

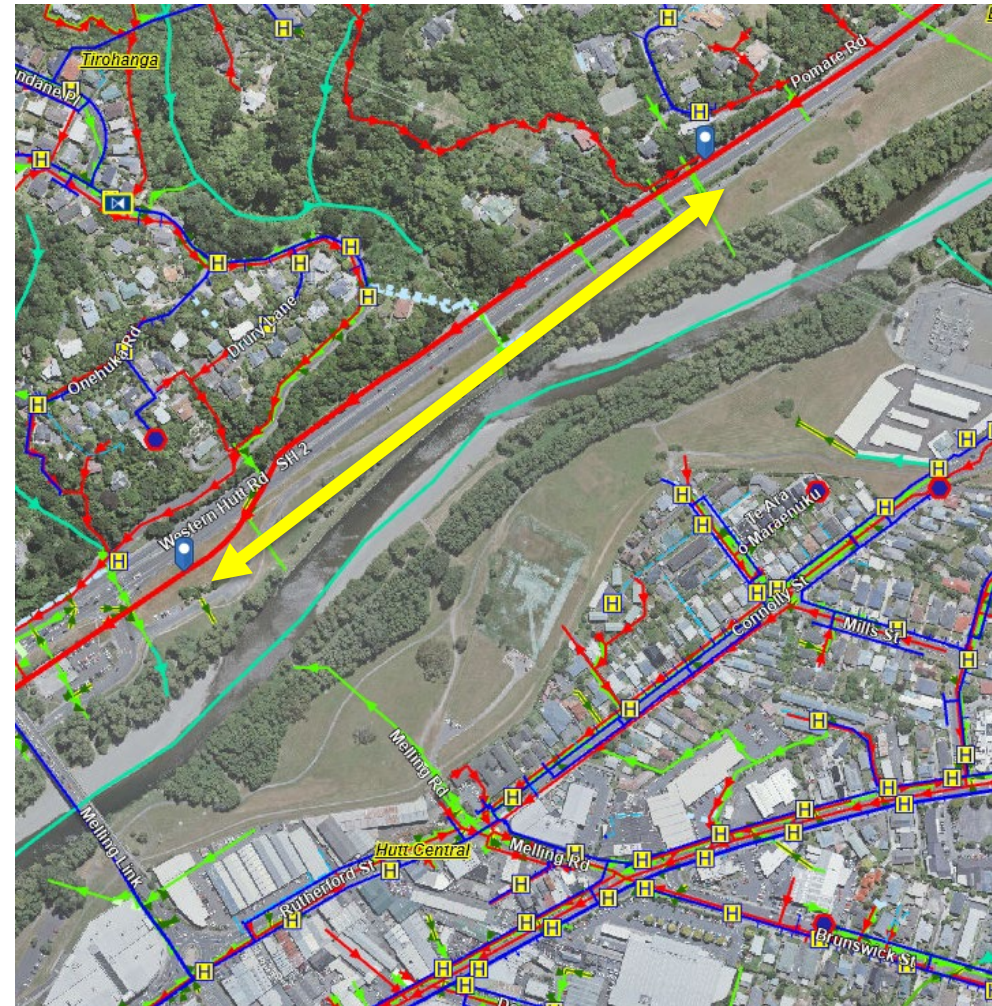
Western Hills Main Sewer

Urgent rehabilitation project



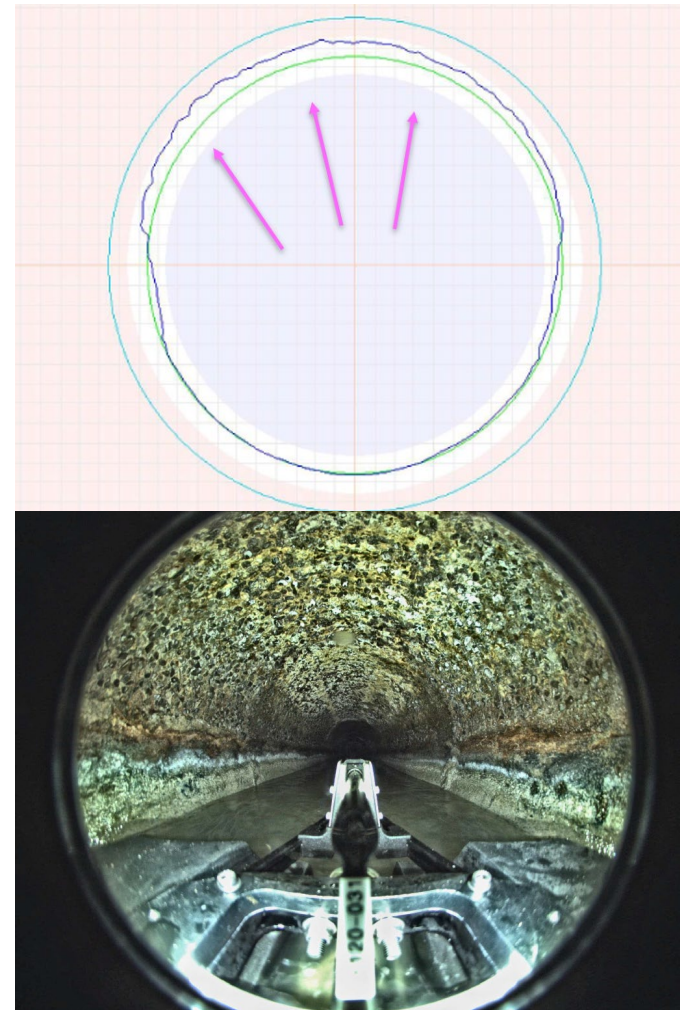
Overview

- 589m of pipe identified as in *very poor* condition (Grade 5) in March 24
- The affected pipes cross under and run alongside SH2
- Upstream sections were previously assessed poor condition (Grade 4) and are programmed for future years
- Downstream section is with Te Awa Kairangi Alliance for implementation
- A panel consultant commenced an investigation and options study in early June 24
- Cured-in-place lining is the only practicable method identified.



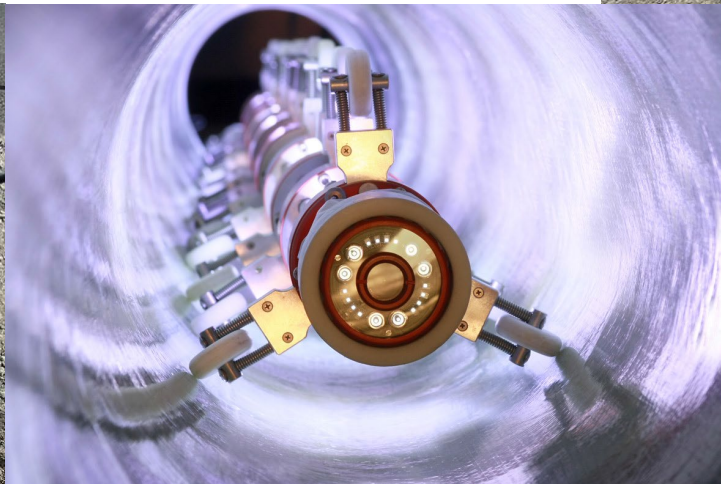
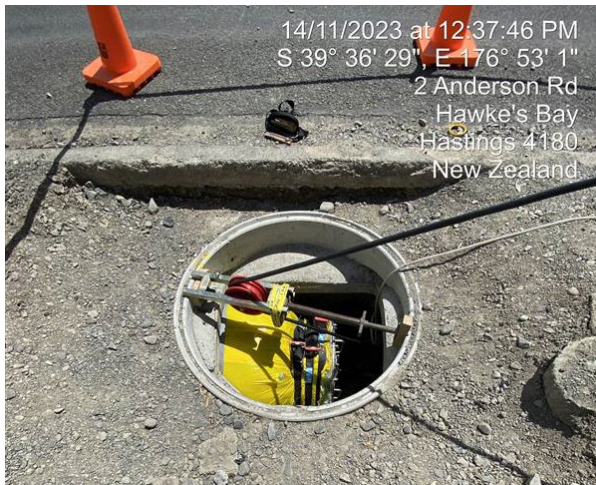
Pipe condition

- The walls and roof have suffered hydrogen sulphide attack
- Around 30mm of the inside wall has been eroded on the upper section
- Worst material loss about 37mm
- Original wall thickness is assumed to be 60mm



Cured-in-place lining

- Resin impregnated 'sock' is pulled through the pipe
- Cured with UV lamps
- Flow must be stopped during installation
- Pipes must be cleaned before installation
- Manholes will need to be cut down for access.



Need for urgency

- The impact of sudden failure could affect SH2, allow sewage to spill and will be costly to repair reactively
- Lining works will impact the SH with closure of the left lane required, as a minimum
- Lining works can only be completed in dry weather
- NZTA have agreed in principle to a lane closure during school holiday periods
- Therefore, we would prefer to carry out the works over Easter 2025
- The liner has a 3-month lead time.



Provisional timeline

Complete options study and confirm recommended solution	Late September 2024
Issue request for Tenders	<i>End of October 2024</i>
Tenders returned	Mid November 2024
Council decision	November 2024
Award approved	<i>Early December 2024</i>
Order liner	Before Christmas 2024
Liner delivered	Early April 2025
Installation	Easter school holidays 2025 12 th – 27 th April
Fall back installation date	Christmas 2025

Budget estimate and risks

- Engineer's estimate is \$5.1 million for the 589m of pipe and associated manhole rehabilitation
- Key risks include:
 - Changes to traffic management requirements affecting time and cost
 - Inability to complete the works in the holiday window due to weather requiring demobilisation and remobilisation

Taita Rock

