

NDO 1972

FIELD TRIP REPORT

207 2000

BY: Patrick Coffin, Region II Fisheries Asst.

DATE: 15 November, 1972

PERSONNEL: Patrick Coffin, NDF&G, Dean Doell, USFS, Jim Hartin, USFS, Bob Easton, USFS, George Urdall, USFS.

PURPOSE: To investigate proposed rock removal project in West Fk. Jarbidge River by U.S. Forest Service.

DETAIL:

The area in concern is U.S. Forest Service lands below the town of Jarbidge where the natural meandering of the West Fk. Jarbidge River is causing erosion problems with the roadway along the east bank. The removal of selected large rocks was suggested as a partial remedy for preventing further road erosion during the Spring when large volumes of water flow down the river.

Most areas inspected were locations where the large boulders on the west bank of the stream, or in the west side of the stream itself were causing the water to deflect sharply to the east side and cut into the dirt fill of the road. One section was actually a large bend in the river which would be impossible to change with the limited action suggested.

Most of the large boulders in question did deflect the water towards the roadway and do cause serious erosion and silting problems along the creek. At the same time these boulders generally create pool areas below the rock which furnish ideal habitat for fish life. The removal of a few selected rocks from the Fork of the Jarbidge would certainly not cause any major change in the river system or fisheries habitat, but at the same time it would serve little long term purpose since the problem would be relayed downstream a short distance where the stream would again work on the roadway.

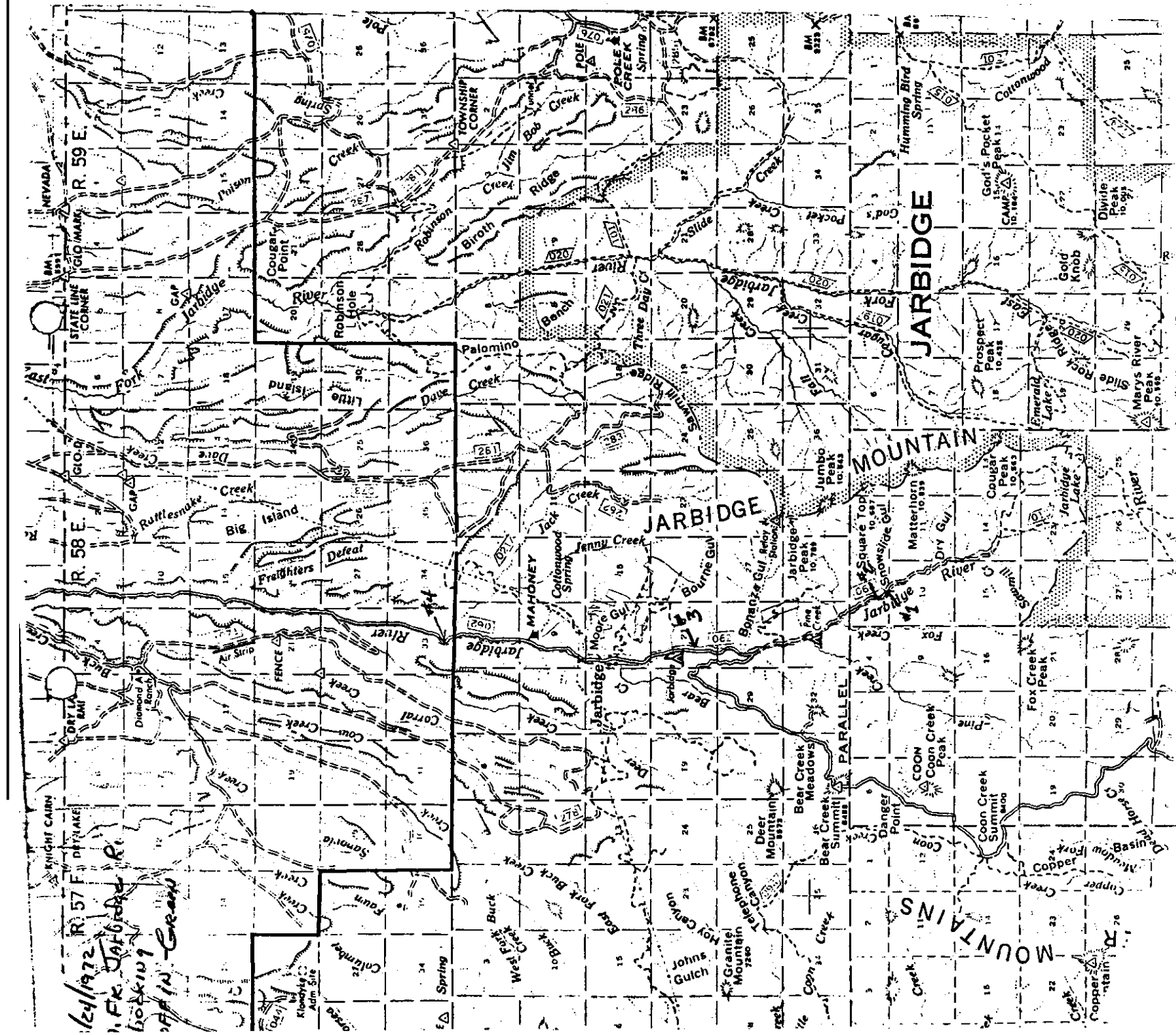
Suggested remedies would be of a more long term nature and more compatible with the natural tendencies of the river itself. The roadway itself is generally in a very poor location with its close proximity to the river and erosion will continue to be a major problem as long as this is the case. Moving the road away from the creek would be the best solution, but fairly expensive. Perhaps an alternate route across the Island could be suggested. In any case the road should have all the turns where the creek could cause erosion problems riprapped with heavy rockwork. This would help both the roadway and the creek. The creek tends to slow itself by working against banks and a rockwork turn is much better than a dirt fill which is now generally the case. Secondly rocking these locations the need to fill the road edge with dirt annually would be much less.

Any change in the boulder ratio will decrease runoff quantity, and also the natural slowing process of the stream which in turn increases the velocity of the water causing more problems. Any area like the Jarbidge River system with its immense watershed will continue to change its runoff patterns and manmade structures in close proximity will be in jeopardy.

*Copy sent to D. B. ...  
Dave Kelly.*

*Patrick Coffin*  
**Patrick Coffin**  
Region II Fisheries Asst.  
Elko, Nevada  
14 November, 1972

1972 Survey



FISH POPULATION SAMPLING

Sample Location **FF 91**

District Region II Water W. Fk. Warbridge River Date 24 August, 1972 Method Electro-shocking  
 Description of location sampled (area, depth, etc.) Snowslide Gulch confluence Hours/Hauls/ Area/ of sample 100'

Water data: Temperature 50° F Turbidity clear Level low

FISH COLLECTED		NUMBER BY INCH GROUP																			
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
wild Rainbow	2	1	1		2																
Hat. Rainbow																					

STATISTICAL DATA							
Species	Total Number	Aver. size (inches)	% Catch	Fish per net or per trap-hour	Fish per Seine-haul	Fish per shocker-hour lakes	Fish per mile (streams)
Rainbow, wild	13	5.6"	100				686.4

Rough/game fish ratio: Number 0/100 Pounds



FISH POPULATION SAMPLING

District Region II Water W. Fk. Harbidge River Date 8/21/72 Method electro-shocking  
 Description of location sampled (area, depth, etc.) confluence of Jack Creek Hours/Hauls/ Area/ of sample 150'

Water data: Temperature \_\_\_\_\_ Turbidity clear Level \_\_\_\_\_

FISH COLLECTED		NUMBER BY INCH GROUP																									
Species	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½	9	9½	10										
1 Wild Rainbow					1	1	2	2	1																		
2 Dolly V.																											
3 Sculpin	1	3	2	1	1	1																					
4																											
5																											
6																											
7																											
8																											

STATISTICAL DATA							
Species	Total Number	Aver. size (inches)	% Catch	Fish per net or per trap-hour	Fish per Seine-haul	Fish per shocker-hour (lakes)	Fish per mile (streams)
1 Wild	11	5	45				950.4
2 Dolly Varden	1	6½					35.2
3 Sculpin	12	3½	50				
4							
5							
6							
7							
8							

Rough/game fish ratio: Number \_\_\_\_\_ Pounds \_\_\_\_\_

FISH POPULATION SAMPLING

8874

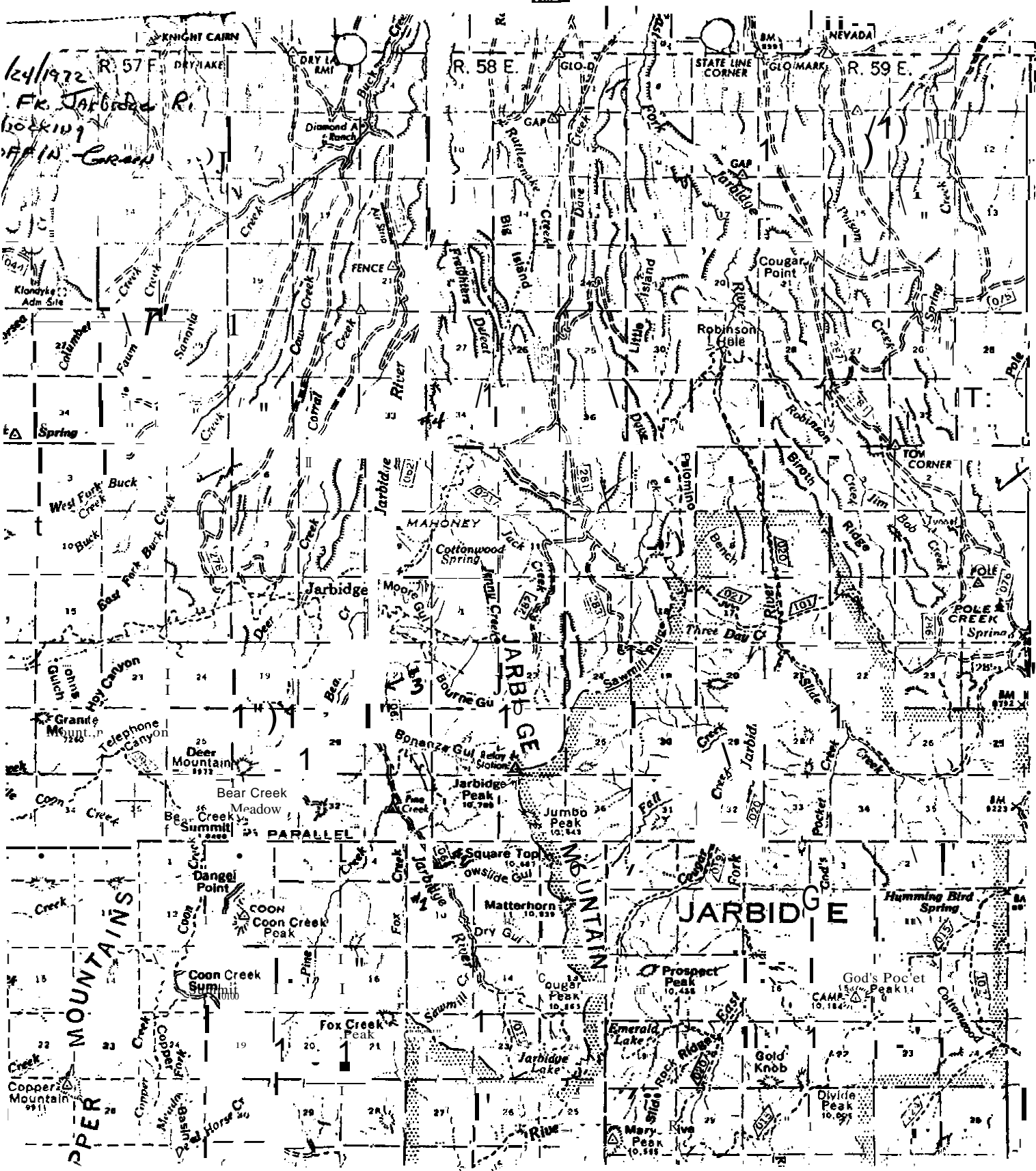
District Region II Water W. Fk. Jarbidge River Date 8/21/72 Method Electroshocking  
 Description of location sampled (area, depth, etc.) 1 mile above town of Jarbidge Hours/Hauls/ Area/ of sample 1251

Water data: Temperature \_\_\_\_\_ Turbidity clear Level \_\_\_\_\_

FISH COLLECTED		NUMBER BY INCH GROUP																										
Species	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6	6 1/2	7	7 1/2	8	8 1/2	9	9 1/2	10	10 1/2	11										
1 Wild Rainbow		1				4	2	1	1			1																
2 Hatchery Rainbow														1	1	1												
3 Whitefish																												
4 Sculpin	3	3		2																								
5																												
6																												
7																												
8																												

STATISTICAL DATA							
Species	Total Number	Aver. size (inches)	% Catch	Fish per net or per trap-hour	Fish per Seine-haul	Fish per shocker-hour (lakes)	Fish per mile (streams)
1 Wild Rainbow	10	4.4%					
2 Hat. Rainbow	3	1.3%					210.0
3 Whitefish	1	0.4%					
4 Sculpin	9	3.9%					
5							
6							
7							
8							

Rough/game fish ratio: Number \_\_\_\_\_ Pounds \_\_\_\_\_



12/1/72  
R. 57 F.  
Fr. Jarbidge R.  
Looking  
W. Canyon

Spring  
Columber  
Fawn  
Summit

West Fork Buck  
Creek  
10 Buck  
East Fork Buck  
Creek  
15  
Hwy Canyon  
21  
Telephone  
Canyon  
25  
Deer Mountain  
1972  
25  
Bear Creek  
Meadow  
26  
Copper  
Creek  
32  
Copper  
Creek  
34

Copper  
Mountain  
29  
Copper  
Mountain  
30  
Daisy  
31  
Horse Cr  
32

JARBIDGE  
MOUNTAIN

JARBIDGE

JARBIDGE

God's Pocket  
Peak 11,000

Divide  
Peak 10,695

Mary  
Peak 10,555

FISH POPULATION SAMPLING

.Location #1

District Region II Water W. Fk. Jarbidge River Date 24 August, 1972 Method Electro-shocking  
 Description of location sampled (area, depth, etc.) Sno lide Gulch confluence Hours/Hauls/ Area/ of sample 100'

Water data: Temperature 50° F Turbidity clear Level low

FISH COLLECTED		NUMBER BY INCH GROUP																								
Species	3	4½	5	5½	6	6½	7	7½	8																	
1 wild Rainbow		2	1	1			2																			
2 Hat. Rainbow																										
3																										
4																										
5																										
6																										
7																										
8																										

STATISTICAL DATA		Total Number	Aver. size (inches)	% Catch	Fish per net or per trap-hour	Fish per Seine-haul	Fish per shocker-hour lakes	Fish per mile (streams)
1	Rainbow, wild	13	5.6"	100				686.4
2								
3								
4								
5								
6								
7								
8								

Rough/game fish ratio: Number 0/100 Pounds \_\_\_\_\_



STREAM

Stream W. Fle. Jarbidge River Inventory Date 8/24/72 Sample
Drain. System Jarbidge River Watershed Jarbidge Mtns. County Elco
Sample Length 100, Sample Elev. Sampled By: Coffin-Green
Stream Length Fishable Length Elev. Range: From To

Sample Location Confluence of Snowslide Gulch

Table with 5 columns: Stream Type, Bottom Type, Pool Quality, Runoff, Turbidity. Includes rows for %Rock, %Rubble, %Gravel, %Sand, %Mud and %Pool Area, %Riffle Area, Ave. Pool Quality.

Table with 3 columns: Temperature, of, Flow Data, Water Chemistry. Includes rows for Time, Water, Air, Depth, Stream Width, Stream Depth, Gradient, Velocity, Volume, Pollution Type.

Water Chemistry Analysis By: Date

Table with 4 columns: Streambank Vegetation, Major Streambank Veg., Stream Shading & Cover, Bank Stability. Includes rows for %Forest, %Brush, %Grass, %Eroded and Alder, chokecherry, Aspen, Grass sp., Alpine Fir.

Beaver Activity Age: Control Needed

Table with 3 columns: Seasonal Fish Food Abundance, Fish Food Organisms Present, Date. Includes rows for Fall, Winter, Spring, Summer and Excell, Good, Fair, Poor.

Table with 4 columns: Land Ownership, Grazing Pattern, Grazing Species/Season, Type Grazing Use/Season. Includes rows for %Private, %Public, Agency USES and Heavy, Moderate, Light, No Use.

Photo Transect: Yes No Year Established Trend Check
Description

Table with 2 columns: Fishery Quality, Gamefish Species. Includes rows for Catchables/Mile, Subcatchables/Mile, Stream Status, Original Survey, Secondary Surveys.

Table with 4 columns: Quality Class No., Length or Width, Depth, Shelter. Lists 5 quality classes with their respective characteristics.

Stream W. Fle. Jarbidge River Inventory Date 8/24/72 Sample No. 2  
 Drain. System Jarbidge Watershed Jarbidge County Elko  
 Sample Length 150' Sample Elev. \_\_\_\_\_ Sampled By: Coffin-Green  
 Stream Length \_\_\_\_\_ Fishable Length \_\_\_\_\_ Elev. Range: From \_\_\_\_\_ To \_\_\_\_\_

Sample Location Camp location 1/4 mile downstream from

Stream Type	Bottom Type	++Pool Quality++	Runoff	Turbidity
Torr.	%Rock <u>30</u>	%Class 1 <u>10</u>	Flood	Clear <u>X</u>
Rapid	7.Rubble <u>60</u>	%Class 2 <u>20</u>	High	Cloudy _____
Fast <u>X</u>	%Gravel <u>10</u>	%Class 3 <u>30</u>	Med.	Murky _____
Slow	%Sand _____	%Class 4 <u>30</u>	Low <u>X</u>	Muddy _____
Slug.	7.Mud _____	%Class <u>5 10</u>	Int.	(JTU's) _____

7.pool Area 30 %Riffle Area 70 Ave. Pool Quality \_\_\_\_\_

Temperature, of			Flow Data	Water Chemistry	
Time	Water	Air	Stream Width	DO	ppm, CO2
<u>1 pm</u>	<u>51°</u>	---	<u>9'</u>	_____	_____
			Stream Depth	C03(Phpn	ppm,pH,
			<u>6"</u>	_____	_____
			Gradient%	HCO <sub>3</sub> (MO)	ppm,
			_____	_____	_____
			Velocity(f/s)	Conductivity (Mhos/cm),	
			_____	_____	
			Volume(cfs) est. <u>7</u>	TDS	ppm
			_____	_____	_____
			pollution Type	Source	_____

Water Chemistry Analysis By: \_\_\_\_\_ Date \_\_\_\_\_

Streambank Vegetation	Major Streambank Veg.	Stream Shading & Cover	Bank Stability
7,Forest <u>30</u>	<u>alpine Fir</u>	% <u>___</u> % Dense S&C	Stable% <u>60</u>
%Brush <u>10</u>	<u>alder</u>	% <u>___</u> Heavy S&C	Unstable% <u>10</u>
%Grass <u>10</u>	<u>grass sp.</u>	% <u>___</u> % Mod. S&C <u>X</u>	_____
7,Eroded <u>20</u>	<u>Aspen</u>	% <u>___</u> % Light S&C	_____
		% <u>___</u> % Comp.	_____

Beaver Activity Age: \_\_\_\_\_ Control Needed \_\_\_\_\_

Seasonal Fish Food Abundance(Date)	Fish Food Organisms Present	Date
Fall Winter Spring Summer	%	_____
Excell _____	% _____	_____
Good -- _____	% -- _____	_____
Fair.... _____	% -- _____	_____
Poor _____	% - _____	_____

Land Ownership	Grazing Pattern	Grazing Species/Season	Type Grazing Use/Season
7,private	Heavy	Cattle	Annual, _____
%Public <u>100%</u>	Moderate	Sheep	Rotation. _____
Agency <u>USFS</u>	Light	Horses _____	_____
	No Use <u>X</u>	Wildlife <u>ALL</u>	_____

photo Transect: Yes No Year Established \_\_\_\_\_ Trend Check \_\_\_\_\_

Description \_\_\_\_\_

Fishery Quality Good Gamefish Species Rainbow, Dolly Varden  
 Catchables/Mile(6"+) 105.6 Subcatchables/Mile(-6") 3|6.8 Total 112.4  
 Stream Status: Improving Same Deteriorating Time Interval \_\_\_\_\_  
 Original Survey: 1954 Secondary Surveys 1961, 1972

Quality Class No.	Length or Width	Depth	Shelter <sup>1</sup>
1	-Greater than a.c.w. <sup>2</sup>	2' or deeper	Abundant <sup>3</sup>
	Greater than a.c.w.	3' or deeper	Exposed <sup>4</sup>
2	Greater than a.c.w.	2' or deeper	Exposed
	Greater than a.c.w.	(2'	Intermediate <sup>5</sup>
	Greater than a.c.w.	(2'	Abundant
3	Equal to a.c.w.	(2'	Intermediate
	Equal to a.c.w.	(2'	Abundant
4	- Equal to a.c.w.	Shallow <sup>9</sup>	Exposed
	Less than a.c.w.	Shallow	Abundant
	Less than a.c.w.	Shallow	Intermediate
	Less than a.c.w.	(2'	Intermediate
	Less than a.c.w.	2' or deeper	Abundant
5	Less than a.c.w.	Shallow	Exposed

STREAM GAMEFISH HABITAT INVENTORY

FF-16

Stream W. Fle. Jarbidge River Inventory Date 8/24/72 Sample No. 3  
 Drain. System, Jarbidge Watershed Jarbidge County Elko  
 Sample Length 125' Sample Elev. \_\_\_\_\_ Sampled By: Goffin Green  
 Stream Length \_\_\_\_\_ Fishable Length \_\_\_\_\_ Elev. Range: From \_\_\_\_\_ To \_\_\_\_\_

Sample Location 1/2 mile upstream from town of Jarbidge, 1/4 mile above campground. \*\*\*

Stream Type	Bottom Type	++Pool Quality++	Runoff	Turbidity
Torr.	%Rock <u>20</u>	%Class 1 <u>20</u>	Flood _____	Clear <u>X</u>
Rapid	%Rubble <u>50</u>	%Class 2 <u>10</u>	High _____	Cloudy _____
Fast <u>X</u>	%Gravel <u>30</u>	%Class 3 <u>60</u>	Med. _____	Murky _____
Slow	%Sand _____	%Class 4 <u>10</u>	Low <u>X</u>	Muddy _____
Slug.	%Mud _____	%Class 5 _____	Int. _____	(JTU's) _____

?ePool Area 40 ? Riffle Area 60 Ave. Pool Quality \_\_\_\_\_

Temperature, of	Flow Data	Water Chemistry
Time Water Air Depth	Stream Width <u>11'</u>	DO ppm, CO2 _____ ppm
_____	Stream Depth <u>8"</u>	C03(phn _____ ppm, pH _____
_____	Gradient? _____	HC03 (MO) _____ ppm.
_____	Velocity (f/s) _____	Conductivity (Mhos/cm) _____
_____	Volume (cfs) _____	TDS _____ ppm
_____	Pollution Type _____	Source _____

Water Chemistry Analysis By: \_\_\_\_\_ Date: \_\_\_\_\_

Streambank Vegetation	Major Streambank Veg.	Stream Shading & Cover	Bank Stability
%Forest <u>30</u>	<u>Alder</u> % <u>30</u>	% Dense S&C _____	Stable % <u>30</u>
%Brush <u>30</u>	<u>Willow</u> % <u>55</u>	% Heavy S&C _____	Unstable % <u>70</u>
%Grass _____	<u>Aspen</u> % <u>10</u>	% Mod. S&C _____	
%Eroded <u>40</u>	<u>conifers</u> % <u>5</u>	% Light S&C <u>X</u>	
	% _____	% Comp. Open, _____	

Beaver Activity Age: \_\_\_\_\_ Control Needed \_\_\_\_\_

Seasonal Fish Food Abundance (Date)	Fish Food Organisms Present	Date
Fall Winter Spring Summer	% _____	_____
Excell _____	% _____	_____
Good _____	% _____	_____
Fair _____	% _____	_____
Poor _____	% _____	_____

Land Ownership	Grazing Pattern	Grazing Species/Season	Type Grazing Use/Season
%Private _____	Heavy	Cattle	Annual _____
%Public <u>100</u>	Moderate	Sheep	Rotation _____
Agency <u>USES</u>	Light	Horses _____	
	No Use <u>X</u>	Wildlife <u>All</u>	
photo Transect: Yes No	Year Established _____	Trend Check _____	
Description _____			

Fishery Quality Good Gamefish Species Rainbow, Dolly Varden, Whitefish  
 Catchables/Mile (6"+) 253.2 (+) Subcatchables/Mile (-6") 295.4 (+) Total - (970.6)  
 Stream Status: Improving Same Deteriorating Time Interval \_\_\_\_\_  
 Original Survey: 1954 Secondary Surveys 1961, 1972

Pool Quality Index

Quality	Length or		
Class No.	Width	Depth	Shelter <sup>1</sup>
1	Greater than a.c.w. <sup>2</sup>	2' or deeper	Abundant <sup>3</sup>
	Greater than a.c.w.	3' or deeper	Exposed <sup>1</sup>
2	Greater than a.c.w.	2' or deeper	Exposed
	Greater than a.c.w.	(2')	Intermediate
3	Greater than a.c.w.	(2')	Abundant
	Equal to a.c.w.	(2')	Intermediate
4	Equal to a.c.w.	(2')	Abundant
	Equal to a.c.w.	Shallow	Exposed
S	Less than a.c.w.	Shallow	Abundant
	Less than a.c.w.	Shallow	Intermediate
	Less than a.c.w.	(2')	Intermediate
	Less than a.c.w.	2' or deeper	Abundant
S	Less than a.c.w.	Shallow	Exposed

STREAM GAMEFISH HABITAT INVENTORY

FF-16

Stream W. Fk. Jarbidge River Inventory Date 8/24/72 Sample No. 4  
 Drain. System Jarbidge Watershed Jarbidge County Elko  
 Sample Length 150' Sample Elev. \_\_\_\_\_ Sampled By: Coffin-Green  
 Stream Length \_\_\_\_\_ Fishable Length \_\_\_\_\_ Elev. Range: From \_\_\_\_\_ To \_\_\_\_\_

Sample Location Confluence of Jack Creek

Stream Type	Bottom Type	++Pool Quality++	Runoff	Turbidity
Torr. _____	%Rock <u>40</u>	%class 1 <u>5</u>	Flood _____	Clear <u>X</u>
Rapid _____	%Rubble <u>50</u>	%Class 2 <u>20</u>	High. _____	Cloudy _____
Fast <u>X</u>	%Gravel <u>10</u>	%Class 3 <u>40</u>	Med. _____	Murky _____
Slow _____	%Sand _____	%Class 4 <u>20</u>	Low <u>X</u>	Muddy _____
Slug. _____	%Mud _____	%Class 5 <u>15</u>	Int. _____	(JTU's) _____
%Pool Area <u>40</u>	%Riffle Area <u>60</u>	Ave. Pool Quality _____		

Temperature, of			Flow Data		Water Chemistry	
Time	Water	Air	Depth	Stream Width	DO	ppm, Co2
_____	_____	_____	_____	<u>12'</u>	_____	_____
_____	_____	_____	_____	<u>10"</u>	CO3 (Phpn	ppm, pH _____
_____	_____	_____	_____	Gradient%	HCO3 (MO)	ppm,
_____	_____	_____	_____	Velocity(f/s)	Conductivity (Mhos/cm)	_____
_____	_____	_____	_____	Volume(cfs)	TDS	ppm
_____	_____	_____	_____	Pollution Type	Source,	_____

Water Chemistry Analysis By: \_\_\_\_\_ Date \_\_\_\_\_

Streambank Vegetation	Major Streambank Veg.	Stream Shading & Cover	Bank Stability
%Forest <u>10</u>	<u>Willow</u>	% Dense S&C _____	Stable% <u>90</u>
%Brush <u>60</u>	<u>Alder</u>	% Heavy S&C _____	Unstable% <u>10</u>
%Grass <u>30</u>	<u>Aspen</u>	Mod. S&C <u>X</u>	_____
%Eroded _____	<u>Juniper</u>	% Light S&C _____	_____
		% Compo Open _____	_____

Beaver Activity Age: \_\_\_\_\_ Control Needed \_\_\_\_\_

Seasonal Fish Food Abundance(Date)	Fish Food Organisms Present	Date
Fall	Winter	Spring
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Land Ownership	Grazing Pattern	Grazing Species/Season	Type Grazing Use/Season
%Private _____	Heavy	Cattle	Annual _____
%Public <u>100</u>	Moderate	Sheep	Rotation, _____
Agency <u>USFS</u>	Light	Horses _____	_____
	No Use <u>X</u>	Wildlife <u>All</u>	_____

photo Transect: Yes No Year Established \_\_\_\_\_ Trend Check \_\_\_\_\_  
 Description \_\_\_\_\_

Fishery Quality	Gamefish Species	Total
<u>Good</u>	<u>Rainbow, Dolly Varden</u>	<u>985.6</u>
Catchables/Mile (6"+)	Subcatchables/Mile (-6")	
Stream Status: Improving Same Deteriorating Time Interval		
Original Survey: <u>1954</u>	Secondary Surveys <u>1961, 1972</u>	

Pool Quality Index

Quality Class No.	Length or Width	Depth	Shelter <sup>1</sup>
1	Greater than a.c.w. <sup>2</sup>	2' or deeper	Abundant <sup>3</sup>
	Greater than a.c.w.	3' or deeper	Exposed <sup>4</sup>
2	Greater than a.c.w.	2' or deeper	Exposed
	Greater than a.c.w.	(2')	Intermediate <sup>5</sup>
	Greater than a.c.w.	(2')	Abundant
3	Equal to a.c.w.	(2')	Intermediate
	Equal to a.c.w.	2'	Abundant
4	Equal to a.c.w.	Shallo'	Exposed
	Less than a.c.w.	Shallow	Abundant
	Less than a.c.w.	Shallow	Intermediate
	Less than a.c.w.	(2')	Intermediate
	Less than a.c.w.	2' or deeper	Abundant
5	Less than a.c.w.	Shallow	Exposed