Infrastructure Acceleration Fund Briefing

8 May 2024 – 4:00pm

Attendees

Elected Members: Mayor Barry, Cr Briggs, Cr Dyer, Cr Edwards, Deputy Mayor Lewis, Cr Mitchell, Cr Morgan, Cr Parkin, Cr Shaw, Cr Stallinger, Cr Tupou and K Yung (Petone Community Board).

Staff: Jo Miller, Chief Executive; J Livschitz, Group Chief Financial Officer; Lucie Desrosiers, Head of Urban Development; Paul Hewitt, Head of Transport; Brad Cato, Chief Legal Officer; Jack Kilty, Democracy Advisor and Vanessa Gilmour, Democracy Advisor.

Apologies

Cr Barratt.

Presenters

Raye Powell, Tonkin & Taylor.

Introduction and Key Objectives of the Briefing

The purpose of the briefing is to present the stormwater and wastewater options prior to the Infrastructure and Regulatory Committee meeting on 9 May 2024.

Presentation by Raye Powell, Tonkin & Taylor.

Slide 1 - (Header) Infrastructure Acceleration Fund (IAF)

Slide 2 – Purpose

Slide 3 – Background to the project

The IAF was designed to unlock housing development where there are infrastructure constraints constraining housing growth.

Slide 4 – Project objectives

IAF funding is administered by Kainga Ora, who Council has a funding agreement with.

Slide 5 – A snapshot of Lower Hutt housing

Slide 6 – What are the projects trying to solve? - Wastewater

To provide capacity in the wastewater system in the central area of Lower Hutt which would provide infrastructural support for housing growth.

Slide 7 - What are the projects trying to solve? - Stormwater

The existing stormwater infrastructure in the Opahu Stream catchment is currently operating at full capacity. The objective is to expand capacity within the trunk network to create capacity. There is difficulty widening and deepening Opahu steam which is a key constraint in Lower Hutts stormwater network.

Slide 8 – Stormwater and Wastewater Project Stage 1 timeline

The stormwater and wastewater projects are nearing the completion of stage 1 with preferred options being considered by Council.

Slide 9 – Long list of options – Stormwater

Five main options were reviewed, with variations available. All options were put through a Multi Criteria Analysis (MCA) process.

Slide 10 – Shortlisted options – Stormwater

From the MCA process, options 1b, 4 and 5 were shortlisted and run through flood modelling. The flood modelling map shows the current situation.

Slide 11 – Multi criteria analysis to select preferred stormwater options

A shortlist workshop was completed in April 2024 to identify the preferred option.

Slide 12 – Preferred option (option 1b) – Stormwater

Option 1b offers more area for intensification and is situated upstream of Opahu Stream which would provide enhanced resilience compared to downstream locations. Officers are working alongside Riverlink to ensure the proposed stormwater infrastructure aligns with theirs.

Slide 13 – Stormwater pump station

Slide 14 – Wastewater preferred option

The original concept design had an underground storage tank on Pretoria Street, with an emergency overflow directing wastewater into Te Awa Kairangi. The preferred option now places the storage tank above ground saving costs, and officers are aiming to redirect the emergency overflow into the stormwater network allowing for a level of dilution before it reaches Te Awa Kairangi.

Slide 15 - Next steps

Questions and discussion points

- Removing water from Opahu stream would create capacity in the trunk network which allows for housing to be built without the risk of surface flooding.
- There are a number of fail-safes before an emergency overflow is needed. Modelling shows the use of the overflow once every two years in the fully built-up state between now and 2070, assuming growth has been realised and no further work to improve the network occurs. A modelling scenario was run using the rainfall events of the last 10 years, and the overflow point was not used.
- Wastewater flowing from the overflow into the stormwater network would be untreated and reach Te Awa Kairangi diluted.
- The wastewater project will deliver a new bypass, redirecting existing wastewater from the Hutt Central catchment to the Western Hills trunk main to create housing capacity.
- Testing shows there is capacity in the Western Hills truck main to take excess water.
- If the Western Hills trunk main was to reach capacity and overflow, it could happen on either the highway side of the stop banks, causing overflow on the land side, or the Te Awa Kairangi side of the stop bank, causing overflow into Te Awa Kairangi river.
- Option 1b has no benefit on the stormwater for the Central City area as the roofing and roading make it impervious. However, capacity will need to be created in the wastewater network if housing increases.

Next steps

- Seek options and endorsement from the Infrastructure and Regulatory Committee.
- Completion of Stage 1 by June 2024:
    - Complete Concept Design;
    - Complete Cost estimates;
    - Complete consenting strategy;
    - Complete Property Strategy; and
    - Plan for Stage 2.
- Seek Council approval of Stage 1 in July 2024.
- Seek Kainga Ora approval of Stage 1 in August/September 2024.

Briefing materials

Presentation: Infrastructure Acceleration Fund (IAF)

The briefing closed at 4:51pm