

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION**Permit No:** 13-8042**Exam Date:** 9/8/2023

1. Current Owner:

WESTON CREEK IRRIGATION CO
PO BOX 1
WESTON ID 83286-0001

2. Accompanied by: Carl Koller, owner of property containing pond

3. **SOURCE:** Weston Creek**TRIBUTARY TO:** Bear River**B. OVERLAP REVIEW**

1. Place of Use: None. Pond is located within the service area of Weston Creek Irrigation Company ("WCIC").

2. Point of Diversion: WCIC water is delivered to shareholders for irrigation use through the same buried pipeline. The point of diversion, however, is not currently listed on the water rights for WCIC (13-948, 13-949, 13-2293). The company plans to address the point of diversion issue in the upcoming Bear River Basin Adjudication.

C. DIVERSION AND DELIVERY SYSTEM**1. POINT(S) OF DIVERSION:**

WESTON CREEK SW¼ SW¼, Sec. 13, Twp 16S, Rge 38E, B.M. FRANKLIN County

2. PLACE OF USE: IRRIGATION STORAGE

Twp	Rng	Sec	NE				NW				SW				SE			
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE
16S	38E	13												X				

3. DELIVERY SYSTEM

Diversion dam on Weston Creek feeds water into a buried pipeline. Water conveyed in buried pipeline to a control box. Approximately 75 feet northwest of the pond is a control box that can be used to send water from the pipeline into the pond. Pipeline continues to the east past the pond to deliver irrigation water to shareholders in WCIC. This branch of the WCIC system is called the East Field Branch. Water enters the pond in a pipeline on the northwest corner of the pond. Overflow pipeline is on the southeast corner of the pond. Pipeline discharges water from overflow system into Weston Creek.

D. FLOW MEASUREMENTS

Field exam was conducted on a day when the diversion to storage element of the water right was out of season. In the summer, the only water that may be delivered into the pond is storage water from the company's large reservoir (Weston Creek Reservoir). On the day of the exam, only a small amount of water was being released from the Weston Creek Reservoir. During the summer, most of the water diverted from Weston Creek in the buried pipeline continues past the control box for delivery of irrigation water to shareholders on the East Field Branch of WCIC. The flow through the pond on the day of the exam, therefore, did not reflect the maximum capacity of the system.

E. FLOW CALCULATIONS

Greg Bingham, president of WCIC, receives delivery of his shares through the East Field Branch pipeline, the buried pipeline that also supplies water to the reservoir. Mr. Bingham provided delivery records from WCIC showing the maximum delivery to shareholders on the East Field pipeline in 2022 and 2023. Because water right 13-8042 has a limited season of use for diversion to storage, the delivery of irrigation water during the summer provides an accurate measurement of the capacity of the pipeline. In 2023, the maximum delivery to the East Field Branch, downstream of the control box, was 1.50 cfs.

Greg Bingham and Carl Koller confirmed that a minimum amount of water is routed through the pond during the summer months to maintain oxygen levels in the pond and to reduce algae growth. The water flowing through the pond is captured by WCIC at a downstream headgate. Mr. Bingham and Mr. Koller estimated that the flow through was approximately 0.25 cfs. Therefore, the maximum capacity of the pipeline is approximately 1.75 cfs (785 gpm). The licensed flow rate will be 1.75 cfs.

F. VOLUME CALCULATIONS

During the summer, pond is used as a regulation reservoir for storage water released from Weston Creek Reservoir. Therefore, any evaporation or seepage from the pond during the summer months comes out of the storage water supplied by Weston Creek Reservoir. Permit 13-8042 was primarily obtained to allow WCIC to retain and capture water in the pond during the non-irrigation season. Permit 13-8042 included an annual volume limit of 20 acre-feet, the estimated capacity of the reservoir.

20 acre-feet is an accurate estimate of the total capacity of the pond. The total surface area of the pond is 3.0 acres. Mr. Koller said that the pond was constructed with a deep channel along the southwest embankment to keep fish alive during the winter months. This deeper part of the reservoir extends along the length of the embankment (450 feet) and is approximately 40 feet wide. Mr. Koller said the water depth in this area was about 20 feet deep. Therefore, the volume associated with the deep channel is 8.2 acre-feet ($450 \text{ feet} \times 40 \text{ feet} \times 20 \text{ feet} / 43,560 \text{ sq. ft per acre} = 8.2 \text{ acre-feet}$). The remaining 2.6 acres of the pond has a maximum depth of 12 feet and regular sloped sides. The volume associated with the remaining portion of the pond is 12.5 acre-feet ($2.6 \text{ acres} \times 12 \text{ ft} \times 0.4 = 12.5 \text{ acre-feet}$). The estimated volume of the pond is 20.7 acre-feet. Permit 13-8042 was limited to 20 acre-feet. The licensed volume will be 20 acre-feet.

G. NARRATIVE/REMARKS/COMMENTS

Permit 13-8042 was issued for a pond that had already been constructed. The pond acts as a regulating reservoir for WCIC during the summer months. WCIC uses the pond to capture buffer releases from Weston Creek Reservoir, which is owned and operated by the company. The permit allowed WCIC to hold water in the pond over the winter and to capture water in the pond during the non-irrigation season.

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
IRRIGATION STORAGE	01/01 to 12/31		20.0 AF
IRRIGATION FROM STORAGE	04/20 to 09/30		20.0 AF
DIVERSION TO STORAGE	10/16 to 04/30	1.75 CFS	

Totals: 1.75 CFS 20.0 AF

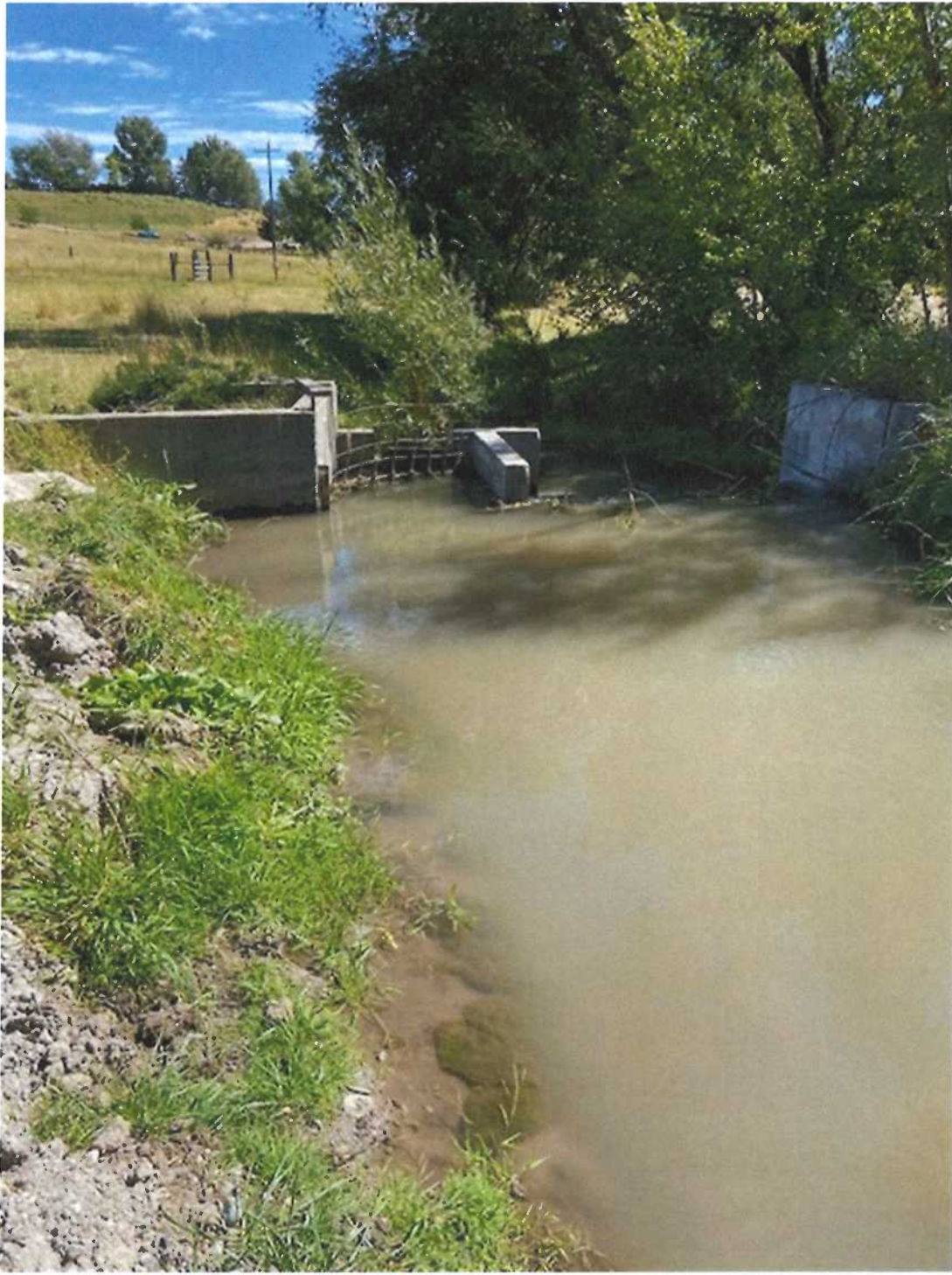
2. Recommended Amendments

 Change P.D. as reflected above Add P.D. as reflected above X None

 Change P.U. as reflected above Add P.U. as reflected above X None

I. AUTHENTICATION

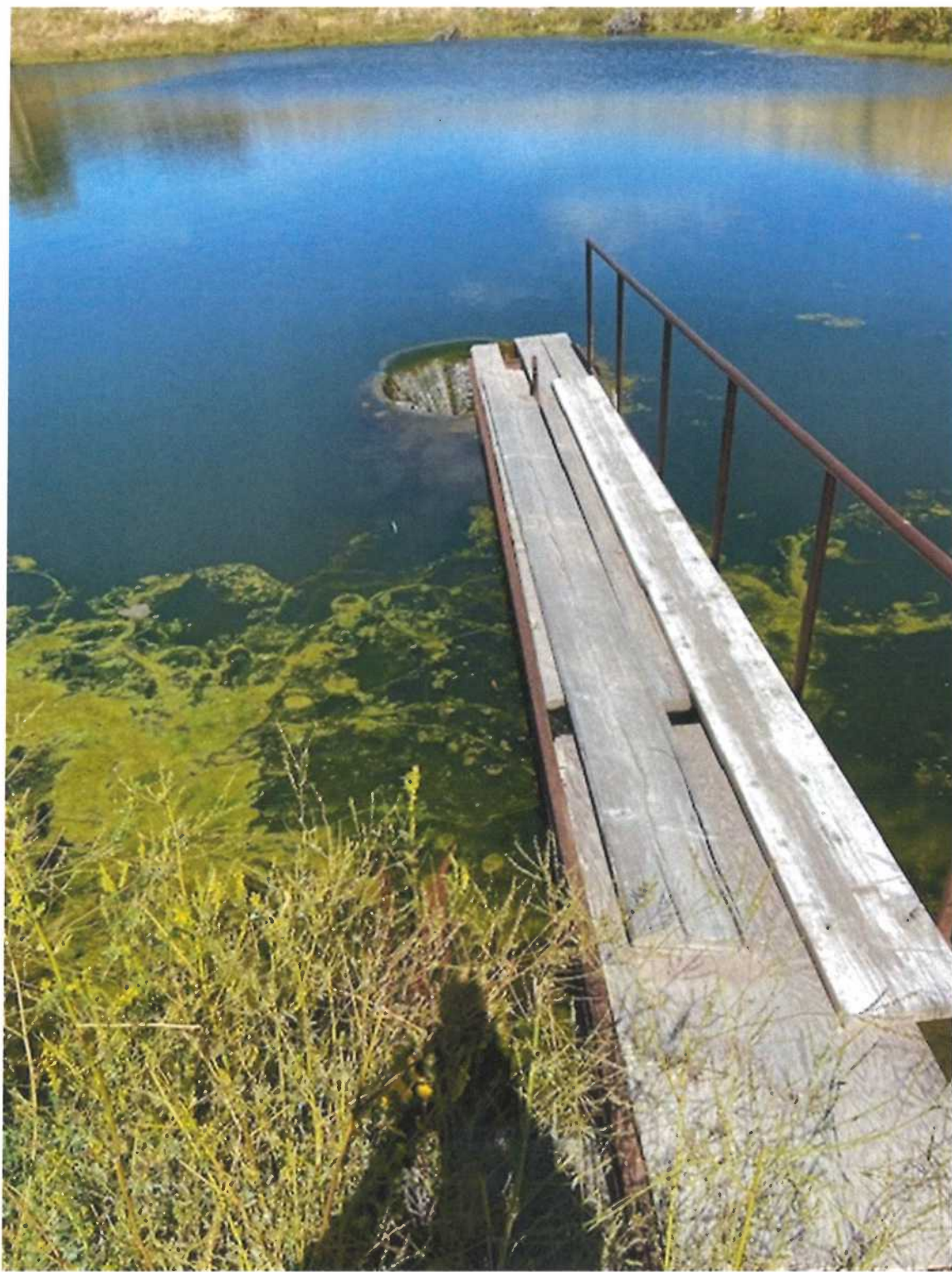
Field Examiner's Name James Cefalo Date 9/19/2023
 Reviewer Blake Sordan Date 9/19/2023



Point of Diversion on Weston Creek. Inlet for buried pipeline.



Control box on buried pipeline.



Overflow on pond.



Return flow into Weston Creek.

East Field water usage for 2022

4-May 1cfs	1
6-May 1cfs	1
9-May .5 cfs	0.5
10-May .5 cfs	0.5
11-May .4 cfs	0.4
13-May .5 cfs	0.5
14-May .5cfs	0.5
17-May .8 cfs	0.8
21-May 1cfs	1
25-May .75cfs	0.75
29-May .8cfs	0.8
10-Jun 1 cfs	1
14-Jun off	0
21-Jun 1.2cfs on	1.2
1-Jul .5cfs	0.5
2-Jul .75 cfs	0.75
5-Jul 1cfs	1
10-Jul .95cfs	0.95
13-Jul .5cfs	0.5
16-Jul .5cfs	0.5
18-Jul .3cfs	0.3
24-Jul 1cfs	1
25-Jul off	0
27-Jul .7cfs on	0.7
29-Jul .75 cfs	0.75
3-Aug .5cfs	0.5

East Field 2023

6/28/2023	1.25
7/2/2023	1.5
7/4/2023	0.4
7/6/2023	0.5
7/25/2023	0.9
8/23/2023	1.4

Ran 91 days that I kept track of.
122 acre feet