



Proposed Hydro-electric Generating Station at the Bala Falls

# Public Safety First

# Summary

- Dangerous proposed station water flows
- May not matter for other stations, as they are inaccessible with no in-water recreation nearby
- Bala: natural beauty, accessible, popular
  - **and unique**
- Public safety assessment is required

# Water Survey of Canada

- 45 years of Moon River water flow data shows ...

|         | Days operation between May 1 and Labour Day                    |   |   |
|---------|--|---|---|
|         | Cycling operation<br>( $\approx 24 \text{ m}^3/\text{s}$ flow) | At full capacity<br>( $96 \text{ m}^3/\text{s}$ flow) |   |
| 2007    | 65 days  | 8 days  | To May 6<br>July 21 to 22                     |
| 2008    | 8 days   | 51 days   | To May 26<br>June 10 to 25<br>August 12 to 20 |
| 2009    | 22 days  | 29 days   | To May 25<br>July 31 to August 3              |
| Average | 46 days  | 21 days   |   |

# Cycling Operation

- Particularly dangerous as proposed station would start operation at about noon during the summer
  - Just when people would be in the water a few feet away
  - Without warning
- Happens an average of 46 days each summer (**36% of days**)
  - Without explanation, proponent claims would only happen *“during periods of extreme low flows during a dry summer”*
- Required cycling flow ( $\approx 24 \text{ m}^3/\text{s}$  or more) almost same as **full** capacity of Bracebridge Falls Generating Station ( $27 \text{ m}^3/\text{s}$ )
  - Which is signed: **Extreme Danger, Keep Out, Swift Currents & Undertow May Occur At Any Time**

# Full Capacity

- An average of 21 days each summer (16% of days)
  - Turbine runs at hundreds of revolutions per minute, water would be fast **and** turbulent
- Turbulent water would enter Moon River 250' closer to the in-water recreational area



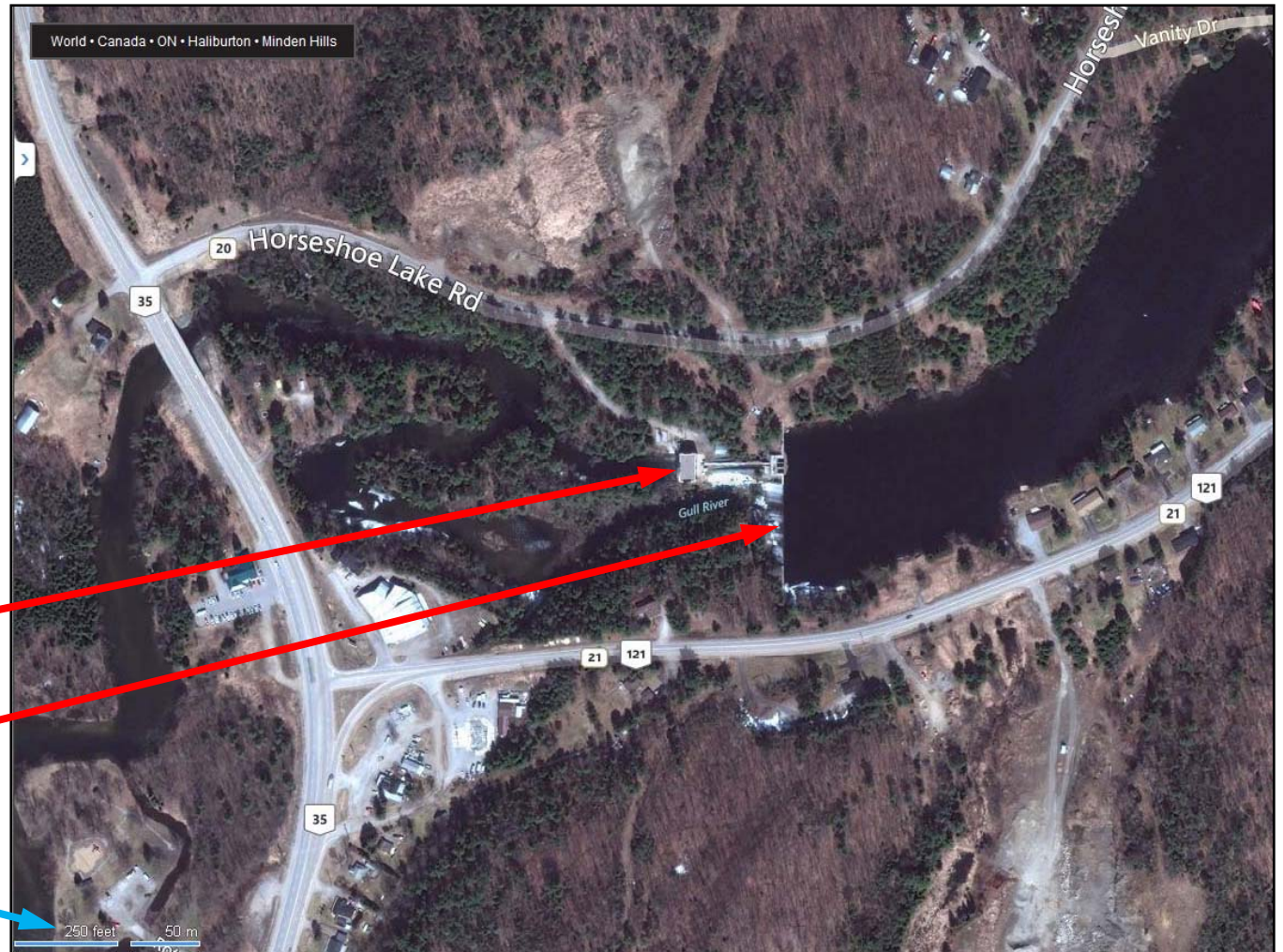
# Minden Generating Station

- 50 km east of Gravenhurst
- Gull River, Minden Generating Station, aerial

Generating station

Dam

All following aerial views are at same scale



# Minden Generating Station



- Upstream
- Access: Park beside highway, hike through ditch, field and shrubs, shore is muddy, other side is steep

# Minden Generating Station

- Downstream
- Access: Very steep slopes





# London Street Generating Station

- 110 km east of Barrie
- Otonabee River, Peterborough, London Street Generating Station, aerial

Dam  
Generating station



# London Street Generating Station



- Upstream

# London Street Generating Station

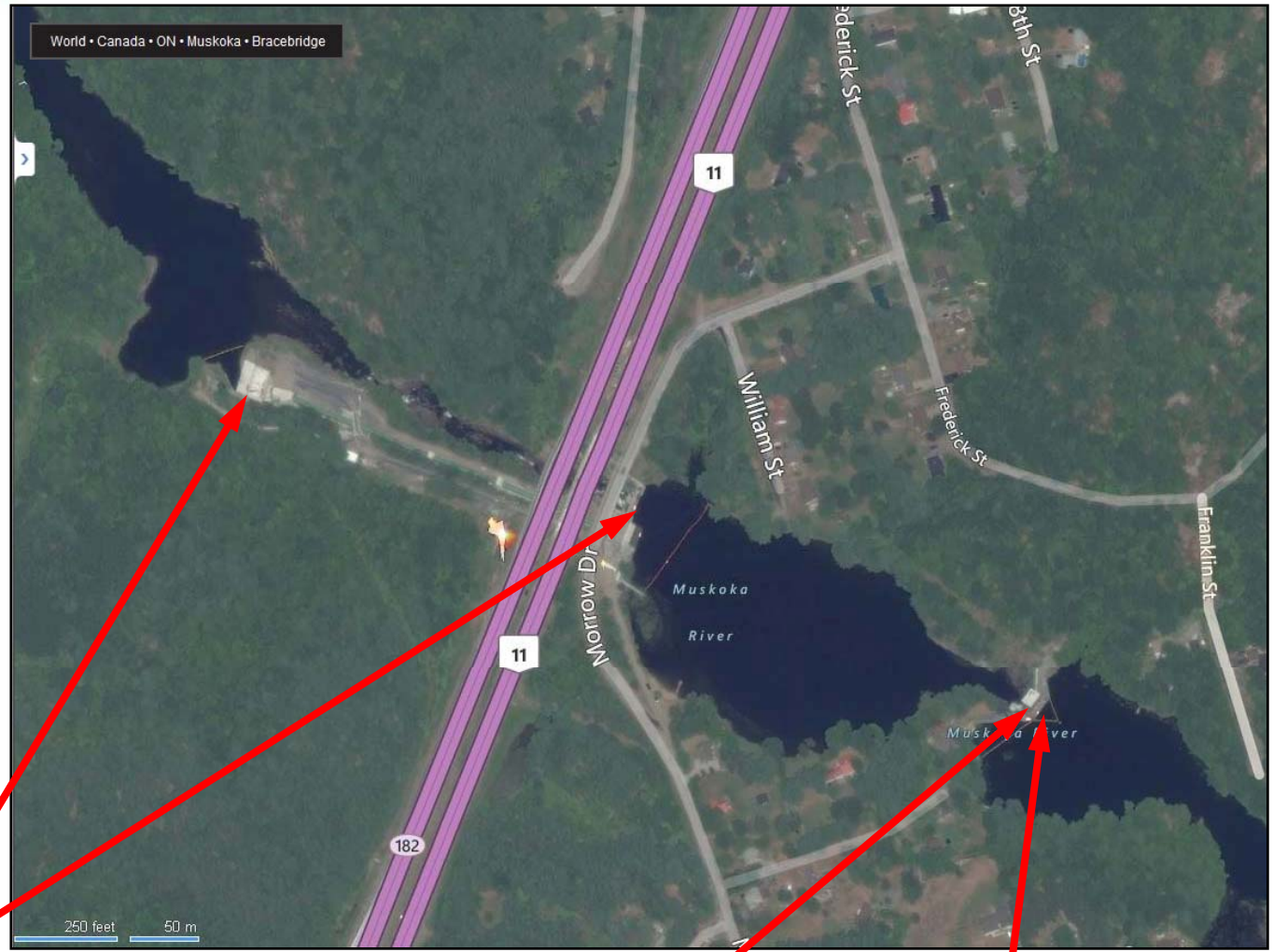


- Downstream (during this spring's flooding)

# Muskoka South Falls and Hanna Chute

- 4 km south of Bracebridge
- Muskoka River, South Falls and Hanna Chute Generating Stations, aerial

Generating station  
Dam



Generating station

Dam

# Hanna Chute Generating Station



- Hanna Chute Generating Station, upstream
- Access: Park on narrow road, no shoreline access, no water access, barbed-wire fencing

# South Falls Generating Station

- South Falls Generating Station, upstream bypass dam

Responsible operators warn the public of changing flow



- Ontario Power Generation sign: **Extreme Danger, Siren Indicates Rapid Changes in Water Levels and Flow**

# South Falls Generating Station



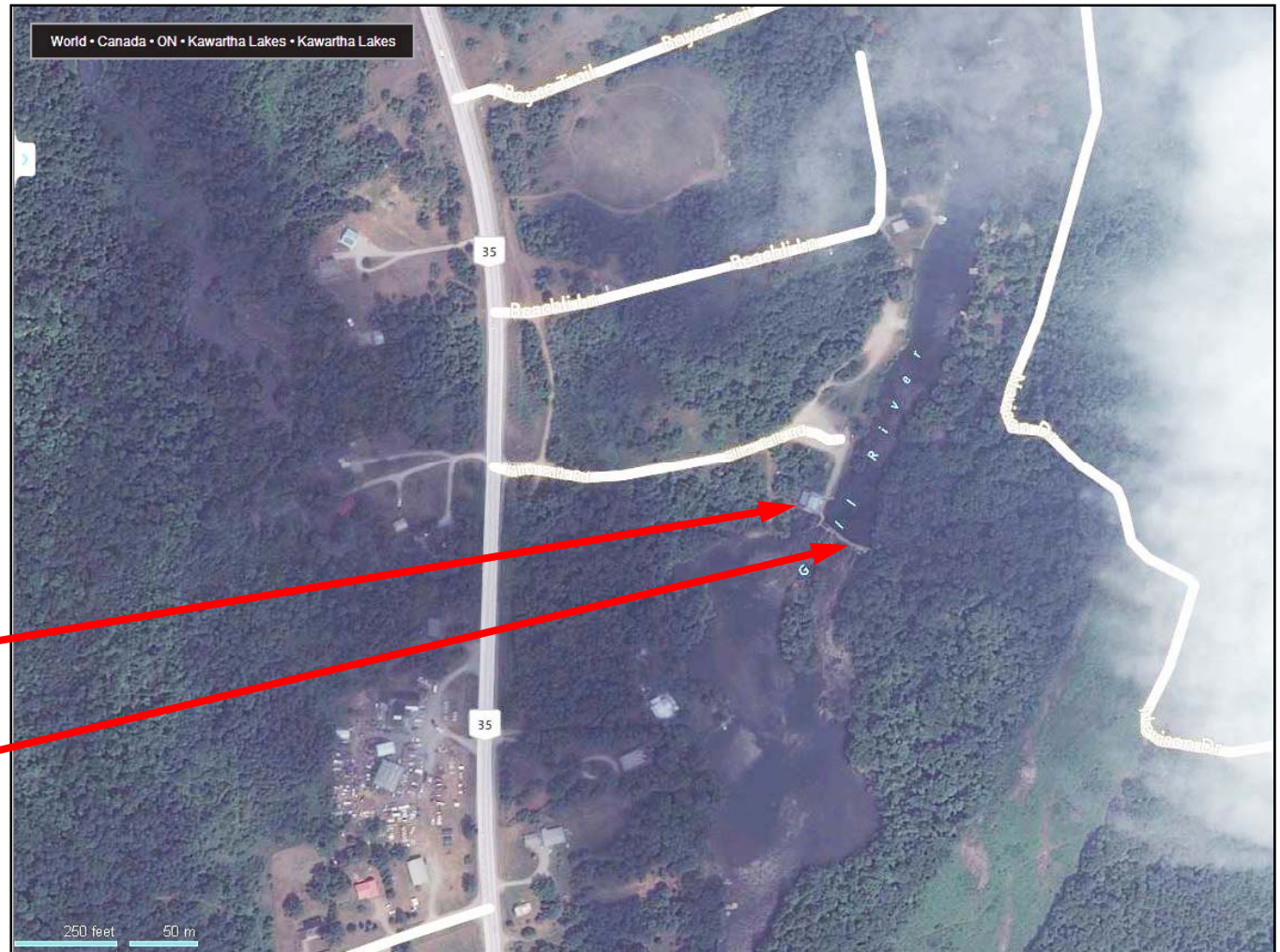
- South Falls Generating Station, downstream
- Barbed-wire fencing

# Elliot Falls Generating Station

- 40 km east of Severn Bridge
- Gull River, Elliot Falls Generating Station, aerial

Generating station

Dam





# Elliot Falls Generating Station

- Upstream



# Elliot Falls Generating Station



- Downstream
- No water access

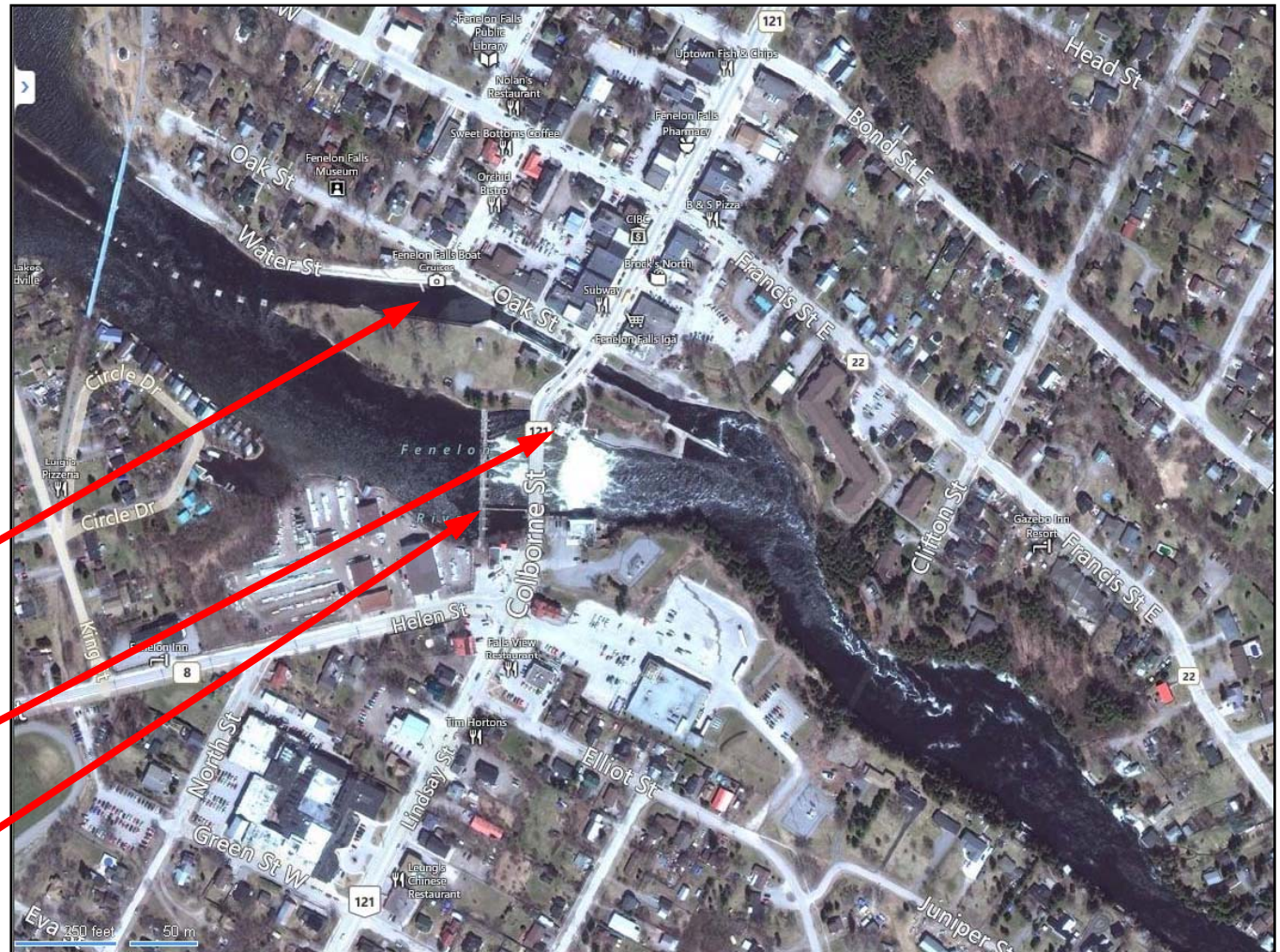
# Fenelon Falls Generating Station

- 55 km east of Orillia
- Fenelon Falls Generating Station, aerial

Marine traffic channel to Trent-Severn Waterway Lock 34

Generating station

Dam



# Fenelon Falls Generating Station

- Upstream
- Separate channel for marine traffic to lock



# Fenelon Falls Generating Station

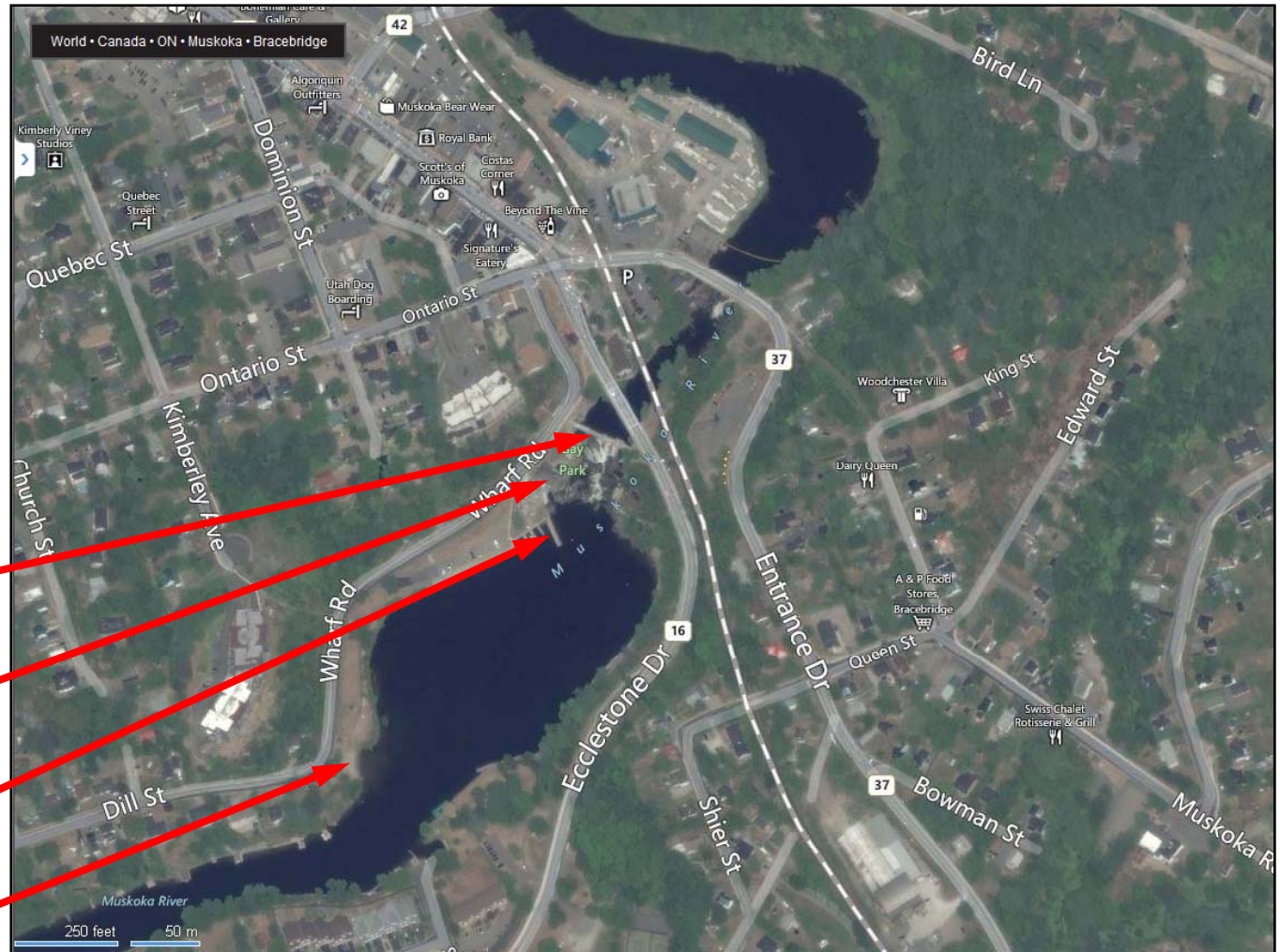
- Downstream
- Steep and inaccessible shores
- No in-water recreation



# Bracebridge Falls Generating Station

- Muskoka River, Bracebridge Falls Generating Station, aerial

- Dam
- Generating station
- Breakwater
- Beach 1,000' from station



# Bracebridge Falls Generating Station

- Upstream
- Sign says: **Extreme Danger, Keep Out, Swift Currents & Undertow May Occur At Anytime**
- Maximum capacity is 27 m<sup>3</sup>/s – about the same as proposed Bala station cycling operation



# Bracebridge Falls Generating Station

- Downstream

People do not access  
the water from this  
shore

Breakwater

Generating  
station





# Bracebridge Falls Generating Station



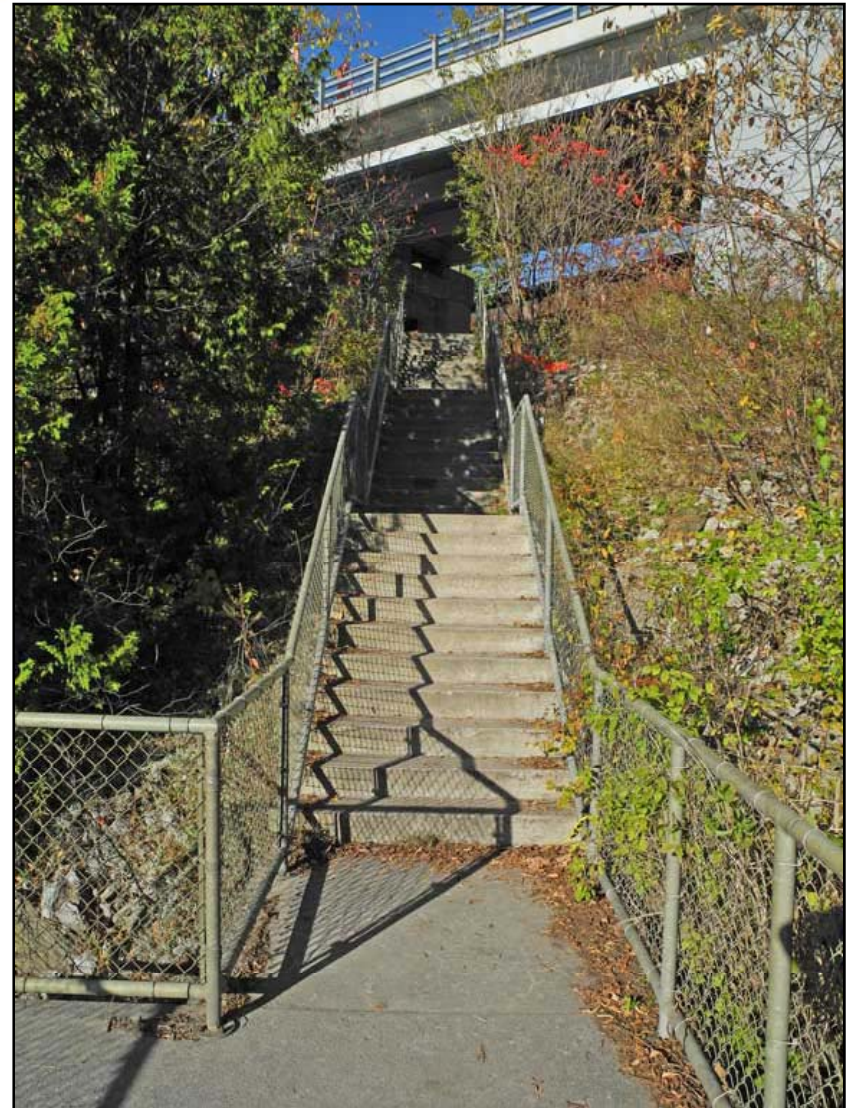
■ Downstream

Waist-high  
breakwater

Generating  
station

# Bracebridge Falls Generating Station

- Downstream
- Public must use concrete steps, kept inside fence
- People don't touch the water anywhere near the Bracebridge Falls
  - They look at it from a fenced-in concrete or steel platform



# Bracebridge Falls Generating Station

- Downstream
- Fenced-in, concrete viewing platform



# Bracebridge Falls Generating Station

- Downstream
- Poured-concrete wharf

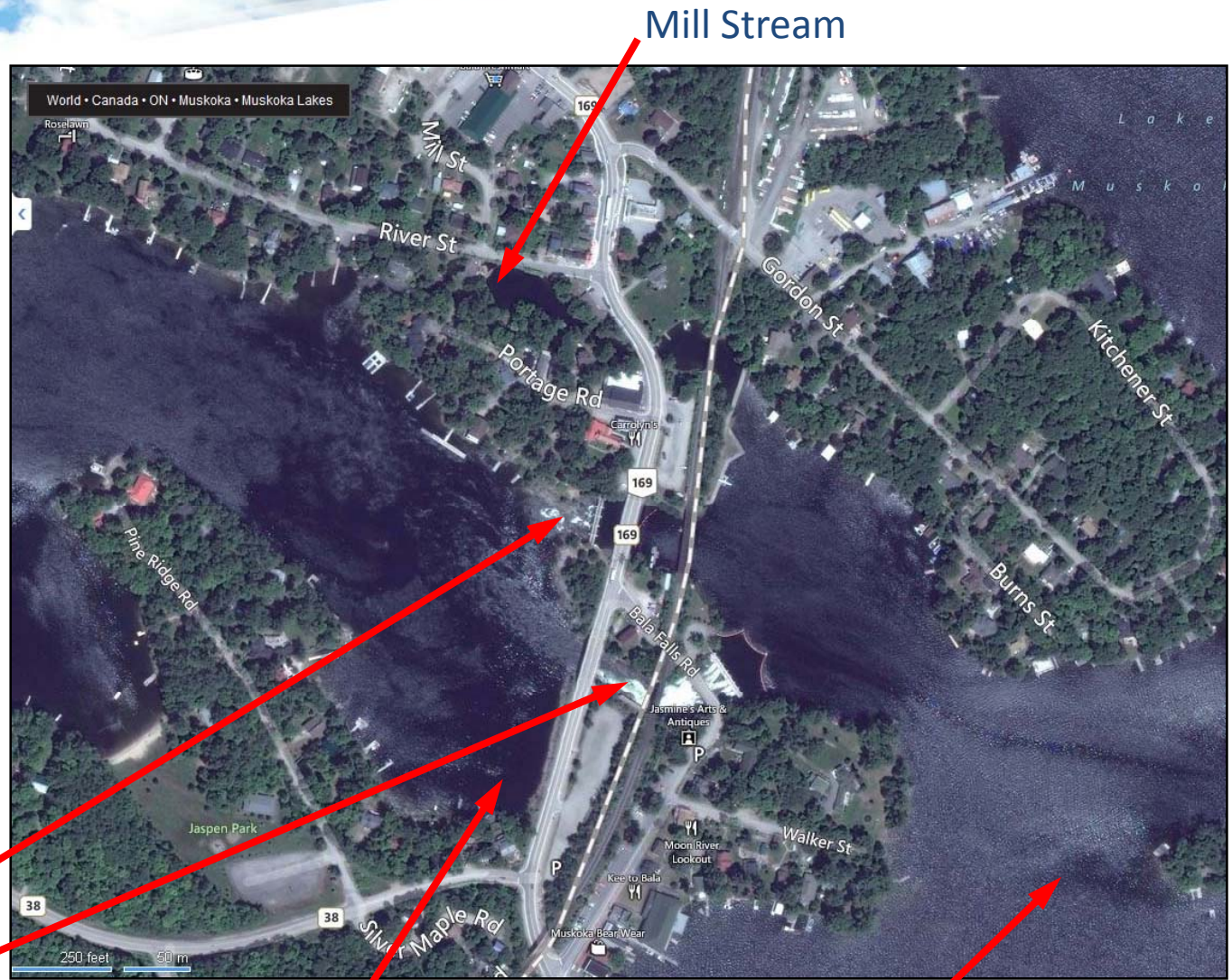


# Bala Falls

- Moon River, Bala, aerial
- Many docks, much in-water recreation
- Near good transportation, convenient parking, shops

North Falls

South Channel



Mill Stream

Moon River

Bala Bay (Lake Muskoka)

# Bala Falls

- Area is accessible to the visiting public



# Bala Falls

- Most of the year the water is safe



# Bala Falls

- People come for photographs
  - **Not** to see a 100'-long poured concrete cube rising 20' above the Moon River





# Bala Falls

- Children play, fish, and appreciate the natural beauty



# The Bala Falls are Unique

- Popular, accessible, natural, convenient, nearby parking
  - Main and **unique** feature of Bala
  - Important to area's economy
- A **competent organization must assess** the public safety issues which would be created by the proposed project
  - Otherwise the proponent's public safety problem will **become the municipality's problem**

**What would the municipality's liability be for facilitating the construction of this dangerous proposed project**