

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

Date and Time of Notification:	Saturday 22nd August 2020, 12:30pm
Person / Company:	Power and Water Corporation (PWC)
Incident:	Discharge of raw sewage from Sewer Pump Station (SPS) 1, Amanbidji.

(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.

Wastewater quality for the overflow is not available as wastewater quality sampling does not occur at the Amanbidji community. Indicative wastewater quality for this overflow can be found in the table below. Based on Bureau of Meteorology data from the Victoria River Downs weather observation station (60801), 0.0 mm of rain has been recorded for the month of August 2020, indicating that raw sewage (Average Dry Weather Flows (ADWF)) overflowed from the SPS. Observations from PWC staff indicate that the overflow appeared to have been purely liquid, with no gross pollutants visible.

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
>WDL limit (89.5 ML/day)	102,445	102,445	148,575	13,704,400

(ADWF= Average Dry Weather Flow ~14.5 ML/day in 2013/14)

iii. Volume of the waste that was discharged.

Based on flow meter data and using average daily flow rates from before and after the overflow, it is estimated approximately 79,000L (79kL) was discharged intermittently over a period of 11 days, starting on approximately the 9th August .

Refer to section c (i) for event timeline.

No telemetric monitoring occurs at Amanbidji, SCADA will be installed in the near future.

	The overflow was reported to the Department of Local Government, Housing and Community Development on Friday the 21st August, 2020 via a third party, which had observed the overflow on Thursday the 20th August, 2020. PWC technical coordinator travelled from Timber Creek to Amanbidji on Thursday (20st Aug), once on site PWC staff did not observe an active overflow, but noted an overflow had occurred. No gross pollutants were observed and the overflow had dried up. The discharge of raw sewage occurred from the SPS overflow point onto the surrounding land approx. 15m towards the north-west (see maps below). The capacity of the network (including sewer pump station, collection manhole and sewer lines) means it will take approximately 1-2 day for the network to fill up before the systems starts to overflow.
(b) the place where the incident occurred	Sewer Pump Station (SPS) 1, Amanbidji – please see maps below. <i>i. Description of the PWC asset from which the discharge occurred.</i> Sewer Pump Station (SPS) 1, Amanbidji. <i>ii. GPS coordinates of the discharge point from the PWC asset, and the final coordinates of the final discharge point.</i> Discharge Location: 129°37.0645795, -16°25.6352000 Receiving Environment Location: 129°37.0559137, -16°25.6250571 <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> The site is accessible to the public. Upon PWC crew attending the overflow, the overflow had dried. There was no standing water present and no evidence of gross pollutants. Warning signage was sent to Amanbidji from Katherine, and has now been installed. See attached image.
(c) the date and time of the incident	<i>i. The time and date of commencement and cessation of the discharge.</i> Timeline: 5th and 6th August - New electrical panel installed at the SPS Sunday 9th August - Estimated start of the overflow Wednesday 12th August - ESO visited the site and reported the pumps were not working - Reset the pump Monday 17th August - ESO visited site and reported problems with pump station and overflow - Reset system Wednesday 19th August

	- Contractor visiting Amanbidji for other PWC electrical work noticed overflow at grid. Identified problem with pump station, reset system reported to PWC problem and overflow. Thursday 20th August - PWC Technical Coordinator visited site and replaced circuit breaker and control floats. <i>ii. How PWC were notified, or became aware of the discharge.</i> PWC were notified by the Department of Local Government, Housing and Community Development. <i>iii. The process by which the discharge occurred.</i> An incorrectly sized circuit breaker was installed when control panel was constructed. Some wiring in the surge diversion section of the control panel was also incorrect. The contractor installing the panel failed to test the operation of the system over the operating range. The control floats were not wired correctly either. PWCs ESO only visits the site once a week, so failure of the pump station was not observed for several days. This event will be reported into PWC event management system (Promapp) and will be investigated further. <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/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 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> PWC has sent signs to the Timber Creek depot from Katherine, and were installed during the ESO's next visit. See attached image. <i>ii. Decontamination of the site as appropriate.</i> Site was inspected for gross pollutants of which none were present, By the time personnel arrived at site there was no pooling of wastewater evident and as such no lime has been applied to the area.
(f) the identity of the person notifying the NT EPA	PWC Environmental Team on behalf of Water Services.

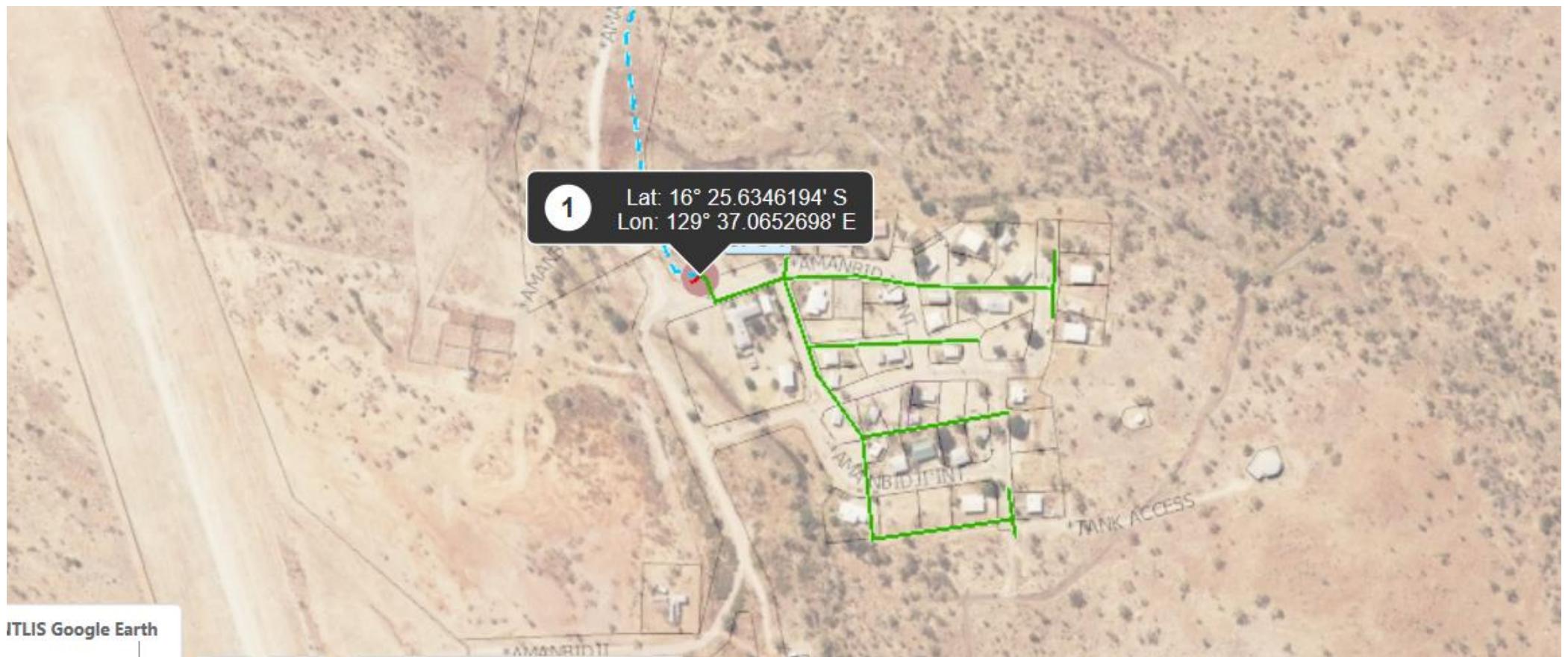


Figure 1. SPS 1 Location



Figure 2. Discharge location (1) and Receiving Environment (2)



Figure 3. Warning tape