

Brown Hill and Keswick Creeks Stormwater Board

Project Update

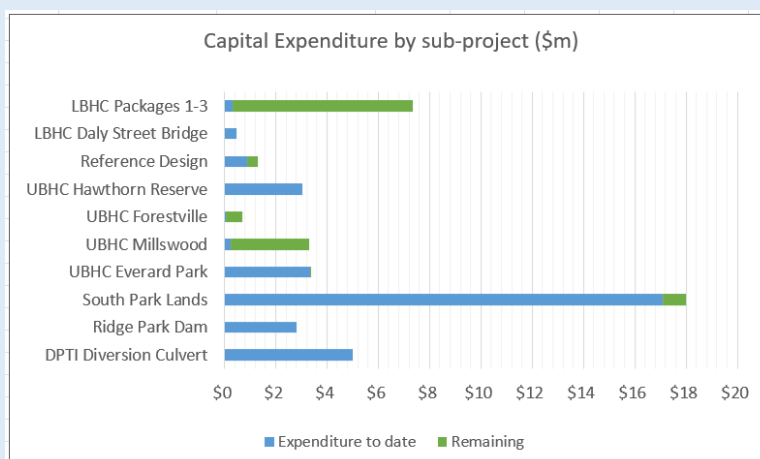
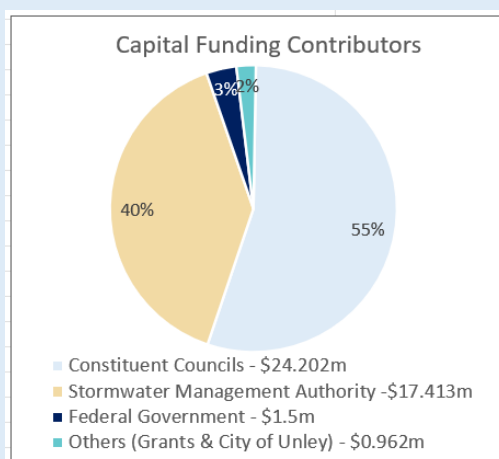
March 2023

This report provides an update to our owner Councils and interested parties on the current financial performance of the Brown Hill and Keswick Creeks Stormwater Board, an overview of capital works projects, and recent activities of interest.

Prepared by Peta Mantzarapis, Project Director

Financial Summary

as at 28 February 2023



FY23 YTD Operating Summary

	Actual YTD	Budget YTD	Variance \$
Income	\$872,023	\$688,479	\$183,544
Expenses	(\$438,986)	(\$457,191)	\$18,205
Net Surplus	\$433,037	\$231,288	\$201,749
Depreciation	(\$102,071)	(\$102,072)	\$1

FY23 YTD Capital Income Summary

	Actual YTD	Budget YTD	Variance \$
Constituent Councils	\$2,500,000	\$2,500,000	\$0
SMA Funding	\$0	\$4,500,000	(\$4,500,000)
Federal Funding	\$1,500,000	\$4,091,106	(\$2,591,106)

Funding Applications

The Australian Government's Disaster Ready Fund will provide up to \$1 billion in funding over the next 5 years, with up to \$200m in funding available annually. The fund aims to build natural disaster resilience and risk reduction, with a focus on delivery of infrastructure projects and systemic risk reduction projects.

Two applications have been submitted for funding under round 1:

1. Application for \$3.7m in funding to upgrade a 320 metre section of Upper Brown Hill Creek in Forestville. Delivery of this section will mark completion of the Area 1 upgrades of Upper Brown Hill Creek. Total project cost \$7.4m.
2. Application for \$2.387m in funding to upgrade a 230 metre section of Upper Brown Hill Creek in Hawthorn. The channel runs through private properties that were inundated in 2016 and remain vulnerable to flooding. Total project cost \$4.774m

Reference Design

This project involves development of concept designs to the preliminary (30%) design stage for all remaining project works.

Recent Activities

- Cultural heritage survey completed for Lower Brown Hill Creek by Kurna Traditional Owners.
- Consultation with DIT staff regarding the works proposed in Marion Road, Anzac Highway, Goodwood Road and the Leader Street rail corridor.
- Stakeholder review comments for the Upper Brown Hill Creek Upgrades Reference Design package consolidated and provided to WGA.
- Consultation with Technical Working Group leads from City of Unley and City of Mitcham.
- Updated cost estimates are in progress for the Upper Brown Hill Creek Upgrades.
- The project continues to receive a high volume of enquiries from property owners along Upper Brown Hill Creek regarding the status of the proposed channel upgrades, and the potential impact of the project on their plans to develop or improve their property. The reference design is being used to inform these discussions.

Next Steps

- With the Millswood documentation now finalised and Issued for Construction, WGA will re-allocate their design resources to finalising the reference designs for Upper Brown Hill Creek with reference to design comments.
- Site inspections with staff from Green Adelaide.
- Continue attempts to maintain an open dialogue with the North South Corridor team.
- Ongoing consultation with the developer of the former Le Cornu site at Forestville.
- Meet with the Adelaide Showground to discuss alignment options for the Keswick Creek Flow Diversions.
- Presentation of reference design plans to Board at next Board meeting.

Glenside

This project involved enlargement of an existing detention basin from a capacity of 18ML to 37ML, to limit downstream flow to the existing capacity of the culvert under the Fullarton and Greenhill Roads intersection. The detention basin, together with other works in the South Park Lands reduce the peak stormwater flows along Park Lands Creek and further downstream.

The Glenside site is being developed by Cedar Woods and a condition of Cedar Woods agreement with Renewal SA was that the development include delivery of the detention basin and associated stormwater infrastructure required under the SMP.

Design Review

In November 2021, the Project Director and Technical Advisor met with staff from City of Burnside, Cedar Woods and WGA to discuss matters relating to the operation and maintenance of the Glenside Detention Basin and discuss the performance of the detention basin during rainfall events.

Following the meeting there were a number of actions on Cedar Woods and WGA to complete with BHKC and Council staff regularly requesting updates since that time.

Council has requested an options assessment be presented for consideration of Council and the Board, with an emphasis on achieving a high amenity outcome that is durable and functions properly, with minimal ongoing maintenance requirements.

Maintenance and Operational

A full clean of all 3 GPTs and the internal screens was undertaken in September 2022. Subsequent cleans were undertaken in November 2022 and February 2023 in accordance with the agreed maintenance schedule.



South Park Lands

Prior to delivery of the South Park Lands project, predicted peak stormwater flows through Park Lands Creek were about double the creek capacity downstream of Greenhill Road. The South Park Lands projects specifically relates to:

Victoria Park/ Pakapakanthi (Park 16) wetland

Establishment of a 3.2 hectare wetland to provide 100 million litres of flood storage. The wetland comprises areas of permanent water, areas that become inundated with stormwater during regular flow events and a broader flood basin that will only become inundated during more significant flow events.

Blue Gum Park/ Kurangga (Park 20) creek works

Construction of a low-level bund and the realignment of existing open channels in the southern section of the park. The works divert flows into new open channels and detain water on site, releasing flows downstream in a controlled manner. Areas to the north of the bund will be inundated in significant flow events.

Key Messages

The Park 20 creek works were completed on 30 September 2022. The works are now in the maintenance phase with fortnightly inspections being undertaken. An issue was identified with the surface level of the containment berm and this has now been rectified by the contractor.

The wetland is now in its operational phase and there are a number of activities that have commenced in recent weeks to finalise works. These include:

- Lowering of the overflow weir.
- Remediation works and enhancements to increase the durability of assets to withstand future events.
- Reinforcement of the informal rock crossing.
- Rectification of remaining defects and omissions.
- Installation of safety barriers across culvert.
- Replanting to replace aquatic species lost over the past several months.

An information brochure has been prepared and distributed to our database of contacts.

Park 16 Wetland – Inlet Pond & Existing Creek

A significant amount of scour has occurred at the interface between the existing creek and the wetland inlet pond, which has resulted in much of the newly placed rock being displaced. The cause is likely to be the high speed and volume of water entering the site at this point.

The designer is currently assessing the situation and deriving a solution to remediate this area.



Upper Brown Hill Creek, Area 1 Everard Park

This project required upgrade of an existing open concrete channel to increase its capacity. The works extend from Anzac Highway, Everard Park to Third Avenue, Forestville and were accelerated due to the adjoining residential development restricting future access. The approved solution included installation of a covered culvert, which allowed for the extension of Wilberforce Walk and establishment of a shared use pathway and landscape improvements at ground level. City of Unley made a financial contribution to achieve the covered culvert outcome. Construction was completed in August 2020 and the site was then handed over to City of Unley for ground-level improvements to be delivered.

Key Messages

1. Practical completion was achieved on 24 August 2020 and the site was then handed over to City of Unley for shared use path works to be delivered. The 12-month defects liability period expired on 24 August 2021 with no issues identified. The site is now well established.
2. The project delivered additional scope to address the City of Unley landscaping requirements and add efficiency to the Council-led works; ie - revised finished levels, fence heights, alignment of pathway and sub-base, light post footings and conduits.
3. Compensation agreement has been reached with all property owners. Agreement has not yet been reached with one owner regarding reimbursement of professional fees.



Lower Brown Hill Creek, Packages 1-3

Packages 1 to 3 of the Lower Brown Hill Creek Upgrade will involve doubling the flow capacity of a 1.7-kilometre-long section of channel beginning at the south-eastern corner of Adelaide Airport and ending at Birdwood Terrace. The channel is primarily situated within a 12-metre-wide reserve owned by City of West Torrens. The upgrades will comprise a 6-metre wide by 1.8 metre high rectangular concrete channel (or an equivalent sized covered culvert) and the upgrade of four crossings using either box culverts or single span bridge structures.

Key Messages

Construction is underway for Package 1C: Crossing Upgrade - Watson Avenue and the installation of the new culverts will take place in early April. Validation testing has confirmed that the PFAS-impacted soil in the works area for Package 1A: Channel Upgrade - Keswick Creek to Watson Avenue is limited to the topsoil layer and the Environmental Consultant has developed an on-site reuse strategy that has been submitted to AAL and the Airport's Regulator for approval. Construction is scheduled to commence on the channel upgrades at the end of March and Camco has developed a methodology that will enable works to continue throughout winter.

Recent Works and Focus Areas

December to February activities included:

- Completion of advance service authority works including gas main relocation, stobie pole disconnection and isolation of water main for Package 1C.
- Construction activities for Package 1C including demolition of existing bridge structure, installation of new in-situ concrete base slab for culverts and installation of new underground stormwater drains at the intersection.
- Commencement of production for precast box culvert arches.
- Validation testing for PFAS-impacted materials and development of on-site reuse strategy by Environmental Consultant, submitted to AAL and the Airport's Regulator for approval.

- Development of revegetation strategy to offset the tree removals required for construction, in consultation with City of West Torrens and AAL.

March and April activities will include:

- Airport Building Works Approval and commencement of channel construction for Package 1A.
- Installation of precast box culvert arches for Package 1C.
- Continuation of detailed design of remaining packages.

Stakeholder Management

Construction notifications and updates have been distributed to residents affected by the works under construction. The Project Manager presented to the Netley Residents Association in February 2023.

The Project Director and Project Manager met with representatives from the Australian Government's National Emergency Management Agency in February 2023 to discuss the program of works funded by PACP and future funding opportunities.

An 'options assessment' is being prepared to enable the City of West Torrens to formally consider the option of a 'covered culvert' in lieu of an open channel solution for sections of Lower Brown Hill Creek. This 'options assessment' will inform the strategy for consultation with owners affected by the future works packages and the wider community.



Upper Brown Hill Creek, Area 3 Millswood

This sub-project involves increasing the size and capacity of the section of Brown Hill Creek between Avenue Street and Regent Street in Millswood, including upgrade of the Regent Street culvert. The creek passes through several privately owned properties and the project team have been engaging closely with owners over the course of the design development.

In November 2022, the Board approved an extension to the scope to also include works just upstream of Avenue Street.



Key Messages

Construction of channel upgrades commenced upstream of Avenue Street in February 2023. The construction contractor is ready to deploy additional resources to commence construction of separable portions 2 and 3, pending agreements with property owners. Commencement of these works in March 2023 is critical to mitigating the risk of winter base flows interrupting the continuity of construction.

Recent Works and Focus Areas

December to February activities included:

- Completion of advance service authority works including isolation of gas and water mains in Regent Street.
- Completion of Issue for Construction drawings for channel upgrades through 15 Avenue Street.
- Structuring the construction contract in 3 Separable Portions.
- Execution of Licence Agreement with property owner and commencement of construction for 15 Avenue Street - Channel Upgrades.
- Negotiation with property owners to finalise Licence Agreements for construction access.
- Community notifications for upcoming construction activities and the planned closure of Regent Street for the culvert installation.

March and April activities will include:

- Continue construction for 15 Avenue Street - Channel Upgrades.
- Commence construction for Avenue Street to Regent Street - Channel Upgrades and Regent Street - Culvert Upgrades, pending execution of Licence Agreements with property owners.
- Risk assessment with property owners for alternative fencing options for the upgraded channel.

Upper Brown Hill Creek, Area 1 Forestville

The Area 1C – Leah Street to Ethel Street reach of Upper Brown Hill Creek is situated in a Council owned drainage corridor (fenced between private properties), except where it passes through 16 and 18 Ethel Street. A proposed development at 18 Ethel Street (currently vacant land) has been approved by Council and will include the construction of 3 townhouses, including one townhouse at the eastern end of the allotment that will span the channel. The height of the existing concrete channel needs to be raised by 0.6 metres, over a length of 175 metres from Leah Street to Ethel Street, to contain the 1% Annual Exceedance Probability (AEP) design flow.

Key Messages

Camco are ready to deploy a works crew to commence construction in March and this is critical to mitigating the risk of winter baseflows interrupting the continuity of construction. If this does not occur some works may need to be deferred until summer 2023/24.

Consultation and negotiations with affected landowners are continuing with a view to finalising the land access arrangements in the coming weeks.

Recent Works and Focus Areas

December to February activities included:

- Reaching agreement with owner of 18 Ethel Street for the proposed design solution.
- Preparation of Licence Agreements for construction access.
- Construction phase planning.

March and April activities will include:

- Commence construction, pending execution of Licence Agreements with property owners.
- Community notifications for upcoming construction activities.

Community notifications to be distributed for upcoming construction activities pending execution of Licence Agreements.

