

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

Date and Time of Notification:	Tuesday 14/07/2020 10:40hrs
Person / Company:	Power and Water Corporation (PWC)
Incident:	Discharge of raw sewage from sewerage network (no gross pollutants)

<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>Inflow data to Ludmilla WWTP was 11.8ML/day, and rainfall leading up to the overflow was 0mm for the preceding 3 days (Darwin Airport – 014015), meaning that flows were average dry weather flows, with no dilution. Please refer to the following table for indicative wastewater quality.</p> <p style="text-align: center;">Table 1: Inflow to Ludmilla Wastewater Treatment Plant</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <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 (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>>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>>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>>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>>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 style="text-align: center; font-size: small;">(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.</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) the place where the incident occurred</p>	<p><i>i. Description of the PWC asset from which the discharge occurred.</i></p> <p>Rapid Creek Road / Lakeside Drive sewage pumping stations balance pipe emergency overflow point, Rapid Creek.</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: 130.8656167, -12.3806465</p> <p>Final discharge point is downstream of discharge point into Rapid Creek.</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 but is believed to be infrequent given the nature of the location, and direct contact is unlikely, as the area is not typically used for swimming due to crocodiles. Additionally, warning signage has been erected.</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 09:30hrs by PWC staff on 13/07/2020 and the spill stopped by 11:45hrs 13/07/2020.</p> <p><i>ii. How PWC were notified, or became aware of the discharge.</i></p> <p>As part of routine maintenance work, Power and Water operators and contractors went to the Rapid Creek sewage pumping station at around 09:30hrs, at which point they noticed scum on the floor of the pump station. Upon checking of the collection chamber, more scum was observed, and the usually visible gate valve was submerged and no longer visible, both of which alerted them to a likely overflow.</p> <p><i>iii. The process by which the discharge occurred.</i></p> <p>The drive screw had disengaged from the gate valve, causing the valve to partially close, restricting flow to the wet well at the Rapid Creek sewage pump station. The flow then consequently backed up within the balance pipe and lead to the overflow into Rapid Creek at the emergency overflow point.</p> <p><i>iv. The reason why the discharge occurred.</i></p> <p>As per (c) iii. A mechanical failure of one of the gate valves within the sewage pumping station, which left it in a partially closed state. The gate valve has since been replaced. 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 or emergency overflow points.</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><i>i. Confirmation signage and fencing has been erected, as appropriate.</i></p> <p>The site has had warning signage installed to alert the public as per Sewage Spills/Overflow Response Work Instruction.</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; remove any gross contamination (including paper, rags, etc.) from impacted area. Water quality sampling has also been</p>

	undertaken at 4 sampling locations, including one upstream of the emergency overflow point.
(f) the identity of the person notifying the NT EPA	PWC Environmental Team on behalf of Water Services

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Appendix A – Location map



Appendix B – Photographs of the warning signage erected at the point of discharge.



