



City of **HOBART**

**MEMORANDUM:** LORD MAYOR  
DEPUTY LORD MAYOR  
ELECTED MEMBERS

## **FLOOD MITIGATION**

**Meeting:** City Infrastructure Committee

**Meeting date:** 4 May 2022

**Raised by:** Deputy Lord Mayor Burnet

**Question:** This week marks the 4<sup>th</sup> anniversary of the May 2018 floods that impacted parts of Hobart including South Hobart. Only very recently have some residents returned to their homes in Degraives St.

In order to understand what mitigation has or needs to occur, particularly in South Hobart:

Could the Director please disclose what works have been done to accommodate the same or greater volume of water in any similar weather event?

Is remediation of the landfill at McRobies Gully likely to cause any greater velocity and volume of water and debris run-off?

### **Response:**

Following the May 2018 flood event, an external consultant was engaged to undertake a flood study and develop a Flood Management Plan for the McRobies Catchment, with a particular emphasis on reducing flood impacts to people, property and infrastructure, both within the waste management centre, and the residential area in the vicinity of Degraives and Symes streets.

The Flood Management Plan was requested in partnership between the Waste Management Centre Unit, and the City's Stormwater Unit and delivered to Council in 2019, it includes:

- Part A - Catchment modelling, incorporating impacts on major drainage lines, overland flow paths, for a range of storm events (over 20 varying scenarios modelled).

- Part B - Waste Management Centre infrastructure assessment, to review the modelling in Part A and assess the capability on site to handle extreme events, and the proposal of new, amended drains, pits, landscaping etc to effectively manage and transport water from the site. This work also considered methods to protect surrounding properties from flooding.
- Part C – Flood Mitigation Assessment for residential areas, which reviews the flood modelling and identifies flood mitigation measures to protect residential areas including conceptual designs and cost estimates.

The assessment for McRobies Gully site found that there was a need to improve the capacity of drainage channels, provide additional cut-off drains, and road cross drainage to reduce the risk of flooding.

A Flood Mitigation Plan was developed and costed, that proposes the installation of a large number of new bunds, basins, drains, pits, and channels. The cost estimate for the flood mitigation works was \$5.15m. Drawings are included in Figure 1 (WMC works) and Figure 2 (residential area works)

Given the cost, all works were not immediately able to be implemented. However the waste management centre has undertaken a number of actions and recommendations of the plan, including:

- Installation of a bund between the organics area and the Tip Shop (B-14, CH-05 on Figure 1). This aims to protect the Tip Shop from flooding, and divert water to the western channel.
- Asphaltting the access road and installation of a sealed concrete channel with rock baffles (Ch-01)
- Culvert increase, road raising, pit raising and bunding increases (C7, C8, CH-03, B-9)
- Channel sealing (concrete & rock baffle) along main entry access road
- New cut-off drain for capture and direction of water from Knocklofty reserve to western channel (C11 and surrounds)
- Bund and roadway along toe of active landfill area (B-6)
- Increased the size of the bund at the base of the organics area (B-12, CH-04)

In terms of the works recommended for McRobies Gully, a significant number have been implemented, with the exception of four (4) large basins at the northwest of the site. The construction of these basins is a significant undertaking, in terms of cost and also the engineering and regulatory framework (given the size, they are required to have a Dam Safety Management plan and Dam operation and maintenance manual). A drawing is included as Figure 3. The installation of these basins will be considered in future budgets, and it may be possible to progressively install basins over financial years.

The Plan also provides a number of mitigation options for the streetscape neighbouring the site, including reshaping road profiles, increasing kerb heights, bunding on road reserves, and provision of temporary flood barriers. These works are in the process of being prioritise for funding in future years.

Remediation of the landfill at McRobies Gully will not cause any greater velocity and volume of water run-off. The hydraulic modelling in the Flood Management Plan details that the works on site will not result in a concentration of downstream flows. Remediation will reduce the amount of debris run-off, as areas are capped and either landscaped or hard-sealed (such as roads, pavements, concrete culverts), rather than gravel and dirt, which has more capacity to be transported off site by storm events.

Figure 1 – Flood Mitigation strategy for WMC

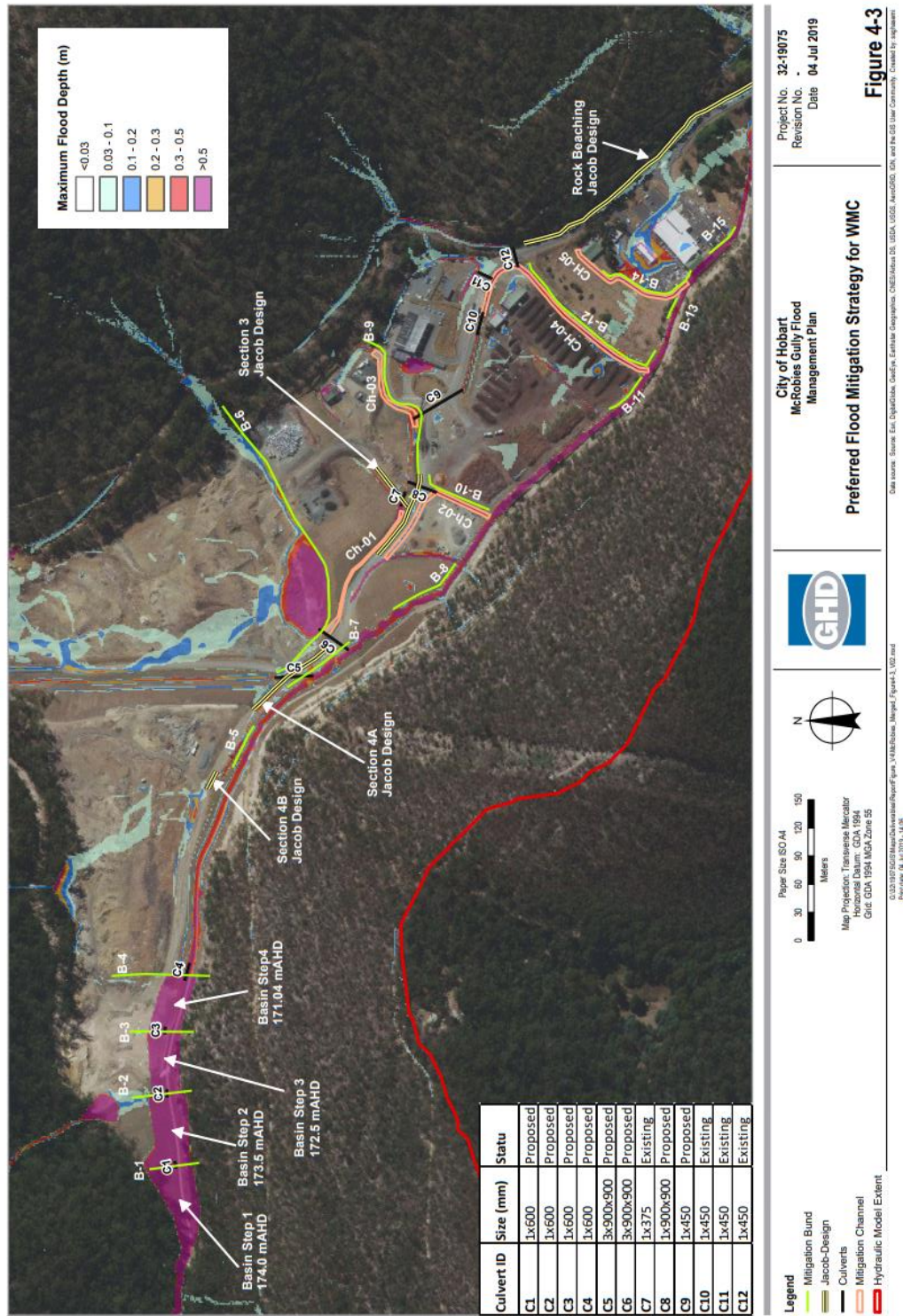


Figure 2 – Urban Area Improvement Plan

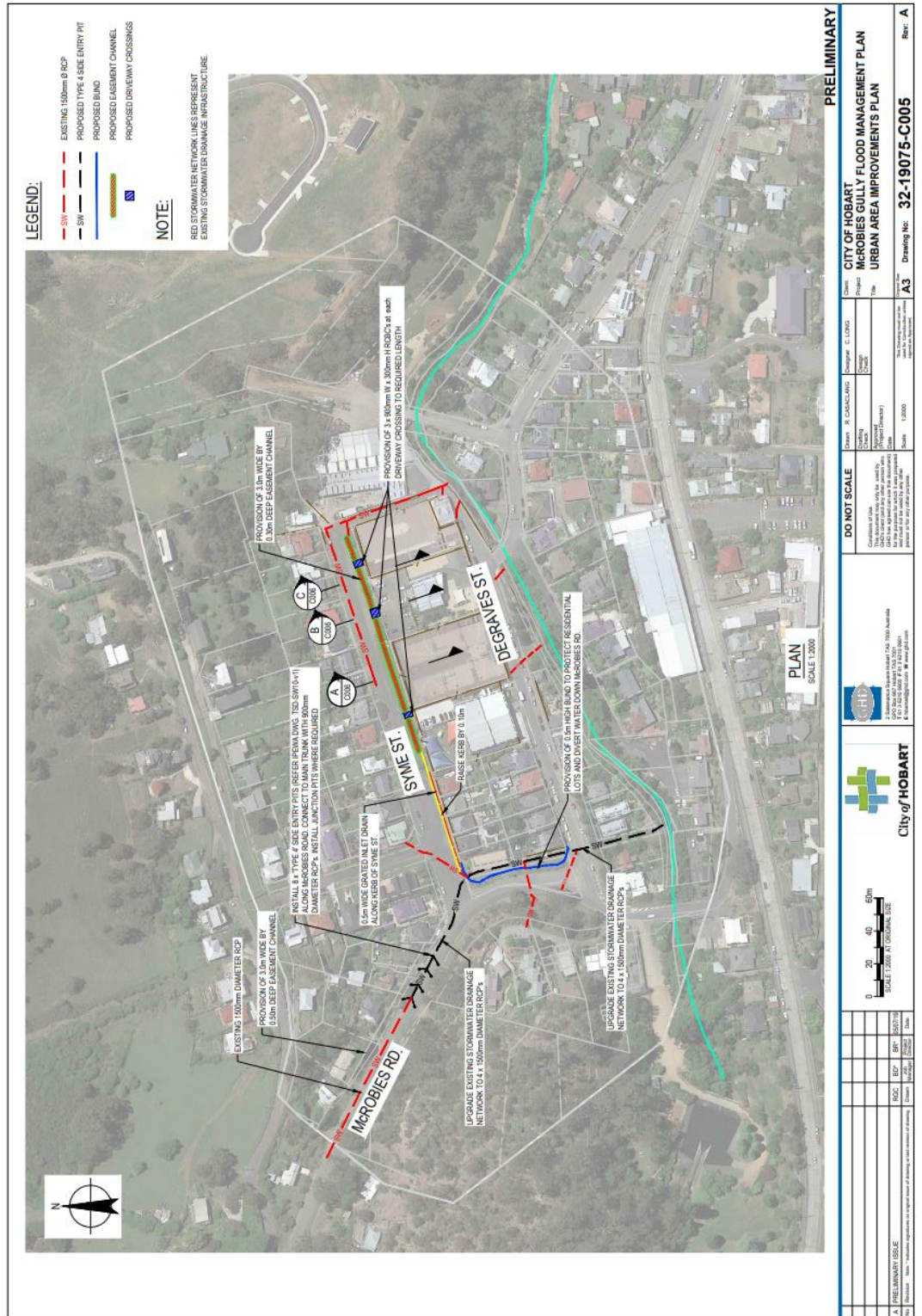
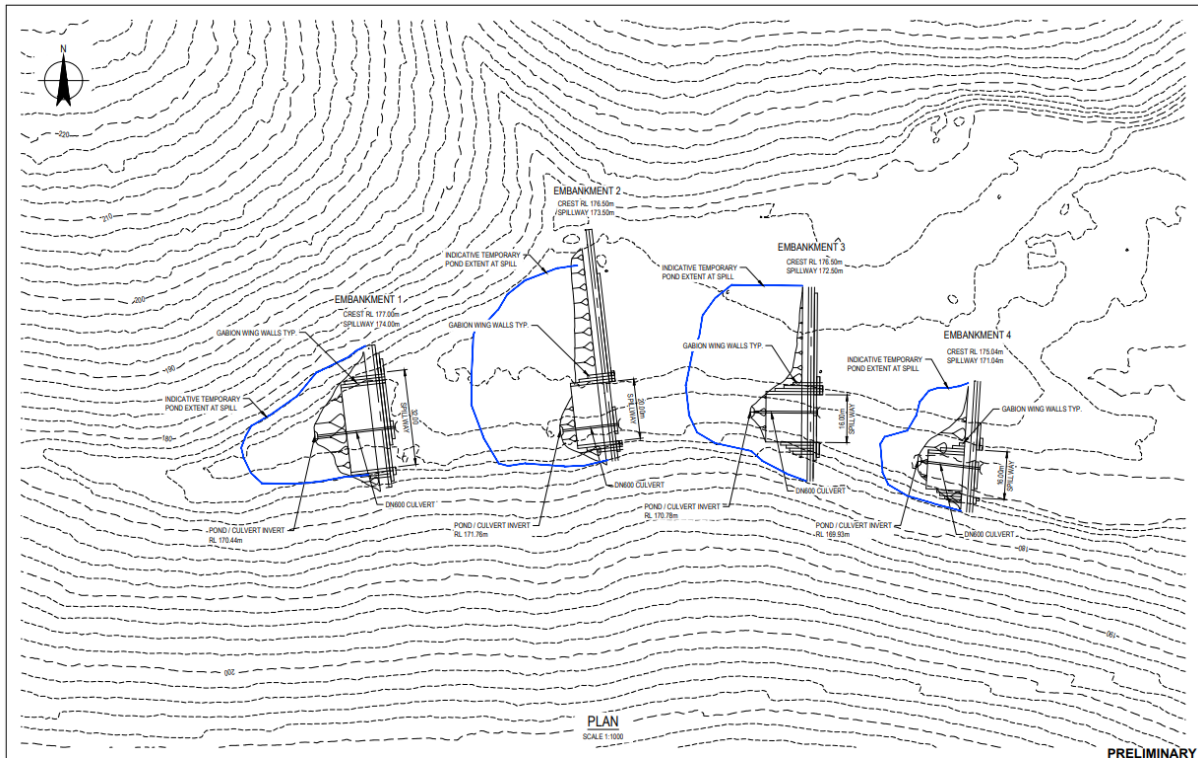
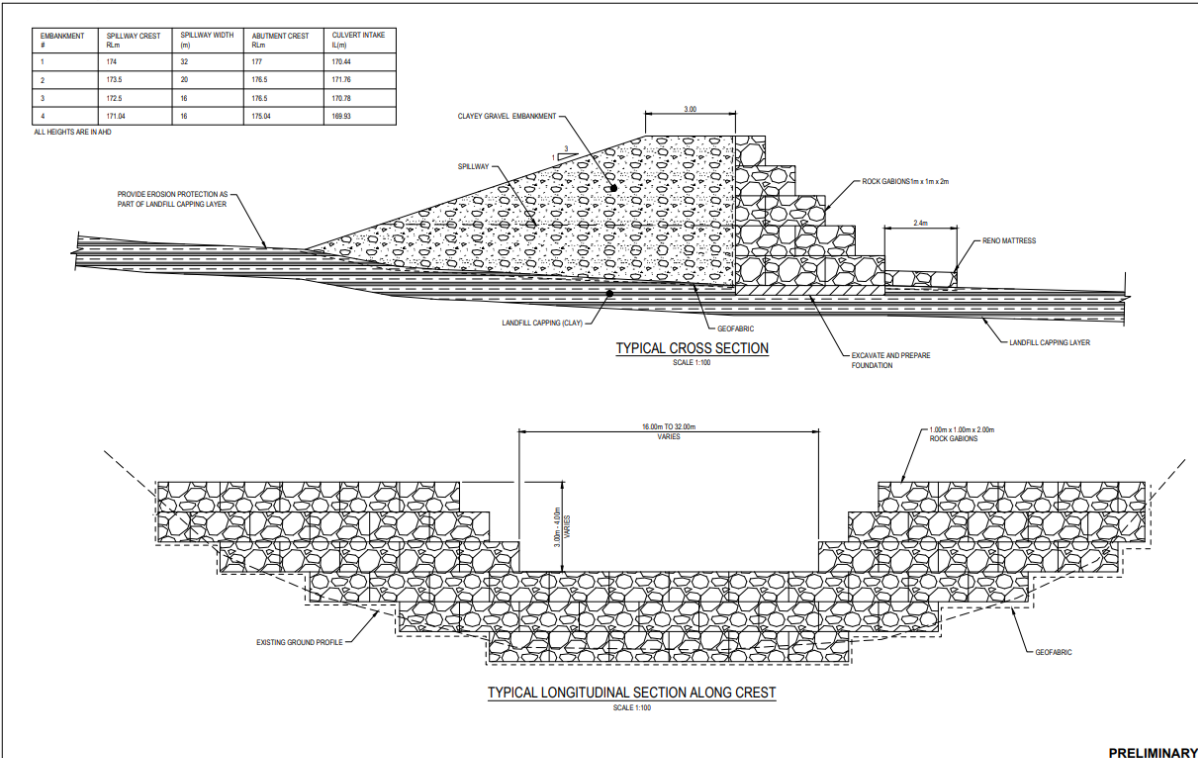


Figure 3 – Embankment/Basin Plan McRobies Gully WMC

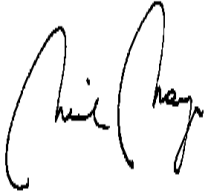


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As signatory to this report, I certify that, pursuant to Section 55(1) of the Local Government Act 1993, I hold no interest, as referred to in Section 49 of the Local Government Act 1993, in matters contained in this report.

A handwritten signature in black ink, appearing to read 'Neil Noye', with a stylized, cursive script.

Neil Noye  
**DIRECTOR CITY LIFE**

Date: 18 July 2022  
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