

The Mactaquac Project

Atlantic Reclamation Conference

October 21, 2015



Énergie NB Power

Services the station provides today

- Provides 20 per cent of peak needs in New Brunswick
- Annually produces electric energy for 12 per cent of New Brunswick's homes & businesses (2020 renewable requirement of 40%)
- Provides reliability services (operating reserve, regulation, load following, voltage support, system black start, etc.)

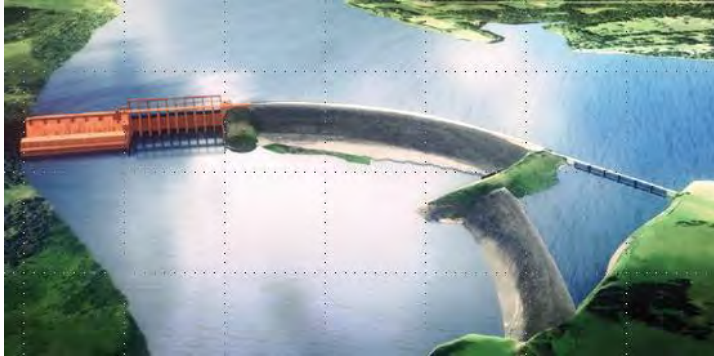


The AAR problem at Mactaquac

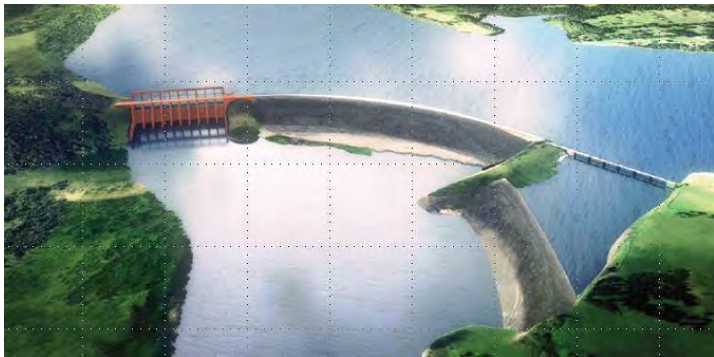
- Alkali-Aggregate Reaction (AAR) causes expansion of the concrete
- Hundreds of stations affected worldwide
- Various techniques are used to address effects of expanding concrete
- Mactaquac currently is expected to reach the end of its life by 2030



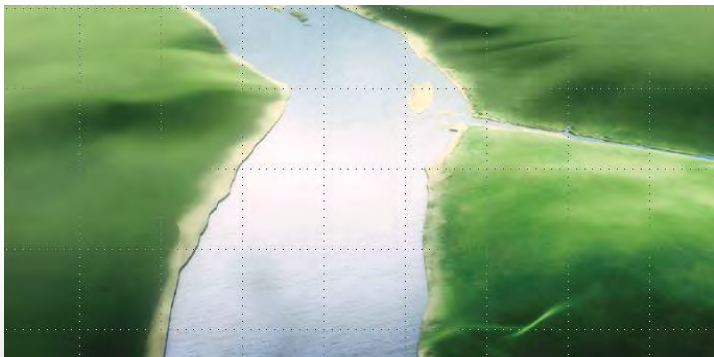
Three future paths for Mactaquac



Option 1: Repower



Option 2: No power



Option 3: River restoration

We are also exploring the feasibility of extending operations in the existing footprint past 2030.



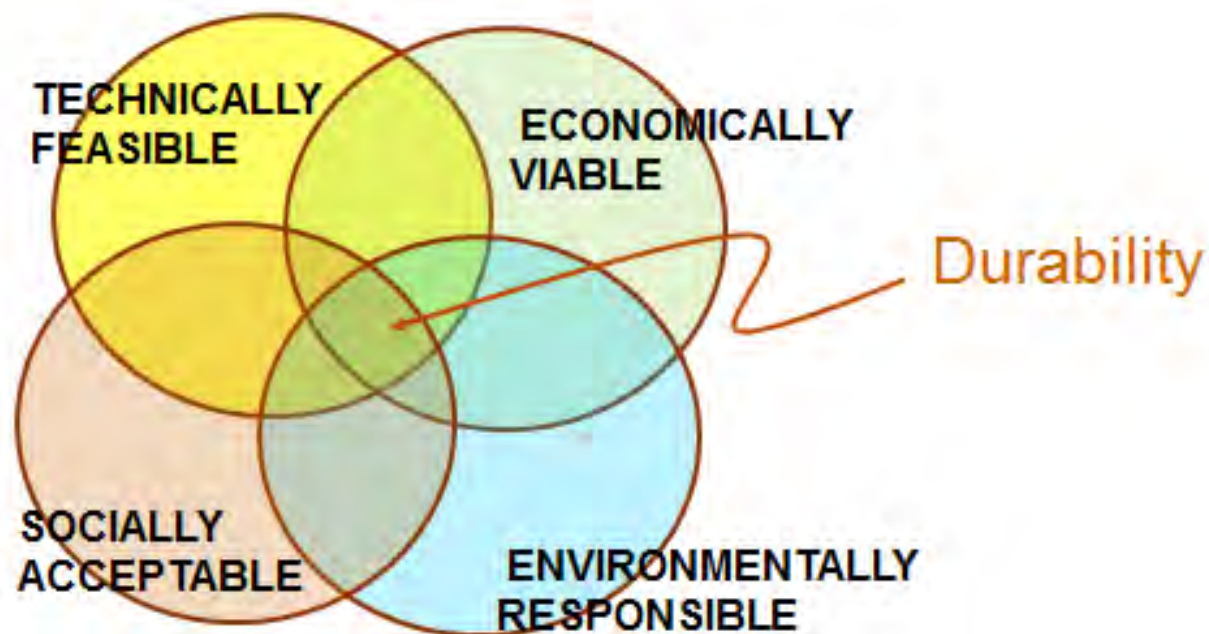
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Option 1 (Repower) footprint



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What to do?



Considerations



The cost to New Brunswickers

Changes to local communities



Economic activity

Electricity sources



The environment

Broad scope of work

Work conducted by our Mactaquac Project partners includes:

- Comparative Environmental Review (Stantec)
- Social Impact Comparative Review (Dillon Consulting)
- Engineering (Hatch)
- Mactaquac Aquatic Ecosystem (Canadian Rivers Institute)
- First Nations (Dillon Consulting)
- Public Engagement (National)



DILLON
CONSULTING



N|A|T|I|O|N|A|L



Valued Components in CER

- Atmospheric environment;
- Acoustic environment;
- Surface water;
- Groundwater;
- Aquatic environment;
- Vegetation and wetlands;
- Wildlife and wildlife habitat;
- Economy and employment;
- Human occupancy and resource use;
- Infrastructure and services;
- Transportation;
- Heritage resources; and
- Current use of land and resources for traditional purposes by Aboriginal persons.

Social Impact Comparative Review

Social issues identified that relate primarily to the headpond drawdown include:

- community identity
- changes to recreational uses;
- viewshed changes;
- property value impacts;
- reduced river access;
- exposure of lands;
- intakes and outfalls impacts;
- changes to water supplies/private wells;
- ice damage to downstream infrastructure; and
- potential downstream flooding from ice jams.

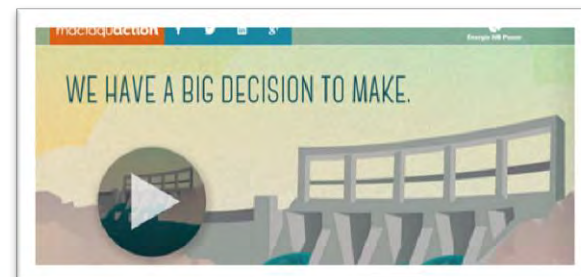
Social Impact Comparative Review

Social issues associated primarily with construction activities included:

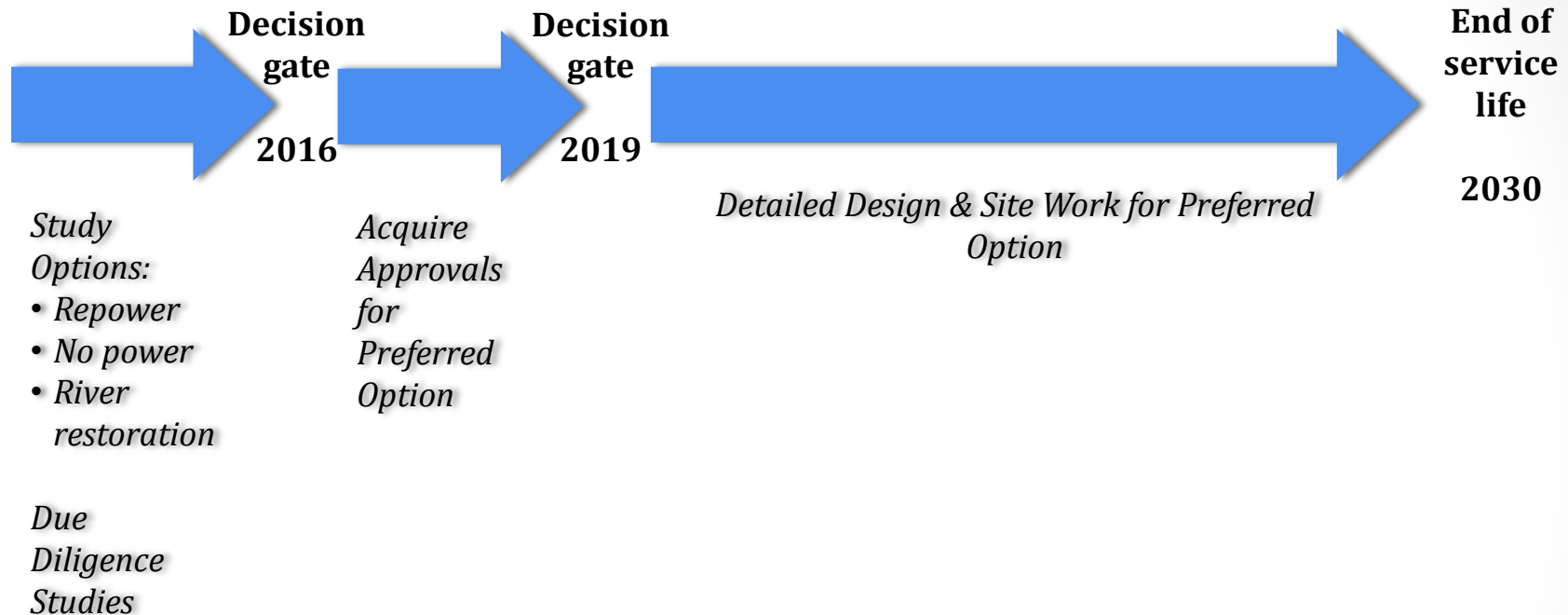
- nuisance effects (noise, vibration, dust, odour);
- transportation effects (access, traffic, safety, road wear);
- community services, infrastructure and housing;
- land acquisition; and
- employment, expenditures and businesses.

Engagement activities

- First Nations
- Seeking comments on draft reports until March 31, 2016
 - ✓ Comparative Environmental Review
 - ✓ Social Impact Comparative Review
- Open houses in fall of 2015
- Web survey at Mactaquaction.ca
- Further dialogue early in 2016
- Summarize and share what we heard in spring of 2016



Project timeline



Questions?



If you or your group would like more information about this project, or would like to share your point of view, please contact us.

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Online: www.mactaquac.ca



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