

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

Date and Time of Notification:	Monday 15 th July 2019, 12:01pm
Person / Company:	Power and Water Corporation (PWC)
Incident:	Discharge of raw sewage from sewerage network (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 >30 days (Darwin Airport – 014015), therefore raw sewage is believed to have overflowed from the manhole – 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 manholes.</p> <p>This overflow was reported to the PWC Call Centre, which was then reported to on-call staff who attended the site immediately. The exact start time of the overflow is unknown, and there is no metered data available for manholes to determine a volume of the overflow.</p> <p>Discharge of raw sewage to land beside the vacuum pit was associated with a build-up of items (fat, rags etc), blocking the sewer main, resulting in the overflow from the nearby manhole.</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
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																											
<p>(b) the place where the</p>	<p>Corner of Mitchell Street and Knuckey Street, Darwin City – Manhole</p> <p><i>i. Description of the PWC asset from which the discharge occurred.</i></p>																														

<p>incident occurred</p>	<p>Manhole located at the corner of Mitchell Street and Knuckey Street, Darwin City – as per map below. Near Flight Centre.</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: 130.840513, -12.463910 Final Discharge Point: 130.840540, -12.463874</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>Access by the public in this area is frequent. Upon PWC crew attending the overflow the site was cordoned off with Witches Hats which were supervised by PWC staff to prevent access by the public. Upon resolution of the blockage the area was cleaned comprehensively to ensure the area was safe for the public to access immediately.</p> <p>Due to the location temporary fencing was not appropriate. Therefore cleaning undertaken was performed to ensure access by the public immediately after resolution of the blockage was safe. The area was checked for gross pollutants of which none were visible, due to the manhole lid trapping them within the sewer system. Clean up was undertaken as per Sewage Spills/Overflow Response Work Instruction.</p>
<p>(c) the date and time of the incident</p>	<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 9:30am on 15/07/19 and was stopped at approximately 10:00am (15/07/19).</p> <p><i>ii. How PWC were notified, or became aware of the discharge.</i></p> <p>This overflow was discovered by a member of the public and was reported to the PWC call centre at approx. 9.15am (15/07/19), who then relayed the information to the on-call PWC operations staff. PWC personnel attended the site at approximately 9:30m (15/07/19) and undertook action to resolve the situation. From this PWC staff 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 blockage and 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 sewer main.</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>Other materials such as rags were also responsible for the blockage of the sewer main.</p>

	<p><i>iv. The reason why the discharge occurred.</i></p> <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/businesses; 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.</p>
(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 blockage was cleared 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>Upon PWC crew attending the overflow the site was cordoned off with Witches Hats which were supervised by PWC staff to prevent access by the public. Upon resolution of the blockage the area was cleaned comprehensively to ensure the area was safe for the public to access immediately. Due to the location temporary fencing was not appropriate. Therefore cleaning undertaken was performed to ensure access by the public immediately after resolution of the blockage was safe.</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 manhole, 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/Thin_k_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

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

