

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

Date and Time of Notification:	Wednesday 22 nd January 2020, 4:34pm
Person / Company:	Power and Water Corporation (PWC)
Incident:	Discharge of highly diluted sewage from sewerage network due to wet weather / monsoonal conditions

<p>(a) the incident causing or threatening to cause pollution</p>	<p><i>i. Description of the waste that was discharged.</i></p> <p>Highly diluted sewage.</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 258.6mm for the previous 7 days (Darwin Airport Weather Station – 014015), reaching inflows up to 86ML/day at Ludmilla Wastewater Treatment Plant (WWTP) equating to >5x Average Dry Weather Flows (ADWF) as per Table 1 below.</p> <p>Table 1: Inflows to Ludmilla WWTP</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 (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>>2xADWF (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 (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>>5xADWF (72.5 ML/day)</td> <td>71,558</td> <td>5,002,000</td> <td>78,578</td> <td>5,905,200</td> </tr> </tbody> </table> <p><i>iii. Volume of the waste that was discharged.</i></p> <p>The volume of waste discharged at each discharge location is unknown. No telemetric monitoring occurs at these locations, with the exception of the sewer relief point located at the corner of Rapid Ck Road and Trower Road. This data will be downloaded shortly.</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	>2xADWF (29 ML/day)	31,673	4,884,000	37,166	14,385,600	>3xADWF (43.5 ML/day)	43,629	4,611,000	50,506	12,843,600	>5xADWF (72.5 ML/day)	71,558	5,002,000	78,578	5,905,200
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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>Sewer Pump Station (SPS) - Lakeside Drive, Alawa SPS – Ludmilla, Dickward Drive, Coconut Grove Manhole – Corner of East Point Rd and Gregory St, Fannie Bay Sewer Relief Point (SRP) – 24 East Point Rd, Fannie Bay SRP – Corner of Rapid Ck Rd and Trower Rd, Milner Manhole – 5 Roberts Place, Milner Property Overflow Relief Gully (ORG) – 36 Budgen St, Moil Manhole – 194 Casuarina Drive, Nightcliff ORG – 42 Stobo Crescent, Alawa ORG – 9 Carrington St, Milner</p>																														

	<p>ORG – 11 Carrington St, Milner SRP – 194 Casuarina Drive, Nightcliff SPS – Tiwi, Rocklands Drive, Tiwi SPS – Botanical Gardens, Mindil Beach SPS – Rapid Ck Road, Rapid Crk</p> <p>As per mapped locations within attached Wet Season Overflow Notification Spreadsheet.</p> <p><i>ii. 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 available to discharge locations throughout Darwin although due to weather conditions present the likelihood of people visiting this areas is low. Where possible areas impacted by the discharges have been fenced off and signed preventing access by the general public. 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> <table border="1" data-bbox="584 864 1273 1944"> <thead> <tr> <th>Location</th> <th>Start (22/01/20)</th> <th>Stop</th> </tr> </thead> <tbody> <tr> <td>SPS – Lakeside Drive</td> <td>4:45am</td> <td>23/01/20 12:30pm</td> </tr> <tr> <td>SPS - Ludmilla</td> <td>1:30am</td> <td>23/01/20 3:00pm</td> </tr> <tr> <td>Manhole - Corner of East Point Rd and Gregory Street</td> <td>9:45am</td> <td>12:00pm</td> </tr> <tr> <td>SRP - 24 East Point Rd</td> <td>9:45am</td> <td>23/01/20 7:30am</td> </tr> <tr> <td>SRP - Cnr Rapid Ck Rd & Trower Rd</td> <td>8:50am</td> <td>23/01/20 8:30am</td> </tr> <tr> <td>Manhole - 5 Roberts Place</td> <td>8:50am</td> <td>12:00pm</td> </tr> <tr> <td>ORG - 36 Budgen Street</td> <td>8:00am</td> <td>12:00pm</td> </tr> <tr> <td>Manhole - 194 Casuarina Drive</td> <td>6:15pm</td> <td>12:00pm</td> </tr> <tr> <td>ORG - 42 Stobo Crescent</td> <td>6:45pm</td> <td>8:00pm</td> </tr> <tr> <td>ORG - 9 Carrington Street</td> <td>9:30pm</td> <td>12:00pm</td> </tr> <tr> <td>ORG - 11 Carrington Street</td> <td>9:35pm</td> <td>12:00pm</td> </tr> <tr> <td>SRP - Casuarina Foreshore</td> <td>6:45pm</td> <td>23/01/20 10:30am</td> </tr> <tr> <td>SPS - Tiwi</td> <td>6:00pm</td> <td>23/01/20 10.00am</td> </tr> </tbody> </table>	Location	Start (22/01/20)	Stop	SPS – Lakeside Drive	4:45am	23/01/20 12:30pm	SPS - Ludmilla	1:30am	23/01/20 3:00pm	Manhole - Corner of East Point Rd and Gregory Street	9:45am	12:00pm	SRP - 24 East Point Rd	9:45am	23/01/20 7:30am	SRP - Cnr Rapid Ck Rd & Trower Rd	8:50am	23/01/20 8:30am	Manhole - 5 Roberts Place	8:50am	12:00pm	ORG - 36 Budgen Street	8:00am	12:00pm	Manhole - 194 Casuarina Drive	6:15pm	12:00pm	ORG - 42 Stobo Crescent	6:45pm	8:00pm	ORG - 9 Carrington Street	9:30pm	12:00pm	ORG - 11 Carrington Street	9:35pm	12:00pm	SRP - Casuarina Foreshore	6:45pm	23/01/20 10:30am	SPS - Tiwi	6:00pm	23/01/20 10.00am
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	<p><i>ii. How PWC were notified, or became aware of the discharge.</i></p> <p>PWC call centre was notified of overflowing property ORG's and remaining locations were checked routinely by Operations staffs. From this PWC resolved the overflows and cleaned the areas.</p> <p><i>iii. The process by which the discharge occurred.</i></p> <p>Due to significant rainfall in the Darwin catchment over the past few days, sewage volumes within the sewerage system have increased from inflow and infiltration of stormwater.</p> <p>As a result of this, sewer overflows have occurred from sewer infrastructure. Power and Water also undertook opening sewer relief points to relieve pressure in the system and manage potential human health/environmental impacts.</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; 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><i>i. Confirmation signage and fencing has been erected, as appropriate.</i></p> <p>Where possible signage and fencing was installed to alert the public and prevent access to the sites 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.</p>						
(f) the identity of the person notifying the NT EPA	PWC Environmental Team on behalf of Water Services						

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