

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

Date and Time of Notification:	Friday 30 th October 2020, 16:08pm
Person / Company:	Power and Water Corporation (PWC)
Incident:	Discharge of raw sewage from sewerage network (Overflow Relief Gully (ORG) and manhole)

(a) the incident causing or threatening to cause pollution

i. Description of the waste that was discharged.

Raw sewage.

ii. Indicative wastewater quality for the discharge.

The day of the overflow, inflow data to Ludmilla WWTP was 13.4ML/day, and rainfall leading up to the overflow was 4.6mm for the previous 7 days, (Darwin Airport Weather Station – 014015), therefore raw sewage is believed to have overflowed from the ORG & Manhole – this is reflected as Average Dry Weather Flows (ADWF) in Table 1 below.

Indicative wastewater quality for this overflow can be found in Table 1.

Table 1: Inflow to Ludmilla Wastewater Treatment Plant

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 (approx. 14.5 L/day)	15,274	9,804,000	22,206	17,148,300
>2xADWF (approx., 29 ML/day)	31,673	4,884,000	37,166	14,385,600
>3xADWF approx. 43.5 L/day)	43,629	4,611,000	50,506	12,843,600
>5xADWF (approx. 72.5 L/day)	71,558	5,002,000	78,578	5,905,200

(ADWF= Average Dry Weather Flow)

90th percentile inflow: Protection of aquatic food for human consumption

iii. Volume of the waste that was discharged.

The volume of waste discharged is unknown. No telemetric monitoring occurs at ORG's or manholes.

The overflow was notified to PWC by residents of 4 Mauna Loa Street. PWC responded to the call and noticed an overflow from the ORG and manhole. The start time of the overflow is unknown and there is no metered data available for ORG's or manholes to determine an exact volume of the overflow.

The overflow was observed at approximately 15:00pm 30/10/20 by PWC staff and resolved shortly after (16:00pm 30/10/20) attendance to the site by PWC staff.

	It should be noted upon arrival to the overflow PWC staff observed a private plumber (non-PWC) who was onsite and had cleared a blockage within the main sewer line already. Therefore the cause of the blockage is unknown. The private plumber also released a manhole cover resulting in the extra overflow point. Upon arrival PWC staff relieved the private plumber and took control of the site.
(b) the place where the incident occurred	4 Mauna Loa Street, Darwin City – Overflow Relief Gully (ORG) and Manhole <i>i. Description of the PWC asset from which the discharge occurred.</i> ORG and Manhole located within carpark at 4 Mauna Loa Street – Darwin City – as per map below. <i>ii. GPS coordinates of the discharge point from the PWC asset, and the final coordinates of the final discharge point.</i> ORG Discharge Point: 130.8344980, -12.4573079 Manhole Discharge Point: 130.8344237, -12.4573736 Final Discharge Point: 130.8343849, -12.4573919 The overflow originated from the ORG, and then a second overflow began from the nearby manhole due to actions of a private plumber removing the manhole cover. Wastewater tracked down the concrete driveway, to the stormwater drain. <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 the carpark and driveway however would generally be accessed only by residents of the apartment complex. Upon resolution of the blockage the area was cleaned comprehensively to ensure the area was safe for the public to access immediately. Due to the location temporary fencing was not appropriate. Therefore cleaning undertaken was performed to ensure access by the public immediately after resolution of the blockage was safe. The area was checked for gross pollutants of which some were removed during the clean-up process. Clean up was undertaken as per Sewage Spills/Overflow Response Work Instruction.
(c) the date and time of the incident	<i>i. The time and date of commencement and cessation of the discharge.</i> The exact commencement time of the overflow is unknown. The overflow was observed by PWC staff at approximately 15:00pm 30/10/20 and was stopped at approximately 16:00pm (30/10/20). <i>ii. How PWC were notified, or became aware of the discharge.</i> PWC call centre were notified by the residents of 4 Mauna Loa Street of a sewer overflow, this was then reported to the on call PWC staff. PWC

	staff attended the area at approx. 15:00pm (30/10/20). From this PWC resolved the overflow and cleaned the area. <i>iii. The process by which the discharge occurred.</i> Upon arrival to the overflow PWC staff observed a private plumber (non-PWC) who was onsite and had cleared a blockage within the sewer main. Due to this the cause of the blockage is unknown. The private plumber also released a manhole cover resulting in an extra overflow point, rather than just occurring from the ORG as designed. Upon arrival PWC staff relieved the private plumber and took control of the site. <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	The blockage was cleared and the overflow was stopped. Clean up undertaken as per Sewage Spills/Overflow Response Work Instruction. <i>i. Confirmation signage and fencing has been erected, as appropriate.</i> Upon resolution of the blockage the area was cleaned comprehensively to ensure the area was safe for the public to access immediately. Due to the location temporary fencing was not appropriate. Therefore cleaning undertaken was performed to ensure access by the public immediately after resolution of the blockage was safe. <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. Gross contamination (i.e. paper) was removed from the area and a vacuum truck was used to remove the wastewater from the ORG and surrounds. Followed by cleaning and disinfecting of the affected surfaces with biodegradable detergent. Vacuum truck used to remove water from the clean-up area. In the aim of preventing blockages, public education about what can be disposed in sewer/is flushable is accessible online: https://www.powerwater.com.au/data/assets/pdf_file/0003/91578/Think_before_you_put_it_down_the_sink.pdf In the aim of prevention this material is available on the PWC website and is used as an educational tool for customers.

(f) the identity of the person notifying the NT EPA	PWC Environmental Team on behalf of Water Services
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Figure 1 – Location map



Photo 1 – ORG (post cleanup)



Photo 2 – Carpark driveway (post cleanup)



Photo 3 – Stormwater Drain (post cleanup)

