Northern Territory Environment Protection Authority

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

Date and Time of Notification:	Friday 1st November 2019, 14:31pm
Person / Company:	Power and Water Corporation (**PWC**)
Incident:	Discharge of raw sewage from sewerage network (Manhole)

(a) the incident causing or threatening to cause pollution	*i. Description of the waste that was discharged.* Raw sewage (no gross pollutants). *ii. Indicative wastewater quality for the discharge.* Indicative wastewater quality for this overflow can be found in Table 1. Rainfall leading up to the overflow was 20.2mm for the previous 7 days (Darwin Airport – 014015), therefore raw sewage is believed to have overflowed from the manhole – this is reflected as Average Dry Weather Flows (ADWF) in Table 1 below. **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 (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 (ADWF= Average Dry Weather Flow ~14.5 ML/day) *iii. Volume of the waste that was discharged.* The volume of waste discharged is unknown. No telemetric monitoring occurs at manholes. This overflow was reported to the PWC Call Centre, which was then reported to on-call staff who attended the site immediately. The exact start time of the overflow is unknown, and there is no metered data available for manholes to determine a volume of the overflow. Discharge of raw sewage to the pathway beside the manhole was associated with a tree root blocking the sewer main, resulting in the overflow.
(b) the place where the incident occurred	Corner of Mitchell Street and Knuckey Street, Darwin City – Manhole *i. Description of the PWC asset from which the discharge occurred.* Manhole located at the corner of Mitchell Street and Knuckey Street, Darwin City – as per map below. Near Flight Centre.

	ii. GPS coordinates of the discharge point from the PWC asset, and the final coordinates of the final discharge point. Discharge Point: 130.840513, -12.463910 Final Discharge Point: 130.840540, -12.463874 *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.* Access by the public in this area is frequent. Upon PWC crew attending the overflow the site was cordoned off with witches hats which were supervised by PWC staff to prevent access by the public. 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 visibly trapped by the manhole lid. Clean up was undertaken as per Sewage Spills/Overflow Response Work Instruction.
(c) the date and time of the incident	*i. The time and date of commencement and cessation of the discharge.* The commencement time of the overflow is unknown. The overflow was observed at approximately 11:20am on 1/11/19 and was stopped at approximately 12:30pm (1/11/19). *ii. How PWC were notified, or became aware of the discharge.* This overflow was discovered by a member of the public and was reported to the PWC call centre, who then relayed the information to the on-call PWC operations staff. PWC personnel attended the site at approximately 11:20am (1/11/19) and undertook action to resolve the situation. From this PWC staff resolved the overflow and cleaned the area. *iii. The process by which the discharge occurred.* Tree roots were discovered to be growing within the sewer main causing a blockage and overflow. The roots have since been removed. *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/businesses; 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	The blockage was cleared and the overflow was stopped. Clean up

prevent, reduce, control, rectify or clean up the pollution or resultant environmental harm caused or threatening to be caused by the incident	undertaken as per Sewage Spills/Overflow Response Work Instruction. *i. Confirmation signage and fencing has been erected, as appropriate.* Upon PWC crew attending the overflow the site was cordoned off with witches hats which were supervised by PWC staff to prevent access by the public. 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. *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. Vacuum truck was used to remove the wastewater from the manhole, followed by cleaning of the surrounding surface.
(f) the identity of the person notifying the NT EPA	PWC Environmental Team on behalf of Water Services

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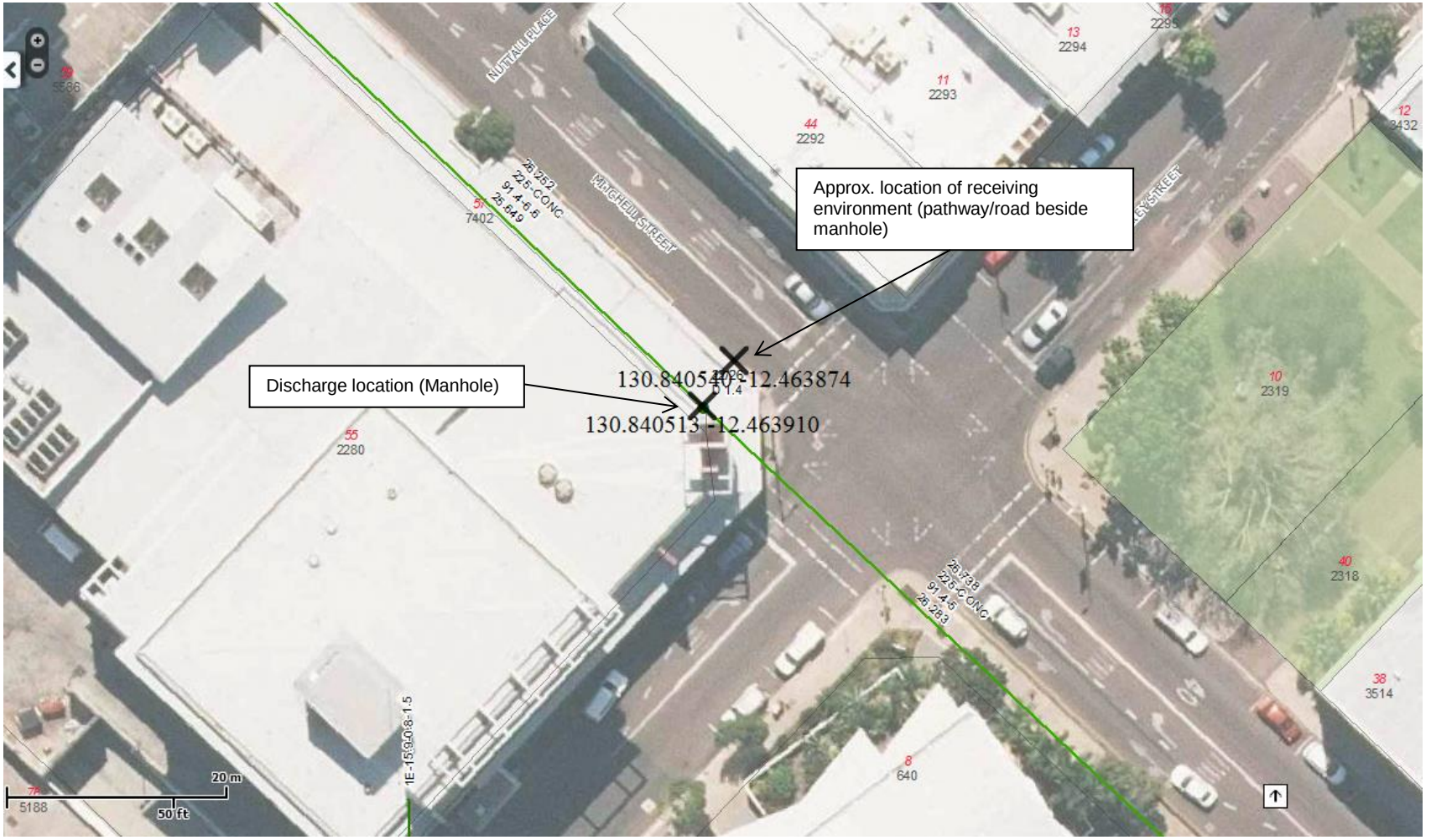

Pre-Clean-up:


WARNING
Sewage Overflow
Do not drink, swim in, or
get this water on you.

Tree Root Removed

Post-Clean-up