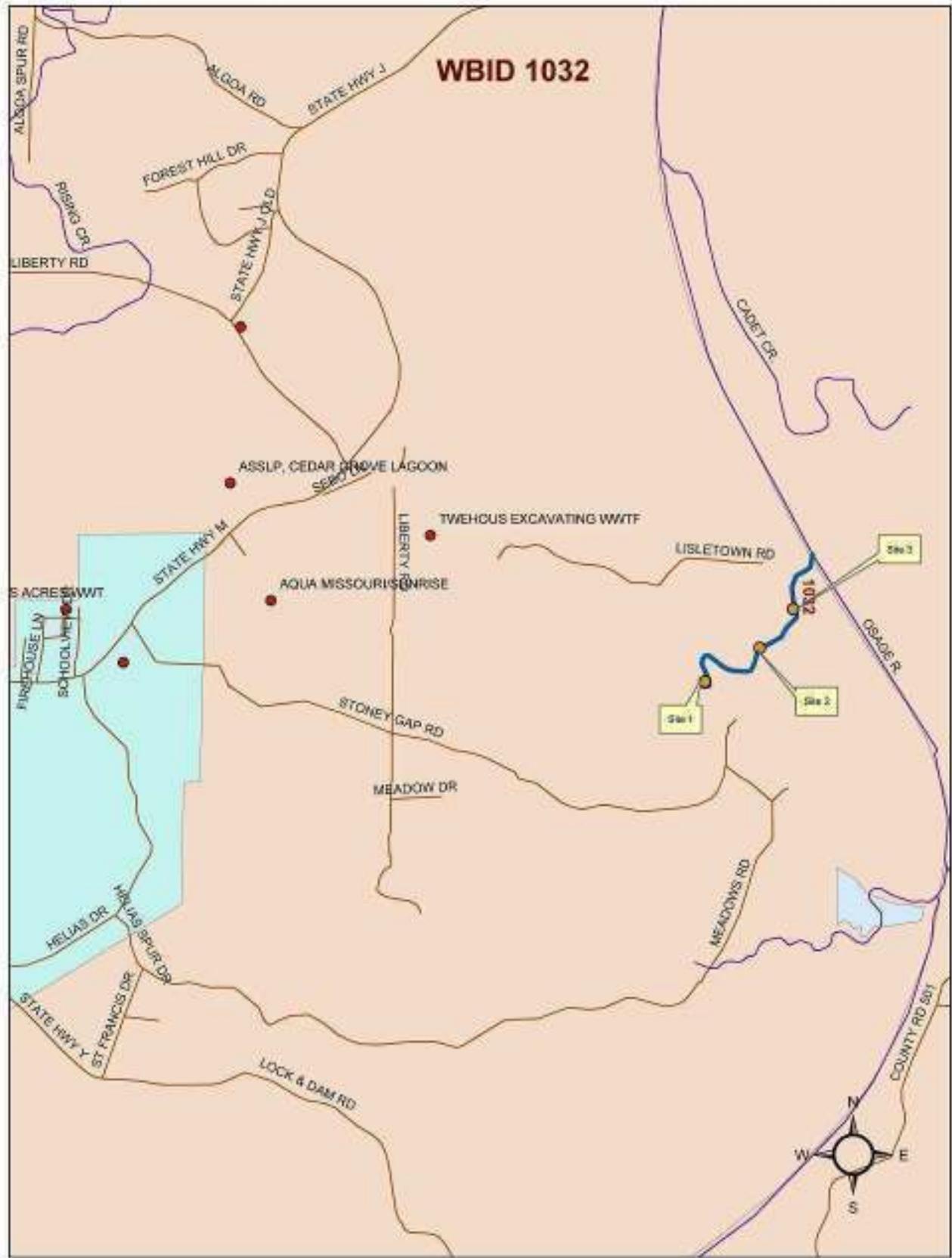
Discharger Facility Name(s):	CU, ST FRANCIS XAVIER SCH
Discharger Permit Number(s):	MO0101559

**UAA Surveyor**

Name of Surveyor:	Aaron Ball	Telephone Number:	913.307.0054, Ext.14
Organization/Employer:	SES, Inc.		
Position:	Field Team Leader		

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

# WBID 1032



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

WBID                    1032  
 Site #                    1

Date and Time:            8.02.07    11:40am

Current Weather Conditions    hazy, partly cloudy

Weather Conditions for Past 10 days:    clear

Drought Conditions? No

Site Location (e.g. road crossing)            Hwy 50/63

GPS Mark:                                    21

Upstream Photo                            9                                    Downstream Photo                            8

**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	<u><b>None of the Above</b></u>	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	<u><b>None of the Above</b></u>	Other	

**Indications of Human Use**

Roads	Rope swings	Foot paths/prints	Dock/platform
<u><b>Livestock Watering</b></u>	RV/ATV Tracks	Camping Sites	Fire pit/ring
<u><b>picture #10</b></u>	Fishing Tackle	Other:	
NPDES Discharge			



**Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)**  
**(Median Depth Shown in Bold)**

Site # 1

Mark # 21

WBID# 1032

	Depth (m)
<b>Transect 1</b>	0.00
Substrate:	0.00
cobbly silt	0.00
Water Clarity:	0.00
N/A	0.00
Channel Feature:	0.00
N/A	0.00
Channel Width:	0.00
5 yards	0.00
<b>0.00</b>	<b>0.00</b>
<b>Transect 2</b>	0.00
Substrate:	0.00
cobble	0.00
Water Clarity:	0.00
N/A	0.00
Channel Feature:	0.00
N/A	0.00
Channel Width:	0.00
5 yards	0.00
<b>0.00</b>	<b>0.00</b>
<b>Transect 3</b>	0.10
Substrate:	0.20
gravel	0.30
Water Clarity:	0.30
none	0.20
Channel Feature:	0.30
pool	0.30
Channel Width:	0.25
6 yards	0.20
<b>0.23</b>	<b>0.20</b>
<b>Transect 4</b>	0.05
Substrate:	0.15
silty gravel	0.20
Water Clarity:	0.30
none	0.30
Channel Feature:	0.30
pool	0.25
Channel Width:	0.25
3 yards	0.10
<b>0.23</b>	<b>0.05</b>

	Depth (m)
<b>Transect 5</b>	0.05
Substrate:	0.10
gravelly silt	0.20
Water Clarity:	0.20
none	0.25
Channel Feature:	0.25
pool	0.25
Channel Width:	0.25
3 yards	0.20
<b>0.20</b>	<b>0.15</b>
<b>Transect 6</b>	0.05
Substrate:	0.05
silt	0.10
Water Clarity:	0.10
none	0.10
Channel Feature:	0.05
pool	0.05
Channel Width:	0.05
2 yards	0.05
<b>0.05</b>	<b>0.00</b>
<b>Transect 7</b>	0.05
Substrate:	0.25
cobble	0.35
Water Clarity:	0.45
none	0.45
Channel Feature:	0.45
pool	0.40
Channel Width:	0.35
7 yards	0.30
<b>0.35</b>	<b>0.25</b>
<b>Transect 8</b>	0.05
Substrate:	0.10
silt	0.20
Water Clarity:	0.25
murky	0.30
Channel Feature:	0.30
rifle	0.30
Channel Width:	0.25
4 yards	0.25
<b>0.25</b>	<b>0.20</b>

	Depth (m)
<b>Transect 9</b>	0.05
Substrate:	0.10
silt	0.20
Water Clarity:	0.20
murky	0.25
Channel Feature:	0.30
pool	0.25
Channel Width:	0.20
5 yards	0.25
<b>0.20</b>	<b>0.20</b>
<b>Transect 10</b>	0.05
Substrate:	0.05
silt	0.05
Water Clarity:	0.10
murky	0.10
Channel Feature:	0.05
pool	0.10
Channel Width:	0.05
2 yards	0.05
<b>0.05</b>	<b>0.05</b>
<b>Transect 11</b>	0.05
Substrate:	0.05
silt	0.10
Water Clarity:	0.10
murky	0.10
Channel Feature:	0.10
pool	0.10
Channel Width:	0.05
4 yards	0.05
<b>0.08</b>	<b>0.05</b>
<b>Site Median</b>	<b>0.10</b>
<b>Site Maximum</b>	<b>0.45</b>

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

WBID 1032  
Site # 2

Date and Time: 8.02.07 12:05pm

Current Weather Conditions hazy, partly cloudy

Weather Conditions for Past 10 days: clear

Drought Conditions? No

Site Location (e.g. road crossing) midway sites #1 and #3

GPS Mark: 22

Upstream Photo 13 Downstream Photo 12

**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	<b><u>None of the Above</u></b>	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	<b><u>None of the Above</u></b>	Other	

**Indications of Human Use**

Roads	Rope swings	Foot paths/prints	Dock/platform
<b><u>Livestock Watering</u></b> <b><u>picture #11</u></b>	RV/ATV Tracks	Camping Sites	Fire pit/ring
NPDES Discharge	Fishing Tackle	Other:	



**Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)**  
**(Median Depth Shown in Bold)**

Site # 2

Mark # 22

WBID# 1032

	Depth (m)
<b>Transect 1</b>	0.05
Substrate:	0.20
silt	0.50
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
20 yards	0.40
<b>0.75</b>	<b>0.20</b>
<b>Transect 2</b>	0.40
Substrate:	0.90
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
15 yards	1.00
<b>1.00</b>	<b>0.60</b>
<b>Transect 3</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	0.90
17 yards	0.50
<b>1.00</b>	<b>0.30</b>
<b>Transect 4</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
17 yards	1.00
<b>1.00</b>	<b>1.00</b>

	Depth (m)
<b>Transect 5</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
12 yards	1.00
<b>1.00</b>	<b>1.00</b>
<b>Transect 6</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
13 yards	1.00
<b>1.00</b>	<b>1.00</b>
<b>Transect 7</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
15 yards	1.00
<b>1.00</b>	<b>1.00</b>
<b>Transect 8</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
19 yards	0.80
<b>1.00</b>	<b>0.50</b>

	Depth (m)
<b>Transect 9</b>	0.30
Substrate:	0.60
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
17 yards	1.00
<b>1.00</b>	<b>1.00</b>
<b>Transect 10</b>	0.30
Substrate:	0.60
silt	0.80
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
20 yards	1.00
<b>1.00</b>	<b>1.00</b>
<b>Transect 11</b>	0.60
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
20 yards	1.00
<b>1.00</b>	<b>1.00</b>

<b>Site Median</b>	<b>Site Maximum</b>
<b>1.00</b>	<b>1.00</b>

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

WBID 1032  
Site # 3

Date and Time: 8.02.07

Current Weather Conditions clear

Weather Conditions for Past 10 days: clear

Drought Conditions? No

Site Location (e.g. road crossing) most downstream location

GPS Mark: 23

Upstream Photo 15 Downstream Photo 14

**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	<u><b>None of the Above</b></u>	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	<u><b>Other</b></u>	<u><b>open pasture</b></u>

**Indications of Human Use**

Roads	Rope swings	Foot paths/prints	Dock/platform
<u><b>Livestock Watering</b></u>	RV/ATV Tracks	Camping Sites	Fire pit/ring
<u><b>Picture #16</b></u>			
NPDES Discharge	Fishing Tackle	Other:	



**Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)**  
**(Median Depth Shown in Bold)**

Site # 3

Mark # 23

WBID# 1032

	Depth (m)
<b>Transect 1</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
13 yards	1.00
<b>1.00</b>	<b>1.00</b>
<b>Transect 2</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
15 yards	1.00
<b>1.00</b>	<b>1.00</b>
<b>Transect 3</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
15 yards	1.00
<b>1.00</b>	<b>1.00</b>
<b>Transect 4</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
19 yards	1.00
<b>1.00</b>	<b>1.00</b>

	Depth (m)
<b>Transect 5</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
18 yards	1.00
<b>1.00</b>	<b>1.00</b>
<b>Transect 6</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
20 yards	1.00
<b>1.00</b>	<b>1.00</b>
<b>Transect 7</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
15 yards	1.00
<b>1.00</b>	<b>1.00</b>
<b>Transect 8</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
19 yards	1.00
<b>1.00</b>	<b>1.00</b>

	Depth (m)
<b>Transect 9</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
21 yards	1.00
<b>1.00</b>	<b>1.00</b>
<b>Transect 10</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
21 yards	1.00
<b>1.00</b>	<b>1.00</b>
<b>Transect 11</b>	1.00
Substrate:	1.00
silt	1.00
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
20 yards	1.00
<b>1.00</b>	<b>1.00</b>
<b>Site Median</b>	<b>1.00</b>
<b>Site Maximum</b>	<b>1.00</b>

**WBID# 1032**



**Site# 1 Photo ID# 9, Upstream**



**Site# 1 Photo ID# 8, Downstream**



**Site# 1 Photo ID# 10, Livestock watering**

**WBID# 1032**



**Site# 2 Photo ID# 13, Upstream**



**Site# 2 Photo ID# 12, Downstream**



**Site# 2 Photo ID# 11, Livestock watering**

**WBID# 1032**



**Site# 3 Photo ID# 15, Upstream**



**Site# 3 Photo ID# 14, Downstream**



**Site# 3 Photo ID# 16, Livestock watering**