

Exemption from Tender - Operation of the Leachate Treatment Plant

File No: S106980-04

Summary

The City of Sydney currently owns and operates a leachate treatment plant in Sydney Park, Euston Road. Sydney Park is a former waste landfill, which was closed in 1980. Leachate is groundwater that is contaminated by coming into contact with materials buried in a landfill and then moves off-site where it can create an environmental impact. At Sydney Park, the main underground contaminant is ammonia. The treatment plant treats leachate pumped from a well and reduces the ammonia concentration to levels low enough to allow the treated leachate to be discharged to a sewer as trade waste water.

The plant is in a reasonable state given its age and is maintained sufficiently to meet the City's obligations under the Sydney Water trade waste water consent. The contractual arrangements for continued operation of the plant need to be updated.

In April 2003, Council approved the appointment of Nanochem Pty Limited to design, construct and operate for a period of twelve months the leachate plant at Sydney Park.

In 2006, Nanochem Pty Limited completed building the leachate treatment plant. In 2007, the plant was commissioned. Nanochem Pty Limited still operate the plant to this day.

In 2012, the City of Sydney tendered for a new leachate treatment facility. Around the time of the tender, a flooding event raised questions about the treatment capacity of the proposed new plant. Further ground water investigations were required to determine the correct size of the treatment plant. As a result, Council resolved to cancel the tender.

Consequently, in 2013, a project commenced to determine an effective leachate management process for Sydney Park by undertaking an investigation of the off-site movement, quality and quantity of leachate generated within the park.

This study developed a conceptual model for the flow of leachate from the landfill and suggested that it may be possible to undertake works at the leachate well site to reduce the amount of leachate treated or, in the best case, decommission the plant at some time in the future. This study also noted problems with stormwater management at the leachate treatment site that increase the risk of non-compliant operation of the plant.

Over time, the ammonia levels in the leachate can be expected to fall as the source material in the old landfill degrades. If ongoing treatment of leachate at the site is required for the foreseeable future, then it may be possible to build a new plant using modern technology with lower operating costs for the City of Sydney. This could possibly be achieved by tendering for a build and operate model by a third party. At this stage however, the best approach is to continue operation of the existing plant, while undertaking a series of preparatory works that mitigate risks and create a foundation for reducing the amount of leachate that needs to be treated, or allow the decommissioning of the plant altogether.

Currently, planning is underway to improve stormwater management at the leachate site and the adjacent stone yard depot site to reduce the risk of leachate contaminated stormwater leaving the park. This work is a requirement of the present Sydney Water trade wastewater consent and must be completed by April 2019. Minor improvements to the present treatment process are also being designed to reduce operating costs and reduce risks. This in turn is facilitating work to enable the present leachate treatment process to be fully documented and alternative longer term treatment options to be investigated.

This report recommends that Council approve an exemption from tender and grant approval to enter a new contract with Nanochem Pty Limited to operate the Leachate Treatment Plant for a term of one year. It is envisaged that the existing commercial arrangements with Nanochem Pty Limited for operation of the plant would continue substantially unaltered during this term, but may be amended slightly to reflect changes planned for operation of the plant over the year.

A one-year exemption period would enable Council to complete the stormwater management work required by Sydney Water; to document the existing treatment process and the required service levels to the degree needed to prepare a future request for tender for operation and maintenance of the existing plant; or to build, own and operate a new treatment plant.

Recommendation

It is resolved that:

- (A) Council note that a satisfactory result would not be achieved by inviting tenders for the operation and maintenance of the Sydney Park leachate treatment plant for a period of 12 months at this time because extenuating circumstances mean that tenderers would not receive sufficient information to make competitive and reliable proposals;
- (B) Council note that the reasons why a satisfactory result would not be achieved by inviting tenders are:
 - (a) the present operator designed and constructed the plant and has operated it for many years and as a result has special knowledge of the plant configuration, its history and operational requirements; and
 - (b) this special knowledge is not available to other potential operators and as a result they are not able to present proposals that are either reliable or would represent value for money;
- (C) Council note that continuous delivery of the operation and maintenance service for the Sydney Park leachate treatment plant is required and this can be substantiated on the basis of the need for compliant operation and mitigation of environmental risk;
- (D) Council grant an exemption from tender for the operation and maintenance of the Sydney Park leachate treatment plant for a period of 12 months;
- (E) Council approve the appointment of Nanochem Pty Limited to continue to operate the Leachate Treatment Plant for a further term of one year;
- (F) authority be delegated to the Chief Executive Officer to negotiate, execute and administer the contract relating to the operation of the leachate treatment plant by Nanochem Pty Limited; and
- (G) Council note the bespoke nature of the current Leachate Treatment Plant operation and the need to undertake detailed investigation to continue to inform the most effective Leachate Treatment solution.

Attachments

Attachment A. Leachate Treatment Options and Costs (Confidential)

Background

Treatment Plant History

1. Sydney Park (the Park) covers over 44 hectares in St Peters, and is located between the Princes Highway, Barwon Park Road, Campbell Road, Euston Road and Sydney Park Road. The area is a former waste landfill, which was closed in 1980. Subsequently the whole area was redeveloped and landscaped to form the Sydney Park in its current form.
2. Sydney Park is an important recreational facility within the surrounding urban landscape and acts as a major urban open space for both active and passive recreation within the local community.
3. In common with many landfill sites, leachate is generated at Sydney Park. Leachate is groundwater that is contaminated by coming into contact with materials buried in a landfill. If this moves off-site it can create an environmental impact. At Sydney Park the leachate historically had a propensity to rise to the surface in the vicinity of the present leachate treatment plant, close to the Euston Road boundary of the park. A pond of leachate was often present there.
4. The problem with leachate rising to the ground surface is the risk to human health and safety and environmental impacts. The main contaminant of concern with the Sydney Park leachate is ammonia. Above certain levels, leachate with dissolved ammonia is corrosive, and ammonia gas given off by leachate can be harmful. Consequently steps were taken to collect, treat and safely dispose of the leachate.
5. The propensity for the leachate to rise to the surface was dealt with by installing a well so that leachate could be pumped from the well to suppress the water table and keep the leachate below the ground surface. The amount of leachate that needs to be pumped depends in part on the amount of rainfall in the recent past, as rain infiltrating the surface of Sydney Park tends to raise the water table.
6. Leachate pumped from the well needs treatment to lower ammonia concentrations to safe levels to enable disposal. It was proposed that the treated leachate be discharged to a nearby Sydney Water sewer as trade waste water. Discharge of trade waste water to sewers is covered by Sydney Water consents which specify the maximum volume of the discharge and the maximum concentrations of contaminants, and these conditions must be complied with. There is a current trade waste water consent covering the operation of the Sydney Park leachate treatment plant.
7. To meet Sydney Water's nominated standards for discharge of leachate into the sewer system, the City called for tenders to treat leachate. In April 2003, Council approved the appointment of NanoChem Pty Limited to design, construct and operate for a period of twelve months the leachate plant at Sydney Park. (LTP) for a cost of \$422,972 (excluding GST).
8. In the tender submission, Nanochem also offered Council the option of continuing on as the plant operator beyond the initial commissioning period and nine months of operating services. This offer would remain valid for a period of no less than ten years. Nanochem Pty Limited completed building the leachate treatment plant in 2006 and the plant was fully commissioned in 2007. Nanochem Pty Limited still operate the plant to this day.

9. In 2008, under Clause 3 of the Sydney Park Leachate Plant Post Tender Schedule of Clarification, Nanochem Pty Limited's contract was extended. There was also an increase in the contract fee schedule to reflect increases in the costs of management and material inputs to the treatment process since the original contract was executed.
10. In 2011, the City's Property Services provider, Brookfield Global Integrated Solutions (BGIS), commenced the administration of the City's contract with Nanochem Limited. This involved processing invoice payments and reviewing plant expenditure. BGIS canvassed the market for alternative plant operators but found that, due to the bespoke nature of the plant design and operation, it was difficult to source potential operators, and a review of the leachate processing method was required.
11. In 2012, the City of Sydney tendered for a new leachate treatment facility, which would be capable of providing a reliable and cost effective treatment for the leachate that was rising to the surface near the existing plant. The new facility was expected to be able to cope with varying levels of ground water that results from frequent wet weather events.
12. Around the time of the tender, however, a flooding event raised questions about the capacity of the proposed new plant. Further ground water investigations were identified as being required to determine the correct size of the treatment plant. As a result, the City recommended to Council to cancel this tender and undertake further investigation.
13. In 2013, a project commenced to determine an effective leachate management process for Sydney Park by undertaking an investigation of the off-site movement, quality and quantity of leachate generated within the park.
14. In 2014, Golder Associates were awarded the Tender to undertake this detailed investigation. In 2017, Golder Associates found that the leachate that had migrated off-site was not a danger to human health. This study developed a conceptual model for the flow of leachate from the landfill and suggested that it may be possible to undertake works at the leachate well site to reduce the amount of leachate treated or, in the best case, decommission the plant at some time in the future. This study also noted problems with stormwater management at the leachate treatment site that increase the risk of non-compliant operation of the plant.

Management of Plant Operator - Nanochem Pty Limited

15. In 2011, the City's property services provider, Brookfield Global Integrated Solutions (BGIS), commenced administering the City's management contract with Nanochem Pty Limited of the Leachate Treatment Plant.
16. In 2015, BGIS appointed Golder Associates to oversee the operation of Nanochem's management of the leachate plant for a period of 12 months plus a one-year option, to ensure that the Sydney Water Trade Waste Agreement performance indicators were achieved.
17. In May 2018, the City took back the oversight and administration of Nanochem Pty Limited's operation of the leachate treatment plant. At about the same time, a new consent to discharge industrial trade waste water (treated leachate) was granted to the City by Sydney Water. agreed
18. The leachate treatment plant currently meets Sydney Water's trade waste water consent conditions with respect to the levels of residual ammonia and other contaminants in the treated leachate.

Financial Implications

19. There are sufficient funds allocated in the City's current year's operating budget and future years' forward estimates for the operation of the Leachate Plant under the current configuration and volumes.

Relevant Legislation

20. Local Government Act 1993 and Local Government (General) Regulation 2005.
21. Attachment A contains confidential commercial information of the contractor and details of Council's terms 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.
22. 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.

Options

23. Alternatives to an exemption from tender are covered in Attachment A as they involve confidential commercial information.

KIM WOODBURY

Chief Operating Officer

Chris Collins, Manager,

Green Infrastructure

AMIT CHANAN

Director City Projects and Property

Tracey Hargans, Portfolio Manager

(Community), Property Services