

ATTACHMENT C – FOLLOW UP QUESTIONS FROM DIRECTOR-GENERAL

Director Governance

Thank you for the report into the landfill capacity of Mugga dated January 15.

Some issues I would like more information on:

- **Notwithstanding the ED BED and ACT NOWaste are yet to receive the final report, has there been progressive work to address the concerns raised in the findings on page 3?**

PWC Response –

- We are not well placed to comment on progressive work taken by ACT NOWaste in response to findings raised in the report. ACT NOWaste would be best placed to respond to this question. However, in conducting our fieldwork it was apparent that further analysis of landfill survey reports was being undertaken by ACT NOWaste, there was regular discussions with Remondis and a landfill specialist (Phil Grace Contracting) had been engaged to provide advice to ACT NOWaste on landfill capacity and operations at the site.

Director, ACT NOWaste Response –

- The findings of the PWC Review were consistent with the broad causes advised to the Minister when he was briefed verbally on 8 September 2014.
 - The process of addressing issues subsequently raised in the PWC report commenced in October with the commissioning by ACT NOWaste of a separate review by Mr Phil Grace, a landfill management specialist. This work occurred prior to the PWC review.
 - Phil Grace worked with ACT NOWaste to address issues regarding landfill operations, surveying and forecasting, and existing landfill contract, and NOWaste's contract management. Furthermore the work done by Phil Grace informed the PWC review.
 - Significant progress has been made and details of this were provided to the Minister's Office by email on 3 February 2015 in response to inquiries from the Canberra Times (Attachment B).
- **With contract management clearly deficient, what remediation has occurred in this regard?**

PWC Response –

- We are not able to comment.

Director, ACT NOWaste response –

- Phil Grace examined the existing landfill contract and while he raised some concerns for consideration he concluded it was a reasonable contract. As part of the development of the next landfill contract ACT NOWaste is engaging an expert adviser to review the existing contract and provide advice on how to improve it. The current agreement will expire in mid-2016.

- Mr Grace raised concerns about the working relationship of ACT NOWaste and Remondis, the landfill contractor, and has worked with both parties to identify and work through the issues.
 - ACT NOWaste is providing a greater degree of direction to Remondis and working more collaboratively on site with Remondis. Aerial surveys have been done and compared with the existing ground surveys, and this proves the ground surveys are accurate.
 - The decision to re-profile the current landfill cell to access additional space is a direct result of the work done with Phil Grace. Following completion of this work a new survey will be done and a new fill plan agreed with Remondis.
 - Other improvements are referred to in the email of 3 February 2015.
- **Do we now have a clear set of roles and responsibilities so as to be able to identify those areas responsible for landfill capacity measurement and monitoring?**

PWC Response –

- We are not able to comment.

Director, ACT NOWaste Response –

- Substantial progress has been, although further work is required. A risk for ACT NOWaste is that the two officers with key responsibility for management of landfill are employed on temporary contracts. An internal review of the business unit's structure seeking to address this issue is currently underway.

- **In light of the above what new or revised documentation is now in place to support a forecasting and monitoring regime?**

PWC Response –

- We are not able to comment.

Director, ACT NOWaste Response –

- The current forecast is based on the work done by Phil Grace and this has been used to inform all advice, policy and planning decisions. There is document control over the current forecasting model. However the final process will be documented in conjunction with the next survey and profile developed as part of the operational commencement of the new A2 cell.

- **Is any external specialist advice planned to ensure we have periodic quality assurance?**

PWC Response –

- This would need to be answered by ACT NOWaste. However, based on discussions during fieldwork with the Director of ACT NOWaste, our understanding is that the services of Phil Grace Contracting, or other landfill specialists, were being considered on a more ongoing basis by ACT NOWaste.

Director, ACT NOWaste Response –

- ACT NOWaste plan, at this stage, to engage a specialist to review progress around mid-year, but earlier if issues arise. ACT NOWaste is commissioning a review of its

current landfill operations contract as part of the procurement process for the next contract.

- **When will we definitely establish an operational capacity of the site?**

PWC Response –

- Not known by PWC. However, during fieldwork we were advised that a survey was being undertaken by Remondis to determine the amount of operational airspace that would be available following a proposed reshaping of the current landfill area. We were advised that based on the results of that survey, a decision would be made as to when the Mugga Lane landfill site would be able to transition back to full operational capacity (cease diverting a portion of waste to West Belconnen). We understand that the Mugga Lane landfill is now back at full operational capacity, so on this basis we would assume the survey has been completed to inform this decision.

Director, ACT NOWaste Response –

- Phil Grace undertook an exercise to estimate the capacity of the landfill and has provided an estimate. This exercise demonstrated the current surveying method was accurate. Phil Grace's estimate will be updated by ACT NOWaste once a new survey has been done following the recent re-profiling works. A critical point is that the optimal capacity of a landfill requires the operator to fill in a way that allows all the airspace to be accessed. ACT NOWaste will be closely monitoring and directing Remondis in regard to the agreed fill plan.

- **Was there any specific reason why monitoring prior to August 14 was based on historical data rather than actual tonnage?**

PWC Response –

- This specific question would need to be put to ACT NOWaste. However, based on discussions with ACT NOWaste personnel during fieldwork there was a belief that the forecasting being undertaken (which was largely based on total capacity measurements from site designs, historical annual tonnage data and estimated annual landfill tonnage and compaction rates) was accurate and erring on the conservative side in terms of remaining capacity. We are not able to confirm the accuracy of prior forecasting due to inadequate monitoring and forecasting records. Only two examples of forecasting conducted prior to August 2014 could be provided by ACT NOWaste.

Director, ACT NOWaste Response –

- A definitive answer to this cannot be determined, however there is evidence of some simple failings:
 - A lack of skill and experience in estimation techniques and skills in Excel.
 - Lack of rigour such as questioning of assumptions and lack of proofing of estimation assumptions against available data, and on-site confirmation of what is happening on the ground.
 - Lack of collaboration and communication within ACT NOWaste and with the contractor.

- **What was the responsibility of Remondis in gathering actual tonnage and providing accurate and confirmed advice to ACT NOWaste and did they discharge this requirement in a responsible manner?**

PWC Response –

- We are not able to comment on whether Remondis discharged its responsibilities in a responsible manner without first speaking with Remondis. In conducting our review, we were reliant on records provided by ACT NOWaste and discussions with ACT NOWaste personnel. Remondis were not consulted with as part of the review.
- With that said, Remondis did provide ACT NOWaste with certain reports as required under the contract, including quarterly landfill survey reports. In our opinion, certain figures and assumptions in these survey reports require clarification and verification before they should be relied upon by ACT NOWaste. However, based on records available and stakeholder consultations undertaken, there is insufficient evidence of these landfill survey reports from Remondis being adequately analysed, used or challenged by ACT NOWaste over the two year period to August 2014.

Director, ACT NOWaste Response –

- Remondis provided surveys that have been proven to be accurate and which no-one has disputed – ACT NOWaste recently compared the Remondis survey against an aerial survey and came up with similar results.
 - Actual tonnage figures come from ACT NOWaste's WasteMan IT system, which records (at the weighbridge) waste taken to landfill. The quarterly waste to landfill tonnage is provided by ACT NOWaste to Remondis. Remondis commissions quarterly landfill surveys, which measures cubic metres of waste consumed. The tonnage of waste to landfill divided by cubic metres consumed each quarter is used to calculate the compaction ratio – the compaction ratio triggers bonus payments under the contract. All the above is recorded quarter-by-quarter in a report provided by Remondis to ACT NOWaste. I agree with PWC that it appears ACT NOWaste did not make good use of these reports.
- **Why weren't Remondis landfill survey reports challenged or more robustly scrutinised for the period prior to August 14?**

PWC Response -

- We are not able to identify a particular single cause for this. There appears to be a number of causal factors at play, including, but not necessarily limited to, staff turnover and a lack of clear roles and responsibilities resulting in no-one appropriately reviewing these reports.

Director, ACT NOWaste Response –

- ACT NOWaste agrees with PWC's comments.
- **Despite achieving compaction rates, is the use of clean fill by Remondis excessive compared to industry norms? Is there a case to reduce this level of fill while maintaining required compaction rates and therefore presumably extend the landfill operational capacity?**

PWC Response

- As per section 4.5 of our report, the level of clean fill used by Remondis to cover waste has been identified by Phil Grace Contracting Pty Ltd to be in excess of industry norms. We were advised by ACT NOWaste that Remondis contest this point and believe the level of clean fill they have used is not in excess of industry norms. Clarification of this point is necessary.
- The 'compaction ratio/rate' is a measure of waste tonnage per cubic meter of airspace consumed. For example, 850kg of waste per cubic metre of landfill airspace equates to a compaction ratio/rate of 0.85. The operational capacity (or life) of the landfill site could be extended by obtaining an increase in the compaction ratio/rate as more waste would be in each cubic meter of airspace consumed. Our understanding is that the compaction ratio could be increased via a number of methods, for example:
 - reducing the level of clean fill, while maintaining the same level of waste (more waste would fit in each cubic meter because there would be less clean fill taking up airspace).
 - Maintaining the same level of clean fill and waste, but undertaking additional compaction/flattening so that more waste and clean fill fit in each cubic meter.
- We recommend advice be obtained from a landfill specialist as to the practicalities of different options.

Director, ACT NOWaste Response –

- A review of the data reveals Remondis is achieving a high level of compaction of the waste (over 0.9t/m³) irrespective of the level of cover material used.
- Environmental standards around odour and fire risk management play a part in the level of cover material used.
- Phil Grace advised that he had spoken to a large landfill operator in NSW who advised that up to 20% was the industry norm, so Remondis using 35-40% appears excessive. Remondis claim the level they use is comparable to other Remondis sites in Australia.
- To clarify this matter ACT NOWaste is seeking further advice as part of its review of the existing Remondis landfill contract.

