Northern Territory Environment Protection Authority

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

Date and Time of Notification:	25th February 2020, 08:29hrs
Person / Company:	Power and Water Corporation (**PWC**)
Incident:	Discharge of raw sewage from sewerage network (no gross pollutants)

(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.* Raw sewage (no gross pollutants), see appendix B for recent water quality results for the Katherine Ponds inlet and outlet. *iii. Volume of the waste that was discharged.* The volume of waste discharged is unknown. No telemetric monitoring occurs at the site of discharge. As the spill was only from a hole in the pipe and not a complete pipe break, most of the discharge still went to the ponds, hence determining a volume spilt is not possible. The area affected by the spill covered an area of approximately 60 square meters and pooled on site, it did not travel to any drainage lines.
(b) the place where the incident occurred	*i. Description of the PWC asset from which the discharge occurred.* 450mm diameter sewer rising main, at Lot 2975 Victoria Highway, Katherine. This is on fenced, privately owned scrubland, owner by Mr Geoff Phillips. *ii. GPS coordinates of the discharge point from the PWC asset, and the final coordinates of the final discharge point.* Discharge Point: 132.2507717, -14.4976286 *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.* Apart from the landowner, family and any invited visitors, no public had any access to the spill area, as it occurred on fenced, privately owned land. The spill covered an area of approximately 60 square meters and did not reach any waterways.

(c) the date and time of the incident	*i. The time and date of commencement and cessation of the discharge.* Power and Water was notified of the leaking pipe around 17.30hrs on Saturday the 22nd January 2020 and the spill was stopped by isolation and bypassing the rising main around 18:30hrs on the same day. As the spill was not from a complete break in the sewer main line but only from a hole in the line, most of the sewage still flowed to the ponds, hence it is not possible to determine an exact time the spill started. *ii. How PWC were notified, or became aware of the discharge.* The landowner of lot 2975 Victoria Hwy, Mr Geoff Phillips notified Power and Water after becoming aware of the spill. *iii. The process by which the discharge occurred.* Corrosion which formed at high points within the pipeline, causing a weak point in the pipe work, that eventually gave way under the pressure of the sewage pump station pumping pressure. *iv. The reason why the discharge occurred.* Corrosion within the sewer main line, forming at high points along the line.
(d) how the pollution has occurred, is occurring or may occur	As per (c) iii & (c) iv. The receiving environment was open woodland, any pooling sewage was vacuumed up and take to Katherine ponds for screening and disposal. Post rectification of the main line, which involved excavation and replacement of 120 meters of pipework, the area had no signs of any spillage.
(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.* No fencing or signage was installed as this was on private, fenced scrubland, away from public access – of which the owner was aware of the overflow. Additional fencing and signage was erected at the time the 120 meters of pipeline was replaced. *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 public health and the environment. Any waste product lying on the ground has been removed to Power and Water wastewater ponds via vacuum truck.
(f) the identity of the person notifying the NT EPA	PWC Environmental Team on behalf of Water Services

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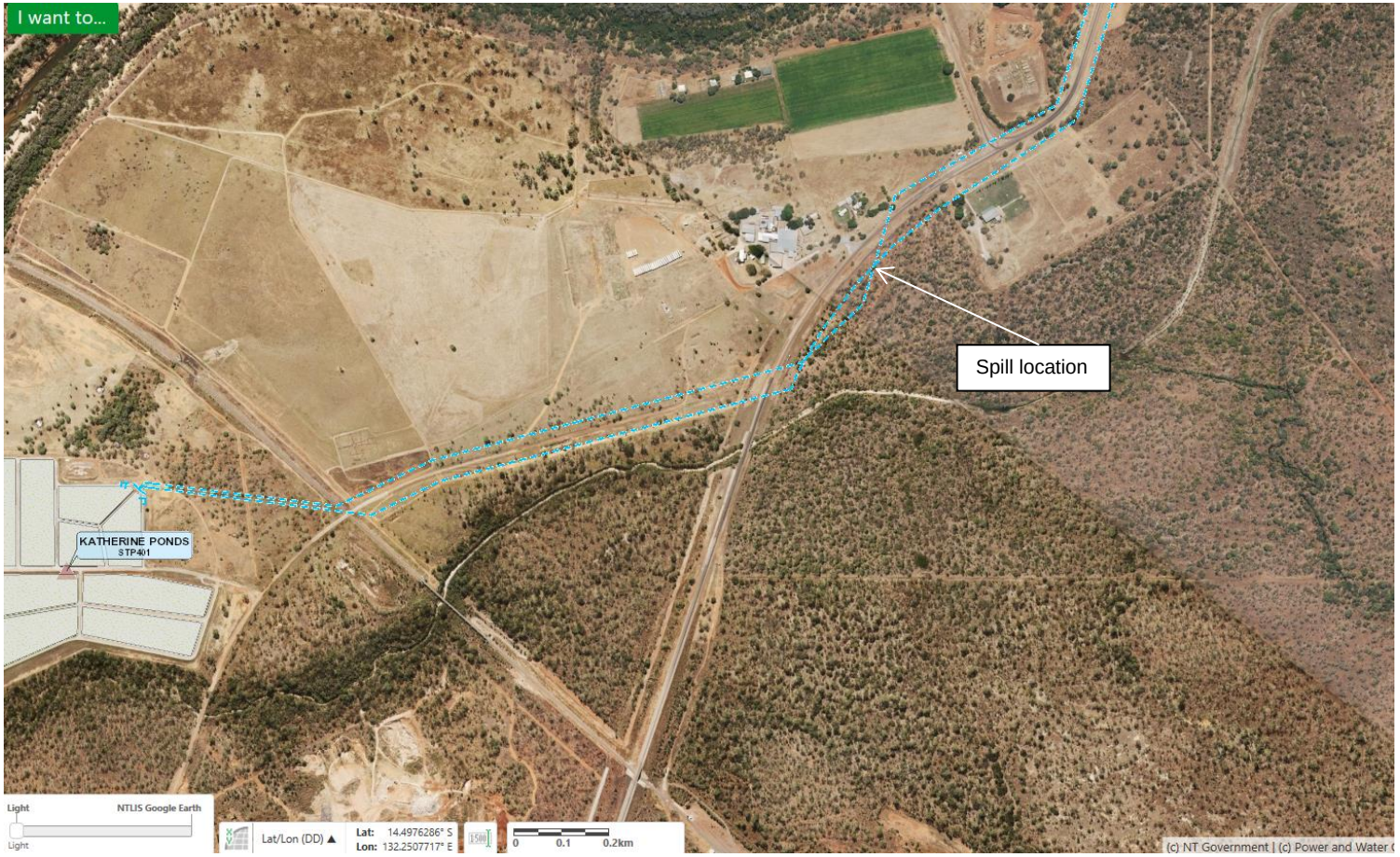
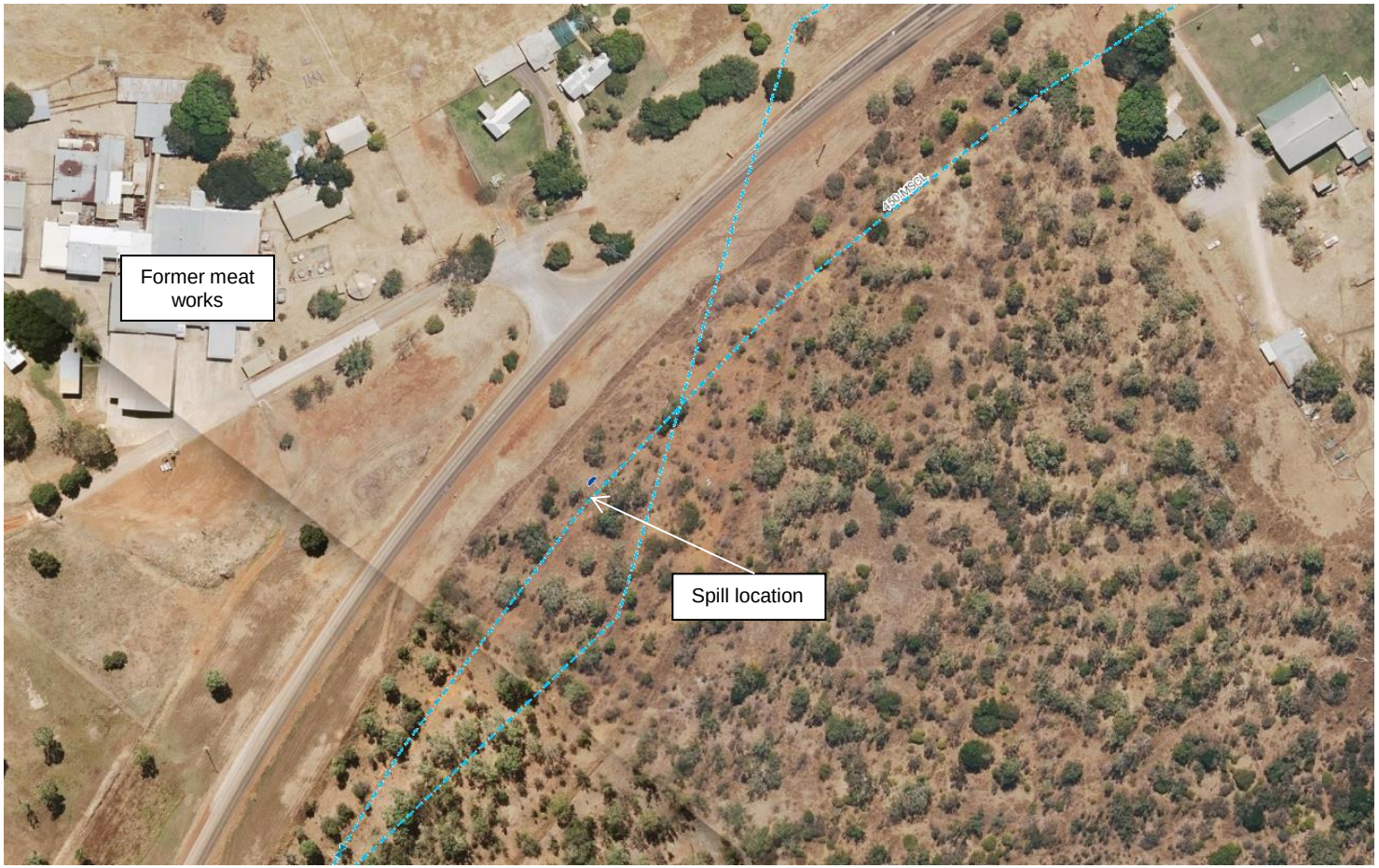
Appendix A – Site location maps




Former meat works
Spill location

Appendix B – Recent Water Quality Results from Katherine Ponds Inlet and Outlet

Katherine Ponds Inlet and Outlet Water Quality Results

		Bacteriological		Field Measurements							Nutrients and Organics	
Sample Point	**Sample Date**	**E. Coli (MPN/100mL)**	**Enterococci (MPN/100mL)**	**Dissolved Oxygen (DO) - field (mg/L)**	**Dissolved Oxygen (DO) - field (%sat)**	**Electrical Conductivity (field) (mS/cm)**	**pH (field) (pH units)**	**Salinity (PSS)**	**Temperature (field) (deg C)**	**Turbidity (field) (NTU)**	**Phosphorus - Filterable Reactive as P (mg/L)**	**Phosphorus - Total (mg/L)**
SKA001 (Katherine Ponds Inlet)	25/02/2020 12:53:00	12,033,000	464,000	3.97	53.7	0.859	5.96	0.42	33.51	207.0		
SKA090 (Katherine Ponds Final Pond)	25/02/2020 12:34:00	20	199	7.06	89.0	0.653	7.37	0.32	31.6	333.0		
SKA001 (Katherine Ponds Inlet)	07/01/2020 08:20:00	24,196,000	538,000	3.49	48.4	0.753	6.5	0.37	33.75	367.0	7.2	9.3
SKA090 (Katherine Ponds Final Pond)	07/01/2020 08:20:00	10	1,664	3.11	42.3	1.06	8.38	0.53	30.24	550.0	2.6	4.6

		Physical and General Chemical										
Sample Point	**Sample Date**	**Alkalinity (mg CaCO3/L)**	**Ammonia as N (Free) (mg/L)**	**Ammonia as N (Organic) (mg/L)**	**Bicarbonate (HCO3) (mg/L)**	**Biochemical Oxygen Demand (mg/L)**	**Calcium - Total (mg/L)**	**Carbonate (CO3) (mg/L)**	**Chemical Oxygen Demand (mg/L)**	**Electrical Conductivity (lab) (uS/cm)**	**Hardness (mg CaCO3/L)**	**Hydroxide (OH) (mg/L)**
SKA001 (Katherine Ponds Inlet)	07/01/2020 08:20:00	280.0	44.0	14.0	340.0	260.0	17.1	<10	560.0	780.0	70.3	<1
SKA090 (Katherine Ponds Final Pond)	07/01/2020 08:20:00	280.0	2.2	31.0	250.0	89.0	17.8	46.0	510.0	1,000.0	70.4	<1

		Physical and General Chemical							
Sample Point	**Sample Date**	**Magnesium - Total (mg/L)**	**NO3 - N (NO3 as Nitrogen) (mg/L)**	**Nitrate + Nitrite as N (NOx) (mg/L)**	**NO2 - N (NO2 as Nitrogen) (mg/L)**	**pH (lab) (pH units)**	**Suspended Solids (mg/L)**	**Total Dissolved Solids (calculated) (mg/L)**	**Volatile Suspended Solids (mg/L)**
SKA001 (Katherine Ponds Inlet)	07/01/2020 08:20:00	6.7	<0.1	<0.1	<0.1	7.57	280.0	490.0	250.0
SKA090 (Katherine Ponds Final Pond)	07/01/2020 08:20:00	6.3	<0.1	<0.1	<0.1	9.39	233.0	660.0	207.0

Appendix C – Photo showing fencing of the area in addition to five strand pastoral cattle fencing that surrounds the property. Spill location in background, following replacement of 120 meters of sewer pipeline.

Appendix D – Photo of typical five strand stock fencing used on the private property, limiting access to the public.