



Sustainable Communities
Sharing Knowledge

The importance of underground construction in developing sustainable infrastructure

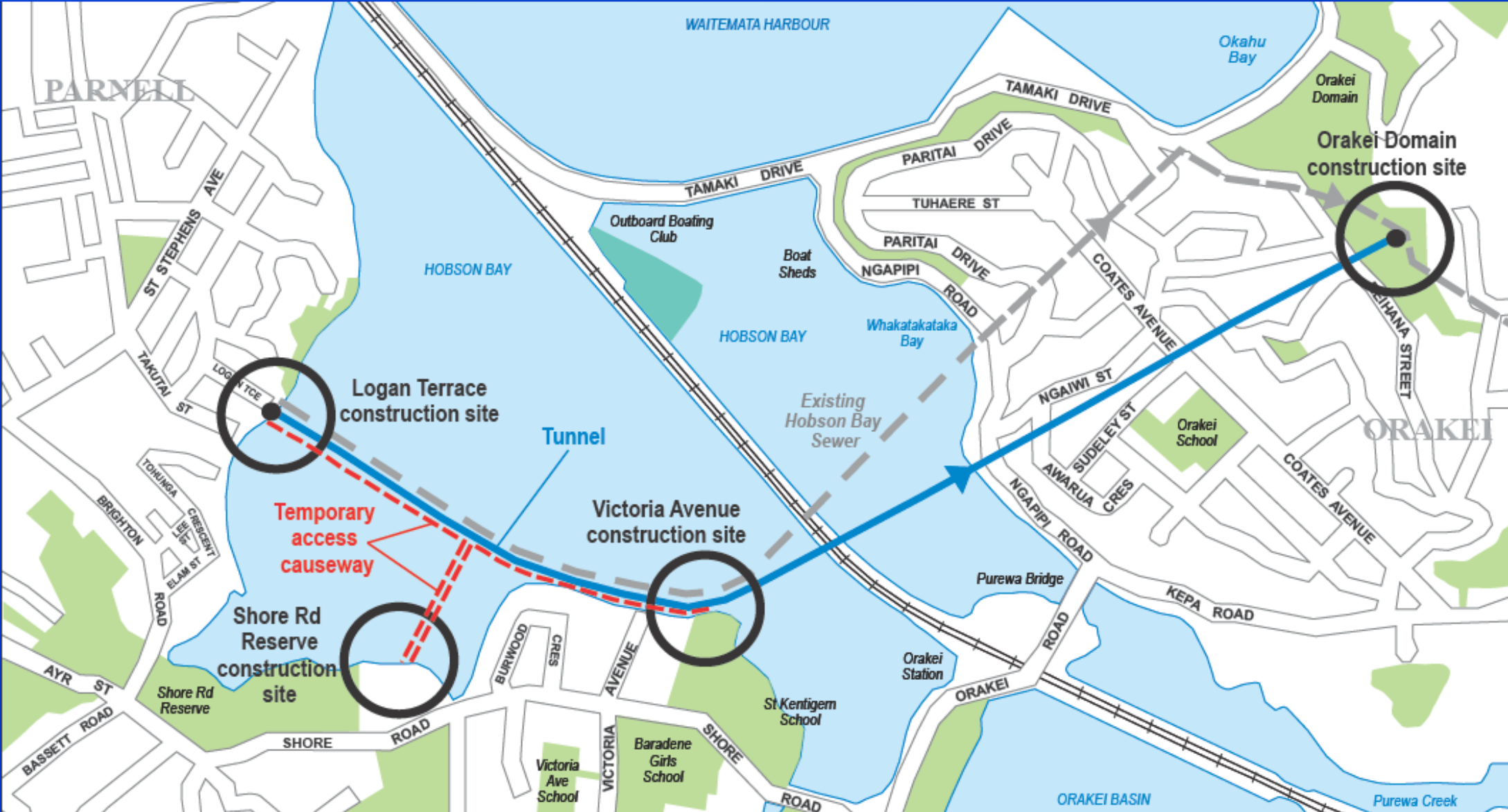
Rory Bishop

General Manager
Harker

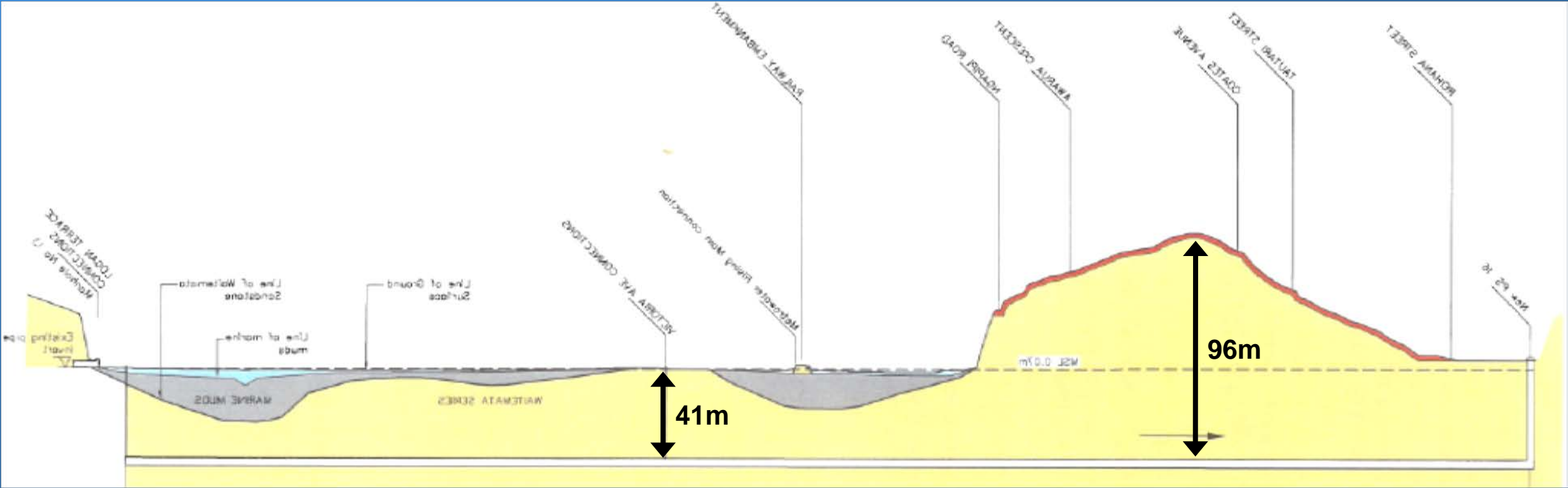
Sustainable underground infrastructure

| | |
|---|---|
| Project Owner | Watercare Services Limited |
| Project Management and Contract Supervision | Watercare Services Limited |
| Designer | SKM – Connell Wagner |
| Contractor | Fletcher McConnell Dowell Joint Venture (FMDJV) |
| Contract Value | \$113.6M |
| Contract Commencement | March 2007 |
| Scheduled Operation | December 2009 |
| Contract Completion | 2010 (Demolition) |

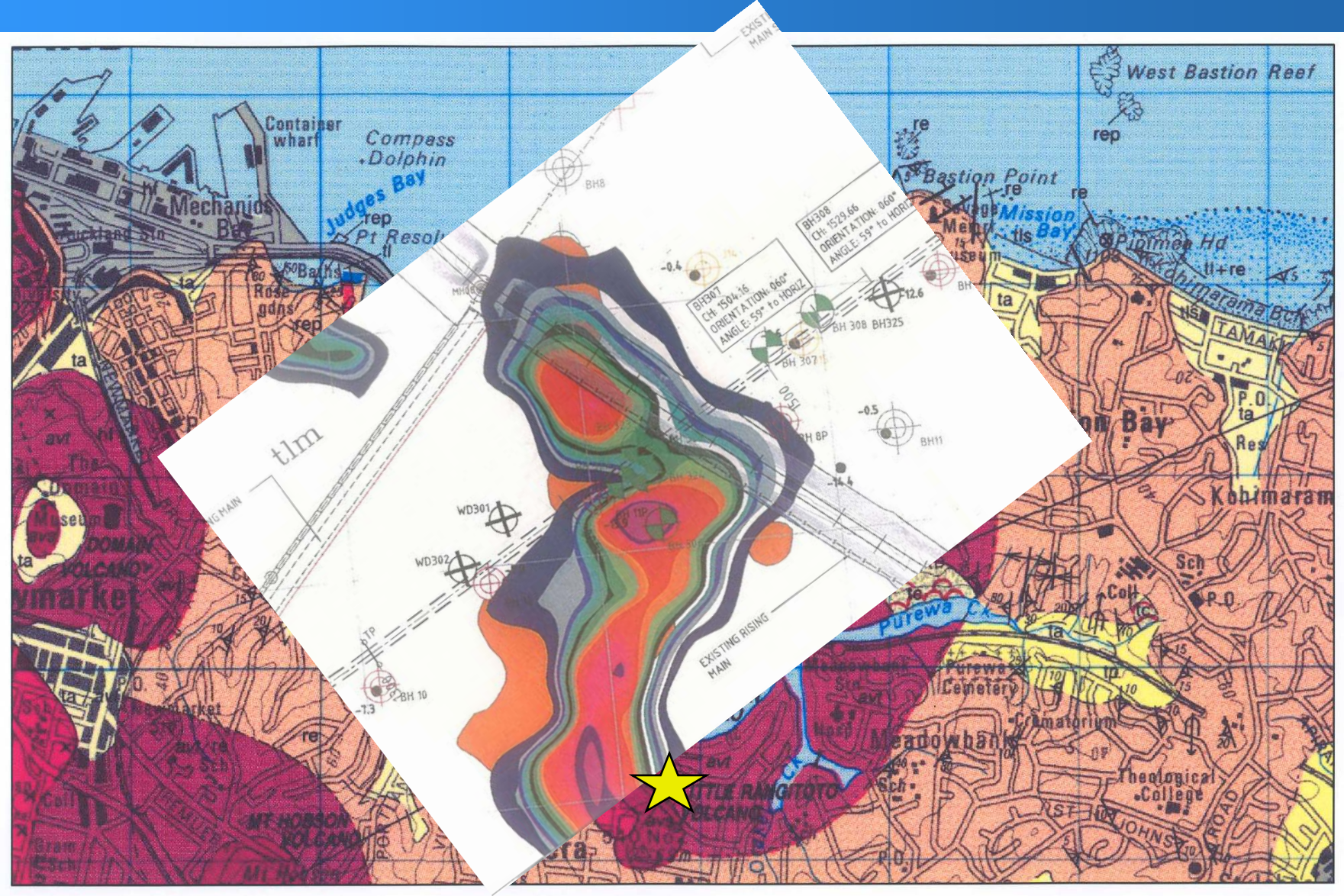
Sustainable underground infrastructure



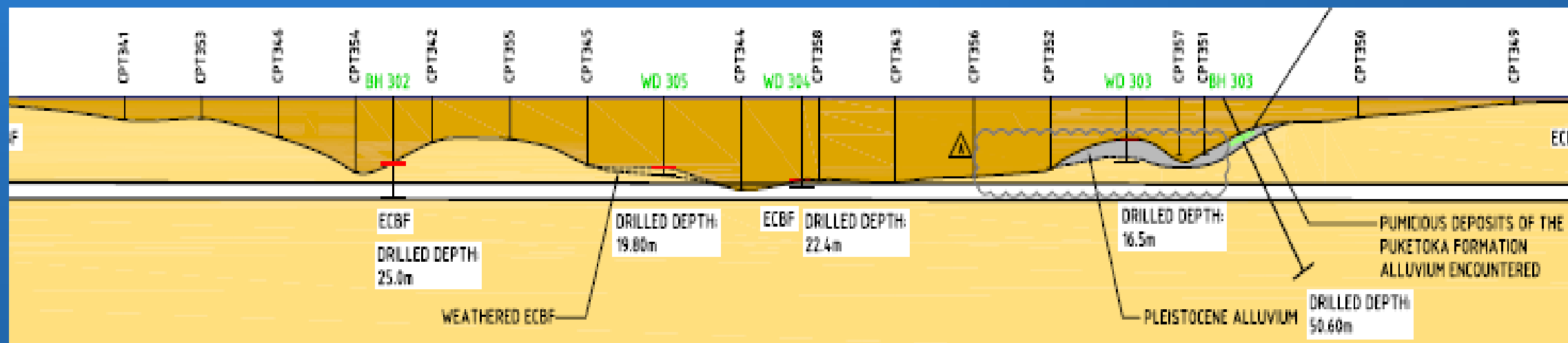
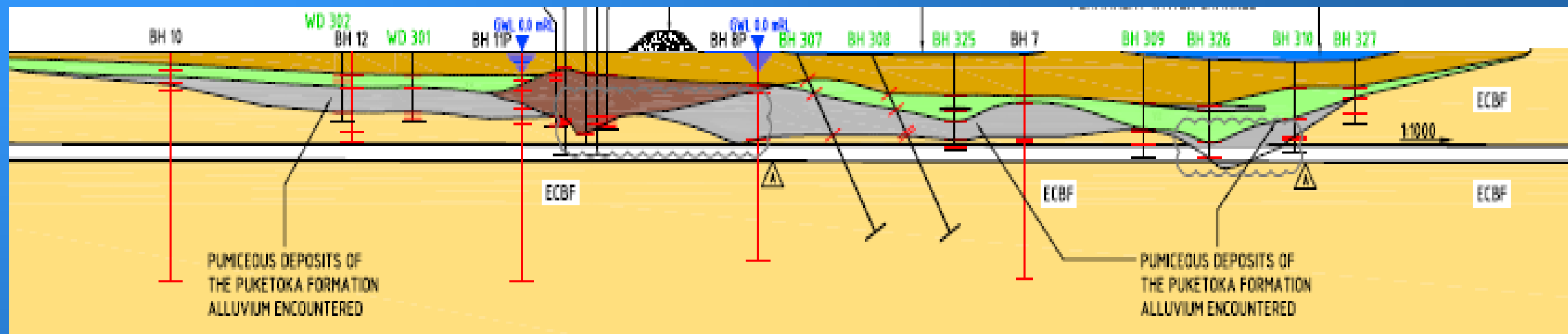
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Sustainable underground infrastructure



Key local environmental benefits delivered by the project:

- Eliminate major risk associated with failure of the existing infrastructure and leaks into Hobson Bay.
- Reduce overflows from the existing system into the Waitemata Harbour by providing wet weather flow storage.
- Accommodate future growth in the city.
- Improve the amenity of Hobson Bay for local residents.

How is this scheme relevant in a Global environmental context?

- Power savings associated with pumping – 3,000Mwh per annum.
- 690t of CO₂ equivalent emission.
- 150 cars per annum.
- 69,000t of CO₂ over the life of the scheme.

**OVERFLOWS INTO HOBSON BAY
PREVIOUSLY OCCURED 23 TIMES
PER YEAR**

**BUT ARE VIRTUALLY ELIMINATED
BY THE NEW TUNNEL**

