Western Comprehensive Stormwater Annual Report

Reporting Period 2020-2021

November 2021

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# Summary Report

Monitoring undertaken in the western catchments within the 2020-2021 reporting period, includes Pios Shores monthly sampling and Francis Drive stormwater outlet monitoring.

There were no exceedances for Pios Shores for the current reporting period.

Table 1. Pios Shores Stormwater Drain - Monthly - PSSW1 - At Culvert outlet on Seaforth Road

|  |  |  |  |
| --- | --- | --- | --- |
| **SW 1** | | | |
| **Date** | **E. coli (cfu/100mL)** | **Faecal Coliforms (cfu/100mL)** | **Enterococci (MPN/100mL)** |
| 07/01/2020 | 100 | 100 | 180 |
| 10/02/2020 | 34 | 34 | 130 |
| 10/03/2020 | 3200 | 4600 | 290 |
| 17/06/2020 | 19 | 42 | <10 |
| 08/07/2020 | 56 | 56 | <10 |
| 06/08/2020 | 130 | 140 | 1100 |
| 07/09/2020 | 72 | 72 | 110 |
| 12/10/2020 | 480 | 500 | 890 |
| 16/11/2020 | 280 | 280 | 84 |
| 16/12/2020 | 31 | 42 | 98 |
| 13/01/2021 | 64 | 120 | 130 |
| 17/02/2021 | 88 | 190 | 63 |
| 09/03/2021 | 3400 | 5300 | 3900 |
| 08/04/2021 | 14 | 22 | 63 |
| 17/05/2021 | 150 | 170 | 63 |
| 08/06/2021 | 130 | 130 | 31 |
| 14/07/2021 | 84 | 84 | 85 |
| 04/08/2021 | 42 | 42 | <10 |
| 08/09/2021 | 220 | 260 | 31 |
| 13/10/2021 | 84 | 84 | <10 |

Table 2. Pios Shores Stormwater Drain - Monthly - PSSW2 - Adjacent to Drain outlet in Harbour

|  |  |  |  |
| --- | --- | --- | --- |
| **SW2** | | | |
| **Date** | **E. coli (cfu/100mL)** | **Faecal Coliforms (cfu/100mL)** | **Enterococci (MPN/100mL)** |
| 07/01/2020 | 2900 | 3100 | 2900 |
| 10/02/2020 | 900 | 2400 | 14000 |
| 10/03/2020 | 26000 | 26000 | 8700 |
| 17/06/2020 | 25 | 28 | <10 |
| 08/07/2020 | 84 | 84 | 20 |
| 06/08/2020 | 96 | 110 | 290 |
| 07/09/2020 | 400 | 400 | 700 |
| 12/10/2020 | 540 | 540 | 75 |
| 16/11/2020 | 1200 | 1300 | 1800 |
| 16/12/2020 | 440 | 440 | 1100 |
| 13/01/2021 | 2600 | 4100 | 3800 |
| 17/01/2021 | 610 | 610 | 5200 |
| 09/03/2021 | 53 | 69 | 340 |
| 08/04/2021 | 36 | 36 | 410 |
| 17/05/2021 | 580 | 580 | 390 |
| 08/06/2021 | 500 | 550 | 810 |
| 14/07/2021 | 34 | 34 | 41 |
| 04/08/2021 | 31 | 31 | 20 |
| 08/09/2021 | 1300 | 1300 | 990 |
| 13/10/2021 | 490 | 490 | 63 |

Table 3. Pios Shores Stormwater Drain - Monthly - PSSW3 - Seaforth Road Pump station wet well

|  |  |  |  |
| --- | --- | --- | --- |
| **SW3** | | | |
| **Date** | **E. coli (cfu/100mL)** | **Faecal Coliforms (cfu/100mL)** | **Enterococci (MPN/100mL)** |
| 07/01/2020 | 6 | 6 | 20 |
| 10/02/2020 | 4 | 4 | 6100 |
| 10/03/2020 | 11 | 50 | 280 |
| 17/06/2020 | 6 | 8 | <10 |
| 08/07/2020 | 170 | 170 | 15 |
| 06/08/2020 | 17 | 17 | <10 |
| 07/09/2020 | 25 | 25 | <10 |
| 12/10/2020 | 3 | 3 | 10 |
| 16/11/2020 | 280 | 300 | 170 |
| 16/12/2020 | <4 | <4 | 10 |
| 13/01/2021 | <4 | 6 | 52 |
| 17/02/2021 | 68 | 170 | 140 |
| 09/03/2021 | 6 | 6 | 51 |
| 08/04/2021 | 48 | 50 | 42 |
| 17/05/2021 | 380 | 390 | 1500 |
| 08/06/2021 | 9100 | 9500 | 4600 |
| 14/07/2021 | 23 | 23 | <10 |
| 04/08/2021 | 4 | 4 | 26 |
| 08/09/2021 | 17 | 17 | <10 |
| 13/10/2021 | 31 | 31 | <10 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Sampling location** | **Rainfall intensity** | **pH** | **Temperature degrees C** | **Suspended Solids g/m3** | **TPH g/m3** | **Copper g/m3** | **Lead g/m3** | **Zinc g/m3** |
| 18/05/2021 | SW outlet Francis Drive | Light | 7.0 | 17.5 | 2 | <0.7 | <0.053 | <0.011 | 0.25 |

Table 6. Francis Drive stormwater outlet sampling - twice yearly between 1 May and 31 December each year after significant rainfall

# Stormwater network or stormwater infrastructure upgrade works undertaken

For the 2020-2021 Monitoring period, there have been no physical works undertaken. The council has progressed in the design and consenting for 2 Mile Creek bank protection works but no physical work is completed.

# Stormwater Mitigation Measures

There have been minor jobs completed around the district in the 2020-2021 reporting period. Riparian planting was done at all four creek locations as well as 200m of 3-mile creek above the bridge to help keep the banks stable, this work was done as part of the consent renewal for the 4 creeks. Rock armoring was also completed at the following locations to prevent furth erosion:

Browns drive in Waihi Beach below #48 approximately 20m in length, and

Gillfillan drive in Katikati beside #6 approximately 10m in length.

The rock work was done during Charles Tapesell’s normal inspection works, where he noticed erosion happening so got it taken care of before it became an issue.

No other major jobs have been completed.

**2 Mile Creek:**

Design underway for erosion protection works at 2 Mile Creek. Construction expected to begin in 2022 calendar year. This work is being managed under a separate consent

**Pio Shores SW upgrades:**

Design underway for upgrade of SW pumpstation at Pio Shores. Upgrade will result in a reduction of flooding within this catchment. Construction is expected to begin in the 2022 calendar year.

Draft CMP completed for Western CSC and is with BOPRC for review.

# Stormwater related incidents

In the 2020-2021 reporting period there have been no significant incidents results in contaminants entering the storm water network. There were two incidents resulting in clean-ups in the Western district which were:

-A small overflow to grass at 3 Didsbury Drive, Waihi Beach on the 22nd of August 2021. This did not seep into the storm water network and was caused by a fat build-up in a manhole near the Citrus Avenue pump station, the issue that allowed the fat build up was fixed by being jetted and unblocked.

-A small issue of dirt washing off a building site at 95C Beach Road, Waihi Beach. The date of the complaint from the neighbour was on February 25th 2021, but the neighbour was worried about any rainfall causing silt to end up in the stormwater drain. The owners cleaned up the site and undertook stormwater control and sediment runoff measures.

# Updated Asset Register

Available on request.

# Any new structures to be included in the consent

No new structures have been built. Future projects include the upgrade of the SW pumpstation and pipework structures at Pios Shores, construction for this is expected to begin in 2022.

Appendix A – Map of Francis Drive Stormwater outlet sampling location

Appendix B – Map of Pios Shores sampling locations