

STAFF REPORT: ENGINEERING AND PUBLIC WORKS DEPARTMENT

REPORT TO: Infrastructure & Recreation Committee
MEETING DATE: April 12, 2011
REPORT NO.: EPW.11.018
SUBJECT: Summary of Annual Operation Reports
2010 – Thornbury Wastewater Treatment
Plant and Craigleith Wastewater
Treatment Plant
PREPARED BY: Rob Fleming, Wastewater Supervisor

A. Recommendation

THAT Council receives Report EPW.11.018 entitled “Summary of Annual Operation Reports 2010 – Thornbury Wastewater Treatment Plant and Craigleith Wastewater Treatment Plant” for their information.

B. Background

In accordance with the Certificate of Approvals issued for the Thornbury Wastewater Treatment Plant and the Craigleith Wastewater Treatment Plant, the Owner is required to prepare and submit a performance report to the Ministry of the Environment (MOE), Owen Sound District Office, on an annual basis. The attached reports are a summary of the more technical reports that were submitted to the MOE in February 2011.

As noted in the attached reports, the 2010 operating year was successful with no immediate problems encountered.

C. The Blue Mountains’ Strategic Plan

The acceptance of this Report by Council furthers the Town Strategic Plan Goal # 2 “Addressing the Town Municipal Infrastructure Needs” and Goal # 6 “Providing a Strong, Well-Managed Municipal Government.”

D. Environmental Impacts

The preparation of these reports is to ensure that the Wastewater Treatment Plants operations run efficiently and adequately to guarantee the protection of water resources.

E. Budget Impact

None

E. Attached

1. Thornbury Wastewater Treatment Plant – Summary of Annual Operations Report
2. Craigeith Wastewater Treatment Plant – Summary of Annual Operations Report

Respectfully submitted

Rob Fleming

Rob Fleming
Wastewater Supervisor
Engineering & Public Works
Office: 705-444-1164
Fax: 705-444-1862
rfleming@thebluemountains.ca

Reg Russwurm

Reg Russwurm
Director, Engineering and Public Works



Thornbury Wastewater Treatment Plant

Summary of Annual Operations Report For 2010

March 2011

Introduction

The Thornbury Wastewater Treatment Plant (WWTP) is one of two wastewater treatment facilities located within the Town of The Blue Mountains (Town). The WWTP is located at 1 Grey Street South, Unit 2 in Thornbury.

The Ministry of the Environment has classified the WWTP as a Class III Wastewater Treatment Facility.

This report provides a summary of plant operation and performance during the 2000 - 2010 operating period. The 2010 Operations was a very successful year with no immediate problems encountered.

A comprehensive and technical overview of the 2010 plant operations is available for viewing at each treatment facility.

Glossary of Terms

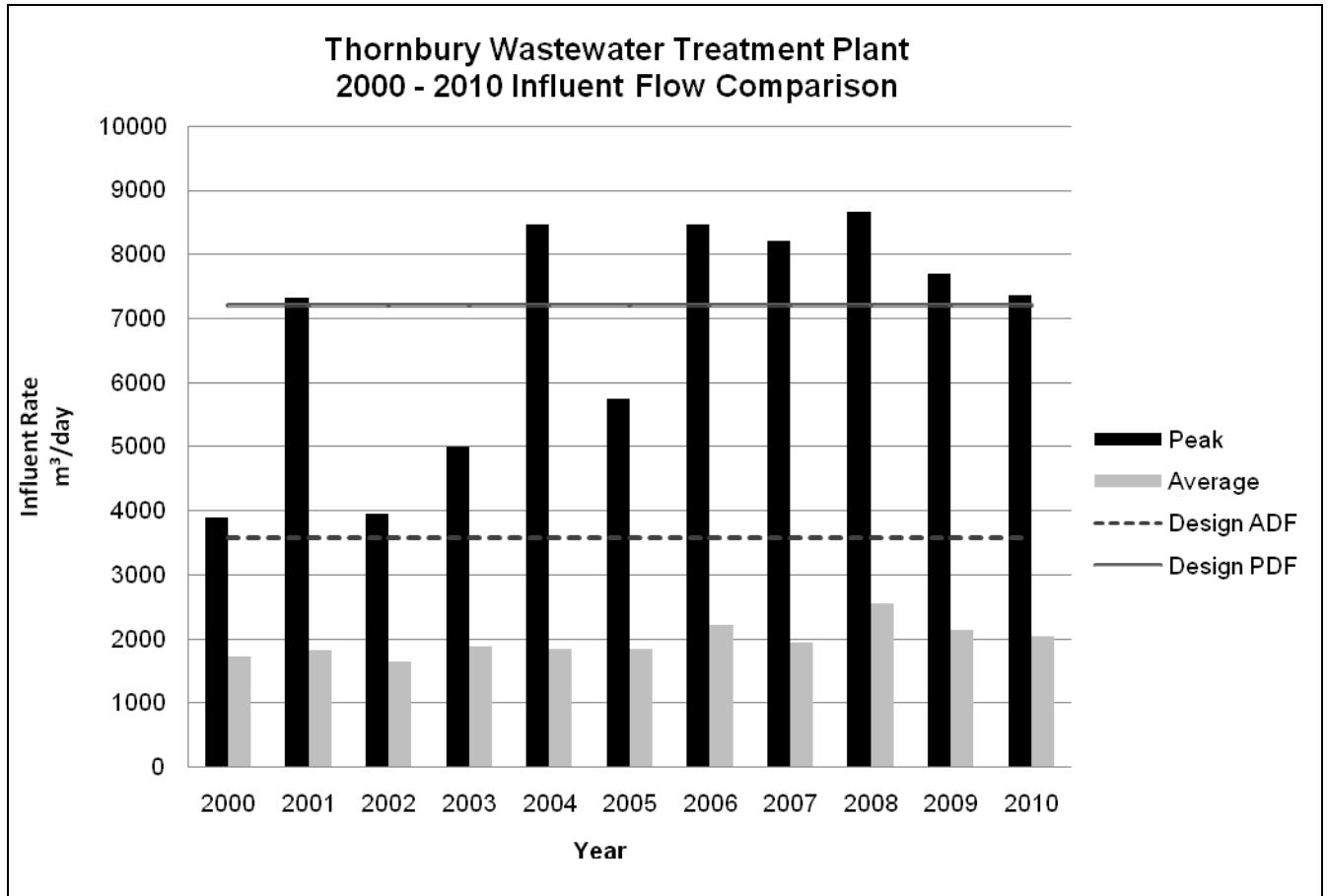
Influent – wastewater or other liquid – raw or partly treated – flowing into a reservoir, treatment process, or treatment plant

Effluent – wastewater or other liquid flowing from a treatment process or treatment plant

Biochemical Oxygen Demand (BOD) – rate at which microorganisms use the oxygen in water or wastewater while stabilizing decomposable organic matter under aerobic conditions

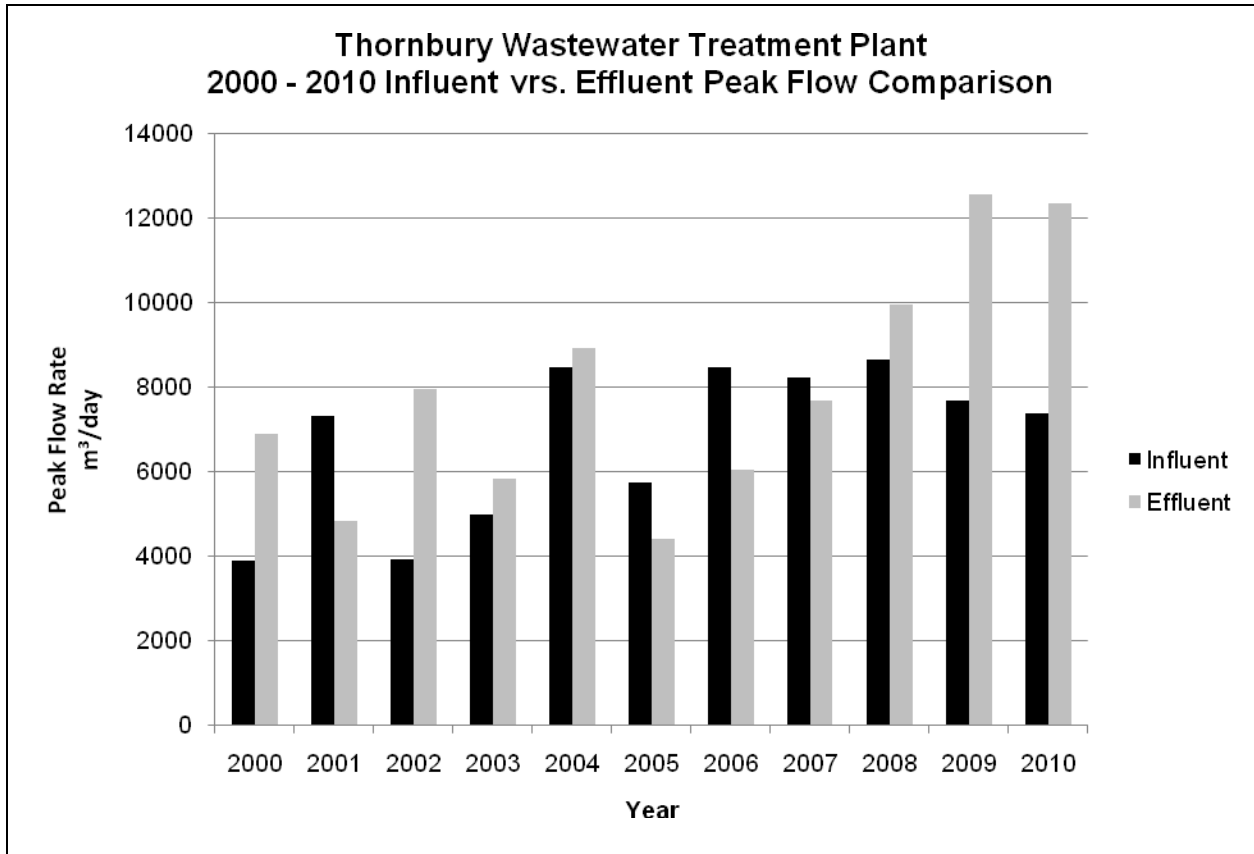
Suspended Solids – solids that either float or are in suspension in wastewater or other liquids

Chart No. 1 – Influent Flow Comparison



* PDF's are subject to heavy rain and snow melt events which vary from year to year in severity. The Thornbury Wastewater Collection System does have a more significant inflow problem (i.e. sump pump connections) than an infiltration problem.

Chart No. 2 – Influent versus Effluent Peak Flow Comparison



* The size of the three lagoons accumulates large volumes of water which ultimately needs to be disposed of. This contributes to the high effluent flow rates. The fluctuating effluent peaks are due to more ground water, snow melt etc. experienced from year to year.

Chart No. 3 – Annual Total Flow Comparison

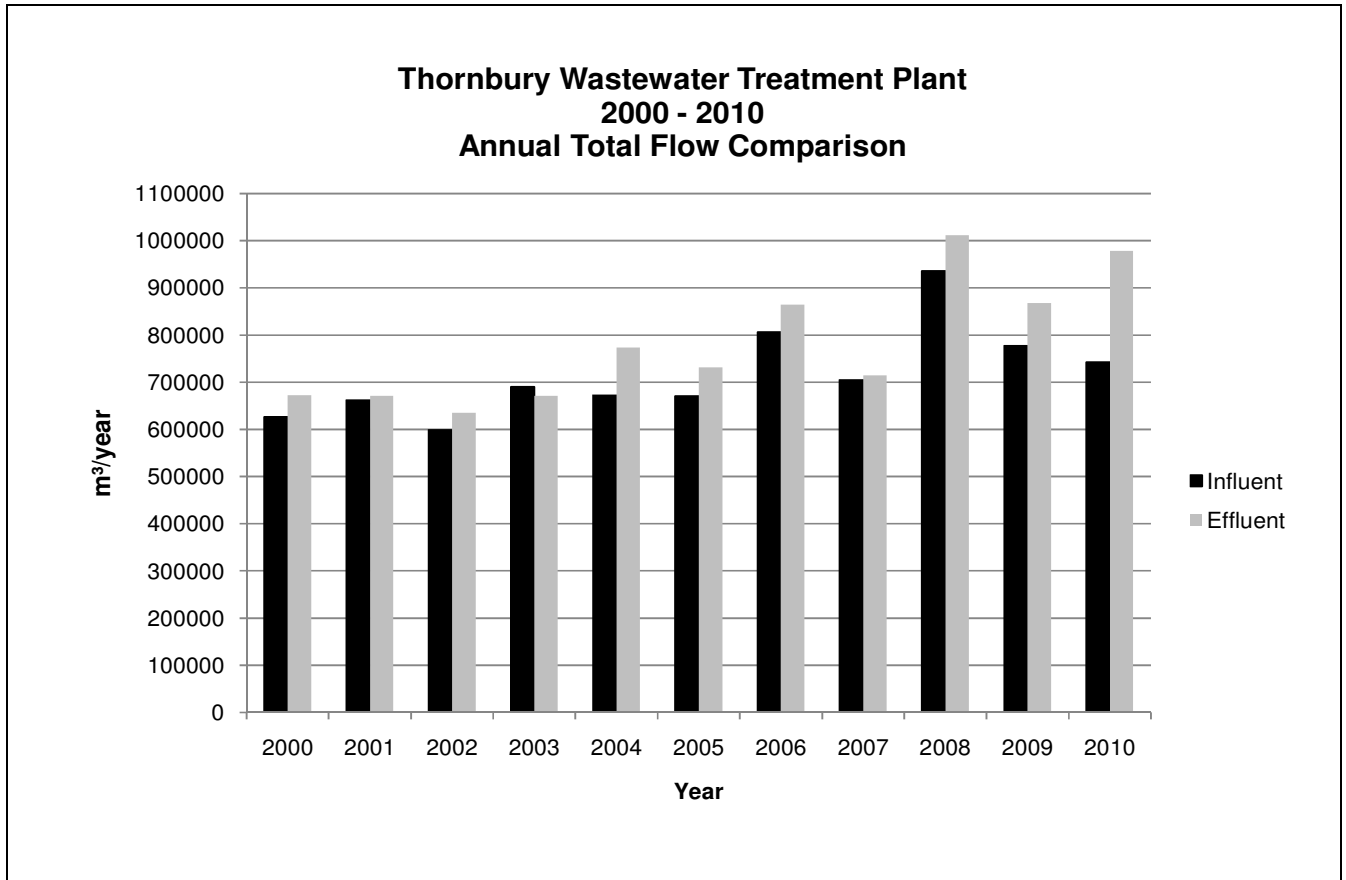


Chart No. 4 – Influent Concentration Comparison

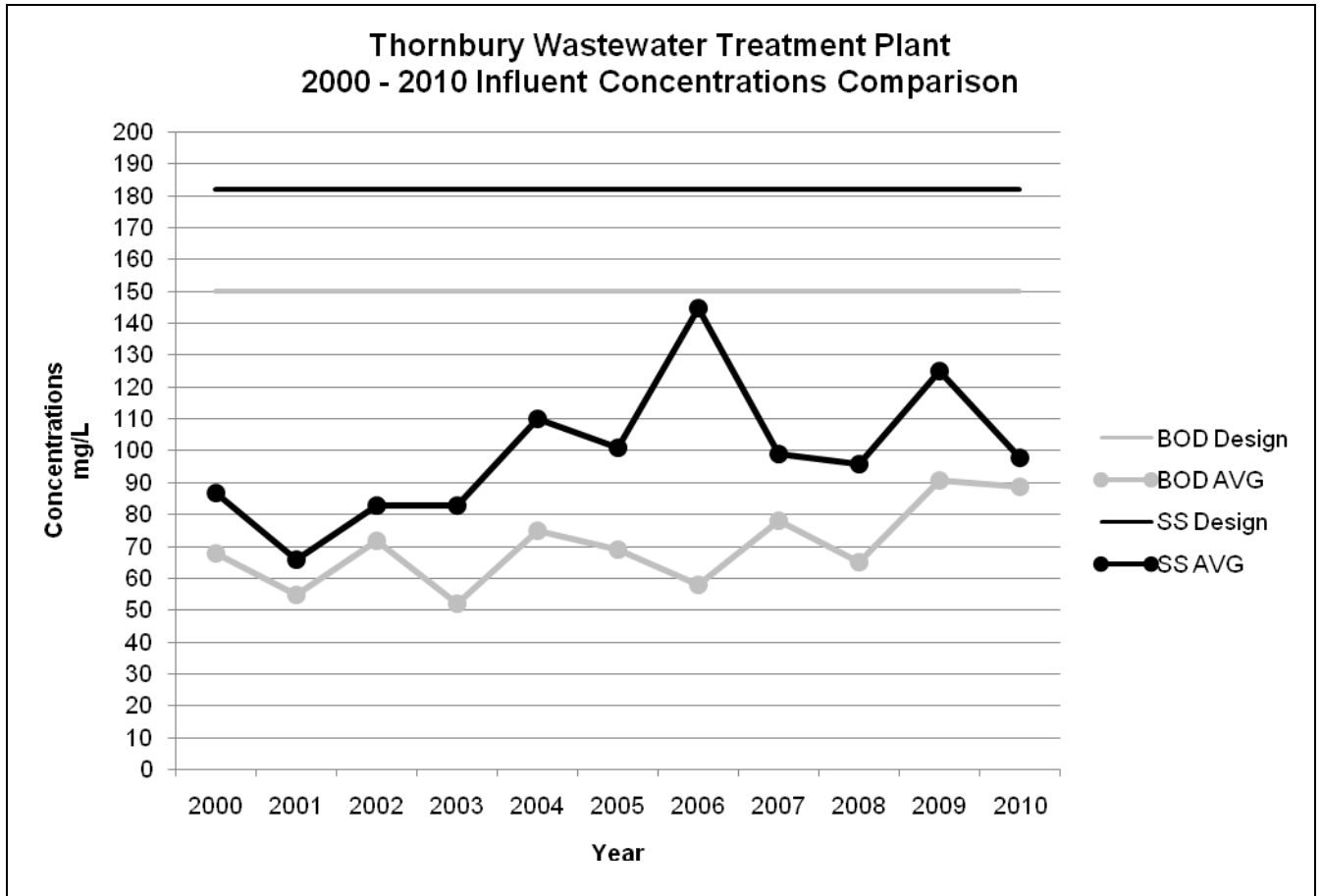
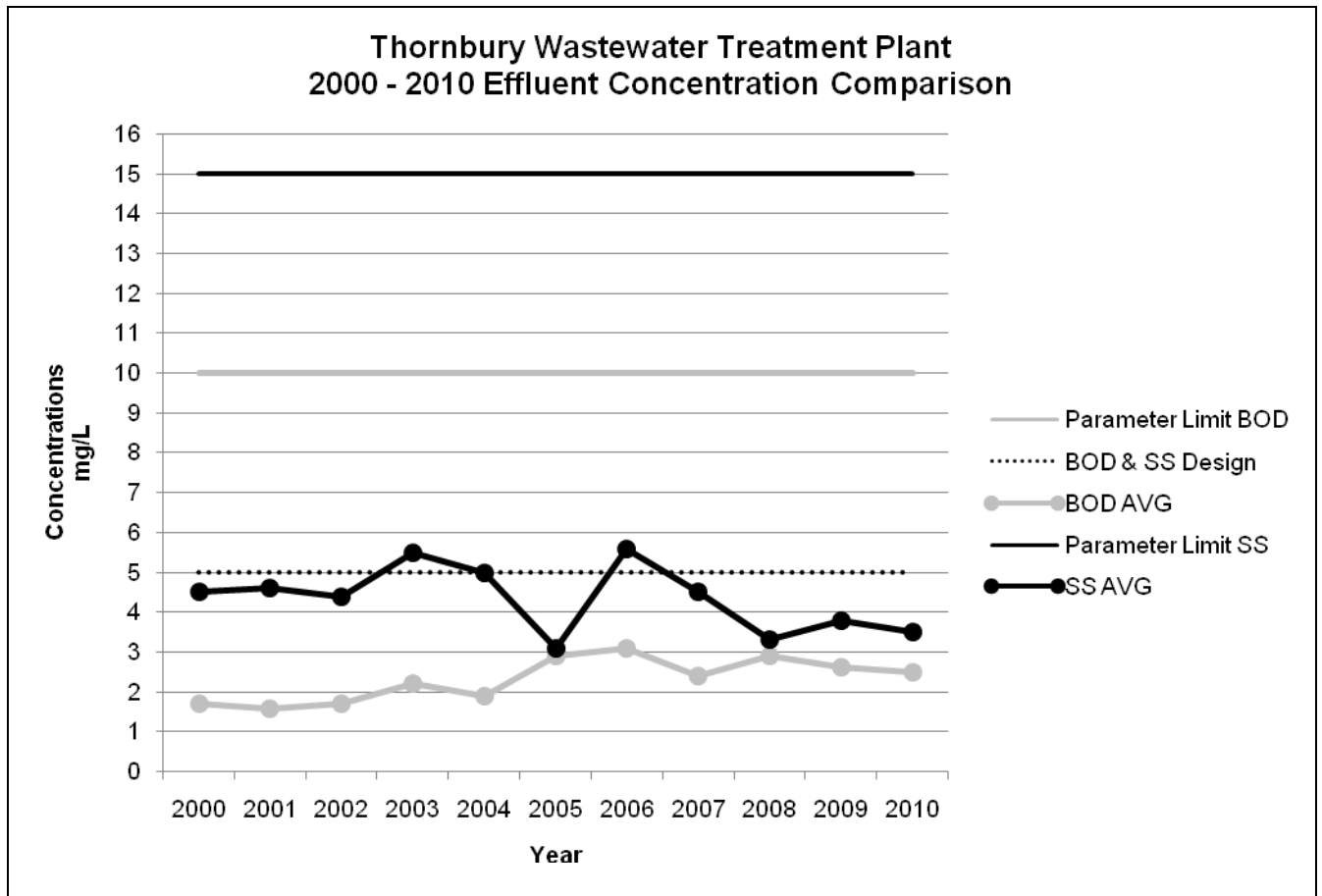


Chart No. 5 – Effluent Concentration Comparison





Craigleith Wastewater Treatment Plant

Summary of Annual Operations Report For 2010

March 2011

Introduction

The Craigleith Wastewater Treatment Plant (WWTP) is one of two wastewater treatment facilities located within the Town of The Blue Mountains (Town). The WWTP is located at 146 Long Point Road in Craigleith.

The Ministry of the Environment has classified the WWTP as a Class III Wastewater Treatment Facility.

This report provides a summary of plant operation and performance during the 2000 - 2010 operating period. The 2010 operating period was a very successful year with no immediate problems encountered.

A comprehensive and technical overview of the 2010 plant operations year is available for viewing at each treatment facility.

Glossary of Terms

Biochemical Oxygen Demand (BOD) – rate at which microorganisms use the oxygen in water or wastewater while stabilizing decomposable organic matter under aerobic conditions

Effluent – wastewater or other liquid flowing from a treatment process or treatment plant

Influent – wastewater or other liquid – raw or partly treated – flowing into a reservoir, treatment process, or treatment plant

Suspended Solids – solids that either float or are in suspension in wastewater or other liquids

Chart No. 1 – Influent Flow Comparison

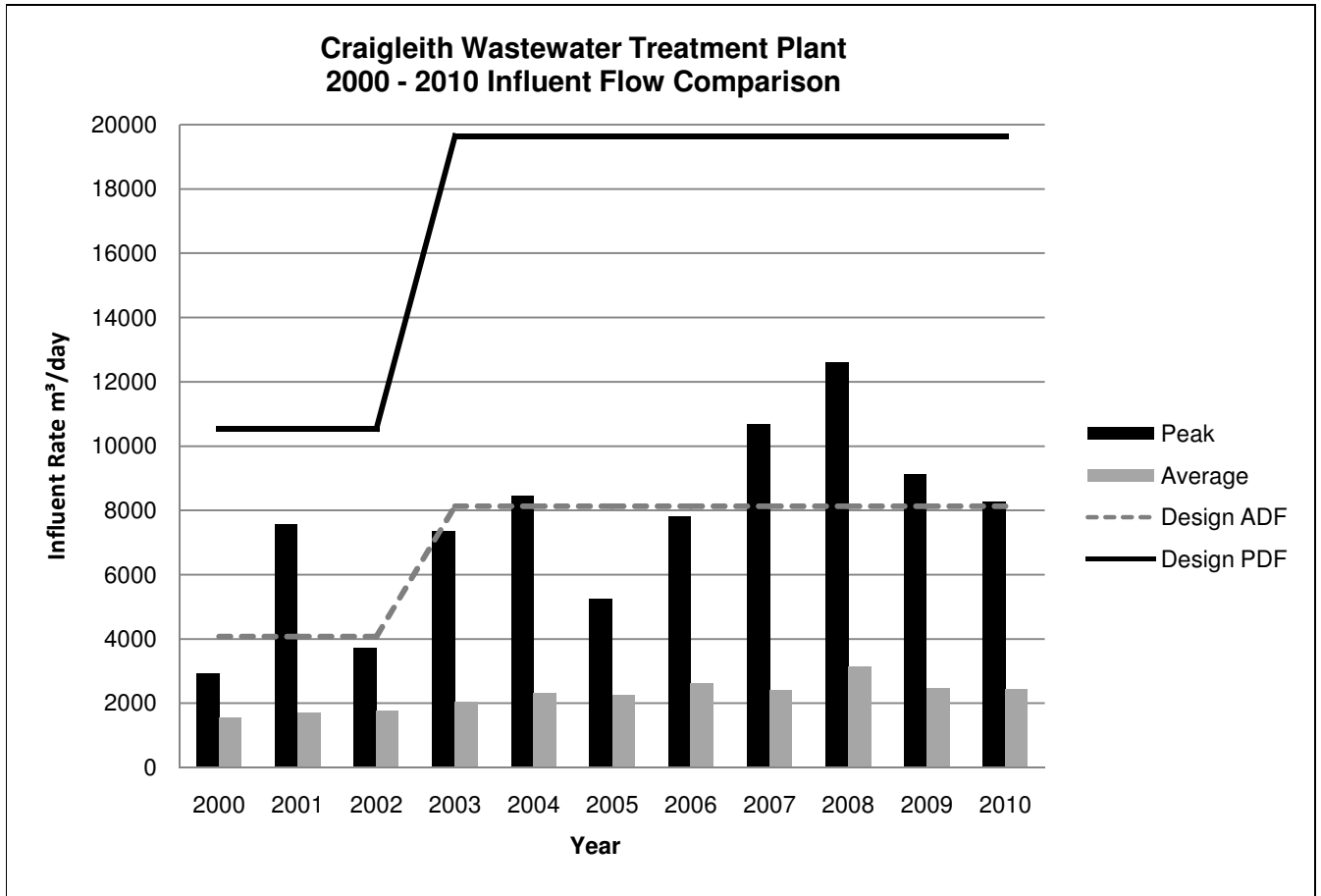


Chart No. 2 – Influent versus Effluent Peak Flow Comparison

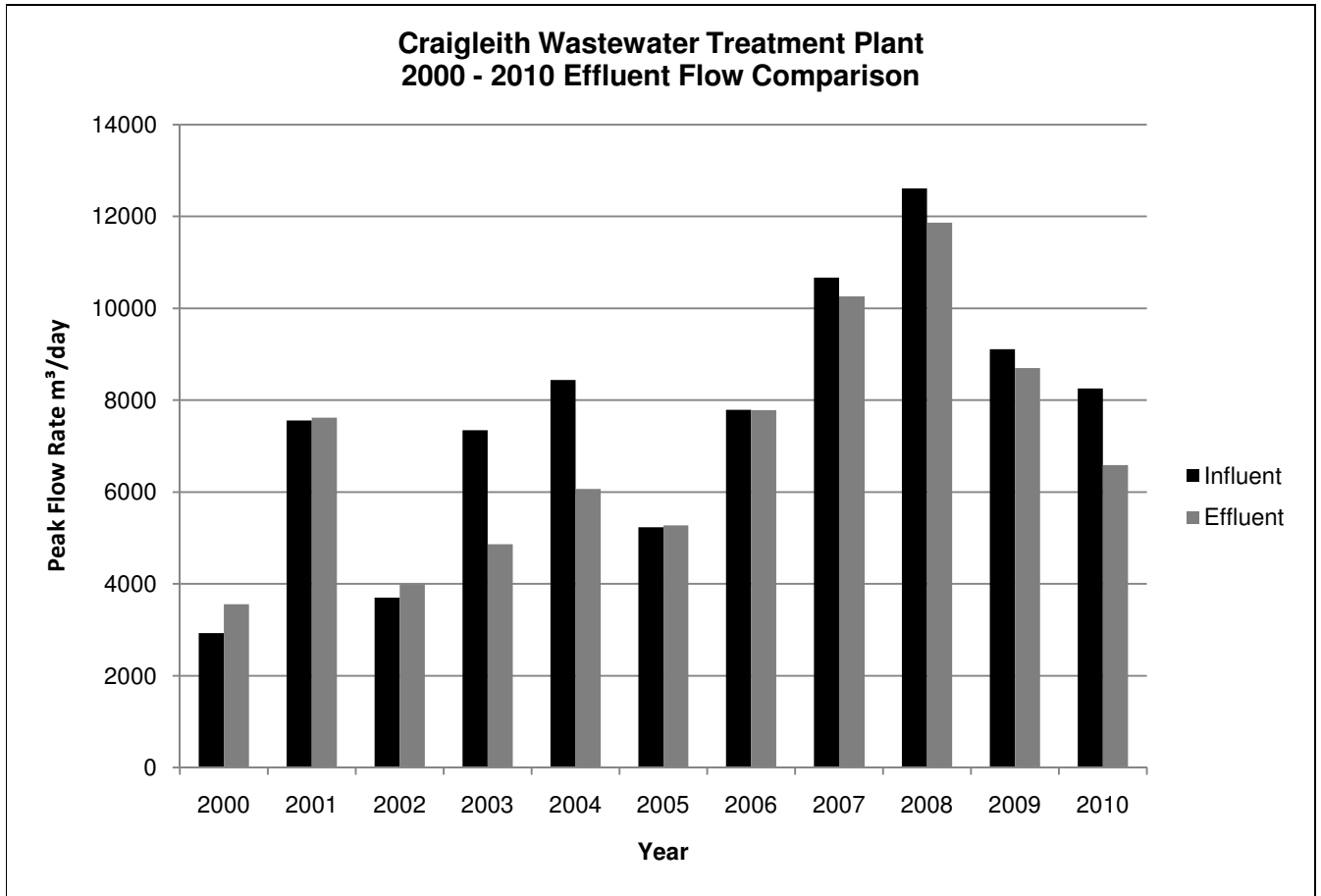


Chart No. 3 – Annual Total Flow Comparison

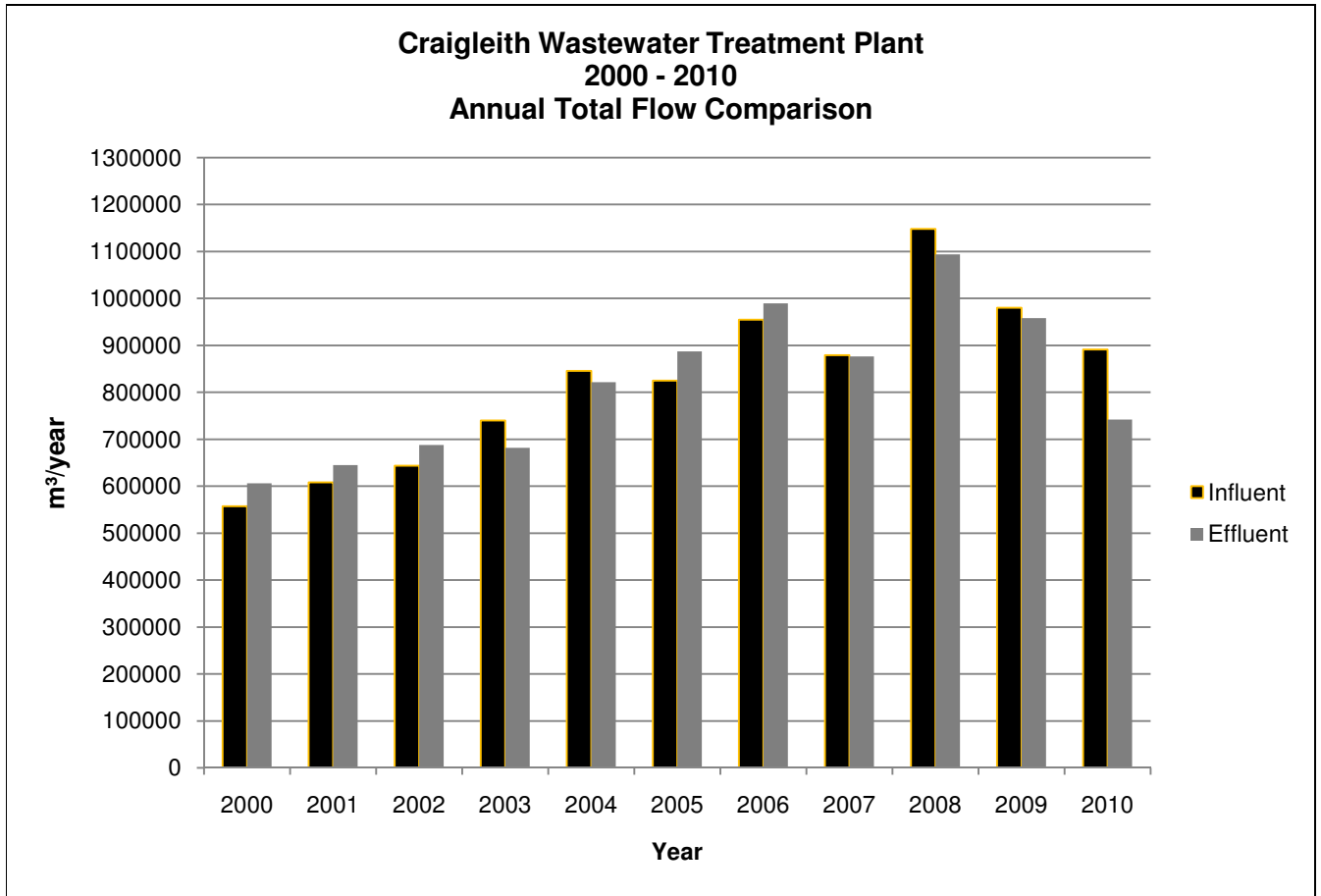
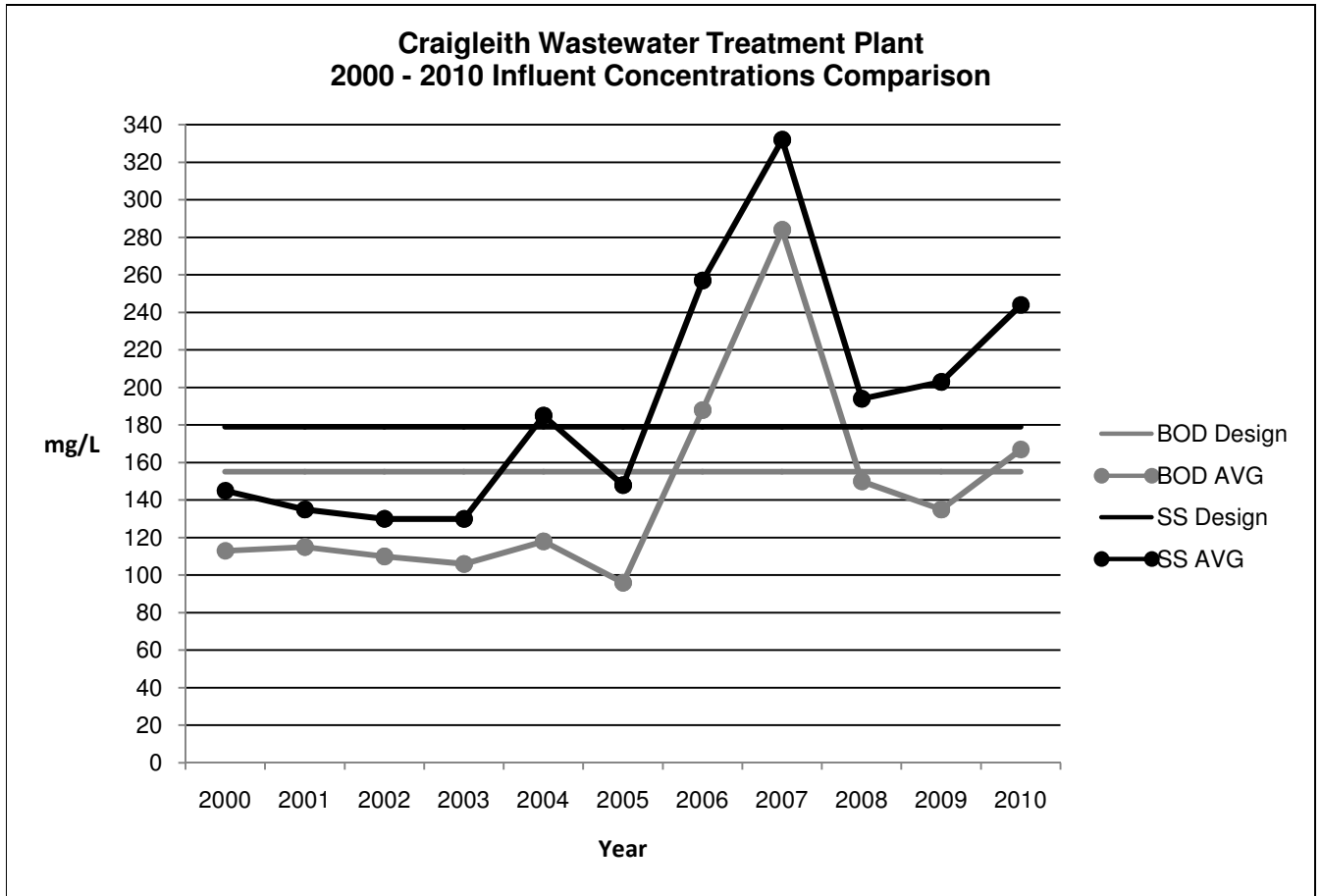


Chart No. 4 – Influent Concentration Comparison



The Influent Concentration parameters for 2007 were consistently higher for each month. There is no single direct reason for this other than an increase in Commercial activities in the Intrust Village Core.

Chart No. 5 – Effluent Concentration Comparison

