



# »» Implementing Canada's Plan for Used Nuclear Fuel

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Lise Morton, VP Site Selection

**nwmo**

NUCLEAR WASTE  
MANAGEMENT  
ORGANIZATION

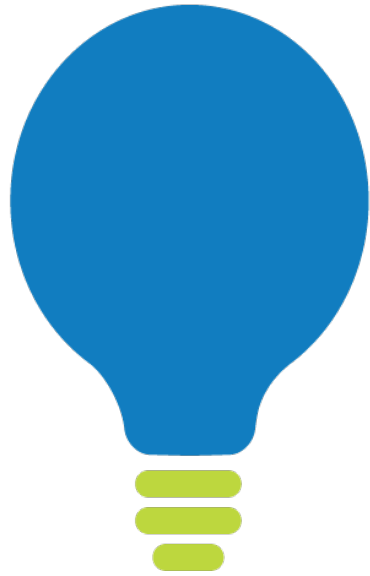
SOCIÉTÉ DE GESTION  
DES DÉCHETS  
NUCLÉAIRES



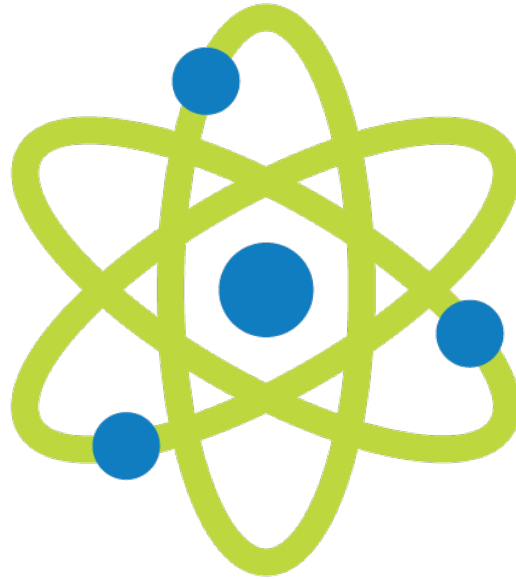


## » Progress on Canada's Plan

# Implementing a safe, long-term plan



Created in 2002



Non-profit organization  
funded by waste owners



Through dialogue with  
Canadians and Indigenous  
peoples, Canada's plan emerged

SASKATCHEWAN

- 1
- 2
- 3

ONTARIO

- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22

Communities that expressed interest in the site selection process

● **Assessments underway in the area**

- 5. Ignace
- 21. South Bruce

● **Communities not identified for further study**

- 1. English River First Nation
- 2. Pinehouse
- 3. Creighton
- 4. Ear Falls
- 6. Red Rock
- 7. Nipigon
- 8. Schreiber
- 9. Manitouwadge
- 10. Hornepayne
- 11. White River
- 12. Wawa
- 13. Blind River
- 14. Elliot Lake
- 15. The North Shore
- 16. Spanish
- 17. Saugeen Shores
- 18. Arran-Elderslie
- 19. Huron-Kinloss
- 20. Brockton
- 22. Central Huron

# Site Selection Criteria

To identify a preferred location to take into detailed site characterization



Safety

1



Partnership

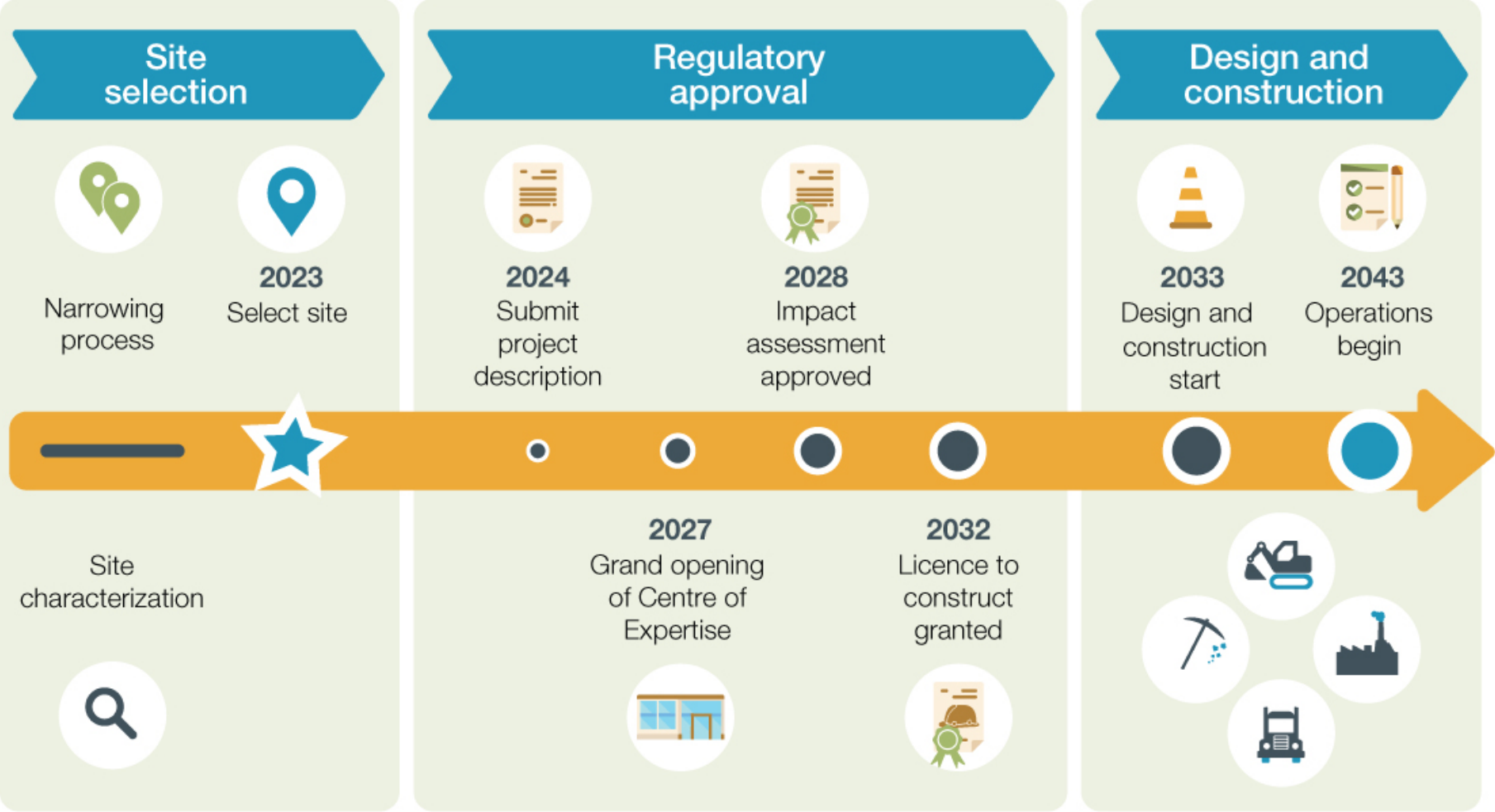
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2

Transportation



# Project Timelines



MARCH 2021





## » Willingness and Reconciliation





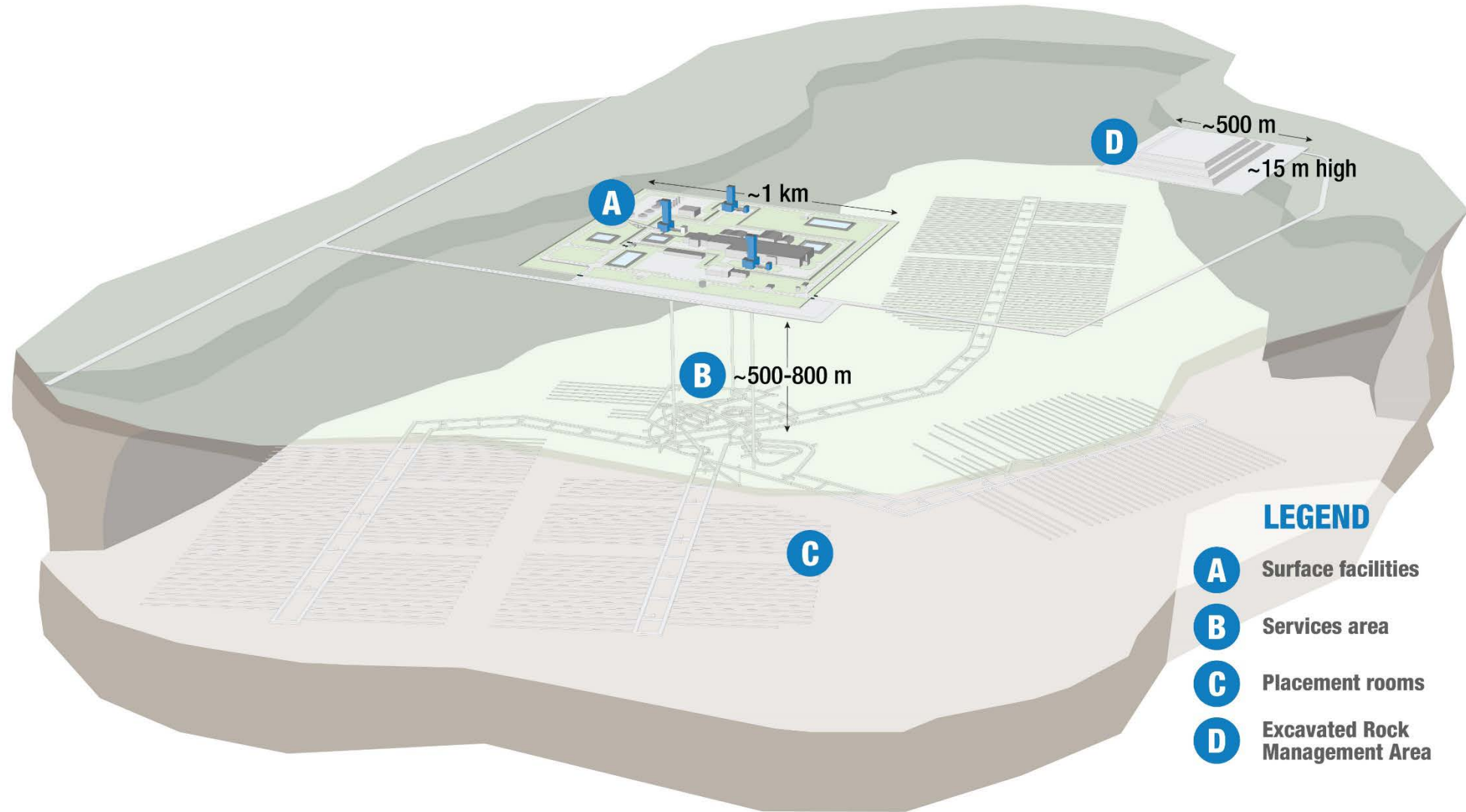
**Wabigoon Lake  
Ojibway Nation –  
Ignace area**



**Saugeen Ojibway  
Nation –  
South Bruce area**



# The NWMO's Deep Geological Repository





# Site Investigation Ignace



# Site Investigation South Bruce

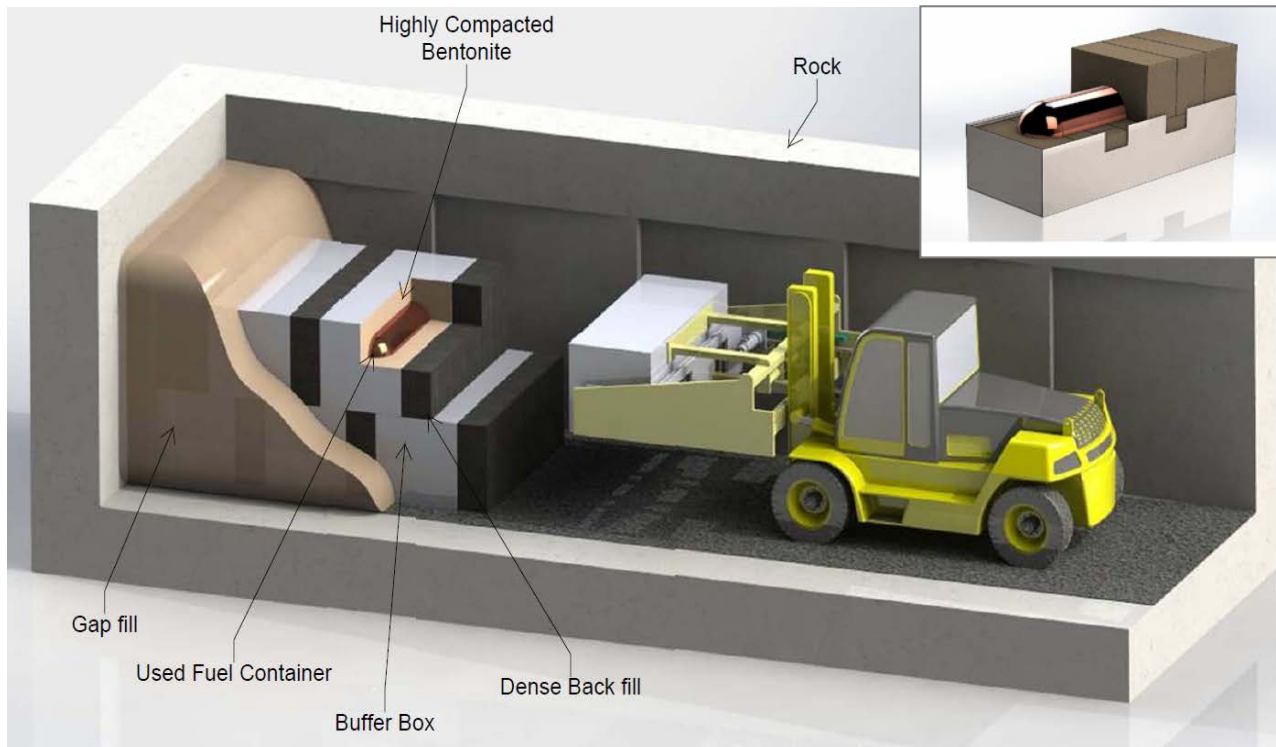






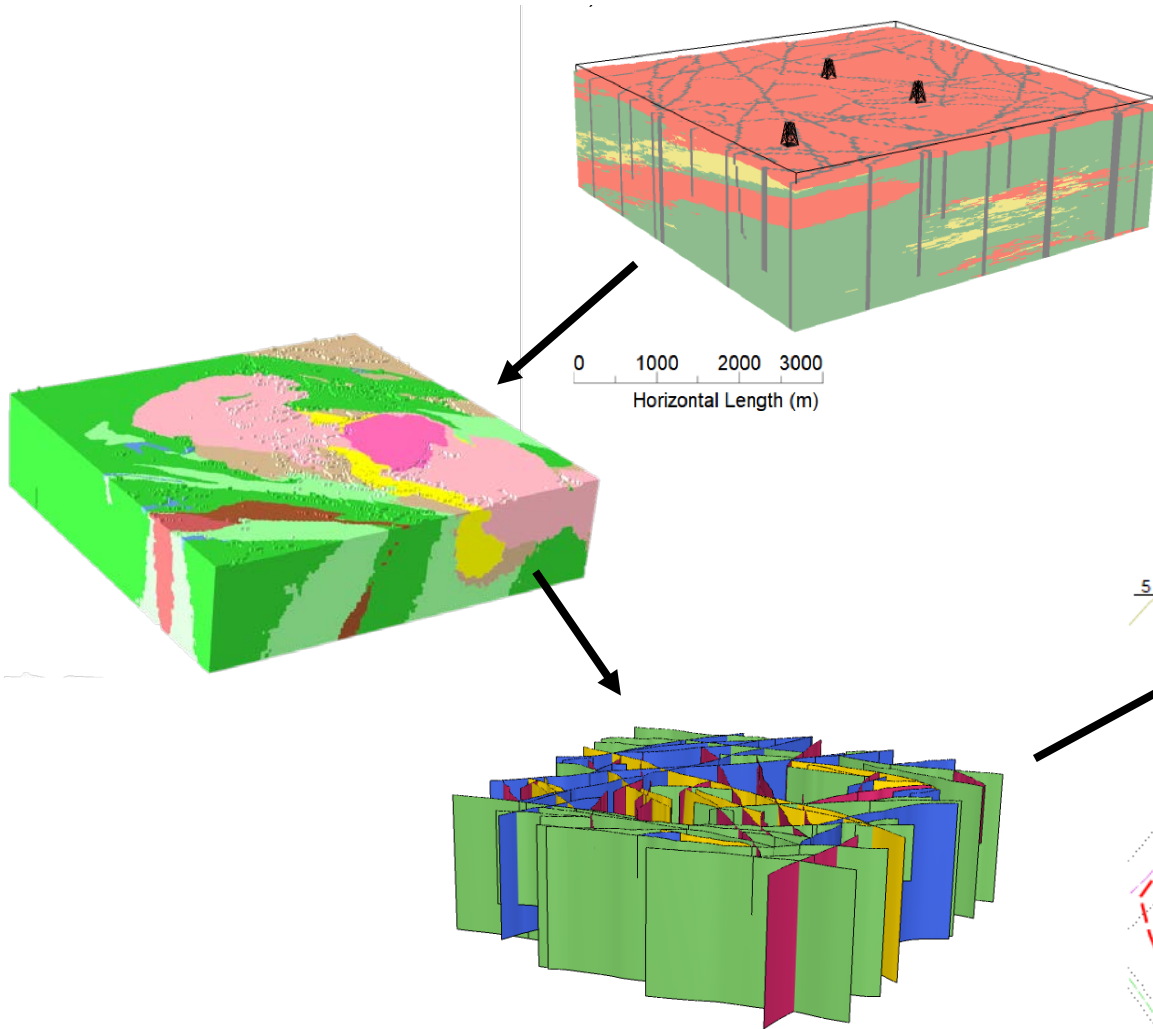


# Proof Testing & Technology Demonstration

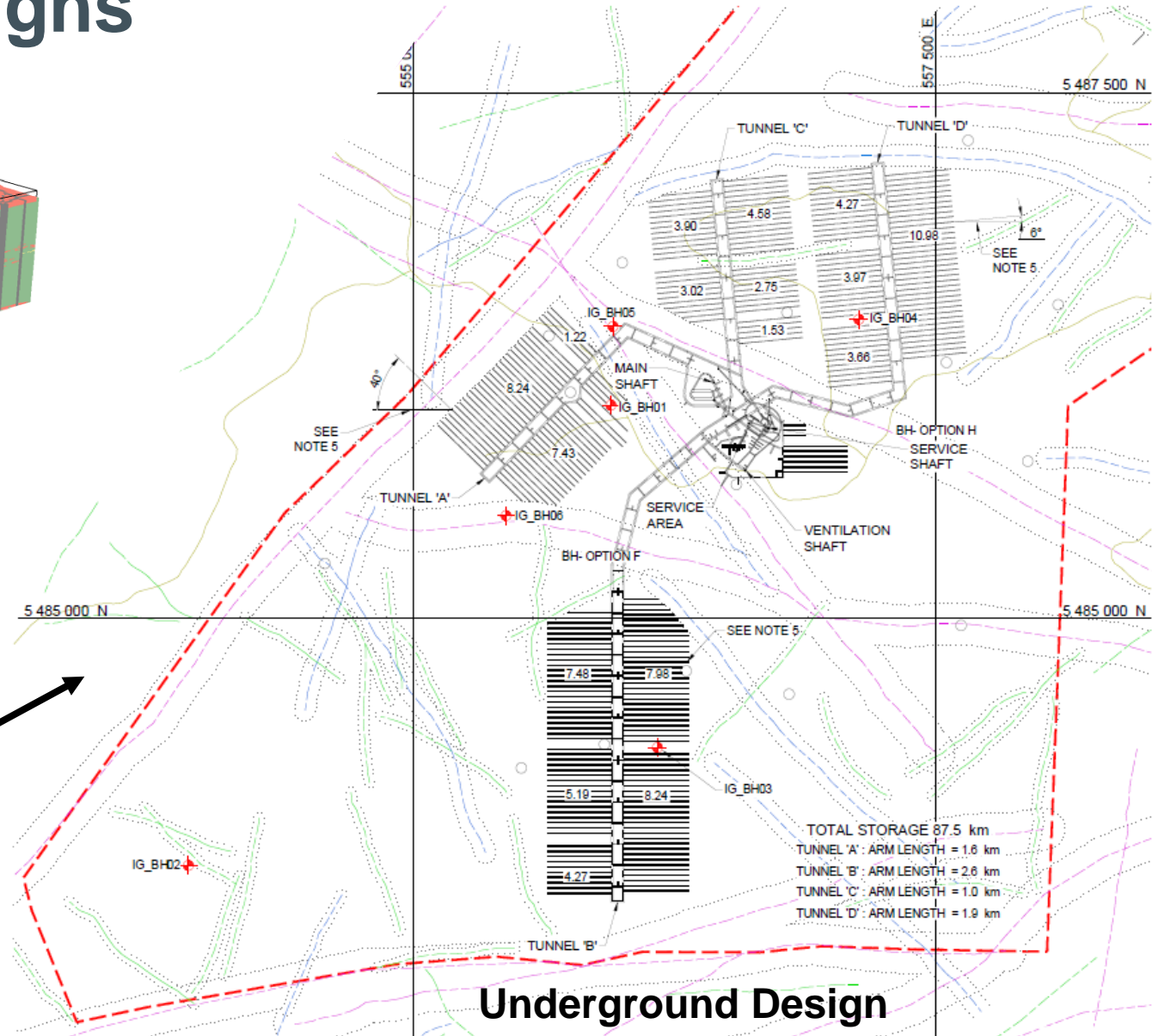




# Informing Conceptual Designs

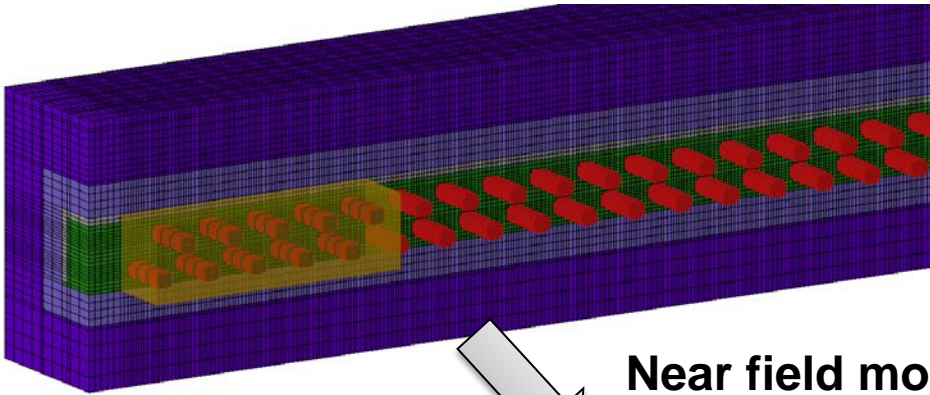


Discrete Fracture Networks

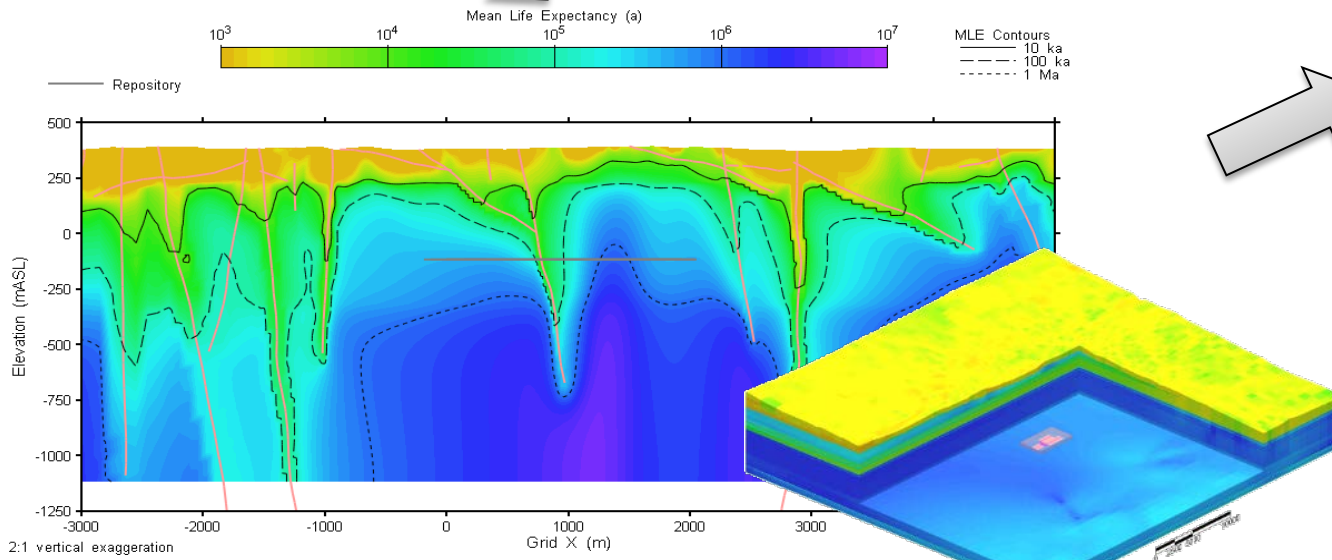


Underground Design

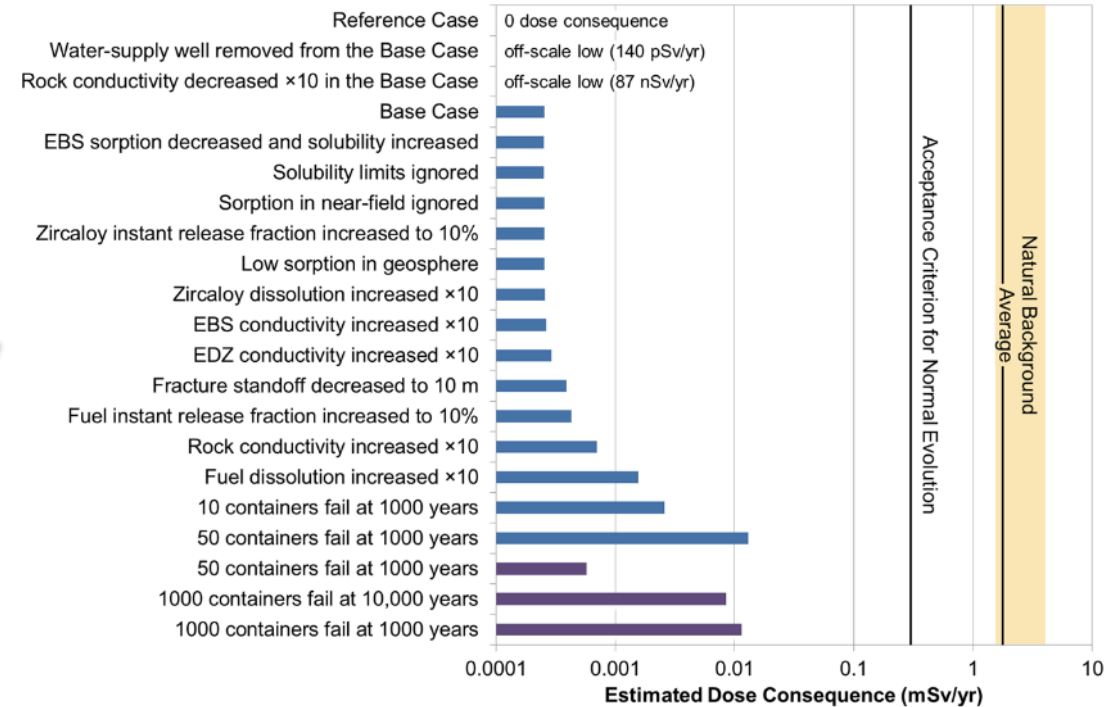
# Preliminary Safety Assessments



Near field modelling



Far field modelling



■ Hypothetical container failures all occur in the one location that would yield the largest dose consequence  
 ■ Hypothetical container failures are equally likely to occur at all locations across the repository

Sensitivity Analysis



# Used nuclear fuel transportation



# Hearing from the public on priorities, questions and concerns

- Since 2015 we have heard from thousands of individuals and groups on the subject
  - Over 300 meetings
- Development and release of Draft Transportation Planning Framework August 2020
  - Over 50 meetings and hundreds of questions





# Proposed approach to implementing framework

The approach will be flexible and adaptive, and continue to involve people at key milestones along the way



# Thank you

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