

Bala Falls Power Station

AN ALTERNATIVE FOR CONSIDERATION



Our objective is to work respectfully and collaboratively with Council and the community

- In a positive and unifying fashion
- To secure the optimal solution for utilizing the clean energy available at Bala Falls

The Site

Bala's North and South Falls

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YES in My Backyard

3

We support a “YES” solution, within the context of:

- **The proposed Green Energy Act which encourages communities to “determine the optimum location and density for land intensive renewable energy developments”**
- **MNR’s directive that some viable sites should remain undeveloped to meet environmental, natural resource wilderness and recreational requirements**
- **A solution that balances the need for electrical energy with safety, environmental, social, and economic issues**

Options Presented to Date

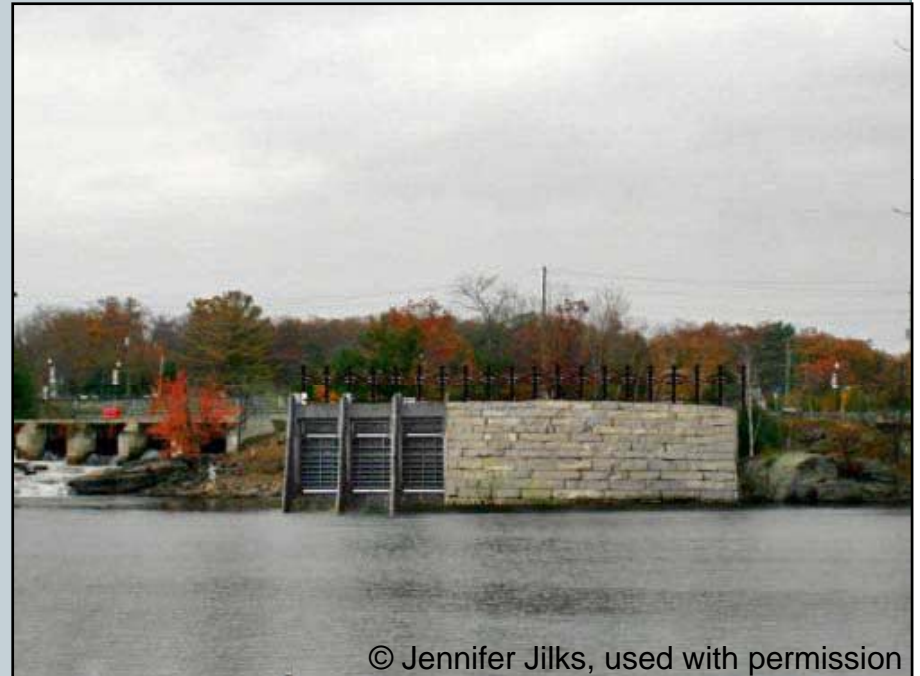
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Option 1: The Concrete Bunker



Initial proposal, immediately south of the North Falls

Option 2: We Just Don't Know



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Revised proposal, using both MNR and District land

Safety is an Important Issue

The **R**ecord.com

A dam's murky legacy

'Drowning machines' still taking lives, 10 years after Parkhill tragedy claimed 12-year-old boy, police diver

FRANCES BARRICK
RECORD STAFF

CAMBRIDGE

Ten years ago Tuesday, 12-year-old Mark Gage did what many youths had done for decades on a hot afternoon by the Parkhill dam in Cambridge.

He dived into the water.

But he didn't surface.

Later that day, Aug. 12, 1998, Const. Dave Nicholson, 32, died trying to recover Mark's trapped body from an underwater opening in the dam.

Their deaths changed forever the way people viewed this picturesque dam across the Grand River. "If there is one good thing that has come out of that tragedy is that people are more aware of the dangers," said Ralph Beaumont of the Grand River Conservation Authority, which owns Parkhill dam.

Today, signs warn swimmers and boaters of the hazards of the structure. Fire Chief Terry Allen says he no longer sees children swimming in the area or walking on top of the dam.

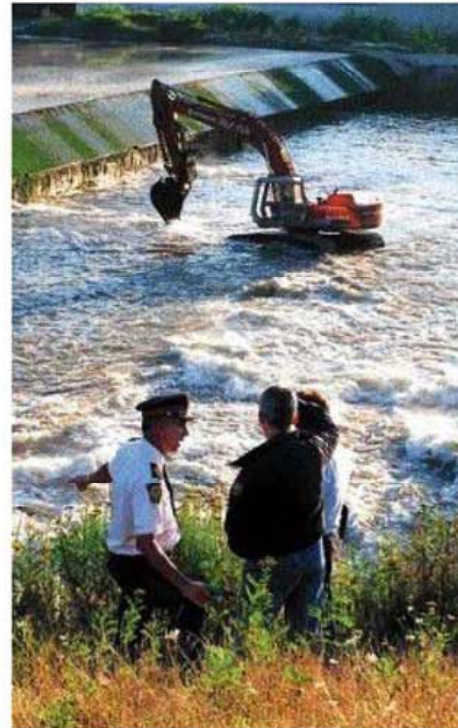
Yet people continue to drown at dams in Ontario.

Just two weeks ago, 16-year-old Josue Perez of Toronto and 20-year-old Matthew Janssen of St. Anns in the Niagara Region drowned within an hour of each other at two separate hydro-generating dams on the Muskoka River near Bracebridge.

In April 2006, Ken Jamieson died near Paris, Ont., when his canoe went over a dam and capsized. And in August 2005, the force of rushing water pinned 15-year-old Harriet Ash against a dam near Peterborough where she drowned.

From 1998 to 2004, the latest year for which there are statistics, eight people died at Ontario dams; a total of 20 died across Canada, the Lifesaving Society of Canada says.

Two years before the Parkhill tragedy, there had been two near-drownings at the dam.



FILE PHOTO BY ROBERT WILSON, RECORD STAFF



FILE PHOTO BY ROBERT WILSON, RECORD STAFF

- The Kitchener Record, August 9, 2008
- The danger is water intakes that are below the surface

Suggested Warning Signage from OPG

STAY CLEAR, STAY SAFE

- Obey all danger and warning signs
- Stay outside safety booms and buoys, and away from all dam structures
- Be alert for warnings and changes in water levels

DANGER
Dam Ahead
Keep Out

DANGER
Dam Outflow
Keep Out

DANGER
Dam Upstream
Keep Out
This Riverbed Floods
Without Warning

EXTREME DANGER
Dam Upstream
Keep Out
This Riverbed Floods
Without Warning

Hydroelectric dams and stations are not places for recreation.

To learn more about Safety around hydroelectric dams and stations, order a free video or CD ROM for children, visit www.opg.com

ONTARIOPOWER
GENERATION

“Hydroelectric dams and stations are not places for recreation

Options 1 and 2: Necessary Safety Measures

A safety fence running the full length from the highway, under the railway bridge, to the town dock

Bright orange safety booms

A 50'-wide concrete intake to the power station, with a safety fence running the full length from the highway to the railway bridge

Large warning sign

Large warning sign

Large warning sign

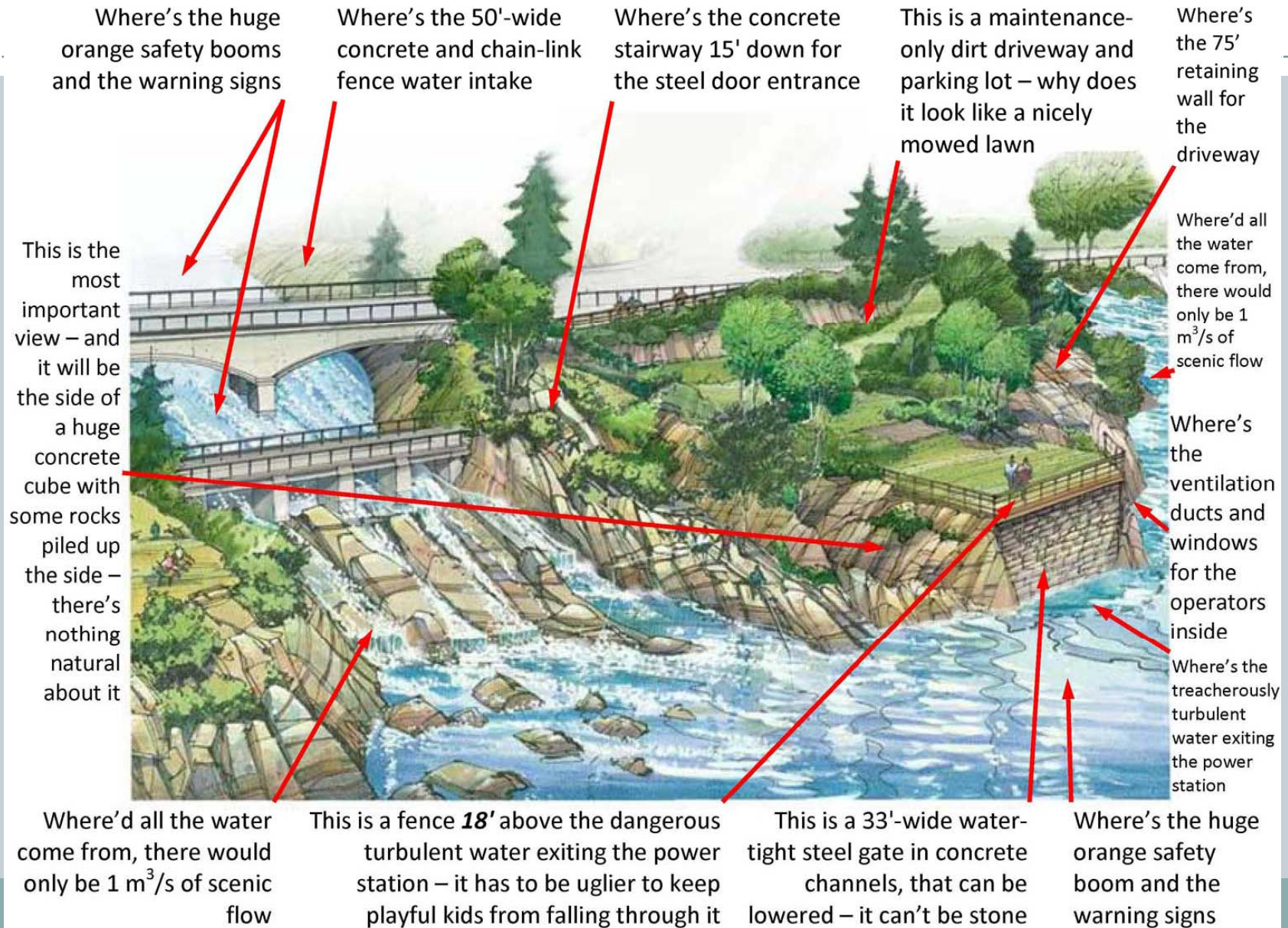
Large warning sign

Bright orange safety boom



A safety fence tall and wide enough to prevent even determined teenagers jumping (and curious toddlers falling) from the 18' high lookout into the dangerously turbulent water exiting the power station, and to the Muskoka bedrock beside the falls

Option 2: The Provided Rendering Omits Too Much



This is the most important part – and it will be the side of a huge concrete cube with some rocks piled up the side – there's nothing natural about it

Where's the huge orange safety booms and the warning signs

Where's the 50'-wide concrete and chain-link fence water intake

Where's the concrete stairway 15' down for the steel door entrance

This is a maintenance-only dirt driveway and parking lot – why does it look like a nicely mowed lawn

Where's the 75' retaining wall for the driveway

Where'd all the water come from, there would only be 1 m³/s of scenic flow

Where's the ventilation ducts and windows for the operators inside

Where's the treacherously turbulent water exiting the power station

Where'd all the water come from, there would only be 1 m³/s of scenic flow

This is a fence **18'** above the dangerous turbulent water exiting the power station – it has to be uglier to keep playful kids from falling through it

This is a 33'-wide water-tight steel gate in concrete channels, that can be lowered – it can't be stone

Where's the huge orange safety boom and the warning signs

Summary of Options 1 and 2: Serious Issues

- **Dangerously fast water adjacent to public swimming and docks**
- **Unsightly safety and structural intrusions**
 - Safety fencing (North Channel and the lookout platform)
 - 50'-wide concrete intake, surrounded by a high fence
 - 33'-wide, 18'-high steel gate facing the Moon River (a tempting graffiti target)
 - 75'-wide retaining wall facing the Moon River
 - Destruction of natural rock forms and shoreline vegetative buffer
 - Several more ugly safety booms in the Moon River and Bala Bay
- **Construction in this area would be destructive to Bala's tourism, beauty, recreation, and environment**

There is Another Option

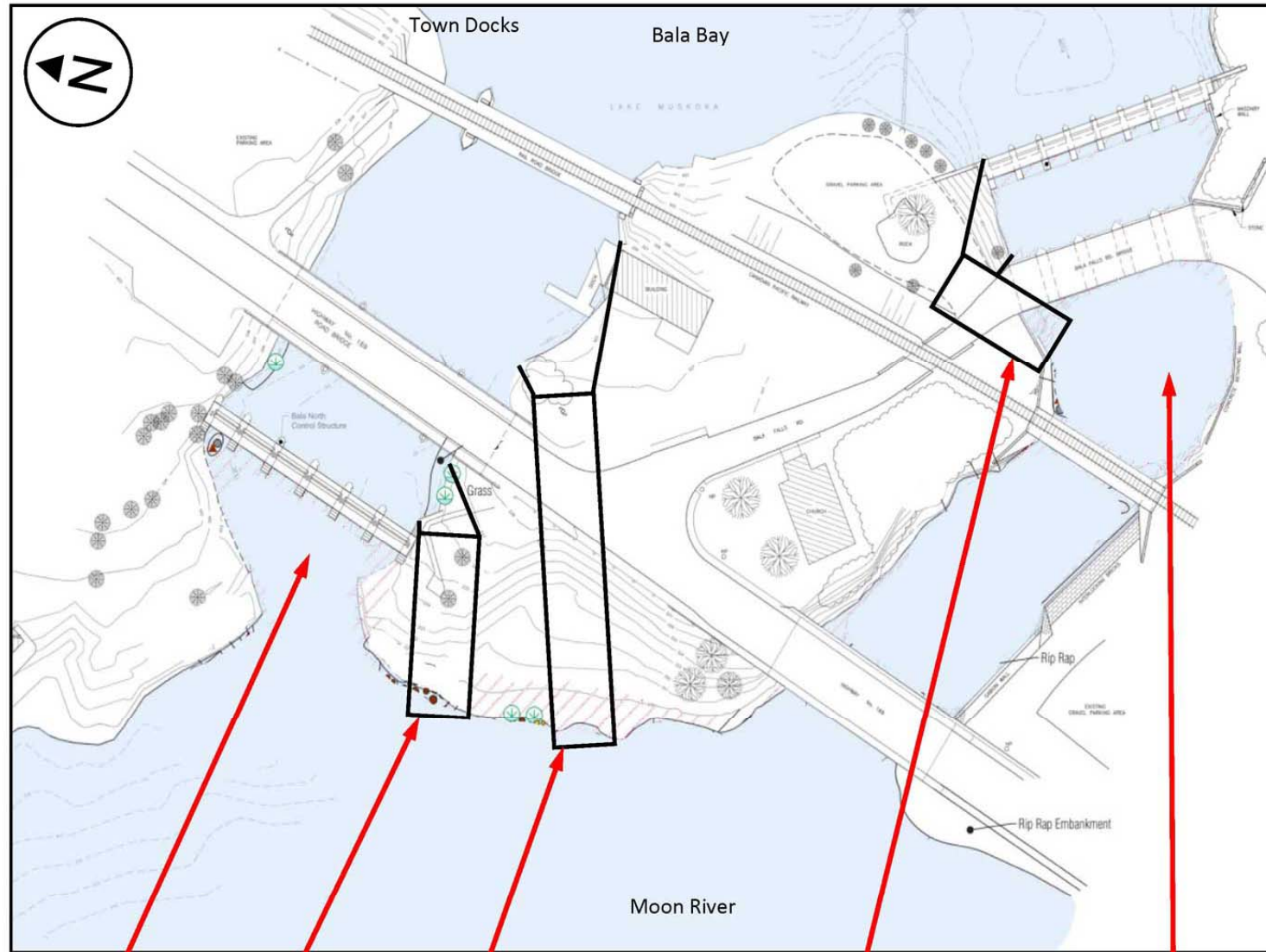
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These concerns would be eliminated by:

Option 3

- Utilize the north side of the South Channel
 - We'd like to present one possibility

Option 3: In the South Channel



North Falls
and Channel

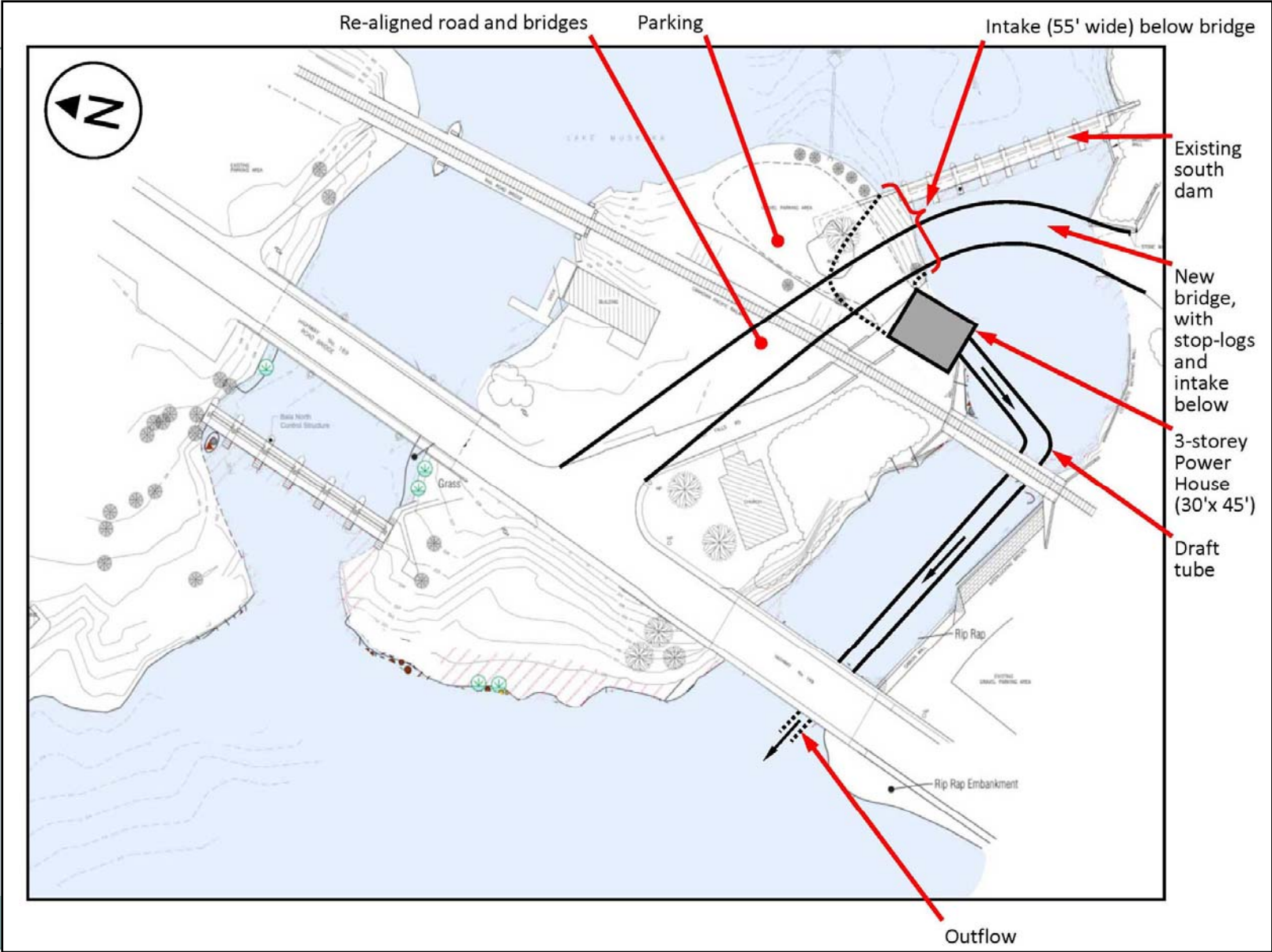
Option 1

Option 2

Option 3
In the South Channel

South Falls
and Channel

Option 3: Some Detail



Option 3: Possible Configuration

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Option 3: Advantages

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- **Safety**
 - Dangerous water intake is not near town dock or path to it
 - No 18' platform above the Moon River
 - No new dangers at the North Falls or the channel to it
- **Visibility**
 - Not visible from the Moon River or Bala Bay
 - Located beside the railway bridge and concrete reinforcing walls in the South Channel
 - No new safety booms adjacent to the town docks
 - No safety fence around the North Channel or lookout
- **Economic**
 - No need to close the highway or build a temporary bridge
 - No construction adjacent to highway or disruption to traffic resulting from this

Option 3: Challenges

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- **Probably need to replace and relocate Bala Falls Road bridge**
 - But Option 2 would need to blast 60' down under highway 169 and build a two-lane temporary bridge and then a permanent two-lane bridge
 - Using a construction crane with a 100' boom
- **Construction of new bridge may need to be done at low-flow season or require temporary coffer dams**
 - But Option 2 requires two temporary coffer dams, one over 300' in length
- **Probably need to relocate single-lane bridge under railway**
 - Option 2 would require blasting a 30' deep water intake beside the highway
- **May need to relocate Bala Falls road in front of Stone Church**
 - Railway may own property
- **May not produce as much electrical power**
 - Is it worth ruining Bala to wring every last kilowatt from the falls

Option 3: Could be less expensive

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- **No need for building a two-lane highway-type bridge**
 - Or for workers to be working adjacent to a highway
- **No need for water-tight tailrace gate**
- **Less need for landscaping**
- **Likely less need for blasting and rock removal**
 - So less potential for damage to other property
- **Parking and driveway access already available**
- **May not need any coffer dams**

Why Hasn't SREL Seriously Considered the South Channel

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Maybe:

- Location wasn't specifically offered by MNR
- No obligation to in the Environmental Assessment process
- Aren't familiar with what is important to Bala
- Already expended significant effort on Options 1 and 2
- Felt that Option 2 was good enough (for them)

**We should be considering what is Best for Bala,
not best for a private developer**

What's Next

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SREL will (understandably) want to move ahead with the work they've done for Option 2

- So they can move onto other projects

But Bala will need to live with the results

What are we Asking of Council?

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- To recognize the significant advantages of using the South Channel
- To request the proponent to provide a detailed analysis of this option as part of the current environmental screening process
- To prepare to respond to the proponent's Environmental Screening Report
 - And to allow us to contact Staff working on this

Conclusion

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- Option 3 is a unifying solution that balances the needs of the community with Ontario's need for clean energy
 - It should be studied in more detail
- Thank you for your time and consideration
- Please contact us anytime:
 - Jeff Mole (Bala Falls Community Association): bala.falls@live.ca
 - Mitchell Shnier (Save The Bala Falls): Mitchell@shnier.com