

APPENDIX 1. ICE HARBOR ADULT FISHWAY INSPECTIONS

DATES:	3-Mar	4-Mar	5-Mar	10-Mar	11-Mar	12-Mar	17-Mar	18-Mar	19-Mar	24-Mar
CHANNEL VELOCITIES IN SOUTH FISHWAY:	2.4	2.1	1.6	1.5	1.5	1.5	2.0	1.6	1.9	1.8
ELEVATIONS:										
South Fish Ladder										
Forebay	438.8	438.9	437.9	439.4	439.1	439.2	439.5	438.7	438.8	438.1
Exit Pool	438.8	438.8	437.9	439.3	439.1	439.2	439.4	438.6	438.7	438.0
Makeup Diffuser	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1
U S Picketed Leads	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1
D S Picketed Leads	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
North Fish Ladder										
Forebay	438.8	438.9	437.9	439.4	439.2	439.3	439.6	438.8	438.8	438.1
Exit Pool	438.8	438.9	437.9	439.3	439.2	439.3	439.5	438.8	438.8	438.1
Makeup Diffuser	434.2	434.2	434.2	434.2	434.3	434.2	434.2	434.2	434.1	434.2
U S Picketed Leads	434.2	434.2	434.2	434.2	434.3	434.2	434.3	434.2	434.2	434.3
D S Picketed Leads	434.2	434.2	434.2	434.2	434.3	434.2	434.2	434.2	434.1	434.2
Collection Channels										
South Pwrh SG4	344.0	346.4	346.1	350.3	351.4	351.4	346.3	346.9	346.8	344.8
North Pwrh SG2	343.4	345.9	345.6	350.4	349.9	349.5	345.6	346.2	346.2	344.2
North Shore SG30	343.3	345.5	345.2	347.9	351.6	348.3	345.7	345.7	346.0	344.2
Tailwater										
South Pwrh SG3	342.1	344.7	344.4	349.3	349.0	348.5	344.6	345.1	345.0	343.0
North Pwrh SG1	342.1	344.5	344.2	349.3	348.5	348.3	344.4	345.1	344.9	342.8
North Shore SG29	342.5	344.4	343.9	346.5	349.8	346.5	344.5	343.5	344.8	342.7
Entrance Weirs										
SFE 1	333.5	336.1	335.7	340.8	340.0	339.9	336.1	336.5	336.5	334.4
NFE 2	333.8	336.2	335.5	339.8	338.1	337.9	334.1	334.1	334.1	334.2
NSE 1	332.3	333.2	333.2	336.4	336.8	336.8	334.9	334.9	334.9	333.8
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1
Ladder Weirs	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Counting Station	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
North Fish Ladder										
Ladder Exit	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Ladder Weirs	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.1	1.2
Counting Station	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1
Collection Channels										
South Shore	1.9	1.7	1.7	1.0	2.4	2.9	1.7	1.8	1.8	1.8
North Powerhouse	1.3	1.4	1.4	1.1	1.0	1.2	1.2	1.1	1.3	1.4
North Shore	0.8	1.1	1.3	1.4	1.8	1.8	1.2	2.2	1.2	1.5
Weir Depths										
SFE 1	8.6	8.6	8.7	8.5	9.0	8.6	8.5	8.6	8.5	8.6
NFE 2	8.3	8.3	8.7	9.5	10.4	10.4	10.3	11.0	10.8	8.6
NSE 1	10.2	11.2	10.7	10.1	13.0	9.7	9.6	8.6	9.9	8.9

Collection Channels										
South Shore	0	0	0	0	1	1	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	1	0	0	0	0	0	0	1	0	0
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS:										
SILL (Output = 0, 1, or NA)										
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

OUT OF CRITERIA SITUATIONS BY INCREMENTS - THESE SHOULD MATCH THE "NOs" ABOVE.										
South Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									

APPENDIX 2 (CONTINUED). ICE HARBOR ADULT FISHWAY INSPECTIONS

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DATES:	25-Mar	26-Mar	31-Mar	1-Apr	2-Apr	3-Apr	7-Apr	8-Apr	9-Apr	14-Apr
CHANNEL VELOCITIES IN SOUTH FISHWAY:	1.8	1.6	1.5	1.6	1.3	NA	2.0	1.9	1.9	1.9
ELEVATIONS:										
South Fish Ladder										
Forebay	438.9	438.4	438.3	438.5	437.8	437.5	437.8	437.5	437.6	437.6
Exit Pool	438.8	438.4	438.3	438.5	437.8	437.4	437.8	437.5	437.6	437.6
Makeup Diffuser	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1
U S Picketed Leads	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1
D S Picketed Leads	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
North Fish Ladder										
Forebay	438.9	438.4	438.3	438.4	438.0	437.7	437.8	437.5	437.6	437.6
Exit Pool	438.9	438.4	438.3	438.4	438.0	437.7	437.8	437.5	437.6	437.6
Makeup Diffuser	434.2	434.2	434.2	434.1	434.1	434.2	434.2	434.1	434.1	434.2
U S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
D S Picketed Leads	434.2	434.2	434.2	434.1	434.1	434.2	434.2	434.1	434.2	434.2
Collection Channels										
South Pwrh SG4	345.3	344.8	346.0	345.9	347.1	344.3	345.6	345.7	344.8	346.5
North Pwrh SG2	344.7	344.2	345.4	345.8	346.5	343.5	344.8	345.0	344.9	345.8
North Shore SG30	344.5	344.4	345.4	345.9	347.0	342.2	343.6	343.0	344.7	343.6
Tailwater										
South Pwrh SG3	343.4	342.8	344.0	344.5	345.4	342.5	343.8	344.0	343.8	344.8
North Pwrh SG1	343.1	342.8	344.0	344.5	345.4	342.5	343.8	344.0	343.3	344.8
North Shore SG29	343.0	342.9	343.7	344.4	345.1	340.7	341.7	341.6	342.8	342.4
Entrance Weirs										
SFE 1	334.8	334.3	335.5	335.7	336.6	334.1	335.2	335.3	334.4	335.8
NFE 2	334.5	334.2	335.7	335.7	337.0	333.8	333.8	333.8	334.7	335.2
NSE 1	334.6	334.2	335.1	335.8	336.1	332.5	332.9	332.9	332.2	332.7
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Ladder Weirs	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Counting Station	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
North Fish Ladder										
Ladder Exit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ladder Weirs	1.2	1.2	1.2	1.1	1.1	1.2	1.2	1.1	1.1	1.2
Counting Station	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0
Collection Channels										
South Shore	1.9	2.0	2.0	1.4	1.7	1.8	1.8	1.7	1.0	1.7
North Powerhouse	1.6	1.4	1.4	1.3	1.1	1.0	1.0	1.0	1.6	1.0
North Shore	1.5	1.5	1.7	1.5	1.9	1.5	1.9	1.4	1.9	1.2
Weir Depths										
SFE 1	8.6	8.5	8.5	8.8	8.8	8.4	8.6	8.7	9.4	9.0
NFE 2	8.6	8.6	8.3	8.8	8.4	8.7	10.0	10.2	8.6	9.6
NSE 1	8.4	8.7	8.6	8.6	9.0	8.2	8.8	8.7	10.6	9.7

Collection Channels										
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
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: SILL (Output = 0, 1, or NA)										
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									

APPENDIX 2 (CONTINUED). ICE HARBOR ADULT FISHWAY INSPECTIONS

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DATES:	15-Apr	16-Apr	21-Apr	22-Apr	23-Apr	28-Apr	29-Apr	1-May	5-May	6-May
CHANNEL VELOCITIES IN SOUTH FISHWAY:	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.6
ELEVATIONS:										
South Fish Ladder										
Forebay	437.7	437.8	437.5	437.7	437.2	437.8	437.5	437.2	437.7	437.5
Exit Pool	437.6	437.8	437.5	437.7	437.2	437.8	437.5	437.2	437.7	437.5
Makeup Diffuser	434.1	434.2	434.1	434.2	434.1	434.1	434.1	434.1	434.1	434.1
U S Picketed Leads	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1
D S Picketed Leads	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
North Fish Ladder										
Forebay	437.7	437.9	437.5	437.7	437.4	437.8	437.5	437.2	437.7	437.5
Exit Pool	437.6	437.9	437.5	437.7	437.5	437.9	437.6	437.2	437.7	437.5
Makeup Diffuser	434.2	434.2	434.1	434.2	434.2	434.2	434.2	434.1	434.1	434.2
U S Picketed Leads	434.2	434.3	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
D S Picketed Leads	434.2	434.2	434.1	434.2	434.2	434.2	434.2	434.1	434.1	434.2
Collection Channels										
South Pwrh SG4	346.5	345.7	345.0	346.2	344.2	346.5	346.6	343.0	348.8	348.5
North Pwrh SG2	345.8	345.1	344.4	345.8	343.6	345.9	345.9	343.0	348.2	347.7
North Shore SG30	343.6	343.3	342.5	343.5	342.2	345.2	345.2	341.9	346.5	345.6
Tailwater										
South Pwrh SG3	344.8	344.0	343.5	344.7	342.6	345.0	345.0	342.0	347.5	347.0
North Pwrh SG1	344.8	344.0	343.4	344.7	342.6	344.5	344.9	342.0	347.5	346.6
North Shore SG29	342.5	341.7	341.4	342.4	340.1	344.0	344.0	340.0	345.5	344.3
Entrance Weirs										
SFE 1	336.0	334.8	334.6	335.9	333.9	336.1	336.2	333.5	338.6	338.0
NFE 2	335.8	333.5	334.0	334.0	334.0	333.5	333.6	333.5	334.7	335.6
NSE 1	332.7	332.3	332.4	332.3	332.3	332.8	332.8	332.9	332.3	332.3
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ladder Weirs	1.1	1.2	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1
Counting Station	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
North Fish Ladder										
Ladder Exit	0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0
Ladder Weirs	1.2	1.2	1.1	1.2	1.2	1.2	1.2	1.1	1.1	1.2
Counting Station	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Collection Channels										
South Shore	1.7	1.7	1.5	1.5	1.6	1.5	1.6	1.0	1.3	1.5
North Powerhouse	1.0	1.1	1.0	1.1	1.0	1.4	1.0	1.0	0.7	1.1
North Shore	1.1	1.6	1.1	1.1	2.1	1.2	1.2	1.9	1.0	1.3
Weir Depths										
SFE 1	8.8	9.2	8.9	8.8	8.7	8.9	8.8	8.5	8.9	9.0
NFE 2	9.0	10.5	9.4	10.7	8.6	11.0	11.3	8.5	12.8	11.0
NSE 1	9.8	9.4	9.0	10.1	7.8	11.2	11.2	7.1	13.2	12.0

Collection Channels										
South Shore	0	0	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	1	0
North Shore	0	0	0	0	1	0	0	0	0	0
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	1	0	0

CRITERIA POINTS: SILL (Output = 0, 1, or NA)										
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	1	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									

**APPENDIX 2 (CONTINUED). ICE HARBOR ADULT FISHWAY
INSPECTIONS**

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DATES:	7- May	8- May	12-May	13-May	14-May	15-May	19-May	20-May	22-May	27-May
CHANNEL VELOCITIES IN SOUTH FISHWAY:	2.4	2.1	2.4	2.2	2.6	2.5	2.0	1.9	2.0	1.8
ELEVATIONS:										
South Fish Ladder										
Forebay	437.7	437.7	437.7	437.6	437.6	437.8	437.7	437.7	437.6	437.5
Exit Pool	437.8	437.7	437.7	437.6	437.6	437.7	437.7	437.7	437.6	437.5
Makeup Diffuser	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1
U S Picketed Leads	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1
D S Picketed Leads	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
North Fish Ladder										
Forebay	437.8	437.7	437.7	437.5	437.5	437.8	437.8	437.7	437.6	437.4
Exit Pool	437.9	437.7	437.8	437.5	437.5	437.8	437.8	437.8	437.7	437.5
Makeup Diffuser	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
U S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
D S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
Collection Channels										
South Pwrh SG4	347.7	346.5	345.4	344.8	343.8	344.9	349.1	349.4	347.1	350.1
North Pwrh SG2	347.1	346.0	344.8	344.2	344.1	344.4	348.6	349.2	346.5	349.8
North Shore SG30	345.6	344.1	343.0	342.4	343.5	343.5	346.5	347.5	344.4	347.7
Tailwater										
South Pwrh SG3	346.1	345.0	343.5	343.0	342.8	343.4	347.7	348.4	345.5	348.8
North Pwrh SG1	345.8	344.9	343.6	342.9	342.9	343.4	347.6	348.0	345.5	348.7
North Shore SG29	344.4	343.0	341.0	340.6	341.7	342.0	345.5	346.3	343.2	346.3
Entrance Weirs										
SFE 1	337.3	336.1	334.8	334.5	334.3	334.3	338.5	335.3	336.7	339.1
NFE 2	335.6	335.6	335.6	334.9	333.6	333.5	335.3	335.3	335.3	338.5
NSE 1	333.0	333.0	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	-0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Ladder Weirs	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Counting Station	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
North Fish Ladder										
Ladder Exit	-0.1	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1
Ladder Weirs	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Counting Station	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Collection Channels										
South Shore	1.6	1.5	1.9	1.8	1.0	1.5	1.4	1.0	1.6	1.3
North Powerhouse	1.3	1.1	1.2	1.3	1.2	1.0	1.0	1.2	1.0	1.1
North Shore	1.2	1.1	2.0	1.8	1.8	1.5	1.0	1.2	1.2	1.4
Weir Depths										
SFE 1	8.8	8.9	8.7	8.5	8.5	9.1	9.2	13.1	8.8	9.7
NFE 2	10.2	9.3	8.0	8.0	9.3	9.9	12.3	12.7	10.2	10.2
NSE 1	11.4	10.0	8.7	8.3	9.4	9.7	13.2	14.0	10.9	14.0

Collection Channels										
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
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: SILL (Output = 0, 1, or NA)										
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									

**APPENDIX 2 (CONTINUED). ICE HARBOR ADULT FISHWAY
INSPECTIONS**

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DATES:	2-Jun	3-Jun	4-Jun	5-Jun	9-Jun	10-Jun	11-Jun	12-Jun	16-Jun	17-Jun
CHANNEL VELOCITIES IN SOUTH FISHWAY:	2.0	2.1	1.9	1.6	2.2	2.6	2.5	2.4	2.5	2.5
ELEVATIONS:										
South Fish Ladder										
Forebay	437.7	437.4	437.6	437.7	437.6	437.7	437.6	437.7	437.7	437.7
Exit Pool	437.6	437.3	437.6	437.7	437.6	437.6	437.6	437.7	437.7	437.6
Makeup Diffuser	434.2	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1
U S Picketed Leads	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1
D S Picketed Leads	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
North Fish Ladder										
Forebay	437.6	437.4	437.6	437.7	437.6	437.7	437.6	437.8	437.6	437.7
Exit Pool	437.7	437.4	437.6	437.8	437.7	437.7	437.6	437.8	437.6	437.7
Makeup Diffuser	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
U S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
D S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
Collection Channels										
South Pwrh SG4	348.6	348.2	348.4	348.5	347.4	347.0	347.3	346.8	344.8	345.5
North Pwrh SG2	348.3	348.0	348.1	348.3	346.9	346.3	346.7	346.2	344.3	344.7
North Shore SG30	346.2	346.0	346.1	345.8	346.2	345.2	345.0	344.6	342.3	343.0
Tailwater										
South Pwrh SG3	347.4	346.9	346.9	347.5	345.9	345.3	345.7	345.2	342.6	343.7
North Pwrh SG1	347.3	346.8	346.7	347.2	345.9	345.3	345.5	344.8	342.6	343.5
North Shore SG29	345.0	344.7	345.0	344.3	345.1	344.0	344.0	343.0	341.1	342.0
Entrance Weirs										
SFE 1	337.7	337.7	337.7	338.3	335.3	336.3	336.3	335.0	335.0	334.2
NFE 2	337.8	337.8	337.8	337.8	336.3	336.3	336.3	336.3	336.3	334.7
NSE 1	332.3	332.3	332.3	332.3	332.7	332.7	332.7	332.7	332.7	332.7
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Ladder Weirs	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Counting Station	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
North Fish Ladder										
Ladder Exit	-0.1	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0
Ladder Weirs	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Counting Station	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Collection Channels										
South Shore	1.2	1.3	1.5	1.0	1.5	1.7	1.6	1.6	2.2	1.8
North Powerhouse	1.0	1.2	1.4	1.1	1.0	1.0	1.2	1.4	1.7	1.2
North Shore	1.2	1.3	1.1	1.5	1.1	1.2	1.0	1.6	1.2	1.0
Weir Depths										
SFE 1	9.7	9.2	9.2	9.2	10.6	9.0	9.4	10.2	7.6	9.5
NFE 2	9.5	9.0	8.9	9.4	9.6	9.0	9.2	8.5	6.3	8.8
NSE 1	12.7	12.4	12.7	12.0	12.4	11.3	11.3	10.3	8.4	9.3

Collection Channels										
South Shore	0	0	0	0	0	0	0	0	1	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
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	1	0
NFE 2	0	0	0	0	0	0	0	0	1	0
NSE 1	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: SILL (Output = 0, 1, or NA)										
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									

DATES:	18-Jun	23-Jun	24-Jun	26-Jun	30-Jun	1-Jul	2-Jul	7-Jul	8-Jul	9-Jul
CHANNEL VELOCITIES IN SOUTH FISHWAY:	2.6	2.6	1.6	1.7	1.5	2.0	1.9	2.1	1.7	1.7
ELEVATIONS:										
South Fish Ladder										
Forebay	437.7	437.7	438.0	437.6	437.7	437.7	437.8	437.8	437.5	437.7
Exit Pool	437.7	437.6	438.0	437.6	437.7	437.7	437.8	437.8	437.5	437.6
Makeup Diffuser	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1
U S Picketed Leads	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1
D S Picketed Leads	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
North Fish Ladder										
Forebay	437.7	437.7	438.0	437.6	437.8	437.6	437.8	437.7	437.6	437.7
Exit Pool	437.7	437.7	438.1	437.7	437.8	437.7	437.8	437.8	437.6	437.7
Makeup Diffuser	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.3
U S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.3
D S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.3
Collection Channels										
South Pwrh SG4	344.8	344.6	344.7	344.4	344.8	343.2	343.4	343.5	343.5	343.6
North Pwrh SG2	344.1	343.8	344.1	343.9	344.4	342.8	342.9	342.7	343.1	343.2
North Shore SG30	343.6	342.6	342.1	342.8	344.8	341.3	341.6	342.5	342.6	341.6
Tailwater										
South Pwrh SG3	343.0	342.8	343.1	342.8	343.5	341.7	341.7	341.5	342.0	342.5
North Pwrh SG1	343.0	342.8	343.1	342.8	343.4	341.7	341.6	341.5	341.9	342.1
North Shore SG29	342.5	340.8	341.1	340.9	343.0	340.0	340.0	340.7	341.1	340.5
Entrance Weirs										
SFE 1	333.3	333.7	333.8	333.3	334.1	332.4	332.6	332.7	333.0	333.0
NFE 2	334.6	333.6	333.6	333.6	332.3	332.3	333.2	332.3	332.3	332.3
NSE 1	332.7	332.8	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Ladder Weirs	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Counting Station	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
North Fish Ladder										
Ladder Exit	0.0	0.0	-0.1	-0.1	0.0	-0.1	0.0	-0.1	0.0	0.0
Ladder Weirs	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3
Counting Station	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Collection Channels										
South Shore	1.8	1.8	1.6	1.6	1.3	1.5	1.7	2.0	1.5	1.1
North Powerhouse	1.1	1.0	1.0	1.1	1.0	1.1	1.3	1.2	1.2	1.1
North Shore	1.1	1.8	1.0	1.9	1.8	1.3	1.6	1.8	1.5	1.1
Weir Depths										
SFE 1	9.7	9.1	9.3	9.5	9.4	9.3	9.1	8.8	9.0	9.5
NFE 2	8.4	9.2	9.5	9.2	11.1	9.4	8.4	9.2	9.6	9.8
NSE 1	9.8	8.0	8.8	8.6	10.7	7.7	7.7	8.4	8.8	8.2

Collection Channels										
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
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: SILL (Output = 0, 1, or NA)										
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	1	1	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									

**APPENDIX 2 (CONTINUED). ICE HARBOR ADULT FISHWAY
INSPECTIONS**

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DATES:	10-Jul	14-Jul	15-Jul	16-Jul	17-Jul	21-Jul	22-Jul	23-Jul	24-Jul	28-Jul
CHANNEL VELOCITIES IN SOUTH FISHWAY:	1.8	2.4	2.1	2.0	2.1	2.3	2.4	2.1	2.1	2.6
ELEVATIONS:										
South Fish Ladder										
Forebay	437.5	437.6	437.9	437.6	437.2	437.6	437.8	437.6	437.7	437.6
Exit Pool	437.5	437.6	437.9	437.6	437.2	437.6	437.8	437.5	437.7	437.6
Makeup Diffuser	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1
U S Picketed Leads	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1
D S Picketed Leads	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
North Fish Ladder										
Forebay	437.5	437.7	438.0	437.7	437.3	437.7	437.9	437.6	437.7	437.5
Exit Pool	437.5	437.7	438.0	437.7	437.3	437.7	437.9	437.8	437.6	437.6
Makeup Diffuser	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
U S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
D S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
Collection Channels										
South Pwrh SG4	343.1	342.7	343.1	342.7	342.0	342.0	342.0	341.9	342.5	341.9
North Pwrh SG2	342.7	342.4	342.9	342.3	341.8	341.5	341.5	342.1	342.2	341.3
North Shore SG30	341.1	341.2	341.3	341.0	341.0	341.0	340.9	341.2	341.5	340.9
Tailwater										
South Pwrh SG3	341.5	340.7	341.5	341.0	340.3	340.0	340.3	339.9	340.7	339.9
North Pwrh SG1	341.7	341.2	341.7	341.2	340.0	340.3	340.5	340.2	340.8	340.0
North Shore SG29	338.7	339.3	339.5	338.4	339.1	338.7	339.3	339.4	339.8	338.5
Entrance Weirs										
SFE 1	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NFE 2	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NSE 1	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Ladder Weirs	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Counting Station	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
North Fish Ladder										
Ladder Exit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	0.1	-0.1
Ladder Weirs	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Counting Station	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Collection Channels										
South Shore	1.6	2.0	1.6	1.7	1.7	2.0	1.7	2.0	1.8	2.0
North Powerhouse	1.0	1.2	1.2	1.1	1.8	1.2	1.0	1.9	1.4	1.3
North Shore	2.4	1.9	1.8	2.6	1.9	2.3	1.6	1.8	1.7	2.4
Weir Depths										
SFE 1	9.2	8.4	9.2	8.7	8.0	7.7	8.0	7.6	8.4	7.6
NFE 2	9.4	8.9	9.4	8.9	7.7	8.0	8.2	7.9	8.5	7.7
NSE 1	6.4	7.0	7.2	6.1	6.8	6.4	7.0	7.1	7.5	6.2

Collection Channels										
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	1	0	1	0	0	0	1
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: SILL (Output = 0, 1, or NA)										
Weir Depths										
SFE 1	0	0	0	0	0	1	0	1	0	1
NFE 2	0	0	0	0	1	0	0	1	0	1
NSE 1	0	1	1	1	1	1	1	1	1	1

South Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									

North Ladder Differentials (0.01 - 0.1 too high)

Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0

North Ladder Differentials (0.11 - 0.2 too high)

Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0

North Ladder Differentials (more than 0.2 too high)

Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	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	1	0	1	0	0	0	1

**APPENDIX 2 (CONTINUED). ICE HARBOR ADULT FISHWAY
INSPECTIONS**

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DATES:	29-Jul	30-Jul	31-Jul	4-Aug	5-Aug	7-Aug	11-Aug	12-Aug	13-Aug	14-Aug
CHANNEL VELOCITIES IN SOUTH FISHWAY:	2.4	2.5	2.4	2.9	2.6	2.6	2.6	2.5	3.0	2.3
ELEVATIONS:										
South Fish Ladder										
Forebay	437.5	437.8	437.8	437.8	437.8	437.8	437.7	437.7	437.6	437.6
Exit Pool	437.5	437.7	437.8	437.8	437.8	437.7	437.7	437.7	437.6	437.6
Makeup Diffuser	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1
U S Picketed Leads	381.1	381.2	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1
D S Picketed Leads	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
North Fish Ladder										
Forebay	437.6	437.8	437.8	437.8	437.9	437.7	437.7	437.6	437.6	437.5
Exit Pool	437.6	437.8	437.9	437.9	438.0	437.9	437.8	437.6	437.6	437.6
Makeup Diffuser	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
U S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
D S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
Collection Channels										
South Pwrh SG4	342.2	341.8	341.8	341.7	341.7	340.7	342.5	342.2	342.2	341.6
North Pwrh SG2	341.8	341.5	341.1	341.0	341.1	341.0	341.7	341.6	341.3	340.9
North Shore SG30	341.4	341.1	341.1	341.0	341.3	340.8	341.1	340.9	341.3	341.1
Tailwater										
South Pwrh SG3	340.3	340.0	340.0	340.7	339.6	339.7	340.8	340.3	340.3	339.5
North Pwrh SG1	340.5	339.9	339.8	339.9	339.8	339.8	340.3	340.4	340.1	339.6
North Shore SG29	339.4	339.1	338.8	338.5	339.0	338.3	338.7	338.7	339.1	338.3
Entrance Weirs										
SFE 1	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NFE 2	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NSE 1	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Ladder Weirs	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Counting Station	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
North Fish Ladder										
Ladder Exit	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.1	0.0	0.0	-0.1
Ladder Weirs	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Counting Station	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Collection Channels										
South Shore	1.9	1.8	1.8	1.0	2.1	1.0	1.7	1.9	1.9	2.1
North Powerhouse	1.3	1.6	1.3	1.1	1.3	1.2	1.4	1.2	1.2	1.3
North Shore	2.0	2.0	2.3	2.5	2.3	2.5	2.4	2.2	2.2	2.8
Weir Depths										
SFE 1	8.0	7.7	7.7	8.4	7.3	7.4	8.5	8.0	8.0	7.2
NFE 2	8.2	7.6	7.5	7.6	7.5	7.5	8.0	8.1	7.8	7.3
NSE 1	7.1	6.8	6.5	6.2	6.7	6.0	6.4	6.4	6.8	6.0

Collection Channels										
South Shore	0	0	0	0	1	0	0	0	0	1
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	1	0	1	1	1	1	1	1	1	1
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: SILL (Output = 0, 1, or NA)										
Weir Depths										
SFE 1	1	1	1	0	1	1	0	0	0	1
NFE 2	1	1	1	1	1	1	0	0	1	1
NSE 1	1	1	1	1	1	1	1	1	1	1

South Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									

North Ladder Differentials (0.01 - 0.1 too high)

Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0

North Ladder Differentials (0.11 - 0.2 too high)

Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0

North Ladder Differentials (more than 0.2 too high)

Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	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	1	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	1
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	0	0	0	0	0	0	0	1	1	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	1	0	1	1	1	1	1	0	0	1

**APPENDIX 2 (CONTINUED). ICE HARBOR ADULT FISHWAY
INSPECTIONS**

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DATES:	18-Aug	19-Aug	21-Aug	26-Aug	27-Aug	28-Aug	2-Sep	3-Sep	4-Sep	8-Sep
CHANNEL VELOCITIES IN SOUTH FISHWAY:	2.6	3.2	2.9	2.9	2.8	2.9	3.0	2.4	2.6	2.6
ELEVATIONS:										
South Fish Ladder										
Forebay	437.4	437.5	437.8	437.5	437.8	437.7	439.6	439.6	439.5	439.4
Exit Pool	437.4	437.5	437.8	437.5	437.7	437.7	439.6	439.6	439.5	439.4
Makeup Diffuser	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1
U S Picketed Leads	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1
D S Picketed Leads	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
North Fish Ladder										
Forebay	437.5	437.5	437.8	437.6	437.8	437.8	439.5	439.4	439.5	439.5
Exit Pool	437.5	437.3	437.8	437.6	437.8	437.9	439.5	439.5	439.5	439.5
Makeup Diffuser	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
U S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.3	434.3	434.2	434.2
D S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
Collection Channels										
South Pwrh SG4	341.3	341.3	341.6	341.3	341.0	341.5	341.7	341.5	341.3	341.5
North Pwrh SG2	340.7	340.7	341.0	340.7	340.6	340.8	341.7	341.1	341.0	341.1
North Shore SG30	340.6	340.6	340.5	340.6	340.8	340.7	341.6	341.4	341.3	341.3
Tailwater										
South Pwrh SG3	339.1	339.1	339.6	339.3	339.1	339.5	339.8	339.5	339.4	339.5
North Pwrh SG1	339.2	339.2	339.7	339.5	339.3	339.5	339.8	339.6	339.4	339.6
North Shore SG29	337.4	338.0	338.2	337.6	338.7	338.1	339.8	339.6	339.3	339.8
Entrance Weirs										
SFE 1	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NFE 2	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NSE 1	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Ladder Weirs	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Counting Station	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
North Fish Ladder										
Ladder Exit	0.0	0.2	0.0	0.0	0.0	-0.1	0.0	-0.1	0.0	0.0
Ladder Weirs	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Counting Station	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
Collection Channels										
South Shore	2.2	2.2	2.0	2.0	1.9	2.0	1.9	2.0	1.9	2.0
North Powerhouse	1.5	1.5	1.3	1.2	1.3	1.3	1.9	1.5	1.6	1.5
North Shore	3.2	2.6	2.3	3.0	2.1	2.6	1.8	1.8	2.0	1.5
Weir Depths										
SFE 1	6.8	6.8	7.3	7.0	6.8	7.2	7.5	7.2	7.1	7.2
NFE 2	6.9	6.9	7.4	7.2	7.0	7.2	7.5	7.3	7.1	7.3
NSE 1	5.1	5.7	5.9	5.3	6.4	5.8	7.5	7.3	7.0	7.5

Collection Channels										
South Shore	0	1	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	1	1	1	1	1	1	0	0	0	0
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: SILL (Output = 0, 1, or NA)										
Weir Depths										
SFE 1	0	1	1	1	1	1	1	1	1	1
NFE 2	1	1	1	1	1	1	1	1	1	1
NSE 1	1	1	1	1	1	1	1	1	1	1

South Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									

North Ladder Differentials (0.01 - 0.1 too high)

Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0

North Ladder Differentials (0.11 - 0.2 too high)

Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0

North Ladder Differentials (more than 0.2 too high)

Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	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	1	0	0	0	0	0	0	0	0
North Powerhouse	0	0	0	0	0	0	0	0	0	0
North Shore	1	0	0	0	1	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	1	1	1	0	1	0	0	0	0

**APPENDIX 2 (CONTINUED). ICE HARBOR ADULT
FISHWAY INSPECTIONS**

0

DATES:	9-Sep	10-Sep	11-Sep	15-Sep	16-Sep	17-Sep	22-Sep	23-Sep	24-Sep	25-Sep
CHANNEL VELOCITIES IN SOUTH FISHWAY:	2.9	2.9	2.8	2.2	2.8	2.2	2.5	2.4	2.4	3.0
ELEVATIONS:										
South Fish Ladder										
Forebay	439.5	439.1	439.3	438.8	439.0	439.3	439.0	439.0	437.9	437.8
Exit Pool	439.5	439.1	439.3	438.7	439.0	439.3	439.0	438.9	437.9	437.8
Makeup Diffuser	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1
U S Picketed Leads	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1
D S Picketed Leads	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
North Fish Ladder										
Forebay	439.5	439.1	439.2	438.9	439.0	439.3	439.0	439.0	437.9	437.8
Exit Pool	439.5	439.1	439.2	439.0	439.2	439.4	439.1	439.0	437.9	437.8
Makeup Diffuser	434.2	434.1	434.2	434.2	434.2	434.2	434.2	434.2	434.1	434.2
U S Picketed Leads	434.3	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.3
D S Picketed Leads	434.2	434.1	434.2	434.2	434.2	434.2	434.2	434.2	434.1	434.2
Collection Channels										
South Pwrh SG4	341.5	340.7	341.2	342.0	341.4	341.3	341.7	341.7	342.7	341.1
North Pwrh SG2	341.2	340.4	340.7	341.6	340.9	340.9	341.2	341.3	342.5	340.7
North Shore SG30	341.2	340.8	341.0	341.0	341.2	341.1	341.5	341.5	342.7	341.0
Tailwater										
South Pwrh SG3	339.5	338.7	339.2	340.1	339.4	339.4	339.9	340.0	341.0	339.2
North Pwrh SG1	339.5	338.7	339.2	340.1	339.4	339.4	339.9	340.0	341.2	339.2
North Shore SG29	339.5	338.8	339.2	340.0	339.4	339.3	340.1	340.0	341.1	339.2
Entrance Weirs										
SFE 1	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NFE 2	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NSE 1	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Ladder Weirs	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Counting Station	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
North Fish Ladder										
Ladder Exit	0.0	0.0	0.0	-0.1	-0.2	-0.1	-0.1	0.0	0.0	0.0
Ladder Weirs	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.2
Counting Station	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Collection Channels										
South Shore	2.0	2.0	2.0	1.9	2.0	1.9	1.8	1.7	1.7	1.9
North Powerhouse	1.7	1.7	1.5	1.5	1.5	1.5	1.3	1.3	1.3	1.5
North Shore	1.7	2.0	1.8	1.0	1.8	1.8	1.4	1.5	1.6	1.8
Weir Depths										
SFE 1	7.2	6.4	6.9	7.8	7.1	7.1	7.6	7.7	8.7	6.9
NFE 2	7.2	6.4	6.9	7.8	7.1	7.1	7.6	7.7	8.9	6.9
NSE 1	7.2	6.5	6.9	7.7	7.1	7.0	7.8	7.7	8.8	6.9

Collection Channels										
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
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: SILL (Output = 0, 1, or NA)										
Weir Depths										
SFE 1	1	1	1	1	1	1	1	1	0	1
NFE 2	1	1	1	1	1	1	1	1	0	1
NSE 1	1	1	1	1	1	1	1	1	0	1

South Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									

APPENDIX 2 (CONTINUED). ICE HARBOR ADULT FISHWAY INSPECTIONS 0

DATES:	29-Sep	30-Sep	1-Oct	6-Oct	7-Oct	8-Oct	9-Oct	14-Oct	15-Oct	16-Oct
CHANNEL VELOCITIES IN SOUTH FISHWAY:	2.6	2.7	2.0	2.8	2.8	2.8	2.8	2.8	2.8	2.8
ELEVATIONS:										
South Fish Ladder										
Forebay	438.7	438.7	438.5	438.8	438.8	439.0	439.0	439.0	438.8	439.0
Exit Pool	438.6	438.7	438.5	438.8	438.8	439.0	439.0	439.0	438.8	439.0
Makeup Diffuser	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1
U S Picketed Leads	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1
D S Picketed Leads	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
North Fish Ladder										
Forebay	438.6	438.6	438.5	438.9	438.8	439.0	439.0	439.1	438.7	439.0
Exit Pool	438.6	438.6	438.5	438.9	438.8	439.0	439.0	439.2	438.7	439.0
Makeup Diffuser	434.2	434.1	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
U S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
D S Picketed Leads	434.2	434.1	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.2
Collection Channels										
South Pwrh SG4	341.0	341.7	342.4	341.7	341.1	341.8	341.4	341.2	341.6	341.7
North Pwrh SG2	340.6	341.3	341.5	341.4	340.7	341.2	341.0	340.8	341.2	341.3
North Shore SG30	341.0	341.2	341.6	341.6	340.9	341.4	340.8	340.9	341.4	341.6
Tailwater										
South Pwrh SG3	339.0	339.9	340.6	339.8	339.3	339.9	339.4	339.2	339.7	339.9
North Pwrh SG1	339.0	339.9	340.3	339.9	339.4	340.0	339.5	339.2	339.8	340.0
North Shore SG29	339.1	339.5	340.1	340.0	339.4	339.7	339.2	339.0	339.8	340.2
Entrance Weirs										
SFE 1	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NFE 2	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NSE 1	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ladder Weirs	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Counting Station	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
North Fish Ladder										
Ladder Exit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0
Ladder Weirs	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Counting Station	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Collection Channels										
South Shore	2.0	1.8	1.8	1.9	1.8	1.9	2.0	2.0	1.9	1.8
North Powerhouse	1.6	1.4	1.2	1.5	1.3	1.2	1.5	1.6	1.4	1.3
North Shore	1.9	1.7	1.5	1.6	1.5	1.7	1.6	1.9	1.6	1.4
Weir Depths										
SFE 1	6.7	7.6	8.3	7.5	7.0	7.6	7.1	6.9	7.4	7.6
NFE 2	6.7	7.6	8.0	7.6	7.1	7.7	7.2	6.9	7.5	7.7
NSE 1	6.8	7.2	7.8	7.7	7.1	7.4	6.9	6.7	7.5	7.9

Collection Channels										
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
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: SILL (Output = 0, 1, or NA)										
Weir Depths										
SFE 1	0	1	0	1	1	1	1	1	1	1
NFE 2	0	1	0	1	1	1	1	1	1	1
NSE 1	0	1	1	1	1	1	1	1	1	1

South Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									

APPENDIX 2 (CONTINUED). ICE HARBOR ADULT FISHWAY INSPECTIONS

0

DATES:	21-Oct	22-Oct	23-Oct	28-Oct	29-Oct	30-Oct	3-Nov	4-Nov	6-Nov	10-Nov
CHANNEL VELOCITIES IN SOUTH FISHWAY:	2.2	2.6	2.3	2.4	2.4	2.0	2.4	2.6	2.8	2.3
ELEVATIONS:										
South Fish Ladder										
Forebay	439.2	439.0	439.1	439.1	439.0	439.0	439.3	439.1	439.2	438.5
Exit Pool	439.2	439.0	439.1	439.1	439.0	439.0	439.2	439.1	439.2	438.5
Makeup Diffuser	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.1
U S Picketed Leads	381.1	381.1	381.1	381.1	381.2	381.1	381.1	381.1	381.1	381.1
D S Picketed Leads	381.0	381.0	381.0	381.0	381.1	381.0	381.1	381.1	381.1	381.1
North Fish Ladder										
Forebay	439.2	439.0	439.1	439.1	439.0	439.0	439.4	439.1	439.3	438.5
Exit Pool	439.2	439.0	439.1	439.1	439.1	439.0	439.3	439.2	439.3	438.5
Makeup Diffuser	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.1	434.1	434.2
U S Picketed Leads	434.2	434.2	434.2	434.2	434.3	434.3	434.2	434.1	434.1	434.2
D S Picketed Leads	434.2	434.2	434.2	434.2	434.2	434.2	434.2	434.1	434.1	434.2
Collection Channels										
South Pwrh SG4	341.4	341.4	341.2	342.0	342.1	341.7	341.9	342.0	341.4	342.4
North Pwrh SG2	341.0	341.4	340.9	341.5	341.7	341.3	341.3	341.4	340.7	341.9
North Shore SG30	341.3	341.5	341.2	341.9	341.7	341.4	341.5	341.6	341.2	341.5
Tailwater										
South Pwrh SG3	339.5	340.1	339.3	340.2	340.3	339.7	339.9	340.0	339.3	340.7
North Pwrh SG1	339.6	340.1	339.4	340.2	340.3	339.7	339.9	340.0	339.4	340.7
North Shore SG29	339.7	340.1	339.5	340.1	340.3	339.8	340.0	340.3	339.7	340.0
Entrance Weirs										
SFE 1	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NFE 2	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NSE 1	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Ladder Weirs	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Counting Station	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
North Fish Ladder										
Ladder Exit	0.0	0.0	0.0	0.0	-0.1	0.0	0.1	-0.1	0.0	0.0
Ladder Weirs	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.2
Counting Station	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Collection Channels										
South Shore	1.9	1.3	1.9	1.8	1.8	2.0	2.0	2.0	2.1	1.7
North Powerhouse	1.4	1.3	1.5	1.3	1.4	1.6	1.4	1.4	1.3	1.2
North Shore	1.6	1.4	1.7	1.8	1.4	1.6	1.5	1.3	1.5	1.5
Weir Depths										
SFE 1	7.2	7.8	7.0	7.9	8.0	7.4	7.6	7.7	7.0	8.4
NFE 2	7.3	7.8	7.1	7.9	8.0	7.4	7.6	7.7	7.1	8.4
NSE 1	7.4	7.8	7.2	7.8	8.0	7.5	7.7	8.0	7.4	7.7

Collection Channels										
South Shore	0	0	0	0	0	0	0	0	1	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
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS: SILL (Output = 0, 1, or NA)										
Weir Depths										
SFE 1	1	1	1	1	0	1	1	1	1	0
NFE 2	1	1	1	1	0	1	1	1	1	0
NSE 1	1	1	1	1	0	1	1	0	1	1

South Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									

APPENDIX 2 (CONTINUED). ICE HARBOR ADULT FISHWAY INSPECTIONS

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DATES:	12- Nov	13- Nov	18- Nov	19- Nov	20- Nov	24-Nov	25-Nov	26-Nov	1-Dec	2-Dec
CHANNEL VELOCITIES IN SOUTH FISHWAY:	3.0	3.0	3.1	2.5	3.1	3.0	3.0	2.6	2.7	2.7
ELEVATIONS:										
South Fish Ladder										
Forebay	438.7	438.9	439.1	438.6	438.7	439.1	439.2	439.3	439.0	439.3
Exit Pool	438.7	438.9	439.0	438.6	438.7	439.1	439.2	439.3	438.9	439.3
Makeup Diffuser	434.1	434.1	434.2	434.2	434.1	434.2	434.1	434.1	434.1	434.1
U S Picketed Leads	381.0	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1
D S Picketed Leads	381.0	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1
North Fish Ladder										
Forebay	438.6	439.1	439.1	438.7	438.7	439.1	439.3	439.3	439.0	439.2
Exit Pool	438.6	439.1	439.1	438.6	438.7	439.1	439.3	439.3	439.0	439.2
Makeup Diffuser	434.1	434.1	434.2	434.1	434.2	434.2	434.1	434.2	434.2	434.2
U S Picketed Leads	434.1	434.1	434.2	434.1	434.1	434.2	434.1	434.2	434.2	434.2
D S Picketed Leads	434.1	434.1	434.2	434.1	434.2	434.2	434.2	434.2	434.2	434.2
Collection Channels										
South Pwrh SG4	341.5	341.2	341.8	341.5	341.1	341.6	342.1	342.6	342.2	342.1
North Pwrh SG2	341.0	340.8	341.4	341.0	340.8	341.2	341.8	341.9	341.7	341.7
North Shore SG30	341.1	341.0	341.5	341.2	341.2	341.2	341.7	342.0	342.1	341.9
Tailwater										
South Pwrh SG3	339.4	339.1	339.9	339.4	339.6	339.5	340.3	340.7	340.5	340.5
North Pwrh SG1	339.4	339.2	339.9	339.4	339.6	339.6	340.3	340.8	340.6	340.5
North Shore SG29	339.4	339.2	339.7	339.6	339.6	339.3	340.3	340.7	340.7	340.5
Entrance Weirs										
SFE 1	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.4	332.5
NFE 2	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NSE 1	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.4	332.3
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Ladder Weirs	1.1	1.1	1.2	1.2	1.1	1.2	1.1	1.1	1.1	1.1
Counting Station	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North Fish Ladder										
Ladder Exit	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Ladder Weirs	1.1	1.1	1.2	1.1	1.2	1.2	1.1	1.2	1.2	1.2
Counting Station	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	0.0	0.0	0.0
Collection Channels										
South Shore	2.1	2.1	1.9	2.1	1.5	2.1	1.8	1.9	1.7	1.6
North Powerhouse	1.6	1.6	1.5	1.6	1.2	1.6	1.5	1.1	1.1	1.2
North Shore	1.7	1.8	1.8	1.6	1.6	1.9	1.4	1.3	1.4	1.4
Weir Depths										
SFE 1	7.1	6.8	7.6	7.1	7.3	7.2	8.0	8.4	8.1	8.0
NFE 2	7.1	6.9	7.6	7.1	7.3	7.3	8.0	8.5	8.3	8.2
NSE 1	7.1	6.9	7.4	7.3	7.3	7.0	8.0	8.4	8.3	8.2

Collection Channels										
South Shore	1	1	0	1	0	1	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
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS:										
SILL (Output = 0, 1, or NA)										
Weir Depths										
SFE 1	1	1	1	1	1	1	0	0	0	0
NFE 2	1	1	1	1	1	1	0	0	0	0
NSE 1	1	1	1	1	1	1	0	0	0	0

South Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									

APPENDIX 2 (CONTINUED). ICE HARBOR ADULT FISHWAY INSPECTIONS

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DATES:	3- Dec	8- Dec	9- Dec	10-Dec	15-Dec	16-Dec	18-Dec	22-Dec	23-Dec	29-Dec
CHANNEL VELOCITIES IN SOUTH FISHWAY:	2.7	2.6	2.5	3.0	2.7	2.9	2.3	2.6	2.4	---
ELEVATIONS:										
South Fish Ladder										
Forebay	439.0	438.4	438.5	438.8	438.7	438.6	438.6	437.3	437.7	437.8
Exit Pool	439.0	438.4	438.5	438.7	438.7	438.6	438.5	437.3	437.7	437.8
Makeup Diffuser	434.1	434.2	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.2
U S Picketed Leads	381.1	381.1	381.1	381.1	381.1	381.0	381.1	381.1	381.1	381.1
D S Picketed Leads	381.1	381.1	381.1	381.1	381.1	381.0	381.1	381.1	381.1	381.1
North Fish Ladder										
Forebay	439.0	438.4	438.5	438.7	438.6	438.5	438.6	437.3	437.8	437.8
Exit Pool	439.0	438.4	438.5	438.7	438.6	438.6	438.5	437.3	437.8	437.8
Makeup Diffuser	434.2	434.2	434.2	434.2	434.1	434.1	434.2	434.1	434.3	434.2
U S Picketed Leads	434.2	434.2	434.2	434.2	434.1	434.1	434.2	434.1	434.3	434.2
D S Picketed Leads	434.2	434.2	434.2	434.2	434.1	434.1	434.2	434.1	434.3	434.2
Collection Channels										
South Pwrh SG4	341.5	342.0	341.7	342.9	342.0	342.6	342.2	342.7	343.5	340.9
North Pwrh SG2	340.9	341.3	341.2	342.4	341.5	342.6	341.8	342.2	343.0	340.8
North Shore SG30	341.5	341.5	341.5	342.6	341.7	342.3	341.9	342.5	343.3	340.9
Tailwater										
South Pwrh SG3	339.7	340.0	339.9	341.2	340.2	340.8	340.6	341.2	342.0	338.9
North Pwrh SG1	339.7	340.0	339.9	341.2	340.1	340.9	340.5	341.1	341.8	338.9
North Shore SG29	340.1	340.0	340.0	341.2	340.2	340.8	340.3	341.0	342.1	338.9
Entrance Weirs										
SFE 1	332.3	332.3	332.3	332.7	332.3	332.5	332.6	332.8	333.9	332.3
NFE 2	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NSE 1	332.3	332.3	332.3	332.7	332.3	332.3	332.3	332.6	333.0	332.3
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Ladder Weirs	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2
Counting Station	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North Fish Ladder										
Ladder Exit	0.0	0.0	0.0	0.0	0.0	-0.1	0.1	0.0	0.0	0.0
Ladder Weirs	1.2	1.2	1.2	1.2	1.1	1.1	1.2	1.1	1.3	1.2
Counting Station	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Collection Channels										
South Shore	1.8	2.0	1.8	1.7	1.8	1.8	1.6	1.5	1.5	2.0
North Powerhouse	1.2	1.3	1.3	1.2	1.4	1.7	1.3	1.1	1.2	1.9
North Shore	1.4	1.5	1.5	1.4	1.5	1.5	1.6	1.5	1.2	2.0
Weir Depths										
SFE 1	7.4	7.7	7.6	8.5	7.9	8.3	8.0	8.4	8.1	6.6
NFE 2	7.4	7.7	7.6	8.9	7.8	8.6	8.2	8.8	9.5	6.6
NSE 1	7.8	7.7	7.7	8.5	7.9	8.5	8.0	8.4	9.1	6.6

Collection Channels										
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
Weir Depths										
SFE 1	0	0	0	0	0	0	0	0	0	0
NFE 2	0	0	0	0	0	0	0	0	0	0
NSE 1	0	0	0	0	0	0	0	0	0	0

CRITERIA POINTS:										
SILL (Output = 0, 1, or NA)										
Weir Depths										
SFE 1	1	1	1	0	1	0	0	0	0	1
NFE 2	1	1	1	0	1	0	0	0	0	1
NSE 1	1	1	1	0	1	0	0	0	0	1

South Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
South Ladder Differentials (0.01 - 0.1 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (0.11 - 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
South Ladder Differentials (more than 0.2 too high)										
Ladder Exit	0	0	0	0	0	0	0	0	0	0
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	0	0	0	0	0	0	0	0	0	0
North Ladder Differentials (more than 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.11 - 0.2 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									
North Ladder Differentials (0.01 - 0.1 too low)										
Ladder Exit	Not applicable.									
Ladder Weirs	0	0	0	0	0	0	0	0	0	0
Counting Station	Not applicable.									

APPENDIX 2 (CONTINUED). ICE HARBOR ADULT FISHWAY INSPECTIONS

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DATES:	3-Dec	8-Dec	9-Dec	10-Dec	15-Dec	16-Dec	18-Dec	22-Dec	23-Dec	29-Dec
CHANNEL VELOCITIES IN SOUTH FISHWAY:	2.7	2.6	2.5	3.0	2.7	2.9	2.3	2.6	2.4	---
ELEVATIONS:										
South Fish Ladder										
Forebay	439.0	438.4	438.5	438.8	438.7	438.6	438.6	437.3	437.7	437.8
Exit Pool	439.0	438.4	438.5	438.7	438.7	438.6	438.5	437.3	437.7	437.8
Makeup Diffuser	434.1	434.2	434.1	434.1	434.1	434.1	434.1	434.1	434.1	434.2
U S Picketed Leads	381.1	381.1	381.1	381.1	381.1	381.0	381.1	381.1	381.1	381.1
D S Picketed Leads	381.1	381.1	381.1	381.1	381.1	381.0	381.1	381.1	381.1	381.1
North Fish Ladder										
Forebay	439.0	438.4	438.5	438.7	438.6	438.5	438.6	437.3	437.8	437.8
Exit Pool	439.0	438.4	438.5	438.7	438.6	438.6	438.5	437.3	437.8	437.8
Makeup Diffuser	434.2	434.2	434.2	434.2	434.1	434.1	434.2	434.1	434.3	434.2
U S Picketed Leads	434.2	434.2	434.2	434.2	434.1	434.1	434.2	434.1	434.3	434.2
D S Picketed Leads	434.2	434.2	434.2	434.2	434.1	434.1	434.2	434.1	434.3	434.2
Collection Channels										
South Pwrh SG4	341.5	342.0	341.7	342.9	342.0	342.6	342.2	342.7	343.5	340.9
North Pwrh SG2	340.9	341.3	341.2	342.4	341.5	342.6	341.8	342.2	343.0	340.8
North Shore SG30	341.5	341.5	341.5	342.6	341.7	342.3	341.9	342.5	343.3	340.9
Tailwater										
South Pwrh SG3	339.7	340.0	339.9	341.2	340.2	340.8	340.6	341.2	342.0	338.9
North Pwrh SG1	339.7	340.0	339.9	341.2	340.1	340.9	340.5	341.1	341.8	338.9
North Shore SG29	340.1	340.0	340.0	341.2	340.2	340.8	340.3	341.0	342.1	338.9
Entrance Weirs										
SFE 1	332.3	332.3	332.3	332.7	332.3	332.5	332.6	332.8	333.9	332.3
NFE 2	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3	332.3
NSE 1	332.3	332.3	332.3	332.7	332.3	332.3	332.3	332.6	333.0	332.3
DIFFERENTIALS/DEPTHS:										
South Fish Ladder										
Ladder Exit	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Ladder Weirs	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2
Counting Station	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North Fish Ladder										
Ladder Exit	0.0	0.0	0.0	0.0	0.0	-0.1	0.1	0.0	0.0	0.0
Ladder Weirs	1.2	1.2	1.2	1.2	1.1	1.1	1.2	1.1	1.3	1.2
Counting Station	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Collection Channels										
South Shore	1.8	2.0	1.8	1.7	1.8	1.8	1.6	1.5	1.5	2.0
North Powerhouse	1.2	1.3	1.3	1.2	1.4	1.7	1.3	1.1	1.2	1.9
North Shore	1.4	1.5	1.5	1.4	1.5	1.5	1.6	1.5	1.2	2.0
Weir Depths										
SFE 1	7.4	7.7	7.6	8.5	7.9	8.3	8.0	8.4	8.1	6.6
NFE 2	7.4	7.7	7.6	8.9	7.8	8.6	8.2	8.8	9.5	6.6
NSE 1	7.8	7.7	7.7	8.5	7.9	8.5	8.0	8.4	9.1	6.6

APPENDIX 2 (CONTINUED). ICE HARBOR ADULT FISHWAY INSPECTIONS

DATES:	30-Dec	31-Dec
CHANNEL VELOCITIES		
IN SOUTH FISHWAY:	2.5	3.0
ELEVATIONS:		
South Fish Ladder		
Forebay	439.1	439.1
Exit Pool	439.1	439.1
Makeup Diffuser	434.1	434.2
U S Picketed Leads	381.1	381.1
D S Picketed Leads	381.1	381.1
North Fish Ladder		
Forebay	438.9	439.1
Exit Pool	439	439.1
Makeup Diffuser	434.2	434.2
U S Picketed Leads	434.2	434.2
D S Picketed Leads	434.2	434.2
Collection Channels		
South Pwrh SG4	342.8	341.6
North Pwrh SG2	342.2	341.8
North Shore SG30	342.4	341.4
Tailwater		
South Pwrh SG3	341.3	339.9
North Pwrh SG1	341.1	339.9
North Shore SG29	341.4	339.9
Entrance Weirs		
SFE 1	333	332.3
NFE 2	332.3	332.3
NSE 1	332.3	332.3
DIFFERENTIALS/DEPTHS:		
South Fish Ladder		
Ladder Exit	0.0	0.0
Ladder Weirs	1.1	1.2
Counting Station	0.0	0.0
North Fish Ladder		
Ladder Exit	-0.1	0.0
Ladder Weirs	1.2	1.2
Counting Station	0.0	0.0
Collection Channels		
South Shore	1.5	1.7
North Powerhouse	1.1	1.9
North Shore	1.0	1.5
Weir Depths		
SFE 1	8.3	7.6
NFE 2	8.8	7.6
NSE 1	9.1	7.6

CRITERIA POINTS:

Channel Velocities	YES	YES
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Differentials**South Fish Ladder**

Ladder Exit	YES	YES
Ladder Weirs	YES	YES
Counting Station	YES	YES

North Fish Ladder

Ladder Exit	YES	YES
Ladder Weirs	YES	YES
Counting Station	YES	YES

Collection Channels

South Shore	YES	YES
North Powerhouse	YES	YES
North Shore	YES	YES

Weir Depths

SFE 1	YES	SILL
NFE 2	YES	SILL
NSE 1	YES	SILL

CRITERIA POINTS: YES			# of YES	% YES	Total No. of Inspections
Channel Velocities	1	1	139	98.6%	141
Differentials					
South Fish Ladder					
Ladder Exit	1	1	142	100.0%	142
Ladder Weirs	1	1	142	100.0%	142
Counting Station	1	1	142	100.0%	142
North Fish Ladder					
Ladder Exit	1	1	142	100.0%	142
Ladder Weirs	1	1	142	100.0%	142
Counting Station	1	1	142	100.0%	142
Collection Channels					
South Shore	1	1	131	92.3%	142
North Powerhouse	1	1	141	99.3%	142
North Shore	1	1	121	85.2%	142
Weir Depths					
SFE 1	1	0	86	60.6%	142
NFE 2	1	0	83	58.5%	142
NSE 1	1	0	71	50.0%	142

CRITERIA POINTS: NO	(Output = 0, 1, or NA)	(Output = 0, 1, or NA)	# of NO	% NO
Channel Velocities	0	0	2	1.4%
Differentials				
South Fish Ladder				
Ladder Exit	0	0	0	0.0%
Ladder Weirs	0	0	0	0.0%
Counting Station	0	0	0	0.0%
North Fish Ladder				
Ladder Exit	0	0	0	0.0%
Ladder Weirs	0	0	0	0.0%
Counting Station	0	0	0	0.0%
Collection Channels				
South Shore	0	0	11	7.7%
North Powerhouse	0	0	1	0.7%
North Shore	0	0	21	14.8%
Weir Depths				
SFE 1	0	0	1	0.7%
NFE 2	0	0	1	0.7%
NSE 1	0	0	1	0.7%

CRITERIA POINTS: SILL	(Output = 0, 1, or NA)	(Output = 0, 1, or NA)	# of SILL	% SILL
Weir Depths				
SFE 1	0	1	55	38.7%
NFE 2	0	1	58	40.8%
NSE 1	0	1	70	49.3%

South Ladder Differentials (more than 0.2 too low)

Ladder Exit	Not applicable.	Not applicable.
Ladder Weirs	0	0
Counting Station	Not applicable.	Not applicable.

South Ladder Differentials (0.11 - 0.2 too low)

Ladder Exit	Not applicable.	Not applicable.
Ladder Weirs	0	0
Counting Station	Not applicable.	Not applicable.

South Ladder Differentials (0.01 - 0.1 too low)

Ladder Exit	Not applicable.	Not applicable.
Ladder Weirs	0	0
Counting Station	Not applicable.	Not applicable.

South Ladder Differentials (0.01 - 0.1 too high)

Ladder Exit	0	0
Ladder Weirs	0	0
Counting Station	0	0

South Ladder Differentials (more than 0.2 too low)

Ladder Exit	0
Ladder Weirs	0
Counting Station	0

South Ladder Differentials (0.11 - 0.2 too low)

Ladder Exit	0
Ladder Weirs	0
Counting Station	0

South Ladder Differentials (0.01 - 0.1 too low)

Ladder Exit	0
Ladder Weirs	0
Counting Station	0

South Ladder Differentials (0.01 - 0.1 too high)

Ladder Exit	0
Ladder Weirs	0
Counting Station	0

South Ladder Differentials (0.11 - 0.2 too high)		
Ladder Exit	0	0
Ladder Weirs	0	0
Counting Station	0	0
South Ladder Differentials (more than 0.2 too high)		
Ladder Exit	0	0
Ladder Weirs	0	0
Counting Station	0	0
North Ladder Differentials (more than 0.2 too low)		
Ladder Exit	Not applicable.	Not applicable.
Ladder Weirs	0	0
Counting Station	Not applicable.	Not applicable.
North Ladder Differentials (0.11 - 0.2 too low)		
Ladder Exit	Not applicable.	Not applicable.
Ladder Weirs	0	0
Counting Station	Not applicable.	Not applicable.
North Ladder Differentials (0.01 - 0.1 too low)		
Ladder Exit	Not applicable.	Not applicable.
Ladder Weirs	0	0
Counting Station	Not applicable.	Not applicable.
North Ladder Differentials (0.01 - 0.1 too high)		
Ladder Exit	0	0
Ladder Weirs	0	0
Counting Station	0	0
North Ladder Differentials (0.11 - 0.2 too high)		
Ladder Exit	0	0
Ladder Weirs	0	0
Counting Station	0	0
North Ladder Differentials (more than 0.2 too high)		
Ladder Exit	0	0
Ladder Weirs	0	0
Counting Station	0	0
Channel/Tailwater Differentials (<0.80)		
South Shore	0	0
North Powerhouse	0	0
North Shore	0	0
Channel/Tailwater Differentials (0.80 - 0.89)		
South Shore	0	0
North Powerhouse	0	0
North Shore	0	0
Channel/Tailwater Differentials (0.90 - 0.99):		
South Shore	0	0
North Powerhouse	0	0
North Shore	0	0

South Ladder Differentials (0.11 - 0.2 too high)	
Ladder Exit	0
Ladder Weirs	0
Counting Station	0
South Ladder Differentials (more than 0.2 too high)	
Ladder Exit	0
Ladder Weirs	0
Counting Station	0
North Ladder Differentials (more than 0.2 too low)	
Ladder Exit	
Ladder Weirs	0
Counting Station	
North Ladder Differentials (0.11 - 0.2 too low)	
Ladder Exit	
Ladder Weirs	0
Counting Station	
North Ladder Differentials (0.01 - 0.1 too low)	
Ladder Exit	
Ladder Weirs	0
Counting Station	
North Ladder Differentials (0.01 - 0.1 too high)	
Ladder Exit	0
Ladder Weirs	0
Counting Station	0
North Ladder Differentials (0.11 - 0.2 too high)	
Ladder Exit	0
Ladder Weirs	0
Counting Station	0
North Ladder Differentials (more than 0.2 too high)	
Ladder Exit	0
Ladder Weirs	0
Counting Station	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	0
North Shore	1
Channel/Tailwater Differentials (0.90 - 0.99):	
South Shore	0
North Powerhouse	0
North Shore	0

Channel/Tailwater Differentials (2.01 - 2.10)

South Shore	0	0
North Powerhouse	0	0
North Shore	0	0

Channel/Tailwater Differentials (2.11 - 2.20)

South Shore	0	0
North Powerhouse	0	0
North Shore	0	0

Channel/Tailwater Differentials (>2.20)

South Shore	0	0
North Powerhouse	0	0
North Shore	0	0

Entrance Weir Depths (more than 0.2 too low)

SFE 1 (<7.80)	0	0
NFE 2 (<7.80)	0	0
NSE 1 (<7.80)	0	0

Entrance Weir Depths (0.11 - 0.2 too low)

SFE 1 (7.80 - 7.89)	0	0
NFE 2 (7.80 - 7.89)	0	0
NSE 1 (7.80 - 7.89)	0	0

Entrance Weir Depths (0.01 - 0.1 too low)

SFE 1 (7.90 - 7.99)	0	0
NFE 2 (7.90 - 7.99)	0	0
NSE 1 (7.90 - 7.99)	0	0

Channel/Tailwater Differentials (2.01 - 2.10)

South Shore	3
North Powerhouse	0
North Shore	1

Channel/Tailwater Differentials (2.11 - 2.20)

South Shore	6
North Powerhouse	0
North Shore	5

Channel/Tailwater Differentials (>2.20)

South Shore	2
North Powerhouse	0
North Shore	14

Entrance Weir Depths (more than 0.2 too low)

SFE 1 (<7.80)	1
NFE 2 (<7.80)	1
NSE 1 (<7.80)	1

Entrance Weir Depths (0.11 - 0.2 too low)

SFE 1 (7.80 - 7.89)	0
NFE 2 (7.80 - 7.89)	0
NSE 1 (7.80 - 7.89)	0

Entrance Weir Depths (0.01 - 0.1 too low)

SFE 1 (7.90 - 7.99)	0
NFE 2 (7.90 - 7.99)	0
NSE 1 (7.90 - 7.99)	0

