

CRD IWS
Core Area Wastewater System

Monthly Wastewater Flow Report for Victoria - March 2024

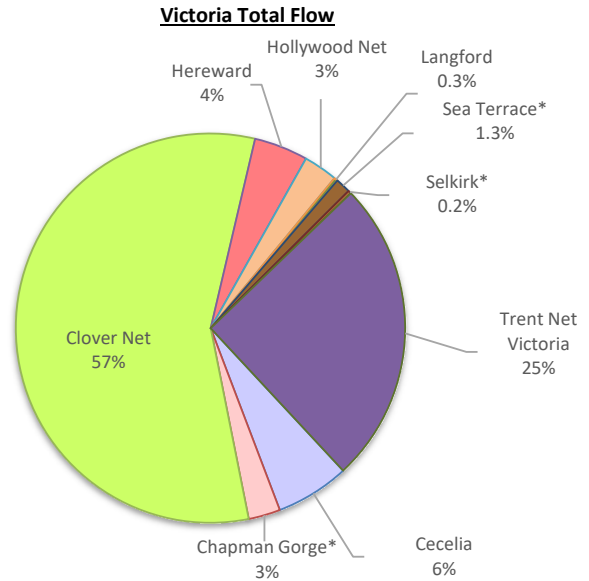
Disclaimer: The data used in this report is considered preliminary. It may be further corrected in the annual cost requisition report.

1. Monthly Wastewater Flow Data: Mar 2024

This data summarizes the volume of flow measured from catchments contributing to Victoria's total flow (map on page 3).

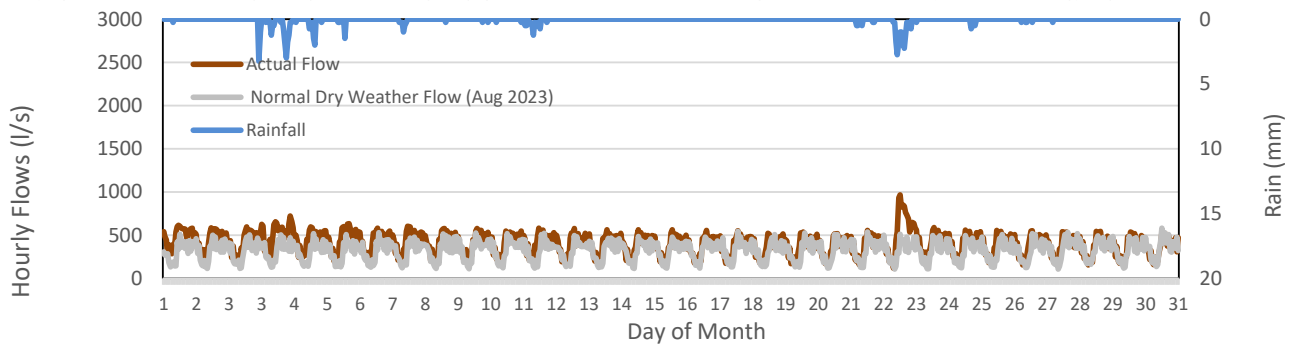
| Flow Meter Name | Total Monthly Flow | |
|----------------------|--------------------|-------------|
| | m ³ | % |
| Cecelia | 67,296 | 6% |
| Chapman Gorge* | 28,680 | 3% |
| Clover Net | 620,144 | 57% |
| Clover Magmeter | 1,469,254 | |
| Currie PS | - 518,884 | |
| Hollywood & Trent PS | - 330,226 | |
| Hereward | 48,855 | 4% |
| Hollywood Net | 30,986 | 3% |
| Hollywood | 36,411 | |
| Harling | - 5,425 | |
| Langford | 3,162 | 0.3% |
| Sea Terrace* | 13,778 | 1.3% |
| Selkirk* | 2,636 | 0.2% |
| Trent Net Victoria | 275,553 | 25% |
| Trent PS | 293,816 | |
| Trent Flume | 6,399 | |
| Towlney & Haultain | - 24,662 | |
| Monthly Flow | 1,091,090 | 100% |

*Flows are calculated based on engineering estimates



2. Victoria Hourly Sewer Flows Mar 2024

This graph shows actual flow (brown) and rainfall (blue), per day, for the month and compares it to normal dry weather flow (grey).



3. Key Wastewater Flow Stats: Mar 2024

| Metric | Flow (m ³) ¹ |
|--|-------------------------------------|
| Total Monthly Flow | 1,091,090 |
| Average Daily Flow | 35,196 |
| Minimum Daily Flow | 30,504 |
| Peak 24hr Flow (PWWF) ² | 51,367 |
| Peak 1hr Flow ³ | 83,395 |
| Average Dry Weather Flow (ADWF) ⁴ | 27,989 |
| Estimated Daily Domestic Flow ⁵ | 21,336 |

¹ Excludes overflows that may have occurred (overflow volumes are not measured).

² Calculated as maximum rolling 24 hr flow for the month.

³ Expressed as 24 hour flow (peak 1 hr flow x 24).

⁴ Average daily flow from most recent Jun 1 to Aug 31 data. Includes groundwater infiltration over that period.

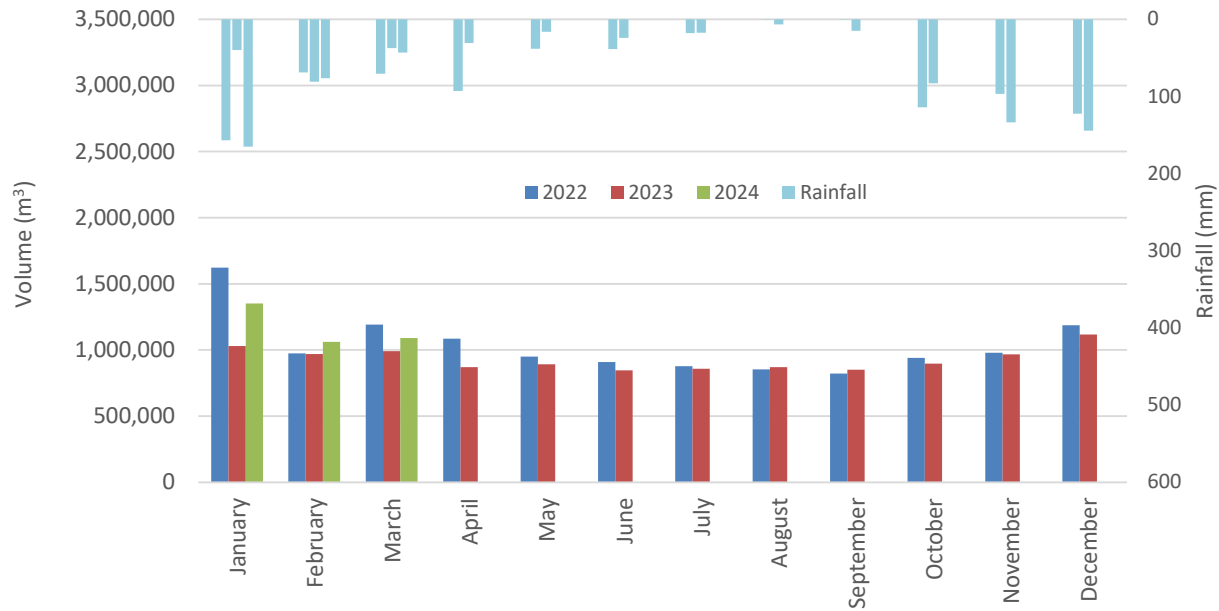
Overflows (monitored by CRD): Mar 2024

| Location | Date |
|--|------|
| Bowker Creek | None |
| Clover | None |
| McMicking Outfall | None |
| Macaulay Outfall | None |
| Sea Terrace Overflow to Storm Sewer | None |

⁵ Calculated as ADWF minus summer groundwater (70% of minimum hourly flow x 24 hours).

4. Monthly Wastewater Flow: Historical vs. Current

This graph shows the total Victoria flow for each month and compares it with previous years.



5. Inflow & Infiltration Flow Summary: Mar 2024

| Key I&I Metrics | Value ¹ |
|--|--------------------|
| Total Monthly Flow (m ³) | 1,091,090 |
| Estimated Domestic Flow for Month (m ³) ² | 661,421 |
| I&I Volume for Month (m ³) ³ | 429,669 |
| I&I Volume for Month (% total flow) | 39% |
| Peak 24hr Flow (PWWF) ⁴ | 1.8 x ADWF |
| Peak 1hr Flow ⁵ | 3.0 x ADWF |

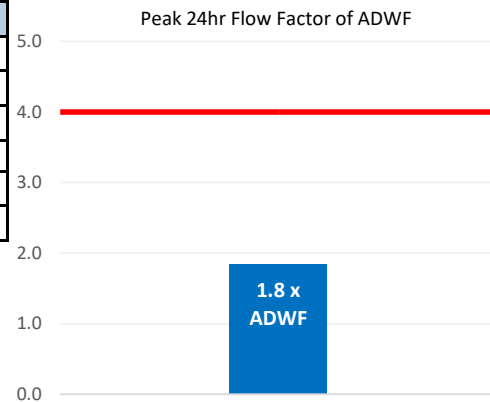
¹ Excludes overflow volume

² Determined by (Est. Daily Domestic flow from section 3.) x (number of days per month)

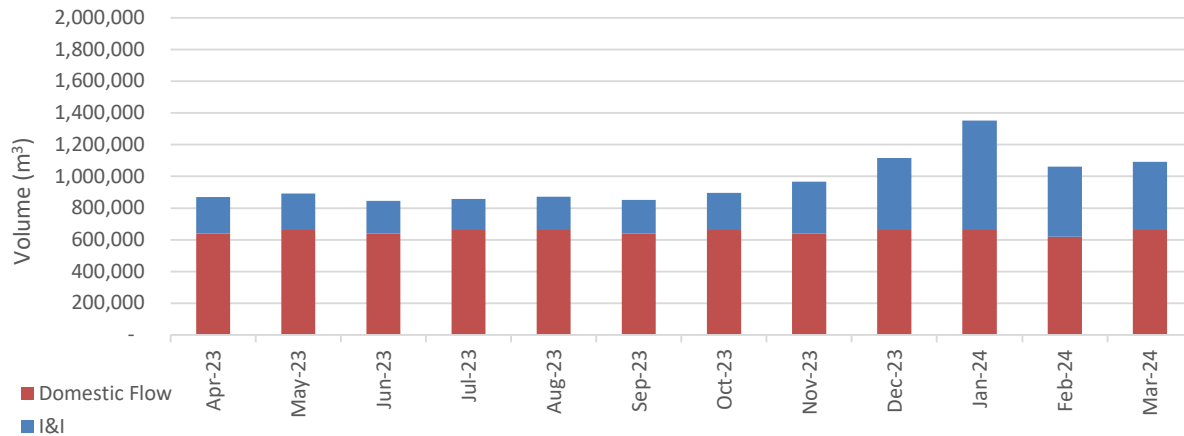
³ Determined by subtracting Estimated Domestic Flow from Total Monthly Flow

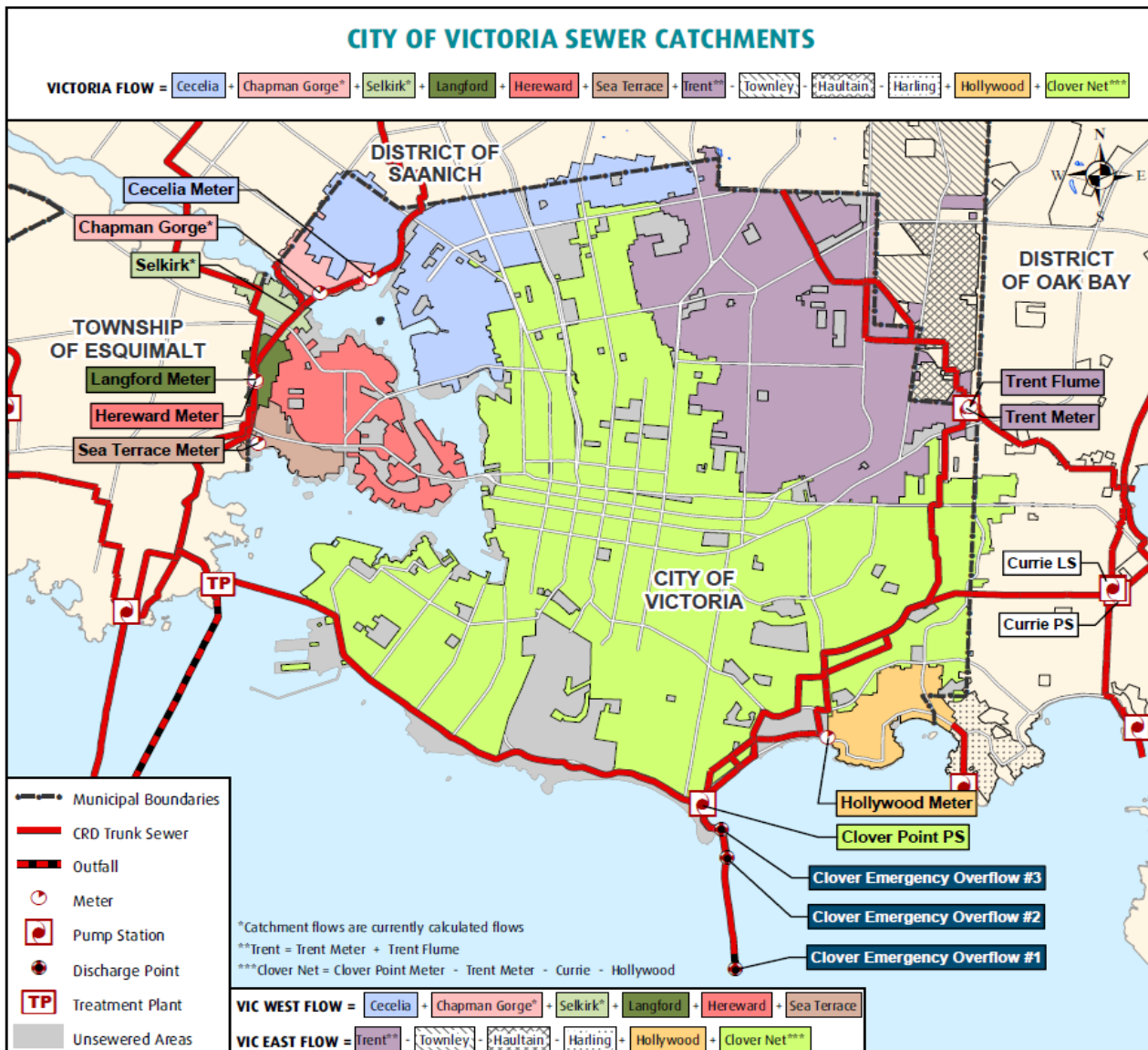
⁴ Determined by dividing Peak 24hr Flow from section 3. by ADWF

⁵ Determined by dividing Peak 1hr Flow from section 3. by ADWF



6. Monthly Flows: I&I and Domestic Flow

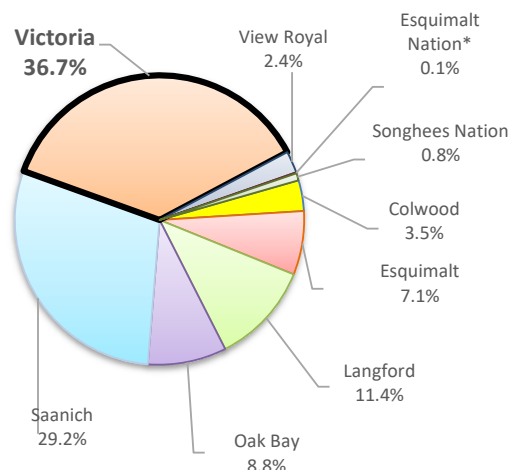




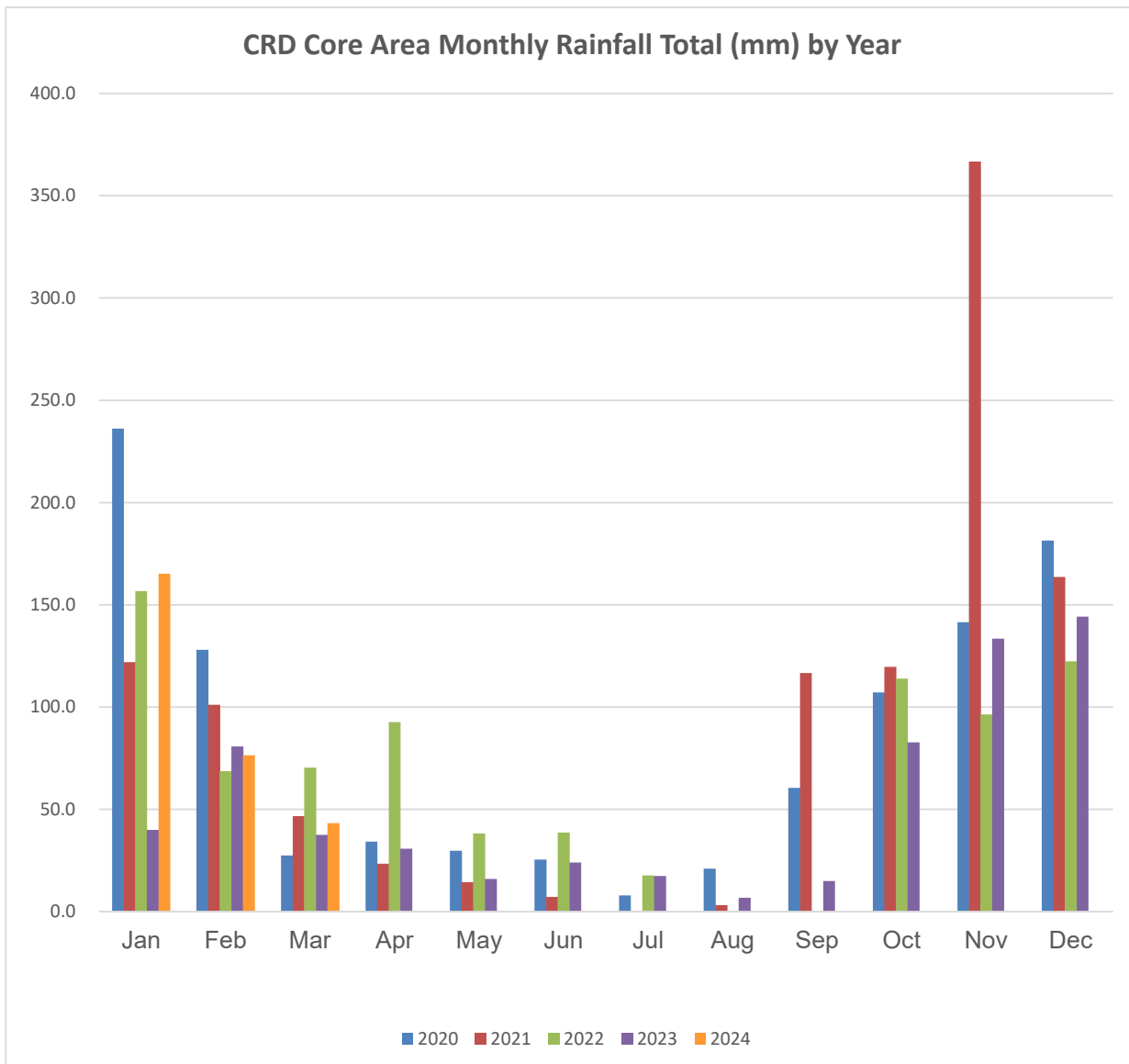
7. Regional Flow Data: Mar 2024

| Participant Area | Total Monthly Flow | |
|-------------------|--------------------|---------------|
| | m ³ | % |
| Colwood | 103,142 | 3.5% |
| Esquimalt | 210,686 | 7.1% |
| Langford | 339,024 | 11.4% |
| Oak Bay | 260,937 | 8.8% |
| Saanich | 867,933 | 29.2% |
| Victoria | 1,091,090 | 36.7% |
| View Royal | 72,034 | 2.4% |
| Esquimalt Nation* | 2,731 | 0.1% |
| Songhees Nation | 23,882 | 0.8% |
| Total | 2,971,460 | 100.0% |

*Flows are calculated based on engineering estimates



Core Area Monthly Rainfall (mm) by Year



| Month | CRD Core Area Monthly Rainfall Total (mm) by Year | | | | |
|--------------|---|----------------|--------------|--------------|-------------|
| | 2020 | 2021 | 2022 | 2023 | 2024 |
| Jan | 236.3 | 122.0 | 156.8 | 40.0 | 165.3 |
| Feb | 128.0 | 101.3 | 68.8 | 80.8 | 76.5 |
| Mar | 27.5 | 46.8 | 70.5 | 37.5 | 43.3 |
| Apr | 34.3 | 23.5 | 92.8 | 30.8 | #N/A |
| May | 29.8 | 14.5 | 38.3 | 16.0 | #N/A |
| Jun | 25.5 | 7.3 | 38.8 | 24.0 | #N/A |
| Jul | 8.0 | 0.3 | 17.8 | 17.5 | #N/A |
| Aug | 21.0 | 3.3 | 0.3 | 6.8 | #N/A |
| Sep | 60.5 | 116.8 | 0.5 | 15.0 | #N/A |
| Oct | 107.3 | 119.8 | 114.0 | 82.8 | #N/A |
| Nov | 141.5 | 366.8 | 96.5 | 133.5 | #N/A |
| Dec | 181.5 | 163.8 | 122.5 | 144.3 | #N/A |
| Total | 1,001.0 | 1,085.8 | 817.3 | 628.8 | #N/A |

The data above is for the KWL rain guage located on roof of 3045 Douglas Street.