

Water Control Plan - Chapter 7 for the White River Basin

NOTICE

On 1 December 1998, the White River Basin Water Control Plan was officially revised, making changes to the regulating stages at Newport and Georgetown. The following text, table, and plates includes those changes.

NEWPORT

1 December – 14 April: Regulate to 21 feet except, if a natural rise exceeding 21 feet occurs, regulate to the lesser of the observed crest or 24 feet. Spillway or conduit releases (non power-producing releases) will be utilized as needed to maintain a 21 feet regulating stage but, will be used to maintain a 24 feet regulating stage only when the 4-lake system flood storage exceeds 50% full. During flood operations, the total project discharge from Bull Shoals (using turbine and non-turbine releases) will approximate up to the equivalent of 10 hydropower turbines (32,000 cfs) and the total project discharge at Norfolk will approximate up to the equivalent of 3 hydropower turbines (11,000 cfs), unless emergency operations are required.

15 April – 7 May: Regulate to 14 feet except, regulate to 21 feet from 15 April through 30 April, and 18 feet from 1 May through 14 May, if the 4-lake system flood storage exceeds 50% full.

At the request of Southwest Power Administration, and after coordination with the Little Rock District Corps of Engineers, hydropower releases for peak power demands in excess of those limited by the 14 feet regulating stage at Newport can be made providing:

- (1) Newport stage does not exceed 16 feet;
- (2) increased releases do not occur for more than 3 consecutive days; and
- (3) there will be a minimum of 7 days between requests.

8 May – 30 November: Regulate to 12 feet except, regulate to 14 feet from 15 May through 30 November if the 4-lake system flood storage exceeds 70% full.

At the request of Southwest Power Administration, and after coordination with the Little Rock District Corps of Engineers, hydropower releases for peak power demands in excess of those limited by the 12 feet regulating stage at Newport can be made providing:

- (1) Newport stage does not exceed 14 feet;
- (2) increased releases do not occur for more than 3 consecutive days; and
- (3) there will be a minimum of 7 days between requests.

The 4-lake system is comprised of Beaver, Table Rock, Bull Shoals, and Norfolk Lakes.

Note: In the event of a declared power emergency, regulating stages may be exceeded, on a case-by-case basis, according to the existing Memorandum of Understanding between the Southwest Power Administration and the Corps of Engineers.

GEORGETOWN

1 December – 14 April: Regulate to 21 feet except, if regulating to a 24 feet stage at Newport, Greers Ferry releases will be sized and timed to regulate to 22 feet at Georgetown.

15 April – 7 May: Regulate to 16 feet except, if regulating Newport to a higher stage due to the 4-lake system flood storage being greater than 50% full, Greers Ferry releases will be sized and timed to regulate to 21 feet at Georgetown from 15 April through 30 April and 19 feet from 1 May through 14 May.

8 May – 30 November: Regulate to 13 feet except, if regulating Newport to a higher stage due to the 4-lake system flood storage being greater than 70% full, Greers Ferry releases will be sized and timed to regulate to 16 feet at Georgetown from 15 May through 30 November.

Note: In the event of a declared power emergency, regulating stages may be exceeded, on a case-by-case basis, according to the existing Memorandum of Understanding between the Southwest Power Administration and the Corps of Engineers.

TABLE 7-08
MINIMUM, MAXIMUM AND ROUTINE FLOOD CONTROL RELEASES

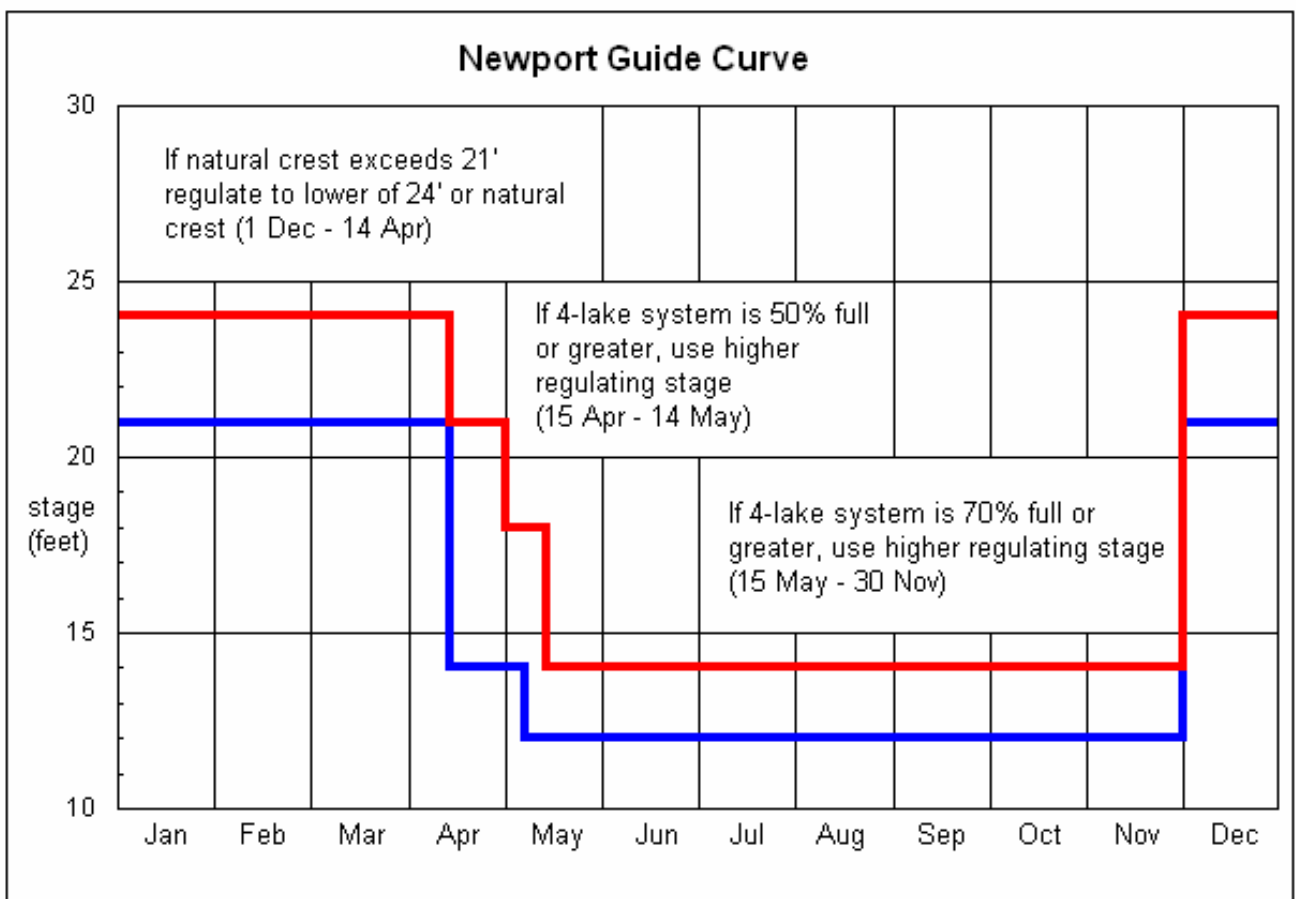
BEAVER		
Time	Elevation	Criteria
Any time.	1120.43 to 1130.00.	Release a minimum of firm power when flood control storage is in use at Table Rock and/or Bull Shoals. When minor flood control storage (less than 2 feet) is in use at Table Rock and/or Bull Shoals, greater weight will be given to secondary power generation at Beaver based on powerload conditions at the time. Release a maximum of 15,000 cfs less the tributary inflow between Beaver and Table Rock when flood control storage is not in use at Table Rock and Bull Shoals.
Any time.	Above, or predicted to exceed, 1130.00.	Let outflow equal inflow when the flood pool fills, subject to the use of surcharge storage to reduce peak discharges and delay inflow to Table Rock.
Any time.	Between firm power rule curve and 1120.43.	Release a minimum of firm power when flood control storage is in use at Table Rock and/or Bull Shoals when needed for system peaking purposes, otherwise release zero.
TABLE ROCK		
Time	Elevation	Criteria
Any time.	915.0 to 920.0 and Bull Shoals below 684.0.	Release 15,000 cfs.
Any time.	920.0 to 931.0 and Bull Shoals below 684.0.	Release 20,000 cfs.
Any time.	Above 915.0 and Bull Shoals above 684.0.	Limit release to maintain equal amounts of remaining flood control storage (in acre-feet) in Table Rock and Bull Shoals, insofar as practicable, subject to the minimum release required for firm power.
Any time.	Above, or predicted to exceed, 931.0.	Regulate to obtain the most effective flood modification with the designated surcharge storage space.
Any time.	915.0 to 931.0.	Release a minimum of firm power.

TABLE 7-08 (CONTINUED)
MINIMUM, MAXIMUM AND ROUTINE FLOOD CONTROL RELEASES

BULL SHOALS AND NORFORK		
Time	Elevation	Criteria
1 December to 14 April.	Any elevation in flood pool.	Regulate Newport to 21 feet. If the natural crest exceeds 21 feet, regulate to the lower of 24 feet or the natural crest.
15 April to 30 April.	Any elevation in flood pool.	Regulate Newport to 14 feet. If the 4-lake system has 50% or more flood storage in use, regulate to 21 feet.
1 May to 7 May.	Any elevation in flood pool.	Regulate Newport to 14 feet. If the 4-lake system has 50% or more flood storage in use, regulate to 18 feet.
8 May to 14 May.	Any elevation in flood pool.	Regulate Newport to 12 feet. If the 4-lake system has 50% or more flood storage in use, regulate to 18 feet.
15 May to 30 November.	Any elevation in flood pool.	Regulate Newport to 12 feet. If the 4-lake system has 70% or more flood storage in use, regulate to 14 feet.
Any time.	Any elevation in flood pool.	Release a minimum of firm power and in extreme cases zero if a significant reduction in critical downstream flood conditions is possible. Prorate flood control releases between Bull Shoals and Norfolk to maintain equal percentages of available flood control storage in Norfolk and the Beaver - Table Rock - Bull Shoals system, insofar as practicable. Release a maximum of 32,500 cfs from Bull Shoals and 10,500 cfs from Norfolk, subject to a 50,000 cfs flow limit at Batesville. Curtail secondary power generation until 6 days after the crest at Newport (secondary power releases should provide that stages above the regulating stage continue to recede until the regulating stage is reached).
Any time.	Above, or predicted to exceed, the top of the spillway gates.	Regulate to obtain the most effective flood modification with the designated surcharge storage space.

TABLE 7-08 (CONTINUED)
MINIMUM, MAXIMUM AND ROUTINE FLOOD CONTROL RELEASES

GREERS FERRY		
Time	Elevation	Criteria
1 December to 14 April.	Any elevation in flood pool.	Regulate Georgetown to 21 feet. If Newport is being regulated to 24 feet, regulate to 22 feet.
15 April to 30 April.	Any elevation in flood pool.	Regulate Georgetown to 16 feet. If the 4-lake system has 50% or more flood storage in use, regulate to 21 feet.
1 May to 7 May.	Any elevation in flood pool.	Regulate Georgetown to 16 feet. If the 4-lake system has 50% or more flood storage in use, regulate to 19 feet.
8 May to 14 May.	Any elevation in flood pool.	Regulate Georgetown to 13 feet. If the 4-lake system has 50% or more flood storage in use, regulate to 19 feet.
15 May to 30 November.	Any elevation in flood pool.	Regulate Georgetown to 13 feet. If the 4-lake system has 70% or more flood storage in use, regulate to 16 feet.
Any time.	Any elevation in flood pool.	Release a minimum of 3,000 cfs or 15,000 cfs less the tributary inflow between Greers Ferry and Judsonia, whichever is less, subject to the minimum release required for firm power. Releases in excess of 10,500 cfs must be used with caution and require prior coordination with the Greers Ferry Project Office. In extreme cases release zero if a significant reduction in critical downstream flood conditions is possible.
Any time.	Above, or predicted to exceed, 487.0.	Regulate to obtain the most effective flood modification with the designated surcharge storage space.



REGULATION NOTES:

- Maximum routine project release rates are as follows:
 Bull Shoals 32,500 CFS
 Norfolk 10,500 CFS
 These are subject to a 50,000 CFS flow limit at Batesville.
- Discharge is for 1990 Rating Curve and may vary with time.

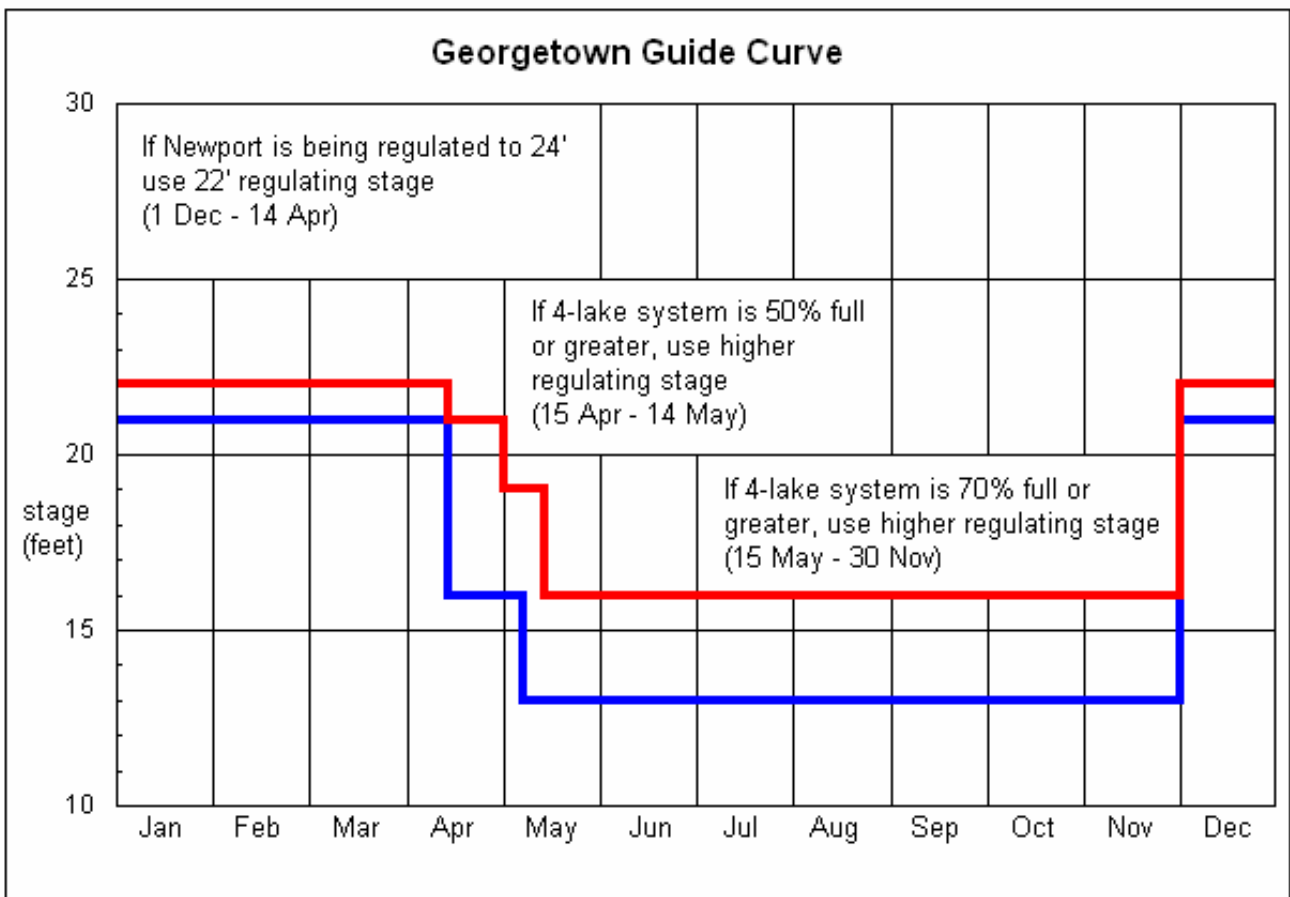
NEWPORT

DISCHARGE (CFS)	STAGE (FT)
60,000	24
50,000	21
40,000	18
30,000	14
25,000	12

WHITE RIVER BASIN ARKANSAS AND MISSOURI
 WATER CONTROL MASTER MANUAL

**NEWPORT
 GUIDE CURVE
 FOR REGULATING DISCHARGE**

LITTLE ROCK DISTRICT, CORPS OF ENGINEERS
 LITTLE ROCK, ARKANSAS, DECEMBER 1998



REGULATION NOTES:

1. Maximum routine project release rates are as follows:
 Bull Shoals 32,500 CFS
 Norfolk 10,500 CFS
 These are subject to a 50,000 CFS flow limit at Batesville.
2. Greers Ferry's rate is 15,000 CFS less the intervening flow between Greers Ferry and Judsonia.
3. Discharge is for 1990 Rating Curve and may vary with time.

GEORGETOWN

DISCHARGE (CFS)	STAGE (FT)
70,000	22
60,000	21
47,000	19
35,000	16
30,000	13

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**GEORGETOWN
 GUIDE CURVE
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LITTLE ROCK DISTRICT, CORPS OF ENGINEERS
 LITTLE ROCK, ARKANSAS, DECEMBER 1998