

# STANDARD OPERATING PROCEDURE (SOP) FLOOD CONTROL REGULATION HOPKINTON DAM AND RESERVOIR

PHASE	24-HOUR RAINFALL ON		HOPKINTON RESERVOIR	RIVER INDEX STATIONS (STAGE IN FEET)					REGULATION INSTRUCTIONS
	SNOW COVERED, WET OR FROZEN GROUND	DRY GROUND		CONTOOCOOK RIVER AT		MERRIMACK RIVER AT			GATE SETTINGS
				HENNIKER 368 SQ MI	RIVER HILL 760 SQ MI	CONCORD 2,385 SQ MI	GOFFS FALLS 1,507 SQ MI	LOWELL 4,635 SQ MI	
<b>I-APPRAISAL</b> <b>FIRST ALERT</b>	1.0"	1.0"	383 (RISING)	9.0	14.0	----	----	----	NORMAL SETTING
<b>SECOND ALERT</b>	1.5"	2.0"	As instructed	2,500 CFS	4,400 CFS	----	----	----	
<b>INITIAL REGULATION</b>	2.0"	3.0"	383 (RISING) Or as instructed	9.5	GS 14.7 5,600 CFS NON-GS 15.6 7,300 CFS	GS 10.0 18,000 CFS NON-GS 11.0 21,000 CFS	9.5 24,500 CFS	49.0 31,000 CFS	RESTRICT OUTFLOW, MAX GATE SETTING 2'-2'-2'- 2'-3'-3'
<b>II-CONTINUATION OF REGULATION</b>	3.0"	4.0"	As instructed	----	GS 15.6 7,300 CFS NON-GS 16.4 8,800 CFS	GS 11.0 21,300 CFS NON-GS 12.0 24,300 CFS	11.0 31,600 CFS	50.0 36,000 CFS	RESTRICT OUTFLOW, MAX GATE SETTING 0'-0'-0'- 0'-1'-1'
<b>III-EMPTYING THE RESERVOIR</b>	STORM HAS ABATED		----	<b>THE NORMAL MAXIMUM RELEASE RATE AT HOPKINTON IS 7,000 CFS.</b>					

**EMERGENCY OPERATION PROCEDURE (EOP) DURING COMMUNICATION FAILURE WITH RRT**

Gate operation for the following conditions:

	Partial closure outflow not to exceed 2,500 cfs	Minimum opening 0-0-0-0-1'-1'
Rainfall 24-hour	2.0"	3.0"
River Hill stage	14.7"	15.6"
Concord Stage	10.0'	11.0'
Hopkinton Reservoir Stage	386' (rising)	----

- NOTES:**
- Emptying the reservoir shall not be initiated until contact has been established with RRT.
  - Rate of increase of discharge should not exceed 500 CFS per hour to 5,500 CFS then 300 CFS per hour to 7,000 CFS
  - Maximum rate of reservoir drawdown should not exceed 10 feet in 24 hours
  - Refer to Plate D-4 for road closures.
  - Refer to section D-05 for snowmelt regulation.
  - Refer to section D-05 for ice jam flooding.
  - Refer to section D-05 for regulation during spillway discharge.

- DUTIES DURING EACH PHASE**
- FLOOD CONTROL PROJECT MANAGER**
- PHASE I**  
1. Collect and report rainfall and stage data to RRT.  
2. Operate according to instructions from RRT.
- PHASE II**  
1. Operate according to instructions from RRT.  
2. Note any unusual conditions at dam, in downstream channels or at index stations.
- PHASE III**  
1. Check downstream channel and damage areas.  
2. Report to RRT for further instructions.
- PROJECT REGULATOR**
- PHASE I**  
1. Compile data.  
2. Plan and coordinate next instructions to Project Manager.  
3. Restrict outflow to maintain safe channel capacity in the Contoocook and Merrimack Rivers.
- PHASE II**  
1. Continue regulation instructions to Project Manager.
- PHASE III**  
1. Collect data from Project Manager.  
2. Check downstream conditions for allowable releases.  
3. Continue regulation instructions to Project Manager.

