

CITY OF ANACORTES 2011 CSO REPORT

GENERAL INFORMATION

The NPDES permit number WA-002025-7 is issued to the City of Anacortes. The permit identifies CSO by discharge number. This report will refer to the CSO as they are identified in the permit. The CSO are located as identified in the following table:

| Discharge No. | Location | | Receiving Water |
|----------------------|------------------------------|--|------------------------|
| 002 | Northernmost end of B Avenue | Latitude: 48 30'55" Longitude: 122 38'03" | Guemes Channel |
| 003 | Northernmost end of M Avenue | Latitude: 48 31'14" Longitude: 122 36'56" | Guemes Channel |
| 004 | Northernmost end of Q Avenue | Latitude: 48 31'18" Longitude: 122 36'34" | Guemes Channel |

Discharge number 002 is monitored with a Marsh-McBirney Model 256A flow meter. The Model 256A flow meter measures level and velocity and reports flows to the treatment plant via a radio telemetry system. When the meter is active the plant control system is programmed to activate an alarm that indicates overflow at this CSO. The plant data acquisition system computes daily flow totals. The following information applies to the Marsh-McBirney flow meter systems at Discharge #002:

1. The flow meter level and velocity-sensing device is located directly in the outfall pipe.
2. The flow meter will detect a level in excess of 0.4 inches. Any flow that does not reach or exceed 0.4 inches will not be measured.
3. The flow meter is capable of detecting velocity only when the level in the pipe is in excess of one inch. Total flow is computed from the velocity and level measurements, therefore the flow cannot be totaled unless the level in the pipe exceeds one inch.
4. The flow meter is set to record the level and velocity for 60 seconds, once every fifteen minutes.
5. Flow information is reported from 12:00 p. m. (midnight) to 11:59:59 p. m. (midnight) on the indicated day.

Discharge number 003 – As reported in the 2010 CSO Reduction Plan Update discharge number three has been decommissioned. Improvements over the years have eliminated overflow events from this location. The outfall pipe has been plugged.

Discharge number 004 is monitored with a Krohne Magmeter, type IFS-4000/PF. The rate of flow measured by this meter is reported to the wastewater treatment plant via a radio telemetry system. The plant data acquisition system totals the flow data and includes the information on plant reports. A float switch also monitors this CSO. When the level in the sewer system approaches the height of the overflow weir the float is activated. This float switch activates an alarm at the wastewater treatment. Plant personnel are alerted of the impending CSO activity.

Rainfall reported is recorded at the Anacortes Wastewater Treatment Plant by a tipping bucket rain gauge. Rainfall totals are reported from 7:00 a. m. on the indicated day to 6:59:59 a. m. on the following day.

Daily flow totals for Discharge #002 and #004 are included in appendix A.

CSO #003 has been decommissioned and is no longer in service.

Rainfall data is included in appendix B.

Appendix C contains a copy of the public notice advertised in the Anacortes American, the City of Anacortes official newspaper of record, announcing the availability of the annual CSO report.

**DETAIL OF FREQUENCY, VOLUME AND COMPARISON TO BASELINE
CONDITION, DISCHARGE NO. 002, "B" AVE. CSO**

FREQUENCY and VOLUME

As stated previously, discharge number 002 is monitored with a Marsh-McBirney Model 256A flow meter. Flow information from this meter is transmitted to the treatment plant via a radio telemetry system. Reports containing this flow information are generated on a daily and monthly basis.

There are no overflow events at this CSO site to report for 2011.

Total rainfall measured at the Anacortes Wastewater Treatment Plant in 2011 was 21.46".

COMPARISON TO BASELINE

There has not been an overflow event at this CSO since 1997. A chart comparing current data to a baseline for this site is not included in this report as there is no data to put into the chart.

**DETAIL OF FREQUENCY, VOLUME AND COMPARISON TO BASELINE
CONDITION, DISCHARGE NO. 003, "M" AVE. CSO**

The CSO has been decommissioned and is no longer in service.

There were no overflow events at this CSO site during 2011.

DETAIL OF FREQUENCY, VOLUME AND COMPARISON TO BASELINE CONDITION, DISCHARGE NO. 004, "Q" AVE. CSO

This CSO site is monitored with a Krohne Magmeter, type IFS-4000/PF. The rate of flow measured by this meter is reported to the wastewater treatment plant via a radio telemetry system. The plant data acquisition system totals the flow data and includes the information on plant reports. Impending over flow events are detected via a float switch which provides an alarm at the treatment plant.

There are no overflow events at this CSO site to report for 2011.

Total rainfall measured at the Anacortes Wastewater Treatment Plant in 2011 was 21.46".

COMPARISON TO BASELINE

Flow monitoring was installed on this CSO in January of 1998. A total of five overflow events caused by precipitation have occurred during the fourteen year time period that flow has been monitored at this site; one in 2003, and two caused by back to back storm events in 2007, one in 2009, and one in 2010.

The average frequency of overflow events at this CSO is equivalent to one event every 2.8 years, or a 35.7% probability of an overflow event occurring during any given year.

A chart detailing overflow events and rainfall information for this CSO site is included at the end of this section.

CSO REDUCTION ACCOMPLISHMENTS

1. Financial constraints prevented the completion of the third, and final, phase of the I&I reduction project in the “L” drainage basin. No other I&I reduction work was completed in 2011.
2. A baffle to prevent the release of floating debris was installed on Discharge number 4, the Q Avenue CSO.

PLANNED IMPROVEMENTS

The improvements planned for 2012 are as follows:

1. The City is preparing to contract for the final phase of the “L” drainage basin I&I reduction project.
2. A scum baffle will be installed on CSO #2 to prevent floatable solids from being discharged.
3. A study will be performed on the Q Avenue Basin to determine if the height of the overflow weir can be raised. The study will identify the maximum amount of storage capacity on the Q Avenue Basin. The elevation of the weir at CSO #4 will be adjusted accordingly.