

MATERIALS INNOVATION AND RECYCLING AUTHORITY



EXHIBIT A

CSWS DIVISION
FY 2018 ADOPTED OPERATING AND CAPITAL BUDGET

FEBRUARY 23, 2017
MIRA BOARD OF DIRECTORS

Summary Modifications to 1st Draft Budget

2

- **Energy Sales:**
 - Average energy price reduced from \$.03681 / kwh to \$.03400 / kwh (7.6%).
 - Energy sales revenue reduced by \$975,070.
 - Energy production unchanged at 347 million kwh.
- **Other Recovered Products:**
 - Increased \$40,847 (2.5%).
 - Incorporates \$16 tip fee for recyclables delivered to transfer station by non-participating towns.
 - Recycled commodity price and residue assumptions updated.
- **Spot Waste Revenue:**
 - Increased \$74,400 through increased deliveries.
 - Accommodates reduction in deliveries from recycling residue.
- **Total Operating Expenses:**
 - Reduced by \$129,192.
- **Improvement Fund Contribution:**
 - Reduced by \$400,000.
 - Includes Turbine 6 overhaul occurring in FY 2018.
- **Deficit Funding from Property Division General Fund:**
 - Increased from \$1,555,933 to \$1,886,564 (\$330,631).
- **Maintains \$70.00 Uniform Base Disposal Fee**
- **Opening of Ellington Transfer Station Separately Assessed**

Reserve Fund Review

3

Division / Account	Balance 1/31/2017*	Note
Authority Budget		
General Fund Checking Account	\$ 1,134,412	Reflects unencumbered value. Cash value is \$3,239,357.51.
Severance Fund	\$ 732,824	Pending distribution is \$12,554.
Sub-total	\$ 1,867,237	
Property Division		
Clearing Account	\$ 1,000	
Operating Fund	\$ 1,781,434	
General Fund	\$ 1,632,322	Pending receipt for Stratford sale is +/- \$4.75 million. Pending receipt for advanced Jets funding is \$422,000. Pending use of reserve for FY 2018 CSWS Tip Fee Stabilization is \$1,886,564.
PD Improvement Fund	\$ 457,097	
CSWS Improvement Fund	\$ 1,021,486	
CSWS Tip Fee Stabilization	\$ 7,708,917	Primarily consists of pre-paid tip fees. Average monthly draw for FY 2017 is \$1,033,125. Pending receipt (transfer) of FY 2018 Property Division income is \$9,969,265. Pending distribution for FY 2018 CSWS Tip Fee Stabilization is \$9,969,265.
Sub-total	\$ 12,602,255	
CSWS		
Clearing Account	\$ 40,000	
Operating Fund	\$ 8,394,786	
Debt Service Fund	\$ 3,875	No pending receipts / distributions other than interest.
General Fund	\$ 1,042	No pending receipts / distributions other than interest.
CSWS Risk Fund	\$ 444,090	No pending receipts / distributions other than interest.
CSWS Legal Fund	\$ 604,283	No pending receipts / distributions other than interest.
Sub-total	\$ 9,488,076	
Landfill Operating Account	\$ 3,351,779	FY 2018 use of reserve is \$159,835 Completion / repair of solar project is \$230,748 before reimbursements
Total	\$ 27,309,347	Excludes Mid Conn and Southeast project funds held pending closeout activity.

* After flow of funds executed.

Summary Proposed Budget

4

- Total Operating Revenues - \$60.0 Million
- Total Operating Expenses - \$56.6 Million
- Operating Income Before Reserve Contributions - \$ 3.4 Million
- Proposed Reserve Contributions
 - CSWS General Fund: \$0.0 Million
 - CSWS Improvement Fund - \$15.3 Million
 - CSWS Risk Fund - \$ 0
 - CSWS Legal Fund - \$ 0
 - MIRA Severance Fund - \$ 0
 - CSWS Tip Fee Stabilization Fund - \$ (10.0 Million)
 - CSWS General Fund Retained - \$ 0
 - Property Division General Fund \$ (1.9 Million)
- \$4.00 Per Ton Increase From FY 2017 Tip Fee
- Will Exceed Opt Out Tip Fee Provisions of MSAs

Participating Town Disposal Fees

5

• Cost of Operation -	\$71,855,853
○ Operating Expense Budget - \$56,570,186 (\$1,745,203 3.0% Reduction)	
○ Reserve Contributions - \$15,285,667 (\$4,694,962, 48.1% Increase)	
○ Net Increase - \$3,219,759 / 4.7%	
• Non Disposal Fee Revenue -	\$34,376,664
○ \$4,526,209, 11.6% Decrease	
○ Includes \$35,340 Member Service Fees (Tier 2 @ \$2.00 & Tier 4 @ \$1.00 / Ton)	
• Net Cost of Operation -	\$37,479,189
○ \$7,745,968 / 26.0% Increase from FY 2017	
• Add: Cost of Service Discounts -	\$ 416,640
○ Tier 1 Long – 204,600 Tons @ \$2.00 / Ton; and	
○ Tier 3 – 3,720 Tons @ \$2.00 / Ton	
• Deduct: Deficit Funding -	\$ (11,855,829)
○ Tip Fee Stabilization of \$9,969,265	
○ Property Division General Fund of \$1,886,564	
• Note: Equivalent Subsidy of Uniform Base Disposal Fee -	\$ (31.87 / ton)

MIRA “shall set the Base Disposal Fee such that the product of the Base Disposal Fee and the Aggregate Tons, shall produce funds estimated as sufficient to pay the estimated Net Cost of Operation”

Participating Town Disposal Fees

6

- Total Rate Base - \$26,040,000
 - Net Cost of Operation + Cost of Service Discounts - Deficit Funding

- Aggregate Tons - 372,000
 - Service Discounted (Tier 1 Long & Tier 3) – 208,320
 - Gate Rate (Equivalent Tier 1 Short) – 141,360
 - \$2 Service Fee (Tier 2) – 13,020
 - \$1 Service Fee (Tier 4) - 9,300
 - Total - 372,000

- Uniform Base Disposal Fee - \$70.00 / Ton

Contract	FY 2018 Proposed Disposal Fee	FY 2018 Base Opt Out	FY 2018 Total Opt Out (With Additional Opt Out Costs)
Tier 1 Long	\$68.00	\$62.80	\$65.15
Tier 1 Short	\$70.00	n/a	n/a
Tier 2	\$72.00	n/a	n/a
Tier 3	\$68.00	n/a	n/a
Tier 4	\$71.00	n/a	n/a

- Total Member Disposal Fees - \$25,623,360
 - \$1,055,360 / 4.3%
Increase from FY 2017

Operating Expense Budget

7

• Transfer Stations -

\$ 1,693,100

0.8% Decrease from FY 2017

○ Ellington -	\$ 14,300
○ Essex -	\$ 565,100
○ Torrington -	\$ 548,350
○ Watertown -	\$ 565,350
○ Total -	\$1,693,100

• Waste Transportation -

\$13,107,322

3.4% Decrease from FY 2017

○ MSW From Essex -	\$ 768,082
○ MSW From Torrington -	\$ 551,520
○ MSW From Watertown -	\$ 1,399,560
○ MSW From RRDD#1 -	\$ 18,418
○ MSW From Ellington -	\$ 42,000
○ Solid Waste Bypass -	\$ 25,520
○ Ash Disposal -	\$ 10,286,352
○ Non-Processible -	\$ 15,870
○ Total -	\$ 13,107,322

• Trash to Energy Facility -

\$32,687,644

2.5% Decrease from FY 2017

○ Waste Processing -	\$11,037,801 (\$181,370 / 1.6% Reduction)
○ Power Block -	\$20,408,814 (\$653,711 / 3.1% Reduction)
○ Facility Contractor -	\$ 1,241,029 (\$8,029 / 0.7% Increase)
○ Total -	\$32,687,644 (827,052 / 2.5% Reduction)

Operating Expense Budget

8

- **Recycling Facility -**

\$656,750

11.0% Increase from FY 2017

○ Transport From Essex -	\$ 170,150
○ Transport From Torrington -	\$ 180,225
○ Transport From Watertown –	\$ 118,125
○ Direct O&M Expenses -	\$ 188,250
○ Recycling Rebate –	<u>\$ 0</u>
○ Total	\$ 656,750

- **Indirect Expense-**

\$8,425,370

5.7% Reduction from FY 2017

○ Authority Budget Allocation–	\$2,811,877
○ MIRA Direct Personnel–	\$1,804,003
○ MIRA Direct Non Personnel -	\$1,198,016
○ Assessment, Fees and Taxes –	\$2,611,474
○ Murphy Road Ops Center -	<u>\$ 0</u>
○ Total	\$8,425,370

- **Total Operating Expense Budget -**

\$56,570,186

Improvement Fund Budget

- Improvement Fund contributions reduced by \$400,000.
- Reflects \$510,000 reduction to original project requests:

WPF / Conveyors	\$ 40,000
PBF / Boiler 13 Grate	\$ 100,000
Auxiliary Systems / Traveling Screen	\$ 50,000
Turbine 6 Overhaul	\$ 200,000
Ash System / Flash Conveyors	\$ 70,000
PBF Roof Repairs	\$ 50,000
Total Project Reductions	\$ 510,000

- All funding is dedicated to the Resource Recovery Facility.
- No funding requested for projects at transfer stations or Recycling Facility.

Updated Budget Proposal Reflecting Project Reductions	
Waste Processing Facility	FY 2018 Funding
Trommels	\$ 100,000
Conveyors	\$ 560,000
MSW/RDF Floor Repairs	\$ 340,000
Building Repairs	\$ 55,000
Roof Repairs	\$ 120,000
Loaders	\$ 860,000
Other Rolling Stock	\$ 60,000
Site Repairs	\$ 50,000
Sub-Total Waste Processing Center	\$ 2,145,000
Power Block Facility	FY 2018 Funding
Boiler 11	\$ 2,398,000
Boiler 12	\$ 2,470,000
Boiler 13	\$ 1,126,000
Turbine 6	\$ 2,801,667
Baghouse	\$ 700,000
Auxiliary Systems	\$ 1,045,000
Building Repairs	\$ 260,000
Roof Repairs	\$ 150,000
Site Repairs	\$ 50,000
Switch Yard/Switchgear	\$ 75,000
Stack/Common Duct	\$ 1,535,000
Ash System/Load Out	\$ 530,000
Sub-Total Power Block Facility	\$ 13,140,667
Total CSWS Improvement Fund Contribution	\$ 15,285,667

Recommended Reserve Contributions

10

• Operating Income Before Reserve Contributions -		\$ 3,429,838
• CSWS General Fund Retained:		\$ 0
<ul style="list-style-type: none"> ✦ CSWS Improvement Fund - \$15,285,667 Represents Strategic Plan Update required funding reduced for Unit 11 air heaters undertaken in FY 2016. ✦ CSWS Risk Fund - \$ 0 There is presently in excess of \$443,000 in this fund . Based on review with the Risk manager, this is viewed as sufficient in comparison to the deductibles of all insurance policies other than business interruption. No contributions to this fund are recommended for FY 2018. ✦ CSWS Legal Fund - \$ 0 There is presently in excess of \$603,000 in this fund . This is viewed as sufficient in comparison to prior actual CSWS legal expenses No contributions to this fund are recommended for FY 2018. ✦ MIRA Severance Fund - \$ 0 There is presently in excess of \$732,000 in this fund . This is viewed as sufficient in comparison to total FY 2018 Personnel Services. No contributions to this fund are recommended for FY 2018. ✦ CSWS Tip Fee Stabilization Fund - \$ (9,969,265) Draw expected based on draft budget parameters. Consistent with Strategic Plan Update projection. ✦ Property Division General Fund Transfer - \$ (1,886,564) There is presently in excess of \$1.6 million in this fund. \$0.4 million is due to this fund from FY 2018 Property Division budget. Consistent with Strategic Plan Update projection. 		

Non Disposal Fee Revenue

11

○ Energy Sales -		\$16,266,353
		\$2,690,047 / 14.2% Decrease
× Capacity Payments & RECs –	\$ 4,468,353	
× Real Time Market –	\$11,798,000	
× Contract Sales -	<u>\$ 0</u>	
× Total -	\$16,266,353	
○ Other Recovered Products -		\$1,712,248
		\$687,580 / 28.7% Decrease
× Inbound CSWS Base @ \$8.50 / Ton –	\$ 441,090	
× Inbound FCR Base @ \$7.50 / Ton –	\$ 75,000	
× Non-participating Town Tip Fees -	\$ 64,800	
× Revenue Share (Container Sales) -	\$ 45,899	
× Revenue Share (Paper Sales) -	\$ 234,069	
× FCR Residue Disposal / Other -	<u>\$ 168,640</u>	
× Recycling Sub-total	\$1,029,498	
× Municipal Bulky & Mattresses –	\$ 109,000	
× Metal Sales –	<u>\$ 573,750</u>	
× Total Other Recovered Products-	\$1,712,248	
○ Non Participating Town Waste -		\$16,319,400
		\$1,147,000 / 6.6% Decrease
× Hauler Contracts-	\$11,620,000	
× Other Contracts -	\$ 4,018,000	
× Spot Waste -	<u>\$ 681,400</u>	
× Total -	\$16,319,400	
○ Other (Interest / Service Fees)		<u>\$ 78,663</u>
		\$1,582 / 2.0% Decrease
○ Total Non Disposal Fee Revenue -		\$34,376,664

Waste to Energy Key Drivers

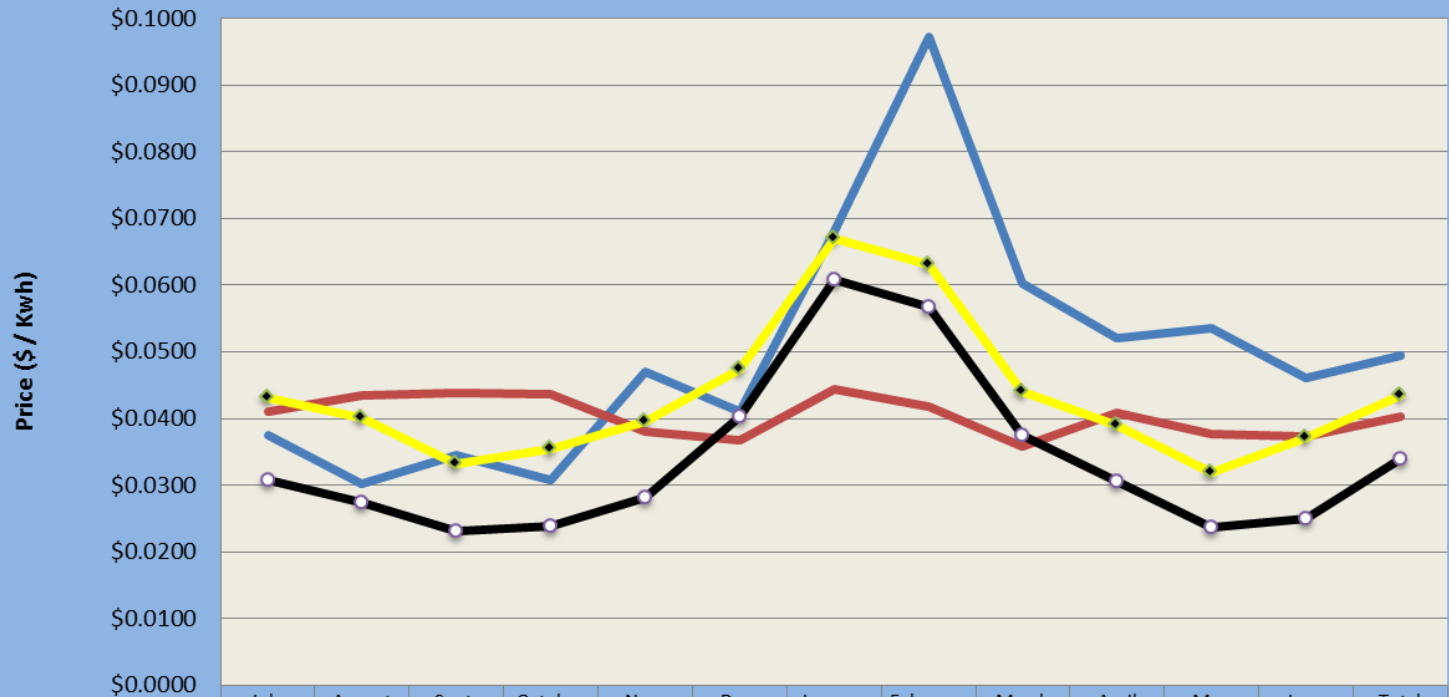
12

• Total MSW Deliveries -		650,440
○ "Aggregate Tons" -	372,000 (6,500 ton / 1.7% Reduction)	
○ Hauler Contract -	166,000 (23,200 ton / 16.3% Increase)	
○ Other Contract -	82,000 (13,000 ton / 13.7% Reduction)	
○ Spot -	29,440 (69,260 ton / 70.2% Reduction)	
○ Municipal Bulky -	<u>1,000 (2,000 ton / 66.7% Reduction)</u>	
○ Total -	650,440 (67,560 ton / 9.4% Reduction)	
• Total MSW to RDF Production Rate -		98.4%
• Total RDF -		640,000
• RDF to KWH Production Rate -		542.2 kwh / ton
• Energy Production -		347,000,000 kwh
○ 38 million Kwh (9.9%) Reduction		
○ Boiler availability reduced from 86% to 80.25%		
• Contract / Non Contract Energy Price -		\$.0340 / kwh
○ Reduced 15.3% from FY 2017 Rate of \$.04344 / Kwh		
• RDF to Ash Production Rate -		26.35%
○ Increased from 25.1% in FY 2017		
• Ash to Disposal -		168,629 tons
○ Reduced by 9,371 tons (5.3%)		
• Ash Disposal Cost Per Ton -		\$61.00
○ Increased by \$2.71 per ton from FY 2017 rate of \$58.29		

Waste to Energy Key Drivers

13

Energy Pricing FY 2015 to FY 2018 (\$ / Kwh)



	July	August	Sept.	October	Nov.	Dec.	January	February	March	April	May	June	Total
FY 2015 Actual	\$0.0375	\$0.0302	\$0.0346	\$0.0307	\$0.0471	\$0.0411	\$0.0681	\$0.0973	\$0.0602	\$0.0521	\$0.0536	\$0.0461	\$0.0494
FY 2016 Actual	\$0.0411	\$0.0435	\$0.0439	\$0.0436	\$0.0381	\$0.0368	\$0.0444	\$0.0418	\$0.0359	\$0.0409	\$0.0378	\$0.0373	\$0.0403
FY 2017 Budget	\$0.0432	\$0.0401	\$0.0331	\$0.0354	\$0.0396	\$0.0473	\$0.0671	\$0.0631	\$0.0441	\$0.0390	\$0.0320	\$0.0371	\$0.0434
FY 2018 Budget	\$0.0308	\$0.0274	\$0.0232	\$0.0238	\$0.0282	\$0.0404	\$0.0608	\$0.0567	\$0.0374	\$0.0306	\$0.0236	\$0.0250	\$0.0340

Other Recovered Products Key Drivers

14

Recycling Facility Deliveries	Tons	Rate	Revenue
CSWS Commercial	107	\$ 0	\$ 0
CSWS Residential	51,893	\$8.50	\$441,090
FCR Commercial	0	\$ 0	\$ 0
FCR Residential	10,000	\$7.50	\$ 75,000
Non-participating Town Tip Fees	4,050	\$16.00	\$ 64,800
Total	62,000	\$8.32	\$580,890
Recycling Facility Exports	Tons	Rate	Revenue
CSWS Containers	14,823.0	\$ 3.00	\$ 44,469
CSWS Paper (ONP)	23,039.9	\$ 3.00	\$ 69,120
CSWS Paper (OCC)	9,359.5	\$16.00	\$149,753
CSWS Commercial	107.0	\$50.00	\$ 5,350
FCR Containers	2,858.0	\$ 0.50	\$ 1,429
FCR Paper (ONP)	4,439.0	\$ 1.00	\$ 4,439
FCR Paper (OCC)	1,802.7	\$ 3.00	\$ 5,408
FCR Paid Residue	2,480.0	\$68.00	\$168,640
FCR Unpaid Residue	3,100	\$ 0	\$ 0
Total	62,009	\$ 7.23	\$448,608

Other Recovered Products Key Drivers

15

Other	Quantity	Rate	Revenue
Municipal Bulky Waste	1,000 tons	\$85.00	\$85,000
Mattresses	800 units	\$30.00 each	\$24,000
Total			\$109,000

Metal Sales	Tons	Rate	Revenue
Ferrous Metals	19,500	\$ 27.00	\$526,500
Scrap and Maintenance Metals	350	\$135.00	\$ 47,250
Total Metal Sales	19,850	\$ 28.90	\$573,750

Ellington Transfer Station Alternate

16

Assumptions

- An additional Tier 1 Long Term municipality is signed and brings 25,000 tons of MSW through the Ellington transfer station.
- Deliveries of ICW are reduced by 25,000 tons to accommodate this additional waste.
- The Town of Ellington begins delivering its 4,200 tons of MSW through the transfer station rather than direct to Hartford.
- The Town of Ellington begins delivering its 1,000 tons of hauler-billed MSW through the transfer station rather than direct to Hartford.
- Ellington receives a host benefit of \$0.58 per ton on the total of 30,200 tons.
- Ellington no longer receives a \$10 rebate on its 4,200 tons of MSW.

Budget Changes

(Not Included in Current Proposal)

Revenue:	
Additional Service Fees (Net)	\$ 475,000
Operating Expenses:	
Direct Salary and Related	\$ (74,200)
Host Benefit	\$ (17,516)
Waste Transportation (Net)	\$ (247,920)
Ellington O&M (MIRA)	\$ (28,700)
Ellington Contract Operation	\$ (363,200)
Total	\$ (731,536)
Net Operating Loss	\$ (256,536)
Improvement Fund Contribution (Scale)	\$ (100,000)
FY 2018 Additional Total Cost	\$ (356,536)

FY 2018 Budget Neutral Point:

- An additional 32,952 Short Term tons @ \$70 / ton for total new deliveries of 57,952 tons; or
- An additional 40,424 Long Term Tons @ \$68 / ton for total new deliveries of 65,424 tons; and
- Note that amortizing the Improvement Fund contribution over 10 years reduces the additional tons required by 8,318 (short term) or 10,204 (long term) tons.