

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

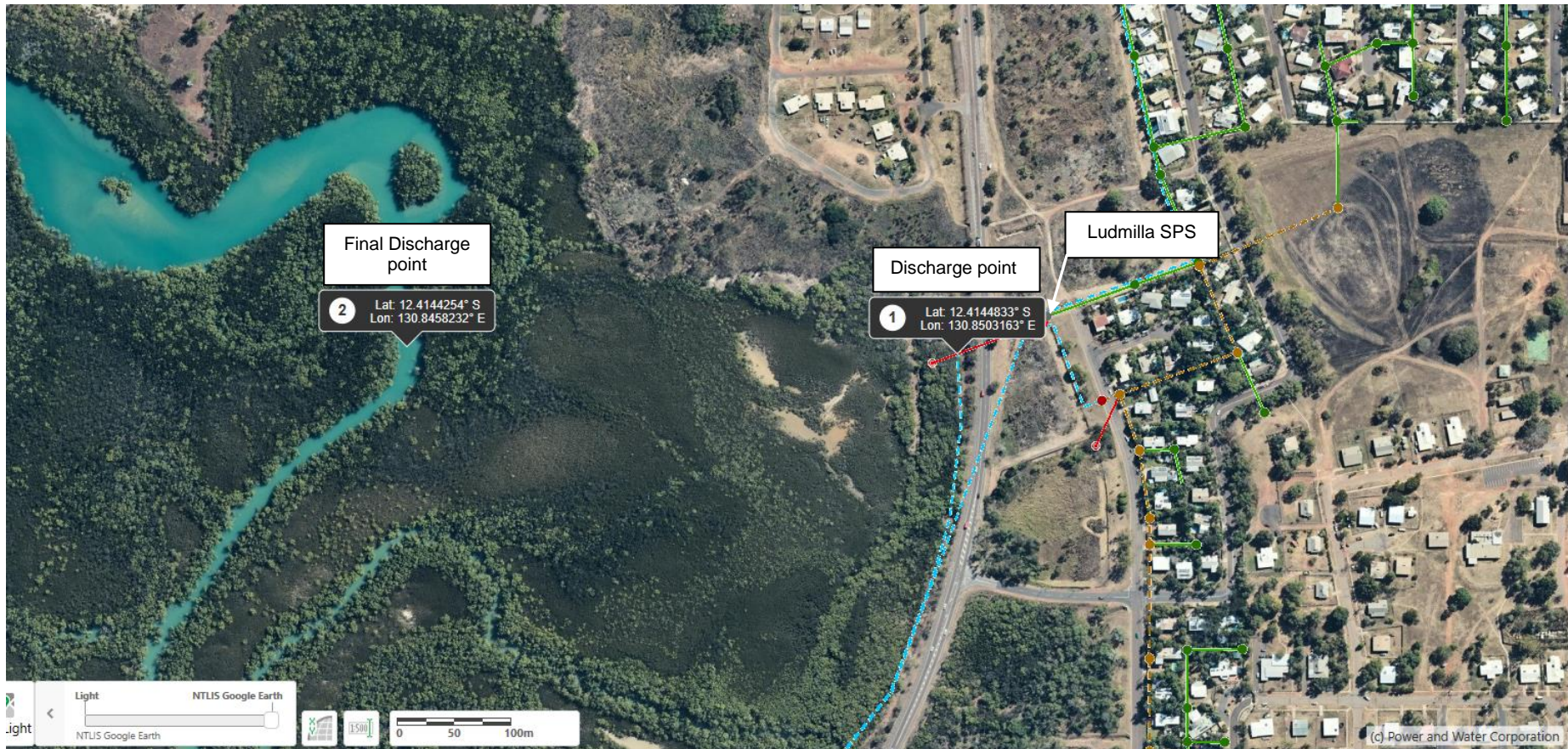
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|---------------------------------------|--|
| Date and Time of Notification: | Tuesday 29 th March 2022, 20:00 hrs |
| Person / Company: | Power and Water Corporation (PWC) |
| Incident: | Discharge of highly diluted sewage from sewerage network, Sewage Pumping Station |

| <p>(a) the incident causing or threatening to cause pollution</p> | <p><i>i. Description of the waste that was discharged.</i></p> <p>Partially diluted sewage</p> <p><i>ii. Indicative wastewater quality for the discharge.</i></p> <p>Inflow data to Ludmilla WWTP was on average 29.1ML/day, however peaked at 10:00hrs at 4.124ML/hr, which equates to 98.9ML/day. Rainfall just prior to the overflow between 08:52 and 09:43hrs 29/03/2022 was 80.6mm (Darwin Airport Weather Station – 014015). Based on Ludmilla WWTP peak inflow volumes, which were greater than 5 times average dry weather flows, the spill was highly diluted. Please refer to the following table for indicative wastewater quality.</p> <p>Table 1: Inflows to Ludmilla WWTP</p> <table border="1"> <thead> <tr> <th></th> <th>Median Inflow (ML)</th> <th>Median E. coli</th> <th>Median Enterococci</th> <th>Dilution Terminology</th> </tr> </thead> <tbody> <tr> <td>below ADWF</td> <td>11.401</td> <td>14,136,000</td> <td>713,550</td> <td>Undiluted</td> </tr> <tr> <td>>ADWF</td> <td>13.253</td> <td>11,616,000</td> <td>727,000</td> <td>Partially Diluted</td> </tr> <tr> <td>>2xADWF</td> <td>29.629</td> <td>8,164,000</td> <td>323,000</td> <td>Diluted</td> </tr> <tr> <td>>3xADWF</td> <td>44.043</td> <td>6,488,000</td> <td>261,300</td> <td rowspan="3">Highly diluted</td> </tr> <tr> <td>>4xADWF</td> <td>51.048</td> <td>5,634,500</td> <td>238,100</td> </tr> <tr> <td>>5xADWF</td> <td>99.841</td> <td>2,359,000</td> <td>218,700</td> </tr> </tbody> </table> <p>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.</p> <p><i>iii. Volume of the waste that was discharged.</i></p> <p>The volume of wastewater discharged is unknown. No telemetric monitoring occurs at the sites of discharge.</p> | | 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 |
|--|--|----------------|--------------------|----------------------|--------------------|----------------------|------------|--------|------------|---------|-----------|-------|--------|------------|---------|-------------------|---------|--------|-----------|---------|---------|---------|--------|-----------|---------|----------------|---------|--------|-----------|---------|---------|--------|-----------|---------|
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(b) the place where the incident occurred</p> | <p><i>i. Description of the PWC asset from which the discharge occurred.</i></p> <p>Ludmilla sewage pumping station (SP042), located at the end of Nemarluk Drive, Ludmilla, is the source of the spill, with the discharge point being the emergency discharge pipeline that goes under Dickward Drive. With the actual location being at the indicated point by the arrow and coordinates, not the end of the red line, see appendix A. From there it disperses across the land and ultimately enters the creek.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | <p><i>ii. GPS coordinates of the discharge point from the PWC asset, and the final coordinates of the final discharge point. (Ludmilla)</i></p> <p>Discharge Point: 130.8503163E, -12.4144833S Final Discharge Point: 130.8458232E, -12.4144254S</p> <p><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></p> <p>Access to the public is possible but unlikely, as the discharge point is behind a fenced off area not intended for public access.</p> |
| (c) the date and time of the incident | <p><i>i. The time and date of commencement and cessation of the discharge.</i></p> <p>The Ludmilla SPS overflow began at 10:05hrs on 29/03/2022 and was ongoing at the time of reporting.</p> <p><i>ii. How PWC were notified, or became aware of the discharge.</i></p> <p>Wet well high-level alarms notified PWC operations staff of the overflow.</p> <p><i>iii. The process by which the discharge occurred.</i></p> <p>Rainfall events in the previous weeks have saturated the ground and a recent intense rainfall event has inundated the sewer systems with stormwater, through a combination of inflow and infiltration. This led to the pump station becoming overwhelmed, as combined inflows exceeded the pumping capacities of the two pumps within the wet well.</p> <p><i>iv. The reason why the discharge occurred.</i></p> <p>As per (c) iii.</p> |
| (d) how the pollution has occurred, is occurring or may occur | <p>As per (c) iii & (c) iv.</p> |
| (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 | <p><i>i. Confirmation signage and fencing has been erected, as appropriate.</i></p> <p>No signage or fencing was erected in this instance; as the spill occurred behind an existing pedestrian fence.</p> <p><i>ii. Decontamination of the site as appropriate.</i></p> <p>Clean up consistent with Sewage Spills/Overflow Response Work Instruction as appropriate to the location, and to minimise risk to the Environment. Site was inspected for any wastewater gross pollutants, of which none were observed.</p> |
| (f) the identity of the person notifying the NT EPA | <p>PWC Environmental Team on behalf of Water Services</p> |

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Appendix A – Location Map (Ludmilla SPS)



Appendix B – Location Photographs



Photos taken – 21st January 2021