

SECTION 14 INCIDENT REPORT (*Waste Management and Pollution Control Act*)

Date and Time of Notification:	Wednesday 25 th September 2019, 9:05am
Person / Company:	Power and Water Corporation (PWC)
Incident:	Discharge of raw sewage from sewerage network (Vacuum pit / manhole)

<p>(a) the incident causing or threatening to cause pollution</p>	<p><i>i. Description of the waste that was discharged.</i></p> <p>Raw sewage (no gross pollutants).</p> <p><i>ii. Indicative wastewater quality for the discharge.</i></p> <p>Indicative wastewater quality for this overflow can be found in Table 1. Rainfall leading up to the overflow was 0.0mm for the previous 7 days (Darwin Airport Weather Station – 014015), therefore raw sewage is believed to have overflowed from the vacuum pit – this is reflected as Average Dry Weather Flows (ADWF) in Table 1 below.</p> <p>Table 1: Inflow to Ludmilla Wastewater Treatment Plant</p> <table border="1"> <thead> <tr> <th>Inflow volume</th> <th>median inflow kL</th> <th>median E coli</th> <th>90th percentile inflow kL</th> <th>90th percentile E coli</th> </tr> </thead> <tbody> <tr> <td>below ADWF</td> <td>11,040</td> <td>11,199,000</td> <td>12,925</td> <td>15,531,000</td> </tr> <tr> <td>>ADWF (approx. 14.5 L/day)</td> <td>15,274</td> <td>9,804,000</td> <td>22,206</td> <td>17,148,300</td> </tr> <tr> <td>>2xADWF (approx.. 29 ML/day)</td> <td>31,673</td> <td>4,884,000</td> <td>37,166</td> <td>14,385,600</td> </tr> <tr> <td>>3xADWF approx. 43.5 L/day)</td> <td>43,629</td> <td>4,611,000</td> <td>50,506</td> <td>12,843,600</td> </tr> <tr> <td>>5xADWF (approx. 72.5 L/day)</td> <td>71,558</td> <td>5,002,000</td> <td>78,578</td> <td>5,905,200</td> </tr> </tbody> </table> <p>(ADWF= Average Dry Weather Flow) 90th percentile inflow: Protection of aquatic food for human consumption</p> <p><i>iii. Volume of the waste that was discharged.</i></p> <p>The volume of waste discharged is unknown. No telemetric monitoring occurs at vacuum pits.</p> <p>This blockage was notified to PWC by the neighbouring resident. PWC responded to the call and noticed the vacuum pit was overflowing. The start time of the overflow is unknown and there is no metered data available for vacuum pits to determine a volume of the overflow.</p> <p>The overflow was resolved shortly after attendance to the site by PWC officers.</p> <p>Discharge of raw sewage to the marina beside the vacuum pit was associated with a fat build-up, blocking the vacuum pit controller, resulting in the overflow. Fat and other substances have been incorrectly disposed into the sewer network by customers resulting in</p>	Inflow volume	median inflow kL	median E coli	90th percentile inflow kL	90th percentile E coli	below ADWF	11,040	11,199,000	12,925	15,531,000	>ADWF (approx. 14.5 L/day)	15,274	9,804,000	22,206	17,148,300	>2xADWF (approx.. 29 ML/day)	31,673	4,884,000	37,166	14,385,600	>3xADWF approx. 43.5 L/day)	43,629	4,611,000	50,506	12,843,600	>5xADWF (approx. 72.5 L/day)	71,558	5,002,000	78,578	5,905,200
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	the controller failure.
(b) the place where the incident occurred	<p>4 Muzzell Street, Bayview – Vacuum Pit</p> <p><i>i. Description of the PWC asset from which the discharge occurred.</i></p> <p>Vacuum Pit located at 4 Muzzell Street, Bayview – as per map below.</p> <p><i>ii. GPS coordinates of the discharge point from the PWC asset, and the final coordinates of the final discharge point.</i></p> <p>Discharge Point: 130.854707, -12.439071 Final Discharge Point: 130.854676, -12.439105</p> <p><i>iii. Indicate any locations nearby to the discharge point where public can gain ready-access, such as public open spaces through which the discharge moves.</i></p> <p>Public access is restricted to neighbours of the vacuum pit due to fencing of the properties. Access is also possible via boat or swimming within the marina area. The area impacted by the discharge on land is fenced off by the neighbouring properties, preventing access by the general public. The marina was checked for gross pollutants of which none were visible, due to the vacuum pit lid trapping them within the sewer system. Clean up was undertaken as per Sewage Spills/Overflow Response Work Instruction. The lockmaster was also notified and will be opening the lock to allow passage of vessels, in turn assisting with flushing of the marina waters.</p>
(c) the date and time of the incident	<p><i>i. The time and date of commencement and cessation of the discharge.</i></p> <p>The commencement time of the overflow is unknown. The overflow was observed at approximately 10:45pm on 24/05/19 and was stopped at approximately 12:00am (25/05/19).</p> <p><i>ii. How PWC were notified, or became aware of the discharge.</i></p> <p>PWC call centre was notified by the neighbouring resident of the overflow, this was then reported to the on call PWC staff who attended the site at approx. 10.45pm (24/09/19). From this PWC resolved the overflow and cleaned the area.</p> <p><i>iii. The process by which the discharge occurred.</i></p> <p>Fat and other substances have been incorrectly disposed of into the sewer network by customers, resulting in the failure of the vacuum pit controller resulting in the overflow.</p> <p>The fats, oils, meat juices, other substances that are put down the sink or toilet have collected and built up, blocking the vacuum pit controller.</p> <p>When fats, oils and meat juices are put down the sink it is usually as a liquid, but as it cools it can become more solid and cause build-up, resulting in bad odours and blockages in the sewerage system. This can lead to the sewage overflows into the environment, households and businesses.</p> <p><i>iv. The reason why the discharge occurred.</i></p>

	As per (c) iii. Sewerage network infrastructure has been designed to overflow with the best public health and environmental outcomes possible. Design focuses on not overflowing directly inside houses; rather discharge is designed to occur in a controlled manner at locations which can be accessed for infrastructure repair and clean up and with minimal public health or environmental impacts.
(d) how the pollution has occurred, is occurring or may occur	As per (c) iii & (c) iv.
(e) the attempts made to prevent, reduce, control, rectify or clean up the pollution or resultant environmental harm caused or threatening to be caused by the incident	<p>The fat build up was cleared, the vacuum pit controller replaced, and the overflow was stopped. Clean up undertaken as per Sewage Spills/Overflow Response Work Instruction.</p> <p><i>i. Confirmation signage and fencing has been erected, as appropriate.</i></p> <p>The site is already fenced off due to the properties around the overflow site. Signage was installed to alert the public as per Sewage Spills/Overflow Response Work Instruction (attached). However access to the marina is possible via boat or swimming. PWC has also notified and discussed the overflow with Department of Health – Environmental Health Division.</p> <p><i>ii. Decontamination of the site as appropriate.</i></p> <p>Clean up consistent with Sewage Spills/Overflow Response Work Instruction as appropriate to the location, and to minimise risk to the environment. Vacuum truck was used to remove the wastewater from the vacuum pit, followed by cleaning of the surrounding surface.</p> <p>Public education about what can be disposed in sewer/is flushable: https://www.powerwater.com.au/_data/assets/pdf_file/0003/91578/Think_before_you_put_it_down_the_sink.pdf In the aim of prevention this material is available on the PWC website and is used as an educational tool for customers.</p>
(f) the identity of the person notifying the NT EPA	PWC Environmental Team on behalf of Water Services

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