

**THE MATTABASSETT DISTRICT**

*Memorandum*

**Date:** August 12, 2015

**Subject:** Agenda - Monday,  
August 17, 2015 @ 7:00 PM  
Board Meeting

**To:** Board of Directors

**From:** Arthur G. Simonian, Executive Director

AGS

Public Speakers

**AGENDA**

Roll Call

	<u>Pages</u>
1. Minutes of the meeting of July 20, 2015	1 - 4
2. Treasurer's Report	5 - 12
a. Receipts & Expenditures – FY 14-15 & FY 15-16	6 - 7
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d. Investment Schedule	12 - 13
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b. Safety/Energy Report	35 - 36
c. Operational Profile	37 - 40
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1. Payment Accounting for Baci Grill	
2. Nitrogen Limits for 2015	
3. Outfall Cleaning Frequency	
4. Costs Incurred on Repairing Dorr Oliver Heat Exchangers	
6. Committee Reports	
a. Engineering	
b. Finance	
1. Ash Lagoon Cleaning Bid	
c. Human Resources	
d. Property Management	
e. Public Relations	
f. District Project Construction Committee	

1. C.H. Nickerson's Payment Requisition #39 for June/July - \$556,026.69
2. Wright-Pierce's Payment Requisition for June 2015 - \$216,544.83
3. Change Order #44 for 4 Sub Change Orders - \$24,481.55
7. Counsel's Report
  - a. Executive Session
8. New Business
9. Communications
10. Adjournment

The next meeting of the Mattabasset District will be held on **Monday, September 21, 2015 at 7:00 p.m.**, in the Administration Building, Cromwell, Connecticut.

**PUBLIC SPEAKERS**

None.

**MINUTES OF JULY 20, 2015**

**Roll Call of Members**

The monthly meeting of the Board of Directors of The Mattabassett District was held Monday, July 20, 2015, at the Administration Building. Chairman William Candelori called the meeting to order at 7:00 p.m. A roll call was taken and a quorum was present. Present from the Town of Cromwell were Directors Bonnie Anderson and Doug Sienna. Present from the Town of Berlin were Directors John Dunham and James McNair. Present from the City of New Britain were Directors William Candelori, Peter Centurelli, Angelo D'Alfonso and John Valengavich. Present from the City of Middletown were Directors Dale Aldieri, David Bauer, Joseph Samolis and Tom Serra. Also present were Edward T. Lynch Jr. – District Counsel, Arthur Simonian - Executive Director, Michelle Ryan – District Engineer, Brian Warman – Operations Manager, Bill Adkins – Maintenance Manager and Elaine Brousseau – Recording Secretary. Also present were Christine Kurtz and Chris Pierce from Wright-Pierce. Cromwell Director Tom Tokarz and New Britain Director Gerry Amodio, Jr. were absent. Berlin Director Ed Kindelan arrived at 7:05 p.m.

**Approval of June 16, 2015 Minutes**

**MOTION:** Mr. Sienna moved to approve the minutes of June 16, 2015.

Mr. Serra seconded the motion.

**Discussion**

**RESOLVED:** The motion was approved with Mr. Aldieri, Mr. Samolis and Mr. Valengavich abstaining.

**Treasurer's Report**

**MOTION:** Mr. Sienna moved to accept the Treasurer's Report as presented.

Mr. Valengavich seconded the motion.

**Discussion**

**RESOLVED:** The motion was approved unanimously.

**Budget Statement**

**MOTION:** Mr. Sienna moved to accept the Budget Statement as presented.

Mr. Valengavich seconded the motion.

Discussion

RESOLVED: The motion was approved unanimously.

**Check Register – June, 2015**

No motion required.

Mr. Kindelan arrived at 7:05 p.m.

**Staff Reports**

MOTION: Mr. Sienna moved to accept the Staff Reports as presented.

Mr. Centurelli seconded the motion.

Discussion

RESOLVED: The motion was approved unanimously.

**Engineering Committee**

No Report

**Finance Committee**

No Report

**Human Resources Committee**

No Report

**Property Management**

No Report.

**Public Relations Committee**

No Report.

**District Project Construction Committee**

**MOTION:** Mr. Dunham moved to approve the following:

1. C.H. Nickerson's Payment Requisition #38 for May/June 2015 - \$1,066,446.16.
2. Wright-Pierce's Payment Requisition for May 2015 - \$170,804.52.
3. Change Order #42 for 14 Sub Change Orders - \$29,084.65.
4. Change Order #43 for Bid Allowance Line Item Credit – (\$46,246.14)

Mr. D'Alfonso seconded the motion.

**Discussion**

**RESOLVED:** The motion was approved unanimously.

**MOTION:** Mr. Sienna moved to accept the District Project Construction Committee Report as presented.

Mr. Centurelli seconded the motion.

**Discussion**

**RESOLVED:** The motion was approved unanimously

**Counsel's Report**

**MOTION:** Mr. Dunham moved to enter into Executive Session at 8:03 p.m. with District Counsel Ed Lynch and Executive Director Arthur Simonian to discuss the Wright-Pierce contract.

Mr. Sienna seconded the motion.

**Discussion**

**RESOLVED:** The motion was approved unanimously.

**MOTION:** Mr. Sienna moved to return to regular session at 8:26 p.m.

Mrs. Anderson seconded the motion.

**Discussion**

**RESOLVED:** The motion was approved unanimously.

MOTION: Mr. Dunham moved to accept the Counsel's Report as presented.

Mr. Bauer seconded the motion.

Discussion

RESOLVED: The motion was approved unanimously.

*New Business*

None

*Communications*

A letter of appreciation was received from Mr. Lawrence McHugh dated June 18, 2015 recognizing the leadership of the Board and the District.

*Adjournment*

MOTION: Mr. Bauer moved to adjourn.

Mr. Sienna seconded the motion.

RESOLVED: The motion was approved unanimously.

The meeting adjourned at 8:35 p.m.

The next meeting of the Board of Directors will be held on **Monday, August 17, 2015 at 7:00 p.m.** in the Administration Building, Cromwell, Connecticut.

**THE MATTABASSETT DISTRICT****Memorandum**

Date: August 11, 2015

Subject: **Treasurer's Report Board Meeting  
August 2015 for month of July 2015**

To: Board of Directors

From: Arthur G. Simonian, Executive Director

AGS

Sludge Income for July was \$75,707: \$6,518 more than June's. We are going to begin implementing management controls for sludge deliveries in the future for operational reasons. Total Septage and Grease Income, for the month is \$61,660: The sludge, septage and grease budget for the year is \$1,080,000.

As this is the beginning of the Fiscal Year, there are no line items over budget.

Overall Total Operating Expenditures are currently \$319,388, 2%, of annual budget. There will be a large principal and interest payment due for the Nitrogen project in January that will go against the bonded debt payment. Excluding this line item, we are currently at 4% of our overall operating budget.

As there has not been any appreciable change in Nickerson's project costs, the table summarizing Nickerson's bid, Change Orders, Change in Scope Items and other changes under consideration, Potential Total Construction Costs, Wright-Pierce's Fees, their Total and the Bond Authorization is summarized below.

Item	Value	% of Bid
<b>Nickerson's Bid</b>	\$93,487,320	
Total Approved and Potential Changes	\$4,351,969	4.66%
<b>Potential Total Construction Costs</b>	\$97,839,289	
<b>Wright-Pierce's Inspection &amp; Admin Fees</b>	\$7,682,221	
<b>Total Engineering &amp; Potential Construction Costs</b>	\$105,521,510	
<b>Bond Authorization</b>	\$107,864,987	

The Nitrogen Upgrade and Facility Expansion as of July 15, 2015 is 99% complete, Invoiced is 99.3% and time wise 103%. C.H. Nickerson's Project Billings as of July 15, 2015 were \$96,745,733.

**FISCAL YEAR 2014-2015 TREASURER'S REPORT**

**RECEIPTS AND EXPENDITURES**

July 1 - July 31, 2015

**OPERATING FUND**

**RECEIPTS**

Sludge Management	\$125,046.40
Liquids Management	\$90.91
Grease	\$600.00
Grant/Loan Income CWF	\$1,237,250.68
Miscellaneous	<u>\$0.00</u>
Total Receipts	\$1,362,987.99

**EXPENDITURES**

Bills	\$1,694,908.28
Credit to Expenditures	<u>\$0.00</u>
Total Expenditures	\$1,694,908.28

**FISCAL YEAR 2015-2016 TREASURER'S REPORT**  
**RECEIPTS AND EXPENDITURES**  
**July 1 - July 31, 2015**

**OPERATING FUND**

**RECEIPTS**

Assessment 2015/2016	\$10,402,599.00
Interest	\$3,506.00
Sludge Management	\$0.00
Liquids Management	\$0.00
Septage	\$23,920.00
Grease	\$37,740.00
Grant/Loan Income CWF	\$0.00
Miscellaneous	<u>\$0.00</u>
Total Receipts	\$10,467,765.00

**EXPENDITURES**

Bills	\$60,300.49
Fringe Benefits	\$83,128.41
Payrolls	\$179,690.06
Credit to Expenditures	<u>(\$4,282.69)</u>
Total Expenditures	\$318,836.27

Operating & Nitrogen Checking Accounts	\$7,940,023.69
Investments	<u>\$26,108,610.58</u>

**Total Funds as of: 7/31/2015**

\$34,048,634.27

**CAPITAL NON-RECURRING ACCOUNT**

**RECEIPTS**

Interest	\$7.12
Transfers In	\$0.00
Grant/Loan Income	<u>\$0.00</u>
Total Receipts	\$7.12

**EXPENDITURES**

Bills	\$0.00
Transfers Out	<u>\$0.00</u>
Total Expenditures	\$0.00

Checking Account	\$2,387.81
Investments	<u>\$58,181.17</u>

**Total Funds as of: 7/31/2015**

\$60,568.98

**THE MATTABASSETT DISTRICT  
FISCAL YEAR 2015-2016 - TREASURER'S REPORT  
OPERATING FUND STATEMENT OF INCOME  
Period Ending July 31, 2015**

	<u>Budget</u>	<u>Received YTD</u>	<u>Percent of Budget</u>	<u>Budget Balance</u>
<b>Constituent Assessments:</b>				
New Britain	\$5,137,548	\$5,137,548	100%	\$0
Berlin	\$1,704,358	\$1,704,358	100%	\$0
Cromwell	\$797,747	\$797,747	100%	\$0
Middletown	\$2,327,238	\$2,327,238	100%	\$0
<b>Total</b>	<u>\$9,966,891</u>	<u>\$9,966,891</u>	<u>100%</u>	<u>\$0</u>
<b>Contractual Assessments:</b>				
Metropolitan District	\$427,543	\$427,543	100%	\$0
Farmington	\$8,165	\$8,165	100%	\$0
<b>Total</b>	<u>\$435,708</u>	<u>\$435,708</u>	<u>100%</u>	<u>\$0</u>
Interest	\$15,000	\$3,506	23%	\$11,494
Liquid Management	\$0	\$0	0%	\$0
Sludge Management	\$840,000	\$0	0%	\$840,000
Septage	\$140,000	\$23,920	17%	\$116,080
Grease	\$100,000	\$38,340	38%	\$61,660
Operating Fund Excess *	\$250,000	\$250,000	100%	\$0
NB Berlin Cromwell MDC Credits **	\$1,105,000	\$0	0%	\$1,105,000
Reserve Fund Debt Transfer ***	\$5,500,000	\$0	0%	\$5,500,000
Miscellaneous	\$5,001	\$0	0%	\$5,001
<b>Sub Total</b>	<u>\$18,357,600</u>	<u>\$10,718,365</u>	<u>58%</u>	<u>\$7,639,235</u>
Bond/Loan Income	\$4,000,000	\$1,237,251	31%	\$2,762,749
<b>TOTAL</b>	<u>\$22,357,600</u>	<u>\$11,955,616</u>	<u>53%</u>	<u>\$10,401,984</u>

Note: Brackets ( ) denote income in excess of budgeted amount

\* Funds carried over from previous fiscal year excess but does not effect Received YTD Totals within accounting system

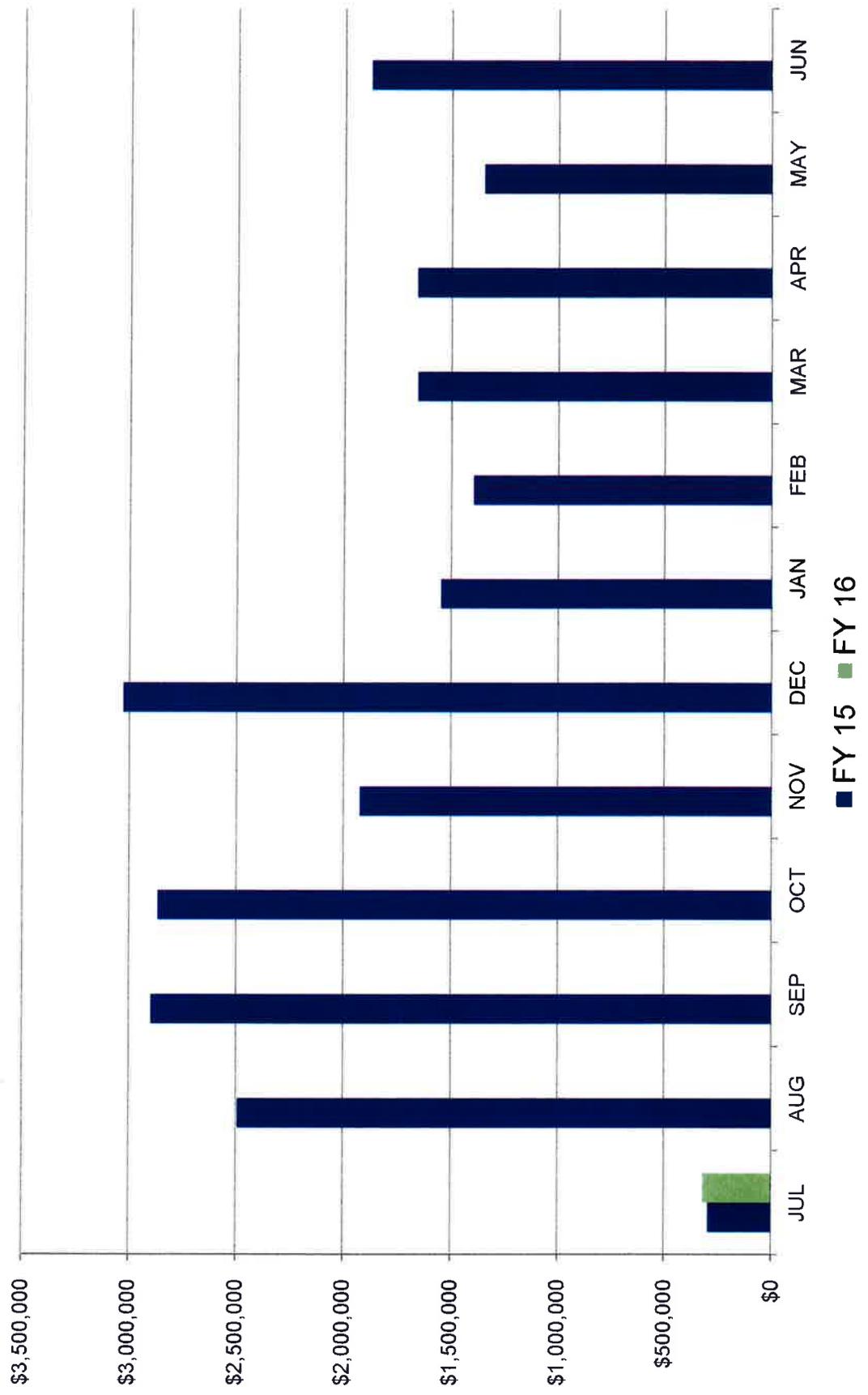
\*\* Funds will be transferred from reserves when 1st principal & interest payment are due on Nitrogen Project

\*\*\*Funds will be transferred from Operating reserves when 1st principal & interest due on Nitrogen Project

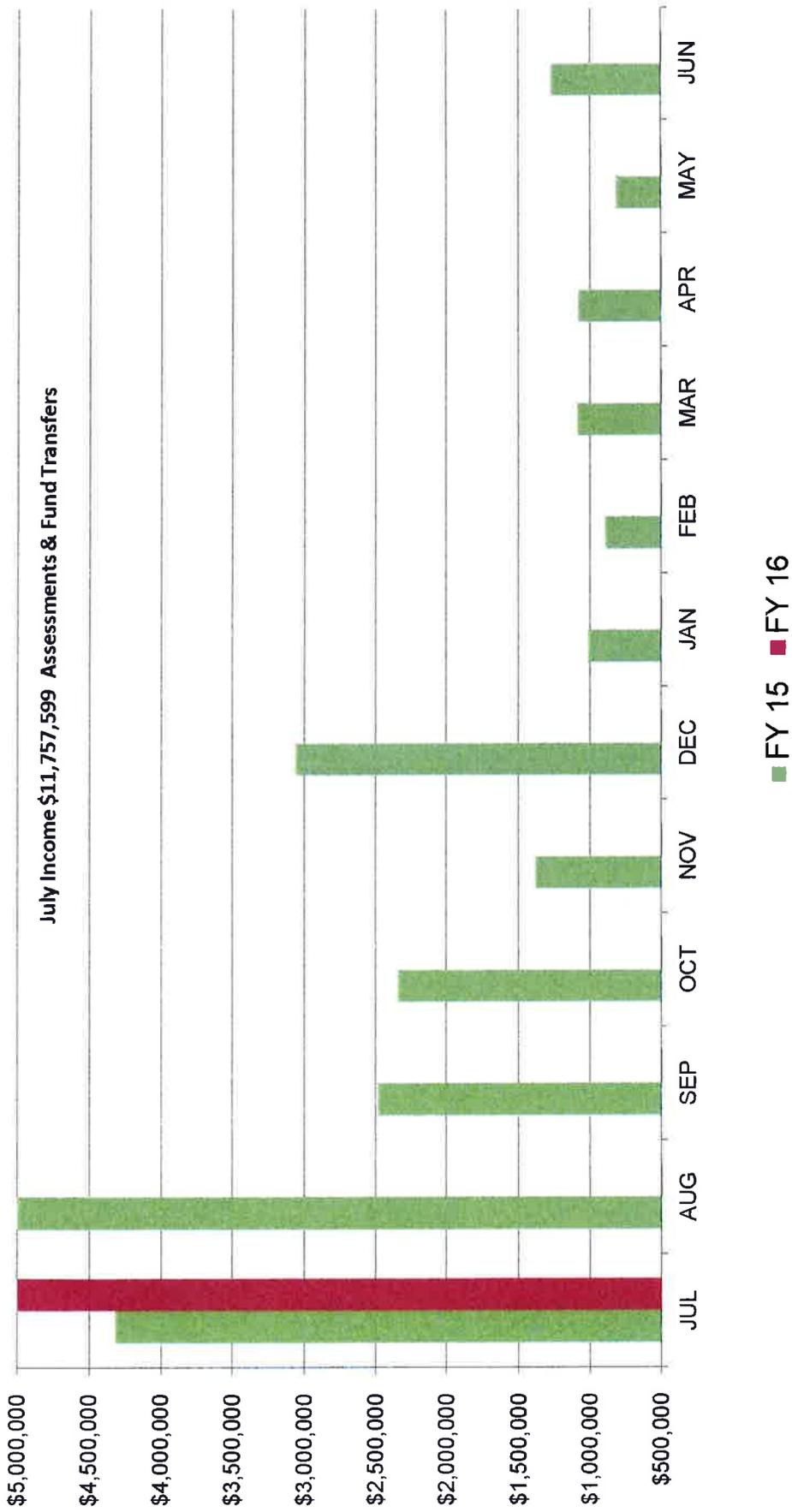
**THE MATTABASSETT DISTRICT**  
**FISCAL YEAR 2015-2016 TREASURER'S REPORT**  
**OPERATING FUND CASH FLOW DATA**  
 As Of July 31, 2015

MONTH	ANNUAL BUDGET		ACTUAL EXPENDITURES		ACTUAL REVENUE MONTHLY									
	TOTAL		MONTHLY	YTD	LIQUIDS INV.	LIQUIDS PD.	SLUDGE INV.	SLUDGE PD.	SEPTAGE PURCHASED	GREASE PURCHASED	INTEREST EARNED	FUND XFERS ASSES/LOAN	MISC. INCOME DEPOSITED	
	\$22,357,600			\$0										
JUL	\$22,357,600		\$318,836	\$318,836	\$4,850	\$0	\$75,707	\$0	\$23,920	\$37,740	\$3,506	\$11,507,599	\$0	
AUG	\$22,357,600			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
SEP	\$22,357,600			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
OCT	\$22,357,600			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
NOV	\$22,357,600			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
DEC	\$22,357,600			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
JAN	\$22,357,600			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
FEB	\$22,357,600			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
MAR	\$22,357,600			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
APR	\$22,357,600			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
MAY	\$22,357,600			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
JUN	\$22,357,600			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
TOTAL				\$318,836	\$4,850	\$0	\$75,707	\$0	\$23,920	\$37,740	\$3,506	\$11,757,599	\$0	
BUDGET	\$22,357,600			\$29,436,053			\$940,000		\$140,000	\$103,000	\$15,000	\$26,326,053	\$5,001	
PERCENT OF BUDGET				1%			9%		17%	38%	23%	45%	0%	

**THE MATTABASSETT DISTRICT  
TREASURER'S REPORT  
MONTHLY EXPENDITURES PREVIOUS FY 15, and CURRENT FY 16**



**THE MATTABASSETT DISTRICT  
TREASURER'S REPORT  
MONTHLY INCOME PREVIOUS FY 15, and CURRENT FY 16**



**The Mattabassett District  
Investment Schedule  
Fiscal Year 2015-2016  
As of July 31, 2015**

<u>Operating Fund</u>	<u>Orig FY</u>	<u>Amount</u>	<u>% of Total</u>	<u>Mat Date</u>	<u>Purch Date</u>	<u>Rate</u>
<b>NB,B,C &amp; MDC Reserve</b>						
10484 Bank of America CD	12/13	2,002,675.48	7.67%	09/22/15	06/16/15	0.03%
10466 Farmington CD	12/13	2,004,732.24	7.68%	09/22/15	06/16/15	0.15%
10464 Liberty CD	12/13	2,011,976.62	7.71%	09/22/15	06/14/15	0.55%
10463 TD Bank CD	12/13	2,005,252.10	7.68%	09/22/15	06/16/15	0.26%
10465 Webster CD	12/13	2,003,940.11	7.68%	09/22/15	06/16/15	0.17%
10467 United Bank MM	12/13	3,020,163.21	11.57%			0.50%
<b>NB,B,C &amp; MDC Reserve Total</b>		<b>13,048,739.76</b>				
<b>Nitrogen Reserve</b>						
10405 Webster CD	12/13	251,659.88	0.96%	10/19/15	05/19/15	0.23%
10448 Farmington Bank CD	13/14	200,744.75	0.77%	09/22/15	06/16/15	0.15%
10471 United Bank CD	13/14	505,337.55		08/18/15	04/21/15	0.25%
10476 United Bank MM	14/15	2,512,359.13				0.50%
		<b>3,017,696.68</b>	11.56%			
<b>Energy Credit</b>						
10429 Farmington CD	13/14	720,801.28	2.76%	09/22/15	06/16/15	0.15%
10478 Liberty Bank CD	14/15	510,442.19	1.96%	11/29/15	06/02/15	0.55%
<b>Nitrogen Reserve Total</b>		<b>4,701,344.78</b>				
<b>Reserve</b>						
10490 CT St Treas STIF		14,412.24	0.06%			0.15%
10425 Liberty Bank MM	09/10	528,884.01				0.35%
10446 Liberty Bank MM	12/13	742,922.34				0.35%
10462 Liberty Bank CD	12/13	301,758.80		08/19/15	04/20/15	0.50%
10447 Liberty Bank CD	14/15	642,450.94		08/18/15	06/16/15	0.15%
		<b>2,216,016.09</b>	8.49%			
10428 Farmington CD	11/12	503,658.23		09/22/15	06/22/15	0.15%
10460 Farmington CD	12/13	150,882.43		09/22/15	06/22/15	0.15%
		<b>654,540.66</b>	2.51%			
10480 Bank of America CD	10/12	354,105.01		09/22/15	06/16/15	0.03%
10481 Bank of America CD	06/11	502,058.09		09/22/15	06/22/15	0.03%
		<b>856,163.10</b>	3.28%			
10461 TD Bank CD	11/12	653,879.59	2.50%	09/22/15	06/22/15	0.19%
10470 United Bank MM	13/14	1,010,653.53	3.87%			0.50%
<b>Reserve Total</b>		<b>5,405,665.21</b>				
<b>Nitrogen &amp; Reserve Total</b>		<b>23,155,749.75</b>				

**The Mattabassett District  
Investment Schedule  
Fiscal Year 2015-2016  
As of July 31, 2015**

<u>Operating Fund</u>	<u>Orig FY</u>	<u>Amount</u>	<u>% of Total</u>	<u>Mat Date</u>	<u>Purch Date</u>	<u>Rate</u>
<b>Out Fall Bonds</b>						
10456 Liberty Bank CD	14/15	125,317.83	0.48%	12/15/15	06/22/15	0.50%
<b>2015-2016 Fiscal Yr</b>						
10401 Webster CD	15/16	427,543.00	1.64%	08/18/15	03/12/15	0.20%
10420 TD Bank CD	15/16	800,000.00	3.06%	09/22/15	07/10/15	0.17%
10433 Liberty CD	15/16	800,000.00	3.06%	11/17/15	07/14/15	0.55%
10486 United CD	15/16	800,000.00	3.06%	01/09/16	07/13/15	0.30%
<b>2015-2016 Fiscal Yr Total</b>		<u>2,827,543.00</u>				
<b>Total Operating Fund</b>		<u>26,108,610.58</u>	100.00%			
<b>CNR Fund</b>						
C-10380 Bank of America STIF		12,172.47	20.92%			0.05%
C-10390 CT St Treas STIF		46,008.70	79.08%			0.15%
		<u>58,181.17</u>	100.00%			
<b>Total Amount Invested</b>		<u>26,166,791.75</u>				

**The Mattabasset District**  
**Unaudited Budget Statement FY 15-16**  
**For the Month Ending July 31, 2015**

	Actual	Budget	Variance	% of Budget
50000 · Administrative Expenses	26,155	532,501	506,346	5%
55000 · Employee Expenses	261,294	3,560,459	3,299,165	7%
61000 · Operations Department	6,215	2,621,000	2,614,785	0%
62000 · Maintenance Department	6,746	514,000	507,254	1%
63000 · Laboratory Department	0	51,000	51,000	0%
64000 · Bonded Debt Payment	18,978	10,348,640	10,329,662	0%
69000 · Contingencies	0	130,000	130,000	0%
<b>Subtotal</b>	<b>319,388</b>	<b>17,757,600</b>	<b>17,438,212</b>	
70000 · Capital Expenses	0	500,000	500,000	0%
<b>Operating Expense Total</b>	<b>319,388</b>	<b>18,257,600</b>	<b>17,938,212</b>	
73000 · Nitrogen Upgrade	0	4,000,000	4,000,000	0%
84000 · Legislative Payment Cromwell	0	100,000	100,000	0%
<b>Total Expense</b>	<b>319,388</b>	<b>22,357,600</b>	<b>22,038,212</b>	<b>1%</b>

**The Mattabassett District**  
**Unaudited Budget Statement FY 15-16**  
**For the Month Ending July 31, 2015**

	Actual YTD	Budget	Variance	% of Budget
<b>Operating Expense</b>				
<b>50000 · Administrative Expenses</b>				
51000 · Insurance	10,450	140,000	129,550	7%
52100 · Engineering	0	80,000	80,000	0%
52200 · Legal	0	50,000	50,000	0%
52300 · Accounting	0	26,000	26,000	0%
52400 · Training & Conferences	85	30,000	29,915	0%
52500 · Board Meetings	0	31,000	31,000	0%
53000 · Business Services	3,641	115,000	111,359	3%
53500 · Permit Fees	11,595	39,500	27,905	29%
54000 · Office Supplies	0	11,000	11,000	0%
54500 · Miscellaneous Expenses	384	10,001	9,617	4%
<b>Total 50000 · Administrative Expenses</b>	<b>26,155</b>	<b>532,501</b>	<b>506,346</b>	<b>5%</b>
<b>55000 · Employee Expenses</b>				
56000 · Salaries/Wages	165,298	2,382,657	2,217,359	7%
56600 · Overtime & Meals	9,197	91,515	82,318	10%
56700 · Shift Diff	2,671	40,752	38,081	7%
57200 · Medical/Dental/Etc.	77,720	513,492	435,772	15%
57220 · 3rd Party Deductible Acc Fee	0	1,008	1,008	0%
57225 · Deductible Reserve	552	15,000	14,448	4%
57300 · Life	1,259	8,556	7,297	15%
57400 · Unemployment	1,444	9,000	7,556	16%
57100 · Workers Comp	0	70,000	70,000	0%
58000 · Retirement Benefits	2,524	398,403	395,879	1%
59000 · Uniforms, Shoes, Physicals, EAP	629	30,076	29,447	2%
<b>Total 55000 · Employee Expenses</b>	<b>261,294</b>	<b>3,560,459</b>	<b>3,299,165</b>	<b>7%</b>
<b>61000 · Operations Department</b>				
61100 · Operations Supplies	88	50,000	49,912	0%
61200 · Chemicals	5,256	565,000	559,744	1%
61300 · Electricity	0	1,630,000	1,630,000	0%
61400 · Fuel Natural Gas & Oil	91	180,000	179,909	0%
61500 · Potable Water	0	45,000	45,000	0%
61600 · Gasoline & Diesel	780	11,000	10,220	7%
61700 · Sludge, Grit, Rags etc Disposal	0	45,000	45,000	0%
61800 · Ash Handling	0	95,000	95,000	0%
<b>Total 61000 · Operations Department</b>	<b>6,215</b>	<b>2,621,000</b>	<b>2,614,785</b>	<b>0%</b>
<b>62000 · Maintenance Department</b>				
62100 · Plant Maintenance Supplies	5,509	220,000	214,491	3%
62200 · Lubricants	0	19,000	19,000	0%
62300 · Plant Maintenance Services	1,051	200,000	198,949	1%
62400 · Buildings & Grounds	186	75,000	74,814	0%
<b>Total 62000 · Maintenance Department</b>	<b>6,746</b>	<b>514,000</b>	<b>507,254</b>	<b>1%</b>

**The Mattabassett District**  
**Unaudited Budget Statement FY 15-16**  
**For the Month Ending July 31, 2015**

	Actual YTD	Budget	Variance	% of Budget
63000 · Laboratory Department				
63100 · Laboratory Supplies	0	19,000	19,000	0%
63200 · Laboratory Services	0	32,000	32,000	0%
<b>Total 63000 · Laboratory Department</b>	<b>0</b>	<b>51,000</b>	<b>51,000</b>	<b>0%</b>
<b>Total 64000 · Bonded Debt Payment</b>	<b>18,978</b>	<b>10,348,640</b>	<b>10,329,662</b>	<b>0%</b>
<b>Total 69000 · Contingencies</b>	<b>0</b>	<b>130,000</b>	<b>130,000</b>	<b>0%</b>
<b>Subtotal</b>	<b>319,388</b>	<b>17,757,600</b>	<b>17,438,212</b>	
70000 · Capital Expenses				
71010 · General	0	340,000	340,000	0%
71030 · Nitrogen Treatment	0	100,000	100,000	0%
71040 · Solids/Incinerator	0	60,000	60,000	0%
<b>Total 70000 · Capital Expenses</b>	<b>0</b>	<b>500,000</b>	<b>500,000</b>	<b>0%</b>
<b>Operating Expense Total</b>	<b>319,388</b>	<b>18,257,600</b>	<b>17,938,212</b>	
<b>Total 73000 · Nitrogen Upgrade</b>	<b>0</b>	<b>4,000,000</b>	<b>4,000,000</b>	<b>0%</b>
84000 · Legislative Payment Cromwell	0	100,000	100,000	0%
<b>Total Expense</b>	<b>319,388</b>	<b>22,357,600</b>	<b>22,038,212</b>	<b>1%</b>

**The Mattabassett District  
Monthly Check Register  
Operating Fund  
July 2015**

Check	Name	Description	Amount
<b>2014 2015 Fiscal Year</b>			
1	41947 Airgas USA, LLC	OPS Gases	383.99
2	41951 Anchor Engineering Services, Inc.	Survey for P&Z Fill Permit - Ash Lagoon Project	5,700.00
3	41948 Anderson, Reynolds & Lynch LLP	June Professional Services	214.50
4	41949 Andy Purchia	Safety Toe Shoes	276.45
5	41935 Angelo D'Alfonso	June 2015 Attendance Board & Committee Meetings	150.00
6	41950 Aztec Technologies	Ink Cartridges	340.22
7	41952 Behavioral Health Consultants, LLC	Pre-Employment Psych Evaluations	750.00
8	41936 Bonnie Anderson	June 2015 Attendance Board & Committee Meetings	100.00
9	41953 Borden & Remington Corp.	Sodium Hypochlorite & Hydroxide	13,710.30
10	41954 Brian W. Armet, P.E.	Car Wash, Weekly Meetings	65.41
11	42054 Card Services - VISA "	Committee Meals, NEWEA Conf., Cell Phones Purchase, Samsung Galaxy Note, Nitro Pro 10	3,062.36
12	41955 CDW Government, Inc.	Printer & Sample Labels	308.38
13	41956 City of Middletown - Water	June Water Bill	4,485.95
14	42018 CompCare Occupational Medicine	New Hire Vaccines	2,592.00
15	41957 Connecticut Testing Laboratories, Inc.	June Lab Charges	715.25
16	41958 CT Components	Parts for Service Water Pumps	433.00
17	41959 Cunningham Supply, Inc.	Parts for Sludge Storage Blowers	664.04
18	41960 Custom Blind Installation Company	Blinds for Admin Kitchen Window	365.00
19	41937 Dale Aldieri	June 2015 Attendance Board & Committee Meetings	50.00
20	41961 Daniels Oil Company, Inc	Propane	400.68
21	41938 David Bauer	June 2015 Attendance Board & Committee Meetings	100.00
22	41962 De Kine Photo LLC	Photographer Service - Ribbon Cutting Ceremony	275.00
23	42019 Decian "	AT&T Fiber Install & Helpdesk Services, IDF Switch Dewatering Building, VOIP	3,797.50
24	42045 Decian	Laptop for Maintenance Dept.	2,400.52
25	41990 DeZURIK Water Controls	Parts for Truck Unloading Pumps	1,984.00
26	42046 Direct Energy Business	June Generation Services	86,045.59
27	41939 Doug Sienna	June 2015 Attendance Board & Committee Meetings	200.00
28	41963 Edgewood Party Rentals, LLC	Rental Equipment for Ribbon Cutting	866.77
29	41964 Elaine Brousseau	Mileage 4/1/15-6/30/15	85.04
30	42020 Electrical Wholesalers, Inc.	Parts for Odor Detection Units	6,306.61
31	42059 Electrical Wholesalers, Inc.	Parts for Odor Monitoring Project	1,248.88
32	41997 Eversource	June Gas	108.68
33	42021 Eversource	June Gas	11,105.60
34	41998 Eversource	June Transmission Charges	44,909.36
35	42022 Eversource	June Transmission Charges	33.37
36	41965 Fastenal	Connector & Plug	21.63
37	41966 Ford Hall Company, Inc.	Brushes for Final Clarifiers	970.80
38	41967 Frontier Communications	June Phone Bill	1,057.97
39	41968 G.H. Berlin-Windward	Lubricants for Aeration Tank Mixers	2,670.80
40	42023 Gammie Air	2nd Quarter CEMS Cylinder Gas Audit	650.00

**The Mattabassett District  
Monthly Check Register  
Operating Fund  
July 2015**

Check	Name	Description	Amount	
41	42047	GEA Mechanical Equipment	Bearing Oil	1,526.08
42	41999	Grainger Inc.	Tools, Pallets, Roll Matting, Safety Supplies, Restock	12,142.14
43	42025	Hajoca - New Britain Plumbing	Strainer Screen	95.14
44	41991	Hartford Courant	Classified Ad - Shift Supervisor	1,381.66
45	42049	HISCO Pump	Parts for Incinerator Ash Pump	1,967.96
46	41969	Holliston Sand Company	Reactor Sand	7,867.84
47	42004	Home Depot	Tarp	139.92
48	41992	Hunter's Ambulance Services, Inc.	HRA Reimbursement - covered under old plan	848.12
49	42053	Internal Revenue Service	Patient Centered Outcomes Research Institute Fee	44.00
50	41940	John S. Dunham	June 2015 Attendance Board & Committee Meetings	150.00
51	41941	John Valengavich	June 2015 Attendance Board & Committee Meetings	50.00
52	42055	Kahn Tractor & Equipment	Repairs to New Holland Tractor	1,416.26
53	41970	Labelmaster	Ammonium Hydroxide Placards	187.27
54	41942	Louis G. Amodio, Jr.	June 2015 Attendance Board & Committee Meetings	150.00
55	42000	Lowe's	Garbage Bins, Toilet Paper Holder	204.13
56	41971	McMaster-Carr	Door Shelf -Centrefuge Parts Storage	171.41
57	42056	McVac	Vacuum Sand- Dorr Oliver Incinerator Maint.	4,677.75
58	42026	Melissa Lancia	Mileage 3/12/15-7/02/15	80.72
59	41972	Michael Stielau	Website Revisions 2nd Qtr 2015	280.00
60	41973	Middlesex Chamber of Commerce	Conference/Breakfast - June 23, 2015	154.00
61	42027	Middlesex Hospital	New Hire Lab/Immunology	109.00
62	41974	Milford Barrel	Reconditioned Steel Drums	435.00
63	41975	Minuteman Press	Letterhead	225.10
64	41993	Moore Medical, LLC	Defibrillator Contact Pads	324.00
65	42001	NEIWPC	WWT Lab Procedures, Advance Sludge & Ops MWTP Pro	950.00
66	42057	NEIWPC	WWT Class - Intro to Wastewater Treatment	220.00
67	41976	New England Bioassay -GZA	Effluent Testing	395.00
68	42002	New England Uniform	June Uniform Rental	458.52
69	42058	Olympic Glove & Safety Co.	Safety Glasses & Gloves	831.61
70	41943	Peter Centurelli	June 2015 Attendance Board & Committee Meetings	150.00
71	41977	Peter Stankovics	Safety Toe Shoes	191.42
72	41934	Petty Cash	Ribbon Cutting Supplies, NEWEA Tour, BC Exp Rpt, Pantry I	441.36
73	41978	Polydyne Inc.	Polymer	16,023.56
74	41979	Pond Technical Sales	Communicator	7,278.89
75	41980	Safe-T-Gard	Gloves Testing, Body Harness & Lanyards	794.82
76	41981	Stanton Equipment Inc	Windshield Latch Kit - Gator	131.71
77	41982	State Treasurer-MERF	June 2015 Merfund	22,983.80
78	41983	Suburban Stationers, Inc.	Office Supplies	247.80
79	41994	Teledyne Isco	Sampler Pump Tubing	475.00
80	41944	Thomas J. Serra	June 2015 Attendance Board & Committee Meetings	150.00
81	41945	Thomas Tokarz	June 2015 Attendance Board & Committee Meetings	100.00
82	41995	Total Benefits Administration, LLC	Administrative Services June 2015	130.50

**The Mattabassett District  
Monthly Check Register  
Operating Fund  
July 2015**

Check	Name	Description	Amount	
83	41984	Town of Manchester	Disposal of Grit & Rags	2,110.55
84	42050	Town of Manchester	Disposal of Grit & Rags	1,014.90
85	41996	Triple Springs	Bottled Water & Cooler Rental	65.15
86	41985	Tru Auto Mall	Repair Windshield and A/C on Dump Truck	734.29
87	42028	Tull Brothers, Inc.	Lock Set for Blower Building South Door	450.00
88	41986	Tuxis-Ohr	Diesel Fuel, Ultra Low Sulfur - Generator	13,654.90
89	41987	UPS	Letter	21.95
90	41988	USA BlueBook	Lab Supplies	713.94
91	41932	USI Insurance Services	Property Insurance - John Deere Tractor	516.00
92	41989	Utility Communications, Inc.	Plant Radio Repairs	1,879.00
93	41946	William Candelori	June 2015 Attendance Board & Committee Meetings	300.00
94	42029	Wright-Pierce	Tideflex Valves Const Admin - 5/30/15-6/26/15	4,328.38
95	42051	Wright-Pierce	Tideflex Valves Const Admin - 4/25/15-5/29/15	9,057.92
			<b><u>321,034.12</u></b>	
<b>2014 2015 Fiscal Yr Capital Expenses</b>				
42052	Cummins Envirotech, Inc.	UST Grd. Water Monitoring Pmt #1 - Consultant for Wells	14,635.00	
42024	Hach	Nitratex & Amtax Annual Serv.(DO & Nitrogen Probes),	39,580.00	
	"	Prognosys Communication Cards		
42048	Hach	Hi Press Air Blaster with Air Blast Kit(self cleaning DO probes)	81,358.02	
41979	Pond Technical Sales	MSA Controller/Programmer	1,050.46	
			<b><u>136,623.48</u></b>	
<b>2014 2015 Fiscal Yr Nitrogen Upgrade Capital Expenses</b>				
38183	C.H. Nickerson & Company	WPCA Upgrade through 6/15/15	1,066,446.16	
38184	Wright-Pierce	WPCA Upgrade through May 29, 2015	170,804.52	
			<b><u>1,237,250.68</u></b>	
			<b>Operating Total <u>1,694,908.28</u></b>	
<b>2015 2016 Fiscal Year</b>				
1	42060	A T & T	Data Fiber Circuit Monthly Service	628.10
2	42005	A T & T	MIS Circuit Service	714.76
3	42006	Airgas USA, LLC	Annual Gas Cylinder Rental -FY 1516	1,249.00
4	42030	Brian W. Armet, P.E.	Medicare Reimbursement	104.90
5	41928	CBIA Health Connections	July Medical Insurance	39,099.03
6	42031	CBIA Health Connections	August Medical Insurance	36,519.70
7	42032	CT Dept of Labor	Unemployment - Weber	1,444.00
8	42007	CWPM, LLC	Trash Removal	185.69
9	42033	Daniels Oil Company, Inc	Propane	90.80
10	42034	Decian	Monthly Base Support & Monitoring	4,599.40
11	42008	DEEP	Annual Permits - SWL, NPDES Ground & Municipal Water	11,595.00
12	42009	Electrical Wholesalers, Inc.	Electrical Restock	59.75
13	42010	Goodyear Tire	Tires mud & snow for F-350	750.74
14	42035	Grainger Inc.	Safety Supplies	87.68
15	42011	Hartford Courant	Hartford Courant Subscription	384.28

**The Mattabassett District  
Monthly Check Register  
Operating Fund  
July 2015**

Check	Name	Description	Amount	
16	42036	Joan Armet	Medicare Reimbursement - Quarterly 7/1/15-10/31/15	419.60
17	42037	MailFinance	Postage Machine Rental 8/4/15-11/3/15	239.97
18	42038	Mary Abrahamian	Medicare Reimbursement	99.90
19	41929	MetLife - Group Benefits	July Dental Insurance	2,641.19
20	42039	MetLife - Group Benefits	August Dental Insurance	2,617.72
21	42012	Middlesex Chamber of Commerce	Woman in Business 2015 Leadership Conference	85.00
22	42013	New England Instrument	Parshal Flume Calibration Check	300.00
23	42002	New England Uniform	July Uniform Rental	369.18
24	42014	Polydyne Inc.	Polymer	4,006.78
25	42015	Solutions	Quarterly Fee EAP Jul, Aug & Sep 2015	260.00
26	41930	The Hartford	July Life Insurance	617.50
27	42040	The Hartford	August Life Insurance	641.25
28	42041	Total Benefits Administration, LLC	Administration Services July 2015	121.50
29	42061	Totalfunds By Hasler	Postage Meter Refill	1,000.00
30	42042	Tull Brothers, Inc.	Lock Sets, Door Closer & Duplicate Keys	850.50
31	42043	Tuxis-Ohr	Ultra Low Sulfur Diesel	779.80
32	42016	U.S. Bank	Clean Water Fund Design Loan - July 2015	18,978.34
33	41933	USI Insurance Services	Pollution Liability Insurance 15-16	10,450.00
34	42063	Verizon Wireless	July Wireless Bill & NB Berlin Meter Transmissions (includes equipment purchase)	978.23
35	42017	Verizon Wireless	July Wireless Bill	91.99
36	41931	VSP	July 2015 Vision Plan	180.08
37	42062	VSP	August 2015 Vision Plan	187.54
			<b>* 143,428.90</b>	

\* Total does not include electronic debit for deductible reserve charge

15/16 Fiscal Year Operating Capital Expense none

15/16 Fiscal Year Nitrogen Upgrade Capital Expenses none

07/04PR	Mattabassett Payroll	Payroll W/E 7/04/15 31/30 Employees	47,566.87
07/11PR	Mattabassett Payroll	Payroll W/E 7/11/15 31/29 Employees	44,711.81
07/18PR	Mattabassett Payroll	Payroll W/E 7/18/15 31/30 Employees	42,913.63
07/25PR	Mattabassett Payroll	Payroll W/E 7/25/15 31/30 Employees	44,497.75
			<b>179,690.06</b>

**THE MATTABASSETT DISTRICT****Memorandum**

Date: August 10, 2015

Subject: **Monthly Report August 2015  
for July 2015**

To: Board of Directors

From: Arthur G. Simonian, Executive Director

AGS

District activities since last month's report warranting discussion/update are listed below with a brief highlight. More detailed discussions as necessary are provided in the body of this report.

- Effluent Quality: good;
- Nitrogen Removal: are below limits: 378 lbs/day;
- Staffing/Training: The Electrician/Mechanic (E1 Licensed) started July 14<sup>th</sup>, 2015. The advertisement for the new Shift Supervisor closed with only one application received. The applicant withdrew his interest as he decided to stay at his current position. We are evaluating the current workload and staffing with the additional monitoring parameters and control parameters for the new incinerator, increased monitoring for the plant process due to nitrification/denitrification and operational work related to the odor control units;
- Nitrogen Upgrade: C.H. Nickerson work completed/invoiced as of July 15, 2015, \$96,745,732.63: 99.32% of the Bid Amount. Percent Substantial Completion by duration, 103%. Approved change orders, \$3,920,761.15. Other potential cost increases \$375,400 for RFI's, field conditions and change directives are also being tracked for future change orders. Substantial Completion July 1<sup>st</sup>, 2015 with operation of incinerator, Completion (Incinerator Stack Test) by Fall, 2015;
- Wright-Pierce's work invoiced as of July 15, 2015, \$6,690,069.57: 87.1% of their budgeted amount;
- Middletown Force Main: work has resumed;
- Middletown Pump Station: CT DEEP Design Review Meeting Issue;
- Outfall Dredging & Tideflex Valve installation: Interior Videos are forthcoming for review;
- Outfall Chamber: completed;
- Flows: 12.36 mgd, decrease of 3.82 mgd from June due to lack of rainfall;
- Odor Complaints: 14;
- Odor Monitoring Units: installed - startup 8/17/15;
- Tours: None;
- Sludge Income: higher due to new incinerator operating however, operational issues reduced burn times; and
- Laboratory; and Operations and Maintenance: supporting and assisting in construction activities.

Discussion on these activities and others are presented in this report and the District Project Construction Committee and Finance Committee Reports. The District Project Construction Committee report is printed on salmon (orange) paper and the Finance Committee report is printed on pink paper.

# THE MATTABASSETT DISTRICT

August 2015 Staff Report

August 12, 2015

## Memorandum

### Staffing/Training

We received one applicant for the Shift Supervisor position. He was interviewed July 13<sup>th</sup> and offered the Job on the 20<sup>th</sup> of July. He turned the position down. It was reposted in-house and will be posted to the outside again if needed after in house time has elapsed.

Three operators took the Class 4 Certification Exam on July 8<sup>th</sup>, one took the Class 3 and one took the Class 2. We are waiting on results.

### Nitrogen Upgrade

The Nitrogen Upgrade is approximately 99% complete. Most of the work remaining is inside punch-list work except for incinerator stack test with acceptance, final grading, railing at admin. building and miscellaneous items. The following items are still to be completed:

### Lab-Maintenance Building

Additional meetings between the *District*, *CH Nickerson & Wright-Pierce*, were held this month to continue resolving temperature, humidity and leaking issues associated with the new lab HVAC system. Temperatures are operating within normal ranges and however high humidity seems to still occur in morning or on certain days. *Tradesmen of New England* and *TRANE* continue to troubleshoot issues related to humidity in the laboratory.

### Siemens Secondary Aeration Blowers

Aeration blowers' delayed response-time to the treatment process continues to be investigated by *Siemens* representatives and *Wright-Pierce*.

### Infilco Degremont Fluidized Bed Incinerator (FBI)

#### ***Sand Addition System-***

The new incinerator has been experiencing sand blow-back, during the sand addition operation, through the new rotary valve and new conveyor.

On July 21<sup>st</sup>, a representative from *Macawber USA* met with the District Engineers, District Plant Managers and *Wright-Pierce* to investigate replacing the incinerators' existing sand addition system with a pneumatic conveying system. *Wright-Pierce* will be preparing an equipment layout which will then be submitted to *Macawber* for a price quote.

#### ***DEEP Start-up Review and Stack Test-***

DEEP continues their review of the incinerator start-up submission materials, and has not authorized to proceed with the stack test. Data is being reviewed by them for the start-up tests to verify sample frequency, units and method meet the regulations.

August 2015 Staff Report

August 12, 2015

On July 21<sup>st</sup>, *Trace Environmental* re-submitted the *Continuous Emissions Monitoring System (CEMS)* to DEEP. The submission included incorporation of DEEP's review comments of the first submission.

#### Dewatering Putzmeister Sludge Feed Pumps

All mechanical, electrical and operational issues associated with the Putzmeister sludge feed pumps were resolved in the month of August. The District has also received the wear components parts list from *Pumpaction Corporation*; however, the electronic spare parts have not yet been replaced.

#### Other Work Performed by CH Nickerson in the month of July:

- Phone system wiring and phone installation was completed by *Hawkeye Communications*. Punch list work remains. Cameras are expected to be installed by the end of August.
- Final punch list work continued mainly in the Sludge Disposal Building, Sludge Storage Building, Laboratory/Maintenance Building, and minor punch list items were also addressed in various other buildings.
- Sanitaire diffusers in aeration tanks 3 & 4 were inspected. Minor pipe painting work was completed. Tanks placed on line on August 6<sup>th</sup>.

#### Sedimentation and Erosion Control Site Inspection

No inspections during the month of July, a final inspection will occur at closeout of project.

#### Work Performed by Wright-Pierce in the month of July:

- 6- Shop drawing reviews completed
- No RFI's addressed this month
- 1- O&M review completed

#### Request for Equipment Service /Warranty Service

- No.86- Centrifuge No. 1 Bowl Scroll Motor  
Not functioning. Found disconnect burned-out. Disconnect replaced. Has not been tested nor placed on-line.
- No.87- IDI Incinerator GAC System  
Not functioning properly at start-up with automatic operation. Will start on manual mode. PLC program being investigated.
- No.88- Freeboard Spray Pump No. 1  
Pump undergoes abnormal pressure drop. Pump sent out to be rebuilt.
- No.89- Centrifuge No. 1 Bowl Scroll Motor Disconnect burned-out  
Investigate cause of burned-out disconnect. Review for adequate size, wiring and installation. Currently under investigation.
- No.90- Centrifuge No. 1 VFD Drive  
VFD drive has stopped operating. Square-D Drive Specialist was on-site on August 4<sup>th</sup> to investigate the issue. No issue was found with the VFD.

**THE MATTABASSETT DISTRICT****Memorandum**

August 2015 Staff Report

August 12, 2015

Nickerson currently scheduling a Westfalia Service Engineer to further investigate.

- No.91- IDI Incinerator Primary Heat Exchanger Expansion Joint Rod to be reinstalled and check abnormal temperatures in various locations. Rods reinstalled. High temperatures being investigated.
- No.92- Cabinets in Lab/Maintenance Bldg. break room Cabinets delaminating due to water leakage. Provide seal around sink and repair delamination.

The following meetings were held in the month of July related to the Nitrogen project:

- Wright-Pierce, Nickerson and The District weekly coordination meetings.
- July 2<sup>nd</sup>, Meeting to discuss new SSI regulations and compliance with IDI incinerator.
- July 16<sup>th</sup>, Monthly Nitrogen Project Construction Meeting with Mattabassett Staff, Wright Pierce, C.H. Nickerson & CT DEEP.
- Various conference calls and staff meetings to discuss issues on the project.

**Nitrogen Treatment**

The nitrogen removal process has recovered well in the month of July. The monthly average total nitrogen discharged for July was 378 lbs/day with an average concentration of 3.3 mg/l. The plant removed 89% of the influent nitrogen load. This is a decrease in discharge over June's 504 lbs/day.

<b>Nitrogen 2015</b>			
<b>Month</b>	<b>Flow mgd</b>	<b>Concentration mg/l</b>	<b>lbs/day</b>
January	15.95	10.4	1468
February	13.5	14.9	1864
March	23.52	10.2	1921
April	25.31	7.3	1660
May	16.67	3.1	417
June	17.91	2.8	504
July	14.07	3.3	378

The following table lists The District's annual average nitrogen discharges for the last 10 years, along with our nitrogen targets/limits and our annual nitrogen credit purchases, thus providing a running snapshot of how well we are doing against a previous good year (2012) and poor year (2011).

<u><b>Year</b></u>	<u><b>Discharge Lbs/day</b></u>	<u><b>Target Lbs/day</b></u>	<u><b>Credits Purc/Sold Lbs/day</b></u>	<u><b>\$/Credit</b></u>	<u><b>Cost</b></u>
2003	1794	1549	245	\$2.14	\$38,440

**THE MATTABASSETT DISTRICT****Memorandum**

August 2015 Staff Report

August 12, 2015

2004	1452	1411	41	\$1.90	\$5,825
2005	1408	1227	181	\$2.11	\$27,879
2006	1201	1212	-11	\$3.40	-\$2,730
2007	1127	1040	87	\$4.36	\$28,327
2008	1052	1011	41	\$4.50	\$13,797
2009	1123	1040	83	\$4.54	\$46,730
2010	1261	952	309	\$4.59	\$103,537
2011	1377	916	461	\$5.42	\$182,399
2012	1200	874	326	\$5.01	\$119,228
2013	1128	853	275	\$5.61	\$112,211
2014	1198	834	364	\$6.75	\$171,921
2015	1173	834	339		

(Projected end of 2015 year discharge based on past data is 965 lbs/day.)

Emergency Generators

The EnerNOC Emergency Generators were not run in the month of July.

Middletown Connection Force Main Project

The installation of the west (twin) 24-inch force main between the *Arrigoni Bridge* to *Dingwall Drive* was completed just prior to the 4<sup>th</sup> of July Holiday. However, upon completion of hydrostatic testing of the new force main, the entire section of newly installed force main failed. The Contract Work was halted as Contractor is actively determining a plan of how to proceed going forward. The east twin 24-inch force main, in this same Section, was installed in late 2014.

All force main work north of Bridge Street continued this month, and is expected to be completed by the end of this year.

Middletown Pump Station (Middletown Connection)

The rebidding of this work is on hold. Bonding for the required additional monies for this project will occur in November. On July 24, the District Board Chairman, Board Member - Tom Serra, The Executive Director, District Engineer, Middletown's Water & Sewer Director, Middletown's Water & Sewer Chief Engineer, and Chris Pierce from Wright-Pierce, met to discuss additional treatment items requested by DEEP to be included into the *Middletown Connection Pump Station Project*. A subsequent meeting will be held in September to further address DEEP's additional treatment requirements.

General Permit For Nitrogen Discharges

The existing *General Permit for Nitrogen Discharges* will expire on December 31, 2015. The General Permit will renew effective January 1, 2016, be in effect through 2020. The District's annual target discharge limit, under the current permit, and through the permit renewal period, is set at 834 lbs/day.

## THE MATTABASSETT DISTRICT

August 2015 Staff Report

August 12, 2015

## Memorandum

In January 2002, The *General Permit for Nitrogen Discharges* was established by CT General Statutes as a mechanism for WPCF's to meet target discharges of Nitrogen to improve water quality to levels meeting State water quality standards. It was also established as a mechanism to acquire funding for WPCF Nitrogen Treatment Upgrades.

In 2014, the District discharged 1198 lbs/day, which was 364 lbs/day-credits over the target limit of 834 lbs/day. At a rate of \$6.47/credit, and a factor of .2, the District paid \$171,921.00, in 2014.

### Outfall Sediment Removal Work and Diffuser Improvements

On July 15<sup>th</sup>, a meeting was held between the *District*, *Wright-Pierce* and *Northeast Diving Services (NEDS)*, to review the status of the work performed. It was determined that the contractor performed an additional dive to further remove sediment from the 60-inch outfall pipe.

On July 27<sup>th</sup>, *NEDS* completed the additional sediment removal work inside the 60-inch outfall, and provided a post-cleaning inspection video to *Wright-Pierce* to review. However, upon *Wright-Pierce's* review of the inspection video, *NEDS* was directed to perform yet an additional dive to further clean the pipe; as the review of the inspection video indicated the first section of the outfall pipe to be clean, the review of the mid-section pipe did not provide sufficient information to indicate the pipe was clean, and the review of the last section of the pipe did not appear clean at all.

The contractor is scheduled to perform a third dive on August 12<sup>th</sup>, to provide additional cleaning. *NEDS* will also provide an inspection video to further demonstrate the cleanliness inside of the outfall pipe meeting contract requirements.

Upon successful completion of sediment removal from inside the outfall pipe, *Wright-Pierce* will evaluate the pre and post dredge surveys to assess the overall amount of fill removed, and prepare a report of the findings.

*NEDS* is expected to complete all cleaning work by October 1, 2015, as the *Category 1 Army Corps of Engineers General Permit* **expires** on November 17, 2015.

### 2015 Ash Lagoon Cleaning Project

The Ash Lagoon Cleaning Project was advertised on July 1<sup>st</sup>. The bids were opened on Thursday, July 23. Two bids were received; one from *H.E. Butler Construction, of Portland*, and the second from *Environmental Services, Inc., of South Windsor*. Both bids were received in the amount of \$86,000.00. The bids were reviewed and a recommendation was made to the *Finance Committee* on Tuesday, August 4<sup>th</sup>, to award the Contract Work to *H.E. Butler Construction, of*

# THE MATTABASSETT DISTRICT

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## Memorandum

*Portland; as H.E. Butler Construction* has been awarded, performed, and successfully completed work under this Contract in the previous.

### Ash Landfill Survey and Wetlands Permit

On July 7<sup>th</sup>, the District received the *Fill Permit* approval from the *Town of Berlin Planning and Zoning Commission* for the Ash Landfill.

On July 28<sup>th</sup>, the District Executive Director and District Engineer met with the Berlin Acting Public Works Director to review concerns related to the *Inland Wetland & Water Courses* permit issued to the District for the Ash Landfill site on June 4, 1984. The concerns related to whether to continue to operate under the Wetlands permit issued in 1984, as approval granted in 1984 was based on landfilling in wetland areas, as well as in areas on or below the 100-year flood plain elevation. The *Town of Berlin* requested that the District investigate the remaining landfill capacity based on landfilling on in areas of non-wetlands, and areas above the 100-year flood plain elevation.

A preliminary layout showing landfilling in areas outside wetlands and above the 100-year flood plain elevation, indicate that the landfill life capacity will be significantly reduced. The District will refer this matter to legal counsel to review and advise as to whether the District can continue to operate under the *Inland Wetland & Water Courses* permit issued to the District on June 4, 1984.

### Flows

Total flows for the month of July were 12.36 mgd. This is typical for dry weather flows:

**2015 Average Daily Flows (mgd) by Month**

Mon	NB		Berlin		Cromwell		Midd		MDC		Tot
	Flow	%	Flow	%	Flow	%	Flow	%	Flow	%	
Jan	9.85	61.76	2.94	18.43	1.14	7.15	1.49	9.34	0.53	3.32	15.95
Feb	8.24	61.05	2.36	17.48	1.00	7.41	1.36	10.07	0.54	4.00	13.50
Mar	13.48	57.32	5.26	22.36	1.62	6.89	2.25	9.61	0.90	3.83	23.52
Apr	14.02	60.51	4.82	20.80	1.54	6.65	2.07	8.93	0.72	3.11	23.17
May	9.04	61.28	2.75	18.65	1.07	7.26	1.30	8.82	0.59	4.00	14.75
Jun	9.82	60.68	3.16	19.54	1.13	6.99	1.35	8.35	0.72	4.45	16.18
Jul	7.66	61.96	2.11	17.08	0.93	2.53	1.17	9.47	0.49	3.97	12.36
Aug											
Sept											
Oct											
Nov											
Dec											
Avg	10.30	60.65	3.34	19.19	1.20	6.41	1.57	9.23	0.64	3.81	17.06

The Table below lists the five year annual average flows and the average annual flows for 2009 through 2014. Annual and five year averages tend to moderate monthly and annual high and low flows, and high and low percentage changes.

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<b>5 Year Average Flows</b>										
<b>Community</b>	<b>2006-2010</b>		<b>2007-2011</b>		<b>2008-2012</b>		<b>2009-2013</b>		<b>2010-2014</b>	
	<b>ADF</b>	<b>%</b>								
<b>New Britain</b>	12.71	67.08	12.40	64.98	11.82	63.62	11.03	62.18	10.57	61.55
<b>Berlin</b>	3.39	17.88	3.55	18.62	3.48	18.76	3.37	19.02	3.18	18.53
<b>Cromwell</b>	1.28	6.76	1.29	6.76	1.27	6.85	1.22	6.90	1.18	6.86
<b>Middletown</b>	1.18	6.25	1.36	7.16	1.47	7.89	1.54	8.70	1.63	9.49
<b>MDC</b>	0.38	2.02	0.47	2.49	0.54	2.88	0.57	3.20	0.61	3.55
<b>Total</b>	18.95		19.08		18.57		17.74		17.17	
<b>Annual Average Flows</b>										
<b>Community</b>	<b>2010</b>		<b>2011</b>		<b>2012</b>		<b>2013</b>		<b>2014</b>	
	<b>ADF</b>	<b>%</b>								
<b>New Britain</b>	10.63	61.37	13.23	60.75	8.80	61.22	9.61	61.20	10.57	63.40
<b>Berlin</b>	3.68	21.24	4.24	19.46	2.43	16.91	2.77	17.67	2.79	16.73
<b>Cromwell</b>	1.16	6.70	1.43	6.58	1.06	7.35	1.14	7.29	1.10	6.59
<b>Middletown</b>	1.45	8.36	2.11	9.67	1.47	10.20	1.57	10.00	1.56	9.36
<b>MDC</b>	0.40	2.33	0.77	3.53	0.62	4.32	0.60	3.84	0.65	3.93
<b>Total</b>	17.13		21.77		14.37		15.69		16.67	

**Odor Complaints**

During the month of July, a total of two (14) odor complaints were received. The odor complaints were from the areas of South Street, Timber Hill Road and Ranney Road, all north of the District.

There were 14 odor complaints in July. Two odor complaints on July 6<sup>th</sup>, one complaint on July 13<sup>th</sup>, three complaints on July 17<sup>th</sup>, one complaint on July 18<sup>th</sup>, two complaints on July 19<sup>th</sup>, one complaint on July 22<sup>nd</sup>, one complaint on July 24<sup>th</sup>, one complaint on July 25<sup>th</sup>, one complaint on July 27<sup>th</sup>, one complaint on July 28<sup>th</sup>.

Letters were prepared and sent to each of the 14 odor complaints received in July by the Executive Director under a new format. In addition, the Executive Director requires operations and maintenance to keep the dewatering and sludge storage buildings closed at all times when not necessary. The new odor detection probes along the north property line are ready for start-up on August 17<sup>th</sup>. In addition, the Executive Director is being notified by night & weekend operational staff and has gone out at the time of a complaint to each of the locations on past events in August.

At the request of the Executive Director, himself and Brian Warman started every Wednesday walking through the plant checking for odors and finding improvements for better controlling odors. One issue that could not be controlled was that with warmer weather and more humid conditions more H<sub>2</sub>S is released and the human nose is more sensitive to smell with higher humidity. Some other issues that are in the process of implementing are better rag control by bringing them to the dump more frequently; also looking at enclosing the rag area so the odor counteractant can work better; some odors were noticed at the

# THE MATTABASSETT DISTRICT

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primaries, due to the sludge inventory problems this spring all 4 primary tanks were put in service and sludge rose to the top. McVac was called in to clean up the sludge/grease mixture and two of the tanks are currently getting drained and hosed out to keep our primaries fresher. We are debugging the new odor control systems and replacing the filter system to prevent pluggage with removable mesh that can be more easily cleaned. Lastly, studor vents were put on out centrifuge air discharge vents to prevent foul air from that system escaping.

This is an important topic to both the Board of Directors and Executive Director and as such a separate section was prepared this month for your benefit.

We are addressing odor complaints through better management of sludge inventory and haulers as the months of May and June saw a significant increase in our primary sludge levels. In addition, some of the odor control systems are not yet turned over to us from the project as we await the vendor to complete performance tests. This affects both the web scrubbers for the sludge storage and dewatering buildings.

Our incinerator was running at overall efficiency of 74%, for the month of July, which effectively reduces the processed tons to about 1.08 dry tons/hr. We however were able to still reduce the sludge levels in our primary and sludge storage tanks by an equivalent volume of about 700,000 gallons. In order to keep up with our incoming primary sludge volumes and with an estimated efficiency of 72% (accounting for normal downtime, sand feeding, etc.) we have to manage our sludge hauler volumes into the plant.

During the previous months this year our Dorr Oliver incinerator was having operational issues which caused sludge inventories to rise and thus increased odors from our primary and sludge storage tanks. We need to be mindful of this in the future and defer sludge haulers to other facilities when this occurs to avoid excess sludge buildup. The capacity of our incinerator is a critical component to determining the volume of outside sludge accepted each month. The Executive Director will work directly with Operations to develop an outside sludge delivery schedule that better supplements our own sludge generation without burdening our system.

### Arizona Instruments Odor Monitoring Units

The District Maintenance staff completed the installation of the two new odor monitoring units, including conduit, and wiring this month. Work is currently being completed to integrate the monitors into the SCADA system in the new Operations Control Room. This will provide Operators with real-time monitoring and alarms that will alert Operators to possible off-site fugitive odor emissions and adjust in-plant processes to contain odors.

The total cost for the odor monitoring units, outside contractor work, and District Maintenance labor, is just under \$56,000.00.

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### Tours

There were no tours in July.

### SLUDGE MANAGEMENT PROGRAM

A summary of the outside sludge invoiced is provided below. Invoiced outside sludge revenue for the month of July was \$75,707.

MONTH	FY 12-13		FY 13-14		FY 14-15		FY 15-16	
	Invoiced	DT	Invoiced	DT	Invoiced	DT	Invoiced	DT
July	\$77,744	344.0	\$78,459	357.5	\$73,601	335.7	\$75,707	353.7
August	\$69,661	310.3	\$69,857	332.9	\$72,959	329.6		
September	\$60,204	216.5	\$72,028	326.8	\$78,034	354.7		
October	\$76,778	344.7	\$66,988	301.8	\$73,511	331.7		
November	\$58,576	262.5	\$72,364	329.1	\$59,888	269.0		
December	\$72,548	327.0	\$75,437	342.5	\$82,976	373.5		
January	\$79,443	345.6	\$77,272	347.9	\$70,930	328.7		
February	\$65,915	298.3	\$93,842	427.0	\$72,647	342.6		
March	\$94,149	428.7	\$98,400	450.0	\$100,150	462.6		
April	\$99,583	451.3	\$107,690	499.2	\$109,356	508.6		
May	\$91,662	405.4	\$138,578	631.8	\$99,641	462.7		
June	\$80,055	356.8	\$135,567	613.3	\$69,189	308.4		
Annual Tot	\$921,827	4128.4	\$1,086,571	4960.0	\$962,882	4408.0		
Monthly Avg.	\$76,819	356.8	\$90,548	413.3	\$80,240	367	\$75,707	353.7

### Visitors

During the month of July, there were over 58 visitors from outside contractors, vendors, Engineers, CT DEEP, Board Members, and others. This does not include Wright-Pierce's, C.H. Nickerson's and their Subcontractors' daily on-site employees.

### OPERATIONS

The monthly average effluent total Suspended Solids and CBOD<sub>5</sub> in July were 3 mg/l and 3 mg/l, respectively. The permit limits are 30 mg/l and 25 mg/l respectively. Effluent total Suspended Solids removal was 99% and CBOD removal was 99%.

In addition to the Operations Staff maintaining operations at a high level of efficiency, they continue to perform a number of non-operational tasks important to maintaining our facility at the high standard which we have become known for. For the month of June these were:

In July, Operations staff focused on the following projects:

1. Monthly fire extinguisher and safety inspections were performed.
2. General cleaning throughout the facility is an ongoing project.

## **THE MATTABASSETT DISTRICT**

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## **Memorandum**

3. Staff continues skimming the scum from the primary tanks and decanting the grease pit.
4. All the grit and rags are being hauled to the Manchester landfill.
5. Operations continues cleaning all D.O., NOX and Ammonia probes for secondary treatment. There are a total of 69 probes in the aeration system.
6. Landscaping around the plant has resumed.
7. Staff are continuously learning and adapting to the new treatment process and the new dewatering equipment.

### Dewatering and Incineration

In June, the incinerators ran at 74% capacity and dewatered 802 dry tons. This number is down due to both the new and existing incinerator issues. The staff continues to work on these issues.

During the month of July, IDI's incinerator has been in service for testing for their last 5 day 24 hour performance test. When their incinerator was shutdown, dewatering resumed with the Dorr Oliver.

### LABORATORY

The second quarterly report for the observation wells at the ash disposal site has been completed. The nineteen parameters were within the expected ranges for all of the wells. The next sampling will be in September.

The Laboratory received an acceptable score on all the proficiency samples it submitted for the DMR-QA 34 study. The two outside labs, Connecticut Testing and New England Bioassay also submitted proficiency samples. New England Bioassay received a perfect score on their samples. Results from Connecticut Testing have not been received yet. They have until August 14, 2015 to submit the graded report to the permittee.

A sample from outfall # 9 was taken and analyzed for suspended solids for the stormwater permit. It is the only parameter from the four outfalls that still is exceeding the benchmark. Another sample will be taken during the October to March sampling period. This exceedance is most likely related to the nitrogen upgrade project and with vegetation getting established, the levels should come down in the next test. There is no specific violation or action necessary from CT DEEP. If the average of the last four analyses falls below 90 mg/l we will not have to sample again. If it does not, we will sample until it falls below 90 mg/l or until the end of the permit, which is September 2016.

The total loads of sludge for this month were three hundred eighty. Two hundred thirty eight samples were tested for total solids, volatile solids and pH. Seven hundred fourteen analyses were performed on the outside sludge samples.

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Testing for the month can be broken down as follows:

TEST BY TYPE		TEST BY PLANT AREA	
Permit Requirements	76%	Primary	1 %
Process Control	8 %	Secondary	28%
Quality Control	16%	Solids Handling	16%
Total	100%	Incineration	55%
		Total	100%

**MAINTENANCE**

A review of the **Maintenance Graph**, at the end of the report, indicates that the largest percentage of the Maintenance Staff's time in July was spent on the new and old Incinerator at 28.03%, followed by the Secondary at 14.97%. Some highlights of the work performed by The District's Maintenance Staff during the Month of July are listed below:

1. Aeration Blower 01: This unit started tripping out on high gearbox vibration (1.03ips). We have been working with James Hubbell from Siemens on the problem. At this time it seems a mechanical issue. Presently we are working to get a technician in to look at the unit.
2. AHU-8A: Replaced air filters and cleaned coils in preparation of air flow balancing of Lab HVAC unit.
3. RTU-1: Replaced air filters and cleaned coils in preparation of air flow balancing of Lab HVAC unit. This is the hood heat reclaim unit.
4. Administration: The District is working on a new fish tank setup for the administration building foyer. The new tank will be taller and set up to require less upkeep. This should be completed by the end of the month. A new cabinet was purchased and installed for employee storage in the ladies' room.
5. Laboratory: The temperature and humidity issues are ongoing. The District, Wright Pierce, and general contractor are working on the problem. The condensate in the conduits is being addressed by the contractor.
6. Dewatering: The A/C unit for main MCC room is icing up. Removed and cleaned air filters, cleaned coils and condensate tray drain. Found contractors were leaving the room doors open while working in the room. The doors remain closed now. The north control room door has had a stop installed to stop the door from hitting the wall when opened.
7. Disinfection: Moved final effluent CL2 analyzer to south wall. Raised unit to ensure proper drainage of sample line. Install a new duplex out on south wall to power unit. Final effluent N2 analyzer SC 1000 controller failed. Doing grab samples for now. The unit has been sent out for repairs and a spare unit is now on order.

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8. Maintenance: The process of moving back into the now updated building continues. The offices are set up and except for a few glitches operational. The temporary office is now empty and swept. Stock is being moved from the new garage and placed in there new spaces. Shelving is being looked into for large parts storage.
9. Invent Mixers: All mixers plant wide have now had oil changes and case vents cleaned. We are still finding issues with the vent plugs not reliving pressure as they should. We are working with Sew Euro drive on the problem.
10. IDI Incinerator: Dome spray pump #2 not coming up to pressure. Changed water inlet filters. Found the pump #1 discharge check valve not holding, causing pressure from pump two to bleed off thru pump one back to the common pump inlet. Closed the discharge valve on pump one while running pump two. IDI working on check valve repair/replacement.
11. Door-Oliver Incinerator: Unit filled with sand and leaking cooling water. Remove sand from unit. Find and repair water jacket leak. Reassemble and test unit.
12. CEMS System: The sample filter housing with the jammed cap has been replaced by Charles Dick from Trace Environmental. The sampler was set up calibrated and sample size set.
13. Centrifuge 02: Unit tripping out on high vibration. The bowl flushing water was found to have inadequate flow. Reset pressure reducing valve to increase flow. Flushed unit and had no further problems.
14. Odor Control Systems: The portable drum mister plugged up. Removed mister. Cleaned out product ports and air passages. Reset product feed rate and return to service.
15. Remote Odor Monitors: The Texas Instruments H2S monitors have been installed in the north yard. The units have been powered up. Paul Beehler will be in on the 19<sup>th</sup> for startup and training. NIC is working on tying them into our SCADA system.
16. OCF-2131 Wet Scrubber Odor Control System: (Sludge Storage) Calibrate and clean ORP and PH probes. The caustic pump for the odor tower 2nd stage had caustic streaming out of the pressure relief port. Replaced three way valve on the discharge with a new one. Replaced bad second stage caustic pump leak detector. Borrowed one from an unused Hypochlorite pump. A spare is being acquired.
17. Primary Influent Sampler: The sampler is not drawing samples. Cleaned sample draw lines. Replaced faulty pressure/vacuum switch. Check sample size and rate. Return to service.
18. Primary Sludge Pump 04: (MARLOW) The connecting rod for the number one piston has become disconnected from the piston. Removed cylinder and piston. Removed broken attachment bolts from connecting rod yoke. Reassembled unit with new bolts and packing.

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# Memorandum

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19. Primary Pump Gallery: Set up two new drums of oil for the Marlow pumps. Lengthen and repair grease/scum rake used for skimming. Replaced broken door closer on the center south access door
20. Primary Settling Tank 04: Replaced the Drive coupling insert for the Flocculation flight drives.
21. Sand Bucket Elevator: Installed a new electronic overload device on the drive to replace obsolete detent unit.
22. Sludge Storage: Sump pump #1 will not run. Found the breaker and overloads not correct for pump. Worked with EES to correct problem. Staged new barrel of oil for the Carter pump oiler system.
23. Stored Sludge Pumps: Packing on all pumps leaking badly. CHN and the Carter Representative repacked the pumps. We supplied packing from our spares. They are replacing what they use.
24. Truck Unloading Pump 02: Pump not pumping well and packing sleeve is bad. Removed pump from base. Installed rebuilt unit from stock. Rebuilt old unit and placed in stock.
25. New Britain Flo-Dar Meter: The Districts flow device at the New Britain meter house has failed and is not repairable. This meter allows the District to record meter flows even when the station surcharges. A replacement device has been ordered.
26. Trunk Line: Mowing is proceeding along the trunk line starting from the plant north ward. The roadway portion is done from the Cromwell Meadows to Stan Chem.at this time. We will be fowling along with the new boom mower for clean up shortly. With good conditions we hope to have the roadway done to the Dog Pound done by Aug. 14<sup>th</sup>.
27. Ash Site: Clean up and mowing has begun in preparation for ash hauling form lagoon work. The entrance road and wash down station have been completed.
28. New Holland Tractor: Repairs to the tractor Hydraulic lines and fuel tank have been completed and it has returned to full service.
29. John Deere Tractor: The flail drive motor has developed a slight oil leak. A technician from the vendor (Bacher Corp) has looked into the problem. They are having this problem with other units. They are working with the supplier on repair/replacement. The unit can be used and we will monitor the leak.
30. Kodiak Dump Truck: A complete set of new tires have been put on the truck as the old tires had multiple plugs and repairs from the expansion and just plain age and four out of six would not hold pressure over night. On its maiden voyage to the Manchester dump the truck blew a front break line on the way back and was towed to Interstate Ford in Hartford for repairs.

# THE MATTABASSETT DISTRICT

# Memorandum

Date: July 24, 2015 Subject: Safety/Energy Report  
To: Arthur Simonian, P.E. From: Brian Warman  
Executive Director Operations Manager

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A safety meeting was held on July 24, 2015 at 1:00 PM in the District's training room. Present were B. Warman, B. Adkins, L. Walters, D. Drezek, and G. Macri.

## ACCIDENTS

There were no accidents last month. It has been four months since the last accident.

## OLD BUSINESS

**Item 081401:** Maintenance Department needs to repair the discharge valves on #3 and #4 primaries, Marlow sludge pumps, but is waiting for the tanks to come down so they are not in use

**Item 031503:** This deals with the handrails around the centrifuges, Wright Pierce reviewed this and C.H. Nickerson is ordering the half and full size rails required to eliminate the safety concern.

**Item 041501:** The committee presented a safety concern in the RSL Building basement, it refers to having to climb over pipes to open and close valves to isolate pumps. The committee is investigating the possibility of installing permanent ladder/scaffolding to access these areas and or flipping the valve stem for easier access.

**Item 041502:** The midge flies are not as bad as they had been previously; the matting is currently being cut to form and being installed.

**Item 041503:** The committee also discussed the large openings around the gates at the Effluent Pumping Station, these openings could cause an employee to slip and injure a leg. Installation of kick plates is ongoing.

**Item 052901:** The temporary fixed unit Ammonia analyzer installed in the reactor wing will be made permanent after construction is done.

**Item 052902:** we are currently assessing the feasibility of a switch that turns on all the FBI roof fans, in an emergency, to purge the air to the outside in the event of an ammonia leak.

**Item 062901:** The backer plates on for the aeration tank outlets are very sharp and present a cutting hazard. Wright Pierce has made it a punch list item for Nickerson.

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Safety/Energy Report

July 24, 2015

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**Memorandum**

NEW BUSINESS

**Item 072401:** The first aid room in the Lab/Maintenance Bldg. needs to be reinstated and refilled with supplies after the sink is installed.

ENERGY CONSERVATION

No discussion on this topic.

The next Safety Meeting is on Tuesday, August 12<sup>th</sup>, 2015 at 1:15 PM in the District's training room.

c: Safety Committee, Union Reps, Post

**The Mattabasset District  
Operational Profile  
July, 2015**

1. Flow Record Summary:

		<u>FLOW</u>	<u>Per Cent</u>
<b><u>NEW BRITAIN</u></b>			
31 Days in flow period	Total	237.33 MG	
Allocation = 12.6 MGD	Daily Average	7.66 MGD	61.96 %
	Monthly Maximum	15.70 MG	
	Monthly Minimum	4.32 MG	
<b><u>BERLIN</u></b>			
31 Days in flow period	Total	65.49 MG	
Allocation = 3.3 MGD	Daily Average	2.11 MGD	17.08 %
<b><u>CROMWELL</u></b>			
31 Days in flow period	Total	28.90 MG	
Allocation = 2.0 MGD	Daily Average	0.93 MGD	7.53 %
<b><u>MIDDLETOWN</u></b>			
31 Days in flow period	Total	36.32 MG	
Allocation = 2.5 MGD	Daily Average	1.17 MGD	9.47 %
<b><u>METROPOLITAN DISTRICT COMMISSION</u></b>			
31 Days in flow period	Total	15.28 MG	
Allocation = 1.6 MGD	Daily Average	0.49 MGD	3.97 %
<b><u>TOTAL (sum of all town meters)</u></b>		383.31 MG	
	Average	12.36 MGD	
<b><u>PLANT FLOW</u></b>		Total (Parshall Flumes)	436.15 MG
Permit 20.0MGD		Daily Average	14.07 MGD
		Plant Maximum Flow (Peak)	30 MG
		Plant Minimum Flow	9 MG
		Difference (Plant vs. Town)	1.71 MGD
		Number of days between meter readings (Avg.)	31 days

1. FLOW RECORD	<u>FLOW</u>	<u>% of Plant Flow</u>
<u>NEW BRITAIN</u>		
	Total	237.33 MG
Allocation = 12.6 MGD	Daily Average	7.66 MGD
<u>BERLIN</u>		
Berlin Interceptor .....	45.66 MG	
White Oak Drive (less MDC) .....	5.79 MG	
Corbin Russwin .....	2.98 MG	
Fieldstone .....	-1.76 MG	
Mobile Home Park (non-metered) .....	0.42 MG	
Worthington Ridge .....	0.12 MG	
Commerce Street .....	2.98 MG	
Wethersfield Road (non-metered) .....	0.10 MG	
Berlin Street .....	7.30 MG	
Mattabassett Street (non-metered) .....	0.24 MG	
Mill Street .....	1.32 MG	
Willowbrook Force Main .....	0.34 MG	
	Total	65.49 MG
Allocation = 3.3 MGD	Daily Average	2.11 MGD
<u>CROMWELL</u>		
Sebethe Drive .....	0.78 MG	
Ridgeview Rest Home .....	0.31 MG	
Kirby Road .....	0.52 MG	
Cromwell Industrial .....	2.21 MG	
Coles Rd. Interceptor (incl. Comf. Inn & Radisso	0.79 MG	
Old Coles Road (Lower End) .....	0.16 MG	
Willowbrook .....	4.61 MG	
Shunpike .....	6.19 MG	
Hicksville .....	6.20 MG	
Lincoln .....	1.92 MG	
South Street .....	5.22 MG	
	Total	28.90 MG
Allocation = 2.0 MGD	Daily Average	0.93 MGD
<u>MIDDLETOWN</u>		
Kirby Road .....	8.86 MG	
Minor Brook (East End, District's meter) .....	16.34 MG	
Newfield Street .....	11.12 MG	
	Total	36.32 MG
Allocation = 2.5 MGD	Daily Average	1.17 MGD
<u>METROPOLITAN DISTRICT COMMISSION</u>		
Cobey Road .....	8.28 MG	
Rowley Street .....	5.93 MG	
France Street .....	1.07 MG	
	Total	15.28 MG
Allocation = 1.6 MGD	Daily Average	0.49 MGD
<u>PLANT FLOW</u>		
Net Flow	Monthly Total	383.31 MG
	Daily Average	12.36 MGD
Unaccounted Flow .....		12.00 %

2.	<b>LIQUID TREATMENT PROCESS</b>	
	Mixed Liquor Suspended Solids .....	4,506 mg/l
	F/M Ratio .....	0.17
	Effluent BOD (Permit <25 mg/l) .....	3 mg/l
	Effluent Suspended Solids (Permit <30 mg/l) ..	3 mg/l
3.	<b>SOLIDS HANDLING PROCESS</b>	
	Primary / Secondary Sludge Solids .....	1.8 %
	Primary / Secondary Dry Tonnage .....	428 Dry Tons
	Percent Primary Sludge .....	57.3 %
	Total Sludge Dewatered .....	Dry Tons
	Polymer Usage .....	Per Dry Ton
	Auxillary Fuel Usage .....	Per Dry Ton
	FBI Scrubber Chemical Usage .....	Per Dry Ton
	Sludge Disposal Cost (chem. and utilities) .....	Per Dry Ton
	Filter Cake Solids .....	25.2 %
	Average Incineration Runtime .....	21.8 Hours
	Average Incinerator Feed Rate .....	Dry Tons/Hour
	Incineration Per Cent of Capacity .....	%
	Change in Storage Tank Levels .....	2 Feet
4.	<b>UTILITIES AND CHEMICALS</b>	
	Potable Water .....	1,335,753 Gallons
	Electricity. .... Total Usage .....	x 1,000 Kwh
	Secondary Treatment .....	369.6 x 1,000 Kwh
	Dewatering/Incineration .....	219.7 x 1,000 Kwh
	Primary/Odor Control .....	-219.7 x 1,000 Kwh
	Pump Station .....	x 1,000 Kwh
	Natural Gas .. Total Usage .....	554 Kcf
	Admin Heating .....	0 Kcf
	Plant Heating .....	339 Kcf
	(seasonal) Propane Boiler .....	Kcf
	FBI Incinerator .....	216 Kcf
	ULSD .....	Gallons
	ALCO Emerg. Generator .....	0 Gallons
	Emerg. Generator #1 .....	0 Gallons
	Emerg. Generator #2 .....	0 Gallons
	Chlorine .....	4,688 Gallons
	Caustic .....	Gallons
	Permanganate .....	0 Gallons
	Polymer (Dewatering and Secondary) .....	30,577 Gallons

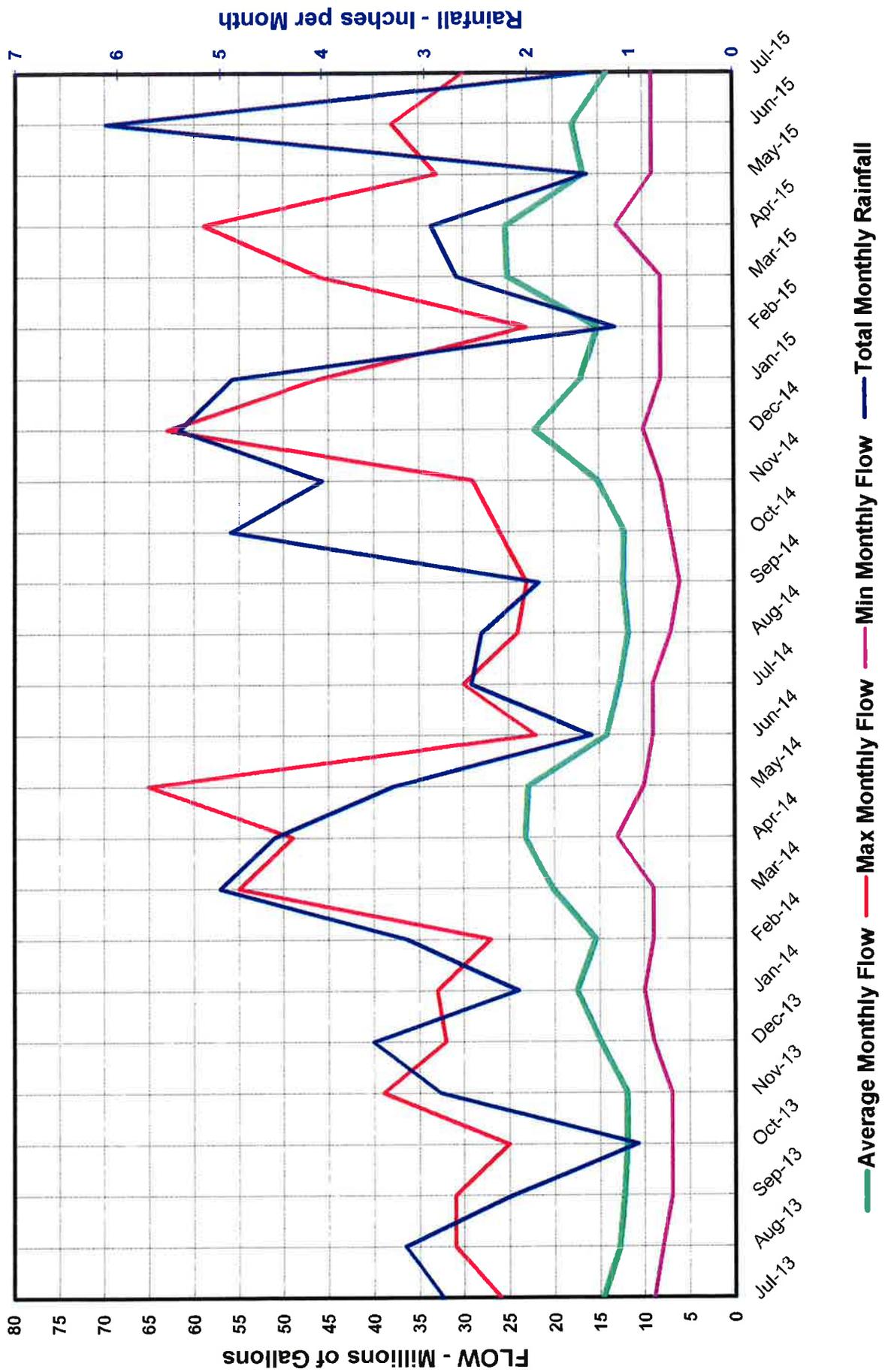
5. SLUDGE MANAGEMENT

	<u>Gallons</u>	<u>Dry Tons</u>	<u>Revenue</u>
Septage .....	402,300		\$24,168
Liquid Wastes .....	48,500		\$4,850
Outside Grease .....	292,100		\$29,210
Sub Total	742,900		\$58,228

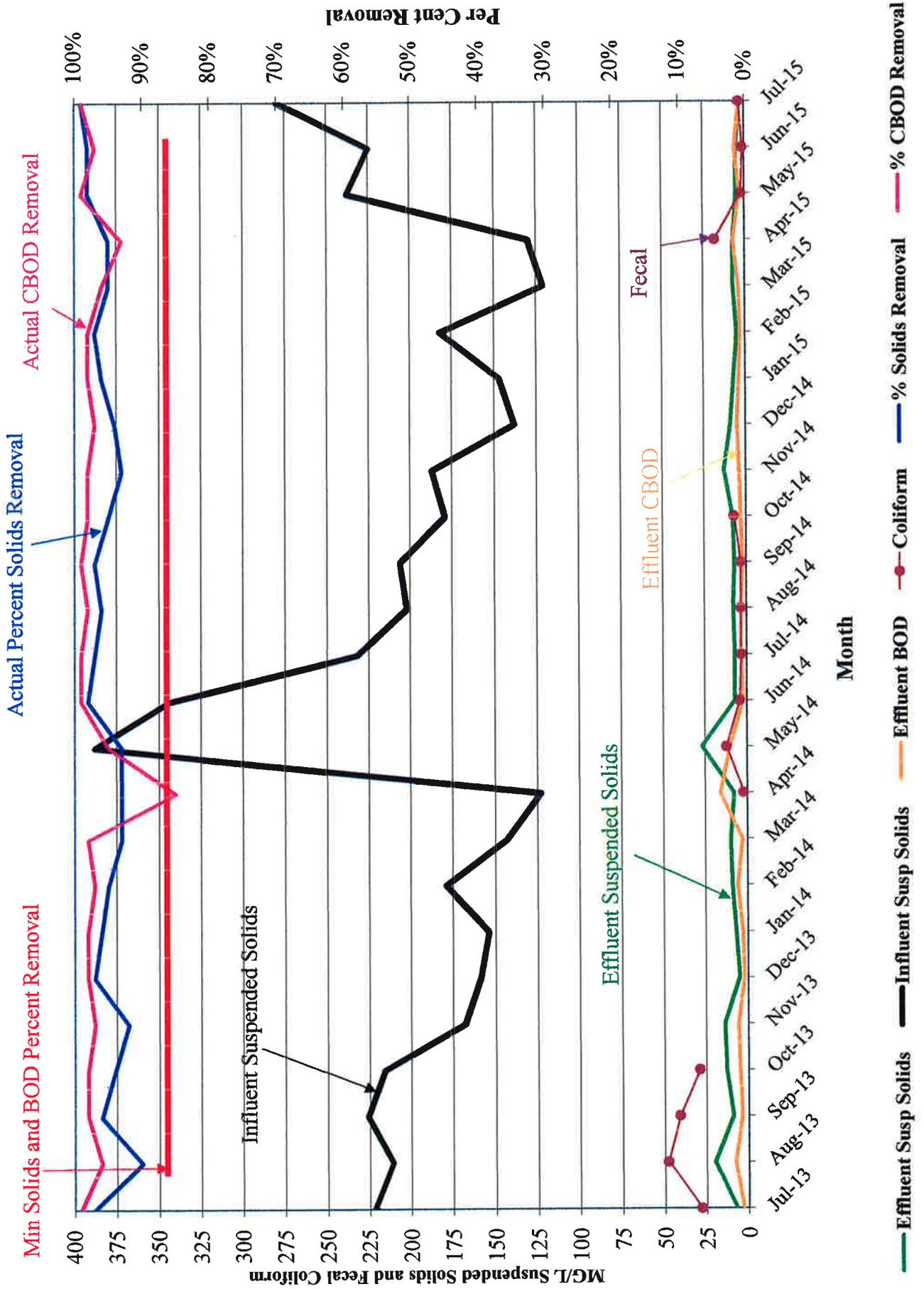
**Sludges:**

Deep River WWTP, CT	101,500	13.54	\$4,466
Glastonbury WWTP, CT	195,000	42.28	\$8,327
Town of Groton WWTP, CT	195,000	47.98	\$9,356
Ledyard WWTP, CT	6,500	1.54	\$308
Lee, MA	91,000	13.28	\$2,855
Middletown WWTP, CT	884,000	77.41	\$18,578
New London WWTP, CT	286,000	79.91	\$15,582
Plainville WWTP, CT	84,500	16.56	\$3,229
Portland WWTP, CT	49,500	9.08	\$2,497
Shelton WWTP, CT	13,000	1.73	\$346
Southington WWTP, CT	279,500	34.97	\$6,819
Stockbridge WWTP, CT	13,000	1.14	\$284
Ware WWTP, MA	136,500	14.23	\$3,059
Subtotal:	2,335,000	354	\$75,707
Total:	3,077,900		\$133,935

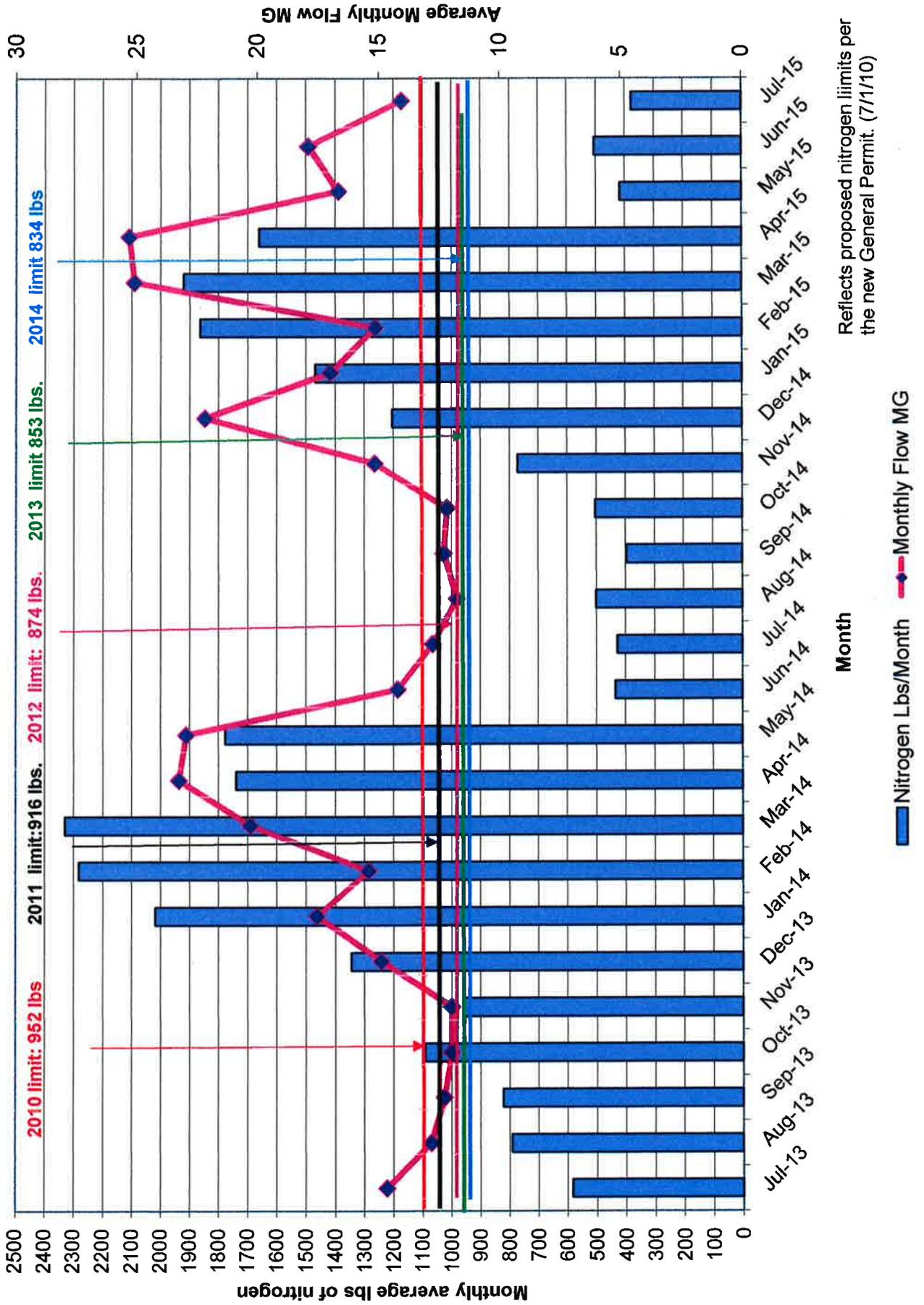
**The Mattabassett District**  
 Max, Min, Average Monthly Flow  
 Rainfall per month



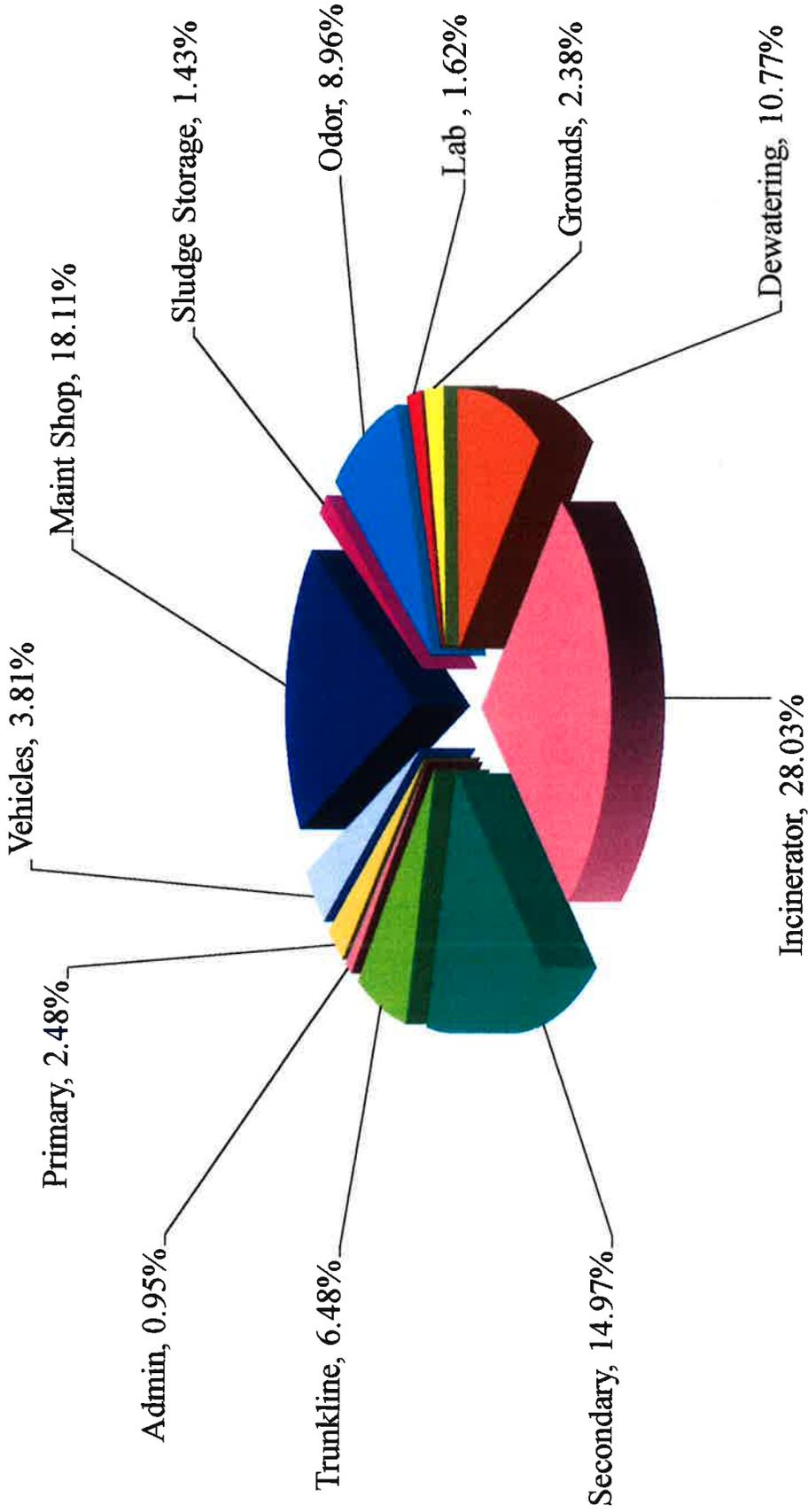
### The Mattabassett District Plant Performance Data



# Mattabassett District Nitrogen - lbs/month and Monthly Flow, Last 25 Months



## The Mattabassett District Maintenance Man Hours for July 2015



Admin - M: service water pump maint., backflow preventors. Admin: Misc admin bldg work. Dewatering: PM's, Putz.sludge cake pump work. Bldgs/Grds: backflow preventors, plant utilities/gen.equipment work. Incineration: misc repairs, PM's. Odor Control: PM's, analyzer work, pump work. Primaries: tank/skimmer/pump repairs. Training: Training. Raw Sewage Pumps: inspections/PM's. Secondary portion: PM's, return sludge pump repairs. Trunkline: inspections, monthly meter readings. Maint Shop: ongoing cleanup, inventory and organization. Other: Misc repairs. Due to truncating of decimals, total percentage may not always equal 100%.

**Executive Director and Staff Action Items  
From July 20, 2015 Board of Directors Meeting**

- 5h1.** Regarding the payment to Baci Grill for Brian's retirement party a question was asked why the revenue from the attendees offsetting the costs wasn't shown against the payment made. The Executive Director would follow up with either Doug Sienna or Ed Kindelan on showing the revenue within the same operating expense account. ***A spreadsheet is included in the Board package which shows the revenues received against this account.***
- 5h2.** A question was asked what the nitrogen limits are for 2015 in lbs/day as the Staff reports only show through 2014. In addition the Board asked for the average nitrogen discharge through the current month, projected discharge until end of the year and projected average discharge at the end of the year. The Executive Director indicated he would verify the limit figure as 834 lbs/day. ***This figure is correct and is now provided in a table along with average discharge to date and projected average discharge through the end of the calendar year.***
- 5h3.** During discussions about the Outfall project the Board raised a question as to how often we should be inspecting and cleaning the outfall discharge to help avoid the situation that occurred. The Executive Director would discuss this with the District Engineer and our consultant Wright-Pierce both in terms of inspection and cleaning in the future. ***The cleaning schedule will be based on the rate of sediment and sand that accumulates which we are getting from the contractor's data. In addition the permit process is quite complicated as it involves a Long Island Sound Permit (OLISP), Certificate of Permission and U.S. Army Corp of Engineers Category I. We will share more information on the inspection and maintenance in the future.***
- 5h4.** During discussions about the existing incinerator downtime that has occurred frequently the past two months a question was raised as to the last time and how much was spent replacing the heat exchangers. ***The Executive Director researched this with staff and found that in 2009 we spent approximately \$300,000 on replacing the primary and secondary heat exchangers with labor, equipment and materials. We are in the process of investigating the life expectancy of the heat exchangers accounting for the type of sand we use (silica) or olivine. We will also look into the life expectancy of the new IDI exchangers so that proper capital planning is included in future budgets.***

## The Mattabasset District Account QuickReport

	<u>Type</u>	<u>Date</u>	<u>Num</u>	<u>Name</u>	<u>Memo</u>	<u>Split</u>	<u>Amount</u>
<b>50000 · Administrative Expenses</b>							
<b>52000 · Professional Services</b>							
<b>52400 · Training &amp; Conferences</b>							
<b>52440 · Other &amp; Misc</b>							
	Deposit	06/09/2015	3122	Retirement Party	Baci-j 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	2990	Retirement Party	Baci-k 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	9824	Retirement Party	Baci-l 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	2431	Retirement Party	Baci-m 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	2132	Retirement Party	Baci-n 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	1506	Retirement Party	Baci-o 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	4085	Retirement Party	Baci-p 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	315	Retirement Party	Baci-q 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	4261	Retirement Party	Baci-r 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	1107	Retirement Party	Baci-s 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	294	Retirement Party	Baci-t 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	7859	Retirement Party	Baci-u 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	4229	Retirement Party	Baci-v 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	1649	Retirement Party	Baci-w 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	2663	Retirement Party	Baci-x 10205 · Operating Checkin		-70.00
	Deposit	06/09/2015	1021	Retirement Party	Baci-y 10205 · Operating Checkin		-35.00
	Deposit	06/09/2015	4098	Retirement Party	Baci-z 10205 · Operating Checkin		-35.00
	Deposit	06/09/2015	1396	Retirement Party	Baci-aa 10205 · Operating Checkin		-35.00
	Deposit	06/09/2015	5599	Retirement Party	Baci-ab 10205 · Operating Checkin		-35.00
	Deposit	06/09/2015	9461	Retirement Party	Baci-ac 10205 · Operating Checkin		-35.00
	Deposit	06/09/2015	142	Retirement Party	Baci-ad 10205 · Operating Checkin		-35.00
	Deposit	06/09/2015	109	Retirement Party	Baci-ae 10205 · Operating Checkin		-35.00
	Deposit	06/09/2015	4899	Retirement Party	Baci-af 10205 · Operating Checkin		-35.00
	Deposit	06/09/2015	4206	Retirement Party	Baci-ag 10205 · Operating Checkin		-35.00
	Deposit	06/09/2015	1256	Retirement Party	Baci-ah 10205 · Operating Checkin		-35.00
	Deposit	06/09/2015	183	Retirement Party	Baci-ai 10205 · Operating Checkin		-35.00
	Deposit	06/09/2015	5596	Retirement Party	Baci-aj 10205 · Operating Checkin		-35.00
	Deposit	06/09/2015	9264	Retirement Party	Baci-ak 10205 · Operating Checkin		-35.00
	Deposit	06/09/2015	1165	Retirement Party	Baci-al 10205 · Operating Checkin		-35.00
	Deposit	06/09/2015	22237	Retirement Party	Baci-am 10205 · Operating Checkin		-105.00
	Deposit	06/09/2015	817	Retirement Party	Baci-an 10205 · Operating Checkin		-105.00
	Deposit	06/09/2015	78533	Retirement Party	Baci-ao 10205 · Operating Checkin		-350.00
	Deposit	06/09/2015	5667	Retirement Party	Baci-ap 10205 · Operating Checkin		-350.00
	Bill	06/09/2015	6/12/15	Baci Grill	Retire 20100 · Accounts Payable		2,426.34
	Deposit	06/19/2015	2494	Retirement Party	Baci-aa 10205 · Operating Checkin		-70.00