

Boney Falls - Escanaba Dam #4 FERC Project 2506 -04 Record of Augmentation Event

Window Criteria - May 15th through September 15th

Date:	Aug 8	Time:	1000 CPT
Flow at Cornell Gauge:	336	150 cfs ≤ Cornell flow ≤ 400 cfs	
Water Temperature - Boney Falls Tailrace:	24.8	≥ 16 °C	
Pond Elevation:	901.8	≥ 901.25 ft	

Trigger Criteria		
Previous Day Max Water Temperature at Cornell:	26.8	≥ 26°C if no augmentation on previous day, ≥ 24°C if augmentation was done on previous day
Previous Day Augmentation:	YES	Yes/No

Augmentation Record				
Base Flow:	203	Augmented Flow (150% of base):	313	cfs
Start Time:	1000 CDT	Impoundment Water Level:	901.8	ft
End Time:	1700 CDT	Impoundment Water Level:	901.8	ft

Refill				
Base Flow:	203	Refill Flow (75% of base):	152	cfs
Start Time:	1700 CDT	Impoundment Water Level:	901.80	ft
End Time:	1700 CDT	Impoundment Water Level:	901.80	ft
End Date:	8-8-11	CCAT No.:	NCREG 3225	

When completed, fax to Bob Meyers at 9-1-906-485-2424.

Boney Falls – Escanaba Dam #4 FERC Project 2506 -04 Record of Augmentation Event

Window Criteria – May 15th through September 15th

Date:	8/09/11	Time:	1000
Flow at Cornell Gauge:	397	150 cfs ≤ Cornell flow ≤ 400 cfs	
Water Temperature - Boney Falls Tailrace:	23.4	≥ 16 °C	
Pond Elevation:	901.59	≥ 901.25 ft	

Trigger Criteria

Previous Day Max Water Temperature at Cornell:	26.7	≥ 25°C If no augmentation on previous day, ≥ 24°C If augmentation was done on previous day
Previous Day Augmentation:	Y/N	Yes/No

Augmentation Record

Base Flow:	322	Augmented Flow (150% of base):	483	cfs
Start Time:	1000 CDT	Impoundment Water Level:	901.59	ft
End Time:	1700 CDT	Impoundment Water Level:	900.96	ft

Refill

Base Flow:	322	Refill Flow (75% of base):	241.5	cfs
Start Time:	1700 CDT	Impoundment Water Level:	900.96	ft
End Time:	0020 CDT	Impoundment Water Level:	900.25	ft
End Date:	8/10/11	CCAT No.:	NCREG.3228	

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**Boney Falls – Escanaba Dam #4 FERC Project 2506 -04
Record of Augmentation Event**

Window Criteria – May 15th through September 15th

Date:	8-10-11	Time:	0955
Flow at Cornell Gauge:	319	150 cfs ≤ Cornell flow ≤ 400 cfs	
Water Temperature - Boney Falls Tailrace:	22.3	≥ 16 °C	
Pond Elevation:	901.43	≥ 901.25 ft	

Trigger Criteria

Previous Day Max Water Temperature at Cornell:	26.1	≥ 26°C if no augmentation on previous day, ≥ 24°C if augmentation was done on previous day
Previous Day Augmentation:	YES	Yes/No

Augmentation Record

Base Flow:	255	Augmented Flow (150% of base):	385	cfs
Start Time:	1000 CDT	Impoundment Water Level:	901.43	ft
End Time:	1700 CDT	Impoundment Water Level:	901.11	ft

Refill

Base Flow:	255	Refill Flow (75% of base):	190	cfs
Start Time:	1715 CDT	Impoundment Water Level:	901.12	ft
End Time:	0500 CDT	Impoundment Water Level:	901.43	ft
End Date:	8-11-11	CCAT No.:	NCRE63231	

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**Boney Falls – Escanaba Dam #4 FERC Project 2506 -04
Record of Augmentation Event**

Window Criteria – May 15th through September 15th

Date:	8/11/11	Time:	0952
Flow at Cornell Gauge:	250	150 cfs ≤ Cornell flow ≤ 400 cfs	
Water Temperature - Boney Falls Tailrace:	21.3	≥ 16 °C	
Pond Elevation:	901.50	≥ 901.25 ft	

Trigger Criteria

Previous Day Max Water Temperature at Cornell:	25	≥ 26°C if no augmentation on previous day, ≥ 24°C if augmentation was done on previous day
Previous Day Augmentation:	YES	Yes/No

Augmentation Record

Base Flow:	149	Augmented Flow (150% of base):	223.5	cfs
Start Time:	1100 EPT	Impoundment Water Level:	901.5	ft
End Time:	1800 EPT	Impoundment Water Level:	901.37	ft

Refill

Base Flow:	149	Refill Flow (75% of base):	111.75	cfs
Start Time:	1800 EPT	Impoundment Water Level:	901.37	ft
End Time:	1800 EPT	Impoundment Water Level:	901.37	ft
End Date:	8/11/11	CCAT No.:	NCREG3238	

When completed, fax to Bob Meyers at 9-1-906-485-2424.

Boney Falls – Escanaba Dam #4 FERC Project 2506 -04 Record of Augmentation Event

Window Criteria – May 15th through September 15th

Date:	8-12-11	Time:	10:00 CPT
Flow at Cornell Gauge:	250	150 cfs ≤ Cornell flow ≤ 400 cfs	
Water Temperature - Boney Falls Tailrace:	21	≥ 16 °C	
Pond Elevation:	901.38	≥ 901.25 ft	

Trigger Criteria

Previous Day Max Water Temperature at Cornell:	27.8	≥ 26°C if no augmentation on previous day, ≥ 24°C if augmentation was done on previous day
Previous Day Augmentation:	YES	Yes/No

Augmentation Record

Base Flow:	157	Augmented Flow (150% of base):	236	cfs
Start Time:	10:00 CPT	Impoundment Water Level:	901.38	ft
End Time:	17:00 CPT	Impoundment Water Level:	901.23	ft

Refill

Base Flow:	157	Refill Flow (75% of base):	118	cfs
Start Time:	17:00 CPT	Impoundment Water Level:	901.23	ft
End Time:	0300 CPT	Impoundment Water Level:	901.38	ft
End Date:	8/13/11	CCAT No.:	NCREG3244	

When completed, fax to Bob Meyers at 9-1-906-485-2424.

Boney Falls – Escanaba Dam #4 FERC Project 2506 -04 Record of Augmentation Event

Window Criteria – May 15th through September 15th

Date:	8/13/11	Time:	1030 EPT
Flow at Cornell Gauge:	203	150 cfs ≤ Cornell flow ≤ 400 cfs	
Water Temperature - Boney Falls Tailrace:	21.8	≥ 16 °C	
Pond Elevation:	901.47	≥ 901.25 ft	

Trigger Criteria

Previous Day Max Water Temperature at Cornell:	26.1	≥ 26°C if no augmentation on previous day, ≥ 24°C if augmentation was done on previous day
Previous Day Augmentation:	YES	Yes/No

Augmentation Record

Base Flow:	164	Augmented Flow (150% of base):	246	cfs
Start Time:	1100 EPT	Impoundment Water Level:	901.47	ft
End Time:	1800 EPT	Impoundment Water Level:	901.20	ft

Refill

Base Flow:	164	Refill Flow (75% of base):	123	cfs
Start Time:	1800 EPT	Impoundment Water Level:	901.20	ft
End Time:	0500 EPT	Impoundment Water Level:	901.31	ft
End Date:	8-14-11	CCAT No.:	NCREG3248	

When completed, fax to Bob Meyers at 9-1-906-485-2424.