

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

<b>Date and Time of Notification:</b>	Tuesday 10/03/2020 15:15hrs
<b>Person / Company:</b>	Power and Water Corporation ( <b>PWC</b> )
<b>Incident:</b>	Discharge of diluted sewage from sewerage network (no gross pollutants)

<p><b>(a) the incident causing or threatening to cause pollution</b></p>	<p><i>i. Description of the waste that was discharged.</i></p> <p>Diluted sewage (no gross pollutants)</p> <p><i>ii. Indicative wastewater quality for the discharge.</i></p> <p>Inflow data to Ludmilla WWTP was 28ML/day, and rainfall leading up to the overflow was 126.6mm for the preceding 3 days (Darwin Airport – 014015), meaning that flows of approximately 2 x ADWF where present resulting in diluted sewage overflowing.</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>&gt;ADWF (14.5 ML/day)</td> <td>15,274</td> <td>9,804,000</td> <td>22,206</td> <td>17,148,300</td> </tr> <tr> <td>&gt;2x ADWF (29.0 ML/day)</td> <td>31,673</td> <td>4,884,000</td> <td>37,166</td> <td>14,385,600</td> </tr> <tr> <td>&gt;3x ADWF (43.5 ML/day)</td> <td>43,629</td> <td>4,611,000</td> <td>50,506</td> <td>12,843,600</td> </tr> <tr> <td>&gt;5x ADWF (72.5 ML/day)</td> <td>71,558</td> <td>5,002,000</td> <td>78,578</td> <td>5,905,200</td> </tr> <tr> <td>&gt;WDL limit (89.5 ML/day)</td> <td>102,445</td> <td>102,445</td> <td>148,575</td> <td>13,704,400</td> </tr> </tbody> </table> <p>(ADWF= Average Dry Weather Flow ~14.5 ML/day in 2013/14)</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 the site of discharge. The area affected as reported by site crews was approximately 1.5 square meters, much of that being on the concrete path surrounding the ORG.</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 (14.5 ML/day)	15,274	9,804,000	22,206	17,148,300	>2x ADWF (29.0 ML/day)	31,673	4,884,000	37,166	14,385,600	>3x ADWF (43.5 ML/day)	43,629	4,611,000	50,506	12,843,600	>5x ADWF (72.5 ML/day)	71,558	5,002,000	78,578	5,905,200	>WDL limit (89.5 ML/day)	102,445	102,445	148,575	13,704,400
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<p><b>(b) the place where the incident occurred</b></p>	<p>60 Progress Drive, Nightcliff.</p> <p><i>i. Description of the PWC asset from which the discharge occurred.</i></p> <p>Overflow relief gully (ORG) from house number 60 Progress Drive, Nightcliff.</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: 130.8479682, -12.3875874</p>																																			

	<p>Final discharge point was concrete and grass surrounding the overflow relief gully at the above co-ordinates.</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 to the public is possible, as the ORG is within a private residential property. Residents and visitors would have access. The affected area has been thoroughly cleaned and disinfected as per the PWC Sewage Spills/Overflow Response Work Instruction, allowing safe access by residents.</p>
<b>(c) the date and time of the incident</b>	<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 12:30hrs by PWC staff on 10/03/2020 and the spill stopped by 12:40hrs 10/03/2020.</p> <p><i>ii. How PWC were notified, or became aware of the discharge.</i></p> <p>This overflow was reported by one of the residents to the PWC call centre, after being advised by a private plumber that the blockage was not within their property boundary. This information was then relayed to the on-call PWC operations staff. PWC personnel attended the site at 12:30hrs (10/03/20) and undertook action to resolve the situation and make it safe.</p> <p><i>iii. The process by which the discharge occurred.</i></p> <p>The cause of the spill was due to a blockage in the main line, because of rags and fat build-up in the gas trap. Fat and other substances have been incorrectly disposed of into the sewer network by customers, resulting in the blockage and the overflow. 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>Public education about what can be disposed in sewer/is flushable: <a href="https://www.powerwater.com.au/about/what-we-do/wastewater/sewer-blockages-and-overflows/think-before-you-put-it-down-the-sink">https://www.powerwater.com.au/about/what-we-do/wastewater/sewer-blockages-and-overflows/think-before-you-put-it-down-the-sink</a> In the aim of prevention, this material is available on the PWC website and is used as an educational tool for customers.</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 that can be accessed for infrastructure repair and clean up and with minimal public health or environmental impacts, such as overflow relief gullies.</p>
<b>(d) how the pollution has occurred, is occurring or may occur</b>	<p>As per (c) iii &amp; (c) iv.</p> <p>Sewer overflow from property overflow relief gully, caused by tenants in property continuing to use plumbing even after their private plumber had</p>

	<p>informed them not to. The sewer blockage was determined not to be within the bounds of their property, hence PWC was notified, who cleared the blockage shortly after arriving.</p>
<p><b>(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</b></p>	<p><i>i. Confirmation signage and fencing has been erected, as appropriate.</i></p> <p>The spill, which was mostly on concrete, had been thoroughly cleaned up using a pressure washer and vacuum truck and disinfected as per Sewage Spills/Overflow Response Work Instruction; as such the area was deemed unlikely to pose a health risk to the tenants and barricading or signage was not erected.</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 public health and the environment. The crew contracted to conduct the unblocking of the sewer network and the clean-up and disinfection on behalf of PWC was Alawa Plumbing. All waste from the clean up was taken to Hudson Creek facility – Wishart.</p> <p>No impact to mangroves, as they are around 150 meters away and any contamination was cleaned up on site.</p> <p>Further targeted education campaigns on inappropriate items being disposed of into the sewer system is currently being contemplated by PWC.</p>
<p><b>(f) the identity of the person notifying the NT EPA</b></p>	<p>PWC Environmental Team on behalf of Water Services</p>

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Appendix A – Location map



Appendix B – Photographs of the spill source and receiving environment

