ADULT AND JUVENILE FISH FACILITIES MONITORING REPORT

McNary Lock and Dam

2013

By

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INTRODUCTION

ADULT FISH FACILITIES

Facilities Description

The adult fish passage facilities at McNary Lock and Dam consist of separate north and south shore facilities. The north shore (Washington) facility includes a fish ladder with a counting station, a collection system, and a gravity-flow auxiliary water supply system. The collection system has three downstream entrances and a side entrance into the spillway basin. In normal operations, the facility only uses two of the downstream entrances. The gravity-flow auxiliary water supply system takes water from the forebay through two conduits, passes it through a ten megawatt generator owned by the North Wasco/Klickitat Public Utility District (PUD), and then distributes flow through diffusers at the bottom of the ladder and in the entrance pool. The old fish lock, located adjacent to the generator, acts as the bypass route when the generator is not in service, distributing the flow to the same diffuser system.

The south shore (Oregon) facility includes a fish ladder with a counting station, two south shore entrances, a powerhouse collection system, a gravity-flow auxiliary water system and a pumped auxiliary water supply system. At the north end of the powerhouse collection system, one side entrance weir faces into the spillway basin and the three other weirs face downstream. During normal operations, the facility only uses two of the downstream-facing entrances. The system also includes twelve floating orifices entrances located across the powerhouse along a common collection channel.

One conduit from the forebay supplies gravity-flow auxiliary water to diffusers 7 to 14 at the bottom of the ladder. Three electric pumps with variable-pitched blades pump additional auxiliary water to the remainder of the ladder system from diffusers 1 to 7 and the collection channel. Two pumps are capable of providing the required flow when the third pump's intake and discharge are sealed with bulkheads.

Finally, the juvenile facility routes excess water from the primary dewatering structure in the juvenile fish collection channel to the adult collection system at the north end of the powerhouse.

Facilities Modifications and Improvements

During the winter maintenance season of 2013, on the Washington and Oregon ladders, a contractor installed new exit cranes. Also, on the Washington ladder the project attempted to seal some joint leaks and installed a new heat pump in the PIT tag station.

On the Oregon ladder the project:

1. Replaced the 1000 cfs auxiliary water supply intake valve's lifting chain;
2. Again repaired and painted the picketed leads;
3. Fisheries staff installed a new toilet for the count station;
4. Repaired diffuser 11's support and replaced the grating;
5. Fisheries staff installed a new velocity meter;
6. Removed the stilts from the weir at SFEW2, which had been installed for a lamprey passage study;
7. Improved walkway access to SFEW1 and SFEW2;
8. Fisheries staff installed camera rails in the two juvenile bypass wells at the exit;
9. Fisheries staff cleaned the exit's juvenile bypass entrance ports. They cleaned three and six ports respectively on the south and north sides;
10. Repaired air lines at the view room;
11. Fisheries staff repaired three joints in a PIT tag detector's conduit;
12. Replaced one J-bolt in the lamprey passage walkway at diffuser 12.

In early in the season, the project reinitiated the ladders' control system's printouts. Late in the year, the project prepared all bulkheads for the next winter outage. Any other in season modifications of the ladders can be found in the report's text.

Operations and Maintenance

Fishway Activities

Table 1 outlines both ladders' fish counting schedules. This was the eight season computers were used to tally the fish and the fifth season of adult lamprey video monitoring. The project had picketed leads in place during the counting season.

Table 1. Fish Counting Schedule.

Dates	**Activity**
Jan 1 – Mar 31	No counting.*
Apr 1 – Oct 31	Visual counting daily (0400-2000 hours PST).
Jul 1 – Sep 30	Night lamprey passage video reviewed (2000-0400 hours PST). .
Nov 1 – Dec 31	No counting.

*As noted in the 2012 report, video tape review continued from January 1 to February 28, 2013 for both ladders when they were in service.

Adult salmonid PIT tag detection and the adult lamprey passage study are ongoing. NOAA fisheries continued their monthly inspections.
We monitored water temperature from June 23 to October 2 this year. The probe deployment was delayed eight days due to a program issue. We went past the September 15 end date due to warm water temperatures. Our probes recorded temperatures hourly in one location at each ladder's exit. Also, we had a probe at the juvenile facility separator for comparison.

From March 26 to November 27, we operated the juvenile fish facility for juvenile fish bypass and adult fallbacks. From November 27 to December 19, the system was in emergency bypass and did not supply the 450 cfs to the Oregon north powerhouse entrance.

Adult Fish Trap Operations

McNary has no active tagging program and no outside agencies trapped at McNary this year.

Fish Ladders and Collection Channel Schedules

Table 2 outlines both ladders' operation and maintenance schedules.

Table 2. Fish Ladder Operating Schedule.

Ladder/Dates	**Activity**
Washington	
Jan 1 – 7	Ladder in service.
Jan 7 – 24	Ladder out of service for inspection and maintenance.
Jan 24 – Dec 31	Ladder in service.
Oregon	
Jan 1 – 28	Ladder in service.
Jan 28 – Mar 4	Ladder out of service for inspection and maintenance.
Mar 4 – Dec 31	Ladder in service.

Washington Ladder Outage

On January 5, the operators switched the Washington ladder to orifice flow. On January 7, the general maintenance crew completed installation of the exit and PUD conduit bulkheads completing the dewatering.

During the Washington ladder outage, the project conducted the following repairs and inspections:

1. We inspected the upper ladder and removed about 200 adult shad. The regulating and tilting weirs, stationary weirs and counting station structures were in good condition and received maintenance. General maintenance cleaned and painted the count station window floor panel and back board. The fisheries crew cleaned the staff gauges and sensors' still wells. We also removed 12 trash cans of tumbleweeds from the picketed leads' supports.

2. The fisheries staff examined the submerged orifices removing debris (tumbleweeds, small logs and one root wad) from six blocked orifices, clearing two partial orifice blockages and removing about three dozen sticks. We also removed one 55 gallon drum. We evacuated eight shad, four suckers and one crappie. During this time, we also examined diffuser 12 with no problems found. The project worked to seal some of the joint leaks.

3. PSMFC and COE performed maintenance on the ladder's s adult PIT tag detectors and associated equipment. The University of Idaho maintained the duplex antennas.

4. On January 8, the fisheries staff examined diffuser gratings 1 through 11 using an underwater camera found no problems. There continues to be concern over integrity of the concrete entrance bulkheads which face spillbay 1.

5. All entrance weirs received preventative maintenance. We also had the weir motors rehabilitated and we installed new digital controls.

6. On January 17 and 22, we stomped the debris at the PUD's conduits' intakes. On January 22, the fisheries staff used a camera at conduit 3 to ensure it was cleared.

We will discuss operations of the PUD unit later in the Auxiliary Water Section. On January 24, we removed all bulkheads and returned the ladder to service in automatic mode.

<u>Washington Ladder Exit - Season</u>

During the season at the Washington exit, the fisheries staff checked the set points about twice a week. After cleaning the sensor still wells, few set point adjustments were necessary. The exit was in automatic mode most of the year. We will discuss exit issues effects on criteria points in the Results Section.

Debris loads at the exit continue to be an issue. We checked the picketed leads daily during the counting season, cleaning them whenever required, which included holidays and weekends at times. The debris loads fluctuate with high flows and storms, which increase the amount of debris. From March to May, we observed mostly tumbleweeds, though they occur year round, with an influx also noted in late December. In May, we passed some of the debris down the navigation lock. From June to October, Eurasian milfoil was the principle debris component, though it was also present to year's end.

The mechanical and general maintenance staffs performed scheduled maintenance on the exit weirs and picketed lead hoist along with the exit trash hoist. Also, the general maintenance crew cleaned the count station backboards as needed. Table 3 addresses in season issues:

Table 3. In Season Washington Ladder Exit Issues.

Date	**Time**	**Issue**	**Reason/ Result**
Early Mar	About one day.	Two PIT tag station heat pumps.	Cleaned.
Mar 28	One day.	One PIT tag station heat pump near failure.	Replaced.
Mar 29	For season.	Picketed leads lowered.	Counting season.
Mar 31	Brief.	Ladder out of criteria/low water alarm.	Picketed leads cleaned.
Apr 10	Brief.	Exit alarms.	Operator reset.
Apr 18 to 19	18 Apr: 1240 found, 1605 folded. 19 Apr: 1111 back to automatic.	Weir 337 failed, key in linkage. During work, weir folded over.	Crane crew required. Dark. Went to orifice flow.
Apr 18 to 19	18 Apr at 1636 to 19 Apr at 1020.	Ladder to orifice flow.	Reposition weir. Complete repairs.
Apr 19	Brief.	Out of criteria after work.	Set points adjusted.
Apr	Brief.	Two alarms.	Operator reset.
May 8	Brief.	Ladder in manual.	Training exercise.
May 9	Brief.	Water slightly high.	Set points adjusted.
May 10 & 12	Two days.	Head over weir low. One alarm.	13 May: Set points adjusted. Reset.
May/Jun	Brief.	Two alarms.	Operators reset.
Jul 1	About one day.	PIT tag interference at count station.	PSMFC resolved.
Jul 10	Brief.	Window brush air leak.	Repaired.
Jul 11	Brief.	Fish counter chairs.	Replaced.
Jul 24	Brief.	Head over weir high, weir alarm.	Set points adjusted, reset.
Aug 6	About one day.	PIT tag interference at count station.	PSMFC resolved.
Aug	Brief.	Three exit alarms.	Reset. One set point adjustment.
Aug 18	About one day.	Count station differential out. Weir alarm.	Set points adjusted.
Sep 1	Brief.	Exit weirs alarmed.	Operator reset.
Sep 11	Brief.	Head over weir low.	Set points adjusted.
Sep 14	Overnight.	Count station differential out.	Leads cleaned. Set points adjusted.
Sep 15	Brief. At 2100 severe storm.	Count station differential out. Out again.	Cleaned leads. Cleaned again.

Oct 1	Brief.	Alarms.	Operator reset.

Table 3. In Season Washington Ladder Exit Issues (Continued).

Date	**Time**	**Issue**	**Reason/Result**
Oct 2	Brief. Brief.	Head over weir low. Window brush jammed.	Set points adjusted. Mechanics resolved.
Oct 4	Brief.	Head over weir low.	Alarm, reset.
Oct 5	Brief.	Weirs alarmed. Reset.	Adjust set points.
Oct 6	Brief.	Count station differential out before inspection.	Fisheries cleaned leads.
Oct 11 to 31	About 20 days.	Count station brush will lower but not rotate.	Parts ordered. Done repairs Feb 2014.
Nov 1	For winter.	Counting done.	Raised leads. Station winterized.
Nov	Brief.	Low water alarm.	Reset.
Nov 12 & 13	Two days.	Joint leaks upstream of count station.	Dive team examined for winter repair.
Nov 23 & 24	Two days.	Head over weir low. One weir alarm.	Reset alarm. Check set points.
Nov 26	Unknown, possibly four days.	Weirs out of synchronization.	Operators resolved. Adjusted set points.
Dec 1	Brief.	Multiple alarms. Upper limit failed on weirs 334, 335 & 336.	Operators adjusted weirs & set points maintaining criteria.
Dec 9	Brief.	Upper limit weir 336.	Replaced. 334 & 335 in winter.

Fish passage appeared unaffected by the events described in Table 3.

Washington Ladder Entrance - Season

At the Washington entrance, weir W1 remains on standby. In the spring, during high tailwater elevations, W1 would have approximately one foot flow over it. After initial calibration, the project used W2 and W3 in automatic operation. Staff conducted scheduled maintenance and calibration checks throughout the year. The Results Section discusses entrance issues effects on criteria points. Table 4 reflects in season problems:

Table 4. In Season Washington Ladder Entrance Issues.

Date	**Time**	**Issue**	**Reason/Result**
Mar 1 to Aug 31	Six months.	Spill turbulence causing calibration drifts.	Difficult to keep weirs calibrated.
Mar 1 to 7	Seven days.	W2 and W3 had lower limit set to high. W3 out.	Reset limits.
Apr 14	One day.	W3 out of criteria.	Recalibrated.
Mar 7 to 14	Seven days.	W3 moving excessively.	Technical staff resolved.
Apr 28	About five days.	W3 found with north	Weir to manual

		cable detached.	mode. Discussion.

Table 4. In Season Washington Ladder Entrance Issues (Continued).

Date	**Time**	**Issue**	**Reason/Result**
May 2	For 8.2 hours ladder on orifice flow.	W3 both cable rods replaced.	Weir back to auto at 1820.
May 2	During W3 cable work.	Spillbays 1 and 2 & PUD.	Out of service.
May 3 to Dec 31	About eight months.	Slight slack in W3's south cable noted as times.	Decreased as season passed.
May 12	One day.	W2 out of criteria.	Pool sensor and both weirs calibrated.
Jun 1	Two to three days.	W3 out of criteria.	Tailwater and weir sensors calibrated.
Jun 23	One day.	W2 and W3 out of criteria.	Weirs, pool & tailwater calibrated.
Jul 8 to Aug 8	One month. (W2 regulated pool.)	W3 had coupler and bearing in gearbox fail. Weir to manual.	Parts ordered. Motor from W1 installed at W3. Weir to auto.
Jul 14	One day.	W2 out of criteria, drift.	Spill, W3 in manual.
Aug 6 to Dec 31	Five months.	W2 test digital encoder. LED unplugged.	Replace analog. Reduce calibration drifts.
Aug 7 to 8	Two days.	W3 out of service. (W3 motor sent out)	Moved W1 motor to W3.
Aug 7 to Sep 2	About three weeks.	W1 without motor.	Motor installed.
Aug & Dec	Two to three weeks.	Preparations for winter upgrades.	Electricians laid conduit.
Aug 11	One day.	W3 moving continuously, one foot range. Manual.	No problem found. To auto.
Aug 16	One day.	W2 & W3 moving continuously.	W2 calibrated. W3 resolved.
Aug 23 & 28	Two days.	W2 out of criteria.	Low tailwater.
Sep 1 to Dec 31	Four months.	W3 occasional calibration drifts.	Install digital controls in winter.
Sep 1 to 19	About 19 days.	W3 moving continuously. Weir to manual. Parts ordered.	Repaired, calibrated, Weir to auto.
Sep 15	Brief.	Storm tripped power to weirs.	
Sep 19	Brief.	W3 moving continuously.	Resolved.
Oct 16-18	Two days.	W3 moving continuously.	Operators resolved.
Nov 3 & 10	Two days.	W3 moving continuously. Digital encoder needed.	Operators reset.
Nov 10 to	About 51 days. Problem	W3 had noted moved. In	Encoder failed.

Dec 31	noted Dec 1.	criteria. Weir to manual.	Replace in winter.

When spill is not occurring, the project is better able to keep the weirs calibrated. We hope that digital encoders will also reduce calibration drifts in the future. In fact, during the upcoming winter outage, the project will install digital encoders and controls at W1 and W3. Finally, we will finish rehabilitation of the weirs' motors and reinstall them.

The Washington ladder problems described in Table 4 apparently did not affect fish passage. The Auxiliary Water Supply Section will discuss issues with that system.

Oregon Ladder Outage

On January 27, the operators switched the Oregon ladder to orifice flow. On January 28, the project had the exit and juvenile bypass stop logs installed, which allowed us to begin inspection and maintenance from the exit to the tailwater. Also, the project conducted work mentioned in the Modifications Section.

For the Oregon ladder outage, the project conducted the following repairs and inspections:

1. The fisheries staff inspected the upper ladder, removing six trash cans of tumbleweeds, 28 cans of woody debris, one tire and four large sticks. We also evacuated eight adult lampreys and one steelhead smolt. The regulating and tilting weirs, stationary weirs and counting station structures were in good condition and received maintenance. The general maintenance crew cleaned and painted the count station window floor panel and back board. The mechanics repaired and painted the damaged picketed leads. The fisheries staff cleaned staff gauges and sensor still wells.

We found four lamprey passage ports below the tilting weirs fully blocked. The remaining ports were partially blocked to open.

On January 10, we conducted a camera inspection of the juvenile bypass ports. The inspection revealed some debris blockages. On February 27, we cleaned these ports, removing debris from 3 ports on the south side and 6 ports on the north sides.

2. The fisheries staff inspected the ladder's submerged orifices, removing debris from four fully blocked orifices and eight partially obstructed orifices. We also removed 12 pieces of wood three to ten inches in diameter along with several dozen smaller sticks. We evacuated two and six steelhead adults and smolts, respectively.

After the south junction pool was dewatered, the fisheries staff removed 1.5 dump truck loads of debris from diffusers 3 to 14. The dump truck holds eight yards. We also removed debris from five more orifices.

3. PSMFC preformed maintenance on the ladder's adult PIT tag equipment. The COE repaired three joints on PIT tag conduit lines. The University of Idaho maintained the duplex antennas.

4. A dive contractor examined all the ladder's diffusers before the south pool was dewatered. They found diffuser 11 damaged. Later, after the dive team helped to close one of the diffuser slide gates, the project dewatered the south pool and repaired the diffuser's support and replaced the grating. No other problems were seen. Mechanics maintained the diffusers' supply valves.

After an initial camera inspection, the dive team also examined the old bulkhead logs at SFEW1 and SFEW2, which were made of timbers reinforced with steel. Next winter, contractors will remove these bulkheads at SFEW2 to install a lamprey passage structure.

5. Staff performed preventative maintenance all entrance weirs. They also calibrated them and checked their limits. Staff also removed the lamprey stilts from SFEW2 and installed UHMW rollers on NFEW2. They replaced one bushing on SFEW2. The fisheries staff installed the new velocity meter cable.

After regional discussion, due to delays in removing the bulkheads because of the repairs at diffuser 11, the project was forced to delay, until March 4, the return of the ladder to service and automatic operation. We will discuss auxiliary water operations in that section.

Oregon Ladder Exit - Season

During the season at the Oregon exit, the fisheries staff checked the set points about twice a week. After fisheries staff cleaned the sensor still wells, few set point adjustments were necessary. For most of the year, the exit was in automatic operation. The Results Section will also discuss exit issues effects on criteria points.

Debris loads at the exit continue to be an issue. We checked the picketed leads daily during the counting season, cleaning them whenever required, which included holidays and weekends at times. The debris loads fluctuate with high flow and storms, increasing the amount. Changes in wind direction affect the amount of debris along the Oregon shore as the debris moves to and from the powerhouse.

From March to May, we observed mostly tumbleweeds, though they occur year round with an influx also noted in late December. From June to October, Eurasian milfoil was the principle debris component, though it was also noticeable to year's end.

The mechanical staff performed scheduled maintenance on the exit weirs. Also, the general maintenance crew cleaned the count station backboards as needed. In season issues are reflected in Table 5. None of the issues mentioned appeared to affect fish passage.

Table 5. In Season Oregon Ladder Exit Issues.

Date	**Time**	**Issue**	**Reason/Result**
Mar 5	Exit weirs without power five hours.	Exit electrical feed failed.	Generator used.
Mar 5 to	Count PIT, station &	Feed failed. Ladder in	No power. Partly

6	traveling screens 22 hrs.	criteria, forebay stable.	restored.

Table 5. In Season Oregon Ladder Exit Issues (Continued).

Date	**Time**	**Issue**	**Reason/Result**
Mar 5 to 8	PIT tag station without power for 66 hours.	Feed failed.	Feed repaired. Power restored.
Mar 6	Brief.	Water level.	Set point adjusted.
Mar 11	About one day.	Two PIT station heat pumps.	Cleaned.
Mar 29	For season.	Picketed leads lowered.	Counting season.
Mar 31	Brief.	Power outage.	Ladder in manual.
Mar 31	Brief.	After outage.	Regulating weir reset.
May 16	15 minutes.	Electrical repairs.	Power outage.
May 22	15 minutes.	Electrical repairs.	Power outage.
Late May	Brief.	Two weir alarms.	Operators reset.
Jul 11	Brief.	Fish counter chairs.	Replaced.
Jul 23	To end of season.	Weir 340 encoder failed.	Weir bypassed.
Jul 24	One day.	One PIT station heat pump tripped twice.	Monitor. Second unit operational.
Aug 1	One day.	Only one heat pump operational.	Replace failed pump with AC unit.
Aug 21	Brief.	Head over weir low.	No problem found.
Late Aug	Twice overnight.	Count station differential high.	Cleaned leads next morning.
Aug 28	Brief.	Head over weir low.	Maintenance just completed. Set points adjusted.
Early Sep	Five times overnight.	Count station differential high.	Cleaned leads next morning.
Aug 30	Brief. One week.	Weirs 335 to 339 encoder alarms. Reset but lights would not clear.	Alarm lights cleared the next week.
Sep 6 & 8	Brief.	Head over weir low.	Set points adjusted.
Sep 10	One day.	PIT tag station one unit AC only.	Replaced with heat pump.
Sep 11	Brief.	Count station differential high.	Leads cleaned.
Sep 13	Brief.	Head over weir low. Exit alarm.	Set points adjusted.
Sep 14	Overnight.	Count station differential high.	Cleaned leads next morning. Set points adjusted.
Sep 15	Brief.	Count station differential high.	Leads cleaned.

Table 5. In Season Oregon Ladder Exit Issues (Continued).

Date	Time	Issue	Reason/Result
Sep 15	Brief. At 2100 severe storm.	Exit lost power. Leads obstructed.	Operator reset. Leads cleaned.
Sep 15 to 23	About eight days.	Count station phone out of service.	Repaired.
Sep 17	One day.	PIT tag station issues.	PSMFC resolved.
Sep 20 to 23	Three days.	Count station computer out.	Issue resolved.
Oct 6	Brief.	Head over weir high.	Set points adjusted twice.
Nov 1	For winter.	Counting done.	Raised leads.
Nov 1	For winter.	Count station.	Winterized.
Early Nov	Brief.	Regulating weir alarm.	Reset.
Nov 24	Brief.	Head over weir high.	Set points adjusted.
Dec 20	Brief.	Head over weir high.	Alarm reset, set points adjusted.

Oregon Exit Traveling Screens

The traveling screens were out of service during the Oregon ladder outage. During the outage, staff performed scheduled maintenance on the screens. During the winter, when operational, the fisheries staff monitored the differential on the screens and did not observe any problems.

For the season, staff continued to perform scheduled maintenance on the screens. Multiple false alarms occurred for both screens evenly and throughout the year. The operators reset these and three wash pump alarms. Our differential monitoring revealed no problems. The highest reading was 1.0 feet in September due to milfoil, which dissipated. On July 23 and August 5, the biologist removed debris from the trough.

For most of the season, the system was set to run six times a day for 20 minutes. In late November, to avoid freezing, the system was set to run 12 times a day.

When available, the fisheries technicians monitored the traveling screen system. The issues discussed here had no ill affect on fish passage or on the auxiliary water supply.

Oregon Ladder Entrances - Season

After initial calibration, NFEW2, NFEW3, SFEW1 and SFEW2 remained in automatic operation. The spill program and hydraulic gradients continue to cause calibration drifts for all entrance weirs. We checked calibration as often as possible and crews conducted scheduled maintenance throughout the year. Calibration was easier to maintain when no

spill was occurring. At the Oregon north powerhouse entrance, weir NFEW1 remains on standby. In the spring, during high tailwater elevations, NFEW1 would have approximately one foot of flow over it. The Results Section also discusses entrance issues effects on criteria points. In season problems will be reflected in Table 6.

Table 6. In Season Oregon Ladder Entrance Issues.

Date	**Time**	**Issue**	**Reason/Result**
Mar 4 to Apr 28	Two months. Four times NFEW2 in criteria is questioned.	Slack noted in NFEW2 and NFEW3's cables.	Seven and four times each. Examine problem.
Mar 8	One day.	North pool differential low.	Adjusted weir depth.
Mar 7 to 10	Three days.	NFEW2 and NFEW3 out of criteria.	No juvenile channel water. Sensors.
Mar 10	One day.	NFEW2 and NFEW3 out of criteria.	North tailwater and pool sensors calibrated.
Mar 10	One day.	Criteria concerns.	South tailwater and pool sensors done.
Mar 14	One day.	Criteria concerns.	South sensors done again, calibration.
Mar 26	For juvenile season.	Juvenile flow restored.	North pool.
Early April	One day.	SFEW1 out of calibration.	Calibrated.
Apr 14	Three days.	SFEW1 out of criteria.	Calibrated SFEW1 and SFEW2.
Apr 25 & 29	One day each.	SFEW1 out of calibration.	Calibrated. Need digital controls.
May 1	One day.	NFEW2 slack, out of criteria.	Need to replace Stainless steel rollers with HMUW.
May 3	One day.	NFEW2 slack, out of criteria.	Discuss installing weir with HMUW.
May 3 to 14	About eleven days.	NFEW2 and NFEW3 with slight slack.	Monitor.
May 14	Four hours. NFEW1 used.	NFEW2 slack.	NFEW2 replaced.
May 15 to Dec 31	About 7.5 months. (Mainly NFEW's south cable.)	Very slight slack noted in NFEW2 and NFEW3's cables at times.	Monitored. In criteria. Frequency decreased.
May 3 to Dec 31	About eight months.	SFEW1 in and out of calibration.	In criteria. Monitor. Replace in winter.
End Jul to Dec 31	About five months.	SFEW2 in and out of calibration but usually not when SFEW1 was out.	In criteria. Monitor. Replace controls in winter.
Jul 28	One day.	North pool differential	No reason found.

		low, out of criteria.	Low tailwater?

Table 6. In Season Oregon Ladder Entrance Issues (Continued).

Date	**Time**	**Issue**	**Reason/Result**
Jul 29	One day.	SFEW 1 and SFEW2.	Recalibrated.
Aug11, 25 & 30	One day each.	North pool differential low.	NFEW 2 & NFEW3 calibrated, Aug 28.
Sep 15	Brief.	Severe storm.	Operator reset entrances.
Nov 27 to Dec 31	About one month.	No juvenile flow to north pool.	Juvenile channel in emergency bypass.
Dec 6 to 16	About ten days.	SFEW1 & SFEW2 out of criteria after fish pump outage.	Pool and tailwater sensors needed calibration.
Early Dec.	About one week.	NFEW4 equipment removed.	Slot will be replaced with bulkheads.
Early Dec	About one week.	Electrical upgrades at NFEW1.	Switching weirs to digital controls.
Early Dec	About one week.	NFEW4 bulkheads.	Prepared for installation.
Dec 6 to 18	About three weeks.	NFEW2 & NFEW3 out of criteria after fish pump outage.	Tailwater sensor needed calibration.
Dec 16	One day.	SFEW1 and SFEW2.	Calibrated.
Dec 18	One day.	NFEW2 and NFEW3	Calibrated.
Dec 18 to 31	About two weeks.	NFEW2 and NFEW3 out of criteria.	No juvenile facility flow.
Dec 28	About three days.	North and south tailwater sensors out of calibration.	Winter upgrades began early.

In July, the technical staff examined the possibility of having district personnel replace the sensors. New digital controls may resolve the calibration drifts. The project will complete installation of the digital controls during the upcoming winter outage.

Finally, the twelve floating entrances functioned well this year and were adjusted as required. Weir W14 is jammed. The project will resolve this issue when that section of the powerhouse can be de-watered.

The problems discussed here appeared to have not affected fish passage. We will discuss issues with the auxiliary water supply in that section.

Lamprey Passage

District and McNary personnel continue lamprey passage testing of the Oregon entrances. From June 15 at 0001 to October 2, staff programmed SFEW1, SFEW2, NFEW2 and NFEW3 to lower at night for lamprey passage. The normal end date for this is September 30, but the project did not disengage the program until two days later. Fisheries staff

monitoring the weirs' movements found one problem: On June 16, SFEW2 was not lowering deep enough. The technical staff resolved the issue.

Oregon Channel Velocity

The velocity meter is located in the Oregon ladder just downstream of the south powerhouse pool. In the winter, we installed a new cable on the meter. During the season, several power outages disrupted the meter's operation. In the spring, moisture got into the cabinet. Also, the meter was difficult to keep calibrated. In May, we sent the meter in to be reprogrammed. On July 24, we reinstalled the meter. By early August, we realized the meter was not designed to accommodate the hydraulic conditions seen in the ladder. Thereafter, only surface readings were recorded in the data file.

Also, it should be noted that all velocities recorded in 2012 by the meter should be disregarded.

The same issues mentioned in this report which affected flows at the powerhouse entrances, probably also affected velocity measurements. We will discuss criteria in the Results section.

Washington Ladder Auxiliary Water Supply

The Washington ladder received its auxiliary supply water through the Northern Wasco/Klickitat Public Utility District (PUD) project's turbine or the conduit bypass when either was operational. Conduits 1 and 3 are used during bypass. Conduits 3 and 4 are used during unit operation. Conduit 2 is only used for equalization.

Before the unit's winter outage, there were no problems. The unit's winter outage and operation are reflected in Table 7.

Table 7. Washington Ladder Auxiliary Water Supply Winter Outage.

Date	**Time**	**Event**
Jan 5 to 7	About two days.	Bypass functional. Conduit logs in on 7th.
Jan 7 – 24	17 days.	PUD system removed from service. Cleaned intakes of conduits 1, 3 and 4.
Jan 24	Two hours.	Remove conduit stop logs.
Jan 24 – 25	About one day.	PUD in bypass. Unit in service on 25th.
Feb 7	Three hours.	PUD out of service, hydraulic gate issue.
Feb 7	47 minutes.	PUD out of service, testing.

We recorded passage season unit outages and issues in Table 8. When the unit was out of service, the bypass system operated well, so unit outages had little effect on inspection criteria points or fish passage, as the bypass conduit valves automatically switched between the two systems, resulting in continuous flow into the ladder. Inspection points will be discussed in the Results Section.

Table 8. Passage Season PUD Unit Outages and Events.

Dates	Time	Event
May 2	7.7 hours.	PUD and bypass out of service for entrance weir (W3) repairs. Coordinated with region.
May 15	Six hours.	PUD out of service to replace air cooler. Bypass functional.
Aug 1 to 6	Five days and eight hours.	Down for testing. Unit would not restart. Bypass functional.
Aug 15 to 16	About two days.	Transformer 7 maintenance. Bypass functional.
Aug 16	55 minutes.	Trip out. Bypass functional.
Aug 21	31 minutes.	Fire alarm test. Bypass functional.
Sep 3	22 minutes.	PUD out due to switching at units 13 and 14. Bypass functional.
Sep 5	45 minutes.	PUD out due to switching at units 13 and 14. Bypass functional.
Sep 5 to 6	19 hours.	Maintenance issues. Bypass functional.
Sep 19	1.5 hours total, two interruptions.	Transformer 7 maintenance. Bypass functional.
Nov 19 to 22	74 hours.	Service bus maintenance. Bypass functional.
Dec 12	4.3 hours total, two interruptions.	No reason recorded. Bypass functional.

Oregon Ladder Auxiliary Water - The Juvenile System

The juvenile system supplied the Oregon ladder's north powerhouse entrances with approximately 450 cfs when operational and not in emergency bypass. When the system was functional or in emergency bypass, it did pass adult fallbacks and juvenile fish.

From January 1 to March 26, the juvenile system was out of service. On March 26, the system was watered up starting with primary bypass. The 2013 Juvenile Report discusses this system. On November 27, we switched to emergency bypass, due to issues with the side screen cleaning device. On December 19 we dewatered the juvenile channel for the season.

The loss of the excess juvenile channel flow does affect the criteria of the north powerhouse pool differential and entrances, which will be seen in the Results Section.

Oregon Ladder Auxiliary Water - 1000 CFS Conduit

On January 28, the crane operator closed the conduit's intake valve. After draining the chamber, the project replaced the valve's lifting chain. During the next winter season, we will rehabilitate the valve itself. On March 4, the project opened the conduit by lifting the valve with the new exit crane. During the year, the conduit remained open and the project conducted maintenance on the conduit's discharge valves, located near the diffusers.

Oregon Ladder Auxiliary Water - Fish Pumps

Table 9 outlines the winter outage and any long term fish pump outages:

Table 9. Long Oregon Fish Pump Outages.*

Affected Pump(s)	Dates	Reason for Outage
1	Jan 27 – Mar 4	Annual maintenance.
2	1 Jan – 31 Dec	Overhaul required by contractor possibly winter 2014-2015.
3	Jan 27 – Mar 4	Annual maintenance.

*Only outages involving two or more calendar days are included.

With the region, we coordinated extending the winter outage into March. The extended outage occurred during a low fish passage period.

During the season, when functional, fish pumps 1 and 3 ran with 30 degree blade angles. Short term fish pump outages are outlined in Table 10. We recorded fish pump outages when greater than one:

Table 10. Short Oregon Fish Pump Outages.*

Pump(s)	Dates	Length/Number	Reason for Outage
1 & 3	Mar 18	10 minutes.	Ground issue.
1 & 3	Mar 19	8 minutes.	Ground issue.
1 & 3	May 6	20 minutes.	Bus switch.
1 & 3	May 14	8 minutes.	Bus switch.
1 & 3	May 14	2.3 hours.	Replace NFEW2. Coordinated with region.
1 & 3	Jun 20	15 minutes total/two outages	Bus switch.
1 & 3	Aug 12	1.6 hours total/two outages.	Transformer 2 maintenance.
1 & 3	Aug 15	Five minutes.	Test potable water back flow preventer.
1 & 3	Aug 16	27 minutes.	Bus switch.
1 & 3	Aug 20	25 minutes.	Bus switch & breaker replaced.
3	Aug 22	52 minutes total/two outages.	Low cooling water flow alarms, reset. Flow adjusted.
1 & 3	Aug 22	9 minutes total.	Two bus switches.
2	Late Aug.	About one hour.	Camera inspection of intake bulkheads.
1	Sep 15	1.5 hours in evening.	Thunderstorm. Electrical feed to potable water lost. Pump switched to river water.

*Outages less than two calendar days.

Table 10. Short Oregon Fish Pump Outages (Continued).*

Pump(s)	Dates	Length/Number	Reason for Outage
1	Sep 16	Three hours.	Project boosted river water pressure.
1	Sep 16	24.8 hours.	On river water. Pump switched to potable water. Electric feed repaired.
3	Sep 15 to 16	23.3 hours.	No cooling water. Only enough pressure for one fish pump on river water.
3	Sep 16	75 minutes total/three outages.	After pump returned to service with potable water, it tripped three times due to air in the water line. District notified.
1	Sep 30	Four minutes.	Tripped out due to grease pump alarm, reset.
1 & 3	Oct 2	38 minutes.	Bus switch.
1	Oct 4	24 minutes.	Grease pump alarm, system reset.
1 & 3	Oct 4	29 minutes.	Bus switch.
1	Nov 11	14 minutes.	Grease pump alarm, system reset.
1	Dec 5 to 6	16 hours, overnight.	Grease pump failed and a cooling water obstruction. Repaired and cleared. District notified.
1	Dec 24	11 minutes.	Grease pump alarm, system reset.

*Outages less than two calendar days.

During the year, crews performed scheduled maintenance on fish pumps and the valves which regulate the flow from the fish pumps.

With only two operational fish pumps, keeping the Oregon ladder entrances in criteria was quite a challenge. Despite these fish pump outages, fish passage remained timely and consistent all season. We will discuss criteria in the Results Section.

Adult Fishway Inspections

Methods

From March 1 to December 31, Corps' fisheries personnel conducted three measured inspections each week. The report week ran from Friday to Thursday for a total of 44 weeks. However, the last report week was five days long. Also, holidays shorten some weeks. The result was 131 and 133 inspections, respectively, for the Oregon and Washington ladders. The Oregon ladder had fewer inspections due to its late return to service date. Due to issues with the meter, the Oregon ladder channel velocity had only 106 accurate data checks. Also, the Fish Passage Center conducted a monthly inspection.

Personnel recorded fishway measurements from staff gauge readings and tape measurements from the ultra sonic wells. We took entrance weir depths from LED's or cable spool dial indicators. The staff did inspections every one to four days between approximately 0900 to 1600 hours.

The staff performed adult fishway inspections by visually examining or measuring 18 reference locations resulting in 14 inspection criteria points. These inspection points included six weir entrance depths: south shore entrances (SFEW1 and SFEW2), north powerhouse entrances (NFEW2 and NFEW3), and north shore entrances (W2 and W3). Also, staff measured the head differential at the three main entrances along with the powerhouse collection channel velocity. The final inspection points were at each ladder's exit for the head differential at the picketed leads and the head over weirs.

Operating criteria for the McNary adult fishway is as follows: 1.0-1.3 feet of water depth over the ladder weirs and a maximum head on picketed leads of 0.5 feet. All fishway entrance differentials are at of 1.0 to 2.0 feet. North shore entrances (W2 and W3) weir depths are 8.0 feet or greater, north powerhouse entrances (NFEW2 and NFEW3) weir depths are 8.0 feet or greater and south shore entrances (SFEW1 and SFEW2) weir depths are 8.0 feet or greater. Collection channel velocity is 1.5 to 4.0 feet per second.

After regional discussion, starting in 2013, the operating criterion for NFEW2, NFEW3, SFEW1 and SFEW2 was changed from 9.0 feet or greater to 8.0 feet or greater. Table 11 shows an "in criterion" comparison from 2004 to 2013. There were many variables each year that affect criteria. However, the comparison is worthwhile:

Table 11. Comparison of Percent in Criteria for Oregon Entrance Weirs, 2004 to 2013.

Year	**SFEW1 Percent in Criteria.**	**SFEW2 Percent in Criteria.**	**NFEW2 Percent in Criteria.**	**NFEW3 Percent in Criteria.**	**Issues**
2004	45.0	45.0	90.7	43.6	One fish pump part of season.
2005	90.8	91.5	99.2	91.5	NA
2006	76.6	80.5	79.7	10.9*	*NFEW1 used part of season.
2007	98.5	97.7	82.4	4.6*	*NFEW1 used all season.
2008	29.3	28.6	55.6	62.4*	Fish pump issues. *NFEW1 used part of season.
2009	57.1*	88.0	87.9	91.7	*Calibration issues.
2010	81.8	80.2	96.7	96.7	NA
2011	88.6	89.4	66.7*	66.7*	*Multiple issues.

Table 11. Comparison of Percent in Criteria for Oregon Entrance Weirs, 2004 to 2013, (Continued).

Year	SFEW1 Percent in Criteria.	SFEW2 Percent in Criteria.	NFEW2 Percent in Criteria.	NFEW3 Percent in Criteria.	Issues
2012	25.6*	6.8*	78.2	78.9	* Multiple issues & lamprey stilts on SFEW2.
2013	95.4	96.2	87.0	88.5	New criteria.

Since 2008, the computer controlled automated fishway system record can be reviewed but cannot be printed out automatically due to the lack of programming. When required, the fisheries staff can request a printout to review and ask for adjustments as needed. The records did reflect the general trends noted in the inspection data discussed below.

Inspection Results

Appendix 1 contains the readings for each criteria point during the fishways' inspections. Table 12 summarizes the results of the measured inspections conducted by the fisheries staff. This table does not include visual observations. The Operations and Maintenance Section of this report gives details which relate back to the fishways' criterion points and to Table 12. The table's results here are summaries.

Washington Ladder

The counting station and weir (head over weir) differentials were out of criteria three and seven times, respectively; which is 2.3 and 5.3 percent each. The results are fairly similar to previous years. For 2012, the values were 3.8 and 7.5 percent. This was due to debris or milfoil on the picketed leads or weir issues, which required set point adjustments.

The Washington entrance pool differential was in criteria 100 percent of the time. This value is similar to previous years. For 2012, this value was 0.8 percent.

The Washington entrance weirs, W2 and W3 were out of criteria six times each, which is 4.5 percent. These results are comparable to previous years. For 2012, the values were 1.5 and 9.0 percent, respectively. Both weirs had calibration drifts due to the spill program and related turbulence. Also, earlier in the year W3 had bottom limit issues, which took time to resolve. Tailwater and pool sensor calibration issues also occurred, along with weir controller problems and other maintenance issues mentioned in this report.

Oregon Ladder

The count station and weir (head over weir) differentials were out of criteria twice and eight times, respectively; which is 1.5 and 6.1 percent each. The results were similar to

previous years. For 2012, the values were 0.0 and 1.5 percent. The readings were due to debris or milfoil on the picketed leads and weir issues, which required set point adjustments.

The north powerhouse pool differential was out of criteria five times for 3.8 percent. This value was a marked improvement and is probably due to the new criteria for NFEW2 and NFEW3. The pool reading was out of criteria 20.3 percent in 2012. Low tailwater elevations and weir issues were responsible for these readings.

The south powerhouse pool differential was never out of criteria, for 0.0 percent. This is a slight improvement from previous years. The south pool reading was out of criteria 3.8 percent in 2012. Again, the new criterion for SFEW1 and SFEW2 is probably responsible.

Table 12. Summary of Adult Fishway Inspections at McNary Dam, 2013.*

Criteria and Locations	No. in Criteria/ No. of Inspections	% In Criteria	Not Enough Depth			Too Much Depth		
			No./% Within 0.01-0.1 Foot	No./% Within 0.11-0.2 Foot	No./% >0.2 Foot	No./% Within 0.01-0.1 Foot	No./% Within 0.11-0.2 Foot	No./% >0.2 Foot
South Fish Ladder (OR)								
	49	46.2	***	***	***	***	***	***
Channel Velocity	106		***	***	***	***	***	***
Counting Station	129	98.5	***	***	***	0	0	2
Differential.	131		***	***	***	0.0	0.0	1.5
	123	93.9	4	1	0	3	0	0
Weir Head.	131		3.1	0.8	0.0	2.3	0.0	0.0
South Shore	131	100.0	0	0	0	0	0	0
Differential.	131		0.0	0.0	0.0	0.0	0.0	0.0
North Powerhouse	126	96.2	1	3	1	0	0	0
Differential.	131		0.8	2.3	0.8	0.0	0.0	0.0
	125	95.4	1	0	5	***	***	***
SFEW1 Depth	131		0.8	0.0	3.8	***	***	***
	126	96.2	0	0	5	***	***	***
SFEW2 Depth	131		0.0	0.0	3.8	***	***	***
	114	87.0	0	3	14	***	***	***
NFEW2 Depth	131		0.0	2.3	10.7	***	***	***
	116	88.5	0	2	13	***	***	***
NFEW3 Depth	131		0.0	1.5	9.9	***	***	***

*Data from Appendix 1.

Table 12. Summary of Adult Fishway Inspections at McNary Dam, 2013 (Continued).*

Criteria and Locations	No. in Criteria/ No. of Inspections	% In Criteria	Not Enough Depth			Too Much Depth		
			No./% Within 0.01-0.1 Foot	No./% Within 0.11-0.2 Foot	No./% >0.2 Foot	No./% Within 0.01-0.1 Foot	No./% Within 0.11-0.2 Foot	No./% >0.2 Foot
North Fish Ladder (WA)								
Counting Station Differential.	130	97.7	***	***	***	2	0	1
	133		***	***	***	1.5	0.0	0.8
Weir Head.	126	94.7	7	0	0	0	0	0
	133		5.3	0.0	0.0	0.0	0.0	0.0
North Shore Differential.	133	100.0	0	0	0	0	0	0
	133		0.0	0.0	0.0	0.0	0.0	0.0
W2 Depth	127	95.5	1	0	5	***	***	***
	133		0.8	0.0	3.8	***	***	***
W3 Depth	127	95.5	2	0	4	***	***	***
	133		1.5	0.0	3.0	***	***	***

*Data from Appendix 1.

The north powerhouse entrance weirs, NFEW2 and NFEW3, were out of criteria 17 and 15 times each for 13.0 and 11.5 percent, respectively. Table 11 shows previous trends. In 2012, these weirs were out of criteria 21.8 and 21.1 percent, respectively. Pool and tailwater sensor issues, low tailwater elevations and weir issues contributed to these results. Also, in March and late November to December the juvenile facility's flow was not available. The new criterion for NFEW2 and NFEW3 was probably responsible for the observed improvement.

The south powerhouse entrances weirs, SFEW1 and SFEW2, were out of criteria six and five times, respectively for 4.6 and 3.8 percent. These results appear to be an improvement. Table 11 shows previous trends. In 2012, a difficult year, the weirs were out of criteria 74.4 and 93.2 percent, respectively. This year's results were due to tailwater and pool sensor issues along with weir calibration drifts. The new criterion for SFEW1 and SFEW2 may be partly responsible for any observed improvement.

The collection channel velocity was out of criteria 57 times for 53.8 percent. This is similar to 2011, when the velocity was out of criteria 55.7 percent of the time. We have not referenced 2012, as this year we determined that the velocity meter used part of that year is not designed for a fish ladder. Hydraulic gradients, the accuracy of surface readings and other issues already discussed in this report probably contributed to this outcome.

Recommendations

1. Program ladders' computer system to allow automatic control of the printout;
2. Install handrails on the ladders' walls for orifice inspection and debris removal;

3. Complete fish pump 2 repairs;
4. Replace Oregon ladder diffuser inflow valves;
5. Close northern floating entrances to improve the north powerhouse pool differential and weir depth;
6. Continue to improve all entrance weir calibration so drifts occur less frequently;
7. Continue lamprey passage improvements on both ladders;
8. Replace bulkheads at Washington ladder entrance so the pool can be dewatered;
9. Replace Oregon exit picketed leads and back board;
10. Install new Washington exit trash rack hoist;
11. Keep critical spare parts in stock;
12. Complete repairing Washington ladder leaks;
13. Rehabilitate Oregon ladder's 1000 cfs supply line's intake (Tainter) valve (completed in 2014);
14. Replace the Oregon ladder's traveling screen wash pump.

APPENDIX 1. MCNARY ADULT FISHWAY INSPECTIONS 2013

DATES:	1-Mar	3-Mar	6-Mar	7-Mar	8-Mar	10-Mar	14-Mar	15-Mar	17-Mar	21-Mar
CHANNEL VELOCITIES										
IN OREGON FISHWAY:	NA	NA	1.6	1.0	1.2	NA	1.1	NA	1.6	NA
ELEVATIONS:										
South Fish Ladder (OR)										
Forebay	NA	339.0	338.0	338.8	NA	338.4	338.3	338.6	338.6	338.3
U S Picketed Leads	NA	NA	1.4	1.2	1.2	1.3	1.3	1.1	1.2	1.3
D S Pick. Leads/Weir Head	NA	NA	1.3	1.1	1.1	1.2	1.2	1.0	1.2	1.2
Collection Channel										
South Shore (P2F)	NA	NA	265.2	265.0	266.1	266.3	266.2	266.6	267.4	268.1
North Powerhouse (P1F)	NA	NA	264.4	264.3	265.4	265.8	265.4	266.1	266.9	267.7
Tailwater										
South Shore (SF)	NA	NA	263.8	263.6	264.8	264.9	264.8	265.5	266.1	266.7
North Powerhouse (NFEF)	NA	NA	263.6	263.3	264.2	264.7	264.3	264.9	265.8	266.5
Entrance Weirs										
SFEW1	NA	NA	255.1	254.9	256.3	256.3	256.4	256.0	256.8	257.7
SFEW2	NA	NA	255.1	255.0	256.2	256.2	256.2	256.1	256.7	257.6
NFEW2	NA	NA	255.2	255.8	256.7	257.1	256.3	256.9	257.8	258.3
NFEW3	NA	NA	255.3	255.8	256.7	257.1	256.3	256.9	257.7	258.4
North Fish Ladder (WA)										
U S Picketed Leads	1.2	1.2	1.2	1.2	1.2	1.1	1.2	1.1	1.1	1.2
D S Pick. Leads/Weir Head	1.1	1.1	1.2	1.1	1.1	1.1	1.2	1.0	1.1	1.2
Junction Pool (F2)	265.0	264.1	265.1	264.7	265.5	266.1	265.7	266.4	267.1	268.0
Tailwater (F1)	263.3	262.3	263.4	263.3	264.1	264.6	264.2	264.9	265.7	266.5
Entrance Weirs										
W2	254.0	254.0	254.0	254.2	254.5	255.2	254.8	256.1	255.5	256.4
W3	255.8	255.9	255.9	253.2	254.4	255.2	255.0	255.3	255.8	256.8
DIFFERENTIALS/DEPTHS:										
South Fish Ladder (OR)										
Counting Station Diff.	NA	NA	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
South Shore Diff.	NA	NA	1.4	1.4	1.3	1.4	1.4	1.1	1.3	1.4
North Powerhouse Diff.	NA	NA	0.8	1.0	1.2	1.1	1.1	1.2	1.1	1.2
SFEW1 Depth	NA	NA	8.7	8.7	8.5	8.6	8.4	9.5	9.3	9.0
SFEW2 Depth	NA	NA	8.7	8.6	8.6	8.7	8.6	9.4	9.4	9.1
NFEW2 Depth	NA	NA	8.4	7.5	7.5	7.6	8.0	8.0	8.0	8.2
NFEW3 Depth	NA	NA	8.3	7.5	7.5	7.6	8.0	8.0	8.1	8.1
North Fish Ladder (WA)										
Counting Station Diff.	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0
North Shore Diff.	1.7	1.8	1.7	1.4	1.4	1.5	1.5	1.5	1.4	1.5
W2 Depth	9.3	8.3	9.4	9.1	9.6	9.4	9.4	8.8	10.2	10.1
W3 Depth	7.5	6.4	7.5	10.1	9.7	9.4	9.2	9.6	9.9	9.7
CRITERIA POINTS:										
South Fish Ladder (OR)										
Channel Velocity	NA	NA	YES	NO	NO	NA	NO	NA	YES	NA
Counting Station Diff.	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES
South Shore Diff.	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES
North Powerhouse Diff.	NA	NA	NO	YES	YES	YES	YES	YES	YES	YES
SFEW1 Depth	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES
SFEW2 Depth	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES
NFEW2 Depth	NA	NA	YES	NO	NO	NO	YES	YES	YES	YES
NFEW3 Depth	NA	NA	YES	NO	NO	NO	YES	YES	YES	YES
North Fish Ladder (WA)										
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W3 Depth	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES

APPENDIX 1 (CONTINUED). MCNARY ADULT FISHWAY INSPECTIONS 2013

DATES:	24-Mar	26-Mar	28-Mar	29-Mar	31-Mar	3-Apr	5-Apr	8-Apr	10-Apr	12-Apr
CHANNEL VELOCITIES IN OREGON FISHWAY:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ELEVATIONS:										
South Fish Ladder (OR)										
Forebay	338.9	338.6	337.8	338.8	338.9	339.1	339.6	339.7	338.6	338.3
U S Picketed Leads	1.3	1.3	1.5	1.4	1.5	1.3	1.4	1.3	1.5	1.5
D S Pick. Leads/Weir Head	1.1	1.1	1.3	1.2	1.1	1.1	1.2	1.1	1.2	1.2
Collection Channel										
South Shore (P2F)	267.1	266.0	266.4	267.2	267.6	266.9	267.4	267.5	268.8	268.5
North Powerhouse (P1F)	266.7	265.6	266.0	266.8	267.3	266.3	266.6	266.6	267.7	267.7
Tailwater										
South Shore (SF)	265.7	264.4	265.0	265.7	266.2	265.5	265.9	266.1	267.5	267.1
North Powerhouse (NFEF)	265.6	264.3	264.6	265.2	265.7	264.9	265.2	265.2	266.2	266.1
Entrance Weirs										
SFEW1	256.8	255.2	255.9	257.4	257.2	256.8	257.7	257.6	258.8	259.1
SFEW2	256.6	255.1	255.9	256.4	256.9	256.2	256.4	256.9	258.2	258.0
NFEW2	257.3	255.9	256.3	256.9	257.3	256.5	256.8	256.8	257.8	257.7
NFEW3	257.4	256.0	256.4	256.9	257.3	256.5	256.8	256.7	257.7	257.7
North Fish Ladder (WA)										
U S Picketed Leads	1.1	1.1	1.1	1.4	1.7	1.3	1.4	1.3	1.4	1.3
D S Pick. Leads/Weir Head	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.2
Junction Pool (F2)	267.3	265.5	266.1	266.6	267.0	266.5	266.5	266.5	267.1	266.2
Tailwater (F1)	265.5	264.1	264.6	265.0	265.7	264.9	265.2	265.2	265.7	264.6
Entrance Weirs										
W2	255.8	255.7	255.2	255.7	256.0	255.3	255.6	255.7	256.3	255.2
W3	256.3	256.1	255.3	255.8	256.1	256.1	255.4	255.6	256.9	255.8
DIFFERENTIALS/DEPTHS:										
South Fish Ladder (OR)										
Counting Station Diff.	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.3	0.3
South Shore Diff.	1.4	1.6	1.4	1.5	1.4	1.4	1.5	1.4	1.3	1.4
North Powerhouse Diff.	1.1	1.3	1.4	1.6	1.6	1.4	1.4	1.4	1.5	1.6
SFEW1 Depth	8.9	9.2	9.1	8.3	9.0	8.7	8.2	8.5	8.7	8.0
SFEW2 Depth	9.1	9.3	9.1	9.3	9.3	9.3	9.5	9.2	9.3	9.1
NFEW2 Depth	8.3	8.4	8.3	8.3	8.4	8.4	8.4	8.4	8.4	8.4
NFEW3 Depth	8.2	8.3	8.2	8.3	8.4	8.4	8.4	8.5	8.5	8.4
North Fish Ladder (WA)										
Counting Station Diff.	0.0	0.0	0.0	0.2	0.6	0.2	0.3	0.2	0.3	0.1
North Shore Diff.	1.8	1.4	1.5	1.6	1.3	1.6	1.3	1.3	1.4	1.6
W2 Depth	9.7	8.4	9.4	9.3	9.7	9.6	9.6	9.5	9.4	9.4
W3 Depth	9.2	8.0	9.3	9.2	9.6	8.8	9.8	9.6	8.8	8.8
CRITERIA POINTS:										
South Fish Ladder (OR)										
Channel Velocity	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
South Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Powerhouse Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW1 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Fish Ladder (WA)										
Counting Station Diff.	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

APPENDIX 1 (CONTINUED). MCNARY ADULT FISHWAY INSPECTIONS 2013

DATES:	14-Apr	17-Apr	19-Apr	21-Apr	24-Apr	26-Apr	28-Apr	1-May	3-May	6-May
CHANNEL VELOCITIES IN OREGON FISHWAY:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ELEVATIONS:										
South Fish Ladder (OR)										
Forebay	338.8	338.0	338.4	338.6	338.5	339.0	338.5	339.0	338.4	338.7
U S Picketed Leads	1.4	1.5	1.3	1.4	1.5	1.4	1.3	1.5	1.3	1.4
D S Pick. Leads/Weir Head	1.1	1.2	1.1	1.1	1.2	1.2	1.0	1.2	1.2	1.1
Collection Channel										
South Shore (P2F)	268.7	268.2	267.8	268.5	267.4	267.8	268.6	267.3	268.1	267.6
North Powerhouse (P1F)	268.0	267.5	267.2	267.9	266.9	267.2	268.0	266.8	267.4	266.8
Tailwater										
South Shore (SF)	267.3	266.9	266.4	267.2	266.3	266.5	267.3	266.0	266.9	266.3
North Powerhouse (NFEF)	266.4	265.8	265.5	266.3	265.3	265.5	266.4	265.1	265.7	265.4
Entrance Weirs										
SFEW1	259.4	258.8	257.3	258.0	257.5	258.1	257.7	257.1	257.8	257.3
SFEW2	256.8	257.5	257.1	257.9	256.9	257.1	257.7	256.8	257.5	257.0
NFEW2	257.9	257.4	257.0	257.8	256.9	257.1	258.0	257.6	258.4	256.9
NFEW3	257.9	257.3	257.0	257.7	256.9	257.1	258.0	256.6	257.4	256.8
North Fish Ladder (WA)										
U S Picketed Leads	1.4	1.3	1.3	1.5	1.4	1.4	1.5	1.4	1.6	1.6
D S Pick. Leads/Weir Head	1.1	1.0	1.1	1.2	1.2	1.2	1.2	1.2	1.3	1.3
Junction Pool (F2)	266.7	265.9	265.6	266.6	265.7	266.2	266.5	265.8	266.4	265.7
Tailwater (F1)	265.2	264.5	264.2	265.3	264.3	264.5	265.2	264.2	264.9	264.4
Entrance Weirs										
W2	255.7	255.2	254.8	256.0	254.7	255.2	255.2	254.8	256.4	255.5
W3	257.6	255.4	254.7	255.0	255.9	256.5	256.0	255.9	255.3	254.5
DIFFERENTIALS/DEPTHS:										
South Fish Ladder (OR)										
Counting Station Diff.	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.1	0.3
South Shore Diff.	1.4	1.3	1.4	1.3	1.1	1.3	1.3	1.3	1.2	1.3
North Powerhouse Diff.	1.6	1.7	1.7	1.6	1.6	1.7	1.6	1.7	1.7	1.4
SFEW1 Depth	7.9	8.1	9.1	9.2	8.8	8.4	9.6	8.9	9.1	9.0
SFEW2 Depth	10.5	9.4	9.3	9.3	9.4	9.4	9.6	9.2	9.4	9.3
NFEW2 Depth	8.5	8.4	8.5	8.5	8.4	8.4	8.4	7.5	7.3	8.5
NFEW3 Depth	8.5	8.5	8.5	8.6	8.4	8.4	8.4	8.5	8.3	8.6
North Fish Ladder (WA)										
Counting Station Diff.	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.3
North Shore Diff.	1.5	1.4	1.4	1.3	1.4	1.7	1.3	1.6	1.5	1.3
W2 Depth	9.5	9.3	9.4	9.3	9.6	9.3	10.0	9.4	8.5	8.9
W3 Depth	7.6	9.1	9.5	10.3	8.4	8.0	9.2	8.3	9.6	9.9
CRITERIA POINTS:										
South Fish Ladder (OR)										
Channel Velocity	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
South Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Powerhouse Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW1 Depth	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES
NFEW3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Fish Ladder (WA)										
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W3 Depth	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES

APPENDIX 1 (CONTINUED). MCNARY ADULT FISHWAY INSPECTIONS 2013

DATES:	8-May	10-May	12-May	15-May	17-May	18-May	22-May	24-May	26-May	28-May
CHANNEL VELOCITIES IN OREGON FISHWAY:	NA	1.4	1.6	2.2	1.6	1.6	1.6	1.6	1.6	2.2
ELEVATIONS:										
South Fish Ladder (OR)										
Forebay	338.9	339.2	338.6	339.5	338.7	339.2	338.6	338.3	339.4	337.5
U S Picketed Leads	1.4	1.3	1.3	1.3	1.3	1.3	1.8	1.3	1.3	1.4
D S Pick. Leads/Weir Head	1.1	1.1	1.1	1.0	1.1	1.1	1.3	1.1	1.0	1.1
Collection Channel										
South Shore (P2F)	268.4	269.8	269.8	269.9	269.2	270.2	268.1	269.3	269.4	269.6
North Powerhouse (P1F)	267.4	269.0	268.9	269.2	268.5	269.3	267.6	268.5	268.4	268.8
Tailwater										
South Shore (SF)	267.2	268.7	268.6	268.9	268.2	269.0	266.9	268.2	268.2	268.5
North Powerhouse (NFEF)	266.1	267.4	267.4	267.6	267.0	267.7	266.2	266.9	266.9	267.2
Entrance Weirs										
SFEW1	258.6	260.2	259.9	260.2	260.0	260.4	258.1	259.9	259.8	259.5
SFEW2	257.7	259.1	258.9	259.8	259.8	259.6	257.4	258.9	258.9	259.1
NFEW2	257.4	258.9	258.7	258.9	258.4	258.9	257.4	258.3	258.2	258.6
NFEW3	257.4	258.9	258.7	258.9	258.4	258.8	257.4	258.3	258.1	258.6
North Fish Ladder (WA)										
U S Picketed Leads	1.7	1.0	1.0	1.3	1.2	1.2	1.4	1.2	1.2	1.2
D S Pick. Leads/Weir Head	1.3	0.9	0.9	1.1	1.0	1.0	1.0	1.1	1.1	1.0
Junction Pool (F2)	266.6	267.9	267.2	268.2	267.4	268.0	266.8	267.5	267.4	267.5
Tailwater (F1)	265.2	266.5	266.2	266.8	265.8	266.6	265.5	266.0	266.1	266.2
Entrance Weirs										
W2	256.4	258.5	258.7	257.7	257.1	258.0	256.3	257.1	256.5	256.6
W3	255.7	257.6	257.3	258.3	257.6	258.1	257.2	257.4	257.8	258.1
DIFFERENTIALS/DEPTHS:										
South Fish Ladder (OR)										
Counting Station Diff.	0.3	0.2	0.2	0.3	0.2	0.2	0.5	0.2	0.3	0.3
South Shore Diff.	1.2	1.1	1.2	1.0	1.0	1.2	1.2	1.1	1.2	1.1
North Powerhouse Diff.	1.3	1.6	1.5	1.6	1.5	1.6	1.4	1.6	1.5	1.6
SFEW1 Depth	8.6	8.5	8.7	8.7	8.2	8.6	8.8	8.3	8.4	9.0
SFEW2 Depth	9.5	9.6	9.7	9.1	8.4	9.4	9.5	9.3	9.3	9.4
NFEW2 Depth	8.7	8.5	8.7	8.7	8.6	8.8	8.8	8.6	8.7	8.6
NFEW3 Depth	8.7	8.5	8.7	8.7	8.6	8.9	8.8	8.6	8.8	8.6
North Fish Ladder (WA)										
Counting Station Diff.	0.4	0.1	0.1	0.2	0.2	0.2	0.4	0.1	0.1	0.2
North Shore Diff.	1.4	1.4	1.0	1.4	1.6	1.4	1.3	1.5	1.3	1.3
W2 Depth	8.8	8.0	7.5	9.1	8.7	8.6	9.2	8.9	9.6	9.6
W3 Depth	9.5	8.9	8.9	8.5	8.2	8.5	8.3	8.6	8.3	8.1
CRITERIA POINTS:										
South Fish Ladder (OR)										
Channel Velocity	NA	NO	YES	YES	YES	YES	YES	YES	YES	YES
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
South Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Powerhouse Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW1 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Fish Ladder (WA)										
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	NO	NO	YES	YES	YES	YES	YES	YES	YES
North Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W2 Depth	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
W3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

APPENDIX 1 (CONTINUED). MCNARY ADULT FISHWAY INSPECTIONS 2013

DATES:	31-May	1-Jun	4-Jun	7-Jun	9-Jun	12-Jun	14-Jun	17-Jun	19-Jun	21-Jun
CHANNEL VELOCITIES										
IN OREGON FISHWAY:	1.4	1.6	1.8	1.4	1.6	1.4	1.2	1.4	1.0	1.6
ELEVATIONS:										
South Fish Ladder (OR)										
Forebay	338.7	338.3	338.3	338.7	339.5	339.0	338.6	338.4	338.8	339.0
U S Picketed Leads	1.3	1.3	1.5	1.3	1.3	1.3	1.2	1.3	1.3	1.2
D S Pick. Leads/Weir Head	1.1	1.0	1.2	1.1	1.1	1.0	1.1	1.1	1.0	1.1
Collection Channel										
South Shore (P2F)	268.2	268.5	268.9	268.4	268.1	268.1	268.0	266.8	267.8	267.2
North Powerhouse (P1F)	267.3	267.5	268.0	267.5	267.4	267.5	267.4	266.4	267.3	266.4
Tailwater										
South Shore (SF)	267.1	267.4	267.7	267.3	267.0	266.8	266.7	265.6	266.5	265.8
North Powerhouse (NFEF)	265.8	266.1	266.5	266.1	266.0	266.1	266.0	265.1	265.9	265.1
Entrance Weirs										
SFEW1	258.6	258.9	259.2	258.5	258.4	258.1	258.1	256.8	258.0	257.4
SFEW2	257.6	257.8	258.2	257.5	257.5	257.2	257.1	256.0	257.0	256.5
NFEW2	257.3	257.3	257.8	257.4	257.2	257.3	257.3	256.3	257.2	256.4
NFEW3	257.3	257.4	257.6	257.4	257.2	257.3	257.2	256.3	257.1	256.4
North Fish Ladder (WA)										
U S Picketed Leads	1.2	1.2	1.2	1.2	1.3	1.2	1.3	1.3	1.3	1.2
D S Pick. Leads/Weir Head	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.1	1.2	1.1
Junction Pool (F2)	266.4	266.6	265.7	266.6	266.3	267.2	266.7	265.9	266.6	265.7
Tailwater (F1)	264.9	265.2	264.4	265.1	264.9	265.6	265.2	264.6	265.5	264.3
Entrance Weirs										
W2	255.4	255.5	254.5	255.3	255.3	257.6	256.4	255.5	256.3	256.2
W3	256.7	257.3	255.7	256.5	255.7	257.1	256.7	255.9	255.7	255.5
DIFFERENTIALS/DEPTHS:										
South Fish Ladder (OR)										
Counting Station Diff.	0.2	0.3	0.3	0.2	0.2	0.3	0.1	0.2	0.3	0.1
South Shore Diff.	1.1	1.1	1.2	1.1	1.1	1.3	1.3	1.2	1.3	1.4
North Powerhouse Diff.	1.5	1.4	1.5	1.4	1.4	1.4	1.4	1.3	1.4	1.3
SFEW1 Depth	8.5	8.5	8.5	8.8	8.6	8.7	8.6	8.8	8.5	8.4
SFEW2 Depth	9.5	9.6	9.5	9.8	9.5	9.6	9.6	9.6	9.5	9.3
NFEW2 Depth	8.5	8.8	8.7	8.7	8.8	8.8	8.7	8.8	8.7	8.7
NFEW3 Depth	8.5	8.7	8.9	8.7	8.8	8.8	8.8	8.8	8.8	8.7
North Fish Ladder (WA)										
Counting Station Diff.	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.1
North Shore Diff.	1.5	1.4	1.3	1.5	1.4	1.6	1.5	1.3	1.1	1.4
W2 Depth	9.5	9.7	9.9	9.8	9.6	8.0	8.8	9.1	9.2	8.1
W3 Depth	8.2	7.9	8.7	8.6	9.2	8.5	8.5	8.7	9.8	8.8
CRITERIA POINTS:										
South Fish Ladder (OR)										
Channel Velocity	NO	YES	YES	NO	YES	NO	NO	NO	NO	YES
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
South Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Powerhouse Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW1 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Fish Ladder (WA)										
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W3 Depth	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES

APPENDIX 1 (CONTINUED). MCNARY ADULT FISHWAY INSPECTIONS 2013

DATES:	23-Jun	26-Jun	28-Jun	30-Jun	3-Jul	5-Jul	6-Jul	9-Jul	12-Jul	14-Jul
CHANNEL VELOCITIES IN OREGON FISHWAY:	1.6	1.8	1.4	1.2	1.8	1.6	1.4	1.6	1.6	1.6
ELEVATIONS:										
South Fish Ladder (OR)										
Forebay	338.2	338.2	338.7	338.5	339.3	338.9	339.3	337.9	338.2	339.0
U S Picketed Leads	1.3	1.4	1.3	1.3	1.2	1.3	1.2	1.3	1.3	1.2
D S Pick. Leads/Weir Head	1.0	1.1	1.1	1.0	1.0	1.1	1.0	1.1	1.1	1.0
Collection Channel										
South Shore (P2F)	268.0	268.2	268.2	268.3	268.6	267.5	268.3	266.7	266.6	266.8
North Powerhouse (P1F)	267.1	267.5	267.3	267.4	267.7	266.7	267.5	265.8	266.0	266.1
Tailwater										
South Shore (SF)	266.7	267.0	267.0	267.2	267.4	266.3	267.1	265.5	265.2	265.6
North Powerhouse (NFEF)	265.6	266.1	265.9	266.1	266.3	265.5	266.1	264.8	264.8	264.8
Entrance Weirs										
SFEW1	258.2	258.0	258.4	258.2	258.7	257.7	258.2	256.6	256.5	257.0
SFEW2	257.3	257.8	257.6	257.7	257.9	256.9	257.8	256.2	255.8	256.2
NFEW2	257.0	257.3	257.3	257.3	257.5	256.7	257.3	256.0	255.9	256.0
NFEW3	256.9	257.2	257.3	257.3	257.5	256.6	257.2	255.9	255.9	255.9
North Fish Ladder (WA)										
U S Picketed Leads	1.2	1.2	1.3	1.3	1.4	1.4	1.4	1.4	1.6	1.4
D S Pick. Leads/Weir Head	1.1	1.0	1.1	1.1	1.2	1.2	1.2	1.2	1.3	1.2
Junction Pool (F2)	265.8	266.3	266.2	266.4	266.6	266.1	266.5	265.1	265.5	265.6
Tailwater (F1)	264.6	265.2	264.8	265.0	265.1	264.6	265.2	263.8	264.0	264.2
Entrance Weirs										
W2	256.9	256.2	255.6	256.0	256.0	256.3	256.1	255.6	255.6	256.3
W3	256.7	256.0	255.2	255.1	255.4	255.9	256.3	254.9	255.0	255.0
DIFFERENTIALS/DEPTHS:										
South Fish Ladder (OR)										
Counting Station Diff.	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
South Shore Diff.	1.3	1.2	1.2	1.1	1.2	1.2	1.2	1.2	1.4	1.2
North Powerhouse Diff.	1.5	1.4	1.4	1.3	1.4	1.2	1.4	1.0	1.2	1.3
SFEW1 Depth	8.5	9.0	8.6	9.0	8.7	8.6	8.9	8.9	8.7	8.6
SFEW2 Depth	9.4	9.2	9.4	9.5	9.5	9.4	9.3	9.3	9.4	9.4
NFEW2 Depth	8.6	8.8	8.6	8.8	8.8	8.8	8.8	8.8	8.9	8.8
NFEW3 Depth	8.7	8.9	8.6	8.8	8.8	8.9	8.9	8.9	8.9	8.9
North Fish Ladder (WA)										
Counting Station Diff.	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
North Shore Diff.	1.2	1.1	1.4	1.4	1.5	1.5	1.3	1.3	1.5	1.4
W2 Depth	7.7	9.0	9.2	9.0	9.1	8.3	9.1	8.2	8.4	7.9
W3 Depth	7.9	9.2	9.6	9.9	9.7	8.7	8.9	8.9	9.0	9.2
CRITERIA POINTS:										
South Fish Ladder (OR)										
Channel Velocity	YES	YES	NO	NO	YES	YES	NO	YES	YES	YES
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
South Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Powerhouse Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW1 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Fish Ladder (WA)										
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W2 Depth	NO	YES	YES	YES	YES	YES	YES	YES	YES	NO
W3 Depth	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES

APPENDIX 1 (CONTINUED). MCNARY ADULT FISHWAY INSPECTIONS 2013

DATES:	16-Jul	19-Jul	21-Jul	23-Jul	26-Jul	28-Jul	31-Jul	2-Aug	4-Aug	6-Aug
CHANNEL VELOCITIES IN OREGON FISHWAY:	1.4	1.4	2.2	1.0	1.6	1.1	1.6	1.2	1.6	1.4
ELEVATIONS:										
South Fish Ladder (OR)										
Forebay	338.3	338.9	339.5	339.1	339.4	339.7	339.1	338.9	339.1	339.5
U S Picketed Leads	1.3	1.3	1.2	1.3	1.2	1.3	1.1	1.3	1.2	1.3
D S Pick. Leads/Weir Head	1.0	1.1	1.0	1.0	1.1	1.0	1.0	1.1	1.0	1.0
Collection Channel										
South Shore (P2F)	266.7	266.7	266.7	266.2	266.8	265.6	266.2	265.6	266.5	266.6
North Powerhouse (P1F)	265.8	266.1	266.1	265.8	266.1	264.8	265.7	265.2	266.0	266.0
Tailwater										
South Shore (SF)	265.5	265.5	265.4	264.9	265.6	264.4	264.8	264.3	265.4	265.3
North Powerhouse (NFEF)	264.7	264.9	264.9	264.6	264.9	264.0	264.5	264.1	264.8	264.8
Entrance Weirs										
SFEW1	256.7	256.8	256.4	255.8	256.7	255.4	255.2	254.6	255.9	255.9
SFEW2	256.0	256.0	256.1	255.5	256.6	254.8	256.0	255.7	255.8	256.2
NFEW2	255.8	256.1	256.0	255.8	256.1	255.0	255.8	255.4	256.0	256.1
NFEW3	255.7	256.2	255.9	255.7	256.0	254.9	255.7	255.4	255.9	256.0
North Fish Ladder (WA)										
U S Picketed Leads	1.3	1.7	1.4	1.6	1.2	1.2	1.4	1.4	1.4	1.3
D S Pick. Leads/Weir Head	1.1	1.3	1.2	1.3	1.1	1.1	1.2	1.1	1.1	1.1
Junction Pool (F2)	265.3	265.6	265.5	265.2	265.4	265.0	265.3	264.9	265.2	265.6
Tailwater (F1)	263.9	264.2	264.1	263.8	264.0	263.7	264.0	263.4	263.8	264.1
Entrance Weirs										
W2	255.8	255.9	255.8	255.4	255.2	252.8	255.4	255.3	255.2	255.7
W3	255.1	255.1	255.0	255.0	255.1	255.1	255.1	255.1	255.1	255.1
DIFFERENTIALS/DEPTHS:										
South Fish Ladder (OR)										
Counting Station Diff.	0.3	0.2	0.2	0.3	0.1	0.3	0.1	0.2	0.2	0.3
South Shore Diff.	1.2	1.2	1.3	1.3	1.2	1.2	1.4	1.3	1.1	1.3
North Powerhouse Diff.	1.1	1.2	1.2	1.2	1.2	0.8	1.2	1.1	1.2	1.2
SFEW1 Depth	8.8	8.7	9.0	9.1	8.9	9.0	9.6	9.7	9.5	9.4
SFEW2 Depth	9.5	9.5	9.3	9.4	9.0	9.6	8.8	8.6	9.6	9.1
NFEW2 Depth	8.9	8.8	8.9	8.8	8.8	9.0	8.7	8.7	8.8	8.7
NFEW3 Depth	9.0	8.7	9.0	8.9	8.9	9.1	8.8	8.7	8.9	8.8
North Fish Ladder (WA)										
Counting Station Diff.	0.2	0.4	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.2
North Shore Diff.	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.5	1.4	1.5
W2 Depth	8.1	8.3	8.3	8.4	8.8	10.9	8.6	8.1	8.6	8.4
W3 Depth	8.8	9.1	9.1	8.8	8.9	8.6	8.9	8.3	8.7	9.0
CRITERIA POINTS:										
South Fish Ladder (OR)										
Channel Velocity	NO	NO	YES	NO	YES	NO	YES	NO	YES	NO
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
South Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Powerhouse Diff.	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
SFEW1 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Fish Ladder (WA)										
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

APPENDIX 1 (CONTINUED). MCNARY ADULT FISHWAY INSPECTIONS 2013

DATES:	9-Aug	11-Aug	13-Aug	16-Aug	18-Aug	21-Aug	23-Aug	25-Aug	28-Aug	30-Aug
CHANNEL VELOCITIES IN OREGON FISHWAY:	1.0	1.4	1.1	1.2	1.4	1.0	1.0	1.4	1.6	1.0
ELEVATIONS:										
South Fish Ladder (OR)										
Forebay	339.2	339.5	339.5	338.6	339.6	339.1	338.9	339.4	339.3	339.1
U S Picketed Leads	1.2	1.2	1.2	1.2	1.3	1.1	1.2	1.2	1.0	1.2
D S Pick. Leads/Weir Head	1.1	1.0	1.0	1.0	1.0	0.9	1.1	1.0	0.9	1.1
Collection Channel										
South Shore (P2F)	266.3	264.9	266.0	266.0	265.5	265.3	265.8	264.5	265.2	265.2
North Powerhouse (P1F)	265.8	264.1	265.6	265.6	265.0	264.9	265.5	263.7	264.6	264.4
Tailwater										
South Shore (SF)	265.0	263.6	264.7	264.8	264.2	264.1	264.5	263.4	263.9	264.1
North Powerhouse (NFEF)	264.7	263.3	264.4	264.5	264.0	263.9	264.4	263.0	263.6	263.5
Entrance Weirs										
SFEW1	255.5	254.0	255.2	255.3	254.7	254.3	255.1	254.8	254.4	254.6
SFEW2	255.4	254.5	255.5	255.3	254.7	254.7	255.2	254.0	254.4	254.9
NFEW2	255.9	254.5	255.7	255.7	255.2	255.2	255.6	254.2	255.0	255.1
NFEW3	255.8	254.4	255.7	255.7	255.1	255.2	255.6	254.2	255.0	255.1
North Fish Ladder (WA)										
U S Picketed Leads	1.6	1.5	1.4	1.3	1.6	1.1	1.2	1.1	1.1	1.2
D S Pick. Leads/Weir Head	1.3	1.2	1.2	1.1	1.0	1.0	1.1	1.0	1.0	1.1
Junction Pool (F2)	265.5	264.5	265.7	265.3	264.8	264.8	265.5	264.2	265.0	264.9
Tailwater (F1)	264.1	263.1	264.2	263.8	263.4	263.5	264.1	262.9	263.6	263.4
Entrance Weirs										
W2	255.2	254.5	256.1	256.4	255.3	254.8	256.4	253.8	256.3	254.7
W3	255.2	253.8	255.3	255.6	254.3	254.2	254.3	253.4	253.7	253.5
DIFFERENTIALS/DEPTHS:										
South Fish Ladder (OR)										
Counting Station Diff.	0.1	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.1	0.1
South Shore Diff.	1.3	1.3	1.3	1.2	1.3	1.2	1.3	1.1	1.3	1.1
North Powerhouse Diff.	1.1	0.8	1.2	1.1	1.0	1.0	1.1	0.7	1.0	0.9
SFEW1 Depth	9.5	9.6	9.5	9.5	9.5	9.8	9.4	8.6	9.5	9.5
SFEW2 Depth	9.6	9.1	9.2	9.5	9.5	9.4	9.3	9.4	9.5	9.2
NFEW2 Depth	8.8	8.8	8.7	8.8	8.8	8.7	8.8	8.8	8.6	8.4
NFEW3 Depth	8.9	8.9	8.7	8.8	8.9	8.7	8.8	8.8	8.6	8.4
North Fish Ladder (WA)										
Counting Station Diff.	0.3	0.3	0.2	0.2	0.6	0.1	0.1	0.1	0.1	0.1
North Shore Diff.	1.4	1.4	1.5	1.5	1.4	1.3	1.4	1.3	1.4	1.5
W2 Depth	8.9	8.6	8.1	7.4	8.1	8.7	7.7	9.1	7.3	8.7
W3 Depth	8.9	9.3	8.9	8.2	9.1	9.3	9.8	9.5	9.9	9.9
CRITERIA POINTS:										
South Fish Ladder (OR)										
Channel Velocity	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	NO	YES	YES	NO	YES
South Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Powerhouse Diff.	YES	NO	YES	YES	YES	YES	YES	NO	YES	NO
SFEW1 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Fish Ladder (WA)										
Counting Station Diff.	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W2 Depth	YES	YES	YES	NO	YES	YES	NO	YES	NO	YES
W3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

APPENDIX 1 (CONTINUED). MCNARY ADULT FISHWAY INSPECTIONS 2013

DATES:	1-Sep	3-Sep	6-Sep	8-Sep	11-Sep	13-Sep	15-Sep	19-Sep	21-Sep	22-Sep
CHANNEL VELOCITIES IN OREGON FISHWAY:	1.1	1.1	1.6	1.4	1.0	1.6	1.6	1.0	1.2	1.0
ELEVATIONS:										
South Fish Ladder (OR)										
Forebay	339.7	338.9	339.2	339.1	339.6	339.5	339.1	339.2	339.1	339.5
U S Picketed Leads	1.3	1.1	1.2	1.1	1.9	1.3	2.3	1.3	1.5	1.6
D S Pick. Leads/Weir Head	1.0	1.0	0.8	0.9	1.0	0.9	1.2	1.0	1.1	1.2
Collection Channel										
South Shore (P2F)	266.0	265.0	265.8	264.7	265.3	265.8	264.8	265.3	265.0	265.1
North Powerhouse (P1F)	265.6	264.6	265.6	264.5	265.0	265.3	264.5	264.9	264.5	264.8
Tailwater										
South Shore (SF)	264.7	263.8	264.6	263.4	264.0	264.5	263.5	263.9	263.6	263.7
North Powerhouse (NFEF)	264.3	263.6	264.4	263.5	263.8	264.1	263.4	263.8	263.5	263.7
Entrance Weirs										
SFEW1	255.3	254.3	255.2	254.0	254.7	255.1	254.0	254.6	254.3	254.4
SFEW2	255.8	254.3	255.3	254.1	254.8	255.2	254.1	254.6	254.3	254.6
NFEW2	255.9	255.0	255.9	255.0	255.4	255.6	254.8	255.3	255.0	255.3
NFEW3	255.8	255.0	255.9	254.9	255.4	255.6	254.7	255.3	254.9	255.3
North Fish Ladder (WA)										
U S Picketed Leads	1.1	1.2	1.1	1.1	1.3	1.1	1.9	1.1	1.1	1.3
D S Pick. Leads/Weir Head	1.0	1.0	1.0	1.0	0.9	1.0	1.1	1.0	1.0	1.1
Junction Pool (F2)	265.7	264.8	265.5	264.8	265.2	265.5	264.7	265.1	264.9	265.1
Tailwater (F1)	264.4	263.4	264.0	263.4	263.8	264.1	263.3	263.6	263.4	263.6
Entrance Weirs										
W2	255.1	254.4	256.0	254.2	254.8	254.7	253.5	255.0	254.5	254.5
W3	254.4	254.2	254.2	254.2	254.2	254.2	254.0	253.4	254.2	254.3
DIFFERENTIALS/DEPTHS:										
South Fish Ladder (OR)										
Counting Station Diff.	0.3	0.1	0.4	0.2	0.9	0.4	1.1	0.3	0.4	0.4
South Shore Diff.	1.3	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4
North Powerhouse Diff.	1.3	1.0	1.2	1.0	1.2	1.2	1.1	1.1	1.0	1.1
SFEW1 Depth	9.4	9.5	9.4	9.4	9.3	9.4	9.5	9.3	9.3	9.3
SFEW2 Depth	8.9	9.5	9.3	9.3	9.2	9.3	9.4	9.3	9.3	9.1
NFEW2 Depth	8.4	8.6	8.5	8.5	8.4	8.5	8.6	8.5	8.5	8.4
NFEW3 Depth	8.5	8.6	8.5	8.6	8.4	8.5	8.7	8.5	8.6	8.4
North Fish Ladder (WA)										
Counting Station Diff.	0.1	0.2	0.1	0.1	0.4	0.1	0.8	0.1	0.1	0.2
North Shore Diff.	1.3	1.4	1.5	1.4	1.4	1.4	1.4	1.5	1.5	1.5
W2 Depth	9.3	9.0	8.0	9.2	9.0	9.4	9.8	8.6	8.9	9.1
W3 Depth	10.0	9.2	9.8	9.2	9.6	9.9	9.3	10.2	9.2	9.3
CRITERIA POINTS:										
South Fish Ladder (OR)										
Channel Velocity	NO	NO	YES	NO	NO	YES	YES	NO	NO	NO
Counting Station Diff.	YES	YES	YES	YES	NO	YES	NO	YES	YES	YES
Weir Diff.	YES	YES	NO	NO	YES	NO	YES	YES	YES	YES
South Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Powerhouse Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW1 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Fish Ladder (WA)										
Counting Station Diff.	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
North Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

APPENDIX 1 (CONTINUED). MCNARY ADULT FISHWAY INSPECTIONS 2013

DATES:	25-Sep	27-Sep	29-Sep	2-Oct	4-Oct	6-Oct	9-Oct	11-Oct	14-Oct	16-Oct
CHANNEL VELOCITIES IN OREGON FISHWAY:	1.2	1.4	1.0	1.6	1.2	1.4	1.8	1.6	1.4	1.6
ELEVATIONS:										
South Fish Ladder (OR)										
Forebay	339.2	339.2	339.2	338.8	339.1	339.0	338.9	339.3	338.6	338.8
U S Picketed Leads	1.5	1.5	1.5	1.7	1.6	1.8	1.3	1.3	1.3	1.4
D S Pick. Leads/Weir Head	1.2	1.2	1.2	1.3	1.3	1.4	1.0	1.1	1.0	1.1
Collection Channel										
South Shore (P2F)	265.3	265.5	265.2	266.0	265.7	265.9	266.8	267.3	266.3	266.3
North Powerhouse (P1F)	265.0	265.1	264.8	265.5	265.3	265.7	266.5	267.0	266.0	266.0
Tailwater										
South Shore (SF)	264.0	264.2	263.8	264.4	264.4	264.5	265.5	265.9	264.9	264.9
North Powerhouse (NFEF)	263.8	264.0	263.8	264.2	264.1	264.5	265.3	265.7	264.7	264.7
Entrance Weirs										
SFEW1	254.8	255.0	254.6	255.4	255.4	255.4	256.9	256.9	256.0	256.0
SFEW2	254.9	255.0	254.6	255.5	255.4	255.6	256.9	257.3	255.9	256.0
NFEW2	255.4	255.4	255.2	255.8	255.7	256.0	256.7	257.4	256.2	256.2
NFEW3	255.5	255.4	255.2	255.8	255.7	256.1	256.7	257.4	256.2	256.2
North Fish Ladder (WA)										
U S Picketed Leads	1.1	1.0	1.1	1.0	1.0	1.3	1.1	1.2	1.2	1.2
D S Pick. Leads/Weir Head	1.0	1.0	1.0	0.9	0.9	1.0	1.0	1.1	1.0	1.1
Junction Pool (F2)	265.3	265.3	265.1	265.5	265.4	265.9	266.5	267.0	266.0	266.1
Tailwater (F1)	263.8	263.8	263.7	264.0	264.0	264.5	265.1	265.6	264.6	264.6
Entrance Weirs										
W2	254.5	254.7	254.4	254.9	254.6	255.0	255.6	256.1	255.3	255.5
W3	254.3	253.9	254.1	254.3	254.5	254.4	254.9	255.1	254.6	254.2
DIFFERENTIALS/DEPTHS:										
South Fish Ladder (OR)										
Counting Station Diff.	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.2	0.3	0.3
South Shore Diff.	1.3	1.3	1.4	1.6	1.3	1.4	1.3	1.4	1.4	1.4
North Powerhouse Diff.	1.2	1.1	1.0	1.3	1.2	1.2	1.2	1.3	1.3	1.3
SFEW1 Depth	9.2	9.2	9.2	9.0	9.0	9.1	8.6	9.0	8.9	8.9
SFEW2 Depth	9.1	9.2	9.2	8.9	9.0	8.9	8.6	8.6	9.0	8.9
NFEW2 Depth	8.4	8.6	8.6	8.4	8.4	8.5	8.6	8.3	8.5	8.5
NFEW3 Depth	8.3	8.6	8.6	8.4	8.4	8.4	8.6	8.3	8.5	8.5
North Fish Ladder (WA)										
Counting Station Diff.	0.1	0.0	0.1	0.1	0.1	0.3	0.1	0.1	0.2	0.1
North Shore Diff.	1.5	1.5	1.4	1.5	1.4	1.4	1.4	1.4	1.4	1.5
W2 Depth	9.3	9.1	9.3	9.1	9.4	9.5	9.5	9.5	9.3	9.1
W3 Depth	9.5	9.9	9.6	9.7	9.5	10.1	10.2	10.5	10.0	10.4
CRITERIA POINTS:										
South Fish Ladder (OR)										
Channel Velocity	NO	NO	NO	YES	NO	NO	YES	YES	NO	YES
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
South Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Powerhouse Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW1 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Fish Ladder (WA)										
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	NO	NO	YES	YES	YES	YES	YES
North Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

APPENDIX 1 (CONTINUED). MCNARY ADULT FISHWAY INSPECTIONS 2013

DATES:	18-Oct	20-Oct	22-Oct	25-Oct	27-Oct	29-Oct	1-Nov	3-Nov	6-Nov
CHANNEL VELOCITIES IN OREGON FISHWAY:	1.6	1.6	1.0	1.1	1.4	1.0	1.0	1.0	1.8
ELEVATIONS:									
South Fish Ladder (OR)									
Forebay	339.8	339.6	339.1	338.1	339.7	338.2	339.3	338.4	339.2
U S Picketed Leads	1.3	1.4	1.3	1.3	1.3	1.3	1.2	1.2	1.2
D S Pick. Leads/Weir Head	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Collection Channel									
South Shore (P2F)	265.7	266.2	266.4	266.4	266.0	266.5	266.2	267.8	267.3
North Powerhouse (P1F)	265.3	265.8	265.9	266.0	265.7	266.0	266.0	267.5	267.2
Tailwater									
South Shore (SF)	264.4	264.7	265.0	265.0	264.7	265.2	264.8	266.3	266.1
North Powerhouse (NFEF)	264.1	264.5	264.7	264.8	264.5	264.7	264.7	266.1	265.7
Entrance Weirs									
SFEW1	255.4	256.0	255.8	256.3	255.7	256.5	256.1	257.4	257.3
SFEW2	255.4	255.9	255.9	256.0	255.6	256.5	256.4	257.5	257.2
NFEW2	255.7	256.1	256.1	256.3	256.0	256.2	256.2	257.8	257.3
NFEW3	255.8	256.1	256.2	256.3	256.1	256.2	256.2	257.8	257.4
North Fish Ladder (WA)									
U S Picketed Leads	1.1	1.2	1.1	1.4	1.3	1.1	1.1	1.0	1.0
D S Pick. Leads/Weir Head	1.0	1.0	1.0	1.1	1.1	1.0	1.1	1.0	1.0
Junction Pool (F2)	265.6	265.9	266.2	265.9	265.7	265.9	266.3	267.6	267.0
Tailwater (F1)	264.1	264.5	264.8	264.5	264.3	264.6	264.8	266.2	265.5
Entrance Weirs									
W2	255.0	255.2	255.6	256.1	255.0	255.0	255.8	256.5	256.1
W3	253.9	254.7	254.8	253.0	254.2	254.6	254.3	255.8	255.3
DIFFERENTIALS/DEPTHS:									
South Fish Ladder (OR)									
Counting Station Diff.	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1
South Shore Diff.	1.3	1.5	1.4	1.4	1.3	1.3	1.4	1.5	1.2
North Powerhouse Diff.	1.2	1.3	1.2	1.2	1.2	1.3	1.3	1.4	1.5
SFEW1 Depth	9.0	8.7	9.2	8.7	9.0	8.7	8.7	8.9	8.8
SFEW2 Depth	9.0	8.8	9.1	9.0	9.1	8.7	8.4	8.8	8.9
NFEW2 Depth	8.4	8.4	8.6	8.5	8.5	8.5	8.5	8.3	8.4
NFEW3 Depth	8.3	8.4	8.5	8.5	8.4	8.5	8.5	8.3	8.3
North Fish Ladder (WA)									
Counting Station Diff.	0.1	0.2	0.1	0.3	0.2	0.1	0.0	0.0	0.0
North Shore Diff.	1.5	1.4	1.4	1.4	1.4	1.3	1.5	1.4	1.5
W2 Depth	9.1	9.3	9.2	8.4	9.3	9.6	9.0	9.7	9.4
W3 Depth	10.2	9.8	10.0	11.5	10.1	10.0	10.5	10.4	10.2
CRITERIA POINTS:									
South Fish Ladder (OR)									
Channel Velocity	YES	YES	NO	NO	NO	NO	NO	NO	YES
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES
South Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Powerhouse Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW1 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Fish Ladder (WA)									
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES
W2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES
W3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES

APPENDIX 1 (CONTINUED). MCNARY ADULT FISHWAY INSPECTIONS 2013

DATES:	8-Nov	10-Nov	13-Nov	15-Nov	16-Nov	20-Nov	22-Nov	24-Nov	26-Nov	29-Nov
CHANNEL VELOCITIES IN OREGON FISHWAY:	1.4	1.4	1.4	NA	1.0	1.6	1.0	1.4	1.6	1.6
ELEVATIONS:										
South Fish Ladder (OR)										
Forebay	338.7	338.6	338.3	338.4	338.8	338.3	338.5	338.7	339.0	339.0
U S Picketed Leads	1.3	1.3	1.3	1.2	1.3	1.4	1.4	1.5	1.3	1.3
D S Pick. Leads/Weir Head	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.4	1.2	1.2
Collection Channel										
South Shore (P2F)	267.5	267.2	266.8	267.0	266.7	267.9	268.0	266.3	267.4	266.8
North Powerhouse (P1F)	267.3	266.9	266.5	266.6	266.3	267.4	267.5	266.0	266.9	266.1
Tailwater										
South Shore (SF)	266.0	265.7	265.4	265.5	265.2	266.5	266.6	264.7	266.0	265.5
North Powerhouse (NFEF)	265.8	265.4	265.1	265.3	265.0	266.1	266.1	264.7	265.4	265.1
Entrance Weirs										
SFEW1	257.3	257.0	256.6	257.0	256.6	257.8	258.0	256.1	257.5	256.8
SFEW2	257.3	257.0	256.7	256.9	256.5	257.8	258.0	256.3	257.6	257.0
NFEW2	257.5	257.2	256.7	257.0	256.7	257.5	257.9	256.4	257.1	256.8
NFEW3	257.5	257.3	256.7	257.0	256.7	257.5	257.9	256.4	257.1	256.9
North Fish Ladder (WA)										
U S Picketed Leads	1.1	1.1	1.1	1.1	1.0	1.0	0.9	0.9	1.0	1.2
D S Pick. Leads/Weir Head	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	1.0	1.1
Junction Pool (F2)	267.3	266.8	266.4	266.8	266.2	267.3	267.4	266.1	266.6	266.5
Tailwater (F1)	265.9	265.4	264.9	265.3	264.8	265.9	266.0	264.5	265.2	265.0
Entrance Weirs										
W2	256.5	256.3	255.7	256.3	255.6	257.5	257.3	255.6	256.1	255.7
W3	255.3	254.3	254.7	254.7	254.8	254.8	254.8	254.8	254.7	254.8
DIFFERENTIALS/DEPTHS:										
South Fish Ladder (OR)										
Counting Station Diff.	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
South Shore Diff.	1.5	1.5	1.4	1.5	1.5	1.4	1.4	1.6	1.4	1.3
North Powerhouse Diff.	1.5	1.5	1.4	1.3	1.3	1.3	1.4	1.3	1.5	1.0
SFEW1 Depth	8.7	8.7	8.8	8.5	8.6	8.7	8.6	8.6	8.5	8.7
SFEW2 Depth	8.7	8.7	8.7	8.6	8.7	8.7	8.6	8.4	8.4	8.5
NFEW2 Depth	8.3	8.2	8.4	8.3	8.3	8.6	8.2	8.3	8.3	8.3
NFEW3 Depth	8.3	8.1	8.4	8.3	8.3	8.6	8.2	8.3	8.3	8.2
North Fish Ladder (WA)										
Counting Station Diff.	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1
North Shore Diff.	1.4	1.4	1.5	1.5	1.4	1.4	1.4	1.6	1.4	1.5
W2 Depth	9.4	9.1	9.2	9.0	9.2	8.4	8.7	8.9	9.1	9.3
W3 Depth	10.6	11.1	10.2	10.6	10.0	11.1	11.2	9.7	10.5	10.2
CRITERIA POINTS:										
South Fish Ladder (OR)										
Channel Velocity	NO	NO	NO	NA	NO	YES	NO	NO	YES	YES
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES
South Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Powerhouse Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW1 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NFEW3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Fish Ladder (WA)										
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES
North Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

APPENDIX 1 (CONTINUED). MCNARY ADULT FISHWAY INSPECTIONS 2013

DATES:	1-Dec	3-Dec	6-Dec	8-Dec	11-Dec	13-Dec	15-Dec	18-Dec	20-Dec	22-Dec
CHANNEL VELOCITIES IN OREGON FISHWAY:	1.8	1.6	1.6	2.2	1.8	1.7	2.2	1.6	1.1	1.1
ELEVATIONS:										
South Fish Ladder (OR)										
Forebay	338.5	339.3	338.6	338.8	338.8	338.7	339.1	338.7	338.3	339.5
U S Picketed Leads	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.4
D S Pick. Leads/Weir Head	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.3
Collection Channel										
South Shore (P2F)	267.3	267.8	268.0	267.5	267.2	267.7	267.6	266.6	267.7	267.5
North Powerhouse (P1F)	266.6	267.2	267.2	266.6	266.2	267.1	266.8	266.3	267.1	267.1
Tailwater										
South Shore (SF)	265.7	266.5	266.5	265.9	265.5	266.2	265.7	265.1	266.3	266.1
North Powerhouse (NFEF)	265.6	266.1	265.8	265.3	264.9	265.7	265.6	265.1	265.9	265.9
Entrance Weirs										
SFEW1	257.4	258.0	259.3	258.6	258.7	259.2	259.0	256.2	257.6	257.3
SFEW2	257.6	258.4	259.3	259.0	258.5	259.3	259.6	256.4	257.5	257.5
NFEW2	257.2	257.8	258.1	257.5	257.1	258.2	257.8	258.5	258.3	258.4
NFEW3	257.2	257.8	258.2	257.6	257.1	258.3	257.8	257.5	258.4	258.4
North Fish Ladder (WA)										
U S Picketed Leads	1.3	1.2	1.2	1.2	1.2	1.1	1.2	1.2	1.3	1.2
D S Pick. Leads/Weir Head	1.2	1.2	1.2	1.2	1.1	1.0	1.1	1.1	1.1	1.0
Junction Pool (F2)	267.1	267.4	267.4	266.5	266.2	267.0	266.9	266.3	267.2	267.1
Tailwater (F1)	265.8	266.0	265.9	265.0	264.7	265.6	265.4	264.9	265.8	265.7
Entrance Weirs										
W2	256.3	257.1	257.6	256.0	255.6	256.4	256.3	255.6	257.1	256.6
W3	254.8	254.8	254.7	254.8	254.8	254.9	254.8	254.8	254.7	254.8
DIFFERENTIALS/DEPTHS:										
South Fish Ladder (OR)										
Counting Station Diff.	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
South Shore Diff.	1.6	1.3	1.5	1.6	1.7	1.5	1.9	1.5	1.4	1.4
North Powerhouse Diff.	1.0	1.1	1.4	1.3	1.3	1.4	1.2	1.2	1.2	1.2
SFEW1 Depth	8.3	8.5	7.2	7.3	6.8	7.0	6.7	8.9	8.7	8.8
SFEW2 Depth	8.1	8.1	7.2	6.9	7.0	6.9	6.1	8.7	8.8	8.6
NFEW2 Depth	8.4	8.3	7.7	7.8	7.8	7.5	7.8	6.6	7.6	7.5
NFEW3 Depth	8.4	8.3	7.6	7.7	7.8	7.4	7.8	7.6	7.5	7.5
North Fish Ladder (WA)										
Counting Station Diff.	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2
North Shore Diff.	1.3	1.4	1.5	1.5	1.5	1.4	1.5	1.4	1.4	1.4
W2 Depth	9.5	8.9	8.3	9.0	9.1	9.2	9.1	9.3	8.7	9.1
W3 Depth	11.0	11.2	11.2	10.2	9.9	10.7	10.6	10.1	11.1	10.9
CRITERIA POINTS:										
South Fish Ladder (OR)										
Channel Velocity	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES
South Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Powerhouse Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SFEW1 Depth	YES	YES	NO	NO	NO	NO	NO	YES	YES	YES
SFEW2 Depth	YES	YES	NO	NO	NO	NO	NO	YES	YES	YES
NFEW2 Depth	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO
NFEW3 Depth	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO
North Fish Ladder (WA)										
Counting Station Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Shore Diff.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W2 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
W3 Depth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

DATES:	23-Dec	27-Dec	28-Dec	30-Dec
CHANNEL VELOCITIES				
IN OREGON FISHWAY:	1.8	1.2	1.6	1.4
ELEVATIONS:				
South Fish Ladder (OR)				
Forebay	NA	338.6	339.0	338.9
U S Picketed Leads	1.4	1.4	1.4	1.4
D S Pick. Leads/Weir Head	1.3	1.3	1.3	1.3
Collection Channel				
South Shore (P2F)	267.4	266.8	266.6	266.3
North Powerhouse (P1F)	267.0	266.3	266.2	265.7
Tailwater				
South Shore (SF)	266.1	265.6	265.3	264.9
North Powerhouse (NFEF)	265.9	265.2	265.0	264.6
Entrance Weirs				
SFEW1	257.2	256.7	256.5	256.2
SFEW2	257.5	256.8	256.5	256.4
NFEW2	258.3	257.5	257.5	257.1
NFEW3	258.3	257.5	257.5	257.1
North Fish Ladder (WA)				
U S Picketed Leads	1.2	1.2	1.2	1.2
D S Pick. Leads/Weir Head	1.0	1.1	1.1	1.0
Junction Pool (F2)	267.1	266.5	266.3	266.0
Tailwater (F1)	265.7	265.0	264.8	264.5
Entrance Weirs				
W2	256.8	255.3	255.5	255.2
W3	254.8	254.7	254.8	254.8
DIFFERENTIALS/DEPTHS:				
South Fish Ladder (OR)				
Counting Station Diff.	0.1	0.1	0.1	0.1
South Shore Diff.	1.3	1.2	1.3	1.4
North Powerhouse Diff.	1.1	1.1	1.2	1.1
SFEW1 Depth	8.9	8.9	8.8	8.7
SFEW2 Depth	8.6	8.8	8.8	8.5
NFEW2 Depth	7.6	7.7	7.5	7.5
NFEW3 Depth	7.6	7.7	7.5	7.5
North Fish Ladder (WA)				
Counting Station Diff.	0.2	0.1	0.1	0.2
North Shore Diff.	1.4	1.5	1.5	1.5
W2 Depth	8.9	9.7	9.3	9.3
W3 Depth	10.9	10.3	10.0	9.7
CRITERIA POINTS:				
South Fish Ladder (OR)				
Channel Velocity	YES	NO	YES	NO
Counting Station Diff.	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES
South Shore Diff.	YES	YES	YES	YES
North Powerhouse Diff.	YES	YES	YES	YES
SFEW1 Depth	YES	YES	YES	YES
SFEW2 Depth	YES	YES	YES	YES
NFEW2 Depth	NO	NO	NO	NO
NFEW3 Depth	NO	NO	NO	NO
North Fish Ladder (WA)				
Counting Station Diff.	YES	YES	YES	YES
Weir Diff.	YES	YES	YES	YES
North Shore Diff.	YES	YES	YES	YES
W2 Depth	YES	YES	YES	YES
W3 Depth	YES	YES	YES	YES

Max	Min
339.8	337.5
2.3	1.0
1.4	0.8
270.2	264.5
269.3	263.7
269.0	263.4
267.7	263.0
260.4	254.0
259.8	254.0
258.9	254.2
258.9	254.2
1.9	0.9
1.3	0.9
268.2	264.1
266.8	262.3
258.7	252.8
258.3	253.0
1.1	0.0
1.9	1.0
1.7	0.7
9.8	6.7
10.5	6.1
9.0	6.6
9.1	7.4
0.8	0.0
1.8	1.0
10.9	7.3
11.5	6.4

NOTE:

Columns in Table **This table automatically calculates all results. Just copy the data (only) in**

ıto the Word file table.

CRITERIA POINTS: YES	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	NA	NA	1	0	0	NA	0	NA	1	NA
Counting Station Diff.	NA	NA	1	1	1	1	1	1	1	1
Weir Diff.	NA	NA	1	1	1	1	1	1	1	1
South Shore Diff.	NA	NA	1	1	1	1	1	1	1	1
North Powerhouse Diff.	NA	NA	0	1	1	1	1	1	1	1
SFEW1 Depth	NA	NA	1	1	1	1	1	1	1	1
SFEW2 Depth	NA	NA	1	1	1	1	1	1	1	1
NFEW2 Depth	NA	NA	1	0	0	0	1	1	1	1
NFEW3 Depth	NA	NA	1	0	0	0	1	1	1	1
North Fish Ladder (WA)										
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1	1
North Shore Diff.	1	1	1	1	1	1	1	1	1	1
W2 Depth	1	1	1	1	1	1	1	1	1	1
W3 Depth	0	0	0	1	1	1	1	1	1	1

CRITERIA POINTS: NO	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	NA	NA	0	1	1	NA	1	NA	0	NA
Counting Station Diff.	NA	NA	0	0	0	0	0	0	0	0
Weir Diff.	NA	NA	0	0	0	0	0	0	0	0
South Shore Diff.	NA	NA	0	0	0	0	0	0	0	0
North Powerhouse Diff.	NA	NA	1	0	0	0	0	0	0	0
SFEW1 Depth	NA	NA	0	0	0	0	0	0	0	0
SFEW2 Depth	NA	NA	0	0	0	0	0	0	0	0
NFEW2 Depth	NA	NA	0	1	1	1	0	0	0	0
NFEW3 Depth	NA	NA	0	1	1	1	0	0	0	0
North Fish Ladder (WA)										
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Shore Diff.	0	0	0	0	0	0	0	0	0	0
W2 Depth	0	0	0	0	0	0	0	0	0	0
W3 Depth	1	1	1	0	0	0	0	0	0	0

CRITERIA POINTS: YES	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1	1
South Shore Diff.	1	1	1	1	1	1	1	1	1	1
North Powerhouse Diff.	1	1	1	1	1	1	1	1	1	1
SFEW1 Depth	1	1	1	1	1	1	1	1	1	1
SFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW3 Depth	1	1	1	1	1	1	1	1	1	1
North Fish Ladder (WA)										
Counting Station Diff.	1	1	1	1	0	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1	1
North Shore Diff.	1	1	1	1	1	1	1	1	1	1
W2 Depth	1	1	1	1	1	1	1	1	1	1
W3 Depth	1	1	1	1	1	1	1	1	1	1

CRITERIA POINTS: NO	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Shore Diff.	0	0	0	0	0	0	0	0	0	0
North Powerhouse Diff.	0	0	0	0	0	0	0	0	0	0
SFEW1 Depth	0	0	0	0	0	0	0	0	0	0
SFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW3 Depth	0	0	0	0	0	0	0	0	0	0
North Fish Ladder (WA)										
Counting Station Diff.	0	0	0	0	1	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Shore Diff.	0	0	0	0	0	0	0	0	0	0
W2 Depth	0	0	0	0	0	0	0	0	0	0
W3 Depth	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: YES	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1	1
South Shore Diff.	1	1	1	1	1	1	1	1	1	1
North Powerhouse Diff.	1	1	1	1	1	1	1	1	1	1
SFEW1 Depth	0	1	1	1	1	1	1	1	1	1
SFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW2 Depth	1	1	1	1	1	1	1	0	0	1
NFEW3 Depth	1	1	1	1	1	1	1	1	1	1
North Fish Ladder (WA)										
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1	1
North Shore Diff.	1	1	1	1	1	1	1	1	1	1
W2 Depth	1	1	1	1	1	1	1	1	1	1
W3 Depth	0	1	1	1	1	1	1	1	1	1

CRITERIA POINTS: NO	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Shore Diff.	0	0	0	0	0	0	0	0	0	0
North Powerhouse Diff.	0	0	0	0	0	0	0	0	0	0
SFEW1 Depth	1	0	0	0	0	0	0	0	0	0
SFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW2 Depth	0	0	0	0	0	0	0	1	1	0
NFEW3 Depth	0	0	0	0	0	0	0	0	0	0
North Fish Ladder (WA)										
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Shore Diff.	0	0	0	0	0	0	0	0	0	0
W2 Depth	0	0	0	0	0	0	0	0	0	0
W3 Depth	1	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: YES	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	NA	0	1	1	1	1	1	1	1	1
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1	1
South Shore Diff.	1	1	1	1	1	1	1	1	1	1
North Powerhouse Diff.	1	1	1	1	1	1	1	1	1	1
SFEW1 Depth	1	1	1	1	1	1	1	1	1	1
SFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW3 Depth	1	1	1	1	1	1	1	1	1	1
North Fish Ladder (WA)										
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	0	0	1	1	1	1	1	1	1
North Shore Diff.	1	1	1	1	1	1	1	1	1	1
W2 Depth	1	1	0	1	1	1	1	1	1	1
W3 Depth	1	1	1	1	1	1	1	1	1	1

CRITERIA POINTS: NO	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	NA	1	0	0	0	0	0	0	0	0
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Shore Diff.	0	0	0	0	0	0	0	0	0	0
North Powerhouse Diff.	0	0	0	0	0	0	0	0	0	0
SFEW1 Depth	0	0	0	0	0	0	0	0	0	0
SFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW3 Depth	0	0	0	0	0	0	0	0	0	0
North Fish Ladder (WA)										
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	1	1	0	0	0	0	0	0	0
North Shore Diff.	0	0	0	0	0	0	0	0	0	0
W2 Depth	0	0	1	0	0	0	0	0	0	0
W3 Depth	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: YES	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	0	1	1	0	1	0	0	0	0	1
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1	1
South Shore Diff.	1	1	1	1	1	1	1	1	1	1
North Powerhouse Diff.	1	1	1	1	1	1	1	1	1	1
SFEW1 Depth	1	1	1	1	1	1	1	1	1	1
SFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW3 Depth	1	1	1	1	1	1	1	1	1	1
North Fish Ladder (WA)										
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1	1
North Shore Diff.	1	1	1	1	1	1	1	1	1	1
W2 Depth	1	1	1	1	1	1	1	1	1	1
W3 Depth	1	0	1	1	1	1	1	1	1	1

CRITERIA POINTS: NO	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	1	0	0	1	0	1	1	1	1	0
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Shore Diff.	0	0	0	0	0	0	0	0	0	0
North Powerhouse Diff.	0	0	0	0	0	0	0	0	0	0
SFEW1 Depth	0	0	0	0	0	0	0	0	0	0
SFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW3 Depth	0	0	0	0	0	0	0	0	0	0
North Fish Ladder (WA)										
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Shore Diff.	0	0	0	0	0	0	0	0	0	0
W2 Depth	0	0	0	0	0	0	0	0	0	0
W3 Depth	0	1	0	0	0	0	0	0	0	0

CRITERIA POINTS: YES	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	1	1	0	0	1	1	0	1	1	1
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1	1
South Shore Diff.	1	1	1	1	1	1	1	1	1	1
North Powerhouse Diff.	1	1	1	1	1	1	1	1	1	1
SFEW1 Depth	1	1	1	1	1	1	1	1	1	1
SFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW3 Depth	1	1	1	1	1	1	1	1	1	1
North Fish Ladder (WA)										
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1	1
North Shore Diff.	1	1	1	1	1	1	1	1	1	1
W2 Depth	0	1	1	1	1	1	1	1	1	0
W3 Depth	0	1	1	1	1	1	1	1	1	1

CRITERIA POINTS: NO	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	0	0	1	1	0	0	1	0	0	0
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Shore Diff.	0	0	0	0	0	0	0	0	0	0
North Powerhouse Diff.	0	0	0	0	0	0	0	0	0	0
SFEW1 Depth	0	0	0	0	0	0	0	0	0	0
SFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW3 Depth	0	0	0	0	0	0	0	0	0	0
North Fish Ladder (WA)										
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Shore Diff.	0	0	0	0	0	0	0	0	0	0
W2 Depth	1	0	0	0	0	0	0	0	0	1
W3 Depth	1	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: YES	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	0	0	1	0	1	0	1	0	1	0
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1	1
South Shore Diff.	1	1	1	1	1	1	1	1	1	1
North Powerhouse Diff.	1	1	1	1	1	0	1	1	1	1
SFEW1 Depth	1	1	1	1	1	1	1	1	1	1
SFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW3 Depth	1	1	1	1	1	1	1	1	1	1
North Fish Ladder (WA)										
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1	1
North Shore Diff.	1	1	1	1	1	1	1	1	1	1
W2 Depth	1	1	1	1	1	1	1	1	1	1
W3 Depth	1	1	1	1	1	1	1	1	1	1

CRITERIA POINTS: NO	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	1	1	0	1	0	1	0	1	0	1
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Shore Diff.	0	0	0	0	0	0	0	0	0	0
North Powerhouse Diff.	0	0	0	0	0	1	0	0	0	0
SFEW1 Depth	0	0	0	0	0	0	0	0	0	0
SFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW3 Depth	0	0	0	0	0	0	0	0	0	0
North Fish Ladder (WA)										
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Shore Diff.	0	0	0	0	0	0	0	0	0	0
W2 Depth	0	0	0	0	0	0	0	0	0	0
W3 Depth	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: YES	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	0	0	0	0	0	0	0	0	1	0
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	0	1	1	0	1
South Shore Diff.	1	1	1	1	1	1	1	1	1	1
North Powerhouse Diff.	1	0	1	1	1	1	1	0	1	0
SFEW1 Depth	1	1	1	1	1	1	1	1	1	1
SFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW3 Depth	1	1	1	1	1	1	1	1	1	1
North Fish Ladder (WA)										
Counting Station Diff.	1	1	1	1	0	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1	1
North Shore Diff.	1	1	1	1	1	1	1	1	1	1
W2 Depth	1	1	1	0	1	1	0	1	0	1
W3 Depth	1	1	1	1	1	1	1	1	1	1

CRITERIA POINTS: NO	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	1	1	1	1	1	1	1	1	0	1
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	1	0	0	1	0
South Shore Diff.	0	0	0	0	0	0	0	0	0	0
North Powerhouse Diff.	0	1	0	0	0	0	0	1	0	1
SFEW1 Depth	0	0	0	0	0	0	0	0	0	0
SFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW3 Depth	0	0	0	0	0	0	0	0	0	0
North Fish Ladder (WA)										
Counting Station Diff.	0	0	0	0	1	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Shore Diff.	0	0	0	0	0	0	0	0	0	0
W2 Depth	0	0	0	1	0	0	1	0	1	0
W3 Depth	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: YES	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	0	0	1	0	0	1	1	0	0	0
Counting Station Diff.	1	1	1	1	0	1	0	1	1	1
Weir Diff.	1	1	0	0	1	0	1	1	1	1
South Shore Diff.	1	1	1	1	1	1	1	1	1	1
North Powerhouse Diff.	1	1	1	1	1	1	1	1	1	1
SFEW1 Depth	1	1	1	1	1	1	1	1	1	1
SFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW3 Depth	1	1	1	1	1	1	1	1	1	1
North Fish Ladder (WA)										
Counting Station Diff.	1	1	1	1	1	1	0	1	1	1
Weir Diff.	1	1	1	1	0	1	1	1	1	1
North Shore Diff.	1	1	1	1	1	1	1	1	1	1
W2 Depth	1	1	1	1	1	1	1	1	1	1
W3 Depth	1	1	1	1	1	1	1	1	1	1

CRITERIA POINTS: NO	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	1	1	0	1	1	0	0	1	1	1
Counting Station Diff.	0	0	0	0	1	0	1	0	0	0
Weir Diff.	0	0	1	1	0	1	0	0	0	0
South Shore Diff.	0	0	0	0	0	0	0	0	0	0
North Powerhouse Diff.	0	0	0	0	0	0	0	0	0	0
SFEW1 Depth	0	0	0	0	0	0	0	0	0	0
SFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW3 Depth	0	0	0	0	0	0	0	0	0	0
North Fish Ladder (WA)										
Counting Station Diff.	0	0	0	0	0	0	1	0	0	0
Weir Diff.	0	0	0	0	1	0	0	0	0	0
North Shore Diff.	0	0	0	0	0	0	0	0	0	0
W2 Depth	0	0	0	0	0	0	0	0	0	0
W3 Depth	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: YES	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	0	0	0	1	0	0	1	1	0	1
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	0	1	1	1	1
South Shore Diff.	1	1	1	1	1	1	1	1	1	1
North Powerhouse Diff.	1	1	1	1	1	1	1	1	1	1
SFEW1 Depth	1	1	1	1	1	1	1	1	1	1
SFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW3 Depth	1	1	1	1	1	1	1	1	1	1
North Fish Ladder (WA)										
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	0	0	1	1	1	1	1
North Shore Diff.	1	1	1	1	1	1	1	1	1	1
W2 Depth	1	1	1	1	1	1	1	1	1	1
W3 Depth	1	1	1	1	1	1	1	1	1	1

CRITERIA POINTS: NO	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	1	1	1	0	1	1	0	0	1	0
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	1	0	0	0	0
South Shore Diff.	0	0	0	0	0	0	0	0	0	0
North Powerhouse Diff.	0	0	0	0	0	0	0	0	0	0
SFEW1 Depth	0	0	0	0	0	0	0	0	0	0
SFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW3 Depth	0	0	0	0	0	0	0	0	0	0
North Fish Ladder (WA)										
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	1	1	0	0	0	0	0
North Shore Diff.	0	0	0	0	0	0	0	0	0	0
W2 Depth	0	0	0	0	0	0	0	0	0	0
W3 Depth	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: YES	(Output = 0, 1, or NA)								
South Fish Ladder (OR)									
Channel Velocity	1	1	0	0	0	0	0	0	1
Counting Station Diff.	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1
South Shore Diff.	1	1	1	1	1	1	1	1	1
North Powerhouse Diff.	1	1	1	1	1	1	1	1	1
SFEW1 Depth	1	1	1	1	1	1	1	1	1
SFEW2 Depth	1	1	1	1	1	1	1	1	1
NFEW2 Depth	1	1	1	1	1	1	1	1	1
NFEW3 Depth	1	1	1	1	1	1	1	1	1
North Fish Ladder (WA)									
Counting Station Diff.	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1
North Shore Diff.	1	1	1	1	1	1	1	1	1
W2 Depth	1	1	1	1	1	1	1	1	1
W3 Depth	1	1	1	1	1	1	1	1	1

CRITERIA POINTS: NO	(Output = 0, 1, or NA)								
South Fish Ladder (OR)									
Channel Velocity	0	0	1	1	1	1	1	1	0
Counting Station Diff.	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0
South Shore Diff.	0	0	0	0	0	0	0	0	0
North Powerhouse Diff.	0	0	0	0	0	0	0	0	0
SFEW1 Depth	0	0	0	0	0	0	0	0	0
SFEW2 Depth	0	0	0	0	0	0	0	0	0
NFEW2 Depth	0	0	0	0	0	0	0	0	0
NFEW3 Depth	0	0	0	0	0	0	0	0	0
North Fish Ladder (WA)									
Counting Station Diff.	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0
North Shore Diff.	0	0	0	0	0	0	0	0	0
W2 Depth	0	0	0	0	0	0	0	0	0
W3 Depth	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: YES	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	0	0	0	NA	0	1	0	0	1	1
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	0	1	1
South Shore Diff.	1	1	1	1	1	1	1	1	1	1
North Powerhouse Diff.	1	1	1	1	1	1	1	1	1	1
SFEW1 Depth	1	1	1	1	1	1	1	1	1	1
SFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW2 Depth	1	1	1	1	1	1	1	1	1	1
NFEW3 Depth	1	1	1	1	1	1	1	1	1	1
North Fish Ladder (WA)										
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	0	0	1	1
North Shore Diff.	1	1	1	1	1	1	1	1	1	1
W2 Depth	1	1	1	1	1	1	1	1	1	1
W3 Depth	1	1	1	1	1	1	1	1	1	1

CRITERIA POINTS: NO	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	1	1	1	NA	1	0	1	1	0	0
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	1	0	0
South Shore Diff.	0	0	0	0	0	0	0	0	0	0
North Powerhouse Diff.	0	0	0	0	0	0	0	0	0	0
SFEW1 Depth	0	0	0	0	0	0	0	0	0	0
SFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW2 Depth	0	0	0	0	0	0	0	0	0	0
NFEW3 Depth	0	0	0	0	0	0	0	0	0	0
North Fish Ladder (WA)										
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	1	1	0	0
North Shore Diff.	0	0	0	0	0	0	0	0	0	0
W2 Depth	0	0	0	0	0	0	0	0	0	0
W3 Depth	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: YES	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	1	1	1	1	1	1	1	1	0	0
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	0	1
South Shore Diff.	1	1	1	1	1	1	1	1	1	1
North Powerhouse Diff.	1	1	1	1	1	1	1	1	1	1
SFEW1 Depth	1	1	0	0	0	0	0	1	1	1
SFEW2 Depth	1	1	0	0	0	0	0	1	1	1
NFEW2 Depth	1	1	0	0	0	0	0	0	0	0
NFEW3 Depth	1	1	0	0	0	0	0	0	0	0
North Fish Ladder (WA)										
Counting Station Diff.	1	1	1	1	1	1	1	1	1	1
Weir Diff.	1	1	1	1	1	1	1	1	1	1
North Shore Diff.	1	1	1	1	1	1	1	1	1	1
W2 Depth	1	1	1	1	1	1	1	1	1	1
W3 Depth	1	1	1	1	1	1	1	1	1	1

CRITERIA POINTS: NO	(Output = 0, 1, or NA)									
South Fish Ladder (OR)										
Channel Velocity	0	0	0	0	0	0	0	0	1	1
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	1	0
South Shore Diff.	0	0	0	0	0	0	0	0	0	0
North Powerhouse Diff.	0	0	0	0	0	0	0	0	0	0
SFEW1 Depth	0	0	1	1	1	1	1	0	0	0
SFEW2 Depth	0	0	1	1	1	1	1	0	0	0
NFEW2 Depth	0	0	1	1	1	1	1	1	1	1
NFEW3 Depth	0	0	1	1	1	1	1	1	1	1
North Fish Ladder (WA)										
Counting Station Diff.	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Shore Diff.	0	0	0	0	0	0	0	0	0	0
W2 Depth	0	0	0	0	0	0	0	0	0	0
W3 Depth	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: YES	(Output = 0, 1, or NA)			
South Fish Ladder (OR)				
Channel Velocity	1	0	1	0
Counting Station Diff.	1	1	1	1
Weir Diff.	1	1	1	1
South Shore Diff.	1	1	1	1
North Powerhouse Diff.	1	1	1	1
SFEW1 Depth	1	1	1	1
SFEW2 Depth	1	1	1	1
NFEW2 Depth	0	0	0	0
NFEW3 Depth	0	0	0	0
North Fish Ladder (WA)				
Counting Station Diff.	1	1	1	1
Weir Diff.	1	1	1	1
North Shore Diff.	1	1	1	1
W2 Depth	1	1	1	1
W3 Depth	1	1	1	1

CRITERIA POINTS: NO				
South Fish Ladder (OR)				
Channel Velocity	0	1	0	1
Counting Station Diff.	0	0	0	0
Weir Diff.	0	0	0	0
South Shore Diff.	0	0	0	0
North Powerhouse Diff.	0	0	0	0
SFEW1 Depth	0	0	0	0
SFEW2 Depth	0	0	0	0
NFEW2 Depth	1	1	1	1
NFEW3 Depth	1	1	1	1
North Fish Ladder (WA)				
Counting Station Diff.	0	0	0	0
Weir Diff.	0	0	0	0
North Shore Diff.	0	0	0	0
W2 Depth	0	0	0	0
W3 Depth	0	0	0	0

CRITERIA POINTS: YES	No. of YES	Total No. of Inspec
South Fish Ladder (OR)		
Channel Velocity	49	106
Counting Station Diff.	129	131
Weir Diff.	123	131
South Shore Diff.	131	131
North Powerhouse Diff.	126	131
SFEW1 Depth	125	131
SFEW2 Depth	126	131
NFEW2 Depth	114	131
NFEW3 Depth	116	131
North Fish Ladder (WA)		
Counting Station Diff.	130	133
Weir Diff.	126	133
North Shore Diff.	133	133
W2 Depth	127	133
W3 Depth	127	133

CRITERIA POINTS: NO	No. of NO
South Fish Ladder (OR)	
Channel Velocity	57
Counting Station Diff.	2
Weir Diff.	8
South Shore Diff.	0
North Powerhouse Diff.	5
SFEW1 Depth	6
SFEW2 Depth	5
NFEW2 Depth	17
NFEW3 Depth	15
North Fish Ladder (WA)	
Counting Station Diff.	3
Weir Diff.	7
North Shore Diff.	0
W2 Depth	6
W3 Depth	6

Numbers in green below should add to numbers in green above.

Numbers in yellow below should add to numbers in yellow above.

ctions	% YES
	46.2
	98.5
	93.9
	100.0
	96.2
	95.4
	96.2
	87.0
	88.5
	97.7
	94.7
	100.0
	95.5
	95.5
	% NO
	53.8
	1.5
	6.1
	0.0
	3.8
	4.6
	3.8
	13.0
	11.5
	2.3
	5.3
	0.0
	4.5
	4.5

1	2	3	4	5	6
MCNARY			**----------Not Enough Depth----------**		
Criteria and Locations	**No. in Criteria/ No. of Inspections**	**% In Criteria**	**No./% Within 0.01-0.1 Foot**	**No./% Within 0.11-0.2 Foot**	**No./% >0.2 Foot**
South Fish Ladder (OR)					
Channel Velocity	49	46.2	***	***	***
	106		***	***	***
Counting Station Diff.	129	98.5	***	***	***
	131		***	***	***
Weir Diff.	123	93.9	4	1	0
	131		3.1	0.8	0.0
South Shore Diff.	131	100.0	0	0	0
	131		0.0	0.0	0.0
North Powerhouse Diff.	126	96.2	1	3	1
	131		0.8	2.3	0.8
SFEW1 Depth	125	95.4	1	0	5
	131		0.8	0.0	3.8
SFEW2 Depth	126	96.2	0	0	5
	131		0.0	0.0	3.8
NFEW2 Depth	114	87.0	0	3	14
	131		0.0	2.3	10.7
NFEW3 Depth	116	88.5	0	2	13
	131		0.0	1.5	9.9
North Fish Ladder (WA)					
Counting Station Diff.	130	97.7	***	***	***
	133		***	***	***

7	8	9	Rows in Table
----------Too Much Depth----------			1
No./%	**No./%**	**No./%**	2
Within	**Within**	**>0.2**	3
0.01-0.1	**0.11-0.2**	**Foot**	4
Foot	**Foot**		5
			6
			7
***	***	***	8
***	***	***	9
			10
0	0	2	11
0.0	0.0	1.5	12
			13
3	0	0	14
2.3	0.0	0.0	15
			16
0	0	0	17
0.0	0.0	0.0	18
			19
0	0	0	20
0.0	0.0	0.0	21
			22
***	***	***	23
***	***	***	24
			25
***	***	***	26
***	***	***	27
			28
***	***	***	29
***	***	***	30
			31
***	***	***	32
***	***	***	33
			34
			35
2	0	1	36
1.5	0.0	0.8	37

OUT OF CRITERIA SITUATIONS BY INCREMENTS - THESE SHOULD MATCH THE "NOs" ABOVE.

South Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (<0.80)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.80 - 0.89)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	1	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.90 - 0.99):										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.01 - 2.10)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.11 - 2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (>2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	1	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (<0.80)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.80 - 0.89)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.90 - 0.99):										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.01 - 2.10)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.11 - 2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (>2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (<0.80)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.80 - 0.89)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.90 - 0.99):										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.01 - 2.10)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.11 - 2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (>2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	1	1	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (<0.80)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.80 - 0.89)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.90 - 0.99):										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.01 - 2.10)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.11 - 2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (>2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (<0.80)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.80 - 0.89)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.90 - 0.99):										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.01 - 2.10)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.11 - 2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (>2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too low)										
Counting Station										
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too low)										
Counting Station										
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Counting Station										
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too low)										
Counting Station										
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too low)										
Counting Station										
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (<0.80)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.80 - 0.89)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.90 - 0.99):										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.01 - 2.10)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.11 - 2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (>2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (<0.80)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.80 - 0.89)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	1	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.90 - 0.99):										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.01 - 2.10)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.11 - 2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (>2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	1	0	0	1	0
South Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	1	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (<0.80)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	1	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.80 - 0.89)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	1	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.90 - 0.99):										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	1
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.01 - 2.10)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.11 - 2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (>2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	1	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	1	0	1	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	1	0	1	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	1	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	1	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (<0.80)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.80 - 0.89)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.90 - 0.99):										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.01 - 2.10)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.11 - 2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (>2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	1	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	1	1	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (<0.80)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.80 - 0.89)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.90 - 0.99):										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.01 - 2.10)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.11 - 2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (>2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)									
Counting Station	Not applicable.								
Weir Diff.	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too low)									
Counting Station	Not applicable.								
Weir Diff.	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too low)									
Counting Station	Not applicable.								
Weir Diff.	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too high)									
Counting Station	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)									
Counting Station	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)									
Counting Station	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)									
Counting Station	Not applicable.								
Weir Diff.	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too low)									
Counting Station	Not applicable.								
Weir Diff.	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too low)									
Counting Station	Not applicable.								
Weir Diff.	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too high)									
Counting Station	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too high)									
Counting Station	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too high)									
Counting Station	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (<0.80)									
South Shore	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.80 - 0.89)									
South Shore	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.90 - 0.99):									
South Shore	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.01 - 2.10)									
South Shore	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.11 - 2.20)									
South Shore	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (>2.20)									
South Shore	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	1	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	1	1	0	0
North Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (<0.80)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.80 - 0.89)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.90 - 0.99):										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.01 - 2.10)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.11 - 2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (>2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	1	0
South Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too low)										
Counting Station	Not applicable.									
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too high)										
Counting Station	0	0	0	0	0	0	0	0	0	0
Weir Diff.	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (<0.80)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.80 - 0.89)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (0.90 - 0.99):										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.01 - 2.10)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (2.11 - 2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0
Channel/Tailwater Differentials (>2.20)										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)				
Counting Station				
Weir Diff.	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too low)				
Counting Station				
Weir Diff.	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too low)				
Counting Station				
Weir Diff.	0	0	0	0
South Ladder Differentials (0.01 - 0.1 too high)				
Counting Station	0	0	0	0
Weir Diff.	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)				
Counting Station	0	0	0	0
Weir Diff.	0	0	0	0
South Ladder Differentials (more than 0.2 too high)				
Counting Station	0	0	0	0
Weir Diff.	0	0	0	0
North Ladder Differentials (more than 0.2 too low)				
Counting Station				
Weir Diff.	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too low)				
Counting Station				
Weir Diff.	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too low)				
Counting Station				
Weir Diff.	0	0	0	0
North Ladder Differentials (0.01 - 0.1 too high)				
Counting Station	0	0	0	0
Weir Diff.	0	0	0	0
North Ladder Differentials (0.11 - 0.2 too high)				
Counting Station	0	0	0	0
Weir Diff.	0	0	0	0
North Ladder Differentials (more than 0.2 too high)				
Counting Station	0	0	0	0
Weir Diff.	0	0	0	0
Channel/Tailwater Differentials (<0.80)				
South Shore	0	0	0	0
North Powerhouse	0	0	0	0
North Shore	0	0	0	0
Channel/Tailwater Differentials (0.80 - 0.89)				
South Shore	0	0	0	0
North Powerhouse	0	0	0	0
North Shore	0	0	0	0
Channel/Tailwater Differentials (0.90 - 0.99):				
South Shore	0	0	0	0
North Powerhouse	0	0	0	0
North Shore	0	0	0	0
Channel/Tailwater Differentials (2.01 - 2.10)				
South Shore	0	0	0	0
North Powerhouse	0	0	0	0
North Shore	0	0	0	0
Channel/Tailwater Differentials (2.11 - 2.20)				
South Shore	0	0	0	0
North Powerhouse	0	0	0	0
North Shore	0	0	0	0
Channel/Tailwater Differentials (>2.20)				
South Shore	0	0	0	0
North Powerhouse	0	0	0	0
North Shore	0	0	0	0

Numbers in blue below should add to numbers in blue above.

South Ladder Differentials (more than 0.2 too low)

Counting Station	Not applicable.
Weir Diff.	0

South Ladder Differentials (0.11 - 0.2 too low)

Counting Station	Not applicable.
Weir Diff.	1

South Ladder Differentials (0.01 - 0.1 too low)

Counting Station	Not applicable.
Weir Diff.	4

South Ladder Differentials (0.01 - 0.1 too high)

Counting Station	0
Weir Diff.	3

South Ladder Differentials (0.11 - 0.2 too high)

Counting Station	0
Weir Diff.	0

South Ladder Differentials (more than 0.2 too high)

Counting Station	2
Weir Diff.	0

North Ladder Differentials (more than 0.2 too low)

Counting Station	Not applicable.
Weir Diff.	0

North Ladder Differentials (0.11 - 0.2 too low)

Counting Station	Not applicable.
Weir Diff.	0

North Ladder Differentials (0.01 - 0.1 too low)

Counting Station	Not applicable.
Weir Diff.	7

North Ladder Differentials (0.01 - 0.1 too high)

Counting Station	2
Weir Diff.	0

North Ladder Differentials (0.11 - 0.2 too high)

Counting Station	0
Weir Diff.	0

North Ladder Differentials (more than 0.2 too high)

Counting Station	1
Weir Diff.	0

Channel/Tailwater Differentials (<0.80)

South Shore	0
North Powerhouse	1
North Shore	0

Channel/Tailwater Differentials (0.80 - 0.89)

South Shore	0
North Powerhouse	3
North Shore	0

Channel/Tailwater Differentials (0.90 - 0.99):

South Shore	0
North Powerhouse	1
North Shore	0

Channel/Tailwater Differentials (2.01 - 2.10)

South Shore	0
North Powerhouse	0
North Shore	0

Channel/Tailwater Differentials (2.11 - 2.20)

South Shore	0
North Powerhouse	0
North Shore	0

Channel/Tailwater Differentials (>2.20)

South Shore	0
North Powerhouse	0
North Shore	0

Weir Diff.	126	94.7	7	0	0
	133		5.3	0.0	0.0
North Shore Diff.	133	100.0	0	0	0
	133		0.0	0.0	0.0
W2 Depth	127	95.5	1	0	5
	133		0.8	0.0	3.8
W3 Depth	127	95.5	2	0	4
	133		1.5	0.0	3.0

			38
0	0	0	39
0.0	0.0	0.0	40
			41
0	0	0	42
0.0	0.0	0.0	43
			44
***	***	***	45
***	***	***	46
			47
***	***	***	48
***	***	***	49

Entrance Weir Depths (more than 0.2 too low)										
SFEW1 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(<7.80)**	0	0	0	1	1	1	0	0	0	0
NFEW3 **(<7.80)**	0	0	0	1	1	1	0	0	0	0
W2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W3 **(<7.80)**	1	1	1	0	0	0	0	0	0	0
Entrance Weir Depths (0.11 - 0.2 too low)										
SFEW1 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.01 - 0.1 too low)										
SFEW1 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0

Entrance Weir Depths (more than 0.2 too low)										
SFEW1 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.11 - 0.2 too low)										
SFEW1 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.01 - 0.1 too low)										
SFEW1 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0

Entrance Weir Depths (more than 0.2 too low)										
SFEW1 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(<7.80)**	0	0	0	0	0	0	0	1	1	0
NFEW3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W3 **(<7.80)**	1	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.11 - 0.2 too low)										
SFEW1 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.01 - 0.1 too low)										
SFEW1 **(7.90 - 7.99)**	1	0	0	0	0	0	0	0	0	0
SFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0

Entrance Weir Depths (more than 0.2 too low)										
SFEW1 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W2 **(<7.80)**	0	0	1	0	0	0	0	0	0	0
W3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.11 - 0.2 too low)										
SFEW1 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.01 - 0.1 too low)										
SFEW1 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0

Entrance Weir Depths (more than 0.2 too low)										
SFEW1 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.11 - 0.2 too low)										
SFEW1 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.01 - 0.1 too low)										
SFEW1 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.90 - 7.99)**	0	1	0	0	0	0	0	0	0	0

Entrance Weir Depths (more than 0.2 too low)										
SFEW1 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W2 **(<7.80)**	1	0	0	0	0	0	0	0	0	0
W3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.11 - 0.2 too low)										
SFEW1 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.01 - 0.1 too low)										
SFEW1 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	1
W3 **(7.90 - 7.99)**	1	0	0	0	0	0	0	0	0	0

Entrance Weir Depths (more than 0.2 too low)										
SFEW1 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.11 - 0.2 too low)										
SFEW1 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.01 - 0.1 too low)										
SFEW1 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0

Entrance Weir Depths (more than 0.2 too low)										
SFEW1 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W2 **(<7.80)**	0	0	0	1	0	0	1	0	1	0
W3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.11 - 0.2 too low)										
SFEW1 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.01 - 0.1 too low)										
SFEW1 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0

Entrance Weir Depths (more than 0.2 too low)										
SFEW1 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.11 - 0.2 too low)										
SFEW1 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.01 - 0.1 too low)										
SFEW1 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0

Entrance Weir Depths (more than 0.2 too low)										
SFEW1 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.11 - 0.2 too low)										
SFEW1 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.01 - 0.1 too low)										
SFEW1 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0

Entrance Weir Depths (more than 0.2 too low)									
SFEW1 **(<7.80)**	0	0	0	0	0	0	0	0	0
SFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0
NFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0
NFEW3 **(<7.80)**	0	0	0	0	0	0	0	0	0
W2 **(<7.80)**	0	0	0	0	0	0	0	0	0
W3 **(<7.80)**	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.11 - 0.2 too low)									
SFEW1 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0
SFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0
NFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0
NFEW3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0
W2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0
W3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.01 - 0.1 too low)									
SFEW1 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0
SFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0
NFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0
NFEW3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0
W2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0
W3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0

Entrance Weir Depths (more than 0.2 too low)										
SFEW1 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.11 - 0.2 too low)										
SFEW1 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.01 - 0.1 too low)										
SFEW1 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0

Entrance Weir Depths (more than 0.2 too low)										
SFEW1 **(<7.80)**	0	0	1	1	1	1	1	0	0	0
SFEW2 **(<7.80)**	0	0	1	1	1	1	1	0	0	0
NFEW2 **(<7.80)**	0	0	1	0	0	1	0	1	1	1
NFEW3 **(<7.80)**	0	0	1	1	0	1	0	1	1	1
W2 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
W3 **(<7.80)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.11 - 0.2 too low)										
SFEW1 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.80 - 7.89)**	0	0	0	1	1	0	1	0	0	0
NFEW3 **(7.80 - 7.89)**	0	0	0	0	1	0	1	0	0	0
W2 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.80 - 7.89)**	0	0	0	0	0	0	0	0	0	0
Entrance Weir Depths (0.01 - 0.1 too low)										
SFEW1 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
SFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
NFEW3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W2 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0
W3 **(7.90 - 7.99)**	0	0	0	0	0	0	0	0	0	0

Entrance Weir Depths (more than 0.2 too low)				
SFEW1 **(<7.80)**	0	0	0	0
SFEW2 **(<7.80)**	0	0	0	0
NFEW2 **(<7.80)**	1	1	1	1
NFEW3 **(<7.80)**	1	1	1	1
W2 **(<7.80)**	0	0	0	0
W3 **(<7.80)**	0	0	0	0
Entrance Weir Depths (0.11 - 0.2 too low)				
SFEW1 **(7.80 - 7.89)**	0	0	0	0
SFEW2 **(7.80 - 7.89)**	0	0	0	0
NFEW2 **(7.80 - 7.89)**	0	0	0	0
NFEW3 **(7.80 - 7.89)**	0	0	0	0
W2 **(7.80 - 7.89)**	0	0	0	0
W3 **(7.80 - 7.89)**	0	0	0	0
Entrance Weir Depths (0.01 - 0.1 too low)				
SFEW1 **(7.90 - 7.99)**	0	0	0	0
SFEW2 **(7.90 - 7.99)**	0	0	0	0
NFEW2 **(7.90 - 7.99)**	0	0	0	0
NFEW3 **(7.90 - 7.99)**	0	0	0	0
W2 **(7.90 - 7.99)**	0	0	0	0
W3 **(7.90 - 7.99)**	0	0	0	0

Entrance Weir Depths (more than 0.2 too low)	
SFEW1 **(<7.80)**	5
SFEW2 **(<7.80)**	5
NFEW2 **(<7.80)**	14
NFEW3 **(<7.80)**	13
W2 **(<7.80)**	5
W3 **(<7.80)**	4

Entrance Weir Depths (0.11 - 0.2 too low)	
SFEW1 **(7.80 - 7.89)**	0
SFEW2 **(7.80 - 7.89)**	0
NFEW2 **(7.80 - 7.89)**	3
NFEW3 **(7.80 - 7.89)**	2
W2 **(7.80 - 7.89)**	0
W3 **(7.80 - 7.89)**	0

Entrance Weir Depths (0.01 - 0.1 too low)	
SFEW1 **(7.90 - 7.99)**	1
SFEW2 **(7.90 - 7.99)**	0
NFEW2 **(7.90 - 7.99)**	0
NFEW3 **(7.90 - 7.99)**	0
W2 **(7.90 - 7.99)**	1
W3 **(7.90 - 7.99)**	2