

Table E-6 - Regulation Schedule - Leech Lake Dam and Reservoir

Regulation Schedule	Condition	Reservoir Elev./Stage in ft.	Operation
<u>1. Routine Operation</u>			
After Labor Day to spring breakup	Winter drawdown	1294.70 to 1293.20 2.0± to 0.5	<p>The Reservoir Regulating Section shall compute the discharge required to lower the pool to spring level, elev. 1293.20 ft. (0.5 ft. stage), before the beginning of the spring breakup, usually about 1 April. Periodic checks of inflow shall be made and outflow adjusted as necessary. If the drawdown is completed before the breakup begins, discharge inflow until spring runoff starts.</p> <p>*The State of Minnesota's plan of operation requires the discharge to be 100 cfs if the elev. is below 1293.20 ft. (0.5 ft. stage)</p>
Spring breakup Period	Storing spring runoff	1293.20 to 1297.94 0.5 to 5.24	<p>Sufficient runoff, if available, must be stored to fill the reservoir to the desired summer range, 1294.50 to 1294.90 ft. (1.8 to 2.2 ft. stage), and the storage capacity shall be utilized if necessary, to prevent or reduce damages to downstream stations, primarily in the Aitkin area. When the breakup begins, reduce discharge to 100 cfs and store balance of inflow. If desired summer range is reached and no danger of flooding exists downstream, discharge inflow.</p> <p>Inflows shall be stored as long as the stage at Aitkin is at or above 12.0 ft., flood stage. However, if Leech Lake pool</p>

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Regulation Schedule	Condition	Elev./Stage in ft.	Reservoir Operation
<u>Routine Operation (Cont.)</u>			<p>should reach elev. 1297.94 ft. (5.24 ft. stage), maximum operating limit, increase discharge to inflow. If the inflow becomes greater than the discharge capacity of the dam, the dam shall be completely opened, and open river conditions will exist until regulation at the dam is again possible.</p> <p>Discharge shall be governed by conditions at Aitkin until the spring breakup is completed.</p> <p>*The State of Minnesota's plan of operation limits the max. discharge to 1700 cfs if the reservoir is above the desired maximum elev. of 1296.20 ft. (3.5 ft. stage).</p>
End of spring breakup to about 1 July	Bringing reservoir to desired summer range	1297.94 to (1294.50 - 1294.90) 5.24 to 1.8 - 2.2	<p>After it is no longer necessary to store runoff for downstream damage prevention, the Reservoir, Regulating Section shall compute the discharge required to raise or lower the pool as necessary to bring the reservoir to the desired summer range by about 1 July if possible.</p>
About 1 July to Labor Day	Normal summer operation	1294.50 to 1294.90 1.8 - 2.2	<p>By adding or removing stop logs, regulate the outflow through the sluiceways to maintain pool at desired summer range until winter drawdown begins.</p> <p>*The State of Minnesota's plan of operation requires the discharge to be 100 cfs if the elevation is below 1294.70 ft.(2.0 ft.stage).</p>

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2. Flood Control

Summer	Large runoff from intense	1294.50 - 1297.94 1.8 - 5.24	The operation is the same as that for storing the spring runoff during the spring breakup period.
Fall	or prolonged rainfall or	1293.20 - 1297.94 0.5 - 5.24	
Winter	winter thaw	1293.20 - 1297.94 0.5 - 5.24	

3. Water Supply And Conservation

Drought	Very low inflows	1294.90 to 1292.70 (2.2 to 0.0) or lower if necessary
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If inflows become so low that the reservoir must be lowered below desired elevation, so far as practicable, the reservoir shall be maintained above an elev. of 1292.70 ft. (0.0 ft. stage). The flow shall be governed by the Secretary of War's regulation that the average annual discharge shall not be reduced below 70 cfs. If the reservoir is at or below the minimum elev. of 1292.70 ft. (0.0 ft. stage), no discharge other than the minimum specified above shall be permitted except such increased discharge as may specifically be directed by the Chief of Engineers.

\*The State of Minnesota's plan of operation requires the discharge to be 50 cfs if the elev. is below 1292.70 ft. (0.0 ft. stage) minimum elev.; and 100 cfs if the elev. is between 1292.70 ft. and 1293.20. ft. (0.0 and 0.5 ft. stage). When greater flows are required at the minimum elevation, the discharge may be increased if authorized by the Commissioner of Conservation, and the maximum shall be 150 cfs.

\* The State of Minnesota's plan of operation shall be effective only when the reservoirs are not functioning for the primary purpose of navigation and flood control.

MINNESOTA DEPARTMENT OF CONSERVATION  
REGULATION OF LEECH LAKE RESERVOIR

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Elev. in feet	Maximum Discharge in cfs if Authorized By The Commissioner of Conservation
1291.70	50
1292.20	100
1292.70	150
1293.20	200
1293.70	400
1294.20	600
1294.70**	1100
1295.20	1400
1295.70	1500
1296.20	1600
1296.70	1700
over 1296.70	1700

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\*\* Most desirable elevation for recreation purposes.