

**ITEM 6. GREEN SQUARE TRUNK STORMWATER DRAIN - SCOPE  
CHANGES**

**FILE NO: S121015**

**SUMMARY**

Green Square is one of the largest urban renewal redevelopment site in Australia. It comprises 278 hectares, will house 61,000 residents and 21,000 workers, and the value of residential, retail and commercial development will exceed \$13 billion. The value of new and upgraded public infrastructure is around \$1.3 billion, including new streets, parks, drainage and community facilities.

The Green Square Trunk Stormwater Drain Project is intended to deliver key enabling infrastructure that will mitigate flood risks in the Green Square urban renewal area. Reducing flooding risks is a priority in *Adapting for Climate Change*, the City of Sydney's long-term strategy, adopted in 2015. The City's program of flood management works contributes to the overall resilience of Sydney as a global city.

In April 2015, a storm event resulted in water depths of over one metre around Joynton Avenue, Zetland, and resulted in people having to be evacuated from their floating cars. This storm event has been estimated to be equivalent to less than a 1 in 2 year recurrence interval storm event. The new trunk drain also facilitates the continued development of the Green Square Town Centre as a major new residential, retail and cultural hub.

The project involves the construction of a new 2.4 kilometre trunk stormwater drain from Link Road, Zetland to the Alexandra Canal, installation of water quality improvement devices and stormwater water offtake for the Green Square Non-Potable Recycled Water Scheme. It is being jointly delivered by the City and Sydney Water Corporation. The installation of the drain is currently 65% complete and is due for completion in late 2017.

On 7 April 2014, Council approved the substantive terms of a Project Agreement between the City and Sydney Water Corporation. The drain generally runs along and across existing and future streets and parks, however, through the Epsom Precinct it passes across four industrial properties where two buildings had previously been built over an existing culvert. The drain also runs adjacent to the existing open channel from Maddox Street to the Alexandra Canal and is tightly located next to existing warehouses with significant differences of levels. At this time, it was determined to deliver the project through an Alliance contract due to the risks involved on constructing large and at times deep culvert structures along the challenging sections of the project. The drain has had to navigate many complex and highly sensitive utility services along its length, including one of Australia's main fibre optic international communications cable.

On 8 December 2014, Council approved the formation of an Alliance between the City and Sydney Water Corporation as Owner Participants and UGL Engineering Pty Ltd, Seymour Whyte Constructions Pty Ltd, Parsons Brinckerhoff Australia Pty Ltd and RPS Manidis Roberts Pty Ltd as the Non-Owner Participants to deliver the Green Square Trunk Stormwater Drain. Unlike a fixed price Design and Construct contract, an Alliance contract shares the project risks with all parties. It has the advantage of managing higher risk projects through collaboration through the detailed design process and reducing the initial price where the contractor usually puts a high premium on these types of risks.

Works commenced in February 2015 and are progressing in accordance with the project schedule for completion in late 2017. On 29 February 2016, Council approved additional scope for the project to include a shared pedestrian and cycle path along part of the Alexandria Canal.

To mitigate the risks faced by the project some design changes have needed to be made:

- Staging of the eastern section (320 metres) of the project through the Epsom Precinct due to the necessity of aligning delivery of this section with timeframes for private development.
- A major new raised bridge at Huntley Street which will reduce flooding for areas upstream in addition to those benefited by the Green Square Trunk Drain.
- Modification of levels and pipe size near the water quality improvement devices to improve their effectiveness, while not reducing the systems hydraulic efficiency.
- Sandstone facing along the open channel affected by the project.

This report seeks Council approval for the staging of a small portion of the project to match the timing with the redevelopment of three privately owned sites where existing operations, buildings and structure make construction impractical and cost prohibitive. The report also seeks an increase to the existing contract contingency allowance and budget for the project.

## **RECOMMENDATION**

It is resolved that:

- (A) Council approve the staging of the delivery of the eastern section (approximately 320 metres) of the project from Rose Valley Way to Link Road, with delivery of this section to be timed with the redevelopment of three properties that the drain passes through;
- (B) authority be delegated to the Chief Executive Officer to negotiate, execute and administer an agreement with the Sydney Water Corporation to bring into effect the proposed staging as detailed in the subject report;
- (C) Council approve an increase to the budget and contract risk and contingency allowance for Green Square Trunk Stormwater Drain Project as outlined in the confidential Financial Implications, Attachment C to the subject report; and
- (D) Council approve the proposed additional funds to be brought forward from the future years as detailed in confidential Attachment C to the subject report.

**ATTACHMENTS**

**Attachment A:** Site Layout of Green Square Trunk Drain

**Attachment B:** Images of recent works for the Green Square Trunk Drain

**Attachment C:** Financial Implications (Confidential)

**(As Attachment C is confidential, it will be circulated separately from the agenda paper and to Councillors and relevant senior staff only.)**

**BACKGROUND**

1. Significant works are underway to transform the Green Square urban renewal area from an old industrial precinct to a new commercial, retail and residential centre. The City has commenced extensive planning and design works to deliver new community infrastructure and public domain works, which include new roads, services, library and plaza, aquatic centre and open recreational spaces.
2. The Green Square urban renewal area is located on a floodplain and, during periods of heavy rainfall, experiences significant flooding problems. The current stormwater system allows stormwater flows to be conveyed through a series of underground pipe networks; however, when flows exceed the capacity of the existing pipe networks, these are conveyed on ground, along streets, open spaces and, in some instances, private property.
3. Key trapped low points within the Green Square urban renewal area have been identified at Botany Road and Joynton Avenue and, during high rainfall events, these sag points have been known to reach flood levels of over 1.1 metres and 2.3 metres, respectively.
4. The Green Square Town Centre is located within the boundaries of these two known sag points and therefore the development of the new town centre is dependent on a flood solution being implemented. Without a flood mitigation solution, the delivery of the proposed retail, commercial and residential developments will be delayed.
5. On 7 April 2014, Council approved the substantive terms of a Project Agreement between the City and Sydney Water Corporation and endorsed proceeding with the delivery of the Green Square Trunk Stormwater Project.
6. On 8 December 2014, Council delegated authority to the Chief Executive Officer to negotiate, execute and administer the Project Alliance Agreement between the City Sydney Water Corporation as Owner Participants and UGL Engineering Pty Ltd, Seymour Whyte Constructions Pty Ltd, Parsons Brinckerhoff Australia Pty Ltd, RPS Manidis Roberts Pty Ltd as the Non-Owner Participants to deliver the Green Square Trunk Stormwater Drain.
7. Works commenced in February 2015 and are progressing in accordance with the project schedule for completion in December 2017.
8. On 29 February 2016, Council approved additional scope for the construction of a shared pedestrian and cycle path, adjacent to the Sydney Water owned open channel between Maddox Street and south of Huntley Street and other drainage works.
9. The Project Alliance Agreement provides for adjustments to scope and costs, based on a pre-determined process and cost-sharing formula. It is proposed to complete the project, taking into account a number drivers of change, including:
  - (a) staging of the eastern section (320 metres) of the project through the Epsom Precinct due to the necessity of aligning delivery of this section with timeframes for private development;
  - (b) a major new raised bridge at Huntley Street which will reduce flooding for areas upstream in addition to those benefited by the Green Square Trunk Drain;

- (c) modification of levels and pipe size near the water quality improvement devices to improve their effectiveness, while not reducing the systems hydraulic efficiency; and
  - (d) sandstone facing along the open channel affected by the project.
10. The changes, as outlined in the above paragraph, are detailed in confidential Attachment C with regard to financial implications. The changes will, in turn, be formalised in the contract management and governance arrangements for the project.

## **KEY IMPLICATIONS**

### **Strategic Alignment - Sustainable Sydney 2030 Vision**

11. *Sustainable Sydney 2030* is a vision for the sustainable development of the City to 2030 and beyond. It includes 10 strategic directions to guide the future of the City, as well as 10 targets against which to measure progress. The Green Square Trunk Stormwater Drain Project is aligned with the following SS2030 strategic directions and objectives:
- (a) Direction 9 - Sustainable Development, Renewal and Design – The project underpins significant development and urban renewal in south Sydney, which would not be feasible without the provision of this major infrastructure.
  - (b) Direction 10 - Implementation through Effective Governance and Partnerships – the cost sharing arrangement with Sydney Water and joint governance of the Project Alliance has provided a model for progressing major infrastructure works, funded across different levels of government.

## **Risks**

12. The drain generally runs along and across existing and future streets and parks, however, through the Epsom Precinct it passes across four industrial properties where two buildings had previously been built over an existing culvert. The drain also runs adjacent to the existing open channel from Maddox Street to the Alexandra Canal and is tightly located next to existing warehouses with significant differences of levels. At this time, it was determined to deliver the project through an Alliance contract due to the risks involved on constructing large and at times deep culvert structures along the challenging sections of the project. The drain has had to navigate many complex and highly sensitive utility services along its length, including one of Australia's main fibre optic international communications cable.
13. Risk of being able to deliver the trunk drain through undeveloped sites that remain operational was identified in the Project Agreement with Sydney Water Corporation and Project Alliance Agreement (Contract) with the Alliance. Three of the properties have remained undeveloped and fully operational for industrial uses.

## **Environmental**

14. The Green Square Trunk Stormwater Drain Project has a significant environmental benefit for flood mitigation, water recycling and water quality improvement, with the introduction of stormwater off-takes and new gross pollutant traps.

**Economic**

15. The Green Square Trunk Stormwater Drain Project is an enabler for development projects in Green Square, enabling 61,000 residents and 21,000 jobs when fully developed. Significant economic activity is linked to current and future development, including \$13 billion in construction works as well as ongoing retail and commercial activity in Green Square.

**BUDGET IMPLICATIONS**

16. This project is jointly funded by the City and Sydney Water Corporation. To date, both the City and Sydney Water have committed funds to contribute towards the delivery of the project. The City's current budget allocation for the project will need to be revised and additional funds will need to be allocated in the capital works program as identified in confidential Attachment C.
17. The proposed increase to Risk and Contingency Allowance will be funded from the future years' Stormwater Drainage Improvements Program.

**RELEVANT LEGISLATION**

18. Local Government Act 1993 sections 10A(2)(c) and 10A(2)(d)(i).
19. The Green Square Stormwater Trunk Drain project was approved under State Environmental Planning Policy (Infrastructure) 2007 and Part 5 of the Environmental Planning and Assessment Act 1979 through the Review of Environmental (REF) process undertaken by Sydney Water Corporation in 2014. Amendment to the existing REF will need to be undertaken for the subject additional scope.
20. Attachment C contains confidential commercial information of the estimates, budgets and contingencies which, if disclosed, would:
  - (a) confer a commercial advantage on a person with whom Council is conducting (or proposes to conduct) business; and
  - (b) prejudice the commercial position of the person who supplied it.
21. Discussion of the matter in an open meeting would, on balance, be contrary to the public interest because it would compromise Council's ability to negotiate fairly and commercially to achieve the best outcome for its ratepayers.

**CRITICAL DATES / TIME FRAMES**

22. The project was scheduled to be complete and operational by December 2017. The key delivery milestones are being met and the Rose Valley Way to Alexandra Canal section of the Project is on-track for this date, however, there is a risk that the Huntley Street Bridge works may go into 2018 due to complex major utility adjustments and staging requirements. The Rose Valley Way to Link Road section will be subject to timelines of private development in this precinct.

**OPTIONS**

23. Not proceeding with the scope changes, in accordance with the terms of the approved Project Agreement, would substantially delay project completion and associated public benefit. Alternative delivery arrangements would not represent a value-for-money outcome for the City, and would entail significantly higher costs of construction.

**PUBLIC CONSULTATION**

24. Further to the consultation in 2014 for the Review of Environmental Factors, the community is informed on project progress and upcoming works through the City's communications and engagement program, including regular face-to-face events, the City of Sydney website, SydneyYourSay.com.au and the Green Square Community Update newsletter.
25. The DG Alliance has a dedicated communications and stakeholder engagement team from RPS Manidis Roberts working closely with the City of Sydney and Sydney Water. This team implements the overarching Community and Stakeholder Engagement Plan and site specific community relations plans. This includes regular newsletters, notifications of works, as well as liaison with directly impacted stakeholders, and enquiry and complaints management.

**KIM WOODBURY**

Chief Operating Officer

Morris Bellamy, Place Manager Green Square