

**From:** Brandon Chockley

**Sent:** Thursday, June 17, 2021 7:32 AM

**Subject:** [Non-DoD Source] Real-time GBT Reports - June 17, 2021

Attached, please find the latest Real-time GBT Reports for the Salmonid and Non-salmonid GBT monitoring programs, with data through batch date of June 16<sup>th</sup>.

The Salmonid GBT Report (gbtsumbybatchdate\_realtime.pdf) has new data from LMN (batch date 6/16).

The Non-Salmonid GBT Report (NS\_gbtsumbybatchdate\_realtime.pdf) does not contain new data since the sample conducted below Ice Harbor on June 15<sup>th</sup>.

**Brandon R. Chockley**

Data Analyst/Fishery Biologist

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Fish Passage Center

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## Gas Bubble Monitoring Program Two Week Salmonid GBT Monitoring Report

Date 6/17/2021 7:20:37 AM

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### LOWER GRANITE DAM

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/11/2021	CH1	2	0	0	0.00 %	0.00 %	0	0	0	0

### LITTLE GOOSE DAM

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/07/2021	CH0+CH1+ST	100	6	6	6.00 %	0.00 %	6	0	0	0
06/14/2021	CH0+ST	100	7	7	7.00 %	0.00 %	7	0	0	0



Samples highlighted in yellow indicate that the sample size criteria of 50 fish was not met. The inability to collect an adequate sample precludes the accurate estimation of the percentage of fish with GBT. Therefore, making management decisions based on these small of sample sizes is inadvisable.

The action criteria for interruption of the voluntary spill program is defined as either 15% of examined fish showing signs of GBT in their non-paired fins or 5% of examined fish showing severe signs of GBT in their non-paired fins (severe signs constitute >25% of the surface area of the fin is occluded by gas bubbles, corresponding to Ranks of 3 or 4)

## Gas Bubble Monitoring Program Two Week Salmonid GBT Monitoring Report

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### LOWER MONUMENTAL DAM

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/09/2021	CH0+CH1+ST	100	0	0	0.00 %	0.00 %	0	0	0	0
06/16/2021	CH0+CH1+ST	40	3	3	8.00 %	0.00 %	3	0	0	0

### McNARY DAM

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/08/2021	CH0+CH1+ST	100	0	0	0.00 %	0.00 %	0	0	0	0
06/12/2021	CH0+CH1+ST	100	0	0	0.00 %	0.00 %	0	0	0	0
06/16/2021	CH0+CH1+ST	100	0	0	0.00 %	0.00 %	0	0	0	0



Samples highlighted in yellow indicate that the sample size criteria of 50 fish was not met. The inability to collect an adequate sample precludes the accurate estimation of the percentage of fish with GBT. Therefore, making management decisions based on these small of sample sizes is inadvisable.

The action criteria for interruption of the voluntary spill program is defined as either 15% of examined fish showing signs of GBT in their non-paired fins or 5% of examined fish showing severe signs of GBT in their non-paired fins (severe signs constitute >25% of the surface area of the fin is occluded by gas bubbles, corresponding to Ranks of 3 or 4)

## Gas Bubble Monitoring Program

### Two Week Salmonid GBT Monitoring Report

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#### BONNEVILLE DAM

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/06/2021	CH0+CH1+ST	100	0	0	0.00 %	0.00 %	0	0	0	0
06/09/2021	CH0+CH1+ST	100	3	3	3.00 %	0.00 %	3	0	0	0
06/13/2021	CH0+CH1+ST	100	0	0	0.00 %	0.00 %	0	0	0	0
06/16/2021	CH0+ST	94	0	0	0.00 %	0.00 %	0	0	0	0

#### ROCK ISLAND DAM (ALL FISH)

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/08/2021	CH0+CH1+ST	100	3	3	3.00 %	0.00 %	3	0	0	0
06/10/2021	CH0+CH1+ST	81	6	6	7.00 %	0.00 %	5	1	0	0
06/15/2021	CH0+ST	13	0	0	0.00 %	0.00 %	0	0	0	0



Samples highlighted in yellow indicate that the sample size criteria of 50 fish was not met. The inability to collect an adequate sample precludes the accurate estimation of the percentage of fish with GBT. Therefore, making management decisions based on these small of sample sizes is inadvisable.

The action criteria for interruption of the voluntary spill program is defined as either 15% of examined fish showing signs of GBT in their non-paired fins or 5% of examined fish showing severe signs of GBT in their non-paired fins (severe signs constitute >25% of the surface area of the fin is occluded by gas bubbles, corresponding to Ranks of 3 or 4)

## Gas Bubble Monitoring Program Two Week Salmonid GBT Monitoring Report

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### ROCK ISLAND DAM ("TRADITIONAL" EXAMS ONLY)

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/08/2021	CH0+CH1+ST	62	3	3	5.00 %	0.00 %	3	0	0	0
06/10/2021	CH0+CH1+ST	63	5	5	8.00 %	0.00 %	4	1	0	0
06/15/2021	CH0+ST	12	0	0	0.00 %	0.00 %	0	0	0	0

### ROCK ISLAND DAM ("FRESH" EXAMS ONLY)

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/08/2021	CH0+CH1+ST	38	0	0	0.00 %	0.00 %	0	0	0	0
06/10/2021	CH0+ST	18	1	1	6.00 %	0.00 %	1	0	0	0
06/15/2021	ST	1	0	0	0.00 %	0.00 %	0	0	0	0



Samples highlighted in yellow indicate that the sample size criteria of 50 fish was not met. The inability to collect an adequate sample precludes the accurate estimation of the percentage of fish with GBT. Therefore, making management decisions based on these small of sample sizes is inadvisable.

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## Gas Bubble Monitoring Program Two Week GBT Non-Salmonid Monitoring Report

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### Non-salmonid Below Bonneville

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/10/2021	CH0+SC+SK+NP	123	0	0	0.00 %	0.00 %	0	0	0	0

### Electrofishing Below Bonneville

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4



Samples highlighted in yellow indicate that the minimum sample size criteria of 50 fish was not met. The inability to collect an adequate sample precludes the accurate estimation of the percentage of fish with GBT. Therefore, making management decisions based on these small of sample sizes is inadvisable. The action criteria for interruption of the voluntary spill program is defined as either 15% of examined fish showing signs of GBT in their non-paired fins or 5% of examined fish showing severe signs of GBT in their non-paired fins (severe signs constitute >25% of the surface area of the fin is occluded by gas bubbles, corresponding to Ranks of 3 or 4)

## Gas Bubble Monitoring Program Two Week GBT Non-Salmonid Monitoring Report

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### Dam Angling at Bonneville Tailrace

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4

### Dam Angling at The Dalles Tailrace

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4



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## Gas Bubble Monitoring Program Two Week GBT Non-Salmonid Monitoring Report

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### Dam Angling at John Day Tailrace

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/08/2021	SG+NP	11	0	0	0.00 %	0.00 %	0	0	0	0

### Non-salmonid Below McNary

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/07/2021	SC+SK+NP	120	5	3	3.00 %	0.00 %	3	0	0	0
06/14/2021	RS+SC+SK+NP	149	6	5	3.00 %	0.00 %	5	0	0	0



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## Gas Bubble Monitoring Program Two Week GBT Non-Salmonid Monitoring Report

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### Non-salmonid Below Ice Harbor

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/08/2021	AP+LU+MW+SC+NP	108	0	0	0.00 %	0.00 %	0	0	0	0
06/15/2021	SC+NP+SU	65	0	0	0.00 %	0.00 %	0	0	0	0



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## Gas Bubble Monitoring Program Two Week GBT Non-Salmonid Monitoring Report

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Species Code	Description	Species Code	Description	Species Code	Description
BM	Bass, Large Mouth	BS	Bass, Small Mouth	BL	Bluegill and Pumpkinseed
BH	Bullhead	CP	Carp	CC	Channel Cat
CM	Chiselmouth	UM	Chum	CR	Crappie species
LD	Dace - Long Nose	SD	Dace - Speckled	BK	Killifish, Banded
AP	Lamprey Ammocoete (Pacific)	MP	Lamprey Macrophthalmia Pacific	LK	Lamprey Adult (Brook)
LP	Lamprey Adult (Pacific)	LR	Lamprey Adult (River)	MA	Madtom, Tadpole
OT	Other incidental species not listed	PM	Peamouth	PE	Perch
NP	Pike Minnow, Northern	SR	Sand Roller	SC	Sculpin species
SA	Shad Adult	SJ	Shad Juvenile	RS	Shiner Redside
SK	Stickleback	SN	Sturgeon, Green	SG	Sturgeon, White
BU	Sucker - Bridgelip	LU	Sucker - Largescale	MU	Sucker - Mountain
SU	Sucker, Species	TT	Tench	BT	Trout - Brook
NT	Trout - Brown	LT	Trout - Bull	CT	Trout - Cutthroat
RT	Trout - Rainbow	WE	Walleye	WA	Warmouth
LW	Whitefish - Lake	MW	Whitefish - Mountain		



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**From:** Brandon Chockley  
**Sent:** Thursday, June 17, 2021 4:27 PM  
**Subject:** [Non-DoD Source] Real-time GBT Reports - June 17, 2021 (Part 2)

Attached, please find the latest Real-time GBT reports for the Salmonid and Non-salmonid GBT monitoring programs, with data through batch date of June 18<sup>th</sup>.

The Salmonid GBT Report (gbtsumbybatchdate\_realtime.pdf) has new data from:

- LGR (batch date 6/18)
- MCN (batch date 6/18)
- RIS (batch date 6/17)

The Non-Salmonid GBT Report (NS\_gbtsumbybatchdate\_realtime.pdf) has new data from a sample conducted by USGS below Bonneville Dam on June 17<sup>th</sup>.

- Of the total 152 fish sampled, 125 were non-salmonids and 27 were subyearling Chinook.
- No signs of fin GBT were observed in either the non-salmonids or the subyearling Chinook examined.
- One sculpin had bubbles in a non-protocol location (head).
- The other (OT) species encountered was a starry flounder. No signs of GBT or bubbles were observed.
- Sampling method(s) are unknown to FPC at this point.

The Non-Salmonid GBT Report (NS\_gbtsumbybatchdate\_realtime.pdf) also has new data from a sample conducted on Wednesday (June 16<sup>th</sup>) by WDFW/PSMFC, as part of the feasibility study using the Pikeminnow program's dam angling crews to collect native non-salmonids for GBT examinations. That sample was conducted in the John Day Tailrace, via angling (i.e., Dam Angling at John Day Tailrace).

**Brandon R. Chockley**  
Data Analyst/Fishery Biologist  
Fish Passage Center

## Gas Bubble Monitoring Program Two Week Salmonid GBT Monitoring Report

Date 6/17/2021 2:20:31 PM

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### LOWER GRANITE DAM

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/11/2021	CH1	2	0	0	0.00 %	0.00 %	0	0	0	0
06/18/2021	ST	1	0	0	0.00 %	0.00 %	0	0	0	0

### LITTLE GOOSE DAM

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/07/2021	CH0+CH1+ST	100	6	6	6.00 %	0.00 %	6	0	0	0
06/14/2021	CH0+ST	100	7	7	7.00 %	0.00 %	7	0	0	0



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The action criteria for interruption of the voluntary spill program is defined as either 15% of examined fish showing signs of GBT in their non-paired fins or 5% of examined fish showing severe signs of GBT in their non-paired fins (severe signs constitute >25% of the surface area of the fin is occluded by gas bubbles, corresponding to Ranks of 3 or 4)

## Gas Bubble Monitoring Program Two Week Salmonid GBT Monitoring Report

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### LOWER MONUMENTAL DAM

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/09/2021	CH0+CH1+ST	100	0	0	0.00 %	0.00 %	0	0	0	0
06/16/2021	CH0+CH1+ST	40	3	3	8.00 %	0.00 %	3	0	0	0

### McNARY DAM

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/08/2021	CH0+CH1+ST	100	0	0	0.00 %	0.00 %	0	0	0	0
06/12/2021	CH0+CH1+ST	100	0	0	0.00 %	0.00 %	0	0	0	0
06/16/2021	CH0+CH1+ST	100	0	0	0.00 %	0.00 %	0	0	0	0
06/18/2021	CH0+CH1+ST	100	0	0	0.00 %	0.00 %	0	0	0	0



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## Gas Bubble Monitoring Program Two Week Salmonid GBT Monitoring Report

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### BONNEVILLE DAM

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/06/2021	CH0+CH1+ST	100	0	0	0.00 %	0.00 %	0	0	0	0
06/09/2021	CH0+CH1+ST	100	3	3	3.00 %	0.00 %	3	0	0	0
06/13/2021	CH0+CH1+ST	100	0	0	0.00 %	0.00 %	0	0	0	0
06/16/2021	CH0+ST	94	0	0	0.00 %	0.00 %	0	0	0	0

### ROCK ISLAND DAM (ALL FISH)

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/08/2021	CH0+CH1+ST	100	3	3	3.00 %	0.00 %	3	0	0	0
06/10/2021	CH0+CH1+ST	81	6	6	7.00 %	0.00 %	5	1	0	0
06/15/2021	CH0+ST	13	0	0	0.00 %	0.00 %	0	0	0	0
06/17/2021	CH0+ST	46	2	2	4.00 %	0.00 %	1	1	0	0



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## Gas Bubble Monitoring Program Two Week Salmonid GBT Monitoring Report

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### ROCK ISLAND DAM ("TRADITIONAL" EXAMS ONLY)

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/08/2021	CH0+CH1+ST	62	3	3	5.00 %	0.00 %	3	0	0	0
06/10/2021	CH0+CH1+ST	63	5	5	8.00 %	0.00 %	4	1	0	0
06/15/2021	CH0+ST	12	0	0	0.00 %	0.00 %	0	0	0	0
06/17/2021	CH0+ST	42	2	2	5.00 %	0.00 %	1	1	0	0

### ROCK ISLAND DAM ("FRESH" EXAMS ONLY)

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/08/2021	CH0+CH1+ST	38	0	0	0.00 %	0.00 %	0	0	0	0
06/10/2021	CH0+ST	18	1	1	6.00 %	0.00 %	1	0	0	0
06/15/2021	ST	1	0	0	0.00 %	0.00 %	0	0	0	0
06/17/2021	CH0+ST	4	0	0	0.00 %	0.00 %	0	0	0	0



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## Gas Bubble Monitoring Program Two Week GBT Non-Salmonid Monitoring Report

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### Non-salmonid Below Bonneville

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/10/2021	CH0+SC+SK+NP	123	0	0	0.00 %	0.00 %	0	0	0	0
06/17/2021	CH0+OT+SC+SK+NP	152	0	0	0.00 %	0.00 %	0	0	0	0

### Electrofishing Below Bonneville

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4



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## Gas Bubble Monitoring Program Two Week GBT Non-Salmonid Monitoring Report

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### Dam Angling at Bonneville Tailrace

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4

### Dam Angling at The Dalles Tailrace

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4



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## Gas Bubble Monitoring Program Two Week GBT Non-Salmonid Monitoring Report

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### Dam Angling at John Day Tailrace

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/08/2021	SG+NP	11	0	0	0.00 %	0.00 %	0	0	0	0
06/16/2021	NP	7	0	0	0.00 %	0.00 %	0	0	0	0

### Non-salmonid Below McNary

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/07/2021	SC+SK+NP	120	5	3	3.00 %	0.00 %	3	0	0	0
06/14/2021	RS+SC+SK+NP	149	6	5	3.00 %	0.00 %	5	0	0	0



Samples highlighted in yellow indicate that the minimum sample size criteria of 50 fish was not met. The inability to collect an adequate sample precludes the accurate estimation of the percentage of fish with GBT. Therefore, making management decisions based on these small of sample sizes is inadvisable.

The action criteria for interruption of the voluntary spill program is defined as either 15% of examined fish showing signs of GBT in their non-paired fins or 5% of examined fish showing severe signs of GBT in their non-paired fins (severe signs constitute >25% of the surface area of the fin is occluded by gas bubbles, corresponding to Ranks of 3 or 4)

## Gas Bubble Monitoring Program Two Week GBT Non-Salmonid Monitoring Report

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### Non-salmonid Below Ice Harbor

Date	Species Examined	Total Fish Examined	Total Fish w/ GBT	Total Fish w/ Fin GBT	Percent Fish w/ Fin GBT	Percent Fish w/ Severe Fin GBT	Number of Fish with Fin GBT - By Rank			
							Rank 1	Rank 2	Rank 3	Rank 4
06/08/2021	AP+LU+MW+SC+NP	108	0	0	0.00 %	0.00 %	0	0	0	0
06/15/2021	SC+NP+SU	65	0	0	0.00 %	0.00 %	0	0	0	0



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The action criteria for interruption of the voluntary spill program is defined as either 15% of examined fish showing signs of GBT in their non-paired fins or 5% of examined fish showing severe signs of GBT in their non-paired fins (severe signs constitute >25% of the surface area of the fin is occluded by gas bubbles, corresponding to Ranks of 3 or 4)

## Gas Bubble Monitoring Program Two Week GBT Non-Salmonid Monitoring Report

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Species Code	Description	Species Code	Description	Species Code	Description
BM	Bass, Large Mouth	BS	Bass, Small Mouth	BL	Bluegill and Pumpkinseed
BH	Bullhead	CP	Carp	CC	Channel Cat
CM	Chiselmouth	UM	Chum	CR	Crappie species
LD	Dace - Long Nose	SD	Dace - Speckled	BK	Killifish, Banded
AP	Lamprey Ammocoete (Pacific)	MP	Lamprey Macrophthalmia Pacific	LK	Lamprey Adult (Brook)
LP	Lamprey Adult (Pacific)	LR	Lamprey Adult (River)	MA	Madtom, Tadpole
OT	Other incidental species not listed	PM	Peamouth	PE	Perch
NP	Pike Minnow, Northern	SR	Sand Roller	SC	Sculpin species
SA	Shad Adult	SJ	Shad Juvenile	RS	Shiner Redside
SK	Stickleback	SN	Sturgeon, Green	SG	Sturgeon, White
BU	Sucker - Bridgelip	LU	Sucker - Largescale	MU	Sucker - Mountain
SU	Sucker, Species	TT	Tench	BT	Trout - Brook
NT	Trout - Brown	LT	Trout - Bull	CT	Trout - Cutthroat
RT	Trout - Rainbow	WE	Walleye	WA	Warmouth
LW	Whitefish - Lake	MW	Whitefish - Mountain		



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