

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

Date and Time of Notification:	Tuesday 29 th March 2022, 20:20hrs
Person / Company:	Power and Water Corporation (PWC)
Incident:	Discharge of highly diluted sewage from sewerage network due to wet weather / monsoonal conditions

(a) the incident causing or threatening to cause pollution	i. Description of the waste that was discharged. Highly diluted sewage. ii. Indicative wastewater quality for the discharge. Indicative wastewater quality for this overflow can be found in Table 1. Rainfall just prior to the overflow between 08:52 and 09:43hrs 29/03/2022 was 80.6mm (Darwin Airport Weather Station – 014015). Inflow volumes at Ludmilla Wastewater Treatment Plant (WWTP), jumped sharply from 1ML/hr at 08:00hrs to 1.9ML/hr at 09:00hrs and ultimately peaking at 4.12ML/hr at 10:00hrs, reaching an equivalent of 98.9ML/day, which equates to roughly 5x ADWF. Table 1: Inflows to Ludmilla WWTP <table><tr><th></th><th>Median Inflow (ML)</th><th>Median E. coli</th><th>Median Enterococci</th><th>Dilution Terminology</th></tr><tr><td>below ADWF</td><td>11.401</td><td>14,136,000</td><td>713,550</td><td>Undiluted</td></tr><tr><td>>ADWF</td><td>13.253</td><td>11,616,000</td><td>727,000</td><td>Partially Diluted</td></tr><tr><td>>2xADWF</td><td>29.629</td><td>8,164,000</td><td>323,000</td><td>Diluted</td></tr><tr><td>>3xADWF</td><td>44.043</td><td>6,488,000</td><td>261,300</td><td rowspan="3">Highly diluted</td></tr><tr><td>>4xADWF</td><td>51.048</td><td>5,634,500</td><td>238,100</td></tr><tr><td>>5xADWF</td><td>99.841</td><td>2,359,000</td><td>218,700</td></tr></table> NOTE: Based on 01/01/2018 to 31/12/2020 inflows to Ludmilla WWTP and monitoring events data. Average dry weather inflow being 11.9012 ML/day. iii. Volume of the waste that was discharged. The volume of waste discharged is unknown. No telemetric monitoring occurs at this location.		Median Inflow (ML)	Median E. coli	Median Enterococci	Dilution Terminology	below ADWF	11.401	14,136,000	713,550	Undiluted	>ADWF	13.253	11,616,000	727,000	Partially Diluted	>2xADWF	29.629	8,164,000	323,000	Diluted	>3xADWF	44.043	6,488,000	261,300	Highly diluted	>4xADWF	51.048	5,634,500	238,100	>5xADWF	99.841	2,359,000	218,700
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(b) the place where the incident occurred	i. Description of the PWC asset from which the discharge occurred. Sewer Relief Point (SRP) – 24 East Point Rd, Fannie Bay Discharge Point: 130.8376568E, -12.4342520S Final discharge point: 130.8358461E, -12.4336630S (Vestey's Lagoon)																																	

	<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> Public access is possible to this discharge location although due to weather conditions present, the likelihood of people visiting this areas is low. The area has been sign posted deterring access by the public. Clean up was undertaken as per Sewage Spills/Overflow Response Work Instruction, checking and removal of any gross pollutants.						
(c) the date and time of the incident	<i>i. The time and date of commencement and cessation of the discharge.</i> <table border="1"> <thead> <tr> <th>Location</th><th>Start (29/03/2022)</th><th>Stop (29/03/2022)</th></tr> </thead> <tbody> <tr> <td>SRP - 24 East Point Rd</td><td>09:30hrs</td><td>15:45hrs</td></tr> </tbody> </table> <i>ii. How PWC were notified, or became aware of the discharge.</i> Multiple high level alarms were triggered indicating that the sewer system was full and system relief point needed to be opened up. At 09:30hrs the relief valve was opened and the system's flow rates were monitored until such time that the valve could be safely closed again, which occurred at 15:45hrs. <i>iii. The process by which the discharge occurred.</i> Due to significant rainfall in the Darwin catchment sewage volumes within the sewerage system have increased from inflow and infiltration of stormwater. To prevent sewer overflows within residential properties, Power and Water opened the sewer relief point to relieve pressure in the system and manage potential human health/environmental impacts. <i>iv. The reason why the discharge occurred.</i> 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.	Location	Start (29/03/2022)	Stop (29/03/2022)	SRP - 24 East Point Rd	09:30hrs	15:45hrs
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SRP - 24 East Point Rd	09:30hrs	15:45hrs					
(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	<i>i. Confirmation signage and fencing has been erected, as appropriate.</i> Permanent signage has been installed and was displayed at this location to alert the public and prevent access to the site as per Sewage Spills/Overflow Response Work Instruction. <i>ii. Decontamination of the site as appropriate.</i> Clean up consistent with Sewage Spills/Overflow Response Work Instruction as appropriate to the location, and to minimise risk to the environment. Location has been inspected for gross pollutants, of which none were found.						

(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 – Historical Photograph (Discharge point for SRV at 24 East Point Road, Fannie Bay, showing warning signage)

