

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

Date and Time of Notification:	Thursday 6 th June 2019, 4:48pm
Person / Company:	Power and Water Corporation (PWC)
Incident:	Discharge of raw sewage from sewerage network (Sewer Pump Station)

<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 14 days, therefore raw sewage is believed to have overflowed from the sewer pump station – 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 was approximately 3kL, this is as per the amount of effluent removed from site via vac truck.</p> <p>This overflow was notified to PWC by a SCADA alarm. The exact time of the overflow is unknown however is believed to have started at approximately 3:15pm on 6/06/19.</p> <p>The overflow was resolved shortly after attendance to the site by PWC officers.</p> <p>Discharge of raw sewage to land beside the sewer pump station was associated with three errors:</p> <ol style="list-style-type: none"> 1. Original SCADA alarm notification was not acted upon by PWC personnel in a timely manner. Training of relevant 'new-starter' personnel has been undertaken to ensure their responsibilities 	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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	<p>are understood.</p> <ol style="list-style-type: none"> 2. Back up SCADA notification to senior coordinator was not sent. A programming error with the backup notification occurred and the SCADA team are correcting this fault to prevent further failures. 3. An issue with the sewer pump station wet well pumps occurred. This technical fault is still under investigation. The pumps have been re-engaged and are operational as of late yesterday afternoon. <p>A combination of the above issues resulted in the overflow.</p>
<p>(b) the place where the incident occurred</p>	<p>Dinah Beach SPS located between Tiger Brennan Drive and Frances Bay Drive, Darwin City – Sewer Pump Station</p> <p><i>i. Description of the PWC asset from which the discharge occurred.</i></p> <p>Dinah Beach Sewer Pump Station located between Tiger Brennan Drive and Frances Bay Drive, Darwin City – 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 50.836' E, 12 27.204' S Final Discharge Point: 130 50.829' E, 12 27.201' S</p> <p>The raw sewage overflowed and pooled on the land beside the SPS. All of the waste was contained on land. The pooling was situated between two roads in a gully. The waste slightly entered (approx. 20 inches) a nearby stormwater drain, however did not flow through the drain, all waste was removed and cleaned.</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 to the area is possible however due to the location in between a main road and a service road is not believed to be a regular occurrence. The area was checked for gross pollutants of which none were visible, due to the sewer pump station lid trapping them within the wet well. 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 believed to be approx.. 3:15pm, however the exact time is unknown. The overflow was observed at approximately 3:35pm on 6/06/19 and was stopped at approximately 4:15pm (6/06/19).</p> <p><i>ii. How PWC were notified, or became aware of the discharge.</i></p> <p>PWC were notified via SCADA alarm of high levels within the wet well of the SPS. The alarm was not acted on until later in the afternoon by which point an overflow had taken place. PWC attended the site at approx. 3:35pm and resolved the overflow and cleaned the area shortly after (4:15pm 6/06/19).</p> <p>As detailed above this overflow was a result of a combination of errors</p>

	<p>which have been acted upon to prevent from occurring again. The pump failure root cause is still under investigation.</p> <p><i>iii. The process by which the discharge occurred.</i></p> <p>Discharge of raw sewage to land beside the vacuum pit was associated with three errors:</p> <ol style="list-style-type: none"> 1. Original SCADA alarm notification was not acted upon by PWC personnel in a timely manner. Training of relevant 'new-starter' personnel has been undertaken to ensure their responsibilities are understood. 2. Back up SCADA notification to senior coordinator was not sent. A programming error with the backup notification occurred and the SCADA team are correcting this fault to prevent further failures. 3. An issue with the sewer pump station wet well pumps occurred. This technical fault is still under investigation for the root cause. The pumps have been re-engaged and are operational as of late yesterday afternoon. <p>A combination of the above issues resulted in the overflow.</p> <p><i>iv. The reason why the discharge occurred.</i></p> <p>As per (c) iii.</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 pumps were re-engaged 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 was <u>not</u> fenced off due to the location. The overflow location is situated between <u>two</u> roads and the slope of the land is too steep to safely establish temporary fencing. In place of fencing a number of high-vis cones have been put in place as a warning for the public. Overflow warning signage was also 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. All of the contaminated soil was removed and replaced with clean top soil.</p>
(f) the identity of the person notifying the NT EPA	PWC Environmental Team on behalf of Water Services

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