



Hemphill Diversion Project

Operations and Maintenance (O&M) Manual

DRAFT
Revision No. 0

Prepared by:



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Table of Contents

1.0	General Information	1
1.1	Authorization	1
1.2	Purpose	1
1.3	Scope	1
1.4	Parts of Manual	1
1.5	Project Description	1
2.0	System Description	3
2.1	Auburn Ravine	3
2.2	Roughened Ramp Fishway	3
2.3	Cone Fish Screen Intake	3
2.4	Power Supply	3
2.5	Siphon and Ultrasonic Flow Meter	3
2.6	Head Gate	3
2.7	Hemphill Canal	3
3.0	Theory of Operation	3
4.0	Operations	3
4.1	Commence flow into Hemphill Canal	3
4.2	Adjust flow into Hemphill Canal	3
4.3	Cease flow into Hemphill Canal	4
4.4	Maintain Minimum Flow	4
4.5	Managing Maximum Flow	4
4.6	Monitoring and Telemetry	4
5.0	Preventative Maintenance	4
5.1	General Maintenance Policies	4
5.2	Roughened Channel Maintenance	4
5.3	Sluicing and Sediment Management	4
5.4	Cone Fish Screen Maintenance	4
5.5	Planned Loss of Power	4
5.6	Staff Gauge	4
5.7	Structural Features	4
5.8	Manhole Access	5

6.0 Trouble Analysis and Corrective Maintenance5

6.1 Clogged Fish Screen5

6.2 Inoperable Head Gate5

6.3 Unplanned Loss of Power5

6.4 Obstruction in Siphon5

List of Tables

Table 4-1. Typical table caption2

List of Figures

Figure 1-1. Typical figure caption.....2

Appendices

Appendix A Title

Distribution

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Revision Log

Revision No.	Date	Revision Description
0	January 19, 2022	First draft

1.0 General Information

1.1 Authorization

Text

1.2 Purpose

Text

1.3 Scope

Text

1.4 Parts of Manual

Text

1.5 Project Description

Text

Landscape page if needed.

Figure 1-1. Typical figure caption

Table 1-1. Typical table caption

Title	Title

2.0 System Description

2.1 Auburn Ravine

Description

2.2 Roughened Ramp Fishway

Description

2.3 Cone Fish Screen Intake

Description

2.4 Power Supply

Description

2.5 Siphon and Ultrasonic Flow Meter

Description

2.6 Head Gate

Description

2.7 Hemphill Canal

Description

3.0 Theory of Operation

This section contains a narrative describing how the system works.

4.0 Operations

4.1 Commence flow into Hemphill Canal

Procedures for opening the head gate and commencing flow when canal is dry.

4.2 Adjust flow into Hemphill Canal

Procedures for adjusting the rate of flow into canal.

4.3 Cease flow into Hemphill Canal

Procedures for halting flow into the canal.

4.4 Maintain Minimum Flow

How to operate the system such that minimum flow is maintained.

4.5 Managing Maximum Flow

How to operate the system when maximum/flood flows are occurring.

4.6 Monitoring and Telemetry

Discussion about using staff gauge, ultrasonic flow meter to monitor operations. Telemetry.

5.0 Preventative Maintenance

Preventative maintenance are the tasks and efforts performed prior to identifying any deficiencies or faults.

5.1 General Maintenance Policies

Overarching maintenance policies that apply to the project as a whole.

5.2 Roughened Channel Maintenance

Maintenance considerations for the fish passage.

5.3 Sluicing and Sediment Management

How/when to operate sluice gate and other sediment management concerns.

5.4 Cone Fish Screen Maintenance

Maintenance policies for the cone fish screen.

5.5 Planned Loss of Power

Procedures for depowering the system intentionally.

5.6 Staff Gauge

Discussion about maintain staff gauge

5.7 Structural Features

Maintenance for concrete headwalls, sheet pile cutoff wall, other structural components

5.8 Manhole Access

Procedures for accessing manhole to perform maintenance on flow meter.

6.0 Trouble Analysis and Corrective Maintenance

Corrective maintenance are the tasks and efforts performed after identifying a deficiency or fault and taken specifically to address the issue.

6.1 Clogged Fish Screen

Procedures for unplanned maintenance on fish screen when not performing as expected.

6.2 Inoperable Head Gate

What to do when the head gate cannot be operated.

6.3 Unplanned Loss of Power

Description of what to do if power is lost unintentionally.

6.4 Obstruction in Siphon

What to do if flow is not passing through the siphon.

Appendix A:
Title