



### Operating the System

Operating plans are in place for 20 of MNR's 30 control dams on the system (other structures are non-operational overflow structures).

Zones of operation have been developed to reflect low, normal and high water levels, which are used as benchmarks for comparison against actual water levels.

The graph above illustrates a typical seasonal operational plan for the Bala dams at the outlet of Lake Muskoka.

#### Target Operating Level

- represents the target seasonal water level that incorporates input from stakeholders and considers physical and ecological characteristics of the watershed. The intent is to aim for this level on a seasonal basis, but to allow some degree of fluctuation around this level.

#### Normal Operating Zone

- defines the acceptable range of water level fluctuations that will best suit the needs of the majority of users, and incorporates a certain amount of fluctuation to accommodate normal weather events.

#### Upper/Lower Operating Zone

- the Upper Operating Zone is used to facilitate storage and controlled release of flood runoff throughout the year, while the Lower Operating Zone provides contingency storage to allow augmentation of minimum flow releases during dry periods of the year.

#### High/Low Water Zone

- water levels entering into the High Water Zone may result in flooding while levels dropping into the Low Water Zone may cause both environmental and recreational hardship.

#### Typical Yearly Operation

- water levels are lowest during the winter
- water levels are lowered during late fall and winter
- water levels naturally increase with the spring runoff
- water levels are relatively stable during the summer and early fall

Figure 5.3  
Muskoka River Water Management Plan  
**Lake Muskoka Annual Water Operating Limits - Bala Dams**

