

Borough of Chatham

Annual Report

2014

**Madison-Chatham Joint
Meeting**

**MADISON-CHATHAM JOINT MEETING
SUPERINTENDENT'S ANNUAL REPORT
JANUARY 2015**

DEAR MEMBERS:

Happy New Year!!! 2014 has come to an end. I have been able to run the facility in an efficient, cost effective, and environmentally sound manner. The operation of the facility in 2014 has met all permit limits and requirements.

The major capital project of 2015 is the NJEIT Facility Improvements 2015 project. We are also continuing the process of taking the stabilization pond/lagoon out of service. Several other capital projects are ongoing, such as the pump replacements and control panel upgrades.

I have attached two pages of the plant operation data summary for 2014. The data reflects the facility's operation efficiency and our permit limits. The facility produced an average of approximately 31,700 cubic feet of methane gas daily in 2014, up from 14,200 cubic feet in 2013 (20,450 cubic feet in 2012). This is an increase of approximately 33% from 2012. We are investigating the cause for the increase. The 2013 number is due in part because of the loss of digestion capabilities by having only one digester available due to the seal failure. The methane gas is utilized as fuel for the digester boilers and caterpillar engines. The heat generated from the boilers and engines are used solely for heating the two primary digesters. The engines power centrifugal blowers that are also used to provide diffused air for the aeration tanks, saving electricity by not running the electric blowers.

FACILITY IMPROVEMENTS 2015

This project includes scheduled capital projects from 2013 to 2017. This project entails GIS of the trunk line and manholes, replacement of two primary clarifiers, concrete and railing work, replacement of two final clarifiers, rehabilitating two other final clarifiers, and replacement of the secondary digester. Kleinfelder has completed the GIS of the trunk line and manholes and installed software on a MCJM desktop.

STABILIZATION POND/LAGOON CLOSURE

This is a budgeted capital project. We are in the process of removing sludge from the lagoon. We are doing this in-house, with MCJM equipment, saving the MCJM a significant amount of money for removal and disposal costs. The dredged sludge is run through our belt filter press. Due to the cold weather, we have temporarily suspended this operation.

PUMP REPLACEMENTS

This is a budgeted capital project. This will be an ongoing project. We saved a considerable amount of money doing the engineering and installation ourselves. We have just two more pumps to order and install.

CONTROL PANEL UPGRADES

MADISON-CHATHAM JOINT MEETING
SUPERINTENDENT'S ANNUAL REPORT
JANUARY 2015

This is a budgeted capital project. One of three panels is in the production phase. We will also be saving a considerable amount of money by running the communication wires between the panels using MCJM staff.

OTHER ISSUES:

We counted the **Canadian geese** nests at the facility. As of April 14, 2014, we had 5 nests with a total of 17 eggs, which were addled. Addling includes oiling, shaking, or puncturing. Since we only addle eggs, a goose depredation permit is no longer needed. Instead we just need to register on the state website for addling.

I attended the **NJWEA annual conference** at Bally's in Atlantic City from May 12th to the 15th. I am on the Program Committee and head moderator of my session, "Wastewater Treatment Operator's Program." I was responsible for finding speakers and scheduling their presentations.

The digester is back in service from the **seal failure**. All moneys have been received from the insurance carrier, minus our \$5,000 deductible.

The Madison-Chatham Joint Meeting supports any operator that would like to take wastewater classes in preparation for taking any of the **wastewater licenses** available to them. Robert Klein recently passed the S-1 license exam, and has applied to take the next S-2 license exam. Cristian Campos has applied to take the S-2 license exam for the second time.

The certification from the Supreme Court has been denied regarding the litigation for **seasonal phosphorus limits**. We anticipate the new limits will be issued when our new permit is issued January 1, 2016, with a 3 to 5 year implementation schedule.

One employee is still out on Worker's Compensation due to an **injury** sustained at the MCJM on August 15, 2013. All employees are pulling up the slack and filling in the gap due to being short handed. The mechanic has been assisting in running the lagoon sludge dredging equipment when his schedule allows.

Rehabilitation of the exterior of Building #3, the circa 1910 old administration building, has been completed. The rehabilitation of the exterior of Building #4, another circa 1910 blower building will begin in the spring. Bushes/mulch will be placed around Building #3 in the spring.

The **tour** of the facility with students from the Chatham High School, scheduled for October 23, 2014, had to be postponed due to adverse weather conditions. It will be rescheduled in the spring.

I would like to take this opportunity to invite any interested council members down to the plant for a tour.

**RESPECTFULLY SUBMITTED,
CHRISTOPHER MANAK
SUPERINTENDENT**

2014 OPERATIONS DATA

Month	Plant Flow (MGD)	Precip. Rain inches	Influent BOD mg/L	Effluent BOD mg/L	% Removal	Influent S.S. mg/L	Effluent S.S. mg/L	% Removal	Effluent NH3-N mg/L	Effluent TPO4 mg/L	Effluent D.O. mg/L	Fecal Coliform #/100 ml
January	2.283	4.9	184	3.4	98.2	207	5.0	97.6	0.3	3.2	8.0	14.3
February	2.556	2.2	150	2.9	98.1	153	4.0	97.4	0.4	2.7	8.0	9.3
March	2.826	3.9	338	1.7	99.5	523	2.8	99.5	0.2	2.2	7.0	9.3
April	2.590	3.5	259	2.5	99.1	500	4.8	99.0	0.2	2.8	9.0	8.1
May	2.329	6.8	202	2.8	98.6	271	5.8	97.9	0.6	3.3	7.0	10.0
June	2.074	4.1	227	2.8	98.2	381	2.5	98.6	0.4	4.0	5.0	15.3
July	2.090	7.0	176	2.8	98.3	299	4.8	96.6	0.2	4.1	7.0	6.6
August	1.807	3.0	166	2.8	97.7	273	2.8	98.6	0.1	4.0	7.0	5.9
September	1.888	2.9	202	3.4	98.3	274	4.0	98.5	0.1	3.9	7.0	5.9
October	1.935	3.9	152	1.8	98.8	211	3.2	98.5	0.1	4.1	8.0	6.6
November	2.098	3.8	209	2.9	98.5	315	4.5	97.8	0.1	3.8	9.0	10.0
December	2.456	5.1	171	2.1	98.8	241	4.6	98.1	0.1	2.4	10.0	5.7
Total	962.693	51.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Average	2.244	4.3	203	2.7	98.5	304	4.1	98.2	0.2	3.4	7.7	9
Permit Limits	3.5	NONE	NONE	8	Min 85	NONE	30	Min 85	2.0 Sum 7.0 Wint	4.4 Sum 4.0 Wint	Min 6	200

Notes: Summer is defined as May 1 - Oct 31, Winter is Nov 1 - April 30