117 Conejo Place, Durango, CO 81301

970-259-2623

aquahabinc.com

coreysuehutchinson@gmail.com

PROPOSAL FOR HABITAT AND ACCESS ON THE DOLORES RIVER TOWN OF DOLORES

Prepared For: The Town of Dolores

Prepared By: Corey Sue Hutchinson

INTRO

This proposal was prepared for the Town of Dolores as part of their potential Fishing is Fun Grant application. Over the years, there have been several projects conducted within this current planning area. Site work proposed here include the repair and enhancement of existing structures as well as many new access (steps) and structure locations. This plan is a good start but final planning will need to occur for acquisition of a U.S. Army Corps 404 permit and construction.

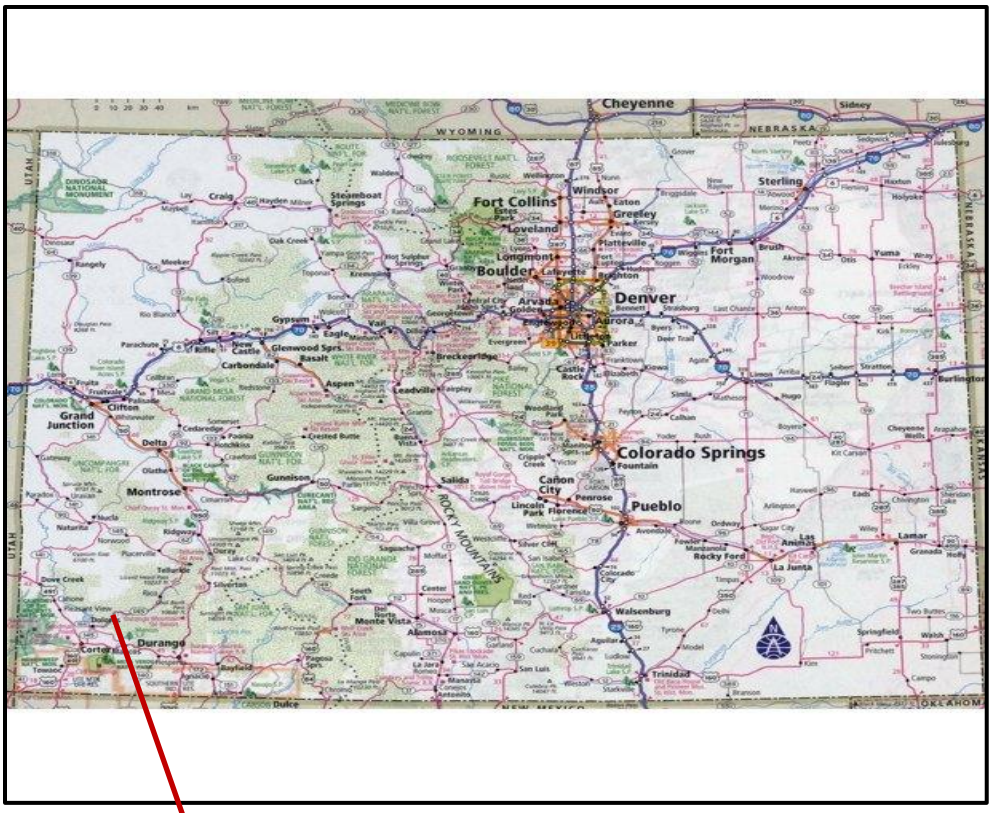
PROJECT AREA DESCRIPTION

Years ago the Dolores River was straightened and a levee built, in the effort of flood control. As a result, the channel is very confined and has little to no structure. Fish habitat in this general section of the Dolores is a continuous, fast riffle with no pools or cover at low or high flows (in the unimproved areas). Stream flow is un-regulated and flows can range from approximately 35 cfs to 5000 cfs. Much the river bank on the north side is very steep, and dangerous for most people to scramble down to fish or enjoy the river. In the lower section of this project, rip- rap was constructed that includes rusty cars and other metal junk.

Water quality in the Dolores River is quite good. Turbidity and sediment transport are naturally occurring during spring snow melt and rain events. During the survey for this proposal salmon were seen spawning and several other redds (nests of cleared gravel below boulders) were observed. Because natural reproduction is tenuis, this is encouraging.

The project area is divided into two sections. 1). From Hwy 145 bridge , downstream several hundred yards to 4th St. and 2). 9th St to several hundred yards above Dolores City Park. Figures 1 & 2.

FIGURE 1: TOWN OF DOLORES LOCATION



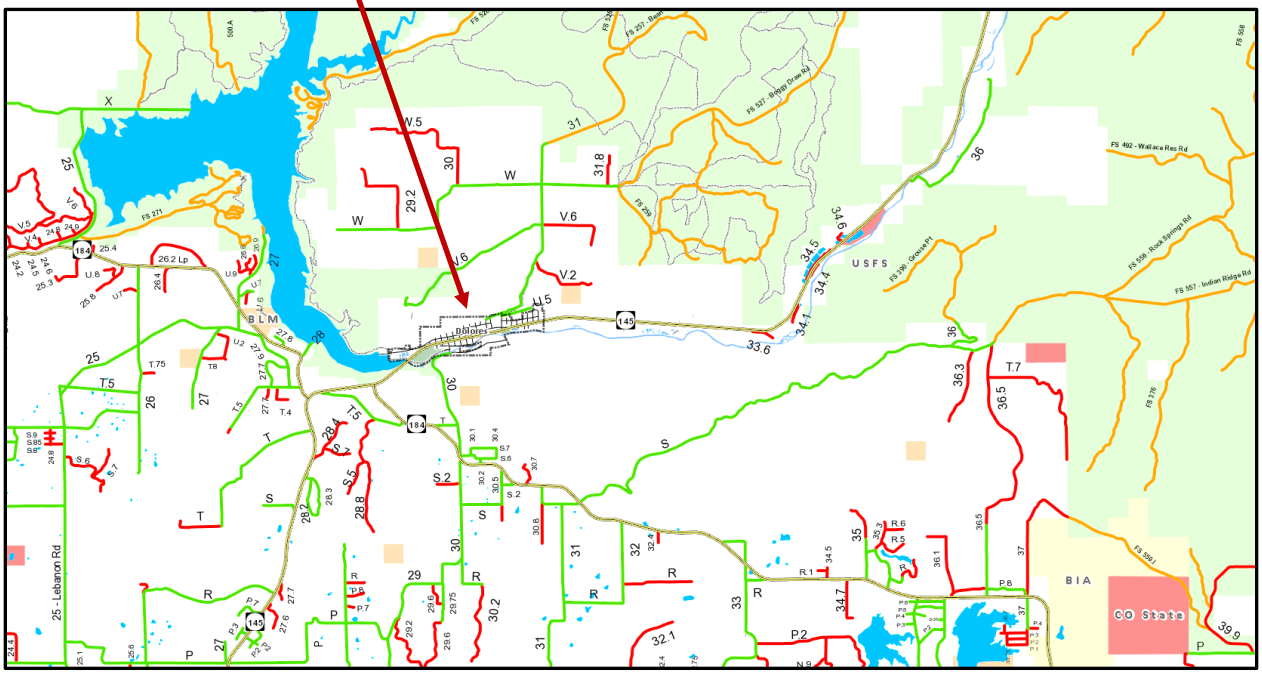
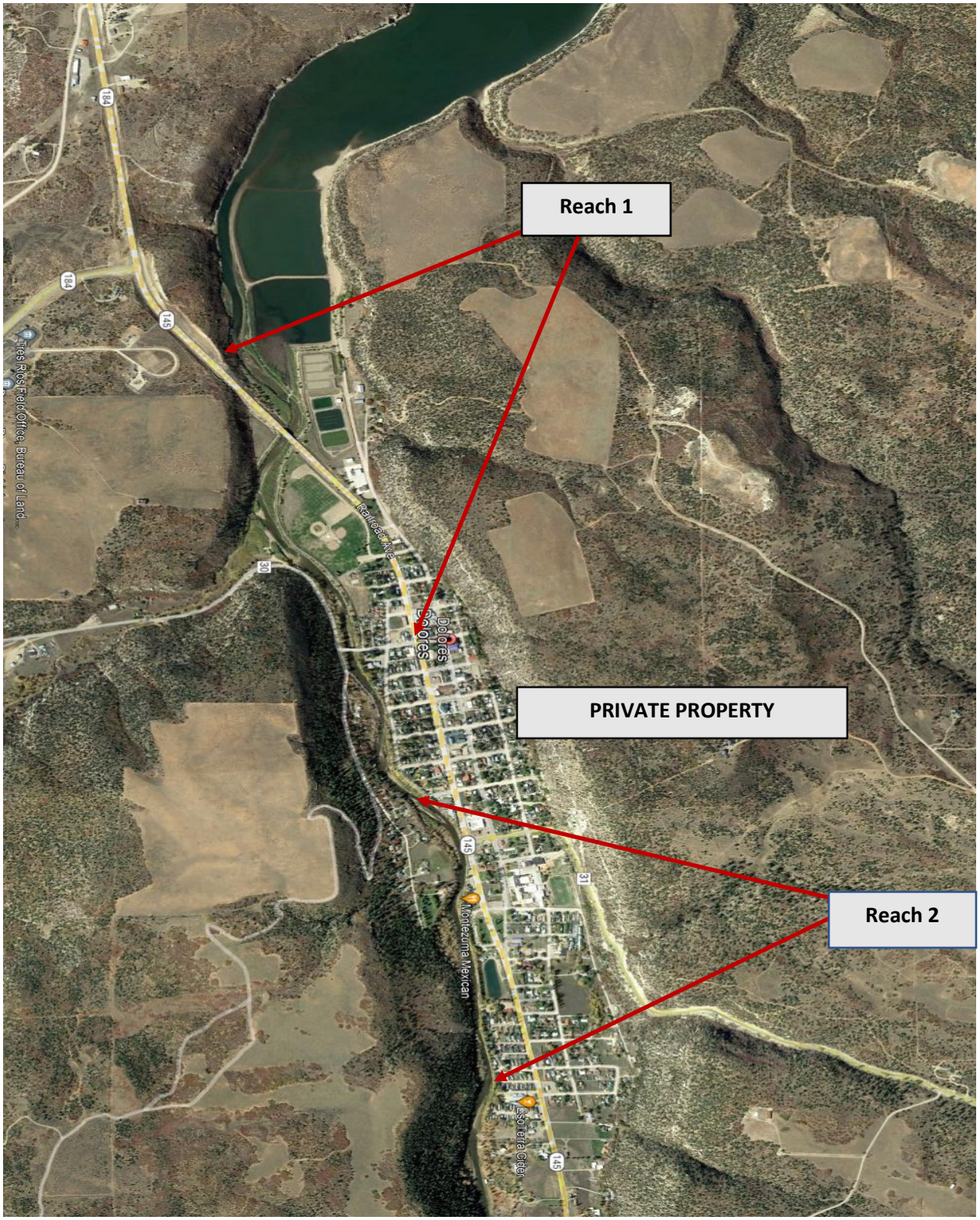


FIGURE 2: PROJECT EVALUATION AREA



REACH 1- BELOW HWY BRIDGE TO 4th STREET

This section has some decent habitat in general and one structure. The following are ideas for improvements. As mentioned above, final designs will be determined by grant allocation and input from the Town and public. Examples of the structures are included in Figure X-X.

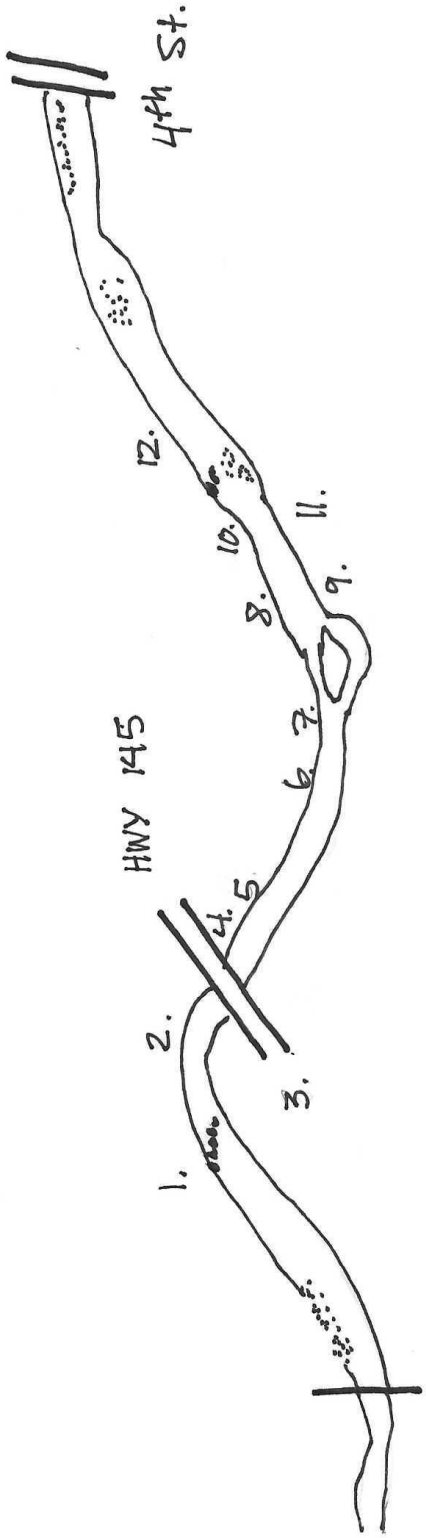
1. Dig out existing structure.
2. Build steps that merge into J-Hook structure.
3. Place a few sitting rocks under bridge.
4. Build steps that merge with vortex weir structure.
5. Re-arrange rip-rap into path to river from existing trail.
6. Build vortex weir.
7. Pull rock from bank into river for cover structures.
8. Boulder clusters.
9. Clear path.
10. Pull boulders from bank into river.
11. Fix steps and add boulder clusters.
12. J-hook at existing steps.

A total of boulders needed is 160 including 12 flat for steps.

Example of area to construct and maintain steps.

Above Highway Bridge

FIGURE 4: REACH 1 SITES

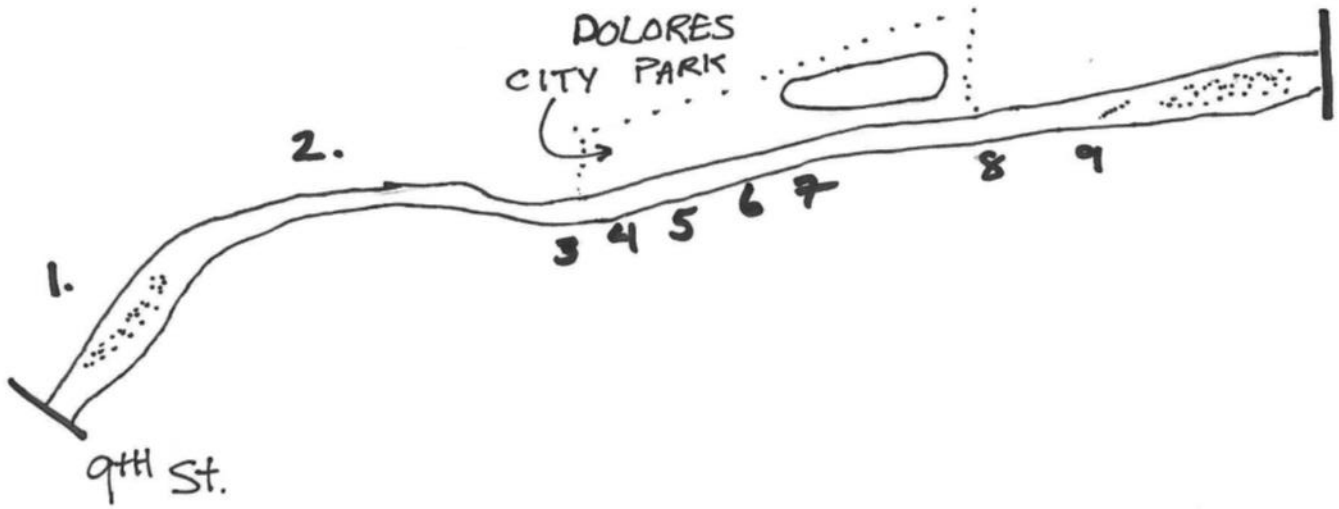


REACH 2: FROM 9TH STREET TO TRAILER PARK

This section has had improvements constructed in the past. These suggestions include maintenance of several step locations as well as new construction and structure maintenance.

1. Vortex weir on west side of island.
2. Vortex weir in narrow section.
3. Organize existing boulders into j-hook.
4. At platform add on to make j-hook.
5. Add boulders to create J-hook.
6. Steps.
7. Dig out below structure, use existing rock for steps.
8. Outflow area- j hook and build steps.
9. Steps.

A total of 54 boulders is needed including 16 flat for steps.


DOLORES
CITY PARK
1.
2.
3
4
5
6
7
8
9
9TH St.

COST ESTIMATE

The following estimate is based on the above proposal. A more detailed and accurate estimate will be prepared once the scope of work is decided on.

Detailed planning and 404 permit application	(Aqua-Hab)	$6,000
Boulders		
(blasted and delivered) from pit in Cortez	215 minimum 1 yard in size	$24,000
Equipment for all river work (Excavator, loader, transport)		
2 weeks excavator, 4 days loader		$29,000
Materials		$1,000
Aqua-Hab, Implementation		$11,000
TOTAL		$ 71,000

FIGURE 6: REACH 2 SITES

Reach 2: Some good Habitat but in need of more pools and cover.

View Downfrom 4th Street Bridge

Redd (Spawning Area) Above 9th Street Bridge

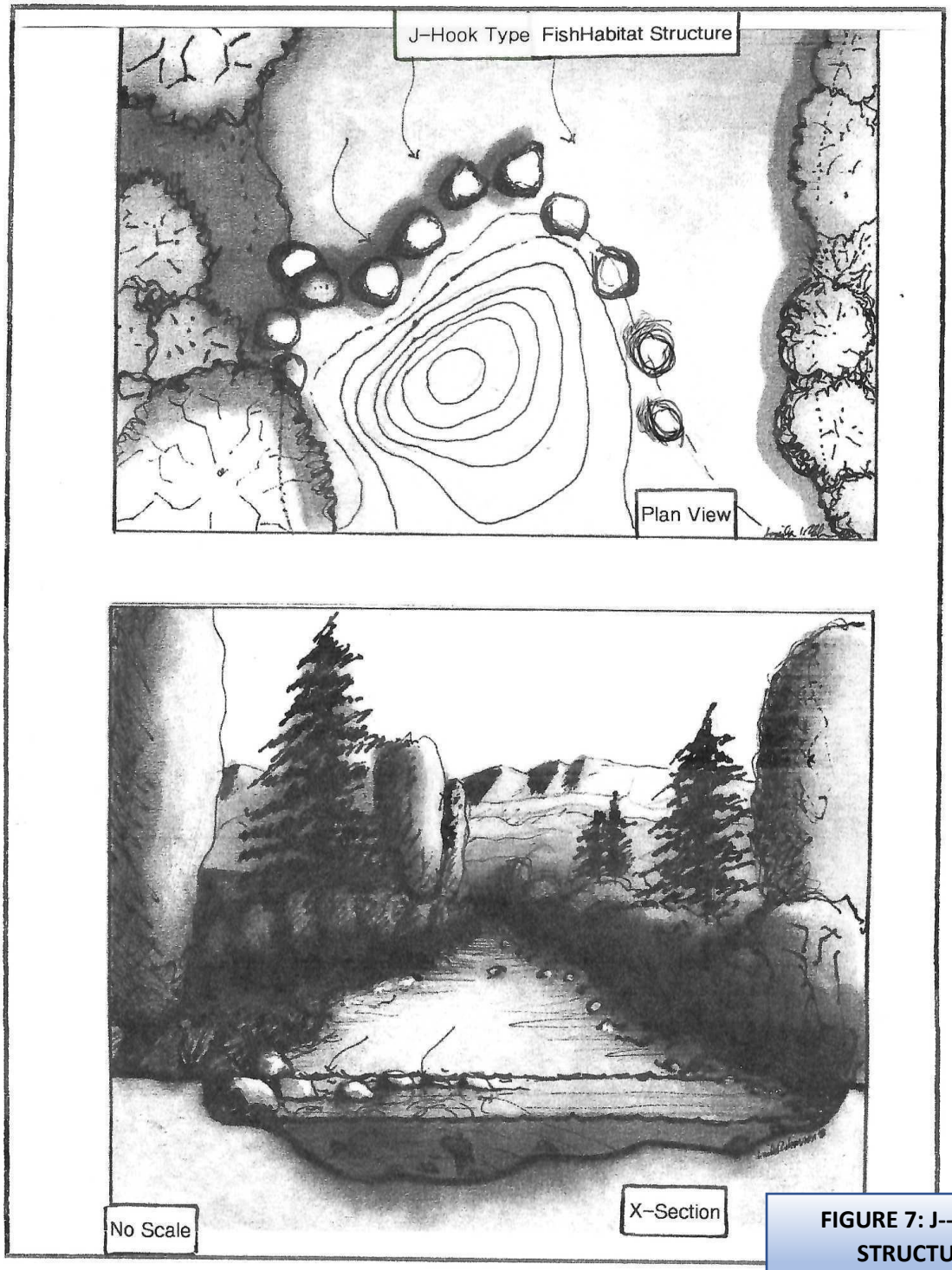


FIGURE 7: J--HOOK STRUCTURE

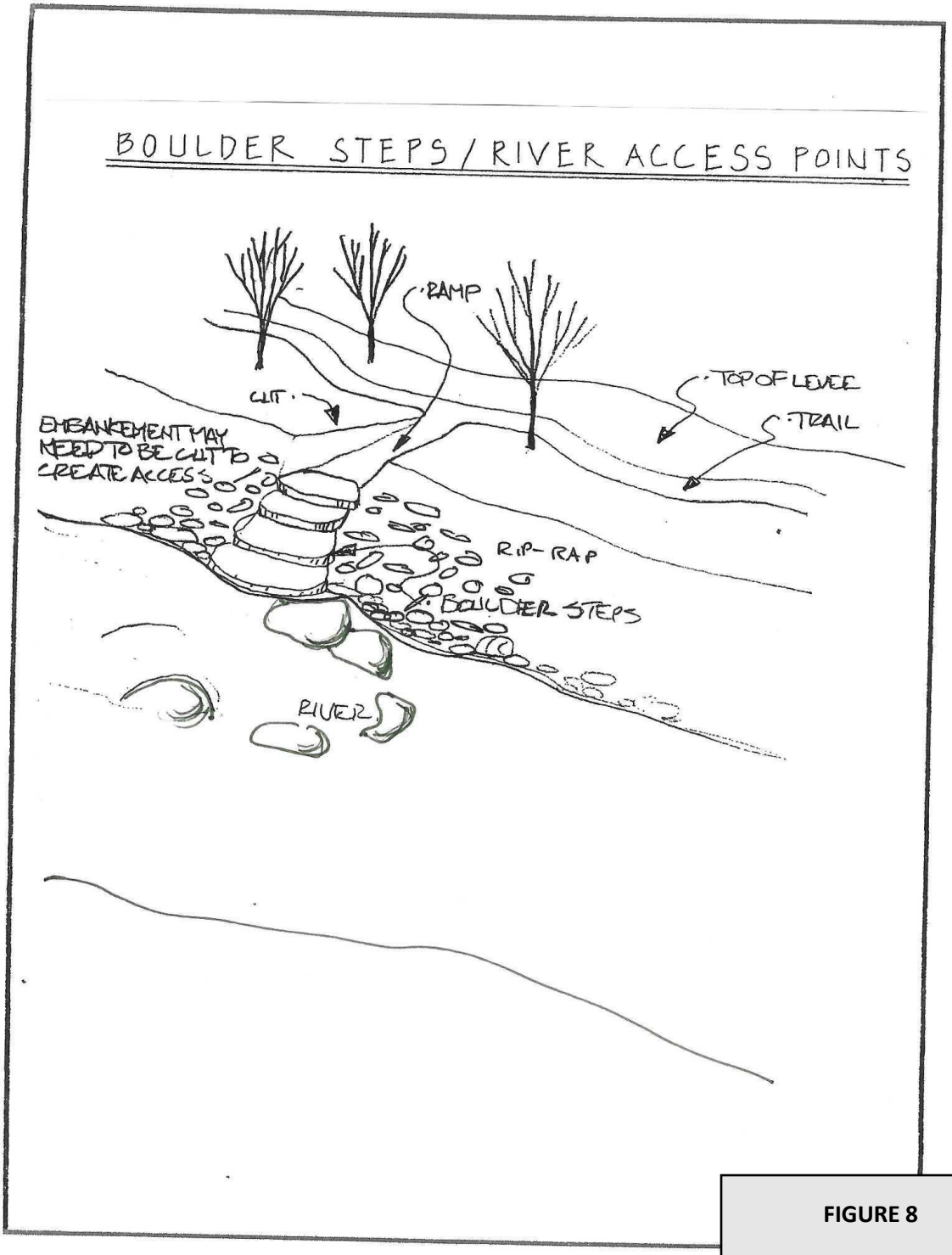

BOULDER STEPS / RIVER ACCESS POINTS
RAMP
CUT
EMBANKEMENT MAY NEED TO BE CUT TO CREATE ACCESS
TOP OF LEVEE
TRAIL
RIP-RAP
BOULDER STEPS
RIVER

FIGURE 8

FIGURE 9 :EXAMPLE OF VORTEX WEIRs

La Plata RIver

Dolores River in Town

Examples of needed step repair

Reach 2