

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

Date and Time of Notification:	Thursday 7 th January 2021, 10:00hrs
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>i. Description of the waste that was discharged.</i> Highly diluted sewage. <i>ii. Indicative wastewater quality for the discharge.</i> Indicative wastewater quality for this overflow can be found in Table 1. Rainfall leading up to the overflow was 21.4mm for the previous 24 hours (Darwin Airport Weather Station – 014015), daily inflow of 27.6ML/day at Ludmilla Wastewater Treatment Plant (WWTP), reaching an equivalent of 62.3ML/day at peak flow period around 21:00hrs, which equates to >3x ADWF and at peak flow periods, as per Table 1 below. Table 1: Inflow to Ludmilla Wastewater Treatment Plant <table><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><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></table> (ADWF= Average Dry Weather Flow ~14.5 ML/day in 2013/14)	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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<i>iii. Volume of the waste that was discharged.</i> The volume of waste discharged is unknown. No telemetric monitoring occurs at this location.																																				
(b) the place where the incident occurred	<i>i. Description of the PWC asset from which the discharge occurred.</i> 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. The time and date of commencement and cessation of the discharge. <table><tr><td>Location</td><td>Start (06/01/2021)</td><td>Stop (06/01/2021)</td></tr><tr><td>SRP - 24 East Point Rd</td><td>20:00hrs</td><td>21:00hrs</td></tr></table> ii. How PWC were notified, or became aware of the discharge. Multiple high level alarms were triggered indicating that the sewer system was full and system relief point needed to be opened up. At 8pm 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 an hour later at 9pm. iii. The process by which the discharge occurred. 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. iv. The reason why the discharge occurred. 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 (06/01/2021)	Stop (06/01/2021)	SRP - 24 East Point Rd	20:00hrs	21:00hrs
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SRP - 24 East Point Rd	20:00hrs	21:00hrs					
(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. Confirmation signage and fencing has been erected, as appropriate. 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. ii. Decontamination of the site as appropriate. 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 – Photographs (Discharge point for SRV at 24 East Point Road, Fannie Bay, showing warning signage)

