

STANDARD OPERATING PROCEDURE (SOP)
FLOOD CONTROL REGULATION
BALL MOUNTAIN AND TOWNSHEND DAMS

PHASE	24-HOUR RAINFALL ON		BALL MOUNTAIN RESERVOIR	TOWNSHEND RESERVOIR	RIVER INDEX STATIONS (STAGE IN FEET)		REGULATION INSTRUCTIONS		DUTIES DURING EACH PHASE
	SNOW COVERED, WET OR FROZEN GROUND	DRY GROUND	RISING POOL ELEVATION (FEET, NGVD)		CONNECTICUT RIVER AT		GATE SETTINGS		
					NORTH WALPOLE ⁵ , 493 SQ MI	MONTAGUE CITY 7,865 SQ MI	BALL MOUNTAIN	TOWNSHEND	
I-APPRAISAL FIRST ALERT	1.0"	1.0"	Summer 75' Winter 50'	25'	---		Summer 0-4-0 Winter 0-5-0	Summer 2-9-2 Winter 9-0-0	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.
INITIAL REGULATION	2.0"	2.0"			24.0'	23.0'	Discharge should not exceed 2,000 cfs	Discharge should not exceed 3,000 cfs	
II-CONTINUATION OF REGULATION	3.0"	3.0"			30.0	26.0'	Minimum outflow as specified in the Outflow Guidance		
III-EMPTYING THE RESERVOIRS	STORM HAS ABATED		THE NORMAL MAXIMUM RELEASE RATE FROM BALL MOUNTAIN DAM IS 5,000 CFS AND FROM TOWNSHEND DAM IS 9,000 CFS.						

EMERGENCY OPERATION PROCEDURE (During Communication Failure With RRT)

I. Partially close the gates for any of the following conditions (Ball Mountain 0-3-0, Townshend 0-6-0)

24-hour Rainfall	2.0"
North Walpole Stage	24.0' and rising
Montague City Stage	23.0' and rising

II. Go to minimum outflow when:

24-hour Rainfall	3.0"
North Walpole Stage	26.0' and rising
Montague City Stage	25.0' and rising

- NOTES:**
- Emptying the reservoir shall not be initiated until contact has been established with RRT.
 - Ramping of reservoir outflows should be in accordance with outflow guidance.
 - Maximum rate of reservoir drawdown should not exceed 20 feet in 24 hours for Ball Mountain & 10 feet for Townshend
 - Non damaging Flood Stages for above river index stations are as follows:
 Connecticut River @ North Walpole: 30.0'
 Connecticut River @ Montague City: 30.0'
 - Consider road closures when rising pools are:
 Townshend Dam: 25 ft - Access Road to comfort station
 30 ft - Entrance to east side day use area
 93 ft - Old Rt 30, at 5 locations
 Ball Mountain Dam: 160 ft - Old Rt 52, Rt 46 & Rt 48
 75 ft - Rt 38 & old Rt 2

- PROJECT REGULATOR**
- PHASE I**
- Compile data.
 - Plan and coordinate next instructions to Project Manager.
 - Restrict outflow to maintain safe downstream channel capacities.
- PHASE II**
- Continue regulation instructions to Project Manager.
- PHASE III**
- Collect data from Project Manager.
 - Check downstream conditions for allowable releases.
 - Continue regulation instructions to Project Manager.

