

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

Date and Time of Notification:	Thursday 14 March 2024 11:00am
Person / Company:	Power and Water Corporation
Incident:	Discharge of highly diluted sewage effluent from Multiple locations of the sewerage network, due to monsoonal weather event.

(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 commenced in the early hours of Monday 11 March 2024 and is on-going. Rainfall figures as of 11:00am 19/3/2024 are shown in table 2. This prolonged rainfall resulted in increased highly diluted sewage effluent inflows to Ludmilla wastewater treatment plant peaking at 3100KL/Hr between 8 am and 9 am on 13/3/2024.

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)

Darwin Airport Rainfall Figures (Station 14015)	
Date	Rainfall (mm)
11/3/2024	46.4
12/3/2024	33.4
13/3/2024	63.4
14/3/2024	18.8
15/3/2024	7.4

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.
(b) the place where the incident occurred	<i>ii. Description of the Power and Water asset from which the discharge occurred.</i> • Lakeside Drive Sewer Pump Station (SPS) • Rapid Creek SPS • Sewer Overflow Valve (SOV) 3H – Corner of Rapid Creek Road and Trower Road • SOV M2/23 – 29 Solomon Street, Millner • SOV 1/10 – 24 East Point Road, Fannie Bay • SOV M2/18 – 14 Aldridge Place, Millner • Manhole – 26 East Point Road, Fannie Bay <i>ii. GPS coordinates of the discharge point from the Power and Water asset, and the final coordinates of the final discharge point.</i> • Lakeside Drive SPS 1. Discharge point: 12.3806488 S, 130.8656252 E 2. Final point: 12.3805596 S, 130.8665271 E • Rapid Creek SPS 1. Discharge point: 12.3806488 S, 130.8656252 E 2. Final point: 12.3805596 S, 130.8665271 E • SOV – Corner of Rapid Creek Road and Trower Road 1. Discharge Point: 12.385673 S, 130.864963 E 2. Final Point: 12.385733 S, 130.865954 E • SOV – 29 Solomon Street, Millner 1. Discharge Point: 12.3909409 S, 130.8674101 E 2. Final Point: 12.3909057 S, 130.867452 E • SOV – 24 East Point Road, Fannie Bay 1. Discharge point: 130.8379474E, -12.434417S 2. Final point: 130.8358461E, -12.4336630S (Vestey's Lagoon) • SOV – 14 Aldridge Place, Millner 1. Discharge Point: 12.3891770 S, 130.8658156 E 2. Final Point: 12.380997 S, 130.8658159 E • Manhole– 26 East Point Road, Fannie Bay 1. Discharge Point: 12.434414S, 130.8379453E 2. Final Point: 12.433862S, 130.8368916E <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 discharge locations throughout Darwin although due to wet weather conditions present the likelihood of people visiting these areas is low. 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>i. The time and date of commencement and cessation of the discharge.</i> For the below overflows, that started from 12 March 2024, the start and stop dates and approximate times are provided below. Lakeside Drive SPS Started: 5:40am 12/3/2024 Stopped: 9:30pm 14/3/2024 Rapid Creek SPS Started: 7:17am 13/3/2024 Stopped: 4:30pm 13/3/2024 SOV 3H – Corner of Rapid Creek Road and Trower Road Started: 7:30am 13/3/2024 Stopped: 1:00pm 13/3/2024 SOV M2/23 – 29 Solomon Street, Millner Started: 7:30am 13/3/2024 Stopped: 7:30am 14/3/2024 SOV 1/10 – 24 East Point Road, Fannie Bay Started: 7:30am 13/3/2024 Stopped: 7:30am 14/3/2024 SOV – 14 Aldridge Place, Millner Started: 7:30am 13/3/2024 Stopped: 7:30am 14/3/2024 Discharge Point – 26 East Point Road, Fannie Bay Started: 7:30am 13/3/2024 Stopped: 4:21pm 13/3/2024 <i>ii. How Power and Water were notified, or became aware of the discharge.</i> Multiple high-level alarms alerted operations staff of a number of imminent overflows, and the need to open overflow relief valves. Visual observations confirmed discharge at other locations by the sewer reticulation field crews. <i>iii. The process by which the discharge occurred.</i> Due to significant rainfall in the Darwin catchment, significant quantities of inflow and infiltration of stormwater 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. <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.
(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> 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. <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. 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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Lakeside Drive and Rapid Creek SPS Discharge Point



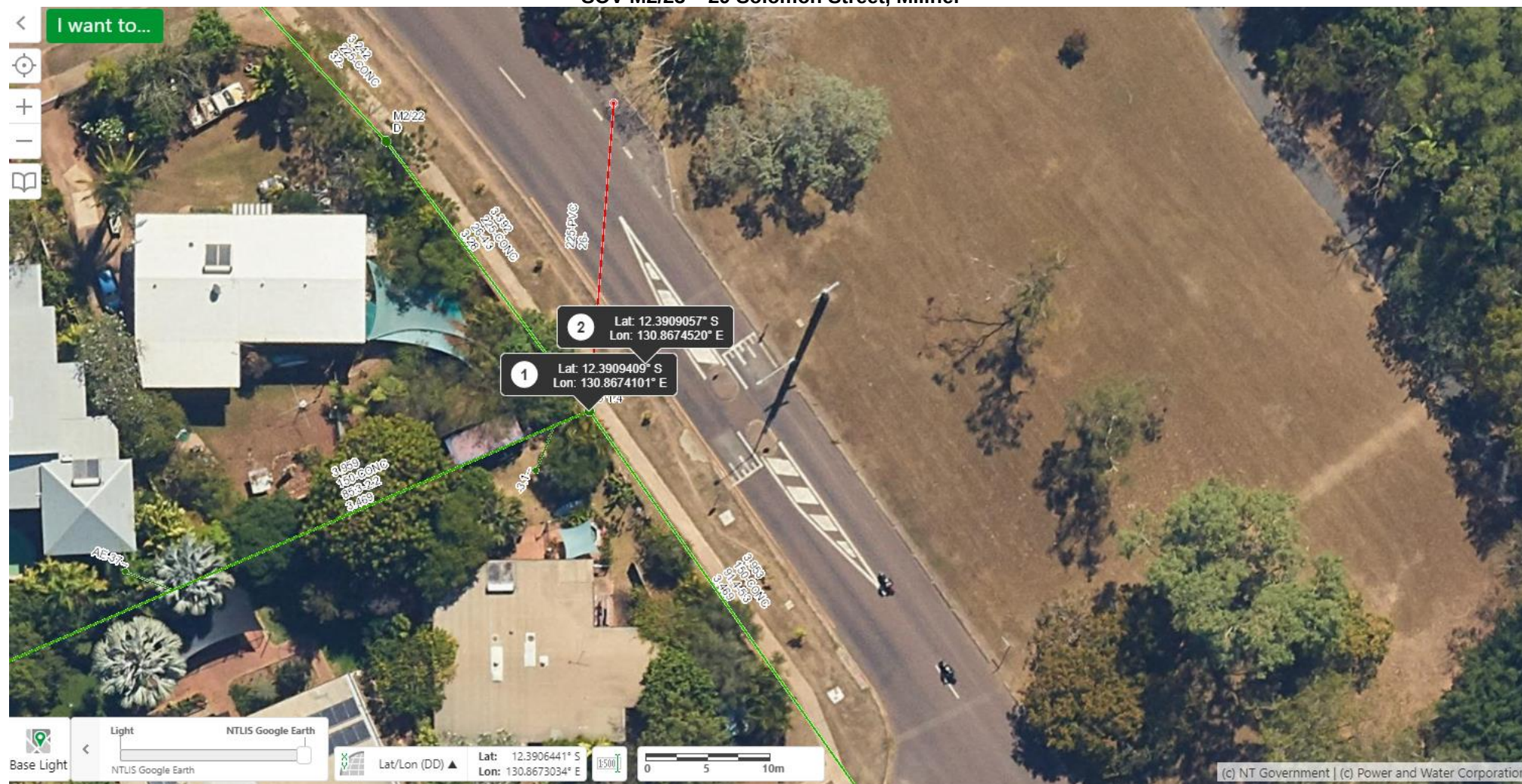


Lakeside Drive and Rapid Creek SPS Discharge Point Historical Photo dated 15/2/2021.

SOV 3H – Corner of Rapid Creek Road and Trower Road



SOV M2/23 – 29 Solomon Street, Millner



SOV 1/10 – 24 East Point Road, Fannie Bay



SOV M2/18 – 14 Aldridge Place, Millner



Discharge Point 26 East Point Road, Fannie Bay

