Use Attainability Analysis

for

WBID 0253 Davis Creek Ditch

Submitted by
Tetra Tech, Inc

To
Missouri Department of Natural Resources
Water Protection Program

RECEIVED
APR 6 2005
WATER PROTECTION PROGRAM

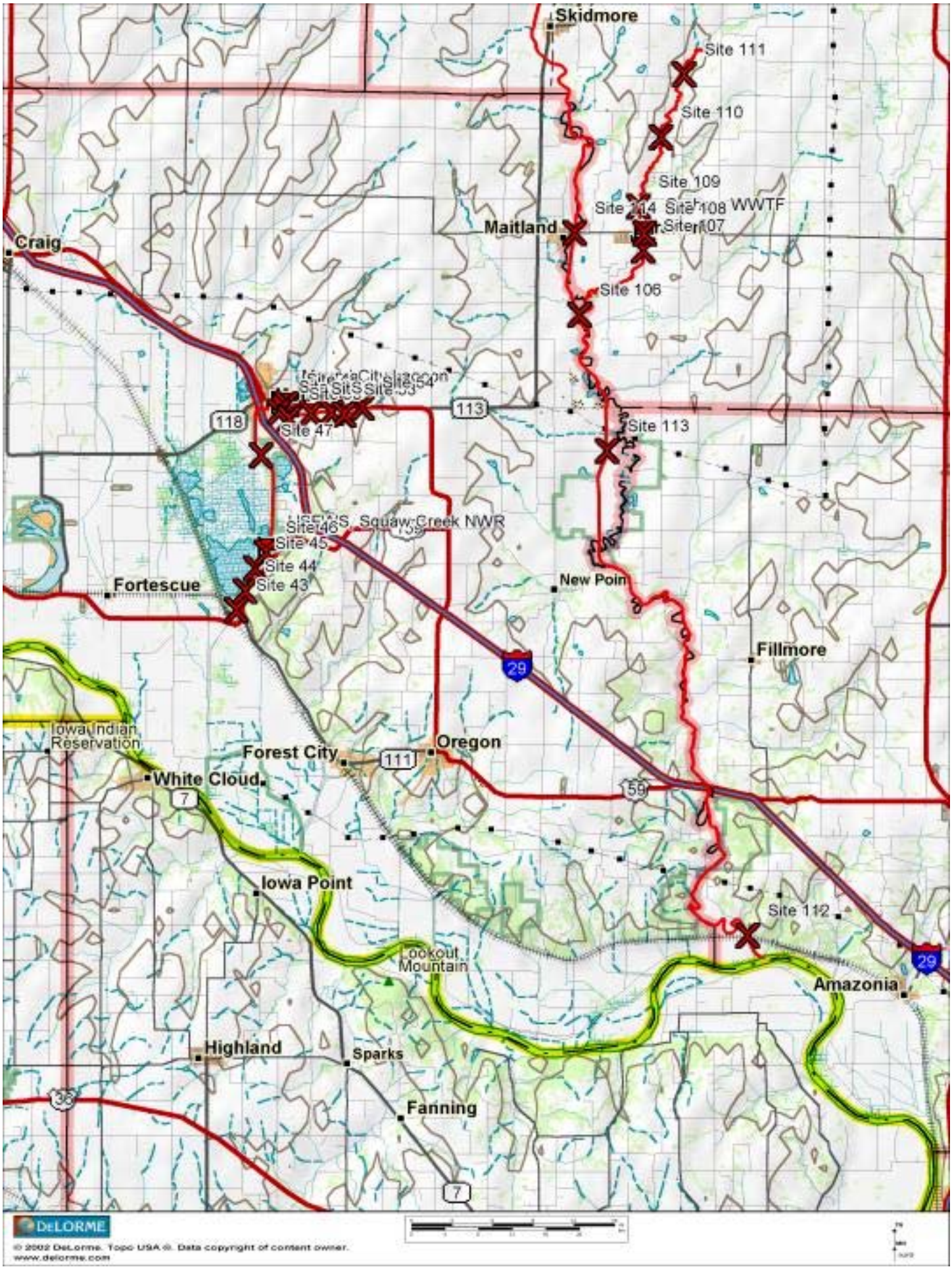
Field Data Sheets for Recreational Use Stream Surveys

Data Sheet A - Water Body Identification

Water Body Name: (from USGS 7.5' quad)	DAVIS CREEK DITCH 43-48
8-digit HUC:	10240005
Missouri WBID #:	0253
County:	CEDAR
Upstream Legal Description:	
Downstream Legal Description:	
Upstream Coordinates: (UGS 84, ddd.ddddd)	40.12970 -095.20369 Acc: 26 FT.
Downstream Coordinates: (UGS 84, ddd.ddddd)	40.10941 -095.23589 Acc: 22 FT.
Discharger Facility Name(s):	USFWS, SQUAW CREEK NWR
Discharger Permit Number(s):	MO-0122220
Number of Sites Evaluated:	6
Name of Surveyor and Telephone Number:	CHAD BATBOUR: 410-356-8993
Organization:	TETRA TECH INC.
Position:	ASSOCIATE SCIENTIST

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:** 03-29-05


Skidmore
Site 111
Site 110
Site 109
Site 114
Site 108
WWTF
Site 107
Maitland
Craig
Site 106
Site 47
118
113
Site 113
Site 46
Site 45
Site 44
Site 43
Squaw Creek NWR
Fortescue
New Poin
Fillmore
29
Iowa Indian Reservation
Forest City
111
Oregon
White Cloud
7
59
Iowa Point
Site 112
Lookout Mountain
Amazonia
Highland
Sparks
Fanning
DeLORME
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*- SITE RELOCATED - ORIGINAL SITE LIES WITHIN WETLAND. CED

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 #: 43*		Site Location Description: INDIAN RD - SQUAW CREEK NWR
Site GPS Coordinates:		
Date & Time: 03-17-05		Facility Name:
Personnel: CHAD BARBOUR, JEREMY ROBEEN		Permit Number:
Current Weather Conditions: 50°F, PARTLY CLOUDY, WIND		Weather Conditions for Past 7 days:
Photo Ids: Upstream:	Downstream:	Other:

Uses Observed*:

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☐ None of the above	☐ 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.)

☐ 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	☐ Other:	

Evidence of Human Use*:

☐ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☐ 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.

JTR - 03/17/05

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Page Two – Data Sheet B for WBID # 43* **:**

Stream Morphology:

Upstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Flow	Present? ☐ Yes ☐ No		Estimated (ft^3/sec):	

Downstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Flow	Present? ☐ Yes ☐ No		Estimated (ft^3/sec):	

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

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

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

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☐ None	☐ Other:
Color:	☐ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☐ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☐ None	☐ 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.

Signed: [signature] **Date:** 03-17-05

Organization: TETRA TECH INC. Position: ASSOCIATE SCIENTIST

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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 #: 43-ALTERNATE SITE LOCATION	Site Location Description: KOVINGTON RD, SQUAW CREEK, NWR
Site GPS Coordinates: N40.10941 W095.23589 Acc: 22.9 Ft	
Date & Time: 03-17-05, 1200	Facility Name: USFWS, SQUAW CREEK NWR
Personnel: CHAD BARBOUR, JEREMY ROBEEN	Permit Number:
Current Weather Conditions: 50°F, PARTLY SUNNY, WIND	Weather Conditions for Past 7 days:
Photo Ids: Upstream: 1617 B / Downstream: 1611 B	Other: 1613-DAM

Uses Observed*:

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☑ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)
SITE LOCATED WITHIN SQUAW CREEK NATIONAL WILDLIFE REFUGE ALONG KOVINGTON RD; VERY ACCESSIBLE.

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

☑ 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	☐ Other:	

Evidence of Human Use*:

☑ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☐ Other: WILDLIFE REFUGE				

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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Page Two – Data Sheet B for WBID # 43-ALTERNATE SITE LOCATION:

Stream Morphology:

Upstream View Physical Dimensions: 0.13, 0.13, 0.03, 0.13, 0.03m.

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Run	Width (ft): 2m	Length (ft): 20m	Avg. Depth (ft): 0.09m	Max. Depth (ft): 0.13m
☐ Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Flow	Present? ☑ Yes ☐ No		Estimated (ft^3/sec): 4m=13s; 4m=13s; 4m=12s	

FLOW = 0.32 m/s

Downstream View Physical Dimensions: ~~0.13, 0.13, 0.03, 0.13, 0.03m.~~ CO 0.03, 0.20, 0.13, 0.10, 0.10

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Run	Width (ft): 1.6m	Length (ft): 20m	Avg. Depth (ft): 0.11m	Max. Depth (ft): 0.13m
☐ Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Flow	Present? ☑ Yes ☐ No		Estimated (ft^3/sec): 4m=30s; 4m=20s; 4m=17s	

FLOW = 0.18 m/s

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

% Cobble	% Gravel	% Sand	20 % Silt	80 % Mud/Clay	% Bedrock

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

NONE

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☑ None	☐ Other:
Color:	☑ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☑ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☑ None	☐ Other:

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

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Signed: [signature] **Date:** 03-17-05

Organization: TETRA TECH INC. Position: ASSOCIATE SCIENTIST

JTR 03/17/05

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DAVIS CREEK DITCH
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DAVIS CREEK DITCH
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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 #: 44	Site Location Description: INDIAN RD. SQUAW CREEK NWR.
Site GPS Coordinates: N40.05344 W095.24565 ACC: 19.5 FT	
Date & Time: 03-17-05, 1100	Facility Name: USFWS SQUAW CR. NWR
Personnel: CHAD BARBOUR, JEREMY ROBEEN	Permit Number:
Current Weather Conditions: 50°F, PARTLY CLOUDY, WIND	Weather Conditions for Past 7 days:
Photo Ids: Upstream: ~~1605~~ 1606B Downstream: ~~1606~~ 1605B	Other: 1607 - ROAD ALONG SIDE STREAM.

Uses Observed*:

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☑ Wading CCP	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☑ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)
SITE LOCATED WITHIN SQUAW CREEK NATIONAL WILDLIFE REFUGE, ALONG INDIAN RD. VERY ACCESSIBLE.

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

☑ 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	☐ Other:	

Evidence of Human Use*:

☑ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☐ Other: WILDLIFE REFUGE				

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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Page Two – Data Sheet B for WBID # 44 :

Stream Morphology:

Upstream View Physical Dimensions: 0.13, 0.14, 0.10, 0.12, 0.03 m

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Run	Width (ft): 2.6m	Length (ft): 20m	Avg. Depth (ft): 0.10 m	Max. Depth (ft): 0.14m
☐ Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Flow	Present? ☑ Yes ☐ No		Estimated (ft^3/sec): 4m=19s; 4m=15s; 4m=14s.	

Flow = 0.25 m/s

Downstream View Physical Dimensions: 0.10, 0.13, 0.22, 0.10, 0.02m

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Run	Width (ft): 2.5m	Length (ft): 20m	Avg. Depth (ft): 0.11 m	Max. Depth (ft): 0.22m
☐ Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Flow	Present? ☑ Yes ☐ No		Estimated (ft^3/sec): 4m=11s; 4m=10s; 4m=11s	

Flow = 0.38 m/s

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

% Cobble	% Gravel	% Sand	15 % Silt	85 % Mud/Clay	% Bedrock

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

NONE.

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☑ None	☐ Other:
Color:	☐ Clear	☑ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☑ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☑ None	☐ 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.

Signed: [signature] **Date:** 03-17-05

Organization: TETRA TECH INC. Position: ASSOCIATE SCIENTIST

JTR - 03/17/05

05

44
DAVIS CREEK DITCH
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DAVIS CREEK DITCH
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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 #: 45	Site Location Description: INDIAN RD. WITHIN SQUAW CREEK NWR.
Site GPS Coordinates: N40:06366 W095.23976 Acc: 4.5PC	
Date & Time: 03-17-05, 1040	Facility Name: USFWS, SQUAW CREEK, NWR
Personnel: CHAD BARBOUR, JEREMY RUBEEN	Permit Number:
Current Weather Conditions: 50°F, SUNNY, WINDY	Weather Conditions for Past 7 days:
Photo Ids: Upstream: 1602B	Downstream: 1603B	Other: 1604 - ROAD NEXT TO STREAM.

Uses Observed*:

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☑ Wading CEP	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☑ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)
SITE WITHIN SQUAW CREEK NATIONAL WILDLIFE REFUGE. VERY ACCESSIBLE: NEXT TO ROAD

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

☑ 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	☐ Other:	

Evidence of Human Use*:

☑ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☑ Other: WILDLIFE REFUGE				

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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Page Two – Data Sheet B for WBID # 45 **:**

Stream Morphology:

Upstream View Physical Dimensions: 0.41, 0.50, 0.51, 0.51, 0.50 m

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Run	Width (ft): 1.5m	Length (ft): 20m	Avg. Depth (ft): 0.49m	Max. Depth (ft): 0.51m
☐ Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Flow	Present? ☑ Yes ☐ No		Estimated (ft^3/sec): 4m=20s; 4m=21s; 4m=22s	

FLOW = 0.19 m/s

Downstream View Physical Dimensions: 0.54, 0.50, 0.50, 0.40, 0.27m

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Run	Width (ft): 1.5m	Length (ft): 20m	Avg. Depth (ft): 0.43m	Max. Depth (ft): 0.54m
☐ Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Flow	Present? ☑ Yes ☐ No		Estimated (ft^3/sec): 4m=14s; 4m=14s; 4m=12s	

FLOW = 0.30 m/s

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

% Cobble	% Gravel	% Sand	20 % Silt	80 % Mud/Clay	% Bedrock

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

ALGAE GROWING THROUGHOUT.

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☑ None	☐ Other:
Color:	☐ Clear	☑ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☑ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☑ None	☐ Other:

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

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Signed: _____ **Date:** 03-17-05

Organization: TETRA TECH INC. Position: ASSOCIATE SCIENTIST

JTR-03/17/05

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DAVIS CREEK DITCH
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DAVIS CREEK DITCH
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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 #: 46	Site Location Description: IVY ROAD OVERPASS WITHIN SQUAW CREEK NATIONAL WILDLIFE REFUGE.
Site GPS Coordinates: N40.07012 W095.23412 N[illegible]	
Date & Time: 03-17-05, 1020.	Facility Name: USFWS SQUAW CREEK NWA
Personnel: CHAD BARBOUR, JEREMY ROBEEN	Permit Number:
Current Weather Conditions: 48°F, SUNNY, WINDY	Weather Conditions for Past 7 days: DRY, ≤40°F
Photo Ids: Upstream: 1598B Downstream: 1599B	Other: 1600 - WILDLIFE VIEWING DECK NEXT TO SITE.

Uses Observed*:

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☑ Wading CO	☐ Rafting
☐ Hunting	☑ Trapping CO	☐ Fishing	☑ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)
SITE LOCATED WITHIN NATIONAL WILDLIFE REFUGE, NEXT TO PARKING LOT; VERY ACCESSIBLE.

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

☑ 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	☐ Other:	

Evidence of Human Use*:

☑ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☑ Other: OBSERVATION DECKS				

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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JTR 03-17-05

Page Two – Data Sheet B for WBID # 46 **:**

Stream Morphology:

Upstream View Physical Dimensions: 0.11, 0.20, 0.13, 0.23, 0.11 m

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Run	Width (ft): 4.2m	Length (ft): 20m	Avg. Depth (ft): 0.16m	Max. Depth (ft): 0.23m
☐ Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Flow	Present? ☑ Yes ☐ No		Estimated (ft^3/sec): 4m = 31s; 4m = 23s; 4m = 28s, Flow: 0.15 m/s	

Downstream View Physical Dimensions: 0.12, 0.30, 0.33, 0.30, 0.14m

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Run	Width (ft): 3.7m	Length (ft): 20m	Avg. Depth (ft): 0.24m	Max. Depth (ft): 0.33m
☐ Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Flow	Present? ☑ Yes ☐ No		Estimated (ft^3/sec): 4m = 19s; 4m = 34s; 4m = 20s. Flow = 0.16 m/s	

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

% Cobble	% Gravel	% Sand	20 % Silt	80 % Mud/Clay	% Bedrock

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

ALGAE GROWING THROUGHOUT

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☑ None	☐ Other:
Color:	☐ Clear	☑ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☑ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☑ None	☐ 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.

Signed: [signature] **Date:** 03-16-05

Organization: TETRA TECH INC. Position: ASSOCIATE SCIENTIST

JTR - 03-17-05

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DAVIS CREEK DITCH
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DAVIS CREEK DITCH
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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 #: 47	Site Location Description: KOVINGTON RD. SQUAW CREEK NWR
Site GPS Coordinates: N40.11033 W095.23673 Acc: 16.0 Ft.	
Date & Time: 03-17-05, 1130	Facility Name: US FWS SQUAW CREEK NWR
Personnel: CHAD BARBOUR, JERAMY ROBDEN	Permit Number:
Current Weather Conditions: 50°F, PARTLY CLOUDY, WIND	Weather Conditions for Past 7 days:
Photo Ids: Upstream: 1608 B / Downstream: 1609 B	Other: 1610- PUMPING STATION

Uses Observed*:

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☑ Wading CCB	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☑ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)
SITE WITHIN SQUAW CREEK NATIONAL WILDLIFE REFUGE; ALONG ℄ KOVINGTON RD. VERY ACCESSIBLE. CCB

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

☑ 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	☐ Other:	

Evidence of Human Use*:

☑ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☐ Other: WILDLIFE REFUGE				

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.

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Page Two – Data Sheet B for WBID # 47 **:**

Stream Morphology:

Upstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Pool	Width (ft): 5m	Length (ft): 20m	Avg. Depth (ft): *N/A	Max. Depth (ft): *N/A
☐ Flow	Present? ☐ Yes ☑ No		Estimated (ft^3/sec):	

*- TOO DEEP TO MEASURE: MAX DEPTH >4m.

Downstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Pool	Width (ft): 5m	Length (ft): 20m	Avg. Depth (ft): *N/A	Max. Depth (ft): *N/A
☐ Flow	Present? ☐ Yes ☑ No		Estimated (ft^3/sec):	

*- TOO DEEP TO MEASURE! MAX DEPTH >4m.

Substrate*: (These values should add up to 100%.) N/A - TOO DEEP TO MEASURE

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

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

N/A

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☑ None	☐ Other:
Color:	☐ Clear	☑ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☐ Fine sediments	☐ None	☐ Other: N/A
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☑ None	☐ 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: [signature] **Date:** 03-17-05

Organization: TETRA TECH INC. Position: ASSOCIATE SCIENTIST

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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 #: 48		Site Location Description: AT PHOTO 29 OVERLAKS.
Site GPS Coordinates: N40.129 20 6045.26569 AND 24.9 PB		
Date & Time: 03-17-05, 1230		Facility Name: US FWS, SQUAW CREEK NWR
Personnel: CHAD BARDOLA, JEREMY ROGGEN		Permit Number:
Current Weather Conditions: 50°F, OVERCAST, WINDY		Weather Conditions for Past 7 days:
Photo Ids: Upstream: 1614 B	Downstream: 1615 B	Other:

Uses Observed*:

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☑ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)
AREA BETWEEN TOWN AND SQUAW CREEK NATIONAL WILDLIFE REFUGE. NO VISIBLE USES.

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

☑ 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	☐ Other:	

Evidence of Human Use*:

☑ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☐ 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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Page Two – Data Sheet B for WBID # 48 **:**

Stream Morphology:

Upstream View Physical Dimensions: 0.02, 0.03, 0.13, 0.12, 0.1m

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Run	Width (ft): 3m	Length (ft): 20m	Avg. Depth (ft): 0.06m	Max. Depth (ft): 0.13m
☐ Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Flow	Present? ☑ Yes ☐ No		Estimated (ft^3/sec): 4m=.85; 4m=.85; 4m=.65	

Flow = 0.55 m/s

Downstream View Physical Dimensions: 0.31, 0.24, 0.24, 0.31, 0.32m

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Run	Width (ft): 1.7m	Length (ft): 20m	Avg. Depth (ft): 0.28m	Max. Depth (ft): 0.32
☐ Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☑ Flow	Present? ☑ Yes ☐ No		Estimated (ft^3/sec): 4m=.15s; 4m=.14s; 4m=.16s	

Flow = 0.27 m/s

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

% Cobble	% Gravel	70 % Sand	20 % Silt	20 % Mud/Clay	% Bedrock

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

ALGAE GROWING THROUGHOUT.

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☑ None	☐ Other:
Color:	☐ Clear	☑ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☑ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☑ None	☐ 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: [signature] **Date:** 03-17-05

Organization: TETRA TECH INC. Position: ASSOCIATE SCIENTIST

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