



# FISH PASSAGE CENTER

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## MEMORANDUM

To: Fish Passage Advisory Committee (FPAC)

From: FPC Staff

Date: March 11, 2016

Subject: Action Notes from March 8, 2016, FPAC meeting

On March 8, 2016, FPAC met via conference call for its weekly meeting. The following people participated in the meeting:

Paul Wagner (FPAC Co-Chair NOAA)  
Brandon Chockley (FPC)  
Charlie Morrill (WDFW)  
Dave Benner (FPC)  
Dave Swank (USFWS)  
Erick Van Dyke (ODFW)  
Erin Cooper (FPC)

Kyle Dittmer (CRITFC)  
Margaret Filardo (FPC)  
Russ Kiefer (IDFG)  
Sheri Sears (Colville Tribe)  
Tom Skiles (CRITFC)  
Tommy Garrison (FPC)

## AGENDA ITEMS

### *Approval of Notes*

- Notes from March 1 were changed to reflect that Russ Kiefer will talk to the COE on potential changes to the Little Goose change form, and then discuss those options with FPAC.

### ***Water Supply/Flood Control***

- Dave Benner (FPC) provided a summary of the current reservoir operations and water supply forecasts, snowpack estimates, and ESP runoff volumes. See the attached document.
- Due to work scheduled to occur at Dworshak in the spring of 2017, the COE has stated that it will spill above the 110% TDG standard for flood control, but not for flow augmentation. Paul Wagner (NOAA) reported that the COE has requested that if fisheries managers want higher flows during the spring season, which would likely necessitate TDG levels above 110%, they should verify that the Nez Perce would be willing to issue a waiver.
- Several FPAC members felt that the COE is asking fisheries managers to fulfill COE BiOp requirements.

### ***Weather***

- Kyle Dittmer (CRITFC) provided a summary of weather conditions and water year status.

### ***Anderson/Gosselin Proposal***

- NOAA has approved the permit request for the revised Anderson/Gosselin proposal that was distributed to FPAC last week.
- FPC comments on the proposal will be sent to FPAC this week.

### ***Sort-by-Code Request***

- Objections to any pending Sort-by-Code requests should be sent to Paul Wagner (NOAA) by Thursday, March 10.

### ***Spill Levels during Early Transportation***

- Paul Wagner (NOAA) proposed a shift in April spill that would reduce spill at Ice Harbor and increase spill at Lower Granite and Little Goose. Lower Granite would spill ~45 Kcfs (gas cap) instead of 20 Kcfs; spill at Little Goose would increase to ~40% at night; and Ice Harbor would have a minimum spill level of 30%. The shift in spill would be volume neutral. The purpose of the proposal would be to reduce the number of fish that pass through the bypass systems at LGR and/or LGS. Admittedly, decreasing spill at IHR (from 45 Kcfs/GC) would likely increase the number of fish passing through the bypass system there.
- Margaret Filardo (FPC) suggested that this proposal would be more informative if NOAA provided more information on how SPE (or proportion bypassed) at LGR, LGS, and IHR would change under this proposal.

### ***Low flow summer operations at Little Goose***

- Russ Kiefer (IDFG) discussed potential summer operations at Little Goose with Ann Setter (COE). She will check on COE policy regarding possible changes, including raising spill to 40% at night at Little Goose for summer operations in 2016.

***Coulee Letter- Flows above Chum Minimums***

- Margaret Filardo (FPC) sent out revised letter to FPAC (see attached).
- ODFW, WDFW, and USFWS will sign the letter. Tom Skiles (CRITFC) and Russ Kiefer (IDFG) will check in with their respective agencies before deciding.

***Coordination***

- The next FPAC meeting will be face-to-face on March 15 at 9:00 AM.
- FPOM will be on Thursday, March 10, at Bonneville Dam.

These minutes have been reviewed and approved by the Fish Passage Advisory Committee.

**FPAC Agenda for Tuesday, March 8, 2016**  
**Meeting time: 9:00 AM**

1. Approval of notes from March 1, meeting
2. Water supply and reservoir status
3. Weather update and climate forecast
4. Gosselin proposal status
5. Sort-by-code requests available at: <http://www.ptagis.org/services/separation-by-code/Main/>
6. Transport
7. Other
8. Coordination for other schedule meetings



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## MEMORANDUM

TO: FPAC

FROM: David Benner

DATE: March 7, 2016

RE: Reservoir Operations/Water Supply/Snowpack/ BON TW

Grand Coulee Reservoir is at 1,258.7 feet (3-6-16) and has drafted 5.6 feet over the last week. Outflows at Grand Coulee have ranged between 90.3 and 118.0 Kcfs over the last week. The April 10<sup>th</sup> FC Elevation at Grand Coulee is currently 1,274.6 feet (based on Feb. Final Forecast). Grand Coulee will be drafted to approximately 1,255 ft. this year for a period of eight weeks for drum gate maintenance (mid-March to mid-May).

The Libby Reservoir is currently at elevation 2,410.0 feet (3-6-16) and has held steady over the previous week. The COE deviated Libby's end of February FC Elevation to 2,410 feet (it was 2,407 feet). Daily average outflows at Libby Dam have been 4.0 Kcfs over the last week. The April 10<sup>th</sup> FC Elevation at Libby is currently 2,405.7 feet (based on Feb. Final Forecast).

Hungry Horse is currently at an elevation of 3,516.9 feet (3-6-16) and has held steady over the last week. Outflows at Hungry Horse have been 1.4–1.9 Kcfs over the last week. The April 10<sup>th</sup> FC Elevation at Hungry Horse is currently 3,546.9 feet (based on Feb. Final Forecast).

Dworshak is currently at an elevation of 1,556.6 feet (3-6-16) and has refilled 5.0 feet over the last week. Outflows have been 1.6 Kcfs over the last week. The April 10<sup>th</sup> FC Elevation at Dworshak is currently 1,571.4 feet (based on Feb. Final Forecast).

The Brownlee Reservoir was at an elevation of 2,047.1 feet on March 6, 2016, and has drafted 1.1 feet over the last week. The April 10<sup>th</sup> FC Elevation at Brownlee is currently 2,052 feet (based on Feb. Final Forecast).

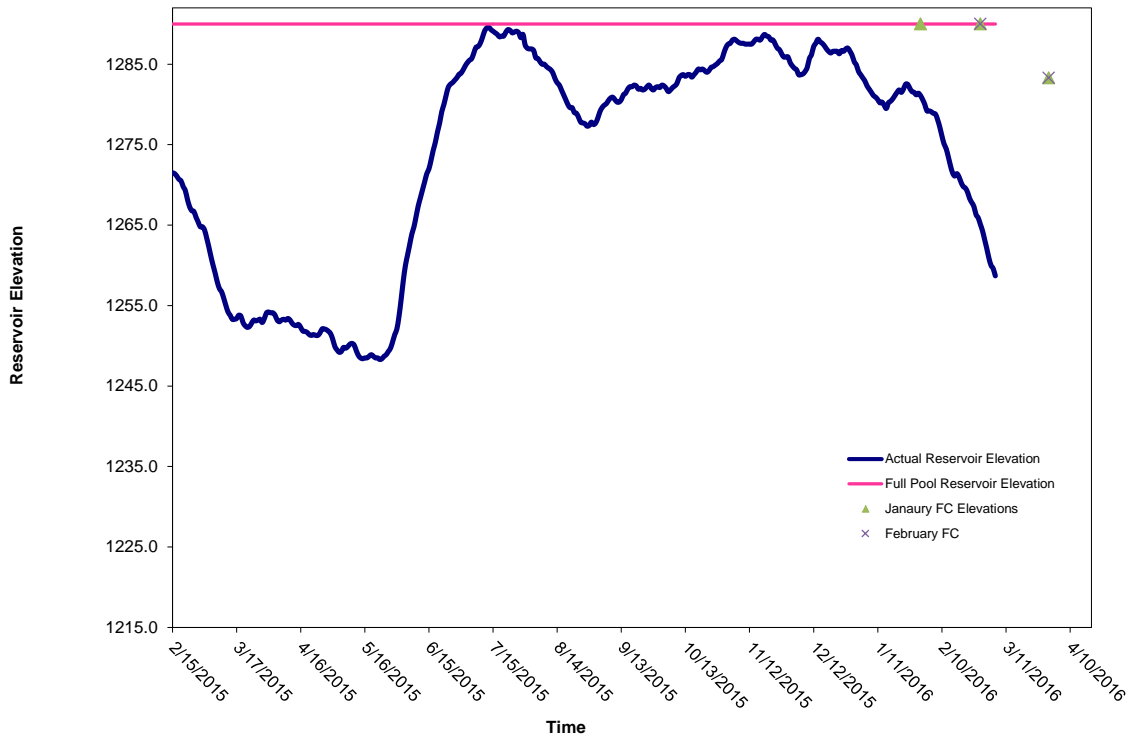
Location	February 28, 2016 5-day QPF ESP		March 6, 2016 5-day QPF ESP	
	% Average (1981–2010)	Runoff Volume (Kaf)	% Average (1981–2010)	Runoff Volume (Kaf)
The Dalles (Apr–Aug)	95	83,071	100	87,120
Grand Coulee (Apr–Aug)	97	55,296	101	57,052
Libby Res. Inflow, MT (Apr–Aug)	89 107*	5,210 6,318*	90 110**	5,325 6,472**
Hungry Horse Res. Inflow, MT (Apr–Aug)	88	1,699	88	1,708
Lower Granite Res. Inflow (Apr–July)	88	17,462	93	18,384
Brownlee Res. Inflow (Apr–July)	81	4,421	84	4,618
Dworshak Res. Inflow (Apr–July)	97 82*	2,354 1,986*	100 84**	2,409 2,025**

\* COE February Forecast

\*\* COE March Forecast

<b>Basin</b>	<b>2-29-16 Snow Water Equivalent (% Avg.)</b>	<b>3-7-16 Snow Water Equivalent (% Avg.)</b>
<b>Columbia above the Snake River Confluence</b>		
Kootenai River in Montana	90	94
Flathead River	93	96
Upper Clark Fork River	97	95
Bitterroot	96	94
Lower Clark Fork River	83	84
Idaho Panhandle Region	89	89
Columbia above Methow	124	129
Chelan, Entiat, Wenatchee	112	108
Yakima, Ahtanum	99	111
<i>Average</i> *	<b>98</b>	<b>100</b>
<b>Snake River</b>		
Snake above Palisades	95	93
Henry Fork, Teton, Willow, Blackfoot, Portneuf	89	88
Big and Little Wood	102	102
Big and Little Lost	96	97
Raft, Goose, Salmon Falls, Bruneau	120	115
Weiser, Payette, Boise	107	106
Owyhee Malheur	110	93
Grande Ronde, Powder, Burnt, Imnaha	103	99
Clearwater and Salmon	102	102
<i>Average</i> *	<b>103</b>	<b>99</b>
<b>Lower Columbia between Bonneville and McNary</b>		
Umatilla, Walla Walla, Willow	102	94
Deschutes, Crooked, John Day	109	96
Lower Columbia, Hood River	80	71
<i>Average</i> *	<b>97</b>	<b>87</b>

Date	Ave BON TW	Min	Max
2/22	18.8	17.3	20.2
2/23	17.9	16.1	18.8
2/24	16.8	15.1	17.8
2/25	17.3	16.4	17.9
2/26	17.7	17.1	18.4
2/27	16.0	15.4	17.7
2/28	15.3	14.9	16.0
2/29	15.9	14.7	17.7
3/1	18.0	15.7	19.4
3/2	18.0	15.7	19.4
3/3	15.6	14.6	16.7
3/4	17.3	16.3	19.4
3/5	18.5	17.6	19.3
3/6	18.6	17.5	19.5



**Figure 1.** Grand Coulee



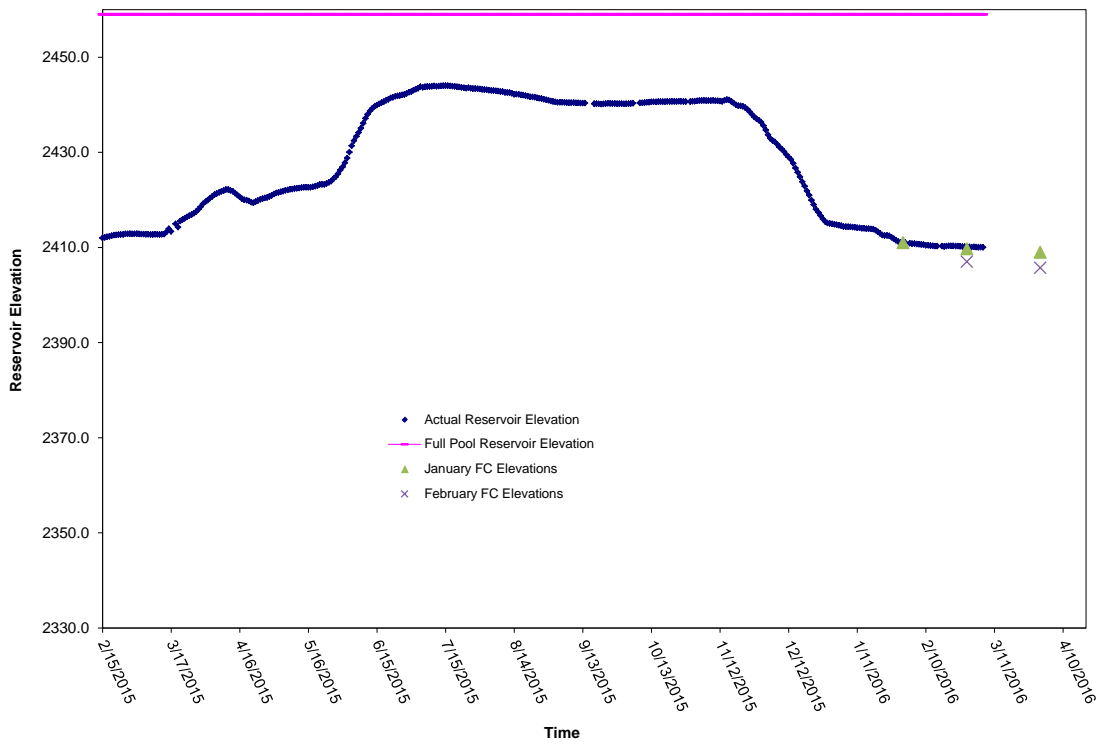


Figure 2. Libby

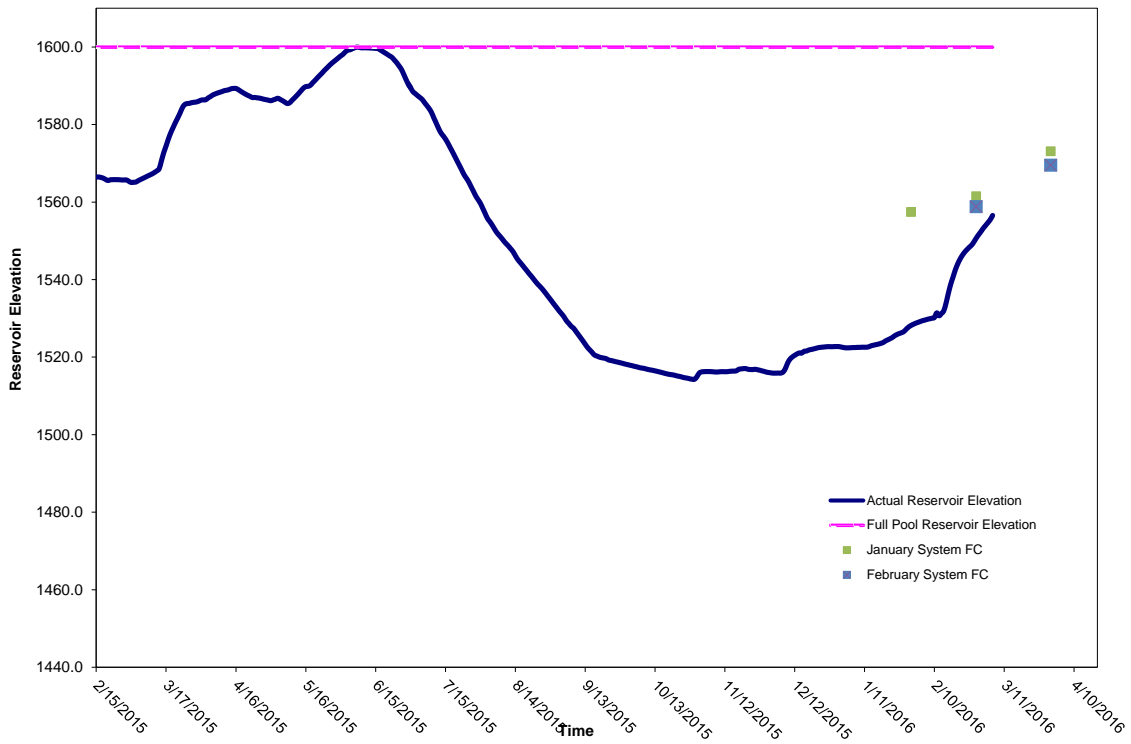


Figure 3. Dworshak

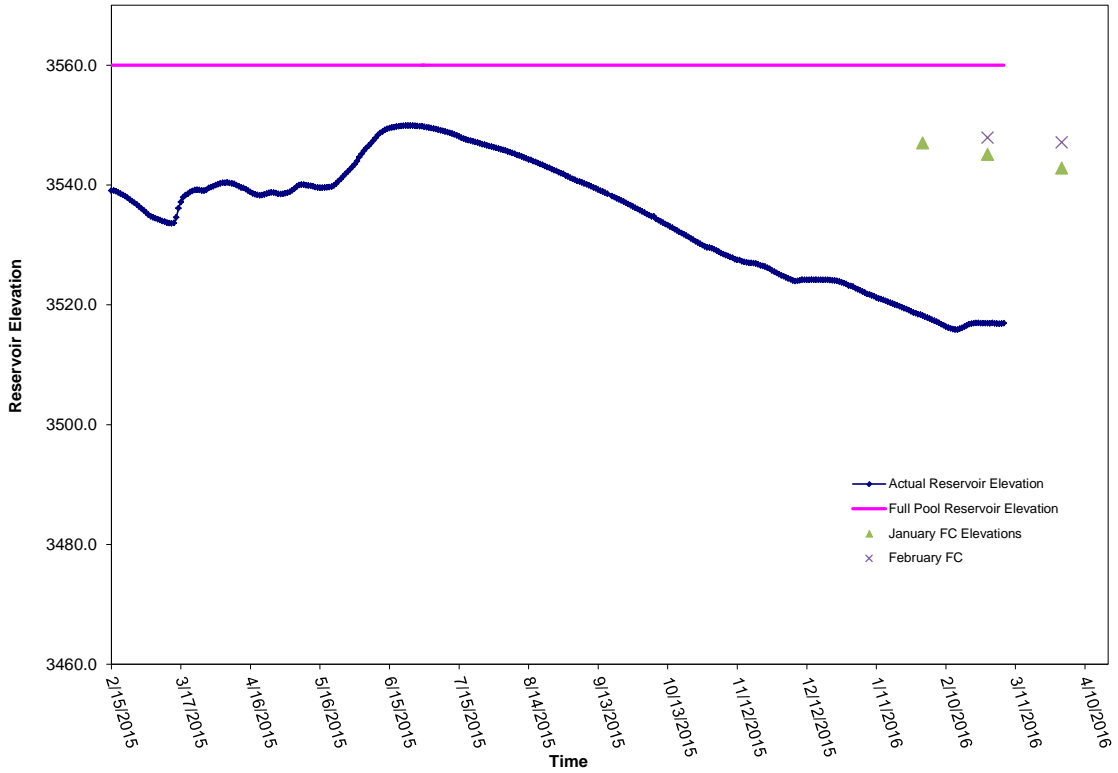


Figure 4. Hungry Horse

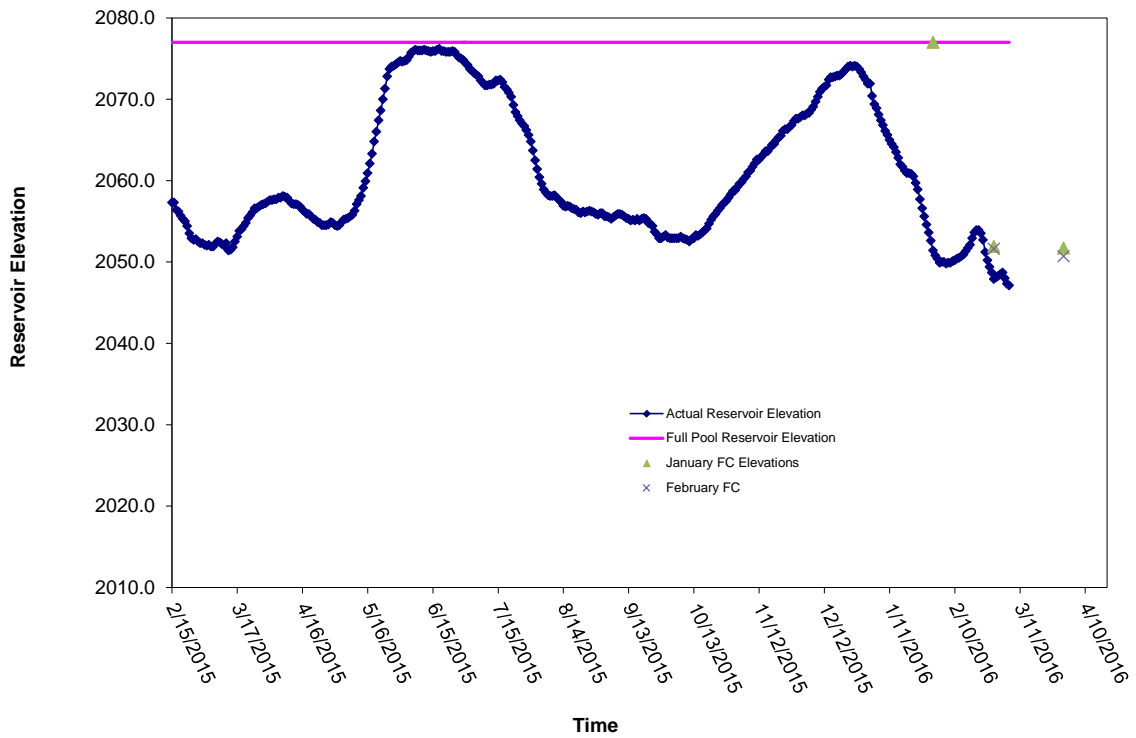


Figure 5. Brownlee

# DRAFT

To: Action Agencies

From: FPAC

Re: Accounting for Chum Tailwater Elevation

The project average tailwater elevation at the Bonneville Dam gage is used to measure the provision of tailwater elevation during chum spawning, incubation and emergence. The tailwater elevation is measured against the elevation requested by the state, tribal and federal fishery agencies.

As we have noted this year, as well as in past years', the tailwater elevations are often higher than the requested elevation for chum protection. There are several reasons for this including; local inflow, power production, Willamette flow and, as discussed last week at the January 19<sup>th</sup> Fish Passage Advisory Committee, the Non Treaty Storage (NTS) Agreement and the Short Term Libby Agreement (STLA).

To understand the processes, and to better manage chum operations in-season, we request that during the Chum Management season the Action Agencies maintain and provide an accounting of the reasons for the departure of the tailwater elevations from the requested elevation. We appreciate the Chum Water Management Summary table provided in the 2016 Water Management Plan's Seasonal Update, February 2016. However, FPAC would appreciate a more precise daily accounting that could be distributed weekly. Attached is a draft table that could be used for guidance as to how to provide the information.

We realize that the Grand Coulee draft for drum gate maintenance is now the predominant factor determining the reservoir operations. Consequently, an accounting beyond that provided in the Water Management Plan's seasonal update is not necessary this year. However, for future years it would be helpful if this daily information could be provided weekly during the chum season. The information will be used to help guide the FPAC decisions regarding chum flows and reservoir elevations. Thank you in advance for your cooperation in this matter.

Hypothetical Table:

The following table would be paired with a “real-time” graph of GCL elevation and, if needed, Dworshak elevations. The weekly accounting for Bonneville Tailwater elevation could be as follows:

<b>Date</b>	<b>BON TW &gt; 12.2</b>	<b>Drafting GCL</b>	<b>Grand Coulee Elevation</b>	<b>Overall System Operation responsible for BVL tailwater operation</b>	<b>Specific Reason for GCL Draft</b>
January 16	15.1	yes	1287	STLA and NTS on top of GCL release	“No cost” clause of NTS and STLA agreements
January 17	16.6	Yes	1286	GCL Draft + Priest Rapids minimum +natural flows +Willamette	GCL drafting for power production
January 18	13.8	Yes	1285	GCL Draft + natural flows	GCL draft for flood control
January 19	13.2	No	1285	Local Precipitation	-----
January 20	14.6	No	1285	Local Precipitation	-----