# OFFICIAL COORDINATION REQUEST FOR NON-ROUTINE OPERATIONS AND MAINTENANCE

**COORDINATION TITLE:** 16 MCN 04 MCN Fish Pump (FP) Outage Notification

COORDINATION DATE- April 21, 2016

**PROJECT-** McNary Lock and Dam

**RESPONSE DATE-** April 25, 2016

### **Description of the problem:**

BPA Transmission has scheduled a Line Outage for McNary PH Line #1 at 1330-1530 on 26 April, to support their 230Kv Line Circuit Work - DART# 1053321. Normally this would not require a FP outage because McNary Operations could switch the FPs to Line 2, however, due to our Capital Project – 4160VAC Station Service Upgrade, McNary has removed the bus bar connection, by which Line 2 provides power to the FPs, to support equipment removal and installation. This resulted in a single line feed to the FPs until the related bus connection can be restored in early July, 2016. This temporary condition leaves McNary's FPs solely dependent upon McNary PH Line #1 for FP power. Once PH Line One has been de-energized, at 1330, the South ORFL Entrance will not be supplied with Fish Pump attraction water until it's return to service at 1530.

## Type of outage required:

Short term outage from 1330 – 1530 on 26 April, 2016.

#### Impact on facility operation:

There will be a two hour reduction in adult fish attraction flow to the Oregon ladder due to the fish pump outage (approximately 5000 cfs) in the afternoon on April 26. However, the 1000 cfs conduit will still be open along with flow coming down from the exit (230 cfs). The juvenile facility will still be providing 450 cfs to the north powerhouse pool. Attraction flow will be reduced but not completely. At worst, fish passage would be delayed two hours.

The predominated species passing at this time is spring Chinook, the numbers of which should begin to increase. Right now 2016 counts appear to be less than 2015 when examining the tables below. However, this could change in the next 5 days. Fortunately, the outage is in the afternoon when the majority of fish are already in the ladder or have passed.

A look at Bonneville adult Chinook counts to date reflect run count so far.

2015 52,729

2016 6,260

McNary adult fish counts in 2015 before and after April 26 from Portland District website: http://www.nwp.usace.army.mil/Missions/Environment/Fish/Counts.aspx

| McNary (  | Dregon Sh      | ore              |                 |                  |                      |                        |             |               |              |         |      |      |
|-----------|----------------|------------------|-----------------|------------------|----------------------|------------------------|-------------|---------------|--------------|---------|------|------|
| Date      | All<br>Chinook | Adult<br>Chinook | Jack<br>Chinook | All<br>Steelhead | Clipped<br>Steelhead | Unclipped<br>Steelhead | All<br>Coho | Adult<br>Coho | Jack<br>Coho | Sockeye | Chum | Pink |
| 4/22/2015 | 3655           | 3653             | 2               | 9                | 4                    | 5                      | 0           | 0             | 0            | 0       | 0    | 0    |
| 4/23/2015 | 3667           | 3667             | 0               | 14               | 2                    | 12                     | 0           | 0             | 0            | 0       | 0    | 0    |
| 4/24/2015 | 5935           | 5929             | 6               | 8                | 2                    | 6                      | 0           | 0             | 0            | 0       | 0    | 0    |
| 4/25/2015 | 6169           | 6152             | 17              | 7                | 1                    | 6                      | 0           | 0             | 0            | 0       | 0    | 0    |
| 4/26/2015 | 3663           | 3656             | 7               | 15               | 4                    | 11                     | 0           | 0             | 0            | 0       | 0    | 0    |
| 4/27/2015 | 3672           | 3658             | 14              | 11               | 5                    | 6                      | 0           | 0             | 0            | 0       | 0    | 0    |
| 4/28/2015 | 1950           | 1938             | 12              | 4                | 0                    | 4                      | 0           | 0             | 0            | 0       | 0    | 0    |
| 4/29/2015 | 2758           | 2742             | 16              | 7                | 1                    | 6                      | 0           | 0             | 0            | 0       | 0    | 0    |
| 4/30/2015 | 2947           | 2927             | 20              | 5                | 1                    | 4                      | 0           | 0             | 0            | 0       | 0    | 0    |
| total     | 34416          | 34322            | 94              | 80               | 20                   | 60                     | 0           | 0             | 0            | 0       | 0    | 0    |
| Date      | All<br>Chinook | Adult<br>Chinook | Jack<br>Chinook | All<br>Steelhead | Clipped<br>Steelhead | Unclipped<br>Steelhead |             | Adult<br>Coho |              | Sockeye | Chum | Pink |

McMary adult fish counts in 2016 up to yesterday's date, April 20.

| McNary C  | regon Sh       | nore             |                 | •                |    | ,                      |             |               |              |         |      |      |
|-----------|----------------|------------------|-----------------|------------------|----|------------------------|-------------|---------------|--------------|---------|------|------|
| Date      | All<br>Chinook | Adult<br>Chinook | Jack<br>Chinook | All<br>Steelhead |    | Unclipped<br>Steelhead | All<br>Coho | Adult<br>Coho | Jack<br>Coho | Sockeye | Chum | Pink |
| 4/14/2016 | 68             | 68               | 0               | 21               | 5  | 16                     | 0           | 0             | 0            | 0       | 0    | 0    |
| 4/15/2016 | 58             | 58               | 0               | 16               | 5  | 11                     | 0           | 0             | 0            | 0       | 0    | 0    |
| 4/16/2016 | 41             | 41               | 0               | 4                | 2  | 2                      | 0           | 0             | 0            | 0       | 0    | 0    |
| 4/17/2016 | 77             | 76               | 1               | 4                | 2  | 2                      | 0           | 0             | 0            | 0       | 0    | 0    |
| 4/18/2016 | 67             | 67               | 0               | 10               | 5  | 5                      | 0           | 0             | 0            | 0       | 0    | 0    |
| 4/19/2016 | 67             | 66               | 1               | 4                | 0  | 4                      | 0           | 0             | 0            | 0       | 0    | 0    |
| 4/20/2016 | 113            | 113              | 0               | 12               | 6  | 6                      | 0           | 0             | 0            | 0       | 0    | 0    |
| total     | 491            | 489              | 2               | 71               | 25 | 46                     | 0           | 0             | 0            | 0       | 0    | 0    |
| Date      | All<br>Chinook | Adult<br>Chinook | Jack<br>Chinook | All<br>Steelhead |    | Unclipped Steelhead    | All<br>Coho | Adult<br>Coho | Jack<br>Coho | Sockeye | Chum | Pink |

McNary 24 hour fish count for 2015 during the same time frame from the same website.

# **24-Hour** chinook in the McNary Oregon Shore fishladder

# **U.S. Army Corps of Engineers**

csv format

| Date      | H1  | H2    | Н3    | H4    | H5    | Н6  | H7    | Н8    | Н9    | H10   | H11   | H12   | H13   | H14   | H15   | H16 H | 17 H | 118 H | 119 H | 20 H | H21 | H22 | H23 | 124 |
|-----------|-----|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|-----|-----|-----|-----|
| 4/22/2015 | 1   | 91    | 106   | 40    | 329   | 376 | 388   | 235   | 397   | 536   | 236   | 162   | 238   | 223   | 192   | 106   |      |       |       |      |     |     |     |     |
| 4/23/2015 | 0   | 151   | 151   | 132   | 214   | 480 | 426   | 500   | 398   | 233   | 128   | 216   | 179   | 232   | 211   | 16    |      |       |       |      |     |     |     |     |
| 4/24/2015 | 1   | 365   | 154   | 342   | 576   | 446 | 449   | 414   | 599   | 881   | 568   | 347   | 260   | 186   | 149   | 199   |      |       |       |      |     |     |     |     |
| 4/25/2015 | 0   | 319   | 180   | 716   | 1,021 | 602 | 619   | 367   | 296   | 803   | 266   | 320   | 319   | 196   | 133   | 10    |      |       |       |      |     |     |     |     |
| 4/26/2015 | 0   | 88    | 85    | 229   | 458   | 485 | 422   | 320   | 358   | 486   | 223   | 199   | 140   | 90    | 64    | 16    |      |       |       |      |     |     |     |     |
| 4/27/2015 | 0   | 108   | 65    | 276   | 700   | 539 | 380   | 220   | 296   | 314   | 155   | 229   | 272   | 92    | 25    | 0     |      |       |       |      |     |     |     |     |
| 4/28/2015 | 0   | 10    | 43    | 108   | 372   | 296 | 395   | 277   | 173   | 157   | 108   | 0     | 0     | 8     | 2     | 0     |      |       |       |      |     |     |     |     |
| 4/29/2015 | 8   | 170   | 96    | 251   | 272   | 392 | 368   | 222   | 284   | 226   | 160   | 22    | 24    | 80    | 72    | 109   |      |       |       |      |     |     |     |     |
| 4/30/2015 | 6   | 355   | 157   | 493   | 556   | 155 | 115   | 89    | 102   | 120   | 59    | 1     | 58    | 380   | 216   | 85    |      |       |       |      |     |     |     |     |
| average   | 1.8 | 184.1 | 115.2 | 287.4 | 499.8 | 419 | 395.8 | 293.8 | 322.6 | 417.3 | 211.4 | 166.2 | 165.6 | 165.2 | 118.2 | 60.1  |      |       |       |      |     |     |     |     |

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24-Hour U.S. Army Corps of Engineers steelhead in the McNary Oregon Shore fishladder csv format

| Date      | H1      | H2      | НЗ      | Н4      | Н5      | Н6      | Н7 | Н8      | Н9 | H1<br>0 | H1<br>1 | H1<br>2 | H1<br>3 | H1<br>4 | H1<br>5 | H1<br>6 | H1<br>7 | H1<br>8 | H1<br>9 | H2<br>0 | H2<br>1 | H2<br>2 | H2<br>3 | H2<br>4 |
|-----------|---------|---------|---------|---------|---------|---------|----|---------|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 4/22/2015 | 0       | 0       | 0       | 0       | 0       | 1       | 0  | 0       | 0  | 4       | 0       | 0       | 2       | 1       | 0       | 0       |         |         |         |         |         |         |         |         |
| 4/23/2015 | 0       | 1       | 2       | 1       | 0       | 0       | 0  | 1       | 2  | 2       | 0       | 1       | 1       | 0       | 1       | 0       |         |         |         |         |         |         |         |         |
| 4/24/2015 | 1       | 1       | 0       | 0       | 1       | 0       | 2  | 0       | 1  | 1       | 0       | 0       | 0       | 0       | 0       | 0       |         |         |         |         |         |         |         |         |
| 4/25/2015 | 0       | 0       | 0       | 1       | 0       | 1       | 0  | 0       | 1  | 0       | 0       | 0       | 0       | 1       | 0       | 2       |         |         |         |         |         |         |         |         |
| 4/26/2015 | 0       | 1       | 1       | 2       | 2       | 1       | 4  | 1       | 0  | 1       | 0       | 0       | 0       | 0       | 0       | 0       |         |         |         |         |         |         |         |         |
| 4/27/2015 | 0       | 0       | 0       | 1       | 0       | 1       | 1  | 1       | 1  | 0       | 0       | 1       | 1       | 0       | 2       | 0       |         |         |         |         |         |         |         |         |
| 4/28/2015 | 0       | 1       | 0       | 0       | 0       | 1       | 1  | 0       | 0  | 0       | 0       | 0       | 0       | 0       | 0       | 0       |         |         |         |         |         |         |         |         |
| 4/29/2015 | 0       | 0       | 0       | 1       | 1       | 1       | 0  | 0       | 1  | 1       | 0       | 0       | 1       | 0       | 0       | 0       |         |         |         |         |         |         |         |         |
| 4/30/2015 | 0       | 0       | 0       | 0       | 1       | 0       | 0  | 2       | 0  | 0       | 0       | 1       | 0       | 0       | 0       | 0       |         |         |         |         |         |         |         |         |
| average   | 0.<br>1 | 0.<br>4 | 0.<br>3 | 0.<br>7 | 0.<br>6 | 0.<br>7 |    | 0.<br>6 |    | 1       | 0       | 0.3     | 0.6     | 0.2     | 0.3     | 0.2     |         |         |         |         |         |         |         |         |

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McNary 24 hour fish counts for 2016 up to yesterday's date, April 20.

# 24-Hour

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## chinook in the McNary Oregon Shore fishladder

csv format

| Date      | H1 | H2 | Н3 | H4  | Н5  | Н6  | H7  | Н8  | Н9  | H10 | H11 | H12 | H13 | H14 | H15 | H16 | H17 | H18 | H19 | H20 | H21 | H22 | H23 | H24 |
|-----------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 4/14/2016 | 0  | 1  | 2  | 7   | 4   | 2   | 4   | 4   | 11  | 7   | 6   | 5   | 8   | 6   | 1   | 0   |     |     |     |     |     |     |     |     |
| 4/15/2016 | 0  | 0  | 8  | 0   | 4   | 4   | 1   | 14  | 6   | 0   | 1   | 0   | 4   | 11  | 4   | 1   |     |     |     |     |     |     |     |     |
| 4/16/2016 | 0  | 0  | 1  | 0   | 0   | 1   | 0   | 0   | 13  | 12  | 4   | 4   | 2   | 1   | 2   | 0   |     |     |     |     |     |     |     |     |
| 4/17/2016 | 0  | 0  | 14 | 2   | 4   | 0   | 4   | 10  | 12  | 4   | 6   | 5   | 4   | 5   | 5   | 4   |     |     |     |     |     |     |     |     |
| 4/18/2016 | 0  | 0  | 8  | 4   | 1   | 5   | 2   | 6   | 4   | 8   | 7   | 2   | 8   | 1   | 8   | 1   |     |     |     |     |     |     |     |     |
| 4/19/2016 | 0  | 0  | 1  | 2   | 1   | 1   | 0   | 1   | 6   | 10  | 2   | 1   | 10  | 18  | 6   | 7   |     |     |     |     |     |     |     |     |
| 4/20/2016 | 0  | 6  | 8  | 1   | 10  | 10  | 5   | 4   | 6   | 13  | 10  | 4   | 6   | 10  | 18  | 4   |     |     |     |     |     |     |     |     |
| average   | 0  | 1  | 6  | 2.3 | 3.4 | 3.3 | 2.3 | 5.6 | 8.3 | 7.7 | 5.1 | 3   | 6   | 7.4 | 6.3 | 2.4 |     |     |     |     |     |     |     |     |

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## 24-Hour

## **U.S. Army Corps of Engineers**

## steelhead in the McNary Oregon Shore fishladder

csv format

| Date      | H1 | H2  | Н3  | H4  | H5  | H6  | H7  | Н8  | Н9  | H10 | H11 | H12 | H13 | H14 | H15 | H16 | H17 | H18 | H19 | H20 | H21 | H22 | H23 | H24 |
|-----------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 4/14/2016 | 0  | 2   | 1   | 0   | 1   | 5   | 1   | 0   | 2   | 1   | 1   | 2   | 1   | 0   | 1   | 0   |     |     |     |     |     |     |     |     |
| 4/15/2016 | 0  | 1   | 1   | 1   | 0   | 1   | 2   | 1   | 1   | 0   | 0   | 0   | 0   | 5   | 1   | 0   |     |     |     |     |     |     |     |     |
| 4/16/2016 | 0  | 0   | 1   | 0   | 0   | 0   | 0   | 0   | 2   | 0   | 0   | 0   | 0   | 0   | 1   | 0   |     |     |     |     |     |     |     |     |
| 4/17/2016 | 0  | 1   | 0   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 0   | 1   | 0   |     |     |     |     |     |     |     |     |
| 4/18/2016 | 0  | 0   | 0   | 0   | 0   | 1   | 4   | 0   | 0   | 2   | 2   | 0   | 0   | 0   | 0   | 0   |     |     |     |     |     |     |     |     |
| 4/19/2016 | 0  | 0   | 0   | 0   | 0   | 0   | 1   | 2   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |     |     |     |     |     |     |     |     |
| 4/20/2016 | 0  | 1   | 0   | 0   | 0   | 1   | 1   | 0   | 1   | 0   | 0   | 4   | 1   | 1   | 1   | 0   |     |     |     |     |     |     |     |     |
| average   | 0  | 0.7 | 0.4 | 0.3 | 0.1 | 1.1 | 1.3 | 0.4 | 0.9 | 0.4 | 0.4 | 0.9 | 0.4 | 0.9 | 0.7 | 0   |     |     |     |     |     |     |     |     |

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### Length of time for repairs:

The total length of time required for BPA Transmission to perform their work, will be 2 hours.

### **Expected impacts on fish passage:**

Expected negative impacts on fish should be minimized by taking the FPs offline after 1300 and for a short duration of time.

### **Comments from agencies**

#### Final results:

Thank you, William Gersbach 541-922-2253