

Terry, Tomeka

From: Elliott, Amy H NAB <Amy.H.Elliott@usace.army.mil>
Sent: Tuesday, June 23, 2015 11:14 AM
To: Vokoun, Patricia; Terry, Tomeka; Leigh, Kimberly D; Mcdowell, Bruce K (Bruce.Mcdowell@pnnl.gov) (Bruce.Mcdowell@pnnl.gov)
Cc: Fritz, Julia A NAB; Haines, James W NAB; Ignatius, Joseph C (Joe) JR NAB; Krupa, Nicholas E NAB; Schnell, Robert J NAB; Balay, John; PBallaron@srbc.net; Cwiek, Philip J (Phil) NAB
Subject: [External_Sender] Corps Comments on BBNPP Draft EIS (UNCLASSIFIED)
Attachments: Tab 7-04 WS Triggers_C2 Update.xlsx; Corps Eng and Flood Risk comments.pdf; Draft EIS Comments (2) revised.docx; Tab 7-04 WS Triggers_C2 Update.pdf

Classification: UNCLASSIFIED
Caveats: NONE

Pat,

Please find attached the Corps comments from our Eng Division and our Flood Risk Management Branch. These are official comments on the DEIS. I have converted both documents into pdf's for use, but please find attached the original word/excel documents. I have uploaded these pdf documents onto Earth and put them in the proper folder (Appendix E DEIS documents). Let me know if you needed anything further for clarification.

Thank-you,
Amy Elliott

Amy Elliott
U.S. Army Corps of Engineers
State College Field Office
1631 South Atherton Street
State College, PA 16801
814-235-0573

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80 FR 22231

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-----Original Message-----

From: Cwiek, Philip J (Phil) NAB
Sent: Wednesday, June 17, 2015 11:24 AM
To: Elliott, Amy H NAB
Cc: Fritz, Julia A NAB; Haines, James W NAB; Ignatius, Joseph C (Joe) JR NAB; Krupa, Nicholas E NAB; Schnell, Robert J NAB; Balay, John; PBallaron@srbc.net
Subject: Corps Comments on BBNPP Draft EIS (UNCLASSIFIED)

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Caveats: NONE

Good Morning Amy,

Attached are comments from Engineering Division Water Control and Operations Division Flood Risk Management Branch regarding BBNPP's consumptive use proposal at Cowanesque Lake. Also attached is a table that is referenced in our comments. Please incorporate these comments and table into your response to NRC on the BBNPP Draft EIS.

60NSE Review Complete
Template = ADM-013

E-RIDS = ADM-03
1 Add = T. Perry (DXT2)
P. Vokoun (P5V1)

Thanks,

Phil Cwiek
Natural Resources Management Specialist
CENAB-OPF
(410) 962-6010

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Caveats: NONE

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Bell Bend NPP – Draft EIS

There is not sufficient information in the draft EIS to evaluate the adequacy of PPL's proposed plan for consumptive water use mitigation at the Bell Bend Nuclear Power Plant (BBNPP). Until such time as PPL/NRC provides a detailed consumptive water use mitigation plan and can demonstrate that the necessary agreements between Susquehanna River Basin Commission (SRBC) and PPL and between PPL and Exelon can be executed, the Corps cannot agree to any plan that involves use of Cowanesque Lake storage.

Presently, all of the available water supply storage (23,494 acre-feet) in the Corps' Cowanesque Lake is contracted to SRBC for use at the Susquehanna Steam Electric Station (SSES), Three Mile Island (TMI), and Montour Steam Electric Station (MSES). The Cowanesque Lake Reservoir Regulation Manual contains a formal water supply storage and release plan that is designed to satisfy the consumptive water use requirements of the three electric generating facilities, considering the specific location, timing, and amount of consumptive use. Furthermore, this site-specific plan at Cowanesque Lake has been developed through several years of investigation so as to minimize impacts to the reservoir's environmental and recreational features while concurrently supporting SRBC's broader low flow protection plan for the entire Susquehanna watershed.

Primary concerns with the draft EIS are as follows:

- 1) *The legal agreements necessary to execute a "switch" of consumptive use make-up water from TMI to BBNPP have not been executed.* --- PPL proposes to purchase water storage rights within Cowanesque Lake currently allocated to Exelon's TMI plant. Has Exelon agreed to this change? Has a valuation been negotiated that is agreeable to both parties? Where will Exelon get consumptive use make-up water for TMI if PPL purchases Exelon's share of Cowanesque storage? What changes are necessary to the SRBC's storage contract with Exelon?
- 2) *PPL's proposed plan leaves a significant reach of the Susquehanna River "unprotected" during low flow conditions.* --- PPL proposes to use water storage at its Holtwood Dam (downstream of Harrisburg, PA) to compensate for consumptive uses downstream of Exelon's TMI plant, leaving a 35-mile reach of the Main Stem Susquehanna River without consumptive use mitigation. In the past, SRBC's policy has been that make-up water for large consumptive users must be available at the point-of-taking in an amount sufficient to offset the consumptive use as it is occurring.
- 3) *What legal, financial, and regulatory approvals have been secured for expanding the existing Rushton Mine facility to treat acid drainage from the underground mine?*
- 4) *Proposed changes to the water supply release plan at Cowanesque Lake would invalidate the recently completed reservoir regulation manual.* --- Operating Cowanesque Lake for consumptive water use mitigation at BBNPP instead of TMI would involve a change to the trigger location (Wilkes-Barre rather than Harrisburg gage) as well as changes to the timing and amount of releases. For instance, releases for BBNPP might potentially be needed in May and

June as well as the July-August-September-October-November period currently considered for SSES, TMI, and MSES. The possible impact of PPL's proposed changes at Cowanesque Lake have not been adequately investigated in the draft EIS. Furthermore, the Corps and SRBC have recently completed a major revision to the Cowanesque Lake reservoir regulation manual. That manual now includes a water supply release plan specifically formulated to address consumptive use needs at SSES, TMI, and MSES according to SRBC's low flow protection policies (see attached table). This plan was only approved after extensive studies and analyses of impacts at Cowanesque Lake. Additional changes or alterations to the water supply release plan would likely invalidate these earlier findings and would require the expenditure of much additional effort and funds. The Corps does not have funding available to conduct another water control plan update at Cowanesque Lake.

- 5) *Additional storage reallocation from flood control to water supply at Cowanesque Lake is not an option.* Earlier investigations by COE resulted in a recommendation to reallocate a portion of Cowanesque Lake's flood control storage to water supply storage. The full amount of reallocated storage was subsequently purchased by SRBC. These same investigations also concluded that any additional reallocation of flood control storage space would significantly and adversely affect the flood risk management purpose for which the project was originally authorized and constructed.

TABLE 7-04
COWANESQUE LAKE
WATER SUPPLY RELEASES
FLOW TRIGGERS AND RATES

	TRIGGER LOCATIONS & FLOW VALUES (CFS)	
	<u>WILKES-BARRE</u>	<u>HARRISBURG</u>
Annual Q7-10 flow values	826	2631
Monthly P95 flow values:		
July	970 *	3620 *
August	970	3620
September	860	3100
October	970	3240
November	970 **	3240 **
Estimated consumptive use (C) ***		
yearly average values:		
SSES	58	---
MSES	14	---
TMI	---	<u>22</u>
Total	72	22
Water supply release begins when observed average daily flow (as measured by USGS) falls below monthly P95 + C for three consecutive days:		
July	$970 + 72 = 1042$	$3620 + 22 = 3642$
August	$970 + 72 = 1042$	$3620 + 22 = 3642$
September	$860 + 72 = 932$	$3100 + 22 = 3122$
October	$970 + 72 = 1042$	$3240 + 22 = 3262$
November	$970 + 72 = 1042$	$3240 + 22 = 3262$
Water supply release stops when any one of the following three conditions are met:		
1) Observed average daily flow (as measured by USGS) exceeds montly P95 + C for three consecutive days:		
July	$970 + 72 = 1042$	$3620 + 22 = 3642$
August	$970 + 72 = 1042$	$3620 + 22 = 3642$
September	$860 + 72 = 932$	$3100 + 22 = 3122$
October	$970 + 72 = 1042$	$3240 + 22 = 3262$
November	$970 + 72 = 1042$	$3240 + 22 = 3262$

**TABLE 7-04
COWANESQUE LAKE
WATER SUPPLY RELEASES
FLOW TRIGGERS AND RATES**

		TRIGGER LOCATIONS & FLOW VALUES (CFS)	
		<u>WILKES-BARRE</u>	<u>HARRISBURG</u>
<i>OR</i>			
2) Observed average daily flow (as measured by USGS) is more than twice P95 on any day:			
July		2 x 970 = 1940	2 x 3620 = 7240
August		2 x 970 = 1940	2 x 3620 = 7240
September		2 x 860 = 1720	2 x 3100 = 6200
October		2 x 970 = 1940	2 x 3240 = 6480
November		2 x 970 = 1940	2 x 3240 = 6480
<i>OR</i>			
3) SRBC water supply storage is depleted		---	---
Cowanesque Lake release rate:			
1) If making water supply release for Wilkes-Barre:			
Government Conservation		15	---
SRBC (C@SSES + C@MSES) ***		<u>72</u>	---
Total		87	---
2) If making water supply release for Harrisburg:			
Government Conservation		---	15
SRBC (C@TMI) ***		---	<u>22</u>
Total		---	37
3) If making water supply release simultaneously for both Wilkes-Barre & Harrisburg			
Government Conservation		15	
SRBC (C@SSES + C@MSES + C@TMI) ***		<u>94</u>	
Total		109	

* Actual P95 flow values for July are 1280 and 4480 cfs for Wilkes-Barre & Harrisburg, respectively. SRBC is using the lower August values to trigger releases in July.

** Actual P95 flow values for November are 1370 and 4220 cfs for Wilkes-Barre & Harrisburg, respectively. SRBC is using the lower October values to trigger releases in November.

*** Consumptive use amounts shown are yearly averages.
Seasonal consumptive uses may vary as much as 16% from yearly averages.