Northern Territory Environment Protection Authority

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

Date and Time of Notification:	Thursday 13th February 2025 15:00hrs
Person / Company:	Power and Water Corporation
Incident:	Discharge of highly diluted effluent from sewerage network, due to severe wet weather events

(a) the incident causing or threatening to cause pollution

i. Description of the waste that was discharged.

Highly diluted sewage effluent, diluted by stormwater.

ii. Indicative wastewater quality for the discharge.

Indicative wastewater quality for these overflows may be interpreted from Table 1. A high rainfall event occurred from the 12/02/2025 to approximately 06:00hrs 13/02/2025. Rainfall in the previous 24hrs up to 09:00hrs was 75.8mm. This rainfall resulted in inflows to the Ludmilla wastewater treatment plant peaking at 949L/s or 82ML/day as at 01:47hrs 13/02/2025. This is between and 4 and 5 times average dry weather flows (ADWF).

Table 1: Inflows to Ludmilla WWTP

	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	

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.

Table 2: Recent 24-Hour Rainfall Figures for Darwin Airport (Station 14015)
Source of information: Australian Government Bureau of Meteorology

iii. Volume of the waste that was discharged.

The volume of wastewater discharged at each discharge location is unknown. No telemetric monitoring occurs at these locations, except for the sewer overflow relief point located at the corner of Rapid Creek Road and Trower Road. This data will be downloaded during the dry season and can be supplied at a later date if required.

(b) the place where the incident occurred	*ii. Description of the PWC asset from which the discharge occurred.* • Sewer overflow relief point (1/10) – 24 East Point Road, Parap • Sewer overflow relief point (3H) - Corner of Trower Road and Rapid Creek Road, Rapid Creek • Sewer overflow relief point (7/29) – Corner Casuarina Drive/Palm St, Nightcliff • Manhole (AC 1/6 & 1/7) – Corner of East Point Road and Gregory Street, Parap *ii. GPS coordinates of the discharge point from the PWC asset, and the final coordinates of the final discharge point.* • Sewer overflow relief point – 24 East Point Road, Parap 1. Discharge Point: 130.8376568E, 12.4342520S 2. Final discharge point: 130.8358461E, 12.4336630S (Vestey's Lagoon) • Sewer overflow relief point - Corner of Trower Road and Rapid Creek Road, Rapid Creek 1. Discharge Point: 12.385673 S, 130.864963 E 2. Final Point: 12.385733 S, 130.865954 E • Sewer overflow relief point – Corner Casuarina Drive & Palm St, Nightcliff 1. Discharge Point: 12.3834339 S, 130.8432689 E 2. Final Point: 12.3839750 S, 130.8429805 E • Manhole (AC 1/6 & 1/7) – Corner of East Point Road and Gregory Street, Parap 1. Discharge Point: 12.4320025 S, 130.8378102 E 2. Discharge Point: 12.4321381 S, 130.8379435 E 3. Final Point: 12.4320215 S, 130.8362208 E *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.* Public access is possible to discharge locations throughout Darwin although due to wet weather conditions present the likelihood of people visiting these areas is low. For Adelaide River ponds overflow, the discharge runs through a fully fenced private property, with the property owner being aware of the overflow. Where possible signage and fencing was utilised to alert the public and deter access to sites. Clean up consistent with Sewage Spills/Overflow Response Work Instruction as appropriate to the location, and to minimise risk to the environment.
(c) the date and time of the incident	*i. The time and date of commencement and cessation of the discharge.* For the below overflows, that started from the 13th of February 2025, approximate start times are provided below. • Sewer overflow relief point – 24 East Point Rd, Parap Started approx. 09:00, 13/02/2025 Closed approx. 14:00, 13/02/2025

	• Sewer overflow relief point – Cnr of Trower Rd and Rapid Creek Started approx. 08:30, 13/02/2025 Closed approx. 14:00, 13/02/2025 • Sewer overflow relief point – Corner Casuarina Drive & Palm St, Nightcliff Started approx. 07:30, 13/02/2025 Closed approx. 14:00, 13/02/2025 • Manhole (AC1/6&1/7) – Cnr of East Point Rd and Gregory St, Parap Started approx. 08:30 13/02/2025 Ceased approx. 14:00, 13/02/2025 *ii. How PWC were notified or became aware of the discharge.* Multiple high-level alarms alerted operations staff of several imminent overflows, and the need to open overflow relief valves. Visual observations confirmed discharge at other locations, by the sewer reticulation field crews. *iii. The process by which the discharge occurred.* Due to significant rainfall in the Darwin catchment, significant quantities of inflow and infiltration of stormwaters has diluted and significantly increased volumes of sewage effluent in the sewerage system. As a result of this, highly diluted sewage effluent overflows have occurred from sewerage infrastructure. Therefore, Power and Water has taken the step of opening sewer relief valves at strategic points to relieve pressure in the system, preventing overflows within households, 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.
(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.* Where appropriate, signage is displayed to alert the public and fencing has been erected to prevent access to the sites where appropriate, as per the Power & Water 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. Discharge sites inspected for any gross pollutants and removed as required.

(f) the identity of the person notifying the NT EPA	Power and Water Environmental Services team on behalf of Water Services

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Sewer overflow relief valve – 24 East Point Road, Parap

Sewer overflow relief valve - Corner of Trower Road and Rapid Creek Road, Rapid Creek

Sewer overflow relief point – Corner Casuarina Drive & Palm St, Nightcliff

Manhole (AC 1/6 & 1/7) – Corner of East Point Road and Gregory Street, Parap