

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

Date and Time of Notification:	Wednesday 15 th February 2023, 14:30hrs
Person / Company:	Power and Water Corporation (PWC)
Incident:	Overflow of treated effluent - Angurugu

<p>(a) the incident causing or threatening to cause pollution</p>	<p><i>i. Description of the waste that was discharged.</i></p> <p>Overflow of treated effluent.</p> <p><i>ii. Indicative wastewater quality for the discharge.</i></p> <p>Treated effluent.</p> <p>Indicative wastewater quality for the Angurugu Wastewater Treatment Ponds can be found in Table 1.</p> <p style="text-align: center;"><i>Table 1: Angurugu Wastewater Quality Results</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="background-color: #cccccc;">Bacteriological</th> </tr> <tr> <th style="background-color: #cccccc;">Sample Date</th> <th style="background-color: #cccccc;">Location</th> <th style="background-color: #cccccc;">E. coli (MPN/100 mL)</th> <th style="background-color: #cccccc;">Enterococci (MPN/100 mL)</th> </tr> </thead> <tbody> <tr> <td>11/01/2023</td> <td>Pond 1 Inlet</td> <td>86,000</td> <td>4,100</td> </tr> <tr> <td>21/09/2022</td> <td>Pond 1 Inlet</td> <td>1,299,700</td> <td>21,300</td> </tr> <tr> <td>22/04/2020</td> <td>Pond 2 Outlet</td> <td>10</td> <td>471</td> </tr> <tr> <td>11/01/2023</td> <td>Pond 3 Outlet</td> <td>1,100</td> <td>6,970</td> </tr> <tr> <td>21/09/2022</td> <td>Pond 3 Outlet</td> <td>100</td> <td>100</td> </tr> <tr> <td>11/01/2023</td> <td>Infiltration Basin 2 Outlet</td> <td>2,720</td> <td>1,210</td> </tr> <tr> <td>21/09/2022</td> <td>Infiltration Basin 2 Outlet</td> <td>200</td> <td>750</td> </tr> </tbody> </table> <p><i>iii. Volume of the waste that was discharged.</i></p> <p>The volume of waste discharged is unknown as it via unmetred overflow points.</p>	Bacteriological				Sample Date	Location	E. coli (MPN/100 mL)	Enterococci (MPN/100 mL)	11/01/2023	Pond 1 Inlet	86,000	4,100	21/09/2022	Pond 1 Inlet	1,299,700	21,300	22/04/2020	Pond 2 Outlet	10	471	11/01/2023	Pond 3 Outlet	1,100	6,970	21/09/2022	Pond 3 Outlet	100	100	11/01/2023	Infiltration Basin 2 Outlet	2,720	1,210	21/09/2022	Infiltration Basin 2 Outlet	200	750
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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>Angurugu Wastewater Ponds, Angurugu – Groote Eylandt.</p> <p>Overflows are from the infiltration basin 2 after treatment ponds, and from the irrigation field, so effluent is “fully” treated.</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 1: 136.4520053 E, -13.9805287 S (Irrigation field) Discharge Point 2: 136.4519466 E, -13.9801340 S (infiltration basin 2) Final discharge point: 136.4439513 E, -13.9745098 S (Angurugu River)</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>Overflow is from the infiltration basin 2 and the irrigation field after treatment ponds, so effluent is “fully” treated. Discharge is to a purpose built drain around the facility, which flows across an unnamed mine access road and ultimately to Angurugu River, that is accessible to the public. Signage is in place along the drain to alert the public and prevent them coming in close proximity.</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>Overflow from the infiltration basin 2 is believed to have commenced on 26th November 2021, with intermittent overflows continuing since the original commencement.</p> <p>Overflow from the irrigation field is believed to have commenced on the 17th June 2022, with intermittent overflows continuing since the original commencement.</p> <p><i>ii. How PWC were notified, or became aware of the discharge.</i></p> <p>The Essential Services Operator looking after the facility notifies the PWC Water and Sewage Network Coordinator. Details have also been provided by DEPWS triggering further investigation of the site.</p> <p><i>iii. The process by which the discharge occurred.</i></p> <p>Treated effluent from Angurugu is disposed of by infiltration, irrigation and evaporation. Rainfall and flows from the community system have exceeded the infiltration, irrigation and evaporation capacity of the site and overflows from the infiltration basin 2 and irrigation field have occurred.</p> <p><i>iv. The reason why the discharge occurred.</i></p> <p>Effluent is disposed of via infiltration, irrigation and evaporation, but due to wet weather and flows from the community system, the system capacity has been exceeded resulting in the overflows.</p> <p>PWC prepared designs in 2013 to formalise and install an outfall pipe to the Angurugu River to allow controlled discharge of treated effluent. Traditional owners of the land and another group of sacred site custodians could not agree on alignment of the outfall pipe so a permanent solution was not able to be constructed.</p>
<p>(d) how the pollution has occurred, is occurring or may occur</p>	<p>As per (c) iii & (c) iv.</p>

<p>(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>	<p><i>i. Confirmation signage and fencing has been erected, as appropriate.</i></p> <p>Diversion drains around the facility are in place to direct the effluent from the ponds across the road and into bushland. Signage has been placed within the area to alert the public and the overflow area is located within a restricted road reducing the probability of the public coming in contact with the wastewater. Fencing not appropriate in this instance, due to private road.</p> <p>Long term options for the site are being investigated.</p> <p><i>ii. Decontamination of the site as appropriate.</i></p> <p>Overflow is treated effluent, sewage debris is not present. Natural processes (UV disinfection) will provide further disinfection of the discharge. Mosquito larvae baiting has also been undertaken to prevent an increase in biting pests within the community.</p>
<p>(f) the identity of the person notifying the NT EPA</p>	<p>PWC Environmental Team on behalf of Water Services.</p>

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Appendix A – Location map



Appendix B – Photos



1. Eastern boundary drain



2. Northern boundary drain



3. Flow onto private road