A CEWF Perspective on the Context for 2025 Water Management in the TSW Reservoirs

CEWF ACM Sept 6 2025

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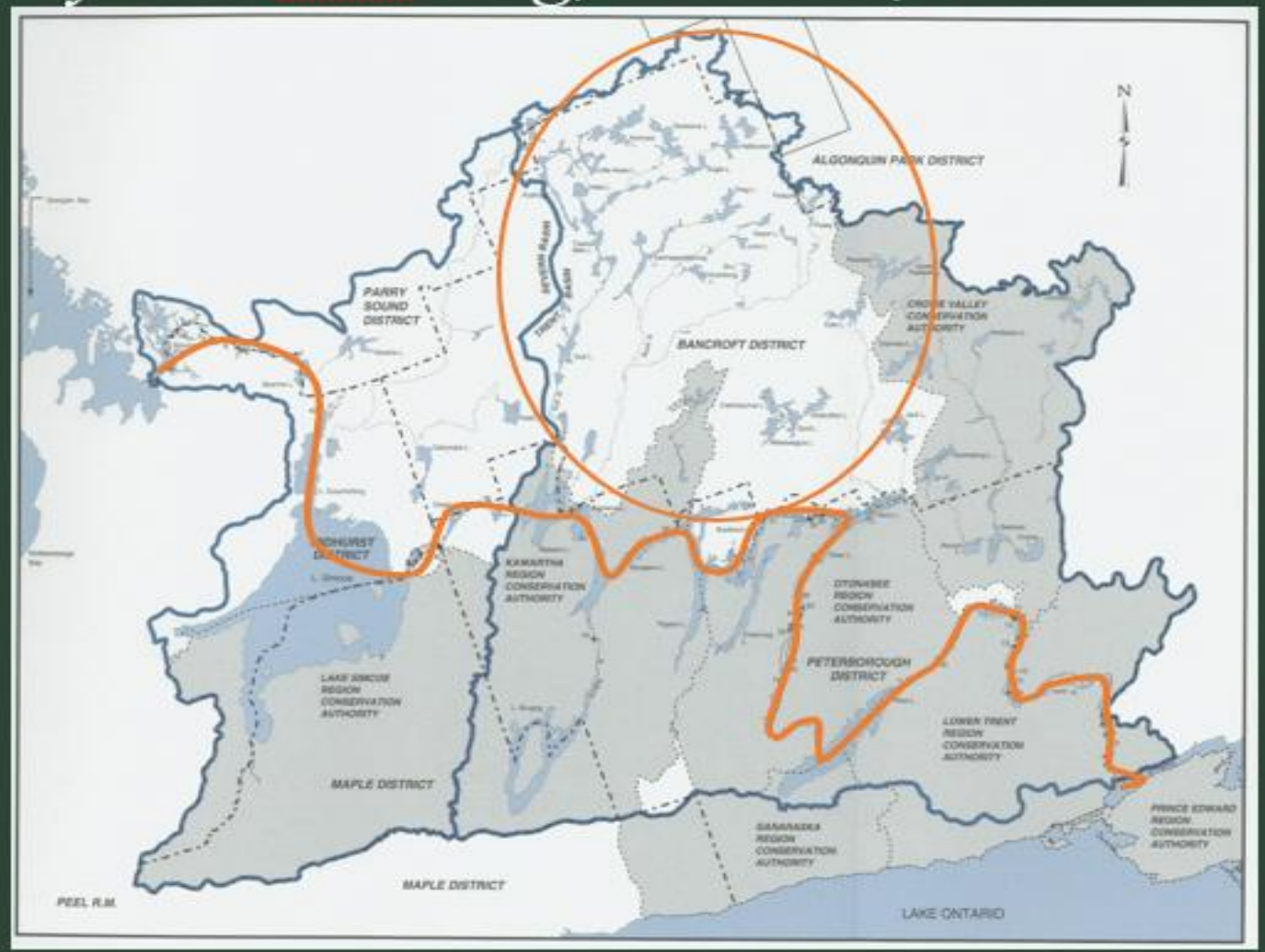
Trent and Severn Watersheds

Waterway 386 kms long, 45 locks, and over 100 dams



Trent-Severn Waterway
National Historic site
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Lieu historique national de la
Voie-Navigable-Trent-Severn
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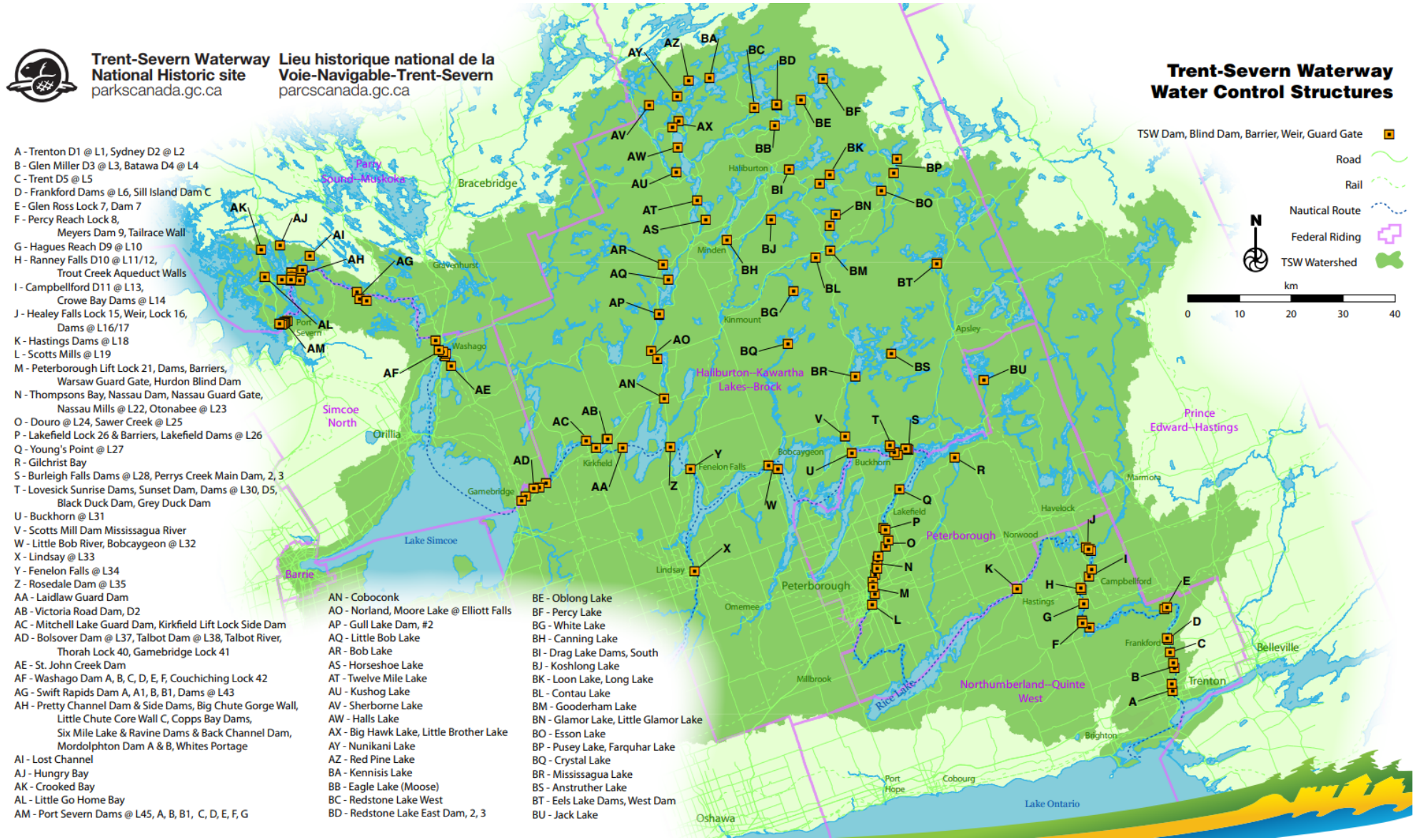
Trent-Severn Waterway Water Control Structures



A - Trenton D1 @ L1, Sydney D2 @ L2
B - Glen Miller D3 @ L3, Batawa D4 @ L4
C - Trent D5 @ L5
D - Frankford Dams @ L6, Sill Island Dam C
E - Glen Ross Lock 7, Dam 7
F - Percy Reach Lock 8,
Meyers Dam 9, Tailrace Wall
G - Hagues Reach D9 @ L10
H - Ranney Falls D10 @ L11/12,
Trout Creek Aqueduct Walls
I - Campbellford D11 @ L13,
Crowe Bay Dams @ L14
J - Healey Falls Lock 15, Weir, Lock 16,
Dams @ L16/17
K - Hastings Dams @ L18
L - Scotts Mills @ L19
M - Peterborough Lift Lock 21, Dams, Barriers,
Warsaw Guard Gate, Hurdon Blind Dam
N - Thompsons Bay, Nassau Dam, Nassau Guard Gate,
Nassau Mills @ L22, Otonabee @ L23
O - Douro @ L24, Sawer Creek @ L25
P - Lakefield Lock 26 & Barriers, Lakefield Dams @ L26
Q - Young's Point @ L27
R - Gilchrist Bay
S - Burleigh Falls Dams @ L28, Perrys Creek Main Dam, 2, 3
T - Lovesick Sunrise Dams, Sunset Dam, Dams @ L30, D5,
Black Duck Dam, Grey Duck Dam
U - Buckhorn @ L31
V - Scotts Mill Dam Mississagua River
W - Little Bob River, Bobcaygeon @ L32
X - Lindsay @ L33
Y - Fenelon Falls @ L34
Z - Rosedale Dam @ L35
AA - Laidlaw Guard Dam
AB - Victoria Road Dam, D2
AC - Mitchell Lake Guard Dam, Kirkfield Lift Lock Side Dam
AD - Bolsover Dam @ L37, Talbot Dam @ L38, Talbot River,
Thorah Lock 40, Gamebridge Lock 41
AE - St. John Creek Dam
AF - Washago Dam A, B, C, D, E, F, Couchiching Lock 42
AG - Swift Rapids Dam A, A1, B, B1, Dams @ L43
AH - Pretty Channel Dam & Side Dams, Big Chute Gorge Wall,
Little Chute Core Wall C, Copps Bay Dams,
Six Mile Lake & Ravine Dams & Back Channel Dam,
Mordolphton Dam A & B, Whites Portage
AI - Lost Channel
AJ - Hungry Bay
AK - Crooked Bay
AL - Little Go Home Bay
AM - Port Severn Dams @ L45, A, B, B1, C, D, E, F, G

AN - Coboconk
AO - Norland, Moore Lake @ Elliott Falls
AP - Gull Lake Dam, #2
AQ - Little Bob Lake
AR - Bob Lake
AS - Horseshoe Lake
AT - Twelve Mile Lake
AU - Kushog Lake
AV - Sherborne Lake
AW - Halls Lake
AX - Big Hawk Lake, Little Brother Lake
AY - Nunikani Lake
AZ - Red Pine Lake
BA - Kennisis Lake
BB - Eagle Lake (Moose)
BC - Redstone Lake West
BD - Redstone Lake East Dam, 2, 3

BE - Oblong Lake
BF - Percy Lake
BG - White Lake
BH - Canning Lake
BI - Drag Lake Dams, South
BJ - Koshlong Lake
BK - Loon Lake, Long Lake
BL - Contau Lake
BM - Gooderham Lake
BN - Glamor Lake, Little Glamor Lake
BO - Esson Lake
BP - Pusey Lake, Farquhar Lake
BQ - Crystal Lake
BR - Mississagua Lake
BS - Anstruther Lake
BT - Eels Lake Dams, West Dam
BU - Jack Lake

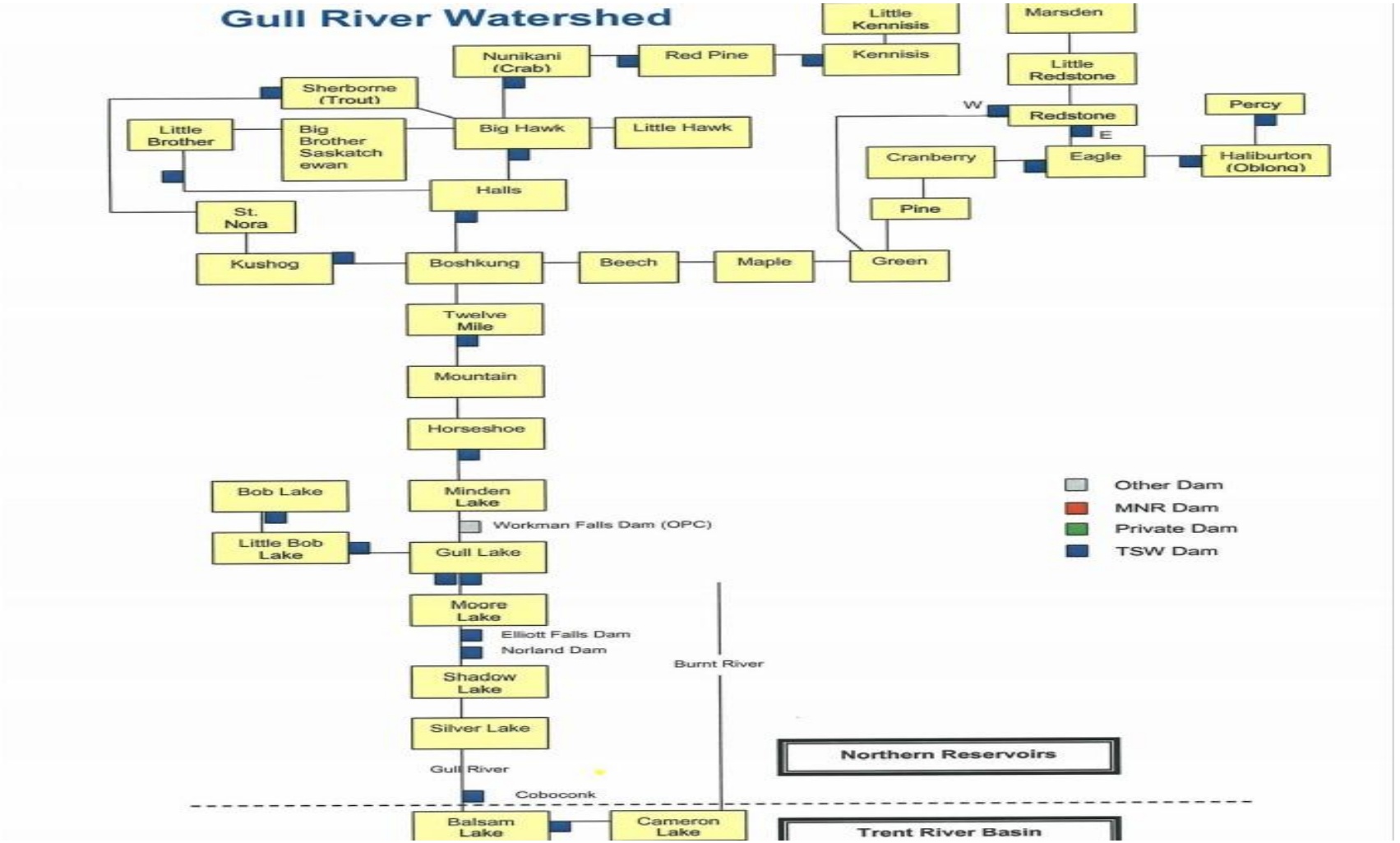
The Trent-Severn Watershed

(Source: Parks Canada Water Levels Website)

Coalition for Equitable Water Flow

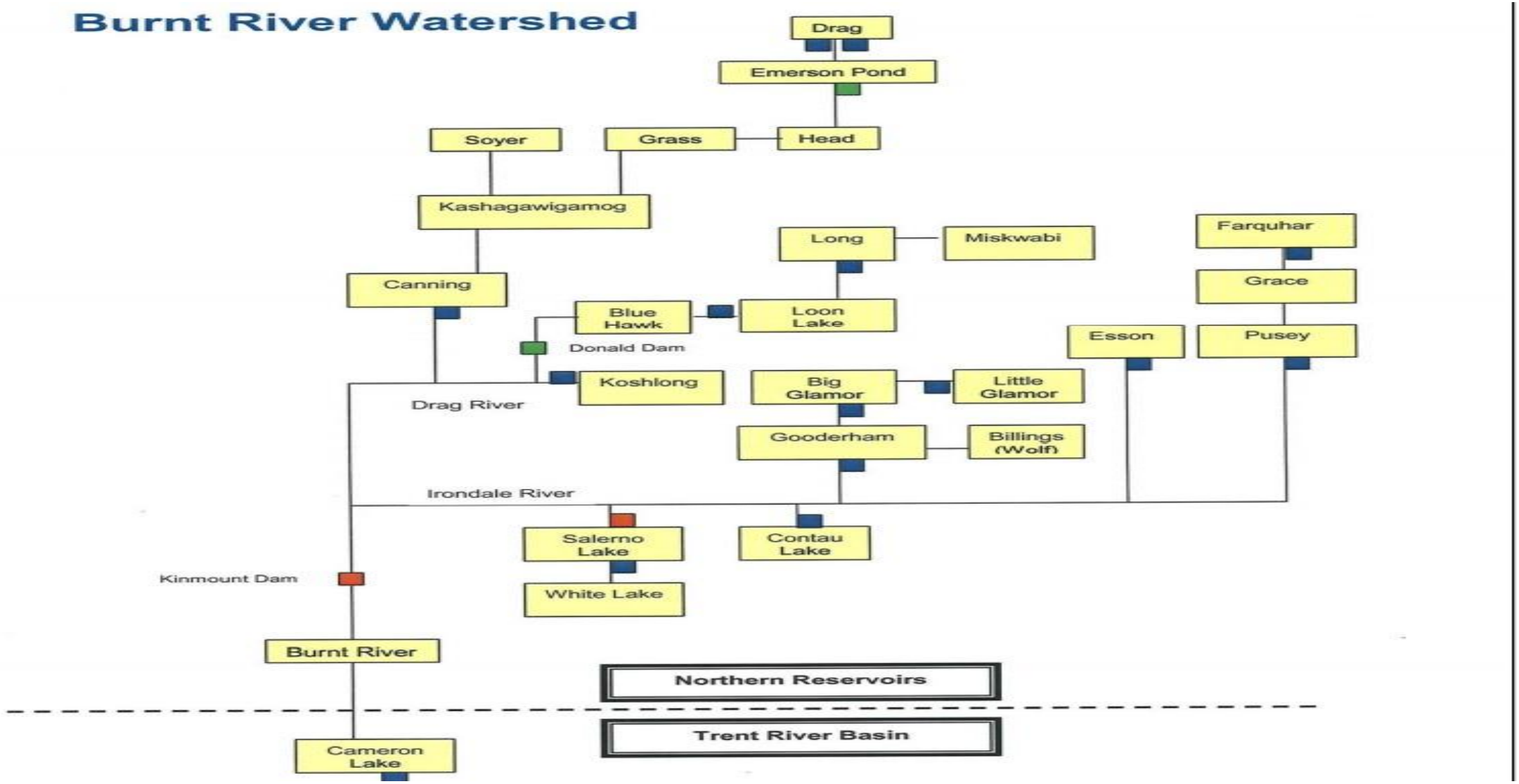
17 Gull River Reservoirs

54% of Total Storage and 6 of the 10 largest reservoirs



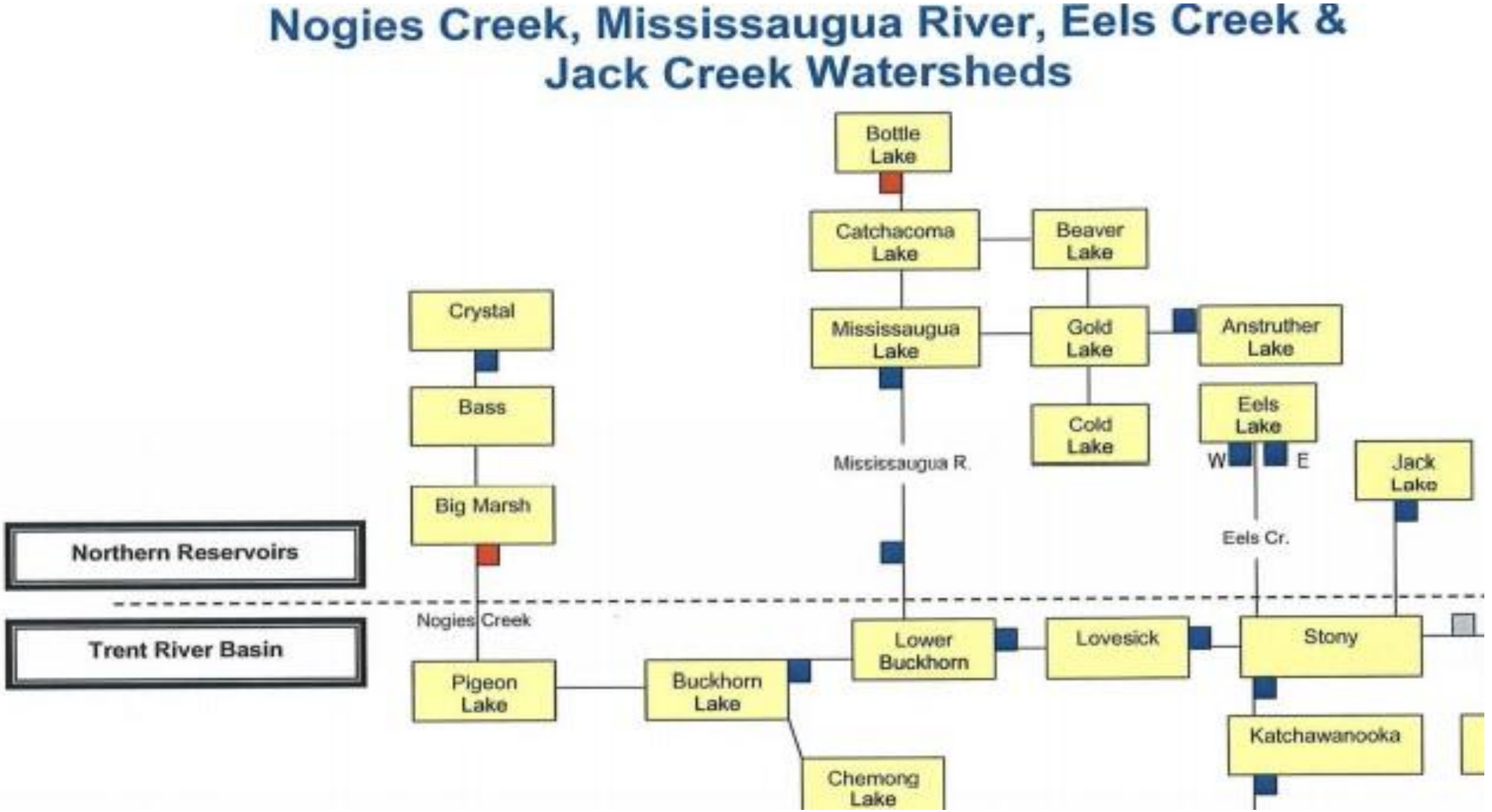
13 Burnt River Reservoirs

Only 17% of Total Storage and only 1 of the 10 largest reservoirs with very large area uncontrolled drainage downstream



5 Reservoirs in Central Lakes

28% of Total Storage and 3 of 10 largest reservoirs



2025 Water Management

- 2025 has been an exceptional year for water management.
- CEWF has been in regular contact with TSW Water Management Team to represent the interests of the Reservoir and Flow Through Lakes
- The extended drought conditions since June have resulted in extreme low levels for this date.
- Between Anna Ciorap from TSW and I, we will undertake to review the situation and the actions taken.

Integrated Water Management at the Watershed Level -Key Water-Flow & -Level Constraints

- **TSW priorities public safety** (flood management and water supply) **and canal navigation;**
- **Minimum flow at Peterborough** for water supply and sewage treatment;
- Maintaining the **Canal Regulations draught limits** is understood to govern the drawdown from the reservoirs;
- While **maintaining reservoir levels** within historic norms
- **MNR Fisheries constraints** in spring (walleye) and fall (lake trout) based on limited data for many lakes;
- **The reservoirs are not a flood control system** particularly in late spring and early summer!

2025 Water Management
January through March

- After a dry fall with warm temperatures and rainfall there was limited snow until the end of December. Ice cover was late forming on lakes. January was a dry month and snowpack was below normal. Feb had significant snow and by end of month snowpack was well above normal across the entire TSW.
- March was warmer and wetter than normal. 171% of normal precipitation with significant rainfall events onto the snowpack and warm temperatures. 38mm rain on 16th and 17th followed by temperature of 19 degrees on the 19th. Lakes filling rapidly with ice cover and active TSW management to control levels and flows downstream. Ice Storm at end of month.

2025 Water Management April - August

- Lake levels rose very quickly through late March and early April with rainfall on snow and warm temperatures. TSW had logs out of dams in some cases to pass maximum safe flow and avoid flooding with ice.
- Following the ice Storm at end of March there was 32mm of rain on April 3. Lake levels peaked by mid April and there was Active water management through the rest of April and through May to maintain levels near normal average with significant rainfall events. Normal levels by May 24 but then rainfall led to high flows and Navigation Closures.
- In June TSW lowered reservoir lake level goal to 95% full to have a cushion but no major rainfall occurred.
- July and August saw very little rainfall so reduced inflows to lakes and active water management to conserve water to meet minimum flow requirements resulting in very low levels across the reservoirs.
- Levels managed to provide minimum flow downstream and offset evaporation.

Haliburton Monthly Precipitation 2025

Includes 4 months Above Average and then 3 Months of extreme low rainfall

2025 Haliburton Precipitation Summary to Aug 31 2025

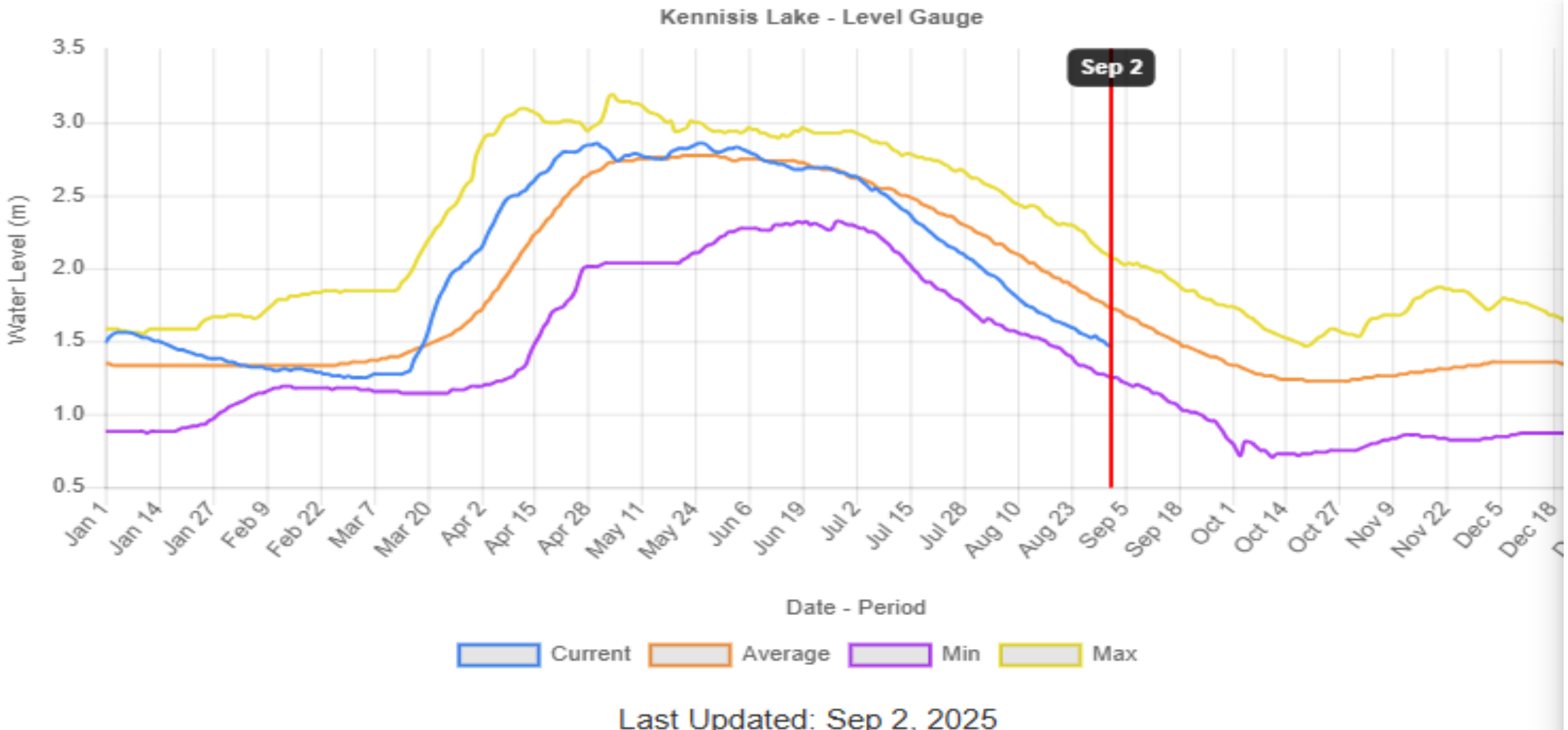
Month	Ppte Total mm	Normal Monthly mms	Actual as % of Normal	Month End Snow on Grd cms	Notes
2025 Jan	58	98	59%	29	Continuing dry conditions
2025 Feb	84	71	118%	46	Wetter conditions with significant snowpack
2025 March	130	76	171%	6	Much wetter month with significant rainfall events onto the snowpack including 14mm on 6th, 15mm on 16th, 23mm on 17th, and 19mm on 31st.
2025 April	111	87	128%	0	Wet month with major rainfall of 32mm on the 3rd, 13mm on the 6th, 20mm on 19th, and 15mm on the 22nd.
2025 May	110	92	120%		Major rainfall events 17mm on 2nd, 33mm on the 17th and 18th, and 38mm from the 22nd to the 26th, and 22.5 mm from 29 to 31st.
2025 June	37	98	38%		Very dry month with no major rainfall events except 12.4 mm on the 19th
2025 July	37	91	41%		Very dry again with only significant rainfall 13mm on 18th and 10mm on 20th
2025 August	24	94	26%		Very dry with the only significant rainfall 6mm on the 24th and 11mm on the 28th and 29th

2025 data are from Parks Canada Haliburton Headquarters stats except end of month snow depth data from Bancroft.

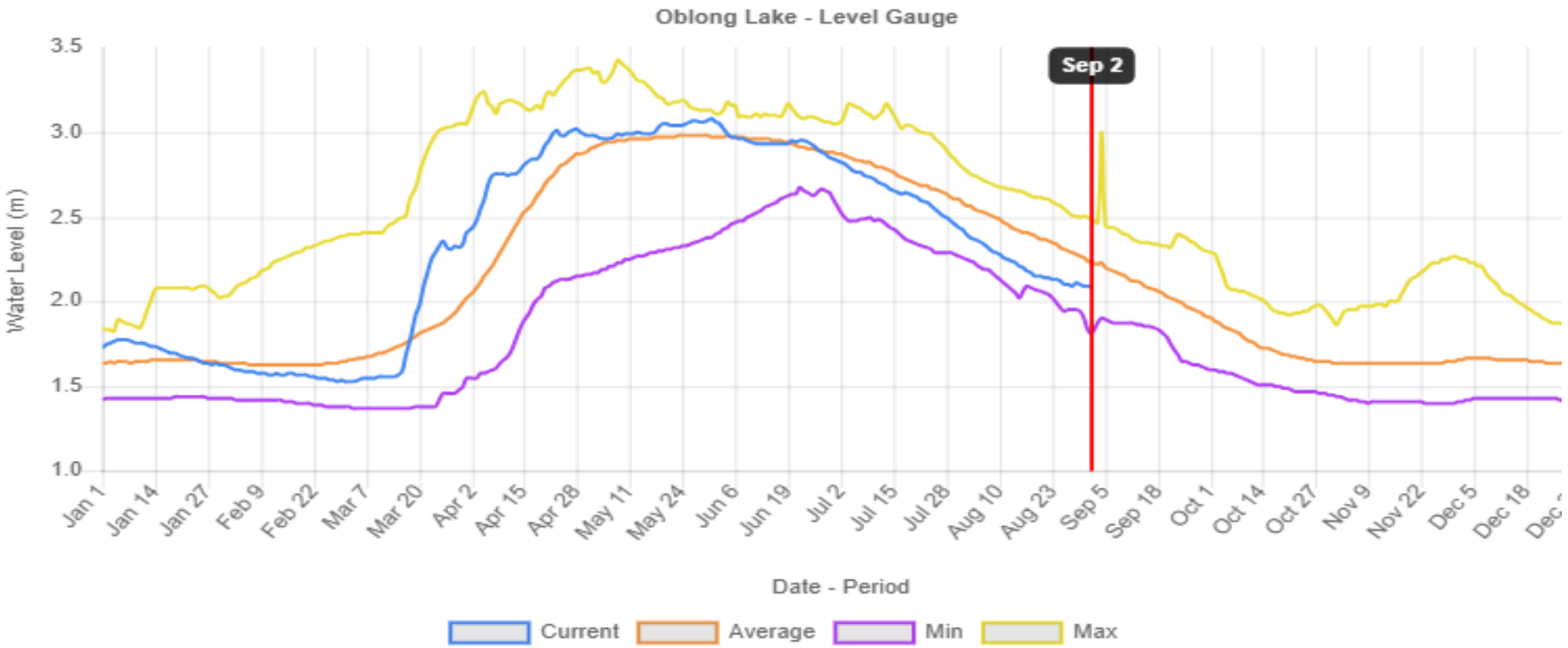
Spatial Distribution of Rainfall End of August 2025

Site	2025-08-25	2025-08-26	2025-08-27	2025-08-28	2025-08-29 *
Maple Lake	0	1.21	0	4.33	12.44
Gelert Precipitation	0	0.9	0	2.2	22.43
Irondale River Precipitation	0	5.52	0	0.43	20.3
Haliburton Office Precipitation	0	0.92	0	2.85	7.7
Norland Pool Precipitation	0	3.24	1.7	1.86	14.25
Crystal Lake Precipitation	0	1.51	0	0.21	15.05
Farqhuar Precipitation	0	1.09	0	2.53	16.08
Kennisis Precipitation	0	0.34	0.27	4.34	22.09

Kennisis Lake Levels 2025



Oblong/Haliburton Lake Levels 2025



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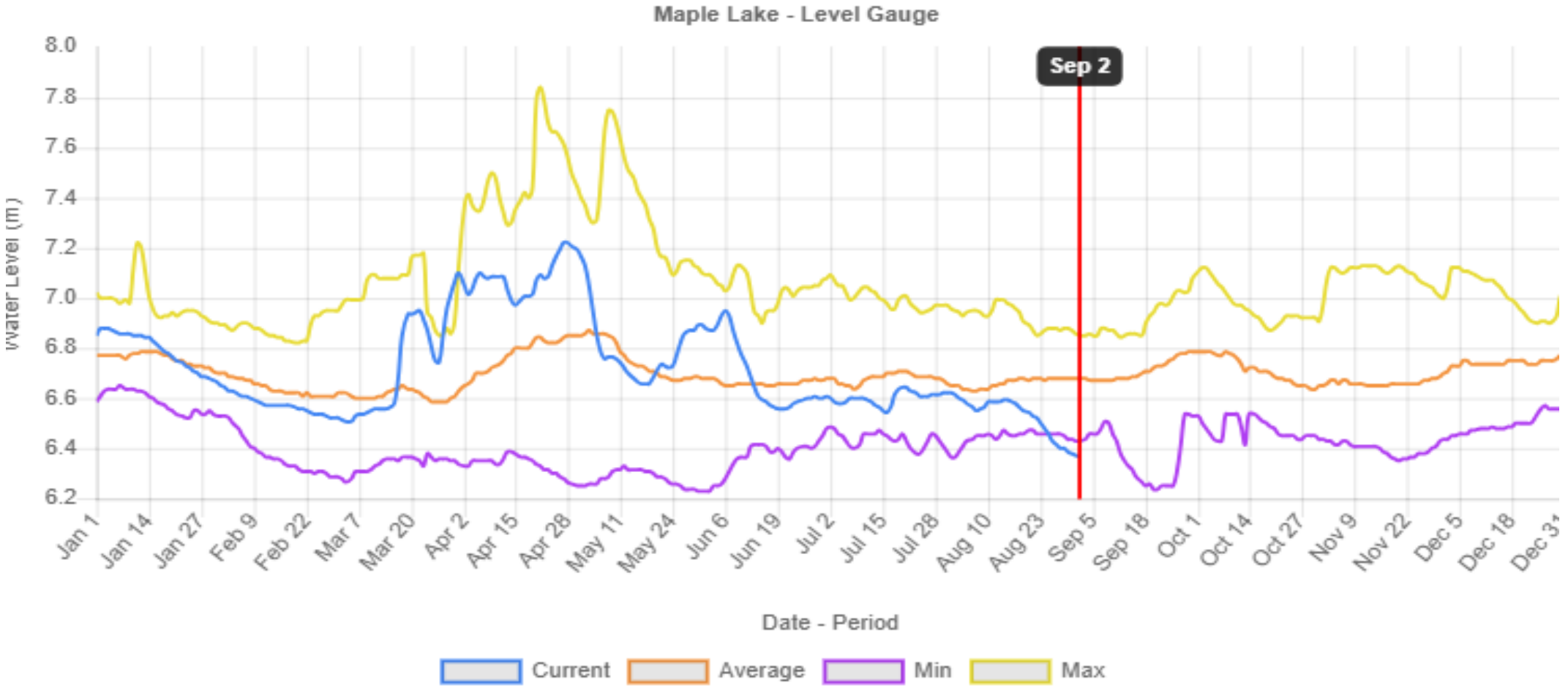
Maple Lake Levels 2025



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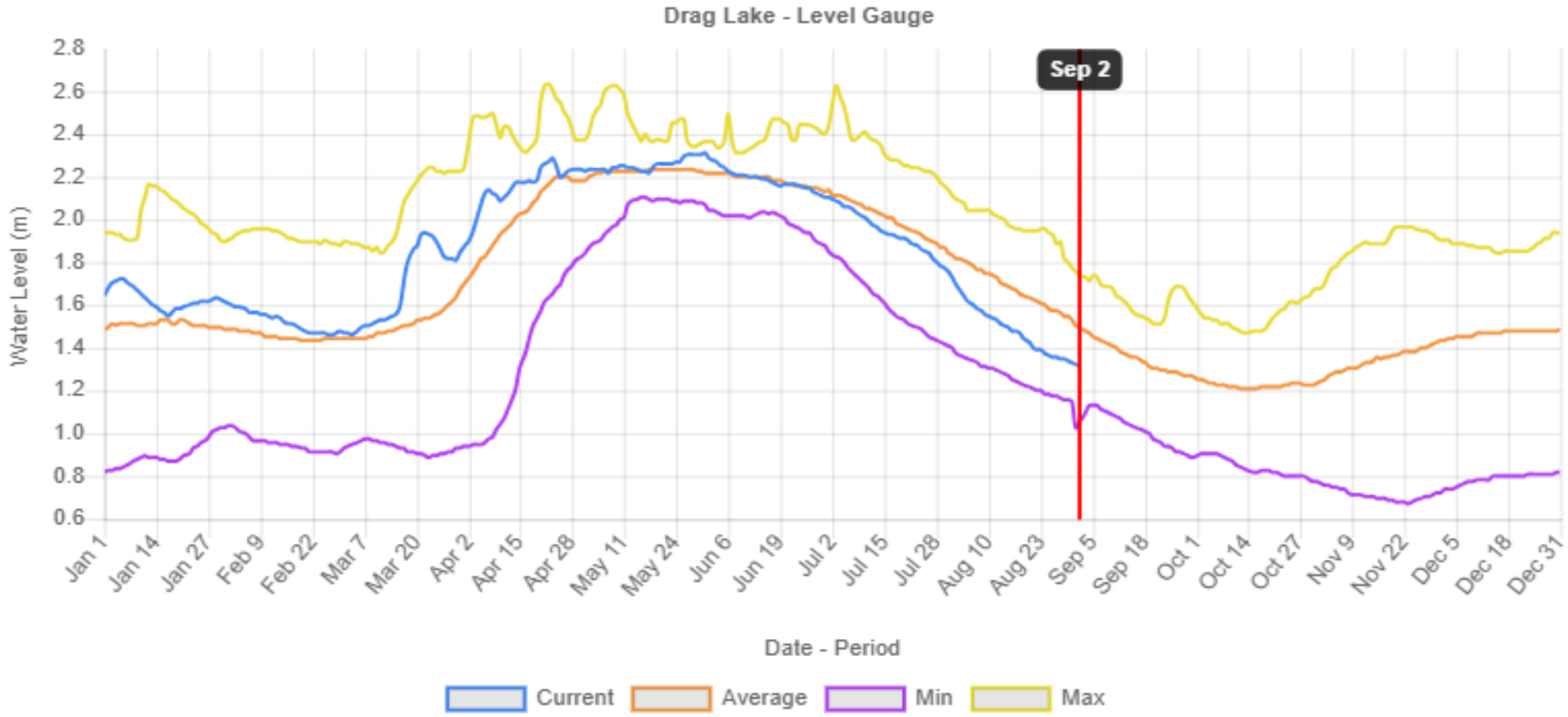
Drag Lake Levels 2025



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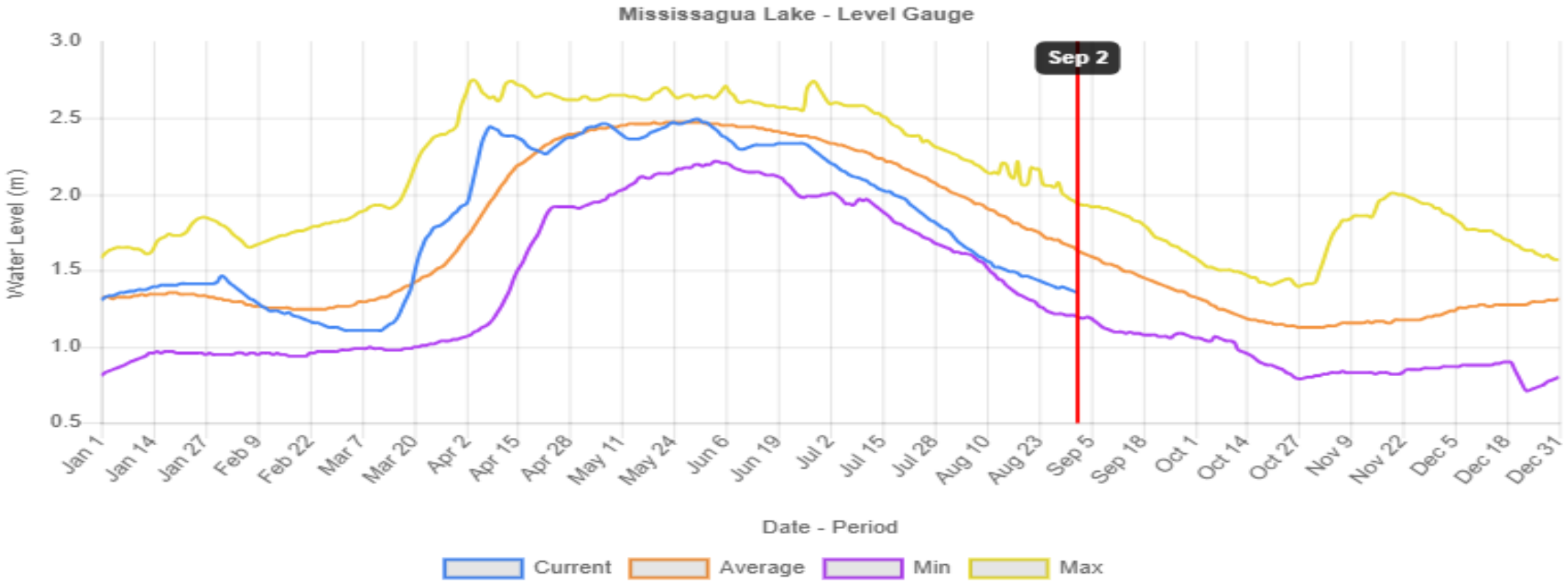
Mississagua Lake Levels 2025

Graph | Table



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Example of Water Level Table select from Water level Graph View

Mississagua Lake (Level Gauge) - Water Level (m)

Date	Current	Average	Min	Max
Sep 2	1.354	1.63	1.2	1.94
Sep 1	1.362	1.65	1.21	1.96
Aug 31	1.369	1.66	1.21	1.97
Aug 30	1.379	1.67	1.21	1.99
Aug 29	1.391	1.68	1.22	2.01
Aug 28	1.381	1.7	1.22	2.08
Aug 27	1.394	1.7	1.22	2.05
Aug 26	1.405	1.71	1.23	2.06
Aug 25	1.416	1.71	1.24	2.06

Drawdown Forecast September 3, 2025

Trent-Severn Waterway National Historic Site of Canada
Water Management Program

Forecasted Water Levels - Haliburton Area

Start Date: 2025-09-02
End Date: 2025-09-16

Lake Name	Start Date Water Level (m)	End Date (Target) Water Level (m)	Target Differential metres (m)	Full Level metres (m)
Gull River Watershed				
Kennisis Lake	1.469	1.311	-0.158	2.90
Redpine Lake	0.720	0.635	-0.085	1.22
Nunikani Lake	1.880	1.580	-0.300	3.05
Hawk Lake	2.663	2.313	-0.350	4.42
Halls Lake	1.824	1.790	-0.034	2.59
Sherborne Lake	0.527	0.404	-0.122	1.52
Kushog Lake	2.203	2.058	-0.145	3.20
Percy Lake	0.974	0.801	-0.173	1.98
Haliburton Lake	2.084	1.965	-0.119	3.05

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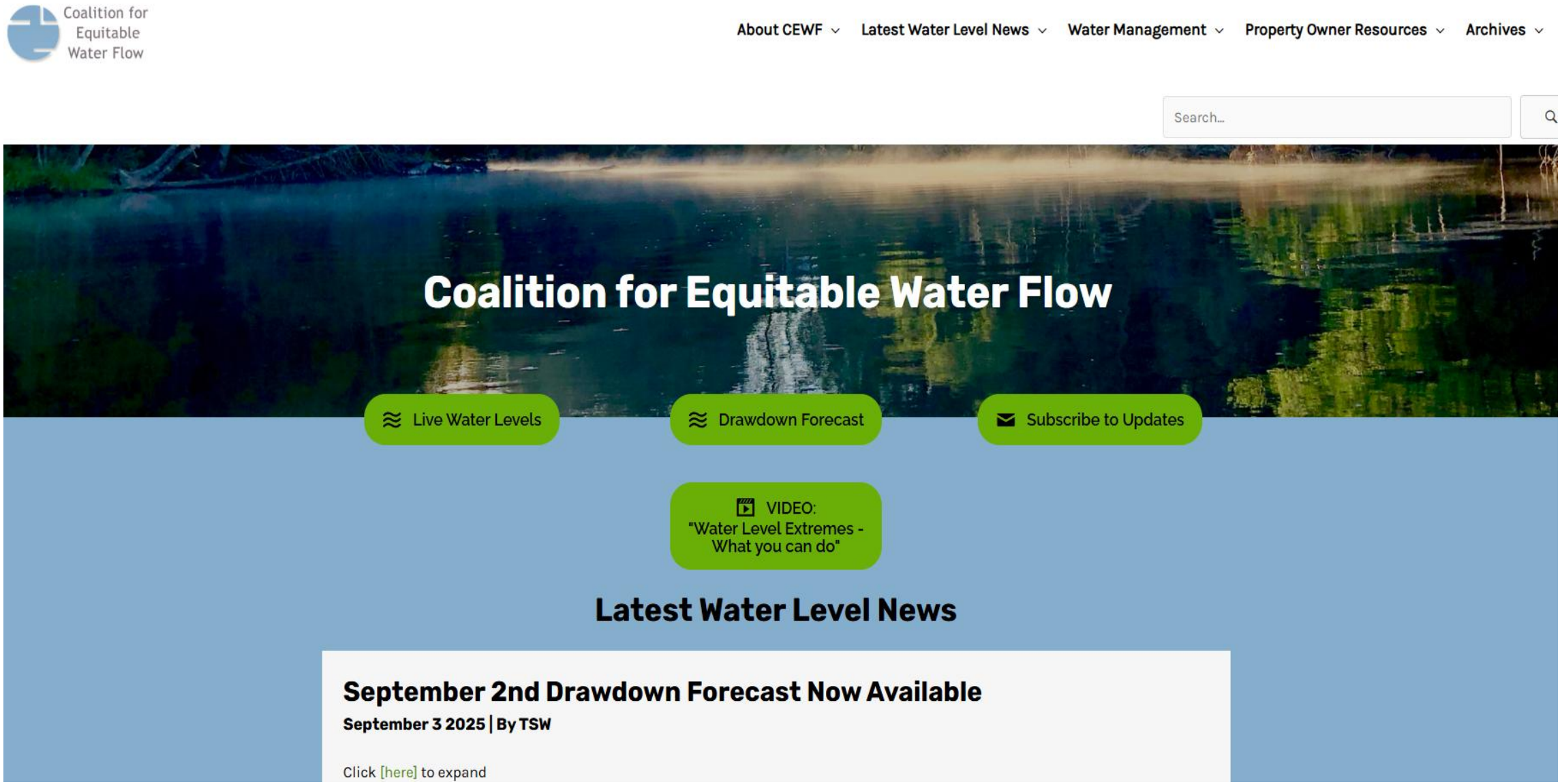
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