



Materials Innovation and Recycling Authority
Regular Board of Directors
Supplemental Information
May 9, 2018

I. Finance

Informational Reports for Period ending March 31, 2018 (*Attachment A*).

CSWS Financials	CSWS Improvement Fund
CSWS Electricity	Property Division Financials
CSWS Solid Waste Summary	MIRA Cash Flow
CSWS Recycling Summaries	Authority Budget

II. Summary of Project Activities

1. An update is provided on each project's monthly operations for the period ending March 31, 2018 (*Attachment B*).
2. An update is provided on waste deliveries to all projects for the period ending March 31, 2018 (*Attachment C*).

III. Communications

1. Legal Expenditure Report FY'18 (*Attachment D*).
2. Final Activity report for the MIRA Connecticut Solid Waste System Facility (*Attachment E*).

TAB A



CSWS Financials - This report reflects the budget versus actual financial performance of the CSWS for the current month and on a year to date basis. This is an accrual basis report in that revenues are recognized when earned and expenses are recognized when incurred.

As indicated in this report, total operating revenue for March was \$4.20 million (20% under budget). Deficits were experienced in all categories of revenue other than metal sales and recycling facility revenues. Year to date revenue is 4% under budget. Total operating expenses were \$4.32 million (3% under budget) in March. Year to date the CSWS has operating income of \$2.71 million which is \$1.08 million (28%) under budget.

CSWS Electricity - This report reflects CSWS budget versus actual electricity production, revenue and price for the current month and year to date. Energy revenue reconciles to CSWS Financials. Effective April 1, 2017 through March 31, 2018, the first 10 MW of CSWS energy is sold under fixed contract at the rate of \$.03732 / Kwh and the second 10 MW is sold under fixed contract at the rate of \$.03543 / Kwh. Remaining energy is sold in the wholesale energy market pending execution of any additional fixed price energy transactions pursuant to MIRA's flexible energy hedging program with Nextera.

As indicated in this report, the CSWS total average energy price including hedged and wholesale prices was \$0.0362 per kwh in March which is \$0.0012 per kwh (3.1%) under budget. Year to date energy price is 10% above budget. Energy production was 11.98 million kwh (38.8%) under budget in March. Year to date production is 22% under budget. The plant ran at full capacity for 1 out of 31 days. Overall boiler availability was 54.0% compared to budgeted availability of 86.6%. Boiler 11 was off line for 167.18 hours for extended cleaning and to facilitate cold iron to repair a main steam valve (77.5% availability). Boiler 12 was off line for 317.68 hours for two separate SSC derail events, RDF conveyor issues, a backend plug and tube leaks (57.3% availability). Boiler 13 was off line for 542.92 hours for a major outage and to facilitate the cold iron (27.0% availability). Overall turbine availability was 54.2% compared to budgeted availability of 100% (there were no scheduled outages for the turbines in March). Turbine 5 was off line for 576.19 hours (20 consecutive days for thrust issues and 5 days also to facilitate cold iron). Turbine 6 was off line for 104.85 hours for cold iron purposes. Price and production combine to produce a \$0.47 million (40.8%) deficit in electricity revenue for the month of March. On a year to date basis, in comparison to this period of fiscal year 2017, energy price is up 15%, production is down 12% and revenue is up 2%.

CSWS Solid Waste Summary - This report reflects the budget versus actual MSW tons delivered, revenue and price per ton for member towns, other contracts, waste haulers and spot.

March deliveries totaled 42,337 tons which is 13,895 tons (24.7%) under budget. There were deficits in all categories of waste delivery, most significantly with interruptible contracts and spot waste. Note that 207.9 tons of delivered waste was diverted at a cost of \$15,596 reflecting an average disposal price for diversions of \$75.00 per ton excluding transportation. The per ton prices for interruptible contract waste are \$4.89 per ton above budget year to date and up in comparison to FY 2017 but reflecting low activity relative to budget. Prices for waste hauler tons are steady at \$70 consistent with CSWS established tip fees. Price and delivery volume by contract type combine to produce total solid waste delivery revenue presently 6.9% below budget on a year to date basis.



CSWS Recycling Summary - This report reflects current month and year to date recyclable tons delivered to and exported from the CSWS recycling center including the rate per ton and corresponding revenue reconciled to CSWS financials. Deliveries and exports are stated in terms relevant to the contract operation of this facility.

As indicated in this report, recycling facility revenues were 29% above budget in March. Delivery revenue was 61.9% above budget due to surplus paid residue and surplus CSWS sourced single stream deliveries. Export revenue was 44.2% below budget due to declining per ton prices for all commodities. Year to date recycling facility revenues are 60% above budget. As indicated separately on the metal sales report, metal sales revenue was 111% above budget in March due to strong pricing. The average per ton price in March was \$85.54 per ton which is \$56.63 per ton (196%) above budget. Year to date total metal sales and excess residue is 85% above budget.

Property Division Financials - This report reflects the budget versus actual financial performance of the Authority's Property Division for the current month and on a year to date basis. This is an accrual basis report in that revenues are recognized when earned and expenses are recognized when incurred irrespective of the timing of cash receipts or payments.

As indicated, revenue to the Property Division was 12.6% above budget in March due to activity in the real time and reserve markets. Interest income is also contributing to surplus revenue. Operating expenses were 43.4% below budget due to Jets operating charges. Total operating income is 17.5% above budget year to date.

MIRA Cash Flow - This "cash basis" report reflects the monthly flow of cash through the bank accounts and STIF reserve funds that represent all of the Authority's ongoing operations. The flow of funds is executed monthly in accordance with Board-approved criteria.

As indicated in this report, Property Division cash receipts were sufficient to distribute \$922,623 to the Tip Fee Stabilization Fund in March. Year to date distributions to the Tip Fee Stabilization Fund are \$6,772,797 in comparison to the maximum authorized distribution of \$7.0 million. CSWS cash receipts were not sufficient to execute budgeted distributions to the CSWS Operating STIF and Improvement Fund causing a \$1,651,314 draw from Tip Fee Stabilization. After the distribution of March receipts, \$19,543,506 remained contingently due to the Tip Fee Stabilization Fund from CSWS. Note that the Cash Flow statement includes all accounts related to the Authority's ongoing operations. Accounts held pending final project closeout, and security deposits, are not shown.

CSWS Improvement Fund - This report reflects budget versus actual CSWS Improvement Fund advances to the operator of the Resource Recovery Facility for major maintenance and capital improvement projects approved monthly by the Authority. Actual costs initially reflect funds advanced which are subsequently adjusted when the project is completed. Substantial modifications have been made to projects planned to be funded through the CSWS Improvement Fund at the time the FY 2018 budget was adopted. These primarily include cancellation of the Turbine 6 overhaul, reduced scope of the Boiler 13 outage, ash system, and auxiliary PBF system projects to increase funding allocated to Boiler 11 and 12 outages and baghouse major maintenance projects.

Segmented Income Statements - This report reflects the revenues and expenses of each Authority project and division in the format ultimately to appear in its annual independent audit report. This includes a summary reconciliation to budget versus actual report formats.

Materials Innovation and Recycling Authority
 FY 2018 Board of Directors Financial Report

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CSWS Monthly Financial Report

Period Ending: **March 31, 2018**

REVENUES	Current Month		Variance Better (Worse) than Budget		Year to Date		Variance Better (Worse) than Budget	
	Budget	Actual	\$	%	Budget	Actual	\$	%
	<i>Member Towns</i>	\$ 2,023,642	\$ 1,954,907	\$ (68,735)	-3%	\$ 18,873,942	\$ 18,712,873	\$ (161,069)
<i>Other Contracts</i>	\$ 533,502	\$ 15,292	\$ (518,210)	-97%	\$ 3,440,480	\$ 1,148,319	\$ (2,292,161)	-67%
<i>Hauler Contracts</i>	\$ 963,200	\$ 937,734	\$ (25,466)	-3%	\$ 8,632,400	\$ 9,307,114	\$ 674,714	8%
<i>Spot Waste</i>	\$ 88,640	\$ -	\$ (88,640)	n/a	\$ 534,400	\$ 145,795	\$ (388,605)	-73%
Other Operating Charges	\$ -	\$ -	\$ -	n/a	\$ -	\$ 13,886	\$ 13,886	n/a
Member Service Fee	\$ 2,926	\$ 3,159	\$ 233	8%	\$ 26,084	\$ 30,869	\$ 4,785	18%
<i>Metal Sales & Excess Residue</i>	\$ 61,053	\$ 116,206	\$ 55,154	90%	\$ 545,073	\$ 1,008,896	\$ 463,824	85%
Bulky Waste	\$ 9,555	\$ 9,575	\$ 20	0%	\$ 82,537	\$ 118,831	\$ 36,294	44%
<i>Recycling Facility</i>	\$ 75,895	\$ 97,921	\$ 22,026	29%	\$ 774,314	\$ 1,236,394	\$ 462,081	60%
<i>Electricity Sales</i>	\$ 1,151,960	\$ 682,290	\$ (469,670)	-41%	\$ 9,617,832	\$ 8,284,278	\$ (1,333,554)	-14%
Other Energy Markets	\$ 365,161	\$ 350,768	\$ (14,392)	-4%	\$ 3,270,599	\$ 3,621,045	\$ 350,446	11%
Misc. (Interest, Fees, Other)	\$ 6,250	\$ 34,105	\$ 27,855	446%	\$ 34,573	\$ 146,743	\$ 112,170	324%
TOTAL ACCRUED REVENUES	\$ 5,281,783	\$ 4,201,958	\$ (1,079,825)	-20%	\$ 45,832,233	\$ 43,775,043	\$ (2,057,190)	-4%
EXPENDITURES								
Administrative Expenses	\$ 216,515	\$ 180,358	\$ 36,157	17%	\$ 2,055,486	\$ 1,842,184	\$ 213,302	10%
Operational Expenses	\$ 233,921	\$ 209,641	\$ 24,280	10%	\$ 2,231,697	\$ 1,955,931	\$ 275,766	12%
PILOTs & Fees	\$ 216,373	\$ 155,888	\$ 60,485	28%	\$ 1,962,357	\$ 1,982,968	\$ (20,611)	-1%
Waste Transport	\$ 1,132,497	\$ 770,544	\$ 361,953	32%	\$ 9,892,396	\$ 9,932,136	\$ (39,740)	0%
Recycling Facility	\$ 54,731	\$ 39,893	\$ 14,838	27%	\$ 492,579	\$ 435,734	\$ 56,845	12%
Murphy Road Operations	\$ -	\$ -	\$ -	n/a	\$ -	\$ -	\$ -	n/a
MIRA Facilities Operating Exp.	\$ 68,426	\$ 51,942	\$ 16,484	24%	\$ 659,520	\$ 597,040	\$ 62,480	9%
NAES Contract Operating Charges	\$ 2,198,245	\$ 2,616,498	\$ (418,253)	-19%	\$ 21,864,184	\$ 21,768,634	\$ 95,550	0%
NAES On-Site Incentive Comp.	\$ 76,041	\$ 76,041	\$ -	0%	\$ 684,369	\$ 554,207	\$ 130,162	19%
NAES Management Fees	\$ 103,419	\$ 82,862	\$ 20,557	20%	\$ 930,771	\$ 747,858	\$ 182,913	20%
Transfer Station - Ellington	\$ 1,191	\$ 325	\$ 866	73%	\$ 10,719	\$ 9,878	\$ 841	8%
Transfer Station - Essex	\$ 47,091	\$ 46,934	\$ 157	0%	\$ 423,819	\$ 413,963	\$ 9,856	2%
Transfer Station - Torrington	\$ 45,695	\$ 43,150	\$ 2,545	6%	\$ 411,255	\$ 409,936	\$ 1,319	0%
Transfer Station - Watertown	\$ 47,111	\$ 44,807	\$ 2,304	5%	\$ 423,999	\$ 413,296	\$ 10,703	3%
TOTAL ACCRUED EXPENDITURES	\$ 4,441,256	\$ 4,318,883	\$ 122,373	3%	\$ 42,043,151	\$ 41,063,765	\$ 979,386	2%
OPERATING INCOME								
(Before Reserves / Transfers)	\$ 840,527	\$ (116,925)	\$ (957,452)	-114%	\$ 3,789,082	\$ 2,711,278	\$ (1,077,804)	-28%
DISTRIBUTION OF CSWS OPERATING INCOME								
<i>Debt Service Fund</i>	\$ -	\$ -	\$ -	n/a	\$ -	\$ -	\$ -	n/a
<i>CSWS Improvement Fund</i>	\$ 1,123,015	\$ 2,246,030	\$ 1,123,015	100%	\$ 13,084,120	\$ 13,084,120	\$ -	0%
<i>CSWS Risk Fund</i>	\$ -	\$ -	\$ -	n/a	\$ -	\$ -	\$ -	n/a
<i>CSWS Legal Reserve</i>	\$ -	\$ -	\$ -	n/a	\$ -	\$ -	\$ -	n/a
<i>MIRA Severance Reserve</i>	\$ -	\$ -	\$ -	n/a	\$ -	\$ -	\$ -	n/a
TOTAL DISTRIBUTIONS	\$ 1,123,015	\$ 2,246,030	\$ 1,123,015	100%	\$ 13,084,120	\$ 13,084,120	\$ -	0%
SURPLUS / (DEFICIT)	\$ (282,489)	\$ (2,362,955)	\$ (2,080,467)	736%	\$ (9,295,039)	\$ (10,372,842)	\$ (1,077,804)	12%

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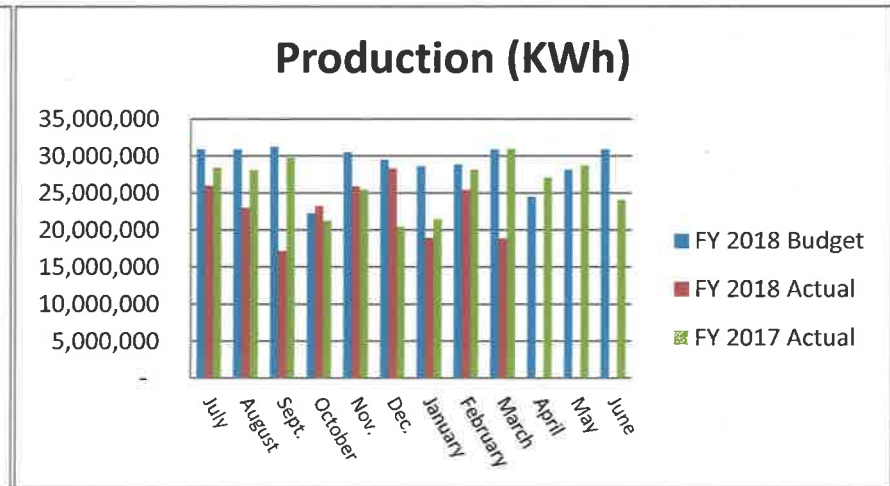
CSWS Electricity Production

Period Ending:

March 31, 2018

FY 2018	Price			Production			Generation Revenue		
	Budget	Actual	Variance	Budget	Actual	Variance	Budget	Actual	Variance
July	\$ 0.0308	\$ 0.0316	\$ 0.0008	30,876,610	25,992,500	(4,884,110)	\$ 949,456	\$ 820,289	\$ (129,167)
August	\$ 0.0273	\$ 0.0298	\$ 0.0025	30,876,610	22,991,760	(7,884,850)	\$ 844,475	\$ 685,639	\$ (158,837)
Sept.	\$ 0.0232	\$ 0.0336	\$ 0.0104	31,243,392	17,140,940	(14,102,452)	\$ 723,285	\$ 575,745	\$ (147,540)
October	\$ 0.0237	\$ 0.0327	\$ 0.0089	22,270,553	23,198,750	928,197	\$ 528,925	\$ 758,293	\$ 229,368
Nov.	\$ 0.0281	\$ 0.0352	\$ 0.0071	30,487,793	25,920,700	(4,567,093)	\$ 858,231	\$ 912,819	\$ 54,588
Dec.	\$ 0.0404	\$ 0.0545	\$ 0.0141	29,480,608	28,309,980	(1,170,628)	\$ 1,189,543	\$ 1,541,796	\$ 352,253
January	\$ 0.0607	\$ 0.0670	\$ 0.0062	28,604,973	18,937,420	(9,667,553)	\$ 1,737,752	\$ 1,268,567	\$ (469,185)
February	\$ 0.0567	\$ 0.0408	\$ (0.0158)	28,847,390	25,436,720	(3,410,670)	\$ 1,634,205	\$ 1,038,840	\$ (595,365)
March	\$ 0.0374	\$ 0.0362	\$ (0.0012)	30,842,303	18,861,060	(11,981,243)	\$ 1,151,960	\$ 682,290	\$ (469,670)
April	\$ 0.0306	\$ -	n/a	24,461,136	-	n/a	\$ 747,288	\$ -	n/a
May	\$ 0.0235	\$ -	n/a	28,132,022	-	n/a	\$ 662,509	\$ -	n/a
June	\$ 0.0249	\$ -	n/a	30,876,610	-	n/a	\$ 770,371	\$ -	n/a
YTD	\$ 0.0365	\$ 0.0401	\$ 0.0036	263,530,231	206,789,830	(56,740,401)	\$ 9,617,832	\$ 8,284,278	\$ (1,333,554)
YTD % Var.			10%			-22%			-14%

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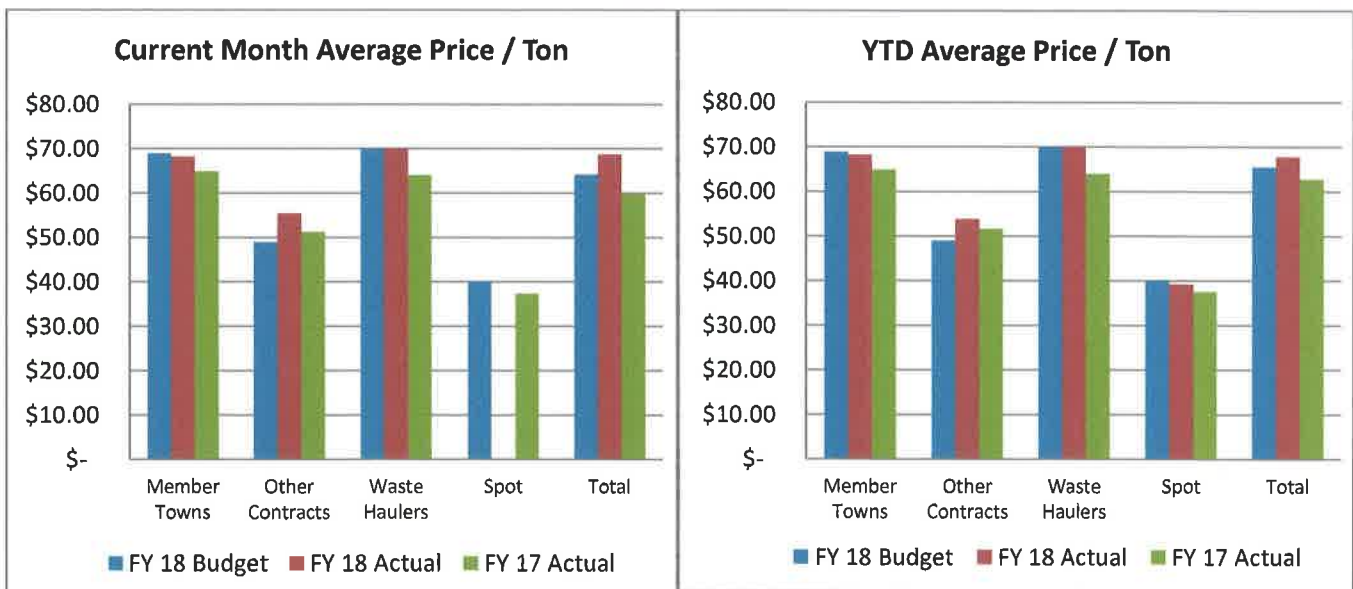
Narrative

CSWS Solid Waste Summary

Period Ending:

March 31, 2018

FY 18 Budget	Current Month			Year To Date		
	Tons	Revenue	Price	Tons	Revenue	Price
<u>Member Towns</u>	29,368	\$ 2,023,642	\$ 68.91	274,015	\$ 18,873,942	\$ 68.88
<u>Other Contracts</u>	10,888	\$ 533,502	\$ 49.00	70,214	\$ 3,440,480	\$ 49.00
<u>Waste Haulers</u>	13,760	\$ 963,200	\$ 70.00	123,320	\$ 8,632,400	\$ 70.00
<u>Spot</u>	2,216	\$ 88,640	\$ 40.00	13,360	\$ 534,400	\$ 40.00
Total	56,232	\$ 3,608,984	\$ 64.18	480,909	\$ 31,481,222	\$ 65.46
FY 18 Actual	Tons	Revenue	Price	Tons	Revenue	Price
Member Towns	28,665	\$ 1,954,907	\$ 68.20	274,417	\$ 18,712,873	\$ 68.19
Other Contracts	276	\$ 15,292	\$ 55.46	21,310	\$ 1,148,319	\$ 53.89
Waste Haulers	13,396	\$ 937,734	\$ 70.00	132,957	\$ 9,307,114	\$ 70.00
Spot	-	\$ -	\$ -	3,718	\$ 145,795	\$ 39.21
Total	42,337	\$ 2,907,933	\$ 68.69	432,402	\$ 29,314,101	\$ 67.79
Variance	Tons	Revenue	Price	Tons	Revenue	Price
Member Towns	(703)	\$ (68,735)	\$ (0.71)	402	\$ (161,069)	\$ (0.69)
Other Contracts	(10,612)	\$ (518,210)	\$ 6.46	(48,904)	\$ (2,292,161)	\$ 4.89
Waste Haulers	(364)	\$ (25,466)	\$ -	9,637	\$ 674,714	\$ 0.00
Spot	(2,216)	\$ (88,640)	\$ (40.00)	(9,642)	\$ (388,605)	\$ (0.79)
Total	(13,895)	\$ (701,051)	\$ 4.51	(48,507)	\$ (2,167,121)	\$ 2.33
Total % Var.	-24.7%	-19.4%	7.0%	-10.1%	-6.9%	3.6%



CSWS Recycling Facility (Deliveries)

Period Ending:

March 31, 2018

	Current Month			Year to Date		
	Budget	Actual	Variance	Budget	Actual	Variance
FCR Delivery Revenue	\$ 51,913	\$ 84,024	\$ 32,111	\$ 513,538	\$ 705,041	\$ 191,504
FCR Export Revenue	\$ 18,582	\$ 10,360	\$ (8,222)	\$ 212,176	\$ 502,205	\$ 290,029
Non Participating Tip Fee	\$ 5,400	\$ 3,537	\$ (1,863)	\$ 48,600	\$ 29,148	\$ (19,452)
Total	\$ 75,895	\$ 97,921	\$ 22,026	\$ 774,314	\$ 1,236,394	\$ 462,081
Total % Var.			29%			60%

Current Month Budget	Deliveries CSWS Sourced			Deliveries FCR Sourced			Delivery Revenue
	Tons	Rate	Revenue	Tons	Rate	Revenue	
Residential Dual	-	\$ 8.50	\$ -	-	\$ 7.50	\$ -	\$ -
Residential Single	3,581.00	\$ 8.50	\$ 30,439	660	\$ 7.50	\$ 4,950	\$ 35,389
Commercial	11.00	\$ -	\$ -	-	\$ -	\$ -	\$ -
Total Paid Residue	n/a	n/a	n/a	243	\$ 68.00	\$ 16,524	\$ 16,524
Total	3,592.00	\$ 8.47	\$ 30,439	903	\$ 23.78	\$ 21,474	\$ 51,913
Current Month Actual							
Residential Dual	-	n/a	\$ -	-	n/a	\$ -	\$ -
Residential Single	5,185.35	\$ 8.50	\$ 44,075	256	\$ 7.50	\$ 1,918	\$ 45,993
Commercial	4.65	\$ -	\$ -	70	\$ -	\$ -	\$ -
Total Paid Residue	n/a	n/a	n/a	559	\$ 68.00	\$ 38,030	\$ 38,030
Total	5,190.00	\$ 8.49	\$ 44,075	885	\$ 45.16	\$ 39,948	\$ 84,024
Current Month Variance							
Residential Dual	-	n/a	-	-	n/a	-	\$ -
Residential Single	1,604.35	-	13,637	(404)	-	(3,032)	\$ 10,605
Commercial	(6.35)	-	-	70	-	-	\$ -
Total Paid Residue	n/a	n/a	n/a	316	-	21,506	\$ 21,506
Total	1,598.00	\$ 0.02	\$ 13,637	(18)	-	\$ 18,474	\$ 32,111

Year To Date Budget	Deliveries CSWS Sourced			Deliveries FCR Sourced			Total Revenue
	Tons	Rate	Revenue	Tons	Rate	Revenue	
Residential Dual	-	\$ 8.50	\$ -	-	\$ 7.50	\$ -	\$ -
Residential Single	39,335.00	\$ 8.50	\$ 334,348	7,300	\$ 7.50	\$ 54,750	\$ 389,098
Commercial	88.00	\$ -	\$ -	-	\$ -	\$ -	\$ -
Total Paid Residue	n/a	n/a	n/a	1,830	\$ 68.00	\$ 124,440	\$ 124,440
Total	39,423.00	\$ 8.48	334,347.50	9,130	\$ 19.63	\$ 179,190	\$ 513,538
Year To Date Actual							
Residential Dual	-	n/a	\$ -	-	n/a	\$ -	\$ -
Residential Single	42,899.53	\$ 8.50	\$ 364,646	3,731	\$ 7.50	\$ 27,983	\$ 392,629
Commercial	66.79	\$ -	\$ -	960	\$ -	\$ -	\$ -
Total Paid Residue	n/a	n/a	n/a	4,594	\$ 68.00	\$ 312,412	\$ 312,412
Total	42,966.32	\$ 8.49	364,646.01	9,286	\$ 36.66	\$ 340,395	\$ 705,041
Year To Date Variance							
Residential Dual	-	n/a	-	-	n/a	-	\$ -
Residential Single	3,564.53	-	30,299	(3,569)	-	(26,767)	\$ 3,532
Commercial	(21.21)	-	-	960	-	-	\$ -
Total Paid Residue	n/a	n/a	n/a	2,764	-	187,972	\$ 187,972
Total	3,543.32	0.01	30,298.51	156	\$ 17.03	\$ 161,205	\$ 191,504

CSWS Recycling Facility (Exports)

Period Ending:

March 31, 2018

	Current Month			Year to Date		
	Budget	Actual	Variance	Budget	Actual	Variance
FCR Delivery Revenue	\$ 51,913	\$ 84,024	\$ 32,111	\$ 513,538	\$ 705,041	\$ 191,504
FCR Export Revenue	\$ 18,582	\$ 10,360	\$ (8,222)	\$ 212,176	\$ 502,205	\$ 290,029
Non Participating Tip Fee	\$ 5,400	\$ 3,537	\$ (1,863)	\$ 48,600	\$ 29,148	\$ (19,452)
Total	\$ 75,895	\$ 97,921	\$ 22,026	\$ 774,314	\$ 1,236,394	\$ 462,081
Total % Var.			29%			60%

Current Month Budget	Exports CSWS Sourced			Exports FCR Sourced			Export Revenue
	Tons	Rate	Revenue	Tons	Rate	Revenue	
Residential ONP	1,452.00	\$ 3.00	\$ 4,355	257	\$ 1.00	\$ 257	\$ 4,612
Residential OCC	636.00	\$ 16.01	\$ 10,183	115	\$ 3.01	\$ 346	\$ 10,529
Residential Containers	934.00	\$ 3.00	\$ 2,802	166	\$ 0.50	\$ 83	\$ 2,885
Commercial	11.00	\$ 50.55	\$ 556	-	\$ -	\$ -	\$ 556
Total	3,033.00	\$ 5.90	\$ 17,896	538	\$ 1.28	\$ 686	\$ 18,582
Current Month Actual							
Residential ONP	1,858.84	\$ -	\$ -	92	\$ -	\$ -	\$ -
Residential OCC	815.77	\$ 11.50	\$ 9,381	40	\$ 2.30	\$ 93	\$ 9,474
Residential Containers	1,556.41	\$ 0.14	\$ 225	77	\$ 0.03	\$ 2	\$ 228
Commercial	4.65	\$ 20.94	\$ 97	70	\$ 8.07	\$ 561	\$ 658
Total	4,235.67	\$ 2.29	\$ 9,704	278	\$ 2.36	\$ 656	\$ 10,360
Current Month Variance							
Residential ONP	406.84	\$ (3.00)	(4,355)	(165)	\$ (1.00)	(257)	\$ (4,612)
Residential OCC	179.77	\$ (4.51)	(802)	(75)	\$ (0.71)	(253)	\$ (1,055)
Residential Containers	622.41	\$ (2.86)	(2,577)	(89)	\$ (0.47)	(81)	\$ (2,657)
Commercial	(6.35)	\$ (29.60)	(459)	70	\$ 8.07	561	\$ 102
Total	1,202.67	\$ (3.61)	\$ (8,192)	(260)	\$ 1.08	\$ (30)	\$ (8,222)

Year To Date Budget	Exports CSWS Sourced			Exports FCR Sourced			Total Revenue
	Tons	Rate	Revenue	Tons	Rate	Revenue	
Residential ONP	17,371.00	\$ 3.00	\$ 52,117	3,258	\$ 1.00	\$ 3,258	\$ 55,375
Residential OCC	7,142.00	\$ 16.00	\$ 114,261	1,335	\$ 3.01	\$ 4,012	\$ 118,273
Residential Containers	11,029.00	\$ 3.00	\$ 33,086	2,066	\$ 0.50	\$ 1,033	\$ 34,119
Commercial	88.00	\$ 50.10	\$ 4,409	-	\$ -	\$ -	\$ 4,409
Total	35,630.00	\$ 5.72	\$ 203,873	6,659	\$ 1.25	\$ 8,303	\$ 212,176
Year To Date Actual							
Residential ONP	16,436.30	\$ 5.20	\$ 85,449	1,375	\$ 1.05	\$ 1,449	\$ 85,449
Residential OCC	8,672.62	\$ 29.83	\$ 258,719	758	\$ 5.74	\$ 4,354	\$ 258,719
Residential Containers	11,146.69	\$ 12.06	\$ 134,429	909	\$ 3.05	\$ 2,774	\$ 134,429
Commercial	66.79	\$ 63.94	\$ 4,271	960	\$ 11.21	\$ 10,760	\$ 4,271
Total	36,322.40	\$ 13.29	\$ 482,867	4,003	\$ 4.83	\$ 19,338	\$ 502,205
Year To Date Variance							
Residential ONP	(934.70)	\$ 2.20	33,332	(1,883)	\$ 0.05	(1,809)	\$ 31,523
Residential OCC	1,530.62	\$ 13.83	144,458	(577)	\$ 2.74	342	\$ 144,800
Residential Containers	117.69	\$ 9.06	101,343	(1,157)	\$ 2.55	1,741	\$ 103,084
Commercial	(21.21)	\$ 13.84	(138)	960	\$ 11.21	10,760	\$ 10,621
Total	692.40	\$ 7.57	\$ 278,994	(2,656)	\$ 3.58	\$ 11,035	\$ 290,029

Period Ending: **March 31, 2018**

Metal Sales

FY 2018	Budget			Actual			Variance Better (Worse) than Budget		
	Tons	Revenue	Rate per Ton	Tons	Revenue	Rate per Ton	Tons	Revenue	Rate per Ton
July	1,654.17	47,812.50	\$ 28.90	1,673.36	\$ 93,632	\$ 55.95	19.19	\$ 45,820	\$ 27.05
August	1,654.17	47,812.50	\$ 28.90	1,797.37	\$ 117,487	\$ 65.37	143.20	\$ 69,674	\$ 36.46
September	1,654.17	47,812.50	\$ 28.90	1,302.60	\$ 83,785	\$ 64.32	(351.57)	\$ 35,972	\$ 35.42
October	1,654.17	47,812.50	\$ 28.90	1,463.38	\$ 114,723	\$ 78.40	(190.79)	\$ 66,910	\$ 49.49
November	1,654.17	47,812.50	\$ 28.90	1,671.17	\$ 86,461	\$ 51.74	17.00	\$ 38,649	\$ 22.83
December	1,654.17	47,812.50	\$ 28.90	1,556.42	\$ 104,928	\$ 67.42	(97.75)	\$ 57,116	\$ 38.51
January	1,654.17	47,812.50	\$ 28.90	1,410.82	\$ 102,821	\$ 72.88	(243.35)	\$ 55,008	\$ 43.98
February	1,654.17	47,812.50	\$ 28.90	1,438.85	\$ 110,204	\$ 76.59	(215.32)	\$ 62,392	\$ 47.69
March	1,654.17	47,812.50	\$ 28.90	1,179.62	\$ 100,902	\$ 85.54	(474.55)	\$ 53,089	\$ 56.63
April	1,654.17	47,812.50	\$ 28.90	-	\$ -	n/a	n/a	n/a	n/a
May	1,654.17	47,812.50	\$ 28.90	-	\$ -	n/a	n/a	n/a	n/a
June	1,654.17	47,812.50	\$ 28.90	-	\$ -	n/a	n/a	n/a	n/a
YTD	14,887.50	\$ 430,313	\$ 28.90	13,493.59	\$ 914,942	\$ 67.81	(1,393.91)	\$ 484,630	\$ 38.90

Excess Ferrous Residue

FY 2018	Budget			Actual			Variance Better (Worse) than Budget		
	Tons	Revenue	Rate per Ton	Tons	Revenue	Rate per Ton	Tons	Revenue	Rate per Ton
July	368.00	\$ 14,720	\$ 40.00	230.66	\$ 9,226	\$ 40.00	(137.34)	(5,493.80)	\$ (0.00)
August	368.00	\$ 14,720	\$ 40.00	238.36	\$ 9,534	\$ 40.00	(129.64)	(5,185.60)	\$ -
September	331.00	\$ 13,240	\$ 40.00	226.09	\$ 9,044	\$ 40.00	(104.91)	(4,196.40)	\$ -
October	147.00	\$ 5,880	\$ 40.00	380.90	\$ 15,236	\$ 40.00	233.90	9,356.00	\$ -
November	331.00	\$ 13,240	\$ 40.00	231.23	\$ 9,249	\$ 40.00	(99.77)	(3,990.80)	\$ -
December	331.00	\$ 13,240	\$ 40.00	163.37	\$ 6,535	\$ 40.00	(167.63)	(6,705.20)	\$ -
January	331.00	\$ 13,240	\$ 40.00	96.89	\$ 3,876	\$ 40.00	(234.11)	(9,364.40)	\$ -
February	331.00	\$ 13,240	\$ 40.00	398.75	\$ 15,950	\$ 40.00	67.75	2,710.00	\$ -
March	331.00	\$ 13,240	\$ 40.00	382.61	\$ 15,304	\$ 40.00	51.61	2,064.40	\$ -
April	74.00	\$ 2,960	\$ 40.00	-	\$ -	n/a			
May	331.00	\$ 13,240	\$ 40.00	-	\$ -	n/a			
June	401.00	\$ 16,040	\$ 40.00	-	\$ -	n/a			
YTD	2,869.00	114,760.00	\$ 40.00	2,348.86	93,954.20	\$ 40.00	(520.14)	(20,805.80)	(0.00)

Total Metal Sales and Excess Residue

FY 2018	Budget			Actual			Variance Better (Worse) than Budget		
	Tons	Revenue	Rate per Ton	Tons	Revenue	Rate per Ton	Tons	Revenue	Rate per Ton
July	2,022.17	62,533	\$ 30.92	1,904.02	102,858.34	\$ 54.02	(118.15)	40,325.84	23.10
August	2,022.17	62,533	\$ 30.92	2,035.73	127,021.31	\$ 62.40	13.56	64,488.81	31.47
September	1,985.17	61,053	\$ 30.75	1,528.69	92,828.17	\$ 60.72	(456.48)	31,775.67	29.97
October	1,801.17	53,693	\$ 29.81	1,844.28	129,958.94	\$ 70.47	43.11	76,266.44	40.66
November	1,985.17	61,053	\$ 30.75	1,902.40	95,710.30	\$ 50.31	(82.77)	34,657.80	19.56
December	1,985.17	61,053	\$ 30.75	1,719.79	111,462.92	\$ 64.81	(265.38)	50,410.42	34.06
January	1,985.17	61,053	\$ 30.75	1,507.71	106,696.16	\$ 70.77	(477.46)	45,643.66	40.01
February	1,985.17	61,053	\$ 30.75	1,837.60	126,154.10	\$ 68.65	(147.57)	65,101.60	37.90
March	1,985.17	61,053	\$ 30.75	1,562.23	116,206.15	\$ 74.38	(422.94)	55,153.65	43.63
April	1,728.17	50,773	\$ 29.38	-	-	n/a			
May	1,985.17	61,053	\$ 30.75	-	-	n/a			
June	2,055.17	63,853	\$ 31.07	-	-	n/a			
YTD	17,756.50	545,073	\$ 30.70	15,842.45	1,008,896	\$ 63.68	(1,914.05)	463,823.89	32.99

Materials Innovation and Recycling Authority
 FY 2018 Board of Directors Financial Report

Narrative

Property Division Monthly Financial Report

Period Ending: **March 31, 2018**

REVENUES	Current Month		Variance Better (Worse) than Budget		Year to Date		Variance Better (Worse) than Budget	
	Budget	Actual	\$	%	Budget	Actual	\$	%
Jets Electric:								
Capacity Payments	\$ 1,043,529	\$ 1,043,394	\$ (135)	0.0%	\$ 9,391,761	\$ 9,558,427	\$ 166,666	1.8%
VARs Payments	\$ 4,200	\$ 3,940	\$ (260)	-6.2%	\$ 37,800	\$ 108,735	\$ 70,935	187.7%
Reserve Credits	\$ 50,000	\$ 67,720	\$ 17,720	35.4%	\$ 450,000	\$ 1,002,741	\$ 552,741	122.8%
Real Time Energy	\$ 12,833	\$ 79,173	\$ 66,340	516.9%	\$ 115,497	\$ 322,513	\$ 207,016	179.2%
Total Jets Electric	\$ 1,110,562	\$ 1,194,227	\$ 83,665	7.5%	\$ 9,995,058	\$ 10,992,416	\$ 997,358	10.0%
Lease Income:								
CSWS Murphy Road	\$ -	\$ -	\$ -	n/a	\$ -	\$ -	\$ -	n/a
Golf Center	\$ 1,513	\$ 1,664	\$ 151	10.0%	\$ 13,613	\$ 13,764	\$ 151	1.1%
Wheelabrator Lease	\$ 35,946	\$ 35,946	\$ -	0.0%	\$ 323,511	\$ 323,511	\$ -	0.0%
Jets Billboard	\$ -	\$ -	\$ -	n/a	\$ 45,350	\$ 45,350	\$ -	0.0%
Total Lease Income	\$ 37,458	\$ 37,609	\$ 151	0.4%	\$ 382,474	\$ 382,625	\$ 151	0.0%
South Central Facility Capacity	\$ -	\$ -	\$ -	n/a	\$ -	\$ -	\$ -	n/a
Education & Trash Museum	\$ -	\$ 750	\$ 750	n/a	\$ -	\$ 1,725	\$ 1,725	n/a
Interest Income	\$ 2,500	\$ 62,969	\$ 60,469	2419%	\$ 7,500	\$ 106,863	\$ 99,363	1325%
TOTAL ACCRUED REVENUES	\$ 1,150,520	\$ 1,295,555	\$ 145,035	12.6%	\$ 10,385,032	\$ 11,483,628	\$ 1,098,597	10.6%
EXPENDITURES								
MIRA Non-Personnel Services	\$ 18,439	\$ 12,919	\$ 5,520	29.9%	\$ 175,281	\$ 134,069	\$ 41,212	23.5%
MIRA Personnel Services	\$ 62,397	\$ 53,715	\$ 8,682	13.9%	\$ 592,367	\$ 538,801	\$ 53,566	9.0%
Railroad Maintenance	\$ -	\$ -	\$ -	n/a	\$ 10,000	\$ 9,551	\$ 450	4.5%
211 Murphy Road Ops. Center	\$ -	\$ -	\$ -	n/a	\$ -	\$ (605)	\$ 605	n/a
1410 Honey Spot Road	\$ -	\$ -	\$ -	n/a	\$ -	\$ -	\$ -	n/a
171 Murphy Road	\$ 3,870	\$ 1,572	\$ 2,298	59.4%	\$ 19,350	\$ 14,572	\$ 4,778	24.7%
Education & Trash Museum	\$ -	\$ -	\$ -	n/a	\$ -	\$ -	\$ -	n/a
South Central Facility Operating C	\$ -	\$ -	\$ -	n/a	\$ -	\$ -	\$ -	n/a
Jets Operating Charges	\$ 173,589	\$ 77,879	\$ 95,710	55.1%	\$ 1,320,180	\$ 1,069,532	\$ 250,648	19.0%
TOTAL ACCRUED EXPENDITURES	\$ 258,295	\$ 146,085	\$ 112,210	43.4%	\$ 2,117,178	\$ 1,765,920	\$ 351,259	16.6%
OPERATING INCOME (Before Reserves / Transfers)	\$ 892,225	\$ 1,149,470	\$ 257,245	28.8%	\$ 8,267,854	\$ 9,717,709	\$ 1,449,855	17.5%
DISTRIBUTION OF PD OPERATING INCOME								
General Fund Reimbursement	\$ -	\$ -	\$ -	n/a	\$ 422,000	\$ 422,000	\$ -	0.0%
Jets major Maintenance	\$ -	\$ -	\$ -	n/a	\$ 703,000	\$ 703,000	\$ -	0.0%
PD Improvement Fund	\$ 15,833	\$ 31,666	\$ 15,833	100.0%	\$ 142,497	\$ 142,497	\$ -	0.0%
TOTAL DISTRIBUTIONS	\$ 15,833	\$ 31,666	\$ 15,833	100.0%	\$ 142,497	\$ 142,497	\$ -	0.0%
SURPLUS / (DEFICIT)	\$ 876,392	\$ 1,117,804	\$ 241,412	27.5%	\$ 8,125,357	\$ 9,575,212	\$ 1,449,855	17.8%

Property Division and CSWS Flow of Funds

Period Ending: **March 31, 2018**
 Transfer Date: **April 6, 2018**
 Funding: **May 2018**

Property Division Receipts	Beginning Balance	Interest [+]	Receipts [+]	Adjustments [+(-)]	Net Receipts to Distribution [-]	Ending Balance
Clearing Account	\$ 1,000.00		\$ 1,294,147.57		\$ 1,294,147.57	\$ 1,000.00
Property Division Disbursements						
Property Division Disbursements	Beginning Balance	Interest [+]	Expenditures [-]	Adjustments [+(-)]	Distribution of Net Receipts [+(-)]	Ending Balance
Operating Fund	\$ 1,299,087.69	\$ 2,603.70	\$ 103,989.37		\$ 355,691.30	\$ 1,553,393.32
PD General Fund	\$ 8,425,564.91	\$ 11,011.19				\$ 8,436,576.10
PD Improvement Fund	\$ 115,734.99				\$ 15,833.00	\$ 131,567.99
Jets Major Maintenance	\$ 703,000.00					\$ 703,000.00
Severance Fund	Combined Below					Combined Below
CSWS Improvement Fund	Combined Below					Combined Below
CSWS Tip Fee Stabilization	Combined Below				\$ 922,623.27	Combined Below
Total	\$ 10,543,387.59	\$ 13,614.89	\$ 103,989.37	\$ -	\$ 1,294,147.57	\$ 10,824,537.41
CSWS Division Receipts						
CSWS Division Receipts	Beginning Balance	Interest [+]	Receipts [+]	Adjustments [+(-)]	Net Receipts to Distribution [-]	Ending Balance
Clearing Account	\$ 40,000.00		\$ 3,729,932.70		\$ 3,729,932.70	\$ 40,000.00
CSWS Division Disbursements						
CSWS Division Disbursements	Beginning Balance	Interest [+]	Expenditures [-]	Adjustments [+(-)]	Distribution of Net Receipts [+(-)]	Ending Balance
Operating STIF	\$ 7,385,167.85	\$ 10,245.11	\$ 5,119,720.49		\$ 4,841,980.89	\$ 7,117,673.36
Debt Service Fund	\$ 3,875.01					\$ 3,875.01
General Fund	\$ 1,053.49	\$ 1.35				\$ 1,054.84
CSWS Risk Fund	\$ 857,895.77	\$ 1,121.17				\$ 859,016.94
CSWS Legal Fund	\$ 611,137.98	\$ 798.68				\$ 611,936.66
Severance Fund	Combined Below					Combined Below
CSWS Improvement Fund	Combined Below				\$ 539,266.00	Combined Below
CSWS Tip Fee Stabilization	Combined Below				\$ (1,651,314.19)	Combined Below
Total	\$ 8,859,130.10	\$ 12,166.31	\$ 5,119,720.49	\$ -	\$ 3,729,932.70	\$ 8,593,556.81
Combined						
Severance Fund	\$ 722,634.51	\$ 943.79	\$ 1,500.00		\$ -	\$ 722,078.30
CSWS Improvement Fund	\$ 3,832,179.17				\$ 539,266.00	\$ 4,371,445.17
CSWS Tip Fee Stabilization	\$ 6,420,871.52	\$ 9,019.53			\$ (728,690.92)	\$ 5,701,200.13
Other Division Balances						
Other Division Balances	Beginning Balance	Interest [+]	Receipts [+]	Expenditures [-]	Adjustments [+(-)]	Ending Balance
General Fund Checking	\$ 951,048.62		\$ 3,348,746.58	\$ 3,349,160.46		\$ 950,634.74
Hartford Solar Reserve	\$ 320,298.33	\$ 418.58				\$ 320,716.91
Pollution Insurance Reserve	\$ 180,167.80	\$ 235.45				\$ 180,403.25
Landfill Operating Account	\$ 2,619,236.26			\$ 11,688.09		\$ 2,607,548.17

Mark T. Daley, Chief Financial Officer

Ending balances include the fund transfers represented on this flow of funds as a distribution. Excludes receipt of customer security deposits / guarantees of payment and Mid-Connecticut reserves not subject to disbursement or funding in accordance with adopted flow of funds. In February 2017 the Board approved the transfer of up to \$1,886,564 from the PD General Fund to the CSWS Tip Fee Stabilization Fund, YTD \$1,886,564 has been transferred. YTD the CSWS Operating Fund has been short funded by \$2,284,810.15. At the beginning of January 2018, CSWS received \$8,200,170 in prepaid tip fees from waste haulers. This revenue flowed to the CSWS Operating STIF account and was used to reimburse the Tip Fee Stabilization Fund. As of March 31, 2018, \$1,969,758 in prepaid tip fees have been applied to pay customer invoices and \$6,230,412 remained available on customer accounts. After the distribution of March receipts, \$19,543,506.55 remained due to the Tip Fee Stabilization Fund from CSWS. YTD \$6,772,796.85 has been contributed to the CSWS Tip Fee Stabilization reserve from receipts.

**Materials Innovation and Recycling Authority
 FY 2018 Board of Directors Financial Report
 CSWS Improvement Fund Status**

Narrative

Period Ending: 03/31/18

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	Current Month			Year to Date		
	Budget	Actual	Variance	Budget	Actual	Variance
WASTE PROCESSING FACILITY						
Trommels	\$ -	\$ -	\$ -	\$ 100,000	\$ 65,316	\$ 34,684
Conveyors	\$ 150,000	\$ -	\$ 150,000	\$ 400,000	\$ 31,950	\$ 368,050
MSW / RDF Tip Floor Repairs	\$ -	\$ -	\$ -	\$ 340,000	\$ 63,100	\$ 276,900
Building Repairs	\$ -	\$ -	\$ -	\$ -	\$ (12,640)	\$ 12,640
Roof Repairs	\$ -	\$ -	\$ -	\$ 120,000	\$ 86,000	\$ 34,000
Loaders	\$ 100,000	\$ -	\$ 100,000	\$ 460,000	\$ 59,304	\$ 400,696
Other Rolling Stock	\$ -	\$ -	\$ -	\$ 60,000	\$ 64,172	\$ (4,172)
Site Repairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WPF Sub-total	\$ 250,000	\$ -	\$ 250,000	\$ 1,480,000	\$ 357,202	\$ 1,122,798
POWER BLOCK FACILITY						
Boiler 11	\$ -	\$ 279,890	\$ (279,890)	\$ 300,000	\$ 370,115	\$ (70,115)
Boiler 12	\$ -	\$ -	\$ -	\$ 2,470,000	\$ 2,810,410	\$ (340,410)
Boiler 13	\$ -	\$ 1,599,715	\$ (1,599,715)	\$ 1,126,000	\$ 3,116,263	\$ (1,990,263)
Turbine 6	\$ -	\$ -	\$ -	\$ 2,801,667	\$ 168,713	\$ 2,632,954
Baghouse	\$ -	\$ 278,410	\$ (278,410)	\$ 700,000	\$ 3,274,508	\$ (2,574,508)
Auxiliary Systems	\$ 150,000	\$ -	\$ 150,000	\$ 620,000	\$ 168,718	\$ 451,282
Building Repairs	\$ 200,000	\$ -	\$ 200,000	\$ 200,000	\$ -	\$ 200,000
Roof Repairs	\$ 50,000	\$ -	\$ 50,000	\$ 50,000	\$ 306,604	\$ (256,604)
Site Repairs	\$ -	\$ -	\$ -	\$ 50,000	\$ -	\$ 50,000
Switch Yard / Switchgear	\$ -	\$ -	\$ -	\$ 25,000	\$ -	\$ 25,000
Stack / Common Duct	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ash System / Load Out	\$ -	\$ -	\$ -	\$ 460,000	\$ 97,125	\$ 362,875
PBF Sub-total	\$ 400,000	\$ 2,158,015	\$ (1,758,015)	\$ 8,802,667	\$ 10,312,456	\$ (1,509,789)
TOTAL CSWS IMPROVEMENT FUND	\$ 650,000	\$ 2,158,015	\$ (1,508,015)	\$ 10,282,667	\$ 10,669,658	\$ (386,991)

Materials Innovation and Recycling Authority
FY 2018 Board of Directors Financial Report

DRAFT

Segmented Income Statement

Period Ending: March 31, 2018

	General Fund	Connecticut Solid Waste System	Mid-Connecticut Project	Southeast Project	Property Division	Landfill Division	Eliminations	Total
Operating Revenues								
Service charges:								
Members	\$ -	\$ 18,713	\$ -	\$ -	\$ -			\$ 18,713
Others	-	10,740	-	-	-			10,740
Energy sales	-	11,905	-	-	10,993	102		23,000
Other operating revenues	-	2,327	-	-	384	-		2,711
Total Operating Revenues	-	43,685	-	-	11,377	102	-	55,164
Operating Expenses								
Solid waste operations	-	37,372	2,028	-	964	61	(327)	40,098
Maintenance and utilities	-	508	-	-	84	(20)		572
Legal services - external	-	18	80	-	8	(54)		52
Administrative and Operational services	8	2,885	-	-	521	84		3,498
Total Operating Expenses	8	40,783	2,108	-	1,577	71	(327)	44,220
Operating Income (Loss) before Depreciation and Amortization	(8)	2,902	(2,108)	-	9,800	31	327	10,944
Depreciation and amortization	22	-	-	-	15,180	103	0	15,305
Operating Income (Loss)	(30)	2,902	(2,108)	-	(5,380)	(72)	327	(4,361)
Non-Operating Revenues (Expenses)								
Investment income	-	90	58	-	107	1	-	256
Settlement income (expenses)	-	-	1,474	-	1,960	-	-	3,434
Other income (expenses)	1	-	(3,412)	-	(314)	-	-	(3,725)
Distribution to SCRRA	-	-	-	(656)	-	-	-	(656)
Non-Operating Revenues (Expenses), net	1	90	(1,880)	(656)	1,753	1	-	(691)
Income (Loss) before Transfers	(29)	2,992	(3,988)	(656)	(3,627)	(71)	327	(5,052)
Transfers in (out)	-	(7,912)	(2,439)	(406)	8,466	2,618	(327)	-
Change in Net Position	(29)	(4,920)	(6,427)	(1,062)	4,839	2,547	-	(5,052)
Total Net Position, beginning of period	1,734	12,300	7,983	1,062	84,317	19,205	-	126,601
Total Net Position, end of period	\$ 1,705	\$ 7,380	\$ 1,556	\$ -	\$ 89,156	\$ 21,752	\$ -	\$ 121,549
RECONCILIATION TO VARIANCE REPORT:								
Add: Expenses paid from reserves	-	-	-	-	-	-	-	-
Add: Amortization	22	-	-	-	15,180	103	-	15,305
less: GAAP Exp (Deferred for Budget)	-	-	-	-	-	-	-	-
add: Spare parts and fuel inventory adjustment	-	(281)	-	-	(111)	-	-	(392)
add: Capitalized expenses net of asset disposals	-	-	-	-	235	-	-	235
add: Settlement income	-	-	-	-	(1,960)	-	-	(1,960)
Operating Income (Loss) per Variance report	n/a	2,711	n/a	n/a	9,717	n/a	n/a	12,428

ties with CSWS financials tab

ties with PD financials tab

Note: Monthly variance report produced for General fund, Property Division and CSWS only.

Note: Eliminations and depreciation are preliminary amounts.

THE AUTHORITY - FINANCIAL RESULTS
For the Period Ending March 31, 2018

DETAILS	MONTH TO DATE				YEAR TO DATE			
	Budget	Actual	Variance		Budget	Actual	Variance	
Line EXPENDITURES								
PERSONNEL SERVICES ALLOCATION								
1 Total Personnel Services	\$ 354,529	\$ 316,073	\$ 38,456	10.85%	\$ 3,365,725	\$ 2,992,787	\$ 372,938	11.08%
2 LESS: MIRA Direct Personnel	\$ 146,736	\$ 140,819	\$ 5,917	4.03%	\$ 1,393,042	\$ 1,303,487	\$ 89,555	6.43%
AUTHORITY BUDGET								
3 Authority Indirect Personnel	\$ 207,793	\$ 175,254	\$ 32,539	15.66%	\$ 1,972,683	\$ 1,689,300	\$ 283,383	14.37%
4 ADD: Authority Indirect Non-Personnel Services	\$ 71,437	\$ 33,111	\$ 38,326	53.65%	\$ 678,183	\$ 516,352	\$ 161,831	23.86%
5 LESS: Miscellaneous Income	\$ -	\$ 2,583	\$ (2,583)	0.00%	\$ -	\$ 14,757	\$ (14,757)	0.00%
SUBTOTAL AUTHORITY BUDGET	\$ 279,229	\$ 205,782	\$ 68,281	24.45%	\$ 2,650,866	\$ 2,190,895	\$ 459,972	17.35%
TOTAL ALLOCATION								
6 Property Division	\$ 62,314	\$ 51,409	\$ 10,905	17.50%	\$ 591,579	\$ 520,767	\$ 70,812	11.97%
7 Landfill Division	\$ 10,359	\$ 8,629	\$ 1,730	16.70%	\$ 98,347	\$ 88,141	\$ 10,206	10.38%
8 Connecticut Solid Waste System (CSWS)	\$ 353,292	\$ 286,563	\$ 66,729	18.89%	\$ 3,353,981	\$ 2,885,474	\$ 468,507	13.97%
SUBTOTAL ALLOCATED	\$ 425,966	\$ 346,601	\$ 79,365	18.63%	\$ 4,043,908	\$ 3,494,382	\$ 549,526	13.59%

Line YTD VARIANCE EXPLANATION

- 1 Reflects total amount for MIRA Direct and Authority Indirect Personnel; Favorable due to reduction in budgeted positions and timing of benefit expenses.
- 2 Favorable due to one employee not receiving benefits and one unfilled position.
- 3 Favorable due to reduction in budgeted positions and timing of benefit expenses.
- 4 Favorable due to lower than budgeted IT consulting and legal fees and timing of IT maintenance costs, computer hardware/software, and auditor fees; offset by higher than budgeted temp services and other consulting services.
- 8 Favorable due to lower than budgeted direct and indirect labor & overhead allocation.

MIRA - Budgeted PBF Outage Schedule FY 2018-2019

July-18						
SUN	MON	TUE	WED	THURS	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

August-18						
SUN	MON	TUE	WED	THURS	FRI	SAT
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

September-18						
SUN	MON	TUE	WED	THURS	FRI	SAT
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

October-18						
SUN	MON	TUE	WED	THURS	FRI	SAT
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

November-18						
SUN	MON	TUE	WED	THURS	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

December-18						
SUN	MON	TUE	WED	THURS	FRI	SAT
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

January-19						
SUN	MON	TUE	WED	THURS	FRI	SAT
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

February-19						
SUN	MON	TUE	WED	THURS	FRI	SAT
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

March-19						
SUN	MON	TUE	WED	THURS	FRI	SAT
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

April-19						
SUN	MON	TUE	WED	THURS	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

May-19						
SUN	MON	TUE	WED	THURS	FRI	SAT
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

June-19						
SUN	MON	TUE	WED	THURS	FRI	SAT
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Color key

11	12	13	5	6	Stack Testing
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Materials Innovation and Recycling Authority
FY 2019 CSWS Budget Spread
Boiler and Turbine Budgeted Availability
(Page 1 of 2)

Total Annual Boiler Days	1,095.0
Less Scheduled Outage Days (see below)	86.0
Equals Scheduled Operating Days	1,009.0
Scheduled Operating Days (As % of Total)	92.1%
Less Budget Availability (From Budget Model)	78.6%
Equals Unscheduled Outage Percentage	13.5%
Times Total Boiler Days	1,095.0
Equals Unscheduled Outage Days	148.1

		Scheduled Outage Days						Total All Units	Boiler Unplanned
		Boilers				Turbines			
Month	Days	11	12	13	Total	5	6		
July	31			3	3			6	12.3
August	31	3	3		6			12	12.3
September	30			1	1		1	3	12.3
October	31	4	14	13	31		31	93	12.3
November	30	3	3		6		3	15	12.3
December	31			3	3			6	12.3
January	31	3	3		6			12	12.3
February	28				0			0	12.3
March	31	7		3	10			20	12.3
April	30	8	3		11			22	12.3
May	31			3	3			6	12.3
June	30	3	3		6			12	12.3
Total	365	31	29	26	86	0	35	207	148.1

Boilers	Hours	Boiler Hours	Scheduled Outage Hours			Unplanned Outage Hours	Total Outage Budget	Total Available	Availability Budget
			Boiler 11	Boiler 12	Boiler 13				
July	744	2,232	-	-	72	296.2	368.2	1,863.8	83.5%
August	744	2,232	72	72	-	296.2	440.2	1,791.8	80.3%
September	720	2,160	-	-	24	296.2	320.2	1,839.8	85.2%
October	744	2,232	96	336	312	296.2	1,040.2	1,191.8	53.4%
November	720	2,160	72	72	-	296.2	440.2	1,719.8	79.6%
December	744	2,232	-	-	72	296.2	368.2	1,863.8	83.5%
January	744	2,232	72	72	-	296.2	440.2	1,791.8	80.3%
February	672	2,016	-	-	-	296.2	296.2	1,719.8	85.3%
March	744	2,232	168	-	72	296.2	536.2	1,695.8	76.0%
April	720	2,160	192	72	-	296.2	560.2	1,599.8	74.1%
May	744	2,232	-	-	72	296.2	368.2	1,863.8	83.5%
June	720	2,160	72	72	-	296.2	440.2	1,719.8	79.6%
Total	8,760	26,280	744	696	624	3,554.7	5,618.7	20,661.3	78.6%

Materials Innovation and Recycling Authority
FY 2019 CSWS Budget Spread
Boiler and Turbine Budgeted Availability
(Page 2 of 2)

Turbines	Hours	Turbine Hours	Scheduled Outage Hours		Total Outage Budget	Total Available	Availability Budget
			T5	T6			
July	744	1,488	-	-	-	1,488.0	100.0%
August	744	1,488	-	-	-	1,488.0	100.0%
September	720	1,440	-	24.0	24.0	1,416.0	98.3%
October	744	1,488	-	744.0	744.0	744.0	50.0%
November	720	1,440	-	72.0	72.0	1,368.0	95.0%
December	744	1,488	-	-	-	1,488.0	100.0%
January	744	1,488	-	-	-	1,488.0	100.0%
February	672	1,344	-	-	-	1,344.0	100.0%
March	744	1,488	-	-	-	1,488.0	100.0%
April	720	1,440	-	-	-	1,440.0	100.0%
May	744	1,488	-	-	-	1,488.0	100.0%
June	720	1,440	-	-	-	1,440.0	100.0%
Total	8,760	17,520	-	840.0	840.0	16,680.0	95.2%

June 30, 2019

CSWS Monthly Spread

Budget

REVENUES	Jul 18	Aug 18	Sep 18	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	YTD
Service Charges Solid Waste-Participating Towns	\$ 2,287,918	\$ 2,365,383	\$ 2,249,821	\$ 2,241,304	\$ 2,296,705	\$ 2,231,129	\$ 2,109,027	\$ 1,913,614	\$ 2,176,874	\$ 2,132,438	\$ 2,369,778	\$ 2,489,088	\$ 26,863,080
Service Charges Solid Waste- Other Contract	\$ 316,588	\$ 160,590	\$ 394,852	\$ -	\$ 227,131	\$ 360,780	\$ 399,249	\$ 549,937	\$ 196,632	\$ 210,421	\$ 220,325	\$ 50,497	\$ 3,087,000
Service Charges Solid Waste-Hauler Contract	\$ 1,076,531	\$ 1,105,570	\$ 1,058,541	\$ 1,050,310	\$ 1,068,388	\$ 1,065,085	\$ 1,006,021	\$ 934,252	\$ 1,067,163	\$ 1,033,978	\$ 1,136,976	\$ 1,162,186	\$ 12,765,000
Service Charges Solid Waste - Spot	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 145,800	\$ -	\$ -	\$ -	\$ -	\$ 145,800
Other Operating Charges	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Member Service Fee	\$ 3,330	\$ 3,430	\$ 3,255	\$ 3,125	\$ 3,760	\$ 3,581	\$ 3,330	\$ 3,021	\$ 3,470	\$ 3,515	\$ 3,946	\$ 4,236	\$ 42,000
Metal Sales & Excess Ferrous Residue	\$ 70,119	\$ 69,804	\$ 70,326	\$ 67,181	\$ 69,783	\$ 70,119	\$ 69,804	\$ 70,434	\$ 69,385	\$ 69,241	\$ 70,119	\$ 69,783	\$ 836,100
Municipal Bulky Waste & Mattresses/Box Spring Recycling Facility	\$ 9,485	\$ 9,250	\$ 9,649	\$ 8,289	\$ 9,207	\$ 9,470	\$ 9,166	\$ 9,688	\$ 8,849	\$ 8,714	\$ 9,521	\$ 9,212	\$ 110,500
Electricity-Kwh Sold	\$ 94,968	\$ 95,473	\$ 102,861	\$ 107,328	\$ 110,649	\$ 119,814	\$ 105,835	\$ 108,423	\$ 84,573	\$ 100,140	\$ 94,254	\$ 109,222	\$ 1,233,538
Electricity-Capacity Payment & Energy Credits	\$ 918,772	\$ 859,743	\$ 868,793	\$ 589,558	\$ 864,964	\$ 1,010,649	\$ 1,142,868	\$ 1,195,566	\$ 905,806	\$ 833,276	\$ 853,828	\$ 836,177	\$ 10,880,000
Electricity-Capacity Payment & Energy Credits	\$ 748,109	\$ 736,916	\$ 755,447	\$ 660,116	\$ 752,646	\$ 764,586	\$ 753,393	\$ 775,779	\$ 738,468	\$ 733,369	\$ 764,586	\$ 639,466	\$ 8,822,881
Misc. (Interest, Fees, Other)	\$ 1,333	\$ 1,333	\$ 1,333	\$ 1,333	\$ 1,333	\$ 1,333	\$ 1,333	\$ 1,333	\$ 1,333	\$ 1,333	\$ 1,333	\$ 1,337	\$ 16,000
TOTAL ACCRUED REVENUES	\$ 5,527,152	\$ 5,407,493	\$ 5,514,878	\$ 4,728,544	\$ 5,404,566	\$ 5,636,546	\$ 5,600,027	\$ 5,707,847	\$ 5,252,552	\$ 5,126,424	\$ 5,524,666	\$ 5,371,204	\$ 64,801,899
EXPENDITURES													
Administrative Expenses	\$ 198,403	\$ 198,403	\$ 198,403	\$ 198,403	\$ 284,413	\$ 236,659	\$ 214,761	\$ 202,097	\$ 208,429	\$ 202,097	\$ 287,843	\$ 208,428	\$ 2,638,339
Operational Expenses	\$ 303,032	\$ 303,032	\$ 303,032	\$ 303,032	\$ 369,452	\$ 303,032	\$ 356,915	\$ 303,032	\$ 303,032	\$ 303,032	\$ 369,452	\$ 303,028	\$ 3,823,103
Assessment, Fees, Subsidies, and PILOTS	\$ 232,320	\$ 214,188	\$ 218,195	\$ 194,921	\$ 213,776	\$ 217,109	\$ 213,654	\$ 216,726	\$ 209,355	\$ 209,469	\$ 217,062	\$ 215,290	\$ 2,572,063
Waste Transport	\$ 1,131,900	\$ 1,094,106	\$ 1,156,622	\$ 1,437,700	\$ 1,091,646	\$ 1,131,900	\$ 1,094,106	\$ 1,169,566	\$ 1,043,885	\$ 1,026,670	\$ 1,131,900	\$ 1,091,387	\$ 13,601,388
Recycling Facility	\$ 55,309	\$ 55,309	\$ 55,309	\$ 55,309	\$ 55,309	\$ 55,309	\$ 55,309	\$ 55,309	\$ 55,309	\$ 55,309	\$ 55,309	\$ 55,303	\$ 663,702
Murphy Road Operations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
MIRA Facilities Operating Exp.	\$ 80,031	\$ 80,031	\$ 80,031	\$ 80,031	\$ 80,031	\$ 80,031	\$ 80,031	\$ 80,031	\$ 80,031	\$ 80,031	\$ 80,031	\$ 470,751	\$ 1,351,092
NAES Contract Operating Charges	\$ 2,280,081	\$ 2,264,716	\$ 2,294,259	\$ 3,465,223	\$ 3,283,456	\$ 2,198,925	\$ 2,289,500	\$ 2,119,632	\$ 2,224,007	\$ 3,297,729	\$ 2,188,806	\$ 2,231,029	\$ 30,137,363
NAES On-Site Incentive Comp.	\$ 79,054	\$ 79,054	\$ 79,054	\$ 79,054	\$ 79,054	\$ 79,054	\$ 79,054	\$ 79,054	\$ 79,054	\$ 79,054	\$ 79,054	\$ 79,061	\$ 948,655
NAES Management Fees	\$ 102,602	\$ 102,602	\$ 102,602	\$ 102,602	\$ 102,602	\$ 102,602	\$ 102,602	\$ 102,602	\$ 102,602	\$ 102,602	\$ 102,602	\$ 102,604	\$ 1,231,226
Transfer Station - Ellington	\$ 1,075	\$ 1,075	\$ 1,075	\$ 1,075	\$ 1,075	\$ 1,075	\$ 1,075	\$ 1,075	\$ 1,075	\$ 1,075	\$ 1,075	\$ 1,075	\$ 12,900
Transfer Station - Essex	\$ 47,171	\$ 47,171	\$ 47,171	\$ 47,171	\$ 47,171	\$ 47,171	\$ 47,171	\$ 47,171	\$ 47,171	\$ 47,171	\$ 47,171	\$ 47,169	\$ 566,050
Transfer Station - Torrington	\$ 45,546	\$ 45,546	\$ 45,546	\$ 45,546	\$ 45,546	\$ 45,546	\$ 45,546	\$ 45,546	\$ 45,546	\$ 45,546	\$ 45,546	\$ 45,544	\$ 546,550
Transfer Station - Watertown	\$ 47,282	\$ 47,282	\$ 47,282	\$ 47,282	\$ 47,282	\$ 47,282	\$ 47,282	\$ 47,282	\$ 47,282	\$ 47,282	\$ 47,282	\$ 47,298	\$ 567,400
TOTAL ACCRUED EXPENDITURES	\$ 4,603,806	\$ 4,532,515	\$ 4,628,581	\$ 6,057,349	\$ 5,700,813	\$ 4,545,695	\$ 4,627,006	\$ 4,469,123	\$ 4,446,778	\$ 5,497,067	\$ 4,653,133	\$ 4,897,967	\$ 58,659,832
Cash Flow Adjustment	\$ (250,000)	\$ (250,000)	\$ (250,000)	\$ (250,000)	\$ (250,000)	\$ (250,000)	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ -
Total Operating Expense Budget	\$ 4,353,806	\$ 4,282,515	\$ 4,378,581	\$ 5,807,349	\$ 5,450,813	\$ 4,295,695	\$ 4,877,006	\$ 4,719,123	\$ 4,696,778	\$ 5,747,067	\$ 4,903,133	\$ 5,147,967	\$ 58,659,832
OPERATING INCOME (Before Fund Transfers / Reserve Contributions)	\$ 923,347	\$ 874,978	\$ 886,298	\$ (1,328,805)	\$ (296,247)	\$ 1,090,852	\$ 973,021	\$ 1,238,725	\$ 805,774	\$ (370,642)	\$ 871,533	\$ 473,237	\$ 6,142,068
DISTRIBUTION OF CSWS OPERATING INCOME													
Debt Service Fund													\$ -
Contribution to CSWS Improvement Fund	\$ 2,000,000	\$ 1,000,000	\$ 1,000,000	\$ 3,000,000	\$ 1,000,000	\$ 1,000,000	\$ 798,000	\$ 798,000	\$ 798,000	\$ 798,000	\$ 798,000	\$ 797,300	\$ 13,787,300
Contribution to CSWS Risk Fund Reserve													\$ -
Contribution to Legal Reserve													\$ -
Contribution to Severance Reserve													\$ -
TOTAL DISTRIBUTION OF CSWS INCOME	\$ 2,000,000	\$ 1,000,000	\$ 1,000,000	\$ 3,000,000	\$ 1,000,000	\$ 1,000,000	\$ 798,000	\$ 798,000	\$ 798,000	\$ 798,000	\$ 798,000	\$ 797,300	\$ 13,787,300
BALANCE (To/From General Fund & Tip Fee Stabilization)	\$ (826,653)	\$ 124,978	\$ 136,298	\$ (4,078,805)	\$ (1,046,247)	\$ 340,852	\$ (74,979)	\$ 190,725	\$ (242,226)	\$ (1,418,642)	\$ (176,467)	\$ (574,063)	\$ (7,645,232)

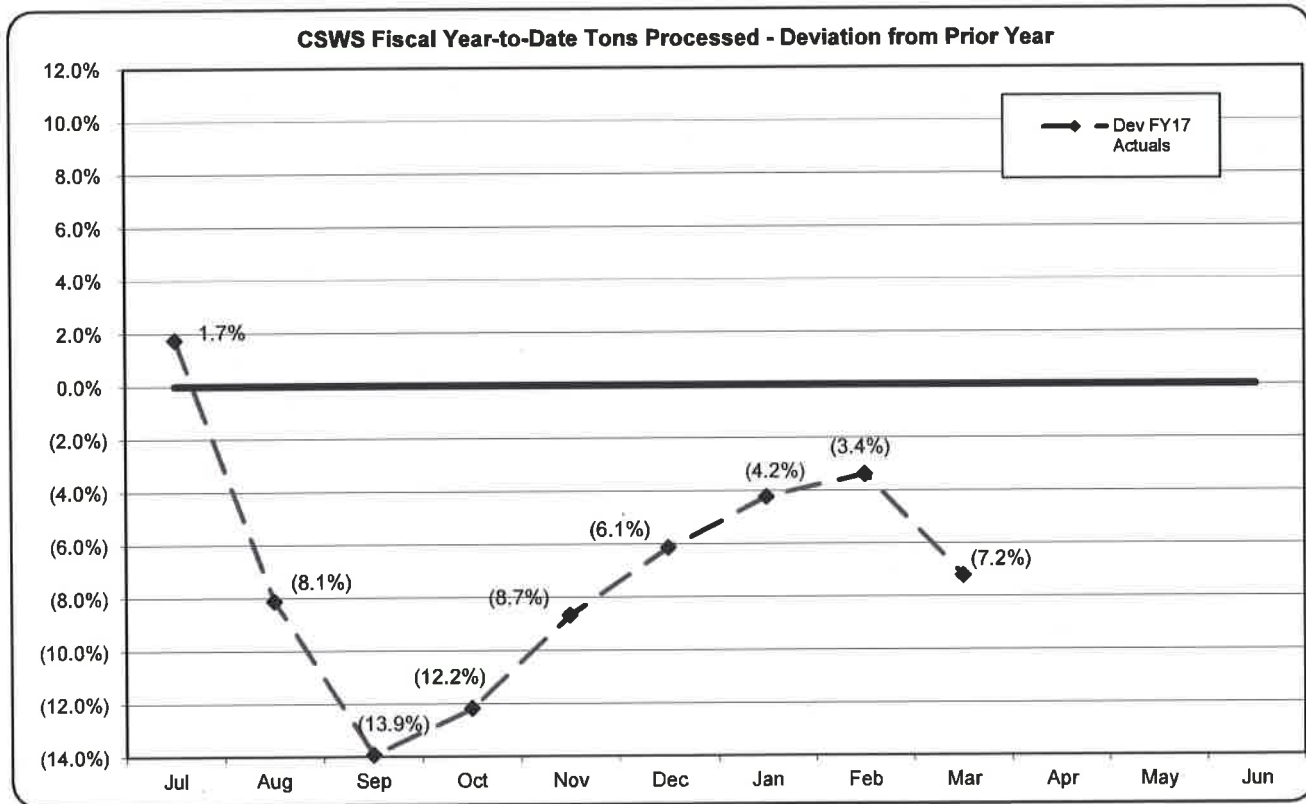
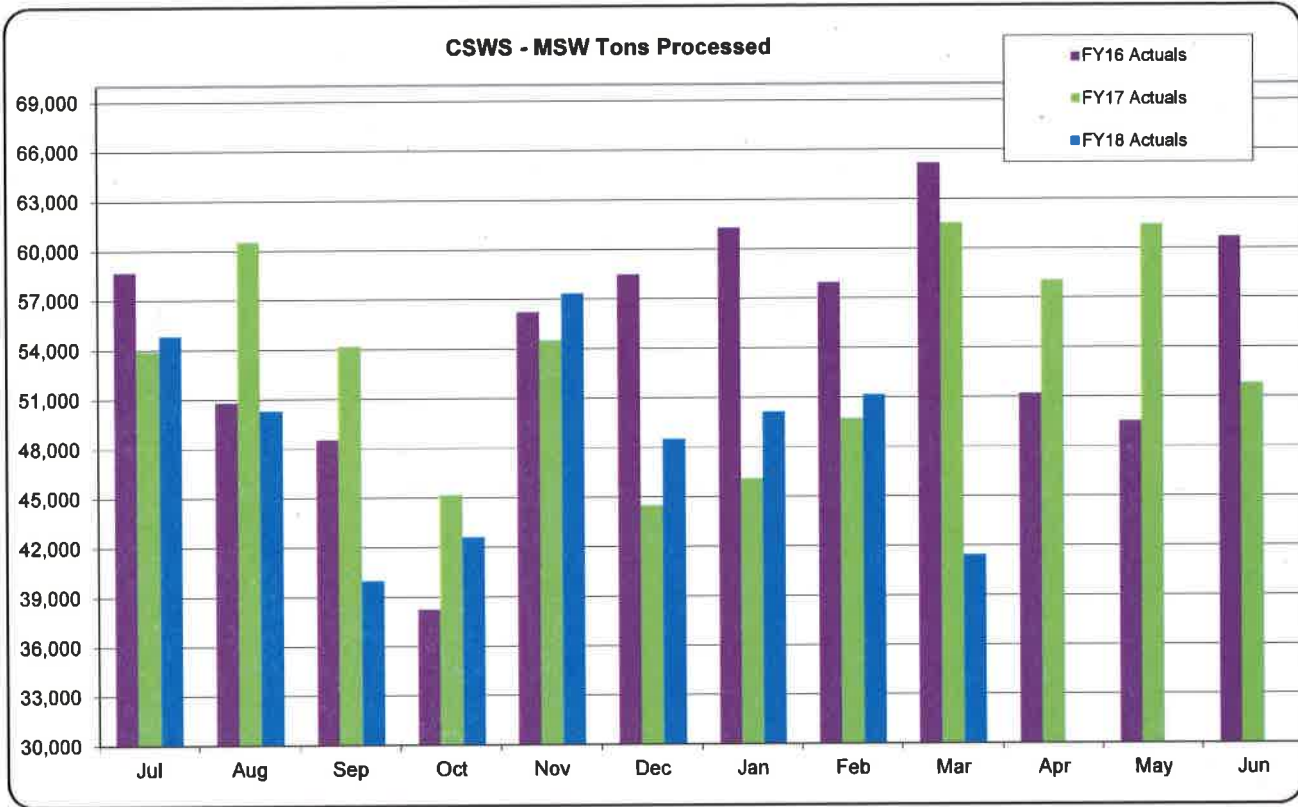
TAB B

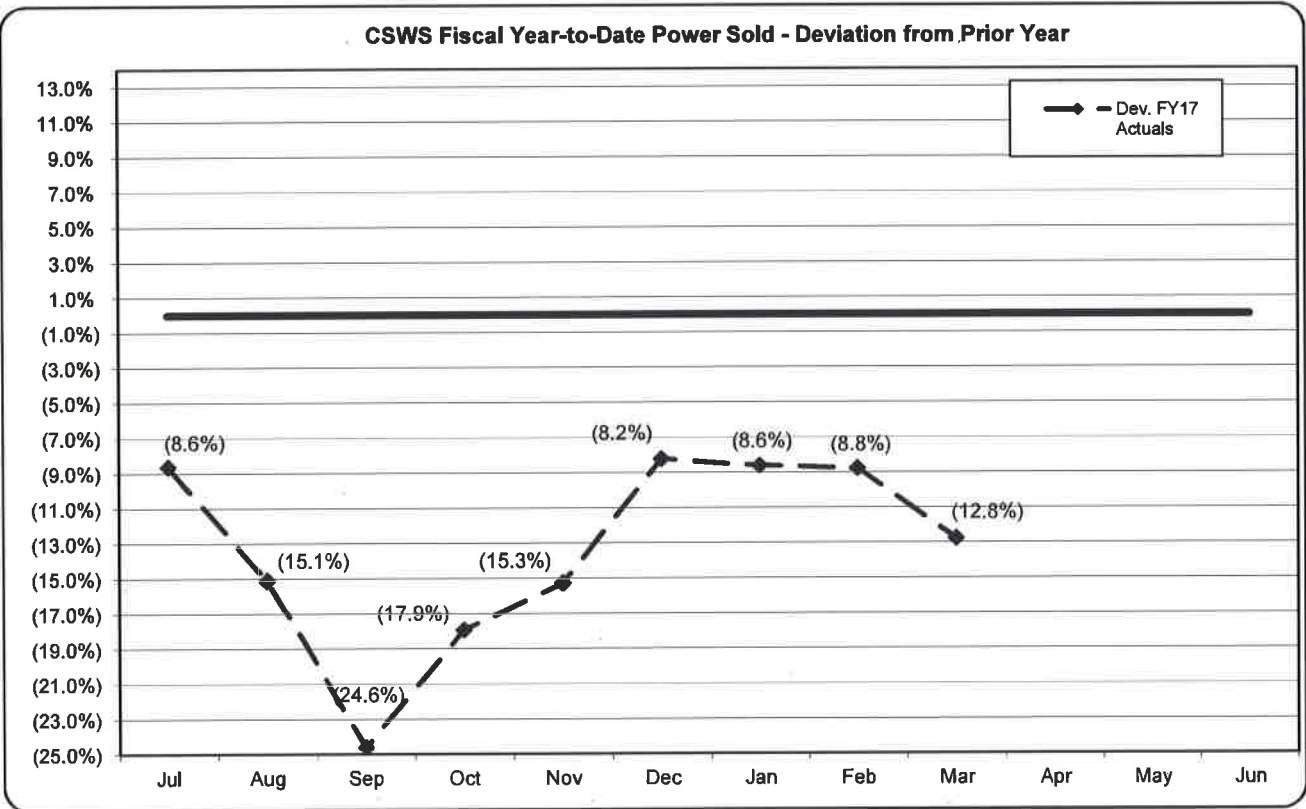
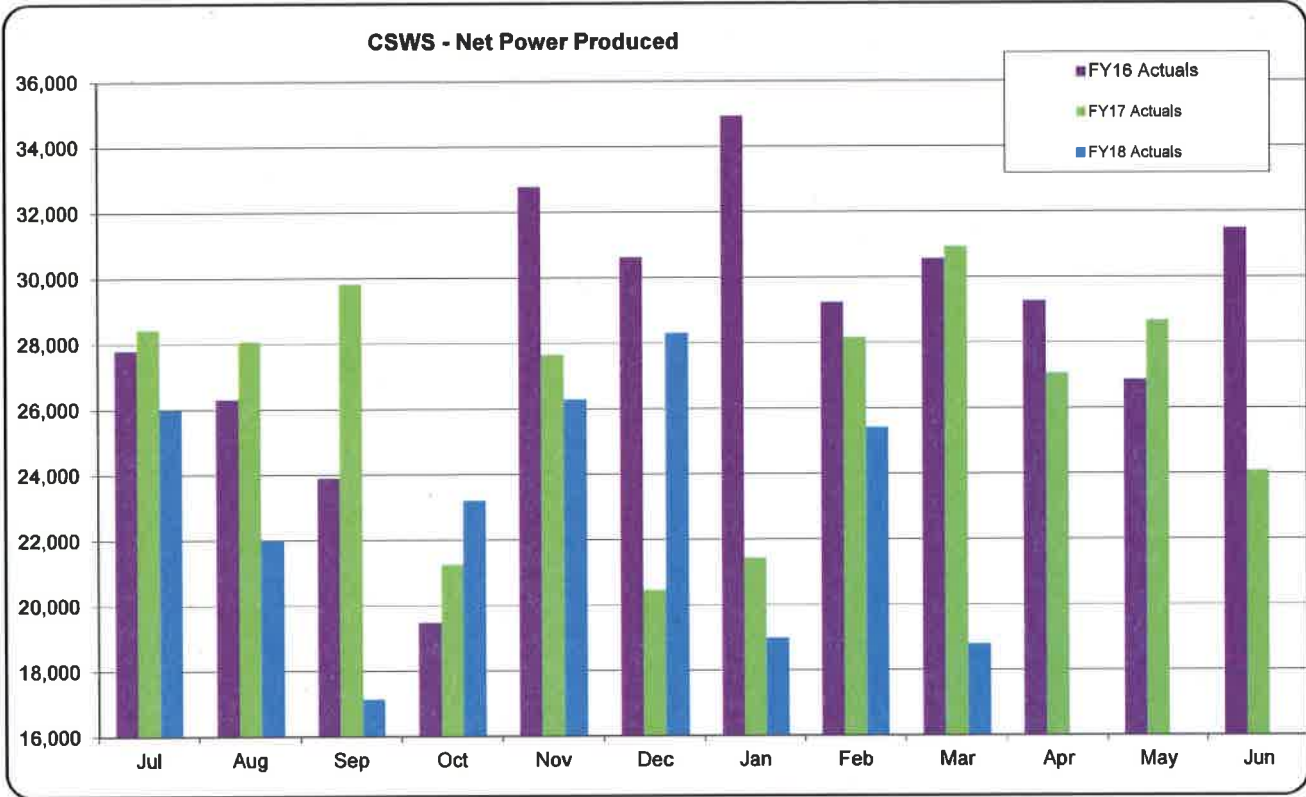
MATERIALS INNOVATION AND RECYCLING AUTHORITY
Monthly Operational Summary
March-18

This report provides information on the operations of the CSWS waste-to energy plant along with the South Meadows

Project/ Item	Fiscal Year			Fiscal Year-To-Date			Monthly		
	2016	2017	Change	2017	2018	Change	Mar 17	Mar 18	Change
CSWS									
Tons MSW Processed	656,915	641,541	(2.3%)	470,183	436,324	(7.2%)	61,555	41,431	(32.7%)
Steam (klbs)	4,324,840	4,082,029	(5.6%)	3,079,606	2,561,515	(16.8%)	381,714	224,589	(41.2%)
(% MCR)	71.2%	67.2%		67.6%	56.2%		74.0%	43.6%	
Power (Net MWhr)	343,284	316,092	(7.9%)	236,268	206,130	(12.8%)	30,936	18,798	(39.2%)

South Meadow Jets									
Net MWH	1,635	1,298	(20.6%)	1,114	1,261	13.3%	0	158	-





CSWS Waste to Energy Plant Monthly Operational Summary

Unit Capacity Factors

Month	Boiler 11	Boiler 12	Boiler 13
Jul 17	70%	68%	56%
Aug 17	77%	39%	56%
Sep 17	74%	17%	48%
Oct 17	71%	42%	55%
Nov 17	73%	83%	35%
Dec 17	79%	64%	52%
Jan 18	60%	39%	43%
Feb 18	69%	70%	49%
Mar 18	68%	39%	24%

Unscheduled Downtime

Date Began	Date Ended	Boiler	Duration (Hrs.)	Reason
07/26/17	07/27/17	11	40.90	Derailed Grate
07/31/17	07/31/17	11	24.00	Tube Bank Leaks / Waterwall Leak
07/12/17	07/16/17	12	108.10	Offline due to High Baghouse delta P and low load
07/24/17	07/27/17	13	73.00	Scrubber outlet duct plugged
08/01/17	08/02/17	11	28.90	Tube Bank Leaks / Waterwall Leak
08/03/17	08/04/17	11	13.10	Failed SSC Hydraulic Drive Motor
08/03/17	08/03/17	12	14.00	Derailed SSC / High Baghouse Delta P
08/04/17	08/08/17	12	97.10	PSH & SSH Leaks / High Baghouse Delta P
08/19/17	08/19/17	12	11.00	Derailed SSC
08/20/17	08/21/17	12	47.50	Derailed SSC / Major Tube Leak by CSU & PSH/SSH
08/02/17	08/02/17	13	1.50	High Baghouse Delta P
08/04/17	08/01/17	13	0.10	High Baghouse Delta P
08/09/17	08/12/17	13	80.80	PSH & SSH Leaks / Restricted Baghouse
08/24/17	08/26/17	13	54.10	Tube Leaks
08/29/17	08/31/17	12	62.90	Tube Leaks
08/29/17	08/31/17	13	72.00	High Baghouse Delta P / Multiple Hoses in Air Duct
09/11/17	09/11/17	11	9.80	Loss of RDF from Motor Breaker Issue
09/01/17	09/05/17	12	113.80	PSH & SSH Leaks
09/14/17	09/19/17	12	146.40	High Baghouse Delta P & Tube Leaks
09/01/17	09/02/17	13	44.90	High Baghouse Delta P & Holes in Air Duct
09/11/17	09/11/17	13	14.80	Loss of RDF from Motor Breaker Issue
09/12/17	09/16/17	13	106.10	PSH & SSH Leaks / Restricted Baghouse
09/25/17	09/26/17	13	2.90	High Baghouse Delta P / Single RDF Train Operation
09/27/17	09/30/17	13	85.80	PSH & SSH Leaks / High Baghouse Delta P
10/04/17	10/06/17	11	55.60	Waterwall Leaks
10/17/17	10/19/17	11	59.90	Waterwall Tube Leaks
10/22/17	10/22/17	12	0.30	RDF Vibrating Pan Plugs/Augers
10/02/17	10/02/17	13	0.10	PSH & SSH Leaks / High Baghouse Delta P
10/06/17	10/11/17	13	112.00	PSH & SSH Leaks
10/23/17	10/28/17	13	122.10	Waterwall Leaks / PSH & SSH Leaks
10/31/17	10/31/17	13	24.00	Waterwall Leaks / PSH & SSH Leaks
11/29/17	11/29/17	11	0.30	Various RDF Feed Issues
11/30/17	11/30/17	11	24.00	Ash Transfer Conveyor Replacement & Waterwall Leaks
11/01/17	11/02/17	13	48.00	Tube Leaks / PSH & SSH Leaks
11/03/17	11/03/17	13	17.10	Condenser Tube Leak

Unscheduled Downtime

Continue

Date Began	Date Ended	Boiler	Duration (Hrs.)	Reason
11/05/17	11/05/17	13	1.70	RDF Vibrating Pan Plugs/ Condenser Tube Leak
11/10/17	11/14/17	13	105.50	Tube Leaks / PSH & SSH Leaks
11/20/17	11/22/17	13	50.80	Tube Leaks / PSH & SSH Leaks
11/25/17	11/30/17	13	135.90	Tube Leaks / PSH & SSH Leaks (Major Outage)
12/01/17	12/01/17	11	12.90	Conveyor Replacement / Waterwall Tube Leaks
12/13/17	12/13/17	11	0.70	Waterwall Tube Leaks
12/14/17	12/16/17	11	53.90	Waterwall Tube Leaks / Generator Bank Tube Leaks
12/06/17	12/09/17	12	66.80	Derailed SSC & Waterwall Tube Leaks
12/28/17	12/30/17	12	69.00	Cleanout of Baghouse inlet Ducts & Hopper / WW Tube Leaks
12/01/17	12/09/17	13	216.00	Waterwall Tube Leaks / PSH & SSH Leaks
12/10/17	12/10/17	13	1.10	High Baghouse Delta P / Airflow Restrictions
12/18/17	12/22/17	13	82.80	Plugged Baghouse inlet Ducts & Hoppers / Waterwall Tube Leaks
01/11/18	01/11/18	11	2.10	RDF Feed Issue
01/12/18	01/12/18	11	0.10	RDF Vibrating Pan Plugs
01/16/18	01/23/18	11	176.80	Furnace Waterwall & Generation Bank Tube Leaks
01/09/18	01/21/18	12	288.10	Plugged Baghouse inlet Ducts & Hoppers
01/26/18	01/28/18	12	46.20	High Baghouse delta P
01/06/18	01/12/18	13	147.50	Plugged Baghouse inlet Ducts & Hoppers
01/24/18	01/29/18	13	132.70	High Baghouse delta P
02/08/18	02/12/18	13	113.40	Uncontrolled Stack Opacity
02/20/18	02/23/18	13	76.00	PSH & SSH Leaks / High Baghouse Delta P
02/26/18	02/28/18	13	54.80	PSH & SSH Leaks
03/26/18	03/30/18	11	107.20	Cold Iron Outage - BLR#12 Main Steam non-return valve
03/01/18	03/02/18	12	23.00	Derailed SSC
03/09/18	03/12/18	12	40.00	RDF Fuel Interruption - UPS Panel Fire at WPF
03/16/18	03/20/18	12	82.20	High Baghouse Delta P
03/22/18	03/23/18	12	25.10	Derailed SSC
03/24/18	03/25/18	12	33.90	Tube Leaks
03/26/18	03/30/18	12	113.40	Cold Iron Outage - BLR#12 Main Steam non-return valve
03/26/18	03/30/18	13	105.20	Cold Iron Outage - BLR#12 Main Steam non-return valve

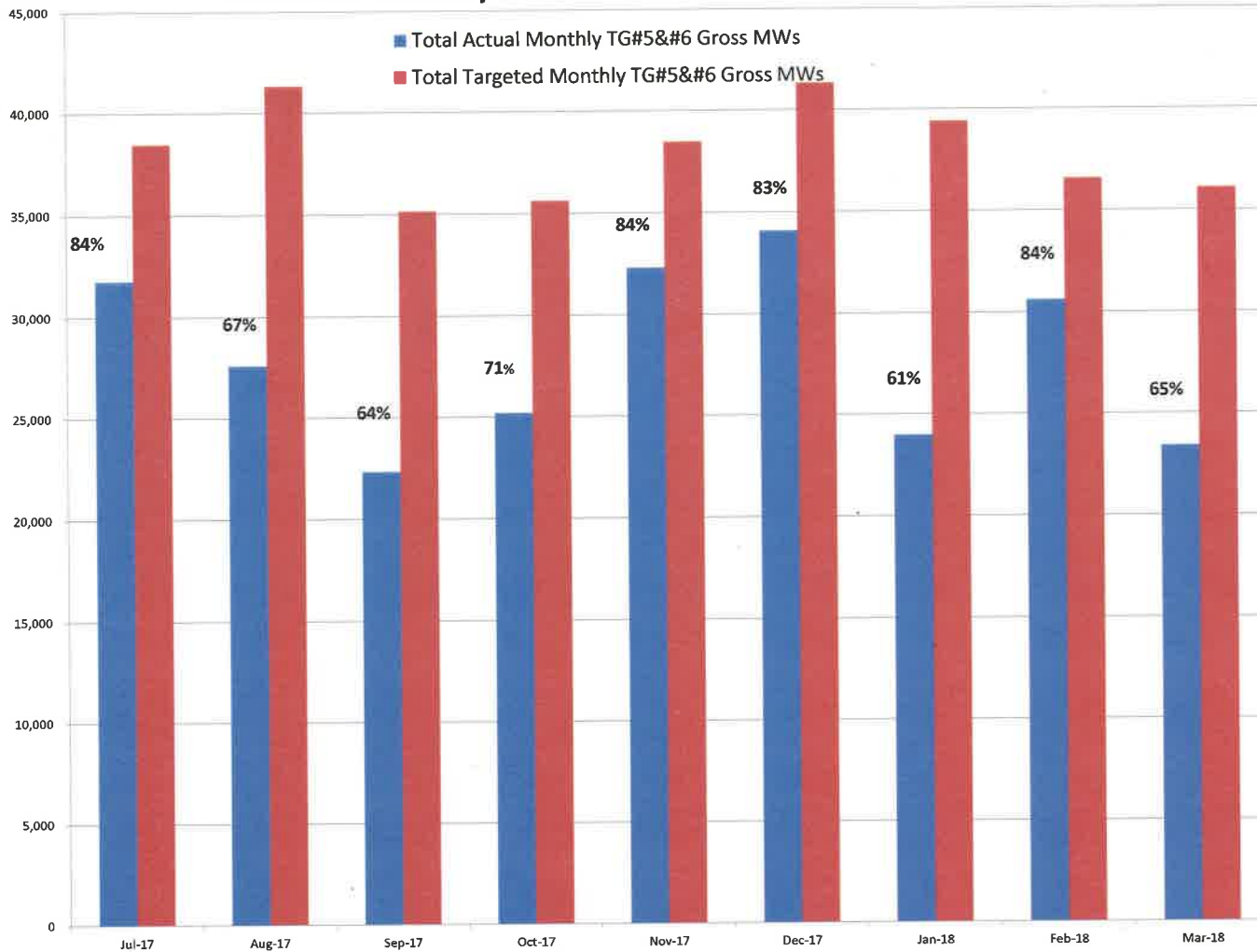
Scheduled Downtime

Date Began	Date Ended	Boiler	Duration (Hrs.)	Work Performed
07/10/17	07/13/17	11	73.80	Scheduled Cleaning Outage
07/18/17	07/23/17	13	108.90	Scheduled Cleaning Outage (early) w/broken grate
08/22/17	08/26/17	12	107.10	Scheduled Cleaning Outage (early) Tube Leaks
09/05/17	09/08/17	11	86.70	Scheduled Cleaning Outage (early) Tube Leaks
09/20/17	09/30/17	12	253.30	Scheduled Cleaning Outage (early) Tube Leaks
10/01/17	10/17/17	12	387.20	Scheduled Cleaning Outage
11/06/17	11/10/17	11	99.80	Scheduled Cleaning Outage
02/26/18	02/28/18	11	72.00	Scheduled Cleaning Outage
03/01/18	03/03/18	11	60.00	Scheduled Cleaning Outage
03/03/18	03/21/18	13	437.70	Scheduled Major Outage (early) w/Thrust Collar Issues

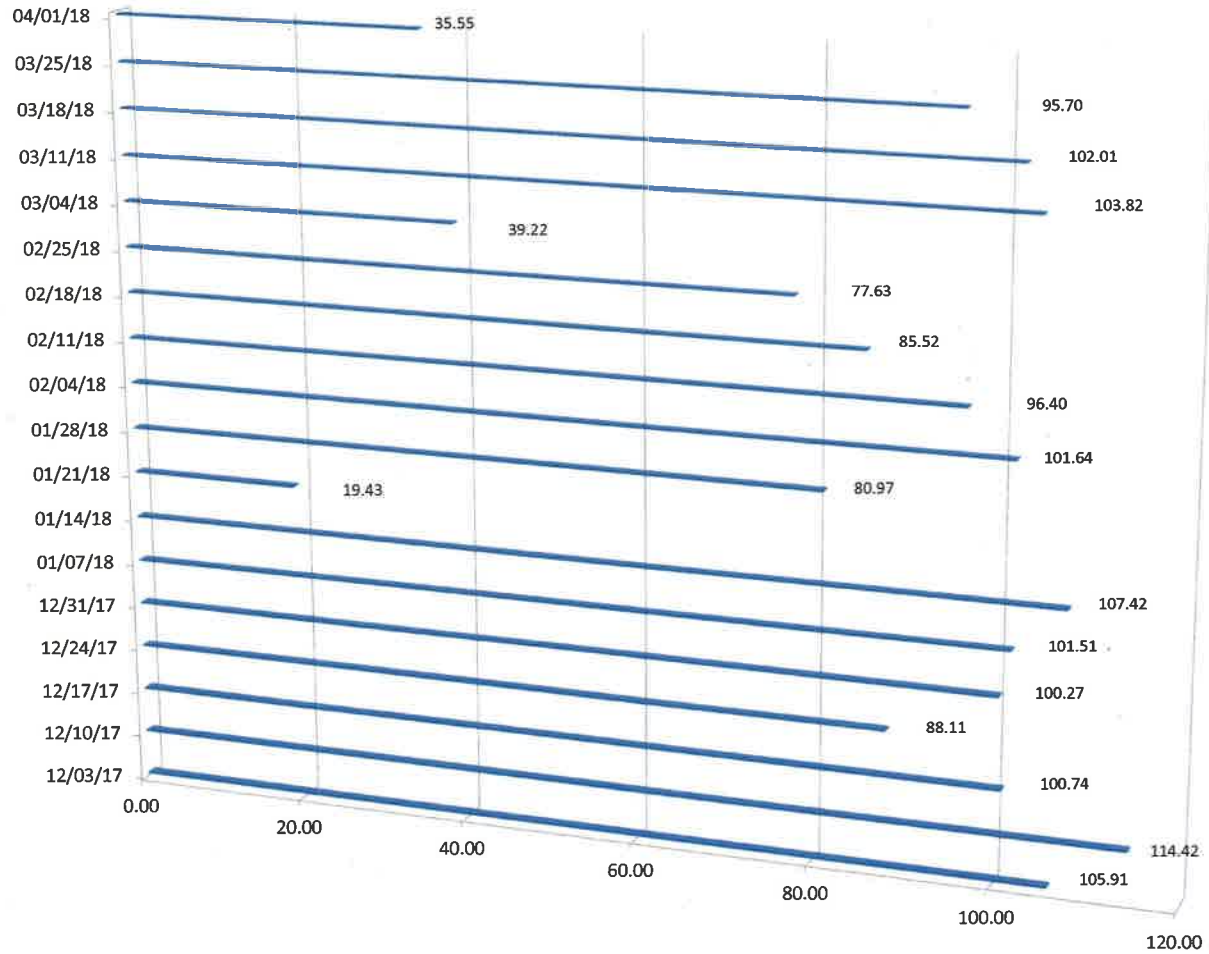
SOUTH MEADOWS JETS
Monthly Operational Summary

Date	Net Generation (MWH)	Comment
07/11/17	54.27	Summer SCCA Testing
07/14/17	4.24	DC Lube Oil Pump Test
07/25/17	4.84	Fuel Repair Test
08/01/17	41.21	ISO-NE Dispatch
08/01/17	1.10	ISO-NE Dispatch
08/03/17	6.12	Diagnose Vibration Test
08/04/17	50.07	Summer SCCA Testing
08/04/17	54.15	Summer SCCA Testing
08/11/17	47.09	ISO-NE Dispatch
09/12/17	100.61	ISO-NE OP23 Testing
10/03/17	44.89	ISO-NE Dispatch
10/12/17	50.66	ISO-NE Dispatch
10/17/17	276.88	ISO-NE Dispatch
10/18/17	2.94	ISO-NE Dispatch
10/22/17	44.86	ISO-NE Dispatch
10/27/17	175.29	Stack Testing
12/18/17	3.02	Transformer Testing
01/18/18	93.91	ISO-NE Dispatch
02/19/18	47.25	ISO-NE Dispatch
03/14/18	157.72	ISO-NE Dispatch

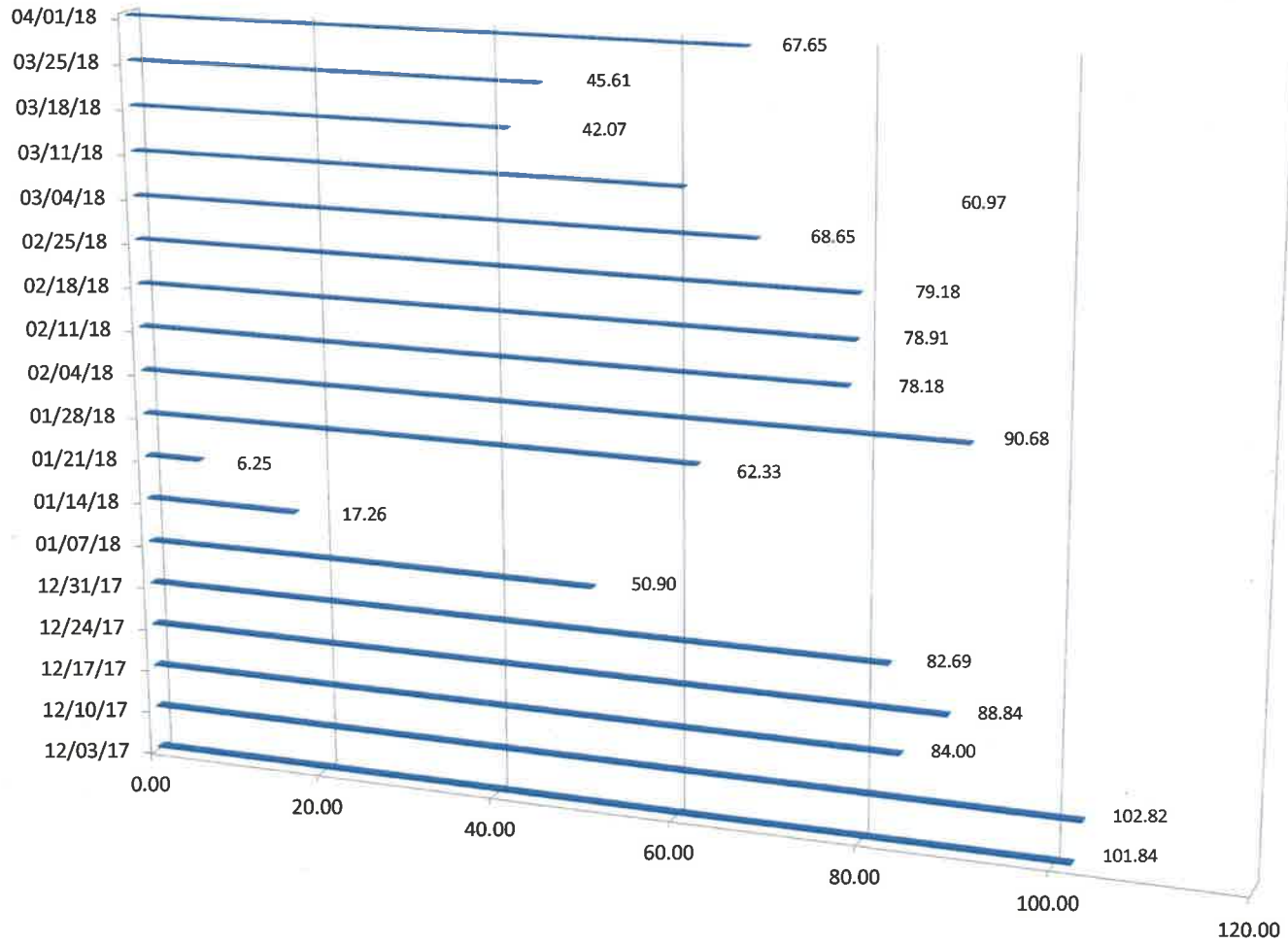
Combined Monthly TG#5 Gross MWs -Actual to Targeted



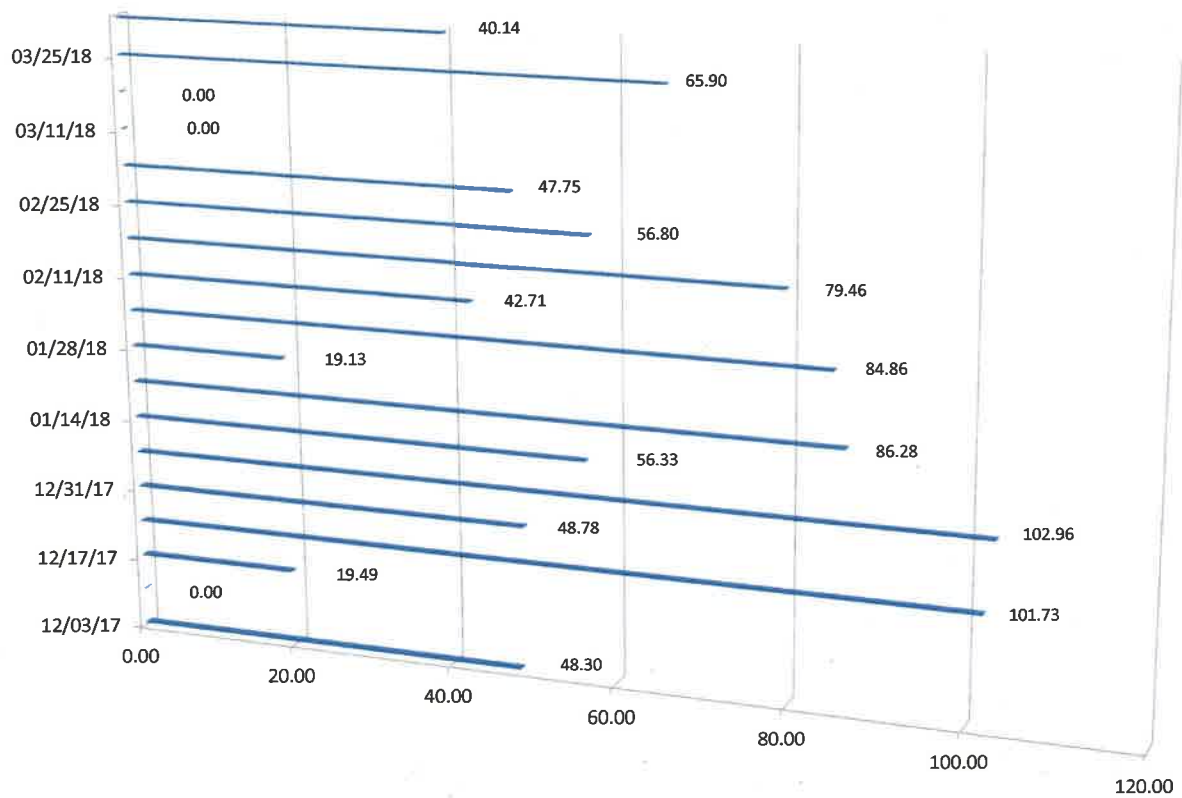
BLR#11 Steam Flow % of Target Steam flow Production



BLR#12 Steam Flow % of Target Steam flow Production



BLR#13 Steam Flow % of Target Steam flow Production



TAB C

MATERIALS INNOVATION AND RECYCLING AUTHORITY
Monthly Customer MSW and Recyclables Deliveries

March-18

Monthly Customer Delivery Report

Project/Contract	Fiscal Year			Fiscal Year-To-Date			Monthly		
	2016	2017	Growth	2017	2018	Growth	Mar 17	Mar 18	Growth
CSWS MSW									
Tier 1	346,503	342,348	(1%)	252,313	252,854	0%	26,827	26,536	(1%) (1)
Tier 2	13,214	13,300	1%	9,700	9,522	(2%)	1,038	1,032	(1%) (1)
Tier 3	2,413	2,549	6%	1,864	12	(99%)	206	1	(99%)
Tier 4	9,502	14,706	55%	10,546	10,987	4%	1,098	1,096	(0%)
Non-Processible MSW	1,299	1,926	48%	1,261	1,210	(4%)	92	108	18% (1)
Hauler Contract	251,700	246,909	(2%)	179,554	154,271	(14%)	24,045	13,672	(43%)
Contract (FCR Residue)	6,258	8,106	30%	6,044	5,670	(6%)	646	819	27% (1)
Ferrous Residue (excess)	3,792	2,745	(28%)	1,850	2,349	27%	289	383	32%
In-State Spot	15,104	10,110	(33%)	7,792	3,718	(52%)	5,765	0	(100%)
Out-of-State Spot	477	21	(96%)	21	0	(100%)	0	0	-
MSW TOTAL	650,262	642,721	(1%)	470,945	440,593	(7%)	60,007	43,647	(37%)

Project/Contract	Fiscal Year			Fiscal Year-To-Date			Monthly		
	2016	2017	Growth	2017	2018	Growth	Mar 17	Mar 18	Growth
CSWS Recyclables									
Tier 1	44,722	45,419	2%	33,308	35,515	7%	3,521	3,746	6%
Tier 3	623	638	2%	472	0	(100%)	49	0	(100%)
Tier 4	2,333	3,413	46%	2,504	2,560	2%	264	273	4%
Hauler Contract	9,711	10,316	6%	7,711	5,045	(35%)	837	1,212	45%
Contractor Sourced	14,896	11,853	(20%)	8,036	4,691	(42%)	518	325	(37%)
In-State Spot	0	0	-	0	0	-	0	0	-
Out-of-State Spot	0	0	-	0	0	-	0	0	-
RECYC. TOTAL	72,284	71,639	(1%)	52,031	47,811	(8%)	5,189	5,555	7%

CSWS Diversions, Exports, Re-Directed Tons

Type	Fiscal Year			Fiscal Year-To-Date			Monthly		
	2016	2017	Growth	2017	2018	Growth	Mar 17	Mar 18	Growth
CSWS Facility and/or TS	4,947	5,020	1%	5,020	12,487	149%	0	206	-
Re-Directed Material (1)	501	0	(100%)	0	2,265	-	0	0	-
TOTAL TONNAGE	5,448	5,020	(8%)	5,020	14,752	194%	0	206	-

(1) Tons re-directed to Non-MIRA Facility. Year to Date FY18 = 644.68, Tier 1, 419.33 Tier 2, 129.05 NPW, 1,072.15 Contract (FCR Residue) = 2,265.21

Breakdown of Participating towns attached

Connecticut Solid Waste System Monthly Customer MSW Deliveries

CSWS Tier 1 Participating Municipality MSW									
Town	Fiscal Year			Fiscal Year-To-Date			Monthly		
	2016	2017	Growth	2017	2018	Growth	Mar 17	Mar 18	Growth
Avon	11,268	11,335	1%	8,339	8,421	1%	914	922	1%
Beacon Falls (1)	2,635	2,370	(10%)	1,861	0	(100%)	199	0	(100%)
Bethlehem	1,508	1,483	(2%)	1,090	1,099	1%	111	114	3%
Bloomfield	15,679	16,179	3%	12,008	11,072	(8%)	1,215	931	(23%)
Canaan	441	411	(7%)	295	330	12%	30	34	11%
Canton	4,680	4,984	6%	3,702	3,685	(0%)	381	403	6%
Clinton	4,803	5,385	12%	3,830	4,541	19%	426	484	14%
Colebrook	602	622	3%	458	456	(0%)	45	59	33%
Cornwall	505	531	5%	391	412	5%	40	41	2%
Deep River	3,489	3,077	(12%)	2,362	1,927	(18%)	253	176	(30%)
Durham/Middlefield	6,295	7,478	19%	5,720	4,960	(13%)	523	544	4%
East Granby	2,869	2,993	4%	2,173	2,187	1%	243	209	(14%)
East Hampton	6,146	6,399	4%	4,711	4,714	0%	490	514	5%
Ellington	5,139	5,348	4%	3,956	4,067	3%	415	408	(2%)
Essex	3,078	3,227	5%	2,368	2,745	16%	264	309	17%
Farmington	14,661	14,790	1%	10,867	11,076	2%	1,168	1,183	1%
Glastonbury	19,255	19,236	(0%)	14,078	14,382	2%	1,533	1,498	(2%)
Goshen	1,345	1,313	(2%)	969	993	3%	93	87	(6%)
Granby	4,791	4,210	(12%)	3,161	3,116	(1%)	329	322	(2%)
Haddam	3,372	3,266	(3%)	2,413	2,366	(2%)	262	253	(4%)
Hartford	84,428	84,355	(0%)	61,847	62,002	0%	6,835	6,643	(3%)
Harwinton	2,030	1,920	(5%)	1,422	1,417	(0%)	158	159	0%
Killingworth	1,919	1,892	(1%)	1,402	1,447	3%	157	154	(2%)
Litchfield	4,860	4,775	(2%)	3,496	3,678	5%	344	355	3%
Lyme	755	759	0%	557	555	(0%)	52	53	2%
Marlborough	2,276	2,126	(7%)	1,586	1,615	2%	156	147	(5%)
Middlebury	2,349	2,338	(0%)	1,729	1,952	13%	176	196	11%
Naugatuck	15,157	14,758	(3%)	11,342	9,871	(13%)	1,183	1,159	(2%)
Norfolk	728	735	1%	540	580	7%	56	55	(2%)
North Canaan	2,232	2,070	(7%)	1,541	1,580	3%	170	159	(7%)
Old Lyme	3,276	3,193	(3%)	2,362	2,517	7%	215	215	(0%)
Old Saybrook	9,852	8,718	(12%)	6,361	6,610	4%	594	647	9%
Oxford (1)	6,204	3,940	(36%)	2,811	0	(100%)	337	0	(100%)
Portland	3,510	3,648	4%	2,693	2,661	(1%)	311	279	(10%)
Rocky Hill	11,458	11,068	(3%)	8,051	8,278	3%	860	929	8%
Roxbury	704	691	(2%)	514	520	1%	52	55	7%
RRDD#1	11,014	11,068	0%	8,033	8,227	2%	773	806	4%
Salisbury/Sharon	3,292	3,294	0%	2,436	2,415	(1%)	251	217	(13%)
Simsbury	13,698	13,106	(4%)	9,632	9,680	0%	1,044	980	(6%)
Thomaston (2)	0	0	-	0	3,080	-	0	315	-
Torrington	23,792	23,185	(3%)	17,127	16,893	(1%)	1,875	1,773	(5%)
Watertown	11,204	10,872	(3%)	7,984	7,902	(1%)	857	799	(7%)
Westbrook (3)	0	0	-	0	2,051	-	0	400	-
Wethersfield	14,634	14,699	0%	10,773	11,538	7%	1,105	1,234	12%
Woodbury	4,569	4,502	(1%)	3,325	3,239	(3%)	331	315	(5%)
TOTAL TIER 1 PARTICIPATING MUNICIPALITIES	346,503	342,348	(1%)	252,313	252,854	0%	26,827	26,536	(1%)

(1) Municipalities left MIRA at the end of FY17

(3) Municipality signed with MIRA effective 11/1/2017

(2) Thomaston switched from Tier 3 to Tier 1L 7/1/2017

CSWS Tier 2 Participating Municipality MSW

Town	Fiscal Year			Fiscal Year-To-Date			Monthly		
	2016	2017	Growth	2017	2018	Growth	Mar 17	Mar 18	Growth
Manchester	13,214	13,300	1%	9,700	9,522	(2%)	1,038	1,032	(1%)
TOTAL TIER 2 PARTICIPATING MUNICIPALITIES	13,214	13,300	1%	9,700	9,522	(2%)	1,038	1,032	(1%)

CSWS Tier 3 Participating Municipality MSW

Town	Fiscal Year			Fiscal Year-To-Date			Monthly		
	2016	2017	Growth	2017	2018	Growth	Mar 17	Mar 18	Growth
Chester	14	14	6%	10	12	13%	1	1	94%
Thomaston (2)	2,400	2,534	6%	1,853	0	(100%)	205	0	(100%)
TOTAL TIER 3 PARTICIPATING MUNICIPALITIES	2,413	2,549	6%	1,864	12	(99%)	206	1	(99%)

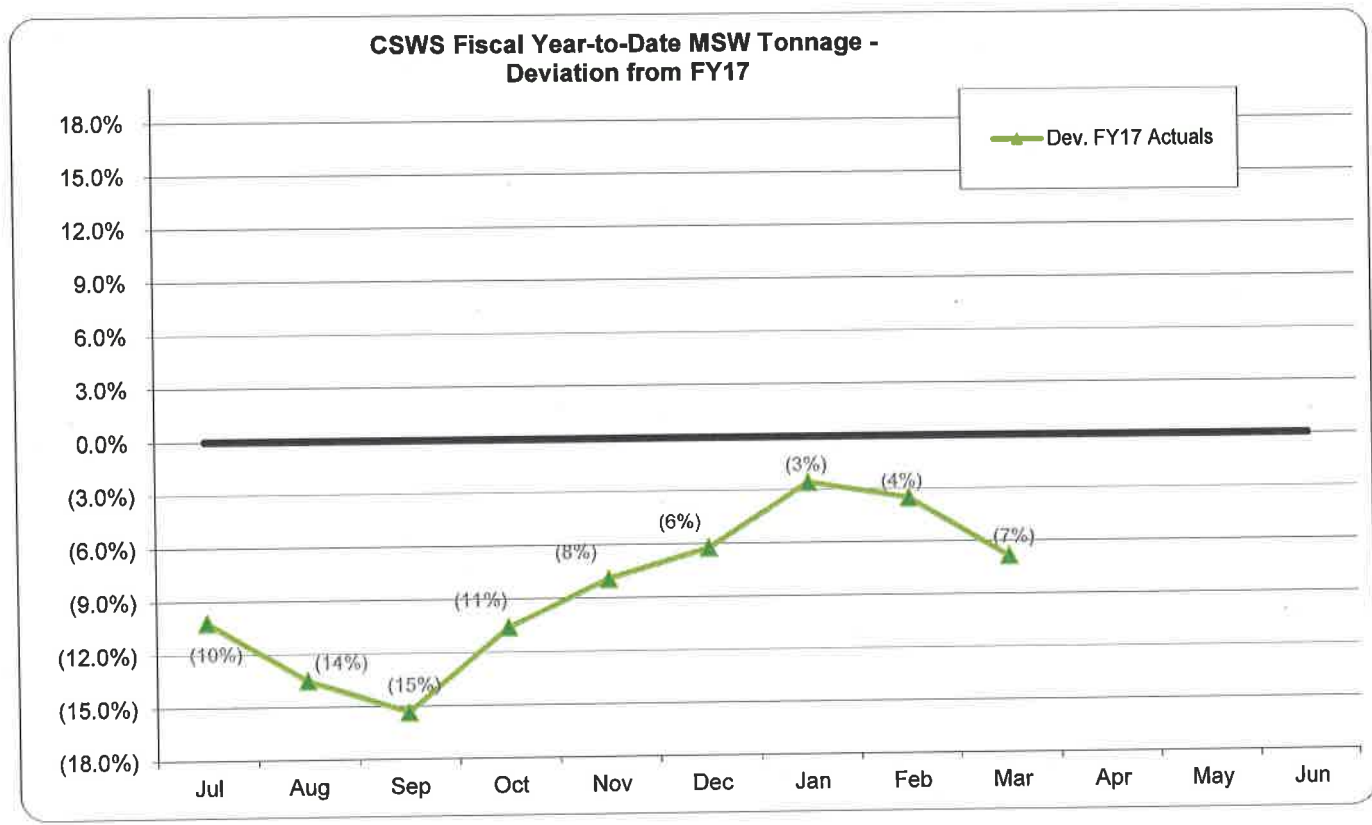
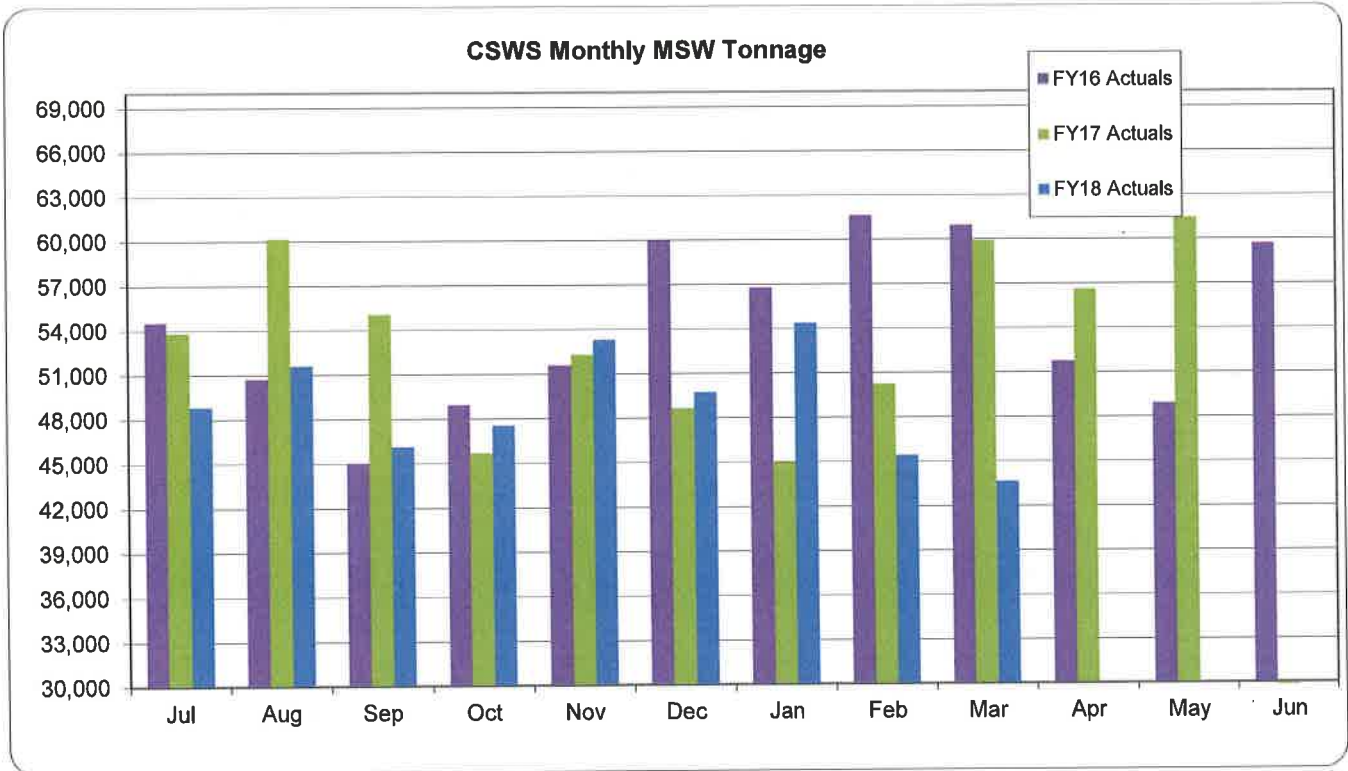
(2) Thomaston switched from Tier 3 to Tier 1L 7/1/2017

CSWS Tier 4 Participating Municipality MSW

Town	Fiscal Year			Fiscal Year-To-Date			Monthly		
	2016	2017	Growth	2017	2018	Growth	Mar 17	Mar 18	Growth
East Hartford (1)	9,502	14,706	55%	10,546	10,987	4%	1,098	1,096	(0%)
TOTAL TIER 4 PARTICIPATING MUNICIPALITIES	9,502	14,706	55%	10,546	10,987	4%	1,098	1,096	(0%)

(1) Municipality signed with MIRA beginning 11/1/15

CSWS MSW Trends



**Connecticut Solid Waste System
Monthly Customer Recyclables Deliveries**

CSWS Tier 1 Participating Municipality Recycling									
Town	Fiscal Year			Fiscal Year-To-Date			Monthly		
	2016	2017	Growth	2017	2018	Growth	Mar 17	Mar 18	Growth
Avon	2,115	2,027	(4%)	1,504	1,544	3%	146	175	20%
Beacon Falls (1)	373	411	10%	297	0	(100%)	41	0	(100%)
Bethlehem	346	338	(2%)	253	262	4%	23	20	(14%)
Bloomfield	1,733	1,697	(2%)	1,254	1,204	(4%)	132	122	(8%)
Canaan	90	88	(2%)	68	71	5%	6	6	(6%)
Canton	981	911	(7%)	695	848	22%	85	99	17%
Clinton	1,181	1,148	(3%)	844	919	9%	97	95	(2%)
Colebrook	179	186	4%	134	140	4%	16	16	(1%)
Cornwall	148	148	(0%)	119	123	3%	7	12	76%
Deep River	510	441	(14%)	346	290	(16%)	29	22	(23%)
East Granby	465	1,093	135%	589	618	5%	64	38	(41%)
East Hampton	1,012	1,012	0%	773	665	(14%)	93	81	(13%)
Ellington	1,426	1,362	(4%)	988	966	(2%)	91	92	1%
Essex	734	734	0%	544	576	6%	62	72	16%
Farmington	2,697	2,647	(2%)	2,005	1,805	(10%)	207	186	(10%)
Glastonbury	3,637	3,585	(1%)	2,671	2,568	(4%)	294	283	(4%)
Goshen	323	312	(3%)	247	242	(2%)	19	20	2%
Granby	1,457	1,350	(7%)	1,014	1,060	5%	117	113	(3%)
Haddam	683	697	2%	519	484	(7%)	50	51	2%
Hartford	5,600	5,869	5%	4,243	4,345	2%	472	467	(1%)
Harwinton	504	520	3%	387	367	(5%)	46	41	(10%)
Killingworth	472	483	2%	359	371	3%	34	41	21%
Litchfield	814	874	7%	652	630	(3%)	69	58	(16%)
Marlborough	654	601	(8%)	442	430	(3%)	42	42	1%
Middlebury	840	884	5%	644	693	8%	72	65	(9%)
Norfolk	169	172	2%	131	128	(2%)	14	12	(19%)
North Canaan	235	247	5%	183	179	(2%)	16	19	18%
Old Lyme	0	0	-	0	0	-	0	0	-
Old Saybrook	1,082	1,095	1%	803	808	1%	72	79	10%
Oxford (1)	668	749	12%	516	0	(100%)	54	0	(100%)
Portland	573	625	9%	423	410	(3%)	40	41	3%
Rocky Hill	1,692	1,611	(5%)	1,191	1,228	3%	118	134	13%
Roxbury	182	181	(0%)	135	150	11%	16	11	(32%)
RRDD#1	1,815	1,786	(2%)	1,315	1,277	(3%)	134	141	5%
Salisbury-Sharon	1,053	1,092	4%	812	796	(2%)	81	75	(8%)
Simsbury (3)	0	0	-	0	2,214	-		232	-
Thomaston (2)	0	0	-	0	496	-		59	-
Torrington	2,956	2,836	(4%)	2,085	2,011	(4%)	220	213	(3%)
Watertown	1,706	1,996	17%	1,443	1,692	17%	159	175	10%
Westbrook (4)	0	0	-	0	237	-		53	-
Wethersfield	2,775	2,709	(2%)	2,004	1,984	(1%)	216	213	(1%)
Woodbury	840	903	7%	678	682	1%	66	71	8%
TOTAL TIER 1 MUNICIPALITIES	44,722	45,419	2%	33,308	35,515	7%	3,521	3,746	6%

(1) Municipalities left MIRA at the end of FY17

(2) Thomaston switched from Tier 3 to Tier 1L 7/1/2017

(3) Simsbury switched from T1S w/o Recycl. to T1L w/Recycl. 7/1/17

(4) Municipality signed with MIRA beginning 11/1/2017

CSWS Tier 3 Participating Municipality Recycling

Town	Fiscal Year			Fiscal Year-To-Date			Monthly		
	2016	2017	Growth	2017	2018	Growth	Mar 17	Mar 18	Growth
Chester	0	0	-	0	0	-	0	0	-
Thomaston (2)	623	638	2%	472	0	(100%)	49	0	(100%)
TOTAL TIER 3 MUNICIPALITIES	623	638	2%	472	0	(100%)	49	0	(100%)

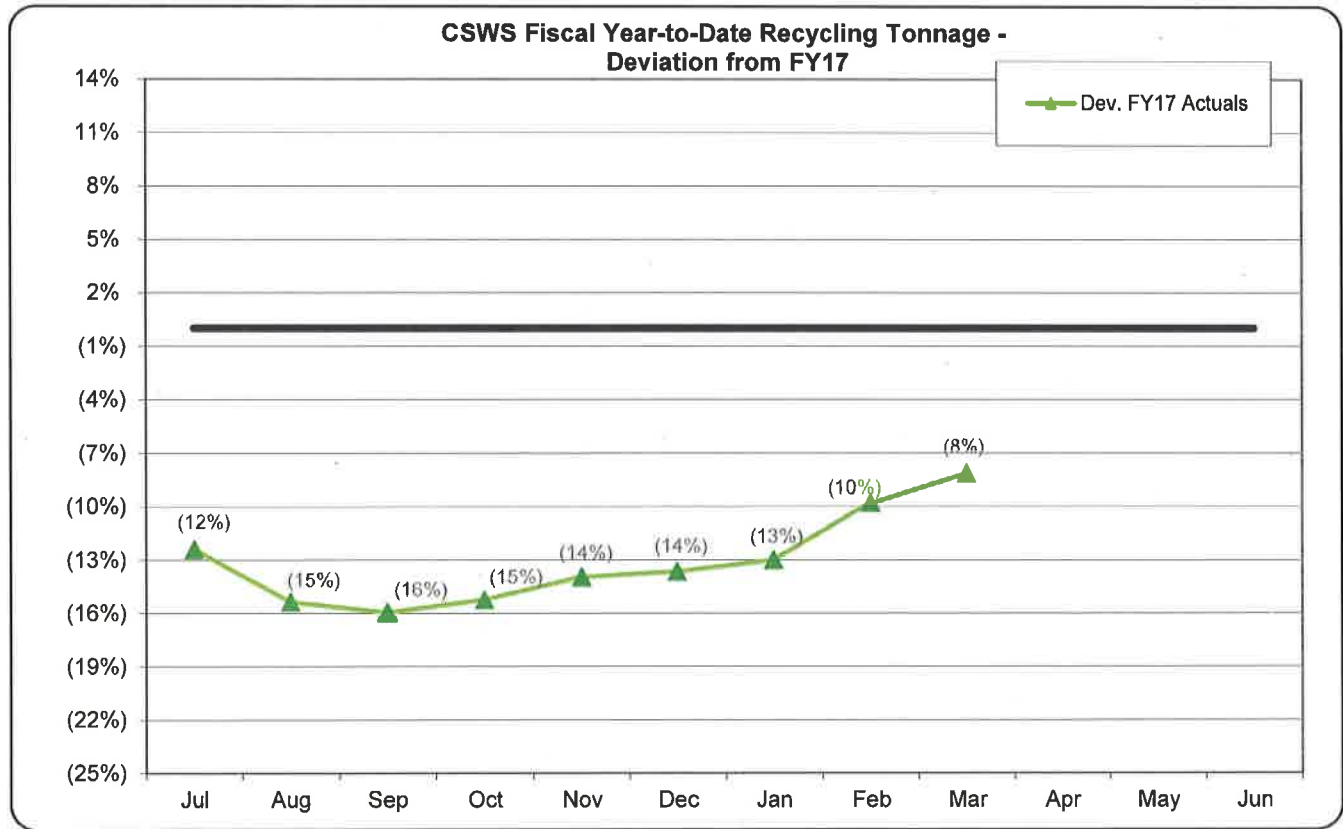
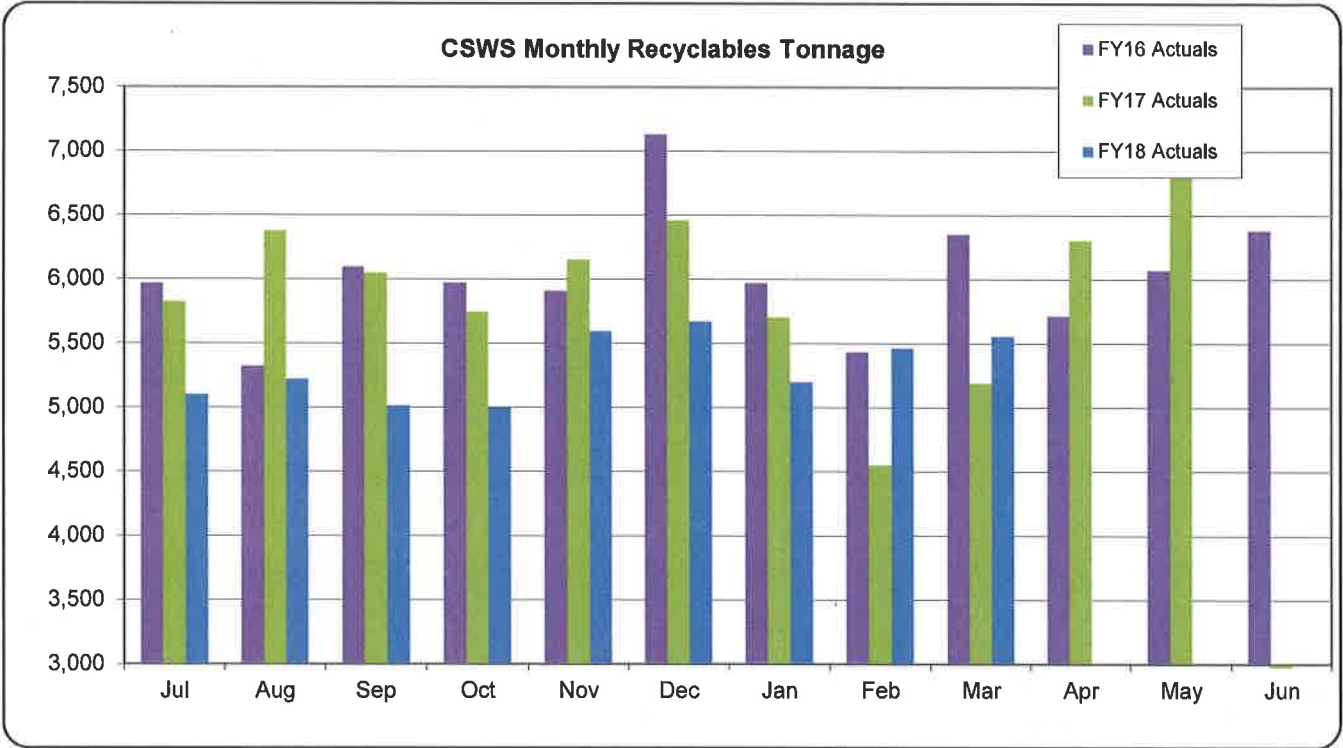
(2) Thomaston switched from Tier 3 to Tier 1L 7/1/2017

CSWS Tier 4 Participating Municipality Recycling

Town	Fiscal Year			Fiscal Year-To-Date			Monthly		
	2016	2017	Growth	2017	2018	Growth	Mar 17	Mar 18	Growth
East Hartford (1)	2,333	3,413	46%	2,504	2,560	2%	263.55	272.79	4%
TOTAL TIER 4 MUNICIPALITIES	2,333	3,413	46%	2,504	2,560	2%	264	273	4%

(1) Municipality signed with MIRA beginning 11/1/15

CSWS Recyclables Trends



TAB D

FISCAL YEAR 2018 LEGAL REQUEST FOR SERVICES

FOR PERIOD ENDING 3/31/18

LEGAL FIRM	Matter	Board Approval	PO Number	PO Amount	FY18 expenses paid from FY18 PO	FY18 accrued estimates	Prior year expenses Paid from FY17 PO (not accrued in FY17)	FY17 over/under accrual, Refunds received etc	Total per General ledger
Cohn Birnbaum & Shea	South Meadows Exit Strategy		11735	\$ 63,385	\$ 25,170	\$ 16,586	\$ 118	\$	\$ 41,874
Total Cohn Birnbaum & Shea		\$63,385.00		\$ 63,385	\$ 25,170	\$ 16,586	\$ 118	\$ -	\$ 41,874
Day Pitney	NPDES Permitting Support			\$ -				\$	\$ -
Total Day Pitney		\$25,000.00		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Halloran & Sage	GC - Authority Budget		11742	\$ 25,000	\$ 6,555	\$ -	\$ 1,843	\$ (920)	\$ 7,478
	Property Division		11741	\$ 20,000	\$ 1,169	\$ -	\$ 9,062	\$ (2,700)	\$ 7,530
	MDC Arbitration		11739	\$ 100,000	\$ 61,539	\$ -		\$ (30,102)	\$ 31,437
	CSWS		11743	\$ 20,000				\$ (1,500)	\$ (1,500)
	Resource rediscovery - CSWS		11869	\$ -	\$ 22,430	\$ 1,500		\$ (4,840)	\$ 19,090
	FOIA Complaint		11744	\$ 25,000	\$ 9,840	\$ 100		\$ -	\$ 9,940
	Landfill Division		11740	\$ 35,000	\$ 3,791	\$ -	\$ 275	\$ (57,596)	\$ (53,530)
Total Halloran & Sage		\$450,000.00		\$ 225,000	\$ 105,323	\$ 1,600	\$ 11,179	\$ (97,658)	\$ 20,444
Kainen, Escalera & McHale	Employment		11738	\$ 20,000	\$ 7,605				\$ 7,605
	MDC Arbitration		11737	\$ 75,000	\$ 21,407			\$ (31,788)	\$ (10,382)
Total Kainen, Escalera & McHale		\$150,000.00		\$ 95,000	\$ 29,011	\$ -	\$ -	\$ (31,788)	\$ (2,777)
American Arbitration				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total American Arbitration				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Melick & Porter	Tremont		11813	\$ -	\$ 2,441	\$ -	\$ 5,221	\$ -	\$ 7,662
Total Melick & Porter				\$ -	\$ 2,441	\$ -	\$ 5,221	\$ -	\$ 7,662
TOTALS:		\$688,385.00		\$ 383,385	\$ 161,945	\$ 18,186	\$ 16,518	\$ (129,446)	\$ 67,203
									<i>Agrees with Gen Ledger</i>

TAB E

**FINAL ACTIVITY REPORT
FOR THE
MATERIALS INNOVATION
AND
RECYCLING AUTHORITY (MIRA)
CONNECTICUT SOLID WASTE
SYSTEM FACILITY**

**Final Report
April 2018**

*Submitted by:
United States Department of Agriculture
Animal and Plant Health Inspection Service
Wildlife Services
463 West Street
Amherst, MA 01002
(413) 253-6684*

Timothy S. Cozine Staff Wildlife Biologist, Amherst, Massachusetts

*Project was monitored by:
Donald J. Wilda, District Supervisor*

*Assistance Provided by: Wildlife Specialists James A. Streeter, Jr., David Warren, and Michael Parenteau,
Massachusetts, Rhode Island and Connecticut*

Introduction

The United States Department of Agriculture, Animal Plant Health Inspection Service, Wildlife Services (USDA/APHIS/WS) has a long standing working relationship with Connecticut Resources Recovery Authority (CRRA) now the Materials Innovation and Recycling Authority (MIRA) by providing assistance in the management of migratory bird species causing damage to property and posing a threat to human health and safety.

WS began assisting CRRA in the management of migratory birds at the Hartford Landfill in 2003. When the Hartford Landfill closed in 2008, WS transitioned operational control activities to the Mid-Connecticut Project, now referred to as the Connecticut Solid Waste System Facility, for the remainder of the agreement. During this time WS provided operational control to reduce threats to human health and safety at the facility. WS also worked closely with Hartford-Brainard Airport to reduce threats to aviation. WS regularly communicated with the airport when performing operational control activities at the facility to prevent any added risk to aircraft.

On July 1, 2017 WS renewed the cooperative agreement with MIRA. The purpose of this agreement was to facilitate APHIS/WS conducting operational control at the Connecticut Solid Waste System Facility to reduce the number of birds and other wildlife that pose a threat to human health and safety and pose a threat to aviation at the adjacent Hartford-Brainard Airport for one year.

Legal Authority of Wildlife Services

The USDA is directed by law to protect American agriculture and other resources from damage associated with wildlife. APHIS, WS has statutory authority under the Act of March 2, 1931 (46 Stat. 1468; 7 U.S.C.426-426b) as amended, and the Act of December 22, 1987 (101 Stat. 1329-331, 7 U.S.C. 426c), to cooperate with States, local jurisdictions, individuals, public and private agencies, organizations, and institutions while conducting a program of wildlife service's involving mammal and bird species that are reservoirs for zoonotic diseases, or animal species that are injurious and/or a nuisance to, among other things, agriculture, horticulture, forestry, animal husbandry, wildlife, and human health and safety

The WS program is a non-regulatory, federal cooperative wildlife management program whose mission is to provide leadership in reducing conflicts between people and wildlife. WS has the primary responsibility for responding to threats caused by migratory birds. A growing focus of WS is to help promote the safe operation of aircraft by working with airport management to document, monitor and manage wildlife hazards at airports throughout the country.

Legal Status of Wildlife Species

Federal, state, or municipal laws protect most forms of wildlife and their habitats. Before conducting any control action at the Connecticut Solid Waste System Facility, whether lethal or non-lethal, the identification and legal status of the target species should be determined. Regulatory agencies governing wildlife issue permits to trap or kill wild animals depending on the species and method of control involved. MIRA is responsible for adhering to the current regulations regarding wildlife control and for obtaining the appropriate permits to take or harass specific types of wildlife. Potential non-target animals should be identified, as well, to aid in determining the appropriate control methods that would avoid killing or harassing these species.

Federal Regulations

The U.S. Congress has passed several acts for the protection of wildlife including the Migratory Bird Treaty Act (MBTA), the Lacey Act, the Endangered Species Act, Bald and Golden Eagle Protection Act, the National Environmental Policy Act (NEPA), the Federal Insecticide, Fungicide, and Rodenticide Act

(FIFRA) and the Clean Water Act regulated by the U.S. Army Corps of Engineers. These are the basis of most wildlife regulations that have been issued in the Codes of Federal Regulations (CFR). Several agencies are responsible for implementing these regulations and many of these regulations affect wildlife management. Federal wildlife laws are administered by the U.S. Fish and Wildlife Service (USFWS) and primarily involve migratory birds protected under the MBTA and all species protected under the Endangered Species Act. Permits from the USFWS must be updated annually unless otherwise stated on the permit.

MIRA is currently managing wildlife under U.S. Fish and Wildlife Service Depredation Permit Number MB 826758-0 (Appendix 1). This permit authorizes MIRA and those listed as a sub-permittee to kill "non-endangered and non-threatened species of migratory birds only after non-lethal techniques have been tried." To avoid lapses in permits, MIRA should "submit a written application at least 30 days prior to the expiration date of the permit." Depredation permits are also subject to the conditions stated in 50 CFR § 21.27 Special Purpose Permits. Under these guidelines MIRA is required to document the permitted activity including type of action, species and numbers involved, and disposition of carcasses. These records should be readily available when needed.

USDA Wildlife Services has long been excluded from activities to control urban rodents under our enacting legislation. However, no definition of urban rodents was provided and Wildlife Services has operated with definition of urban rodents to mean commensal rodents, specifically Norway and black/roof rats and house mice. Due to conflicts with the National Pest Management Association and others, Wildlife Services has redefined and clarified the definition of urban rodents as follows.

For the purposes of activities authorized under the Act of December 22, 1987 (7 U.S.C. 426c), the term "urban rodent control" shall mean actions to directly control mice, rats, voles, squirrels, chipmunks, gophers, woodchucks, and groundhogs in a city or town with a population greater than 50,000 inhabitants and the urbanized area contiguous and adjacent to such a city or town, except actions involving: (1) federal agencies; (2) government entities engaged in a cooperative service agreement with APHIS to provide direct control of rodents as of October 1, 2013; (3) a state in which direct control of the rodent species has been expressly authorized by state law, rulemaking, or a local jurisdiction's ordinance promulgated by public notice and an opportunity for public comment or as otherwise promulgated as required and authorized by the respective state or local law; and (4) railways and airport air sides areas. APHIS will refer all requests for operational assistance with "urban rodent control" from private entities such as home and business owners and associations to the private sector.

Due to the population of the City of Harford and its clear urban setting, Wildlife Services will remain unable to conduct control of woodchucks, also known as groundhogs, on MIRA property in the absence of a state law or local ordinance specifically authorizing Wildlife Services to conduct rodent control. However, woodchuck damage management was a minor part of Wildlife Services activities in the past.

State and Local Regulations

Connecticut state wildlife laws generally follow the federal regulations for migratory bird species and further regulate actions concerning mammals, upland game birds and other vertebrates. The Connecticut Department of Energy and Environmental Protection Wildlife Division (CT DEEP WD) state permit issued to Hartford-Brainard Airport allows for the harassment and lethal removal of game and fur bearing species to protect public safety: white-tailed deer, Eastern wild turkey, coyote, red fox, grey fox, and raccoon. This permit further allows that mammals interfering with bird control measures may be trapped and euthanized from the Connecticut Solid Waste System Facility (MIRA) at 300 Maxim Road in Hartford, CT."

The permit letter is issued by the state to protect property and human health and safety. Wildlife in Connecticut is regulated primarily by Connecticut General Statutes (CGS), Title 26: Chapter 460 Fisheries and Game and Chapter 495 Connecticut Endangered Species.

WILDLIFE SURVEYS RESULTS AND ANALYSIS

Wildlife Service's Employed Methods

WS utilized a variety of equipment to perform operational control at the Connecticut Solid Waste System facility to manage migratory bird species and mammals. WS completed surveys during each visit to the facility. The data gathered during the surveys was used to create wildlife population indices. Indices, unlike true population counts, loosely represent wildlife populations and are useful in showing changes in populations over time or comparing one population to another. The survey information is not intended to represent the total wildlife population at Connecticut Solid Waste System Facility, but the technique allows Wildlife Services to build an index of species presence and behavior which satisfies the intent of this study. Because there was no hypothesis being tested, other statistical analysis was not necessary.

WS utilize one propane cannon to harass wildlife from 2017 to 2018. WS maintained a decoy trap in the load out area of the yard to capture European starlings and house sparrows to help reduce overall starling and house sparrow numbers. This kind of trap is baited with food and a few European starlings and also provides water and shelter. Birds can enter the trap but cannot escape. Captured birds were euthanized and non-target species were released unharmed. All captured starlings and house sparrows were euthanized with carbon dioxide gas, cervical dislocation, or other AVMA approved methods.

WS utilized two types of pyrotechnics to harass wildlife at the Connecticut Solid Waste System Facility. One type emits a loud scream while the other emits a loud bang after discharge. WS would sometimes follow up harassment with the use of an air rifle to target specific American crows and herring gulls at the Connecticut Solid Waste System Facility which did not respond to the harassment. WS utilized vehicle chasing to disperse crows and starlings at the Connecticut Solid Waste System Facility.

Observations

The Connecticut Solid Waste System Facility is highly attractive to a wide variety of wildlife. WS identified three groups of birds that congregate in numbers and pose a threat to human health and safety, property damage, and pose a serious threat to aviation. These birds are blackbirds (European starlings), Corvids (American crows), and gulls (great black-backed, herring, and ring-billed gulls). Rock pigeons also occur in small numbers and pose a minor threat to human health on site and to aviation safety.

Other bird species are attracted to the site due to the volume of other bird species. These include a wide variety of hawk species. These birds do not pose a threat to human health and safety on property at the Connecticut Solid Waste System Facility, but instead pose a serious threat to aviation at the adjacent Hartford-Brainard Airport.

WS has also identified raccoons as another species of wildlife that pose a serious threat to property damage and human health and safety at the Connecticut Solid Waste System Facility.

Gull Guild:

Description: Gulls are large bodied, robust birds with webbed feet, long pointed wings, and stout bills. Most adults are white with a gray or black back and wings, however, juveniles are typically mottled brown or gray for the first two to three years of life. Gulls are commonly attracted to areas when food or water is available. Food sources may include refuse from dumpsters or nearby landfills, shellfish, fish,

earthworms, insects, or carrion. These birds become habituated quickly to easy sources of food such as handouts at construction sites and parking areas.

Legal Status: Gulls are classified as migratory non-game birds and can be killed with a USFWS depredation permit and a concurrent state depredation permit.

Control Measures: Habitat modifications are the most effective methods for controlling gulls. Clean and contained trash areas, elimination of standing water, and prevention of food handouts will usually deter gulls, especially if combined with an active hazing and shooting program. However, gulls quickly habituate to dispersal techniques (pyrotechnics, bioacoustics and visual scare devices) and individuals may need to be shot to reinforce non-lethal methods.

Damage Threat to Aircraft: Gulls are hazardous to aircraft due to their large body size, abundance, expanding distributions, flocking behavior, and relatively slow flight characteristics. Nationally, gulls account for 12.23% of known species bird-aircraft strikes and 20.62% of damaging strikes with known species in the United States resulting in \$58,887,723 in damage from 1990 to 2015 (Dolbeer et al. 2016). Gulls are the third most commonly struck species group reported to the National Wildlife Strike Database, and when struck they are ranked 10th out of the 21 species causing significant damage to aircraft (Dolbeer et al. 2000).

Observations: WS noted a significant decline in gull numbers between 2009 and 2017. Low numbers of gulls continued into 2018. There was a decrease of 88.9%, from 225 gulls (117 herring gulls, 100 ring-billed gulls, and eight great black-backed gull) observed during 2016-17 to 25 herring gulls observed during 2017-18.

Gulls were observed during eight (8) of 104 visits. The highest recorded single day observations were nine (9) herring gulls on February 12, 2018 and four (4) herring gulls on February 2, 2018. One (1) to three (3) herring gulls on the remaining days when gulls were observed. The average and median number of gulls surveyed daily, during the 8 days when gulls were observed, was 3.125 and 3.0 respectively. This is a decrease from last year when an average of 9.0 gulls were observed per visit, when gulls were observed. This results in a two year trend of decreasing gull numbers.

WS's harassment program continued to benefit from the change in practices, including closing of doors, implemented by NAES. Overall gulls respond well to harassment and therefore, can account for continuing low gull numbers. However, there were three (3) herring gulls lethally removed using an air rifle.

Blackbirds:

Description: The blackbird guild at MIRA consisted solely of European starlings again during 2017-18. Brown-headed cowbirds and common grackles have not been observed in significant numbers since July 1, 2013.

European starlings are gregarious or flocking birds, and are known to form large flocks, sometimes mixed with other black-bird species, which can range in the thousands during the winter months. Flocks typically form near areas with suitable roosting sites and adequate foraging habitats. European starlings are opportunistic feeders and consume a variety of foods, including fruits, grains, weed seeds, and insects. Starlings were introduced into the United States in the 1890's and quickly spread throughout North America. The European starling is a cavity nester and seeks out nesting areas with both suitable nesting cavities, usually near buildings, and short grass areas for foraging.

Legal Status: European starlings are an introduced species and are not protected by federal law and are minimally protected by Connecticut law. They may be killed at any time of year without a permit when concentrated in a manner that constitutes a threat to human health and safety. Other black-birds such as

brown-headed cowbirds and common grackles are protected by the Migratory Bird Treaty Act, but may be taken under the Federal Crow and Blackbird Depredation Order. Under the order, cowbirds “may be taken when causing or about to commit damage to...or when concentrated in numbers or in a manner as to constitute a health hazard or nuisance”. There is a newly required reporting requirement under the blackbird depredation order, which is currently being handled by Wildlife Services.

Control Measures: Habitat management (i.e., grass management, roost removal, etc.) and exclusion are usually the most cost effective methods because they serve as long term deterrents. Exclusion can be considered as covering trailers full of residue material awaiting transport and closing roll-up bay doors to prevent access to the interior of the facility. If doors cannot be closed due to safety or fire concerns, bird barriers such as clear plastic barrier straps or forced air barriers can be installed in the door way.

Habitat management alone is not enough to discourage European starlings. Often birds simply move to another location at the facility so it is important to be persistent in harassing this bird species. Shooting as reinforcement to harassment, toxicant applications, or trapping can also be used as population control methods if the birds become habituated to pyrotechnics or other non-lethal methods. Other black-birds are much less common on site and they are generally controlled in conjunction with starlings when necessary.

Damage Threat to Aircraft: European starlings and black-birds are considered hazardous to aviation because of the large flocks they form and their relatively dense body (Seaman et al. 1995). Blackbirds and European starlings rank 2nd out of the 21 wildlife species most often reported struck by aircraft and 19th of 21 species causing damage when reported struck by aircraft (Dolbeer et al. 2000). European starlings are the fifth most commonly struck species and were responsible for \$7,127,433 in damage between 1990 and 2015 (Dolbeer et al. 2016). In October of 1960, a Lockheed Electra turbo-prop aircraft ingested European starlings into all engines during takeoff at Logan Airport and crashed resulting in 62 human fatalities.

Observations: The number of European starlings harassed or removed in 2017-18 increased 22.3% from 2016-17, up to 28,459 from 23,275. Starlings were observed on 54 of 104 visits from April 17, 2017 to April 20, 2018. WS used a combination of harassment and trapping to manage starling numbers at the facility. There were 473 starlings lethally removed using the decoy trap.

Corvids:

Description: The corvid guild at MIRA consists entirely of American crows. American crows are large sized passerine birds of the family Corvidae. The Corvidae family includes American and fish crows, blue jays and common ravens. All are considered highly intelligent and social. American crows are omnivores and capable of consuming a wide range of food types including: fruits, grains, seeds, nuts, small vertebrates, insects and other invertebrates, refuse and carrion. Studies show that crows consume over 600 different food items. Crows commonly feed in open areas, especially when there is dense cover nearby such as trees or heavy brush.

Legal Status: American crows are protected by the Migratory Bird Treaty Act, but certain species may be taken under the Federal Crow and Blackbird Depredation Order. American and fish crows are included in the blackbird depredation order and “may be taken when causing or about to commit damage to...or when concentrated in numbers or in a manner as to constitute a health hazard or nuisance”. As with other blackbirds, there is now a reporting requirement under the blackbird depredation order which will be handled by Wildlife Services. American crows may be hunted with a valid Connecticut state hunting license during the 2018 open seasons from January 13th through March 24th Monday through Saturday, August 11th through October 13th and October 20th through December 1st on Wednesday, Friday, and Saturday, ½ hour before sunrise to ½ hour after sunset. These regulations may vary each year, so be sure to check each year for changes.

Control Measures: The most effective method to prevent crows from using an area is habitat modification. This method includes allowing the grass to grow taller than 7 inches, removing trees used for roosting and structures used for perching. If crows continue to use the facility, they should be dispersed with pyrotechnics and reinforced with an air rifle.

Damage Threat to Aircraft: Crows can inflict severe damage to aircraft. Fortunately, most crows are somewhat adept when it comes to avoiding aircraft, and are generally not considered a great threat to aviation. However, this does not mean they can be dismissed as a hazard altogether. They are known to form large flocks, especially during the fall and winter which increases the potential for damaging strikes. There were 442 American crow strikes responsible for \$1,833,405 in damage to civil aircraft between 1990 and 2015 (Dolbeer et. al 2016). Crows and ravens rank 14th out of the 21 most struck species groups and rank 18th out of 21 species based on the number of strikes resulting in major damages (Dolbeer et al. 2000).

Observations: The number of American crows harassed or taken in 2017-18 decreased 37.8% from 2016-17, to 3,005 from 4,833. Crows were observed on 31 of 104 visits from April 17, 2017 to April 20, 2018. American crows tend to gather at the facility starting late in October and disperse by late March. American crows congregate in large numbers during winter months as they travel to and from winter roosting sites. There were 23 American crows lethally removed using an air rifle.

Other Wildlife of Concern:

Rock pigeons:

Description: Feral pigeons, commonly referred to as rock pigeons or rock doves, are familiar birds that are abundant in cities and farms throughout Connecticut. Pigeons are powerful fliers with robust bodies, small heads, and short beaks. Feral pigeons tend to fly at higher altitude, descending to their destination in a rapid circling pattern with their wings spread back. Although both species are primarily granivorous, they will occasionally consume protein rich animal mater such as insect larvae. Pigeons are known for readily accepting handouts from humans.

Legal Status: Rock pigeons, like European starling, are an introduced species and are not protected by federal law and are minimally protected by Connecticut law. They may be killed at any time of year without a permit when concentrated in a manner that constitutes a threat to human health and safety.

Control Measures: Exclusion by closing roll-up bay doors to prevent access to the interior of the facility and lethal control using an air rifle are the primary methods available for controlling pigeons. Trapping can be effective, but is best when conducted on a rooftop or similar structure near feeding or roosting sites.

Damage Threat to Aircraft: Although pigeons are not as large-bodied as many species considered dangerous to air safety, they are still a concern because of their flocking behavior, which increases the risk of collision with aircraft. Nationally this species is the 7th most commonly struck species and has accounted for \$12,036,517 in damage between 1990 and 2015 (Dolbeer et al. 2016). Pigeons ranked 11th out of the top 21 species resulting in major damage to aircraft (Dolbeer et al. 2000).

Observations: WS did not observe rock pigeons in sufficient numbers to require recording numbers at the Connecticut Solid Waste System Facility during the duration of the operational control program. Although there have been no significant observations, this species could return in larger numbers at any time due to the large population in the Hartford area.

House Sparrows

Description: House sparrows are small brown granivorous (seed-eating) birds with thick, heavy bills for

opening seed husks that form loose flocks, especially during the winter months. Males have a distinct black facial mask and females are uniformly streaked brown.

Legal Status: House sparrows, like both European starlings and rock pigeons, are an introduced species and are not protected by federal law and are minimally protected by Connecticut law. They may be killed at any time of year without a permit when concentrated in a manner that constitutes a threat to human health and safety.

Control Measures: Exclusion by closing roll-up bay doors to prevent access to the interior of the facility and lethal control using an air rifle are the primary methods available for controlling pigeons. Trapping can be effective, but is best when conducted on a rooftop or similar structure near feeding or roosting sites. House sparrows are cavity nesters; they build straw and grass nests in holes and confined spaces, commonly in buildings and other structures. These nests can result in clogged rooftop drains or result in fires when nests are made in electrical devices such as lights or circuit boxes. These nests should be removed, along with any eggs or chicks, and excluded whenever possible.

Damage Threat to Aircraft: Due to their small size and loose flocking behavior, house sparrows are not a significant threat to aviation safety. House sparrows have been identified in 236 strikes resulting in \$2,226.00 worth of damages from 1990 to 2015 (Dolbeer et al. 2016).

Observations: Like rock pigeons, WS did not observe house sparrows in significant enough numbers to record presence during the duration of the operational control program. No house sparrows were captured in the starling decoy trap.

Mammals:

WS did not receive any requests for assistance from MIRA staff to deal with mammals at the Connecticut Solid Waste System Facility during the 2017-18 period. However, in past years WS has assisted with live capture and removal of free ranging domestic cats, raccoons, and striped skunks.

Summary

WS used a variety of methods to manage wildlife at the Connecticut Solid Waste System Facility including trapping to reduce overall bird populations. This harassment was combined with alternative methods to reduce the overall starling and other bird populations.

In total, WS removed a total of 3 herring gulls, 473 European starlings, and 23 American crows as reinforcement to harassment and/or to reduce property damage and threats to human health and safety and aviation safety at neighboring Hartford-Brainard Airport.

The herring gulls and American crows were all taken with air rifle during 2017-18. All European starlings were captured with the decoy trap. This was a 23.46% decrease in starling take from 2016-17 to 2017-18. As previously discussed, no house sparrows, rock pigeons, or other bird species were taken.

In total, WS used a total of 193 pyrotechnics, 47 bird bombs and 146 whistler/screamers to disperse 30,965 birds (2,957 American crows, 22 herring gulls, and 27,986 European starlings), harassment shooting to disperse 22 American crows, and vehicle harassment to disperse 3 European starlings from the Connecticut Solid Waste System Facility.

Recommendations

WS recommends a continuation of a proactive wildlife management program at the Connecticut Solid Waste System Facility to reduce the threat to human health and safety caused by birds and their

droppings. Proactive management of wildlife at the facility shows a due-diligence and can reduce or eliminate liabilities if a damaging bird strike were to occur at Hartford-Brainard Airport. Furthermore, direct communication with Hartford-Brainard Airport must occur when conducting operational control at the facility to reduce further threats to aviation.

Recommendations at this time would be to ensure that personnel loading residue material in trailers continue to cover the trailers while they sit awaiting transport. Birds feed from the trailers regardless of the time of year. Covering trailers prevents easy access of birds to the residue material. This will help to prevent a habituation of birds to the site and reduce bird numbers overall. To date, most trailers get covered, but more trailers have been left uncovered while awaiting transport as the bird numbers have declined.

WS recommends the installation of a pigeon trap to reduce the numbers of pigeons using the power generation portion of the facility if this becomes an issue of concern during 2018-19. WS believes the pigeons roost and nest at the power generation side of the plant. In past years these birds have been observed flying over and feeding on the waste processing side of the facility. Accumulations of pigeon droppings are known to harbor diseases that can be transferred to humans. Furthermore, pigeon droppings are corrosive and can lead to damage to the facilities.

WS recommends keeping roll-up doors closed as much as possible or installing barriers which will help prevent birds from entering the facility. WS observed high numbers of starlings flying into all open bay doors to access the interior of the facility. The most widely used doors are East and West RDF and doors facing the west side of the facility.

WS recommends continued live trapping of raccoons, opossums, skunks, and other medium and small mammals that occur within the facility as the need arises. These mammal species can carry a variety of diseases that are transmittable to humans. WS recommends that MIRA either hire a private nuisance wildlife control operator or pest control operator to manage woodchucks and other rodents. Alternatively, WS can provide technical assistance so MIRA staff can manage woodchucks and other rodents without outside assistance.

WS would like to thank MIRA and NAES for allowing WS to conduct operational control at the Connecticut Solid Waste System Facility. WS looks forward to working with MIRA in the future to reduce wildlife conflicts and development of more effective management techniques.

Appendix 1




COPY

Permit Number: MB826758-0
Effective: 01/01/2018 Expires: 12/31/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
Migratory Bird Permit Office
P.O. Box 779
Hadley, MA 01035-0779
Tel: 413-253-8643 Fax: 413-253-8424
Email: permitsR5MB@fws.gov



CHIEF, MIGRATORY BIRD PERMIT OFFICE - REGION 5

Permittee:

MATERIAL INNOVATION AND RECYCLING AUTHORITY
200 CORPORATE PLACE
SUITE 202
ROCKY HILL, CT 06067
U.S.A.

Name and Title of Principal Officer:

PETER W. EGAN - DIRECTOR OF ENVIRONMENTAL SERVICES

Authority: Statutes and Regulations: 16 USC 703-712; 50 CFR Part 13, 50 CFR 21.41.

Location where authorized activity may be conducted:

Connecticut Solid Waste System Facility, 300 Maxim Road, Hartford, CT and Regional Recycling Center, 211 Murphy Road, Hartford, CT

Reporting requirements:

ANNUAL REPORT DUE WITH NEXT RENEWAL or IF NOT RENEWING 30 days after permit expiration even if you had no activity.
Forms at: <http://www.fws.gov/forms/3-202-9.pdf>

Authorizations and Conditions:

A. General conditions set out in Subpart B of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

B. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local tribal, or other federal law.

C. Valid for use by permittee named above

D. Authorized to kill by means of shotgun, rifle, or air rifle, using non-toxic shot, or live capture followed by euthanasia*, no more than ONE-HUNDRED (100) Herring, Great Black-backed, Glaucus, Ring-billed, Icelandic, Laughing, or Lesser Black-backed gulls in any species combination and MUST destroy all carcasses. Lethal take is not to be the primary means of control. Active hazing, harassment or other non-lethal techniques must continue in conjunction with any lethal take of migratory birds.

State Restrictions: No species may be taken which is State listed as Endangered, Threatened or Special Concern without prior authorization from the Connecticut Department of Environmental Protection Commissioner Tel: (860) 424-3011. Included on the State list, among other species, are Peregrine falcon, Short-eared owl, Northern harrier, Upland sandpiper and Grasshopper sparrow.

E. The following subpermittees are authorized: Employees of Connecticut Resources Recovery Authority and employees of USDA/APHIS Wildlife Services. In addition, any other person who is (1) employed by or under contract to you for the activities specified in this permit, or (2) otherwise designated a subpermittee by you in writing to the Federal permit issuing office, may exercise the authority of this permit.



Permit Number: MB826758-0
Effective: 01/01/2018 Expires: 12/31/2018

F. You and any subpermittees must comply with the attached Standard Conditions for Migratory Bird Depredation Permits. These standard conditions are a continuation of your permit conditions and *must remain with your permit*.

G. A "No Feeding Policy" must be in place.

For suspected illegal activity, immediately contact USFWS Law Enforcement at: Tolland, CT 860-871-8348

*Euthanasia procedures must follow the American Veterinary Medical Association Guidelines
<<https://www.avma.org/KB/Policies/Documents/euthanasia.pdf>>



Standard Conditions Migratory Bird Depredation Permits 50 CFR 21.41

All of the provisions and conditions of the governing regulations at 50 CFR part 13 and 50 CFR part 21.41 are conditions of your permit. Failure to comply with the conditions of your permit could be cause for suspension of the permit. The standard conditions below are a continuation of your permit conditions and must remain with your permit. If you have questions regarding these conditions, refer to the regulations or, if necessary, contact your migratory bird permit issuing office. For copies of the regulations and forms, or to obtain contact information for your issuing office, visit: <http://www.fws.gov/migratorybirds/mbpermits.html>.

1. To minimize the lethal take of migratory birds, you are required to continually apply non-lethal methods of harassment in conjunction with lethal control.
[Note: Explosive Pest Control Devices (EPCDs) are regulated by the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF). If you plan to use EPCDs, you require a Federal explosives permit, unless you are exempt under 27 CFR 555.141. Information and contacts may be found at www.atf.gov/explosives/how-to/become-an-fel.htm.]
2. Shotguns used to take migratory birds can be no larger than 10-gauge and must be fired from the shoulder. You must use nontoxic shot listed in 50 CFR 20.21(j).
3. You may not use blinds, pits, or other means of concealment, decoys, duck calls, or other devices to lure or entice migratory birds into gun range.
4. You are not authorized to take, capture, harass, or disturb bald eagles or golden eagles, or species listed as threatened or endangered under the Endangered Species Act found in 50 CFR 17, without additional authorization.

For a list of threatened and endangered species in your state, visit the U.S. Fish and Wildlife Service's Threatened and Endangered Species System (TESS) at: <http://www.fws.gov/angered>.

5. If you encounter a migratory bird with a Federal band issued by the U.S. Geological Survey Bird Banding Laboratory, Laurel, MD, report the band number to 1-800-327-BAND (2263) or <http://www.reportband.gov>.
6. This permit does not authorize take or release of any migratory birds, nests, or eggs on Federal lands without additional prior written authorization from the applicable Federal agency, or on State lands or other public or private property without prior written permission or permits from the landowner or custodian.
7. Unless otherwise specified on the face of the permit, migratory birds, nests, or eggs taken under this permit must be:
 - (a) turned over to the U.S. Department of Agriculture for official purposes, or
 - (b) donated to a public educational or scientific institution as defined by 50 CFR 10, or
 - (c) completely destroyed by burial or incineration, or
 - (d) with prior approval from the permit issuing office, donated to persons authorized by permit or regulation to possess them.

(page 1 of 2)

8. A subpermittee is an individual to whom you have provided written authorization to conduct some or all of the permitted activities in your absence. Subpermittees must be at least 18 years of age. As the permittee, you are legally responsible for ensuring that your subpermittees are adequately trained and adhere to the terms of your permit. You are responsible for maintaining current records of who you have designated as a subpermittee, including copies of designation letters you have provided.
9. You and any subpermittees must carry a legible copy of this permit, *including these Standard Conditions*, and display it upon request whenever you are exercising its authority.
10. You must maintain records as required in 50 CFR 13.46 and 50 CFR 21.41. All records relating to the permitted activities must be kept at the location indicated in writing by you to the migratory bird permit issuing office.
11. Acceptance of this permit authorizes the U.S. Fish and Wildlife Service to inspect any wildlife held, and to audit or copy any permits, books, or records required to be kept by the permit and governing regulations.
12. You may not conduct the activities authorized by this permit if doing so would violate the laws of the applicable State, county, municipal or tribal government or any other applicable law.

(DPRD - 12/3/2011)