

## CEWF Preferred Water Levels Initiative Spring 2015

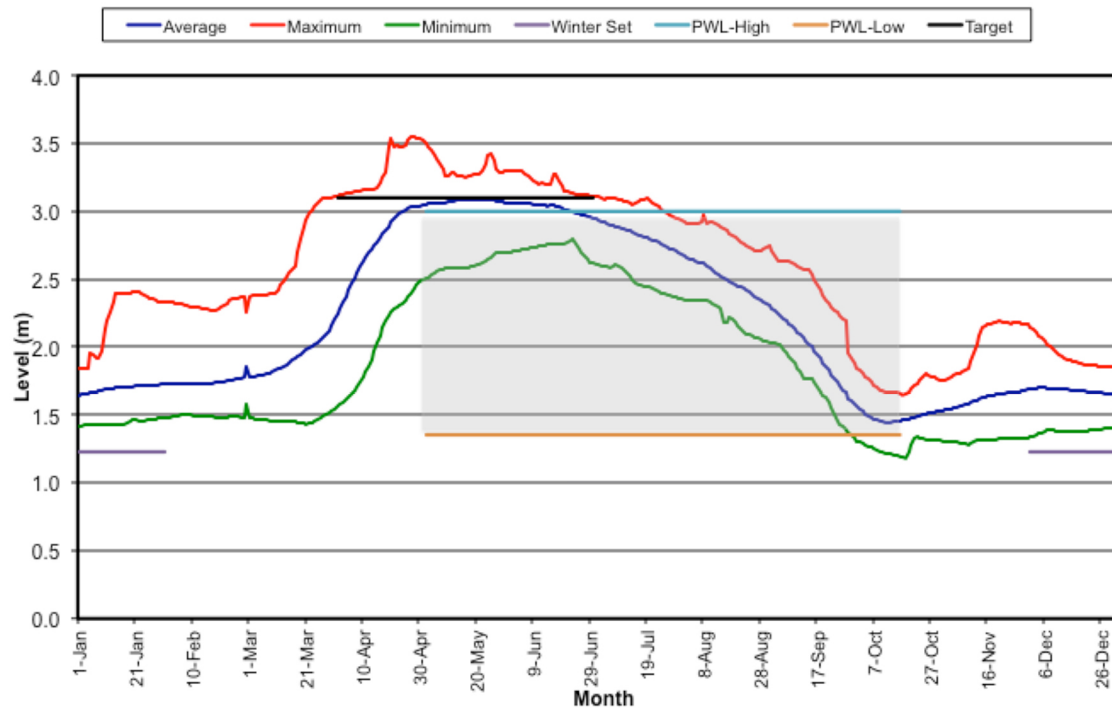
### Preferred Water Levels on Kushog Lake

Prepared by Norma Goodger, President

#### Key Lake and Dam Statistics:

Drainage Area (sq km)	Lake Area (ha)	Full Control Level	Sill or Deduction (m)	Max. Storage Depth(m)	Max. Storage (ha-m)	Number of Logs to fill the dam	Winter Log Setting	Winter Storage Depth(m)	Winter Set as % Drawdown	Effective Fluctuation(m)	Volume Drawn Down (ha-m)
111	915	3.20	1.22	1.98	1813	10.5	4	0.00	100%	1.98	1812

#### Kushog Lake Levels



#### Most Significant Impacts of Fluctuating Water Levels on Kushog Lake:

##### Water Levels “too high”

- Low-lying properties flooded; foundations weakened, basements flooded
- Shoreline erosion greatly increased; Boat wakes run further up shoreline
- Ice damage more likely
- Wetlands swamped – nests flooded, habitat degraded
- Clearance at Ox Narrows bridge reduced, even restricted
- Unmarked navigational hazards hidden, eg large rock at Shangri La
- Shoreline debris floats away and may present boating hazard
- Docks become detached from shore

##### Water Levels “too low”

- Difficulty navigating between Kushog and St. Nora Lakes
- Water intake lines may not be long enough to provide water; prone to freezing and/or ‘suck air’ – especially in areas with shallow shorelines
- Unmarked navigational hazards created eg rocks in channel leading to Buckslide Dam
- Wetlands dry out

- Boats and docks may become marooned on dry shoreland

#### **Lake Levels rising in June (after normal seasonal high)**

- Loon nests become inundated
- Wetland habitat degraded in prime breeding season for aquatic wildlife

#### **Lake Levels falling in October**

- Trout spawning bed at Ox Narrows can dry out exposing eggs

#### **Kushog Lake Specific Concerns:**

**Loon Nesting:** KLPOA participates in the Canadian Loon Survey and is very concerned about the decline in the loon population on Kushog Lake. Loons return as soon as the ice is out – mid April. Usually one or two eggs are laid in late May or June, and incubation of eggs generally lasts 26-28 days (through July). If the water level rises after the eggs are laid, the nest may become flooded; if the water level drops, the loons may not be able to ‘walk’ to the nest and the eggs are more vulnerable to predators. To mitigate the unstable water levels on Kushog Lake, a number of loon nesting platforms have been installed.

**Lake Trout Spawning:** Lake Trout spawn at Ox Narrows, a protected area. KLPOA is very concerned about the health of our lake trout population and has observed and recorded spawn activity almost daily during spawning season for the past 6 years. Flow affects the build-up of silt – KLPOA has twice cleaned silt off the spawning beds. We recognize that TSW and MNR work together to ensure an appropriate water level over the spawning beds during this time and encourage this continued cooperation.

#### **Kushog Lake Preferred Water Level Limits:**

**Upper Preferred Water Level Limit:** We have had a recognized agreement with TSW that Kushog Lake only be filled to 95% (3 meters) which we would like to maintain.

**Lower Preferred Water Level Limit:** The Lake Trout spawning beds at Ox Narrows need to be covered during spawning season (mid-October to mid-November) and then rise slightly to protect the eggs. Thus a lowest level of 1.35 meters is suggested.

#### **Kushog Lake Specific Seasonal Adjustments:**

**Winter Set Level:** TSW reference is 4 logs in place, 1.22 meters, 0% full. The average level from December 1<sup>st</sup> to January 31<sup>st</sup> has been 1.7 meters. What happens next has been very dependent on the weather.

**Spring:** A rapid water level increase during April and May (from the winter set level to 95%) would get the water level up before the loons nest and before property owners position their docks.

**Summer:** A gradual drawdown from 95% (3 meters) to 2.3 meters during the months of May, June, July and August would provide a relatively stable shoreline during the navigation season.

**Fall:** A rapid drawdown to a low of 1.35 meters during September and early October would prepare the spawning beds for the trout to spawn. After the spawn is finished, a slight increase to protect the eggs would prepare for winter.

#### **Conclusion:**

KLPOA has enjoyed a respectful and cooperative relationship with TSW over many years. KLPOA recognizes the challenges that TSW faces in satisfying the needs and demands of its many

competing constituents. We appreciate that we are now being notified of forecasted changes in water level – this is critical to our being able to notify our property owners when they need to plan to protect their property. The installation of a new automated water level measuring gauge at Buckslide Dam may assist the TSW with making more timely adjustments. Our wish is that Kushog Lake not be filled over 95%, that the level remain relatively stable during the summer months, that the level not drop after the lake trout spawn, and that we be kept informed when rapid changes are anticipated.

### **KLPOA Asked for Input!**

KLPOA asked 501 property owners on Kushog Lake if they agree with the recommendations above as reported in the Kushog Lake Spring 2015 Newsletter. If so, we asked them to check the “I agree” box on their membership form. We also asked that if they have comments or concerns (or better ideas that might actually be considered) please let us know on the back of the membership form, or give Norma Goodger, our President, a call.

62 out of 201 members (31%) checked the “I agree” box on their membership form. 6 checked the “I have some comments and/or concerns box. See comments below. We are assuming that those who did not check any box also agree. We will send out another newsletter with a membership form on October 2, 2015 and expect that we will receive at least another 50 memberships, some of whom may respond. Also we have over 20 members who used Interac to pay and thus did not complete a membership form.

### *Here's What Our Members Replied:*

**#263** We do not agree with a gradual drawdown to 2.3 meters from May to August as that is too low for the PWL. Also, we do not agree with the Fall (Sept – Oct) rapid drawdown to 1.35 meters – is too excessive, too quickly. Our recommendation is a gradual drawdown to only 2.7 meters during May to August. Our recommendation is for rapid drawdown to 1.35 meters to commence October 1 instead of any date in September. It is our observation that Boshkung Lake is not drawn down nearly as much as Kushog Lake, or as equally as Kushog Lake, as this report would imply.

**#679** Ideally, we would like the lake water level maintained at “approx.” 3m from the spring thaw through to Labour Day. From Labour Day to Thanksgiving there could be a steady drawdown. After Thanksgiving, adjust level to winter setting of 1.35m.

**#260** The top of the end of my permanent 145' dock was built by myself as at 6'6" level about 40 years ago. Question now: do dam level 6.5' jive with end of my dock. Last year level flooded last spring my boathouse by 2". No damage level of lake May 4<sup>th</sup>, 2015 7 pm is now 11" below top of end of dock (10'7" at dam)? I feel end of my permanent dock height & Buckslide dam level still jive with one another.

**#115** I don't understand it. (New to the lake).

**#436** I wish they wouldn't lie about it when they screw up and flood us out!

**#780** Checked “ I have some comments and/or concerns” box but did not write anything.