MIRA REGULAR BOARD MEETING January 28, 2016

Materials Innovation and Recycling Authority

100 Constitution Plaza Hartford, Connecticut 06103 Telephone (860)757-7700 - Fax (860)757-7743

MEMORANDUM

TO:

MIRA Board of Directors

FROM:

Moira Kenney, Assistant HR Manager/Board Administrator

DATE:

Jan. 1, 2016

RE:

Notice of Regular Board Meeting

There will be a Regular Meeting of the Connecticut Resources Recovery Authority Board of Directors on Thurs. Jan. 28, 2016, at 9:30 a.m. The meeting will be available to the public in the Board Room at 211 Murphy Road, Hartford, CT 06114.

Please notify this office of your attendance at (860) 757-7787 at your earliest convenience.

Materials Innovation Recycling Authority Regular Board of Directors Meeting Agenda

Agenda Jan. 28, 2016 9:30 AM

I. Pledge of Allegiance

II. Public Portion

A ½ hour public portion will be held and the Board will accept written testimony and allow individuals to speak for a limit of three minutes. The regular meeting will commence if there is no public input.

III. Minutes

1. Board Action will be sought for Approval of the Regular Dec. 17, 2015, Board Meeting Minutes (Attachment 1).

IV. Finance Committee Reports

- 1. Board Action will be sought for the Resolution Transferring Additional Funds into the CSWS Improvement Fund (Attachment 2).
- 2. Board Action will be sought for the Cost Benefit Analysis Examining the Timing of Major Maintenance Activities and Resolution Increasing the CSWS Capital Budget for FY 2016 (Attachment 3).
- 3. Discussion of CSWS FY 2017 Draft Budget Development Material (Attachment 4).
- 4. Board Action will be sought for the Resolution Recommending on Call Economic Advisory Consultants for three years ending February 28, 2019 (Attachment 5).

V. Policy and Procurement Committee Reports

VI. Chairman and President's Reports

1. Board Action will be sought for Resolution Regarding an Amendment to a Sewer Easement at the South Meadows Station Site (Attachment 6).

VII. Executive Session

An Executive Session will be held to discuss pending litigation, trade secrets, personnel matters, security matters, pending RFP's, and feasibility estimates and evaluations.

TAB 1

MATERIALS INNOVATION AND RECYCLING AUTHORITY

FOUR HUNDRED AND SIXTIETH

DEC. 17, 2015

A regular meeting of the Materials Innovation and Recycling Authority Board of Directors was held on Thurs. Dec. 17, 2015, in the Board Room at 211 Murphy Rd. Hartford, CT 06103. Those present were:

Directors:

Chairman Don Stein

Vice-Chairman Dick Barlow

John Adams

Marilynn Cruz-Aponte

Ralph Eno Jim Hayden Andy Nunn Scott Shanley

Bob Painter, CSWS Ad-Hoc

Present from MIRA in Hartford:

Tom Kirk, President
Mark Daley, Chief Financial Officer
Jeffrey Duvall, Director of Budgets and Forecasting
Peter Egan, Director of Operations and Environmental Affairs
Laurie Hunt, Director of Legal Services
Moira Kenney, Assistant HR Manager/Board Administrator

Others Present: Ann Catino, Esq., and John Pizzimenti, USA Hauling.

Chairman Stein called the meeting to order at 9:35 a.m. and said a quorum was present.

PUBLIC PORTION

Chairman Stein said the agenda allowed for a public portion in which the Board would accept written testimony and allow individuals to speak for a limit of three minutes. As there were no members of the public present who wished to address the Board the meeting commenced.

APPROVAL OF THE NOV. 19, 2016 MEETING MINUTES

Chairman Stein requested a motion to approve the minutes of the Nov. 19, 2016, Board Meeting. Director Shanley made the motion which was seconded by Director Adams.

The motion to approve the minutes as amended was approved by roll call. Chairman Stein, Vice-Chairman Barlow, Director Adams, Director Cruz-Aponte, Director Eno, Director Hayden, Director Nunn, Director Painter and Director Shanley voted yes.

Directors	Aye	Nay	Abstain
Obsigned Stain	X		
Chairman Stein	X		
Vice-Chairman Barlow			
John Adams	X		
Marilynn Cruz-Aponte	X		
Ralph Eno	X		
Jim Hayden	X		
Andy Nunn	X		
Scott Shanley	X		
Ad-Hoc			
Bob Painter, CSWS Project	X		

RESOLUTION REGARDING AMENDMENT OF THE FISCAL YEAR 2016 CWS OPERATING AND CAPITAL BUDGETS

Chairman Stein requested a motion on the above referenced item. The motion was made by Director Shanley and seconded by Director Eno.

WHEREAS, The Authority has previously adopted a Fiscal Year 2016 Operating and Capital Budget (Budget) for the Connecticut Solid Waste System (CSWS); and

WHEREAS, The CSWS Budget contemplates that its Cost of Operation will be recovered from operating revenues including Non-Disposal Fee Revenues and Solid Waste Disposal Fees from Member Municipalities; and

WHEREAS, Fiscal year to date CSWS operating revenues as of October 31, 2015 are \$3.7 million (17%) under budget; and

WHEREAS, Such shortfall in operating revenue is primarily the result of unplanned and extended planned downtime within the CSWS Resource Recovery Facility; and

WHEREAS, Such Resource Recovery Facility downtime has also contributed to certain cost savings resulting in fiscal year to date CSWS operating expenses as of October 31, 2015 being \$2.1 million (11%) under budget; and

WHEREAS, CSWS Income before reserve contributions remains \$1.6 million (102%) under budget which has placed added pressure on the CSWS Tip Fee Stabilization Fund and caused the deferral of budgeted contributions to the CSWS Operating and Improvement Funds

NOW THEREFORE, be it

RESOLVED: That the Fiscal Year 2016 Authority Budget be reduced by \$361,000 and such reduction allocated to the Authority's CSWS, Property and Landfill divisions in accordance with FY 2016 adopted allocation percentages; and

RESOLVED: That the fiscal Year 2016 CSWS Operating and Capital Budget be reduced by \$1,627,580 (2.8%) including the allocated Authority Budget reduction as shown on Exhibit A attached hereto and substantially as discussed in this meeting.

Mr. Daley said MIRA has been experiencing with budget versus actual revenue in the CSWS. He said the bottom line result is that income before reserves in CSWS is \$1.6 million under budget. Mr. Daley said management had identified \$1.6 million in expense reductions which will be applied to the second half of FY16. He said the resolution is in two parts, one a reduction to the Authority budget of \$361,000 which passes through to the CSWS operating budget roughly in the amount of \$260,000. Mr. Daley said the remaining reductions are in the per ton costs for transport, based on reductions in fuel as well as a reduction of \$550,000 to operations and maintenance of the WPF and PBF. He said the \$200,000 reduction in the recycling facility budget is based on actual financial performance of recycling operations and a corresponding reduction in the originally proposed \$10.00 per ton recycling rebate to \$5.00. He said overall these reductions total a \$1.6 million budget reduction.

Chairman Stein asked if NAES had agreed on the reductions which were negotiated. Mr. Egan replied that was correct. He said that NAES agreed that the activities in the operations and maintenance budget can be delayed.

The motion previously made and seconded was approved unanimously by roll call. Chairman Stein, Vice-Chairman Barlow, Director Adams, Director Cruz-Aponte, Director Eno, Director Hayden, Director Nunn, Director Painter and Director Shanley voted yes.

Directors	Aye	Nay	Abstain
Chairman Stein	X		
Vice-Chairman Barlow	X		
John Adams	X		
Marilynn Cruz-Aponte	X		
Ralph Eno	X		
Jim Hayden	X		
Andy Nunn	X		
Scott Shanley	Х		
Ad-Hoc			
Bob Painter, CSWS Project	Х		

RESOLUTION REGARDING RATIFICATIONS OF AN EMERGENCY PROCUREMENT FOR A REPLACEMENT ROOF AT THE COLLINS BUILDING REPLACEMENT

Chairman Stein requested a motion on the above referenced item. The motion to approve was made by Director Eno and seconded by Vice-Chairman Barlow.

RESOLVED, That the MIRA Board of Directors ratifies the Emergency Procurement as substantially presented and discussed at this meeting.

Mr. Kirk said this is the ratification of an emergency procurement which was discussed at the last Board meeting. He explained management received consensus from the Board to move forward with an emergency procurement due to weather related reasons. He said there were nine bids for the job and ultimately it went well. Director Cruz-Aponte asked if the job stayed within budget. Mr. Egan said at this point he believes the job will go roughly \$7,000 over the contractor's bid due to decking material. Mr. Kirk explained this was a change order well within the budget for the job. Mr. Egan said the final price will likely be about \$223,000.

The motion previously made and seconded was approved unanimously by roll call. Chairman Stein, Vice-Chairman Barlow, Director Adams, Director Cruz-Aponte, Director Eno, Director Hayden, Director Painter, Director Nunn, and Director Shanley voted yes.

Directors	Aye	Nay	Abstain
	X		
Chairman Stein		-	
Vice-Chairman Barlow	X		
John Adams	X		
Marilynn Cruz-Aponte	X		
Ralph Eno	X		
Jim Hayden	X		
Andy Nunn	X		
Scott Shanley	X		
Ad-Hoc			
Bob Painter, CSWS Project	X		

OS & HR REPORT

Director Hayden reported that eighteen MIRA employees joined the new HSA plan which will help to manage health care costs going forward. He said the plan was 100% funded this first year as an incentive with a 50% funding planned for the subsequent year. Director Hayden said this initial funding resulted in a 9.6% higher cost in total premium dollars than current but because 50% of the reimbursement drops off at year two MIRA will be back at FY'15 numbers the next year. Vice-Chairman Barlow asked if employees can opt back out of the plan after joining. Mr. Kirk said there is currently no restriction.

MOTION TO TABLE THE RESOLUTION REGARDING A TRANSFER OF FUNDS AND AN ADJUSTMENT TO THE FY2016 CSWS CAPITAL BUDGET

Chairman Stein requested a motion to table the above resolution. The motion to table was made by Director Adams and seconded by Director Shanley.

The motion previously made and seconded was approved unanimously by roll call. Chairman Stein, Vice-Chairman Barlow, Director Adams, Director Cruz-Aponte, Director Eno, Director Hayden, Director Nunn, Director Painter, and Director Shanley voted yes.

Directors	Aye	Nay	Abstain
Chairman Stein	X		
Vice-Chairman Barlow	X		
John Adams	Х		
Marilynn Cruz-Aponte	Х		
Ralph Eno	X		
Jim Hayden	Х		
Andy Nunn	X		
Scott Shanley	Х		
Ad-Hoc			
Bob Painter, CSWS Project	X		

PRESIDENT'S REPORT

Mr. Kirk said he had a short update on the plant. He said management has about two months run time with the Unit 13 replacements of the air heaters which continue to meet maximum continuous rating and continues to perform well. He said a partial replacement of one unit in Unit 12 also had very good results.

EXECUTIVE SESSION

Chairman Stein requested a motion to enter into Executive Session to discuss pending litigation. The motion was made by Director Shanley and seconded by Director Eno and was approved unanimously.

Chairman Stein asked the following people to join the Directors in the Executive Session:

Tom Kirk

Mark Daley

Peter Egan

Laurie Hunt

The motion was approved unanimously by roll call. Chairman Stein, Vice-Chairman Barlow, Director Adams, Director Cruz-Aponte, Director Eno, Director Hayden, Director Painter, and Director Shanley voted yes.

Directors	Aye	Nay	Abstain
Chairman Stein	X		
Vice-Chairman Barlow	Х		
John Adams	X		
Marilyn Cruz-Aponte	Х		
Ralph Eno	Х		
Jim Hayden	X		
Scott Shanley	Х		
Ad-Hoc			
Bob Painter, CSWS Project	Х		

The Executive Session began at 9:56 a.m. and concluded at 11:45 a.m. Chairman Stein noted that no votes were taken in Executive Session.

The meeting was reconvened at 11:45 a.m. The door was opened, and the Board Secretary and all members of the public were invited back in for the continuation of public session.

ADJOURNMENT

Chairman Stein requested a motion to adjourn the meeting. The motion to adjourn was made by Director Shanley seconded by Director Eno and was approved unanimously

The motion previously made and seconded was approved unanimously by roll call. Chairman Stein, Vice-Chairman Barlow, Director Adams, Director Cruz-Aponte, Director Eno, Director Hayden, Director Nunn, and Director Painter voted yes.

Directors	Aye	Nay	Abstain
Chairman Stein	X		
Vice-Chairman Barlow	X		
John Adams	Х		
Marilynn Cruz-Aponte	Х		
Ralph Eno	X		
Jim Hayden	X		
Andy Nunn	Х		
Ad-Hoc			
Bob Painter, CSWS Project	X		

There being no other business to discuss, the meeting adjourned at 11:45 a.m.

Respectfully Submitted,

Moira Kenney Assistant HR Manager/Board Administrator

TAB 2

RESOLUTION FOR THE MATERIALS INNOVATION AND RECYCLING AUTHORITY BOARD OF DIRECTORS

REGARDING TRANSFER OF FUNDS INTO THE CSWS IMPROVEMENT FUND

WHEREAS, The Authority has previously established and maintained a Facilities Modification Reserve under the Mid Connecticut Project for the express purpose of funding capital expenditures for its Resource Recovery and related facilities and equipment; and

WHEREAS, The Authority has previously established and maintained a Rolling Stock Reserve under the Mid Connecticut Project for the express purpose of purchasing and rebuilding operating vehicles such as tractors, trailers, loaders, containers and sweepers used in the operation of its Resource Recovery and related facilities; and

WHEREAS, Effective November 16, 2012, the Authority re-designated the Facilities Modification Reserve, and \$4,576,478.49 constituting the balance of such reserve's net assets, as the CSWS Capital Expenditure Reserve, and transferred the \$1,183,779.60 balance of the Rolling Stock Reserve into such CSWS Capital Expenditure Reserve, in order to provide for the continued funding of capital expenditures related to the Hartford resource recovery and related facilities and equipment as part of its transition from the Mid Connecticut Project to the Connecticut Solid Waste System (CSWS); and

whereas, The total funds made available to the CSWS Capital Expenditure Reserve of \$5,760,258.09 effective November 16, 2012 as stated above considered funds budgeted, reserved and available for such purposes at the time of such transition together with the findings of three independent engineering assessments of the resource recovery facility addressing its expected reserve fund requirements and the status of the maintenance and upkeep of its related Power Block component upon conclusion of the long term operating contract for the Power Block component; and

WHEREAS, In its report dated February 23, 2011, HDR Engineering Inc. (HDR), a firm recognized for its experience in planning and implementing recent life extension refurbishment projects at comparable resource recovery facilities in Detroit and Honolulu, recommended a reserve for scheduled capital equipment overhauls, annual or periodic capitalized maintenance projects, of \$4.0 to \$4.5 million dependent on events requiring significant capital investment, "HDR Recommended Capital Reserve"; and

WHEREAS, In its report dated May 24, 2012, HDR documented the condition of the Power Block facility based upon a Mid-Conn Facility Assessment it conducted on March 29th and 30th, 2012, which report identified an initial punch list of items requiring maintenance or repairs, which in its professional opinion would reasonably be expected to be completed by the then-current operator of the Power Block, which initial punch list included 52 numbered items estimated to cost \$3,520,000 including contingency to complete, which items are not considered to be scheduled capital equipment overhauls, annual or periodic capitalized maintenance projects as contemplated under the HDR Recommended Capital Reserve, but a substantial portion of which items are eligible capital expenditures under the Facilities Modification Reserve; and

WHEREAS, In its report dated June 21, 2012, HDR documented the condition of the Power Block facility based upon a Mid-Conn Facility Supplemental Assessment it conducted on June 7th, 8th and 12th, 2012, which report identified a final punch list of items remaining to be addressed, which in its professional opinion would reasonably be expected to have been completed before the May 31, 2012 expiration of the then-current contract for operation of the Power Block, by the then-current contract operator of the Power Block, which final punch list included 64 numbered items estimated to cost \$4,159,000 including contingency to complete, which items are not considered to be scheduled capital equipment overhauls, annual or periodic capitalized maintenance projects as contemplated under the HDR Recommended Capital Reserve, but a substantial portion of which items are eligible capital expenditures under the Facilities Modification Reserve; and

WHEREAS, Such June 21, 2012 report also documented numerous items removed from the Power Block that should have been left behind including tools, spare parts in inventory and consumables that would create nuisance hardships for a new operator and jeopardize boiler availability, which items are not considered to be scheduled capital equipment overhauls, annual or periodic capitalized maintenance projects as contemplated under the HDR Recommended Capital Reserve, but some of which items are eligible capital expenditures under the Facilities Modification Reserve; and

WHEREAS, a new contract operator of the Power Block facility (NAES Corporation) undertook a transition process and effectively assumed control of operating and maintenance responsibilities for the Power Block upon expiration of the prior contract on May 31, 2012; and

WHEREAS, prior to conclusion of the Mid Connecticut Project on November 15, 2012, NAES Corporation began work on certain final punch list items including, but not limited to, soot blower, conveyor, lighting and roof refurbishments which work was funded through the Mid Connecticut Project Facilities Modification Reserve; and

WHEREAS, after commencement of the CSWS on November 16, 2012, NAES continued work on certain final punch list items including, but not limited to, spare parts inventory replacement, baghouse refurbishment, additional soot blower and conveyor work, boiler 13 structural and roof repair and replacement, and feed water pump repairs totaling \$1,921,162.62 funded from the CSWS Capital Expenditure Reserve within the first year of CSWS operations, which work was generally completed within the first year of CSWS operations, and which work is considered a legacy of, and chargeable to, the Mid Connecticut Project; and

WHEREAS, after commencement of the CSWS on November 16, 2012, NAES undertook overhaul work within Boilers 11, 12 and 13 including, but not limited to, generation bank, super heater, water wall and tube replacements totaling \$986,490.00 funded from the CSWS Capital Expenditure Reserve within the first two months of CSWS operations, which work was completed within the first four months of CSWS operations, which work is considered a legacy of, and chargeable to, the Mid Connecticut Project; and

WHEREAS, funding of final punch list items, inventory replacement and immediate term overhaul work from the CSWS Capital Expenditure Reserve has impaired such fund's ability to serve its intended purpose as identified in the February 23, 2011 HDR Report and previous actions of this Board; and

WHEREAS, such impairment has been quantified in the amount of \$1,647,394.53 as detailed on Exhibit A attached hereto; and

WHEREAS, The Authority has previously renamed the CSWS Capital Expenditure Reserve to the CSWS Improvement Fund, and

WHEREAS, The Authority now desires that the Mid Connecticut Project reimburse the CSWS Improvement Fund for such impairment.

NOW THEREFORE, be it

RESOLVED: That management is authorized to transfer the amount of \$1,647,394.53 from the Mid Connecticut Project Operating Account to the CSWS Improvement Fund.

Exhibit A	
MIRA / CSWS Capital Improvement Fund	
Account Activity Immediately Following Transiton from Mid Ct. Project	

				Related HDR			
	_			Punchlist Item		Draw	
Funded	Done		Description	(June 2012)	PO#	Request	Actual Cost
01/02/13	1/13	PBF	B11 Generation bank side wall replacement		8321	267,410	S 267,410.00
01/02/13	1/13	PBF	New Set of Auger Bin Screws	Inventory	8323	215,700	S 107,850.00
01/02/13	1/13	PBF	Baghouse Bags	Inventory, 17, 18, 20	8324	97,138	S 342,84
	2/13	PBF	Baghouse Bags	Inventory, 17, 18, 20	8324		S 100,569,72
1/31/13	2/13	PBF	B12 Soot Blowers Installation	21	8320	220,000	S 41,945,36
1/31/13	2/13	PBF	B13 Jansen Structural, Upgrade & E&I T&M		8394	328,253	S 20,875.72
1/31/13	2/13	PBF	B11 Baghouse Overhaul	17, 18, 20	8397	120,000	S 64,161.00
1/31/13	2/13	PBF	T5 Hydrogen Cooler work		8395	34,250	\$ 6,850.00
	3/13	PBF	New Set of Auger Bin Screws	Inventory	8323		S 107,850.00
	3/13	PBF	B12 Soot Blowers Installation	21	8320		S 42,580,02
1/31/13	3/13	PBF	B13 Primary Superheater Replacement		8403	175,000	\$ 175,000,00
1/31/13	2/12	DDE	B13 Roof doors (2) fab & install and furnace roof	2, 47, 7	9202	205 (00	5 205 (00 00
1/31/13	3/13	PBF	replacement		8393	205,600	\$ 205,600.00
1/31/13	3/13	PBF PBF	B-13 Removal of Waterwall Screen Tubes B13 Jansen Structural, Upgrade & E&I T&M		8398 8394	141,800	\$ 141,800,00 \$ 288,773.49
1/31/13		1 DI	B13 CSU Tube replacement, distributors & chutes fab &		0374		Ψ 200,773.49
1/31/13	3/13	PBF	install		8396	300,480	S 300,480.00
1/31/13	3/13	PBF	B12 Removal of Waterwall Screen Tubes		8399	181,800	\$ 101,800.00
	3/13	PBF	T5 Hydrogen Cooler work		8395	101,000	\$ 27,400.00
2/27/13	3/13	PBF	B12 Furnace Tubes w/installation		8402	381,834	\$ 432,714.00
2/27/13	3/13	PBF	BII Primary & Secondary Superheaters repairs		8418	97,437	\$ 97,437.00
1/31/13	4/13	WPF	C139&239 Belt Scales		8322	38,500	\$ 32,110.00
	4/13	PBF	B12 Soot Blowers Installation	21	8320	30,300	\$ 22,133.02
1/31/13	4/13	PBF	B13 Baghouse Overhaul	17, 18, 20	8401	120,000	\$ 83,487.92
1/31/13	4/13	PBF	B-12 Baghouse Overhaul	17, 18, 20	8400	120,000	\$ 116,236.00
210 X110	5/13	PBF	B13 Baghouse Overhaul	17, 18, 20	8401	120,000	\$ 86,948.00
2/27/13	5/13	WPF	Powertrain Rebuild CAT-966H Unit 4064	17, 10, 20	8417	191,649	\$ 186,413.00
4/24/13	5/13	PBF	TRC BPS NPCC project Engineering		8538	125,449	\$ 124,223.00
11.2.11.10	6/13		B12 Soot Blowers Installation	21	8320	1 80,447	\$ 112,716.00
4/24/13	6/13	WPF	Replacement of Hot Water Boiler		8475	39,000	\$ 39,000.00
1121112	8/13	WPF	C139&239 Belt Scales	-	8322	57,000	\$ 3,878.59
4/24/13	8/13	PBF	6A Boiler Feedwater Pump Repairs	38, 39	8530	210,000	\$ 162,330.00
6/14/13	8/13		BPS Proj - Below Grade Conduit Installation		8581	254,500	\$ 183,936.00
0/14/13	10/13	WPF	C139&239 Belt Scales		8322	254,500	\$ 16,132.54
	11/13		6A Boiler Feedwater Pump Repairs	38, 39	8530		S 24,500.00
3/27/13			Change Order for 5B Galley		8464	12,180	3 27,300:00
7/30/13	_		Terminator Rotor Modification		8666	68,700	S 63,840.00
7/30/13			Roof Repairs	7, 52	8791	63,744	s 63,744.00
10/1/13			MCC Segregation Project		8941	131,048	\$ 127,566.00
10/1/13			MSW floor repairs and upgrade, engineering design		8940	21,000	S 6,350.00
10/1/13			MSW floor repairs and upgrade, engineering design		8940	21,000	S 6,150.00
10/1/13			MSW floor repairs and upgrade, engineering design		8940		S 4,725.00
10/1/13			MSW floor repairs and upgrade, engineering design		8940		\$ 4,725.00 \$ 3,775.00
10/1/13	_		Auger Bin Screws		8939	123,840	S 123,840.00
10/1/13		PBF	Colmonoy Application to Superheater Tubes (30%)		8938/8943	90,093	S 90,093.00
10/1/13	10/13	101	Colmonoy Application to Superheater Tubes (30%) Colmonoy Application to Superheater Tubes		0730/0743	20,093	3 70,093 00
10/1/13		PBF	(Expedite Fee)		8938/8943	29 24=	\$ 29.245.00
10/1/13			Unit 11 Superheater, Roof, Roof Door Material		8938/42/43	28,345 891,130	S 28,345.00 S 23,825.00
10/1/13					8938/42/43	091,130	
_10/1/13	10/13	PBF	Unit 11 Superheater, Roof, Roof Door Material	L	0730/42/43		S 878,910.00

Exhibit A (Continued)		
MIRA / CSWS Capital Improvement Fund		
Account Activity Immediately Following Transiton from Mid Ct. Project		

Funded	Done	Loc.	Description	Related HDR Punchlist Item (June 2012)	PO#	Draw Request	Actual Cost
10/1/13	10/13	PBF	ID Fan Isolation gate	49	8936	59,874	\$ 69,084.00
10/1/13	9/13	PBF	Ceramic Coating Superheater Pendants (six)		8938/8943	44,868	\$ 44,868.00
10/30/13	10/13	PBF	Demin Pad		8976	70,400	\$ 10,600.00
10/30/13	12/13	PBF	Demin Pad		8976		\$ 59,800.00
10/30/13	10/13	PBF	Units 11/12/13 Economizer Expansion Joints	42	9007	165,000	\$ 95,802.33
10/30/13	11/13	PBF	Units 11/12/13 Economizer Expansion Joints	42	9007		\$ 38,336.00
10/30/13	12/13	PBF	Units 11/12/13 Economizer Expansion Joints	42	9007		\$ 38,336.00
10/30/13	10/13	PBF	RDF Belt Replacement	Inventory	9005	74,317	5 74,836.52
10/30/13	10/13	PBF	Unit 13 ID Discharge Damper Install	49	9009	51,447	\$ 41,899.22
10/30/13	12/13	PBF	Unit 13 ID Discharge Damper Install	49	9009		\$ 6,775.00
10/30/13	11/13	PBF	Power Roof Vent Fans	7.	9010	179,996	S 57,318.68
10/30/13	12/13	PBF	Power Roof Vent Fans	7.	9010		\$ 97,893.08
10/30/13	1/14	PBF	Power Roof Vent Fans	7	9010		\$ 37,894:41
10/30/13	2/14	PBF	Power Roof Vent Fans	7	9010		\$ 4,579.50
10/30/13	10/13	PBF	Unit 11 Primary Superheater Labor		9006	532,000	\$ 535,000,00
10/30/13	10/13	PBF	Roof Repairs (Additional)	7, 52	9008	16,000	\$ 15,414.00
10/30/13	10/13	PBF	Colmonoy Application to Superheater Tubes (70%)		8938/8943	210,218	\$ 210,217,70
			Summary				
			Total CSWS Reserve Spending November 2012 to Octob				\$ 6,585,300.66
			Funds Re-designated / Transferred from Mid Ct. Reserves	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN COLUMN 1			\$ 5,760,258.09
			Less: HDR June 21, 2012 Report Final Punch List Item Cap				\$ 1,921,162.62
			Less: Scheduled Capital Equipment Maintenance Chargal				\$ 986,490.00
			Equals: Funding Available for HDR Recommended Capita	l Reserve			\$ 2,852,605.47
			Less: HDR Recommended Capital Reserve				\$ 4,500,000.00
			Impairment (shortfall) to HDR Recommended Capital Rese	erve			\$ (1,647,394.53
			Spending from Capital Reserve Chargable to CSWS				\$ 3,677,648.04



REGARDING AN INCREASE TO THE CSWS CAPITAL IMPROVEMENT BUDGET FOR FY 2016

WHEREAS, The Authority has previously adopted a Fiscal Year 2016 Operating and Capital Budget (Budget) for the Connecticut Solid Waste System (CSWS); and

WHEREAS, The Authority is in the process of considering and developing a Fiscal Year 2017 Budget for the CSWS; and

WHEREAS, Such budget development process includes developing a schedule for shutting down and conducting capital equipment maintenance activity within each of the three boilers (Units 11, 12 and 13) comprising part of the CSWS Resource Recovery Facility, with each such shut down being referred to as a "Major Outage"; and

WHEREAS, Such schedule is generally designed with the goal of conducting a Major Outage upon each boiler every twelve months; and

WHEREAS, The last Major Outage for Unit 13 was conducted in October 2015 during which new techniques and products for the repair and improvement of air heater systems were conducted which have since proven to significantly increase boiler performance, and consequently, potential energy output from the CSWS Resource Recovery facility; and

WHEREAS, Unit 11 has experienced similar air heater constraints that have diminished its performance in the same manner Unit 13 performance had diminished prior to its last Major Outage but Unit 11 is not scheduled for a similar air heater rebuild until April 2017; and

WHEREAS, Management has conducted a cost benefit analysis examining the impacts of maintaining the current schedule of Major Outages versus i) moving up the Unit 11 outage, including the air heater rebuild, by 6 months to October 2016 in place of a planned Major Outage on Unit 13; or ii) expanding the scope of Unit 11's planned April 2016 Major Outage to include the air heater rebuild, which analysis is attached hereto as Exhibit A; and

WHEREAS, Management has determined based on such cost benefit analysis that it is <u>not</u> beneficial to move up the Unit 11 outage, including the air heater rebuild, by 6 months to October 2016 because the incremental costs of additional life extension work required to delay Unit 13's Major Outage exceeds the incremental revenue projected to be derived through improved performance on Unit 11; and

WHEREAS, Management has determined based on such cost benefit analysis that it is beneficial to expand the scope of the planned April 2016 Major Outage on Unit 11 to include the air heater rebuild because the incremental costs of additional life extension work required to delay Unit 13's Major Outage is avoided, improved boiler performance will increase revenue generated in the fourth quarter of FY 2016 and all of FY 2017 by approximately \$1.3 million, and the total cost for Major Outages paid through the FY 2017 budget will be reduced by approximately \$0.58 million.

NOW THEREFORE, be it

RESOLVED: That management is authorized to transfer \$82,605.47 from the Property Division General Fund to the CSWS Improvement Fund; and

FURTHER RESOLVED: That the CSWS Capital Budget for FY 2016 is hereby increased by \$1,730,000 from \$9,452,004 to 11,182,004.

Exhibit A MIRA Cost Benefit Analysis
Scheduling of Boiler Outages
January 21, 2016 Finance Committee

Current Schedule (Conduct Major Outage 12 Months After Prior Outage and Undertake Unit 11 Air Heaters in April 2017)

		2016 4th Quarter	FY	2017 Total	FY	' 2018 Total		Total
Unit 11	Exc	ril Major luding Air leaters		pril Major cluding Air Heaters	11	lance of Unit Air Heater St Plus Major Outage		
Unit 12		Previously empleted		December Major	December Major			
Unit 13		Previously empleted	Od	tober Major	Oc	tober Major		
Cost	\$	940,000	\$	6,650,667	\$	8,197,333	\$	15,788,000
Incremental Kwh	\$	741				N e s	\$	
\$ / Kwh			n/a	a			n/	'a
Revenue	\$	le.	\$	3	\$	2	\$	ŝ
MSW Required (Tons)	\$	ii e	\$		\$		\$	
Net Spot Revenue / Ton	n/a		n/i	a	n/	a	n/	'a
Net Spot Revenue	\$		\$		\$	·	\$	9
Total Revenue	\$		\$		\$	(₩:	\$	

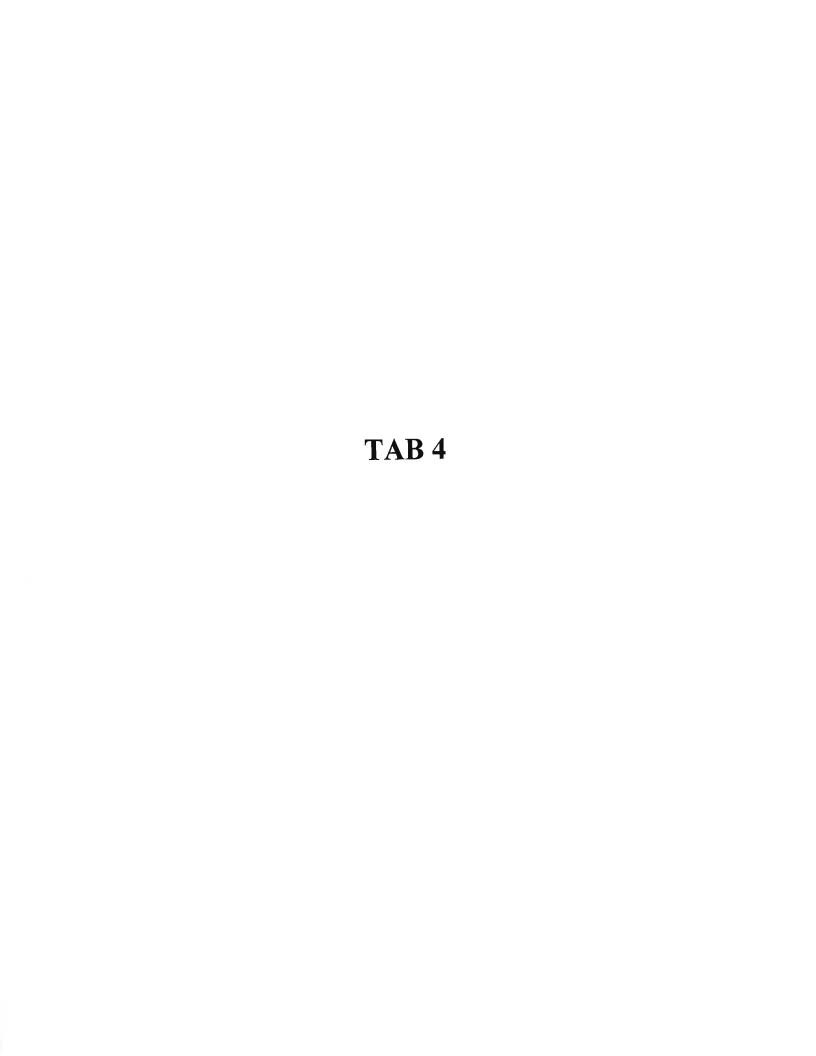
Option 1 - As Presented in December Finance Budget Proposal (Move Unit 11 Major with Air Heaters Up to Unit 13 Slot, Requires Minor Outage for Unit 13)

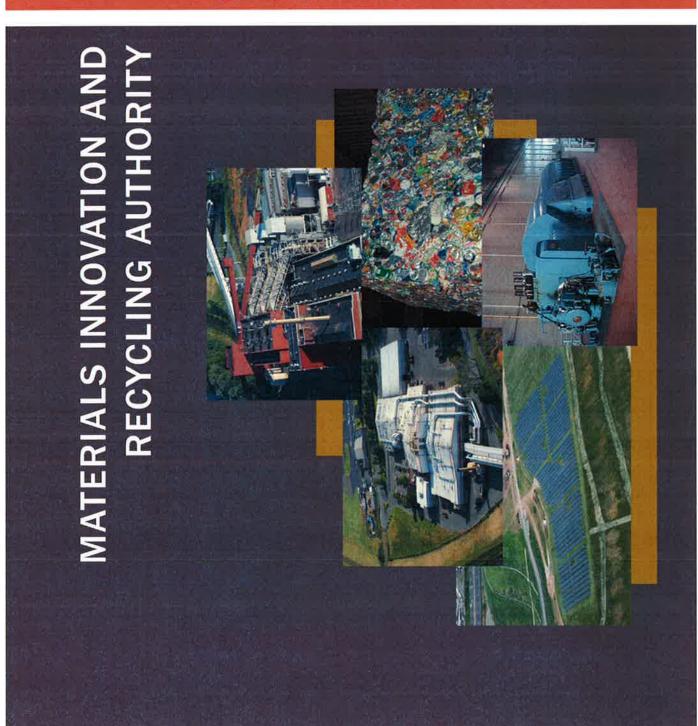
				ge for enter				
		2016 4th			 			
		Quarter	FY	2017 Total	FY	2018 Total	_	Total
Unit 11	Ex	oril Major duding Air Heaters	-	tober Major cluding Air Heaters	11	ance of Unit Air Heater It Plus Major Outage		
Unit 12		Previously ompleted		December Major	ı	December Major		
Unit 13		Previously ompleted		Vovember Vinor Plus April Major	ρ	pril Major		
Cost	\$	940,000	\$	7,403,667	\$	8,197,333	\$	16,541,000
Incremental Kwh	\$	78		11,400,000		1941	\$	11,400,000
Price / Kwh			\$	0.05001			\$	0.05001
Added Electric Revenue	\$:(*:	\$	570,143	\$:(€)	\$	570,143
MSW Required (Tons)	\$	16	\$	22,476	\$	241	\$	22,476
Net Spot Revenue / Ton			\$	6.00	n/	a	\$	6.00
Net Spot Revenue	\$:-	\$	134,856	\$	X#1	\$	134,856
Total Revenue	\$	Viet	\$	704,999	\$	046	\$	704,999

Exhibit A MIRA Cost Benefit	: Analysis (Continued)	
Scheduling of Boiler Outage	s	
January 21, 2016 Finance C	ommittee	

Option 2 - As Presented in January Finance Budget Proposal (Move Unit 11 Major With Air Heaters Up Further into FY 2016)

	FY 2016 4th Quarter	FY 2017 Total	FY 2018 Total	Total
Unit 11	April Major Including Air Heaters	April Major Excluding Air Heaters	April Major	
Unit 12	N/A Previously Completed	December Major	December Major	
Unit 13	N/A Previously Completed	October Major	October Major	
Cost	\$ 2,670,000	\$ 6,074,000	\$ 7,044,000	\$ 15,788,000
Incremental Kwh	3,800,000	19,000,000	-	22,800,000
\$ / Kwh	\$ 0.0438	\$ 0.0452		\$ 0.04496
Revenue	\$ 166,397	\$ 858,658	\$ =	\$ 1,025,055
MSW Required (Tons)	\$ 7,492	\$ 37,460	\$ -	44,952
Net Spot Revenue / Ton	\$ 6.00	\$ 6.00	n/a	\$ 6.00
Net Spot Revenue	\$ 44,952	\$ 224,760	\$ -	\$ 269,712
Total Revenue	\$ 211,349	\$ 1,083,418	\$ -	\$ 1,294,767





ATTACHMENT 4 DRAFT PROPOSAL

CSWS Division FY 2017 Budget Development January 21, 2016 MIRA Finance Committee

SUMMARY PROPOSED BUDGET

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Total Operating Expenses -

Operating Income Before Reserve Contributions -

Proposed Reserve Contributions

CSWS Debt Service Fund -

CSWS General Fund:

CSWS Improvement Fund -

- CSWS Risk Fund -

CSWS Legal Fund -

CRRA Severance Fund -

CSWS Tip Fee Stabilization Fund -

CSWS General Fund Retained -

\$63.8 Million

\$58.9 Million

\$4.9 Million

\$0.0 Million

\$4.9 Million

\$10.3 Million \$ 0 \$ 0 \$ 0 \$ (5.4 Million) \$ 0

\$3.00 Per Ton Increase From FY 2016 Tip Fee

SUMMARY PROPOSED BUDGET

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- Operating Expense Budget \$58,937,330 (\$186,944, 0.3% Increase)
- Reserve Contributions \$10,302,705 (\$868,701, 9.2% Increase)
- Net Increase \$1,055,645 / 1.5%

Non Disposal Fee Revenue

\$38,905,573

\$69,258,035

- \$4,566,027, 10.5% Decrease
- Includes Member Service Fees (Tier 2) 26,000 Tons @ \$2.00 / Ton

Net Cost of Operation -

\$5,621,672 / 22.7% Increase from FY 2016

Add: Cost of Service Discounts

- Tier 1 Long 204,000 Tons @ \$2.00 / Ton; and
- Tier 3 2,500 Tons @ \$2.00 / Ton

Deduct: Deficit Funded by Stabilization Fund -

Note: Equivalent Subsidy of Uniform Base Disposal Fee -

\$ (14.18 / ton)

(5,405,962)

413,000

\$30,352,462

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"

SUMMARY PROPOSED BUDGET

Total Rate Base -

Net Cost of Operation & Cost of Service Discounts

Aggregate Tons -

145,000 206,500 Service Discounted (Tier 1 Long & Tier 3)

Gate Rate (Tier 1 Short) -

\$2 Service Fee (Tier 2) -

\$1 Service Fee (Tier 4) -

14,000

13,000

Uniform Base Disposal Fee -

\$25,359,500

378,500

\$67.00 / Ton

Contract	FY 2017 Proposed Disposal Fee	FY 2017 Base Opt Out	FY 2017 Total Opt Out (With Additional Opt Out Costs)
Tier 1 Long	\$65.00	\$61.95	\$64.07
Tier 1 Short	\$67.00	\$63.95	\$66.07
Tier 2	\$69.00	n/a	n/a
Tier 3	\$65.00	n/a	n/a
Tier 4	\$68.00	n/a	n/a
	THE RESIDENCE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAME		

Total Member Disposal Fees -

\$1,135,500 / 4.8% Increase from FY 2016 \$24,946,500

OPERATING EXPENSE BUDGET

Transfer Stations -

Ellington -	Essex -	Torrington -	Watertown -

Total -

\$ 567,500 25,500 570,500 549,000

0.7% Increase from FY 2016

\$ 1,712,500

2.0% Decrease from FY 2016

\$13,567,560

Waste Transportation -

\$ 851,370	\$ 611,470	\$ 1,529,580	\$ 135	\$ 20,043	\$ 42,000	\$ 58,000	\$10,375,620	\$ 79,343	\$13,567,560
- MSW From Essex -	- MSW From Torrington -	- MSW From Watertown -	- MSW From Salisbury -	- MSW From RRDD#1 -	- MSW From Ellington -	 Solid Waste Bypass - 	- Ash Disposal -	Non-Processible -	- Total -

Trash to Energy Facility -

\$11,225,800 (\$420,200 / 3.6% Reduction)	\$21.083.458 (\$1.179.458 / 5.9% Increase)
/ 00	458
\$420,20	61.179.
300 (\$	158 (\$
225,8	083.4
\$11	\$21
Waste Processing -	3lock -
Waste F	Power Block

Facility Contractor - \$ 1,243,000 (\$48,000 /4.0% Increase)
Total - \$33,552,258 (807,258 2.5% Increase) Total -

2.5% Increase from FY 2016 \$33,552,258

OPERATING EXPENSE BUDGET

Recycling Facility -

Transport From Essex -

184,025

- Transport From Torrington -
- Transport From Watertown -
- Direct O&M Expenses
- Recycling Rebate -
- Total

Indirect Expense-

- Authority Budget Allocation
- MIRA Direct Personnel-
- MIRA Direct Non Personnel -
- Assessment, Fees and Taxes -

\$2,715,000 \$ 127,300

\$9,269,297

\$1,848,021 \$1,312,479

\$3,266,497

- Murphy Road Ops Center -
- Total

Total Operating Expense Budget -

212,940 129,900 70,350 238,500 835,715

9.7% Reduction from FY 2016

\$835,715

\$9,269,297

\$58,937,330

RECOMMENDED RESERVE CONTRIBUTIONS

\$ 4,914,743 \$ 0 \$ 4,914,743				
 Operating Income Before Reserve Contributions - CSWS Debt Service Fund - CSWS General Fund: 	 CSWS Improvement Fund - Represents Strategic Plan Update required funding adjusted for Unit 11 overhaul moved up including air heaters. 	CSWS Risk Fund - There will be in excess of \$440,000 in this fund as of 6/30/2016. 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 2017.	CSWS Legal Fund - There will be in excess of \$600,000 in this fund as of 6/30/2016 This is viewed as sufficient in comparison to prior actual CSWS legal expenses No contributions to this fund are recommended for FY 2017.	MIRA Severance Fund -

There will be approximately \$800,000 in this fund as of 6/30/2016. This is viewed as sufficient in comparison to total FY 2017 Personnel Services.

No contributions to this fund are recommended for FY 2017.

No surplus to retain based on current draft budget parameters

NON DISPOSAL FEE REVENUE

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- Capacity Payments & RECs -Real Time Market -Contract Sales -
 - Total -

\$ 2,232,000 \$16,724,400 \$18,956,400

Other Recovered Products -

Inbound CSWS Base @ \$8.50 / Ton -

\$ 425,000 206,736 100,292 175,500

75,000

- Inbound FCR Base @ \$7.50 / Ton -
 - Revenue Share (Container Sales) -Revenue Share (Paper Sales) -
- Other Recycling / Waste Revenue -FCR Residue Disposal / Other -
 - Metal Sales -Total -

\$1,135,000

Contract Waste -

- Hauler Contracts
 - Other Contracts -Total

\$4,915,200

\$9,139,200

- Spot Waste -

- Other (Interest / Service Fees)
- Total Non Disposal Fee Revenue -

\$3,558,659, 15.8% Decrease \$18,956,400

\$660,013, 21.6% Decrease \$2,402,528

\$905,600, 6.1% Decrease \$14,054,400

\$561,000, 19.7% Increase \$3,412,000

\$ 80,245 \$2,755, 3.3% Decrease

\$38,905,573

KEY DRIVERS

Trash to Energy Operations:

Total MSW Deliveries -

378,500 95,000 98,700 "Aggregate Tons" -Hauler Contract -Municipal Bulky -Other Contract -Total -Spot -

3,000

Total MSW to RDF Production Rate -

Total RDF -

RDF to KWH Production Rate -

Energy Production -

Contract / Non Contract Energy Price -

RDF to Ash Production Rate -

Ash to Disposal -

Ash Disposal Cost Per Ton -

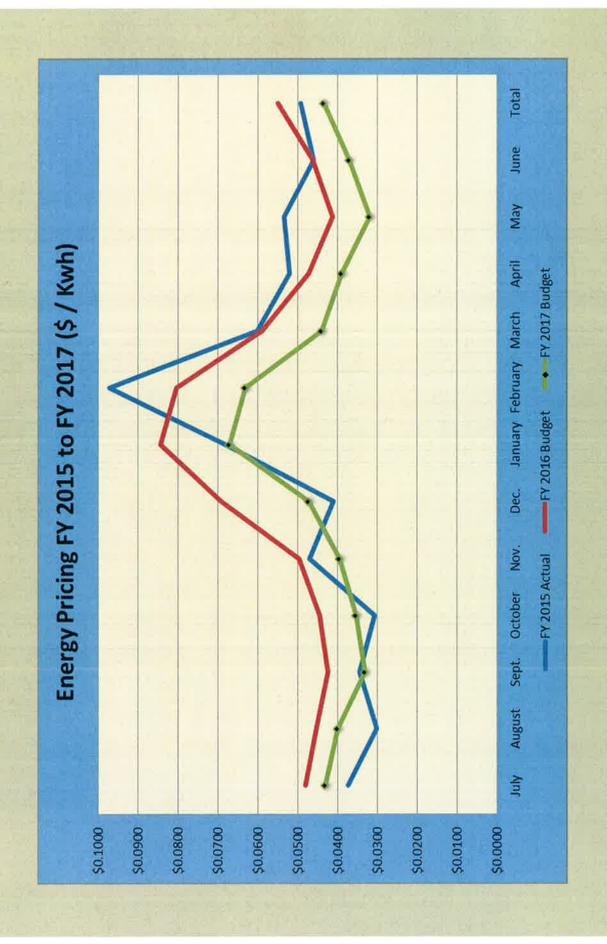
Recycling Operations:

- CSWS Sourced Recyclables -
- FCR Sourced Recyclables

718,000

385,000,000 kwh \$.04344 / kwh 543 kwh / ton 178,000 tons 709,000 98.75% \$58.29 25.1%

50,000 tons 10,000 tons



MATERIALS INNOVATION AND RECYCLING AUTHORITY

FISCAL YEAR 2017 CONNECTICUT SOLID WASTE SYSTEM DIVISION PROPOSED OPERATING BUDGET

January 28, 2016

MIRA - CONNECTICUT SOLID WASTE SYSTEM (CSWS)

ASSUMPTIONS					Varian Fiscal Ye	ar 17
	DETAILS	ADOPTED FY16		PROPOSED FY17	Better (Worse) that units	FY16 Budget %
POWER	kwh/ton of RDF Produced	54	1	543	2	0.35%
	Total kwh Sold	375,000,00)	385,000,000	10,000,000	2,67%
	Contract rate Non-Contract rate	\$ 0.0541 varies by mont		n/a 0.0434	n/a n/a	п/а n/a
	Capacity Payment Renewable Energy Credits (REC) II	\$ 1,788,00 \$ 115,00		1,857,000 375,000	69,000 260,000	3.86% 226.09%
DELIVERIES						
MSW	Participating Towns	378,50		378,500	44.000	0.00%
	Hauler Contract	155,00		142,800	(12,200)	-7.87%
	Other Contract	100,00 50		95,000 3,000	(5,000) 2,500	-5.00% 500.00%
Other (Spot)	Municipal Bulky Waste Spot - MSW	61,00		83,000	22,000	36.07%
Other (Spot)	Ferrous Residue (Inbound)	10,00		10,000	22,000	0.00%
	Recycling Residue	5,41		5,700	285	5.26%
	Total MSW	710,41		718,000	7,585	1.07%
Mattresses/Box Spring	Mattress/Box Spring (number of unit)	1,00)	1,000	ĝ.	0.00%
RECYCLING OPERATIONS	<u>.</u>					
	Recycling Delivery Credit per Ton	\$ 10.0	\$	5.00	\$ (5.00)	-50,00%
Delivery/Processing						
Denverying	CSWS Acceptable Recyclables (tons)	47,00)	50,000	3,000	6.389
	Contractor Sourced Acceptable Recyclables (tons)	10,00		10,000		0.00%
	Total Recyclable Materials	57,00)	60,000	3,000	5.26%
Percentage of Inbound Tons	Recycling Residue	9.50	%	9.50%	0.00%	0.00%
, and the second	CSWS Paper Per Ton Sales Revenue - ONP	n/	a	39.71%	n/a	n/a
	CSWS Paper Per Ton Sales Revenue - OCC	n/	a	15.57%	n/a	n/a
	CSWS Container Per Ton Sales Revenue	n/	a	24.26%	n/a	n/a
	CSWS Commercial Tons	n/	a	0.14%	n/a	n/a
	FCR Paper Per Ton Sales Revenue-ONP	n/	a	9.26%	n/a	n/a
	FCR Paper Per Ton Sales Revenue-OCC	n/	a	3.60%	n/a	n/a
	FCR Container Per Ton Sales Revenue	n/	a	5.61%	n/a	n/a
	FCR Commercial Tons	n/	a	1.85%	n/a	n/a
Outbound Tons	Recycling Residue Total	n/		5,700	n/a	n/a
	Recycling Residue Chargeable	2,35		2,700	350	14.89%
	CSWS Paper Per Ton Sales Revenue - ONP	n/		21,563	n/a	n/a
	CSWS Paper Per Ton Sales Revenue - OCC	n/		8,455	n/a	n/a
	CSWS Container Per Ton Sales Revenue	n/		13,173	n/a	n/a
	CSWS Commercial Tons	n/		76	п/а /-	n/a
	FCR Paper Per Ton Sales Revenue-ONP	n/		5,028	n/a	n/a
	FCR Paper Per Ton Sales Revenue-OCC	n/ n/		1,955 3,046	n/a n/a	n/a n/a
	FCR Container Per Ton Sales Revenue FCR Commercial Tons	n/		1,005	n/a	n/a
Danieliae Cales	Decidential Decorlables Dec Ten Decorres	\$ 8.5	0 \$	8.50	\$	0.00%
Recycling Sales	Residential Recyclables Per Ton Revenues	\$ 7.5		7.50		0.00%
	Commercial Recyclables Per Ton Revenues CSWS Paper Per Ton Sales Revenue - ONP	\$ 6.0		7.30	n/a	n/a
	CSWS Paper Per Ton Sales Revenue - OCC	5 0.0		10.00	n/a	n/a
	CSWS Container Per Ton Sales Revenue	n/		15.00	n/a	n/a
	CSWS Commercial Tons	n/		50.00	n/a	n/a
	FCR Paper Per Ton Sales Revenue-ONP	n/		30.00	n/a	n/a
	FCR Paper Per Ton Sales Revenue-OCC	n/		2.00	n/a	n/a
	·					
	FCR Container Per Ton Sales Revenue	\$ 3.0	0 \$	3.00	\$	0.009

MIRA - CONNECTICUT SOLID WASTE SYSTEM (CSWS)

ASSUMPTIONS				Variance Fiscal Year 17		
	DETAILS	ADOPTED FY16	PROPOSED FY17	Better (Worse) tha units	n FY16 Budget %	
FACILITY OPERATIONS	T. IMOW D.	701 000	717.000	16.000	2.299/	
Tons Processed	Total MSW Processed RDF Consumed	701,000 693,000	717,000 709,000	16,000 16,000	2.28% 2.31%	
Residue Rates	Ash Rate (Per Ton of RDF)	25.11%		0.00%	-0.01%	
	Ash Rate (Per Ton of MSW) Process Residue Rate (Per Ton of MSW)	24.82% 0.00%		0.00% 0.00%	0.02% 0.00%	
	Ferrous Metals Rate (Outbound) (Per Ton of MSW)	3.00%		0.00%	0.00%	
	Ferrous Residue Rate (Inbound) (Per Ton of MSW)	2.00%	2.00%	0.00%	0.00%	
	Non-processible Waste - Out-of-State	0.10%	0.11%	0.01%	10.00%	
Other	Ferrous Residue Revenue (per ton price)	\$ 75.00		,	-33.33%	
	Ferrous Metals including post combustion (Outbound)	21,000	22,000	1,000	4.76%	
	Scrap Metal/Maintenance Metal Revenue (price per ton) Scrap Metal/Maintenance Metal Revenue (Outbound)	\$ 267.00 675	\$ 100.00 350	\$ (167.00) (325)	-62.55% -48.15%	
ANTINICIDAT DANAMENTO	•					
MUNICIPAL PAYMENTS Fees	Essex TS Host Benefit (per ton)	\$ 0.570	\$ 0.580	\$ 0.01	1.75%	
	Torrington TS Host Benefit (per ton)	\$ 0.570	\$ 0.580	\$ 0.01	1.75%	
	Watertown TS Host Benefit (per ton)	\$ 0.570	\$ 0.580	\$ 0.01	1.75%	
Deliveries	Essex TS Host Benefit	67,000	67,500	500	0.75%	
	Torrington TS Host Benefit	54,000	56,000	2,000	3.70%	
	Watertown TS Host Benefit	110,000	112,000	2,000	1.82%	
WASTE TRANSPORT	Essex per ton MSW	\$ 14.35	\$ 14.43	\$ 0.08	0.56%	
Fees	Essex per ton Recyclables	\$ 21.52		\$ 0.13	0.60%	
	Torrington per ton MSW Torrington per ton Recyclables	\$ 12.93 \$ 23.52	\$ 13.01 \$ 23.66	\$ 0.08 \$ 0.14	0.62% 0.60%	
	Watertown per ton MSW	\$ 14.35	\$ 14.43	\$ 0.08	0.56%	
	Watertown per ton Recyclables	\$ 21.52	\$ 21.65	\$ 0.13	0.60%	
	Sharon/Salisbury per ton MSW	\$ 9.46	n/a	n/a	n/a	
	RRDD#1 per load MSW	\$ 110.34	\$ 108.34	\$ (2.00)	-1.81%	
	Ash to Other (blended rate per ton T&D)	\$ 61.64	\$ 58.29	\$ (3.35)	-5.43%	
	Non-processible Waste to Other (per ton T&D)	\$ 102.71	\$ 105.79	\$ 3.08	3.00%	
	South Central Facility	\$ 65.00	\$ 66.00	\$ 1.00	1.54%	
	Southeast Project	\$ 58.00	\$ 58.00	\$ -	0.00%	
	Other Location	\$ 62.00	\$ -	\$ (62.00)	-100.00%	
Hauled Tons	Essex MSW	59,000	59,000	*	0.00%	
	Essex Recyclables	8,000	8,500	500	6.25%	
	Torrington MSW Torrington Recyclables	47,000 7,000	47,000 9,000	2,000	0.00% 28.57%	
	Watertown MSW	104,000	106,000	2,000	1.92%	
	Watertown Recyclables	6,000	6,000	=,000	0.00%	
	Sharon/Salisbury MSW	3,000	n/a	n/a	n/a	
	RRDD#1 per load MSW	200	185	(15)	-7.50%	
MSW Byproduct Tons	Ash to Other	174,000	178,000	4,000	2.30%	
	Non-processible Waste to Other	600	750	150	25.00% n/a	
Diverted MSW Tons	South Central Facility	1,000	-	(1,000)	-100.00%	
	Southeast Project	(40)	1,000	1,000	n/a	
	South Central Diversion & Other Location	4		n/a	n/a	
	Total Diverted MSW Tons	1,000	1,000	0	0.00%	

MIRA - CONNECTICUT SOLID WASTE SYSTEM DIVISION (CSWS)

						11.		_		
7									Varia	nce
REVENU	TES								Fiscal Ye	ear 17
A THE REAL PROPERTY AND ADDRESS OF THE PERSON NAMED IN COLUMN TWO IN COLUMN TO THE PERSON NAMED		1	ACTUAL	A	DOPTED	PF	ROPOSED	В	etter (Worse) tha	n FY16 Budget
ACCOUNT	DESCRIPTION		FY15		FY16		FY17		units	%
49-001-000-40101	Service Charges Solid Waste-Participating Town	\$	23,351,179	\$	23,811,000	\$	24,946,500		1,135,500	4.77%
49-001-000-40110	Service Charges Solid Waste-Hauler Contracts	\$	10,432,950	\$	9,920,000	\$	9,139,200		(780,800)	-7.87%
49-001-000-40109	Service Charges Solid Waste-Other Contracts	\$	4,771,163	\$	5,040,000		4,915,200		(124,800)	-2.48%
49-001-000-40103	Service Charges Solid Waste - Spot	\$	1,077,775	\$	2,851,000	\$	3,412,000		561,000	19.68% -23.08%
49-001-000-40111 49-001-000-49104	Member Service Fee Metal Sales	\$ \$	50,845 1,362,553	\$ \$	52,000 1,755,225	\$	40,000 1,135,000		(12,000) (620,225)	-35.34%
49-001-000-49104	Municipal Bulky Waste & Mattresses/Box Spring	\$	91,982	\$		S	285,000		212,000	290.41%
49-001-000-49100	Recycling Facility	\$	1,264,237	\$	1,234,316		982,528		(251,788)	-20,40%
49-001-000-42101	Electricity	\$	17,983,722	-		\$			` ' '	-15.81%
49-001-000-45150	Miscellaneous Income	\$	40,114	\$	21,000		25,245		4,245	20.21%
49-001-000-46101	Interest Income	\$	27,308	\$	10,000	\$	15,000		5,000	50.00%
49-001-000-40101	interest income	- 4	27,500	· Ψ	10,000	<u> </u>	15,000	Ψ	3,000	30.0070
	TOTAL OPERATING REVENUES	\$	60,453,828	\$	67,282,600	\$	63,852,073	\$	(3,430,527)	-5.10%
		3								
									Varia	ice
EXPEN	DITURES								Fiscal Yo	ear 17
EXPEN	DITURES		ACTUAL	Α	DOPTED	PF	ROPOSED	В	Fiscal Yo	
ACCOUNT	DITURES DESCRIPTION		ACTUAL FY15	A	DOPTED FY16	PF	ROPOSED FY17	В		
				A		PF		В	etter (Worse) tha	n FY16 Budget
		\$		<i>A</i>				_	units 5,121	n FY16 Budget
ACCOUNT	DESCRIPTION		FY15		FY16	\$	FY17	\$	etter (Worse) tha units	n FY16 Budget %
ACCOUNT 49-001-501-57871	DESCRIPTION Administrative Expenses	\$	FY15 3,345,510	\$	FY16 3,271,618	\$ \$	FY17 3,266,497	\$ \$	units 5,121	0.16% 8.25% -1.04%
ACCOUNT 49-001-501-57871 49-001-501-xxxxx	DESCRIPTION Administrative Expenses Operational Expenses	\$	FY15 3,345,510 2,416,437	\$ \$ \$	3,271,618 3,444,678	\$ \$ \$	FY17 3,266,497 3,160,500	\$ \$ \$	5,121 284,178	0.16% 8.25%
ACCOUNT 49-001-501-57871 49-001-501-xxxxx 49-001-xxx-xxxxx	DESCRIPTION Administrative Expenses Operational Expenses Assessment, Fees, Subsidies, & PILOTs	\$ \$ \$	3,345,510 2,416,437 2,603,127	\$ \$ \$	3,271,618 3,444,678 2,687,000	\$ \$ \$ \$	3,266,497 3,160,500 2,715,000	\$ \$ \$ \$	5,121 284,178 (28,000)	0.16% 8.25% -1.04%
49-001-501-57871 49-001-501-xxxxx 49-001-xxx-xxxx 49-001-505-xxxxx	DESCRIPTION Administrative Expenses Operational Expenses Assessment, Fees, Subsidies, & PILOTs Waste Transport	\$ \$ \$ \$	3,345,510 2,416,437 2,603,127 13,431,297	\$ \$ \$ \$	3,271,618 3,444,678 2,687,000 13,848,620	\$ \$ \$ \$	3,266,497 3,160,500 2,715,000 13,567,560	\$ \$ \$ \$	5,121 284,178 (28,000) 281,060	0.16% 8.25% -1.04% 2.03%
49-001-501-57871 49-001-501-xxxxx 49-001-501-xxxxx 49-001-xxx-xxxxx 49-001-xxx-xxxxx	DESCRIPTION Administrative Expenses Operational Expenses Assessment, Fees, Subsidies, & PILOTs Waste Transport MIRA Facilities Operating Expenses	\$ \$ \$ \$ \$	3,345,510 2,416,437 2,603,127 13,431,297 1,073,025	\$ \$ \$ \$	3,271,618 3,444,678 2,687,000 13,848,620 1,146,000	\$ \$ \$ \$ \$	3,266,497 3,160,500 2,715,000 13,567,560 1,106,200	\$ \$ \$ \$ \$	5,121 284,178 (28,000) 281,060 39,800	0.16% 8.25% -1.04% 2.03% 3.47%
49-001-501-57871 49-001-501-xxxxx 49-001-501-xxxxx 49-001-505-xxxxx 49-001-xxx-xxxxx 49-001-xxx-xxxxx	Administrative Expenses Operational Expenses Assessment, Fees, Subsidies, & PILOTs Waste Transport MIRA Facilities Operating Expenses NAES Contract Operating Charges	\$ \$ \$ \$ \$ \$	3,345,510 2,416,437 2,603,127 13,431,297 1,073,025 28,394,626	\$ \$ \$ \$ \$	3,271,618 3,444,678 2,687,000 13,848,620 1,146,000 29,485,000	\$ \$ \$ \$ \$	3,266,497 3,160,500 2,715,000 13,567,560 1,106,200 30,290,058	\$ \$ \$ \$ \$ \$	5,121 284,178 (28,000) 281,060 39,800 (805,058)	0.16% 8.25% -1.04% 2.03% 3.47% -2.73%
49-001-501-57871 49-001-501-xxxxx 49-001-501-xxxxx 49-001-505-xxxxx 49-001-xxx-xxxxx 49-001-xxx-xxxxx 49-001-xxx-xxxxx	DESCRIPTION Administrative Expenses Operational Expenses Assessment, Fees, Subsidies, & PILOTs Waste Transport MIRA Facilities Operating Expenses NAES Contract Operating Charges NAES On-Site Incentive Compensation	\$ \$ \$ \$ \$ \$	3,345,510 2,416,437 2,603,127 13,431,297 1,073,025 28,394,626 835,070	\$ \$ \$ \$ \$	3,271,618 3,444,678 2,687,000 13,848,620 1,146,000 29,485,000 919,000	\$ \$ \$ \$ \$ \$	3,266,497 3,160,500 2,715,000 13,567,560 1,106,200 30,290,058 913,000	\$ \$ \$ \$ \$ \$	5,121 284,178 (28,000) 281,060 39,800 (805,058) 6,000	0.16% 8.25% -1.04% 2.03% 3.47% -2.73% 0.65%
49-001-501-57871 49-001-501-xxxxx 49-001-505-xxxxx 49-001-505-xxxxx 49-001-xxx-xxxxx 49-001-xxx-xxxxx 49-001-xxx-xxxxx	DESCRIPTION Administrative Expenses Operational Expenses Assessment, Fees, Subsidies, & PILOTs Waste Transport MIRA Facilities Operating Expenses NAES Contract Operating Charges NAES On-Site Incentive Compensation NAES Management Fees & Charges	\$ \$ \$ \$ \$ \$ \$	3,345,510 2,416,437 2,603,127 13,431,297 1,073,025 28,394,626 835,070 1,016,134	\$ \$ \$ \$ \$	3,271,618 3,444,678 2,687,000 13,848,620 1,146,000 29,485,000 919,000 1,195,000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	3,266,497 3,160,500 2,715,000 13,567,560 1,106,200 30,290,058 913,000 1,243,000	\$ \$ \$ \$ \$ \$	5,121 284,178 (28,000) 281,060 39,800 (805,058) 6,000 (48,000)	0.16% 8.25% -1.04% 2.03% 3.47% -2.73% 0.65% -4.02%
49-001-501-57871 49-001-501-xxxxx 49-001-501-xxxxx 49-001-505-xxxxx 49-001-xxx-xxxxx 49-001-xxx-xxxxx 49-001-xxx-xxxxx 49-001-501-xxxxx 49-001-501-50105	Administrative Expenses Operational Expenses Assessment, Fees, Subsidies, & PILOTs Waste Transport MIRA Facilities Operating Expenses NAES Contract Operating Charges NAES On-Site Incentive Compensation NAES Management Fees & Charges Murphy Road Operations Center	\$ \$ \$ \$ \$ \$ \$ \$	3,345,510 2,416,437 2,603,127 13,431,297 1,073,025 28,394,626 835,070 1,016,134 139,000	\$ \$ \$ \$ \$ \$	3,271,618 3,444,678 2,687,000 13,848,620 1,146,000 29,485,000 919,000 1,195,000 127,300	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	3,266,497 3,160,500 2,715,000 13,567,560 1,106,200 30,290,058 913,000 1,243,000 127,300	\$ \$ \$ \$ \$ \$ \$	5,121 284,178 (28,000) 281,060 39,800 (805,058) 6,000 (48,000)	0.16% 8.25% -1.04% 2.03% 3.47% -2.73% 0.65% -4.02% 0.00%
49-001-501-57871 49-001-501-xxxxx 49-001-xxx-xxxx 49-001-505-xxxxx 49-001-xxx-xxxxx 49-001-xxx-52719 49-001-501-xxxxx 49-001-501-50105 49-001-xxx-xxxx	Administrative Expenses Operational Expenses Assessment, Fees, Subsidies, & PILOTs Waste Transport MIRA Facilities Operating Expenses NAES Contract Operating Charges NAES On-Site Incentive Compensation NAES Management Fees & Charges Murphy Road Operations Center Transfer Stations	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	3,345,510 2,416,437 2,603,127 13,431,297 1,073,025 28,394,626 835,070 1,016,134 139,000 1,642,531	\$ \$ \$ \$ \$ \$	3,271,618 3,444,678 2,687,000 13,848,620 1,146,000 29,485,000 919,000 1,195,000 127,300 1,700,000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	3,266,497 3,160,500 2,715,000 13,567,560 1,106,200 30,290,058 913,000 1,243,000 1,712,500	\$ \$ \$ \$ \$ \$ \$	5,121 284,178 (28,000) 281,060 39,800 (805,058) 6,000 (48,000)	0.16% 8.25% -1.04% 2.03% 3.47% -2.73% 0.65% -4.02% 0.00%
49-001-501-57871 49-001-501-xxxxx 49-001-xxx-xxxx 49-001-505-xxxxx 49-001-xxx-xxxxx 49-001-xxx-52719 49-001-501-xxxxx 49-001-501-50105 49-001-xxx-xxxx	Administrative Expenses Operational Expenses Assessment, Fees, Subsidies, & PILOTs Waste Transport MIRA Facilities Operating Expenses NAES Contract Operating Charges NAES On-Site Incentive Compensation NAES Management Fees & Charges Murphy Road Operations Center Transfer Stations	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	3,345,510 2,416,437 2,603,127 13,431,297 1,073,025 28,394,626 835,070 1,016,134 139,000 1,642,531 705,289	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	3,271,618 3,444,678 2,687,000 13,848,620 1,146,000 29,485,000 919,000 1,195,000 127,300 1,700,000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	3,266,497 3,160,500 2,715,000 13,567,560 1,106,200 30,290,058 913,000 1,243,000 1,712,500	\$ \$ \$ \$ \$ \$ \$	5,121 284,178 (28,000) 281,060 39,800 (805,058) 6,000 (48,000) - (12,500) 90,455	0.16% 8.25% -1.04% 2.03% 3.47% -2.73% 0.65% -4.02% 0.00%
49-001-501-57871 49-001-501-xxxxx 49-001-xxx-xxxx 49-001-xxx-xxxxx 49-001-xxx-xxxxx 49-001-xxx-52719 49-001-501-xxxxx 49-001-501-50105 49-001-xxx-xxxx	Administrative Expenses Operational Expenses Assessment, Fees, Subsidies, & PILOTs Waste Transport MIRA Facilities Operating Expenses NAES Contract Operating Charges NAES On-Site Incentive Compensation NAES Management Fees & Charges Murphy Road Operations Center Transfer Stations Recycling Facility	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	3,345,510 2,416,437 2,603,127 13,431,297 1,073,025 28,394,626 835,070 1,016,134 139,000 1,642,531 705,289	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	3,271,618 3,444,678 2,687,000 13,848,620 1,146,000 29,485,000 919,000 1,195,000 127,300 1,700,000 926,170	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	3,266,497 3,160,500 2,715,000 13,567,560 1,106,200 30,290,058 913,000 1,243,000 1,243,000 1,712,500 835,715 58,937,330	\$ \$ \$ \$ \$ \$ \$ \$	5,121 284,178 (28,000) 281,060 39,800 (805,058) 6,000 (48,000) - (12,500) 90,455	0.16% 8.25% -1.04% 2.03% 3.47% -2.73% 0.65% -4.02% 0.00% -0.74% 9.77%

DISBU	RSEMENT OF CSWS NET INCOME								Varian Fiscal Ye	
	DESCRIPTION		 CTUAL FY15	A	DOPTED FY16	PF	ROPOSED FY17	В	etter (Worse) thar	U
ACCOUNT	DESCRIPTION		 1110		1.110		1.11/		units	%
49-001-501-52687	Contribution to CSWS Improvement Fund		\$	\$	9,452,004	\$	10,320,705	\$	868,701	9.19%
49-001-000-47216	CSWS Tip Fee Stabilization Fund	:-	\$ 	\$	(919,790)	\$	(5,405,962)	\$	(4,486,172)	487.74%
	TOTAL DISBURSEMENT OF CSWS NET INCOME	9	\$ 	_\$_	8,532,214	\$	4,914,743	\$	(3,617,471)	-42.40%
		BALANCE	\$ 4,851,781	\$	(4)	\$		\$		0.00%

TIP FEE:	S								Variance Fiscal Year	
		AC	TUAL	AD	OPTED	PR	ROPOSED	Ве	tter (Worse) than I	FY16 Budget
ACCOUNT	DESCRIPTION	F	Y15	I	FY16		FY17		units	%
MSW	Tier 1 Short-term	\$	64.00	\$	64.00	\$	67.00	\$	3.00	4.69%
	Tier 1 Long-term / Tier 3	\$	62.00	\$	62.00	\$	65.00	\$	3.00	4.84%
	Tier 4	\$	-	\$	· .	\$	68.00	\$	68.00	n/a
	Tier 2	\$66.00	- \$68.50	\$	66.00	\$	69.00	\$	3.00	4.55%
	Other Contracts Tip Fee				(a)		(a)		n/a	n/a
	Hauler Contracts Tip Fee	\$	64.00	\$	64.00	\$	64.00	\$	8	0.00%
	Municipal Bulky Waste	\$	85.00	\$	85.00	\$	85.00	\$	¥	0.00%
	Spot		(b)		(b)		(b)		n/a	n/a
Other	Mattresses/Box Spring Surcharge (per unit)	\$	30.00	\$	30.00	\$	30.00	\$		0.00%
	Ferrous Residue (Inbound)	\$	40.00	\$	40.00	\$	40.00	\$	<u> </u>	0.00%

⁽a) Rate based on negotiated contract.

⁽b) Rate based on market condition.

EVPEN	DITURE DETAILS								Variar Fiscal Ye	
EALER	DITURE DETAILS		CTUAL	A .	DOPTED	DE	ROPOSED			
A CCOUNT	DESCRIPTION	А	FY15	A.	FY16	FF	FY17	В	etter (Worse) than	
ACCOUNT	DESCRIPTION	_	F113	_	F 1 10		F117	-	units	%
<u>ADMINISTRA</u>	TIVE EXPENSES									
	INDIRECT SALARIES/LABOR & BENEFITS - ADMINISTRATION	\$	3,345,510	\$	3,271,618	\$	3,266,497	\$	5,121	0.16%
OPERATIONA	L EXPENSES									
49-001-501-xxxxx	DIRECT SALARIES/LABOR & BENEFITS - OPERATIONAL	\$	1,284,465	\$	1,910,678	\$	1,848,021	\$	62,657	3.28%
	ASSET PROTECTION & STATUTORY COMPLIANCE									
49-001-501-52115	Legal Notices	\$	2,674	\$	7,500	\$	9,000	\$	(1,500)	-20.00%
49-001-501-52407	Project Equipment Maintenance	\$	(605)	\$		\$		\$	*	n/a
49-001-501-52502	Fees/Licenses/Permits	\$	40	\$	1,000	\$	600	\$	400	40.00%
49-001-501-52505	Claims/Losses	\$	11,066	\$	50,000	\$	10,000	\$	40,000	80.00%
49-001-501-52602	Bad Debt Expense	\$		\$	500	S	500	\$	2	0,00%
49-001-501-52856	Legal	\$	235,264	\$	100,000	S	200,000	\$	(100,000)	-100.00%
49-001-501-52640	WPF and PBF Insurance Premium	\$	733,858	\$	1,166,000	\$	876,000	\$	290,000	24.87%
49-001-501-52875	Insurance Broker	\$	49,602	\$_	60,000	\$	48,000	\$	12,000	20.00%
	Subtotal Asset Protection & Statutory Compliance	\$	1,031,899	\$	1,385,000	\$	1,144,100	\$	240,900	17.39%
	ENGINEERING, TECHNOLOGY, AND EQUIPMENT/FACILITY									
49-001-501-52899	Engineering & Technology Consulting Services	\$	29,779	\$	30,000	\$	30,000	\$	-	0.00%
49-001-501-54482	Computer Hardware	\$	336	\$	1,500	\$	8,000	\$	(6,500)	-433.33%
49-001-501-54483	Computer Software	\$		\$	500	\$	300	\$	200	40.00%
	Subtotal Engineering, Technology, and Equipment/Facility	\$	30,115	\$	32,000	\$	38,300	\$	(6,300)	-19.69%
	OTHER OPERATING EXPENSES									
49-001-501-52101	Postage & Delivery Fees	\$	1,074	\$	4,100	\$	4,100	\$		0.00%
49-001-501-52108	Printing Services	\$	8,584	\$	5,000	\$	10,000	\$	(5,000)	-100.00%
49-001-501-52202	Office Supplies	\$	495	\$	4,000	\$	3,000	\$	1,000	25.00%
49-001-501-52211	Protect Clothing/Safety Equipment	\$	6,233	\$	4,400	\$	6,800	\$	(2,400)	-54.55%
49-001-501-52302	Miscellaneous Services	\$	100	\$	1,000	\$	179	\$	821	82.10%

EXPEN	DITURE DETAILS								Variar Fiscal Ye	
termentalities		A	ACTUAL	A	DOPTED	PF	ROPOSED	В	etter (Worse) than	n FY16 Budget
ACCOUNT	DESCRIPTION		FY15		FY16		FY17		units	%
49-001-501-xxxxx	Meetings & Training	\$	2,454	\$	15,500	\$	15,000	\$	500	3.23%
49-001-501-52401	Vehicle Repair/Maintenance	\$	5,059	\$	16,000	\$	16,000	\$	-	0.00%
49-001-501-52612	Fuel for Vehicles	\$	11,958	\$	17,000	\$	15,000	\$	2,000	11.76%
49-001-501-52615	Temporary Agency Services	\$	34,002	\$		\$	10,000	\$	(10,000)	100.00%
49-001-501-52859	Financial Services	\$		\$	50,000	\$	50,000	\$		0.00%
	Subtotal Other Operating	\$	69,958	\$	117,000	\$	130,079	\$	(13,079)	-11.18%
	Subtotal Operational Expenses	\$	2,416,437	\$	3,444,678	\$	3,160,500	\$	284,178	8.25%
ASSESSMENT,	FEES, SUBSIDIES, & PILOTS									
49-001-501-52507	City of Hartford PILOT	\$	1,500,000	\$	1,500,000	\$	1,500,000	\$		0.00%
49-001-xxx-52508	Transfer Station Host Community Benefit Fees	\$	145,692	\$	147,500	\$	151,700	\$	(4,200)	-2.85%
49-001-602-52506	Solid Waste Assessment (Dioxin)	\$	957,435	\$	1,039,500	\$	1,063,500	\$	(24,000)	-2.31%
	Subtotal Assessment, Fees, Subsidies, & PILOTs	\$	2,603,127	\$	2,687,000	\$	2,715,000	\$	(28,000)	-1.04%
WASTE TRANS	SPORT									
49-001-505-52701	Contract Operating Charges (excludes recycling transportation)	\$	2,878,686	\$	2,996,620	\$	3,054,598	\$	(57,978)	-1.93%
49-001-505-52710	Disposal Fees - Solid Waste Bypass	\$	805,167	\$	65,000	\$	58,000	\$	7,000	10.77%
49-001-505-52711	Ash Disposal	\$	9,702,048	\$	10,725,360	\$	10,375,620	\$	349,740	3.26%
49-001-505-52716	Non-Processible Disposal Fees	\$	45,396	\$_\$	61,640	\$	79,343	\$	(17,703)	-28.72%
	Subtotal Waste Transport	\$	13,431,297	\$	13,848,620	\$	13,567,560	\$	281,060	2.03%

EVDEN	DIFFIDE DETAIL C								Varian	-
EAPEN	DITURE DETAILS		CTUAL	A .	DODTED	рт	ODOGED		Fiscal Ye	
+ GCOTINE	DECOMPONION	Α	CTUAL	A.	DOPTED	PF	ROPOSED	В	etter (Worse) than	
ACCOUNT	DESCRIPTION		FY15	_	FY16	_	FY17	_	units	%
MIRA FACILI	TIES OPERATING EXPENSES									
49-001-601-52104	Telecommunications	\$	1,618	\$	1,600	\$	1,625	\$	(25)	-1.56%
49-001-601-52404	Building Operations	\$	4,873	\$	7,000	\$	9,000	\$	(2,000)	-28.57%
49-001-601-53304	Electricity	\$	149	\$	-	\$	100	\$	(100)	100.00%
49-001-601-54482	Computer Hardware	\$	*	\$	500	\$	300	\$	200	40.00%
49-001-601-52407	Project Equipment Maintenance	\$	800	\$	6,500	\$	6,000	\$	500	7.69%
49-001-601-52502	Fees/Licenses/Permits	\$	1,000	\$	8,000	\$	5,875	\$	2,125	26.56%
49-001-601-52709	Other Operating Charges	\$	30,780	\$	36,100	\$	34,000	\$	2,100	5.82%
49-001-601-52858	Engineering Consultants	\$	45,407	\$	38,100	\$	51,100	\$	(13,000)	-34.12%
49-001-601-52901	Environmental Testing	\$	11,429	\$	5,000	\$	13,100	\$	(8,100)	-162.00%
	Subtotal MIRA WPF Operating Expenses	\$	96,056	\$	103,000	\$	121,100	\$	(18,100)	-17.57%
49-001-602-52502	Fees/Licenses/Permits	\$	296,641	\$	345,000	\$	350,750	\$	(5,750)	-1.67%
49-001-602-52720	Power Products Management Fee	\$	79,220	\$	75,100	\$	75,800	\$	(700)	-0.93%
49-001-602-52858	Engineering Consultants	\$	13,846	\$	33,100	\$	33,100	\$	2	0.00%
49-001-602-52901	Environmental Testing	\$	47,852	\$	102,300	\$	59,450	\$	42,850	41.89%
49-001-602-53304	Electricity	\$	276,673	\$	128,000	\$	176,000	\$	(48,000)	-37.50%
49-001-602-53309	Other Utilities	\$	262,737	\$	360,000	\$	290,000	\$	70,000	19.44%
	Subtotal MIRA PBF Operating Expenses	\$	976,969	\$	1,043,500	\$	985,100	\$	58,400	5.60%
	Total MIRA Facilities Operating Expenses	\$	1,073,025	\$	1,146,000	\$	1,106,200	\$	39,800	3.47%

EXPE	NDITURE DETAILS								Variano Fiscal Yea	
	ACTION AND ASSESSMENT OF THE PROPERTY OF THE P	A	ACTUAL	A	DOPTED	PI	ROPOSED	В	etter (Worse) than	FY16 Budget
ACCOUNT	DESCRIPTION		FY15		FY16		FY17		units	%
NAES CONTR	ACT OPERATING CHARGES									
49-001-601-52701	WPF Operating & Maintenance (O&M) Fees	\$	4,772,309	\$	5,244,300	S	4,693,700	S	550,600	10.50%
49-001-601-52718	WPF Labor & Overhead	\$	5,427,971	\$			6,027,000		(121,000)	-2.05%
49-001-601-xxxx	Subtotal NAES WPF Contract Operating Charges	_		_	11,150,000		10,720,700		429,300	3.85%
49-001-602-52701	PBF Operating & Maintenance (O&M) Fees	\$	10,823,121	s	10,543,500	S	11,480,058	S	(936,558)	-8.88%
49-001-602-52718	PBF Labor & Overhead	\$	7,371,225		7,791,200		8,089,300		(298,100)	-3.83%
49-001-602-xxxxx	Subtotal NAES PBF Contract Operating Charges	\$	18,194,346	_	18,335,000	_	19,569,358		(1,234,358)	-6.73%
	Total NAES Contract Operating Charges	\$	28,394,626	\$	29,485,000	\$	30,290,058	\$	(805,058)	-2.73%
NAES ON-SIT	E INCENTIVE COMPENSATION									
49-001-601-52719	WPF On-Site Personnel Incentive Compensation	\$	349,933	\$	393,000	\$	384,000	\$	9,000	2,29%
49-001-602-52719	PBF On-Site Personnel Incentive Compensation	_\$_	485,137	\$	526,000	\$	529,000	\$	(3,000)	-0.57%
	Subtotal NAES On-Site Incentive Compensation	\$	835,070	\$	919,000	\$	913,000	\$	6,000	0.65%
	GEMENT FEES & CHARGES									
49-001-501-52703	Management Fee	\$	700,199	\$	803,000		816,000		(13,000)	-1.62%
49-001-501-52717	Engineering, accounting, and regulation expenses	\$	315,935		392,000	\$	427,000	\$	(35,000)	-8.93%
	Subtotal NAES Management Fees & Charges	\$	1,016,134	\$	1,195,000	\$	1,243,000	\$	(48,000)	-4.02%
MURPHY ROA	AD OPERATIONS CENTER									
49-001-501-59105	CSWS Share of Murphy Rd Operations Center	\$	139,000	\$	127,300	\$	127,300	\$		0.00%
	Subtotal Murphy Rd Operations Center	\$	139,000	\$	127,300	\$	127,300	\$	*	0.00%
TRANSFER ST	TATION - ELLINGTON (c)									
49-001-610-52104	Telecommunications	\$	263	\$	1,000		1,000		5	0.00%
49-001-610-52404	Building Operations	\$	1,924	S	5,500		11,000		(5,500)	-100.00%
49-001-610-52407	Project Equipment Maintenance	\$	1,574	S		S		S	~	n/a
49-001-610-52415	Ground Maintenance	\$	0.50	\$	2,500		6,000	7.1	(3,500)	-140.00%
49-001-610-53304	Electricity	\$	4,148	\$	4,500		5,000		(500)	-11.11%
49-001-610-52502	Fees/Licenses/Permits	\$	288	\$	2,500	S	2,500	\$		0.00%
	Subtotal Ellington TS	\$	8,197	\$	16,000	\$	25,500	\$	(9,500)	-59.38%

⁽c) Ellington TS closed in January 2013

EXPEN	DITURE DETAILS								Variano Fiscal Yea	
PRODUCTION OF THE	MANUEL TO A STANDARD MANUEL PROMISED AND A STANDARD MANUEL PRO		ACTUAL	ΑI	OOPTED	PRO	OPOSED	Bette	er (Worse) than	FY16 Budget
ACCOUNT	DESCRIPTION		FY15		FY16		FY17		units	%
TRANSFER ST	ATION - ESSEX									
49-001-611-52104	Telecommunications	\$	2,200	\$	2,100	\$	2,100	\$	-	0.00%
49-001-611-52404	Building Operations	\$	3,440	\$	12,500	\$	11,600	\$	900	7.20%
49-001-611-52407	Project Equipment Maintenance	\$	8,471	\$	•	S	11,500	\$	-	0.00%
49-001-611-52502	Fees/Licenses/Permits	\$	342	\$	1,550		1,550		-	0.00%
49-001-611-52701	Contract Operating Charges	\$	533,462	\$	532,800	\$	536,550		(3,750)	-0.70%
49-001-611-52858	Engineering Consultants	\$	2,169	\$	8,000	\$	5,000	\$	3,000	37.50%
49-001-611-52901	Environmental Testing	\$	175	\$_	2,450	\$	2,200	\$	250	10.20%
	Sub	total Essex TS \$	550,260	\$	570,900	\$	570,500	\$	400	0.07%
TRANSFER ST	ATION - TORRINGTON									
49-001-612-52104	Telecommunications	\$	2,494	\$	2,600	\$	2,600	\$	2	0.00%
49-001-612-52404	Building Operations	\$	3,409	\$	9,000	\$	11,600	\$	(2,600)	-28.89%
49-001-612-52407	Project Equipment Maintenance	\$	7,971	\$	11,500	\$	11,500	\$	•	0.00%
49-001-612-52502	Fees/Licenses/Permits	\$	342	\$	1,550	\$	1,550	\$	*	0.00%
49-001-612-52701	Contract Operating Charges	\$	516,564	\$	511,000	\$	514,250	\$	(3,250)	-0.64%
49-001-612-52858	Engineering Consultants	\$	1,730	\$	8,000	\$	5,000	\$	3,000	37.50%
49-001-612-52901	Environmental Testing	\$_	2,385	\$	2,450	\$	2,500	\$	(50)	-2.04%
	Subtotal	Torrington TS \$	534,896	\$	546,100	\$	549,000	\$	(2,900)	-0.53%
TRANSFER ST	ATION - WATERTOWN									
49-001-613-52104	Telecommunications	\$	1,182	\$	1,700	\$	1,600	\$	100	5.88%
49-001-613-52404	Building Operations	\$	4,828	\$	10,000	\$	10,000	\$		0.00%
49-001-613-52407	Project Equipment Maintenance	\$	7,971	\$	11,500	\$	11,500	\$		0.00%
49-001-613-52502	Fees/Licenses/Permits	\$	342	\$	1,550	\$	1,550	\$	*	0.00%
49-001-613-52701	Contract Operating Charges	\$	534,025	\$	532,800	\$	536,600	\$	(3,800)	-0.71%
49-001-613-52858	Engineering Consultants	\$	1,247	\$	8,000	\$	5,000	\$	3,000	37.50%
49-001-613-52901	Environmental Testing	_ \$_	(416)	_\$_	1,450	\$	1,250	\$	200	13.79%
	6) 14 4-13	Watertown TS \$	549,179	\$	567,000		567,500	æ	(500)	-0.09%

MIRA - CONNECTICUT SOLID WASTE SYSTEM DIVISION (CSWS)

REVENUE	E & EXPENDITURE DETAILS		ACTUAL		Aì	рортер	рï	ROPOSED	D	Varian Fiscal Ye etter (Worse) thar	ar 17
ACCOUNT	DESCRIPTION		FY15		7 83	FY16		FY17	ъ	units	%
RECYCLING 1	FACILITY	=									
	REVENUES										
49-001-000-42101	Recycling Sales	\$	1,264,23	7	\$	1,234,316	\$	982,528	\$	(251,788)	-20.40%
	EXPENDITURES										
49-001-506-52104	Telecommunications										
49-001-506-52115	Legal Notices	\$			\$	500	\$	*	\$	(500)	-100.00%
49-001-506-52305	Bus. Meetings & Travel	\$		e .	\$	500	\$	3	\$	(500)	-100,00%
49-001-506-52355	Mileage Reimbursement	\$		•	\$	500	\$	3	\$	(500)	-100,00%
49-001-506-52404	Building Operations	\$	2,76	3		(d)	\$	3	\$	·	n/a
49-001-506-52407	Project Equipment Maintenance	\$	10,89	9	\$	25,500	\$	29,500	\$	(4,000)	-15.69%
49-001-506-52502	Fees/Licenses/Permits	\$	1,56	3	\$	4,250	\$	4,250	\$	*	0.00%
49-001-506-52620	Recycling Delivery Rebate	\$	216,34	6	\$	400,000	\$	238,500	\$	161,500	40.38%
49-001-506-52701	Contract Operating Charges	\$	24	0	\$	1,000	\$	500	\$	500	50.00%
49-001-506-52707	Transportation Expense	\$	465,87	6	\$	465,920	\$	526,865	\$	(60,945)	-13.08%
49-001 - 506-52858	Engineering Consultants	\$	4,55	0	\$	23,000	\$	31,100	\$	(8,100)	-35.22%
49-001-506-52901	Environmental Testing	\$	3,05	2_	\$	5,000	\$	5,000	\$		0.00%
		Total Expenditures \$	705,28	9	\$	926,170	\$	835,715	\$	90,455	9.77%

⁽d) Transferred to the Property Division in FY16.

RESOLUTION REGARDING 3-YEAR AGREEMENTS FOR ECONOMIC ADVISORY AND CONSULTING SERVICES.

RESOLVED: That the President is hereby authorized to execute agreements with the following firms for on-call Economic Advisory and Consulting Services, substantially as presented and discussed at this meeting:

- Alternative Resources, Inc.
- Connecticut Economic Resource Center
- Environmental Capital, LLC
- Gershman, Brickner & Bratton, Inc.
- HDR Engineering, Inc.

Agreement Summary

Economic Advisory And Consulting Services

January 28, 2016 Presented to the MIRA Board on:

Alternative Resources, Inc. Vendor/Contractor(s):

March 1, 2016 Effective Date:

Economic Advisory Services Contract Type/Subject Matter:

Not Applicable Facility(ies) Affected:

MIRA makes no financial commitment to any firm or Contract Dollar Value:

individual for the on-call tasks during the three year services Agreements. The selection of a firm for the on-call tasks simply qualifies a firm or individual as eligible to undertake work for MIRA at a later date, when a specific need is actually identified. Any such future work would be procured through an RFS, and any RFS for more than \$50,000 per fiscal year would

require prior approval by the MIRA Board of

Directors.

Through February 28, 2019 Term:

Not applicable Amendment(s):

Not applicable Term Extensions:

 Economic analysis, evaluation and support Scope of Work:

• Industry information, analysis, advice and consultation regarding various solid waste and sustainable materials management markets and trends.

• Financial analysis and financing consultation.

• Other independent advisory services as requested by an Authorized Representative of MIRA.

Agreement Summary

Economic Advisory And Consulting Services

Presented to the MIRA Board on:

January 28, 2016

Vendor/Contractor(s):

Connecticut Economic Resource Center

Effective Date:

March 1, 2016

Contract Type/Subject Matter:

Economic Advisory Services

Facility(ies) Affected:

Not Applicable

Contract Dollar Value:

MIRA makes no financial commitment to any firm or individual for the on-call tasks during the three year services Agreements. The selection of a firm for the on-call tasks simply qualifies a firm or individual as eligible to undertake work for MIRA at a later date, when a specific need is actually identified. Any such future work would be procured through an RFS, and any RFS for more than \$50,000 per fiscal year would require prior approval by the MIRA Board of

Directors.

Term:

Through February 28, 2019

Amendment(s):

Not applicable

Term Extensions:

Not applicable

- Economic analysis, evaluation and support
- Financial analysis and financing consultation.

Agreement Summary

Economic Advisory And Consulting Services

Presented to the MIRA Board on: January 28, 2016

Vendor/Contractor(s): Environmental Capital, LLC

Effective Date: March 1, 2016

Contract Type/Subject Matter: Economic Advisory Services

Facility(ies) Affected: Not Applicable

Contract Dollar Value: MIRA makes no financial commitment to any firm or

individual for the on-call tasks during the three year services Agreements. The selection of a firm for the on-call tasks simply qualifies a firm or individual as eligible to undertake work for MIRA at a later date, when a specific need is actually identified. Any such future work would be procured through an RFS, and any RFS for more than \$50,000 per fiscal year would

require prior approval by the MIRA Board of

Directors.

Term: Through February 28, 2019

Amendment(s): Not applicable

Term Extensions: Not applicable

Scope of Work:

• Economic analysis, evaluation and support

• Industry information, analysis, advice and consultation regarding various solid waste and sustainable materials management markets

and trends.

• Financial analysis and financing consultation.

• Other independent advisory services as requested by an Authorized Representative of MIRA.

Agreement Summary

Economic Advisory And Consulting Services

Presented to the MIRA Board on: January 28, 2016

Vendor/Contractor(s): Gershman, Brickner & Bratton, Inc.

Effective Date: March 1, 2016

Contract Type/Subject Matter: Economic Advisory Services

Facility(ies) Affected: Not Applicable

Contract Dollar Value: MIRA makes no financial commitment to any firm or

individual for the on-call tasks during the three year services Agreements. The selection of a firm for the on-call tasks simply qualifies a firm or individual as eligible to undertake work for MIRA at a later date, when a specific need is actually identified. Any such future work would be procured through an RFS, and any RFS for more than \$50,000 per fiscal year would

require prior approval by the MIRA Board of

Directors.

Term: Through February 28, 2019

Amendment(s): Not applicable

Term Extensions: Not applicable

Scope of Work:

• Economic analysis, evaluation and support

 Industry information, analysis, advice and consultation regarding various solid waste and sustainable materials management markets

and trends.

• Financial analysis and financing consultation.

 Other independent advisory services as requested by an Authorized Representative of

MIRA.

Agreement Summary

Economic Advisory And Consulting Services

Presented to the MIRA Board on: January 28, 2016

Vendor/Contractor(s): HDR Engineering, Inc.

Effective Date: March 1, 2016

Contract Type/Subject Matter: Economic Advisory Services

Facility(ies) Affected: Not Applicable

Contract Dollar Value: MIRA makes no financial commitment to any firm or

individual for the on-call tasks during the three year services Agreements. The selection of a firm for the on-call tasks simply qualifies a firm or individual as eligible to undertake work for MIRA at a later date, when a specific need is actually identified. Any such future work would be procured through an RFS, and any RFS for more than \$50,000 per fiscal year would

require prior approval by the MIRA Board of

Directors.

Term: Through February 28, 2019

Amendment(s): Not applicable

Term Extensions: Not applicable

Scope of Work:

• Economic analysis, evaluation and support

 Industry information, analysis, advice and consultation regarding various solid waste and sustainable materials management markets

and trends.

• Financial analysis and financing consultation.

 Other independent advisory services as requested by an Authorized Representative of MIRA.

Materials Innovation and Recycling Authority Agreement Summary Economic Advisory And Consulting Services

Board of Directors January 28, 2016

Executive Summary

This is to request that the Board of Directors authorize the President enter into agreements with the following firms to provide on-call Economic Advisory Services, as discussed herein.

- Alternative Resources, Inc.
- Connecticut Economic Resource Center
- Environmental Capital, LLC
- Gershman, Brickner & Bratton, Inc.
- HDR Engineering, Inc.

Discussion

According to section 5.3.5 of MIRA's Procurement Policies and Procedures, MIRA solicits proposals at least once every three years for professional services, including economic advisory and consulting services.

The current agreements for Economic Advisory Services expire on February 29, 2016.

MIRA issued a Request for Qualifications (RFQ) for Economic Advisory And Consulting Services on September 21, 2015.

This RFQ contemplated the following categories of services included in the Economic Advisory And Consulting Services:

- Economic analysis, evaluation and support
- Industry information, analysis, advice and consultation regarding various solid waste and sustainable materials management markets and trends.
- Financial analysis and financing consultation.
- Other independent advisory services as requested by an Authorized Representative of MIRA.

Overview of RFP

MIRA issued a Request for Qualifications (RFQ) for Economic Advisory And Consulting Services on September 21, 2015.

The availability of the RFPs was advertised on the Department of Administrative Services State Contracting Portal website and on the MIRA website.

In addition:

- A notice regarding the availability of the RFP was sent to firms who submitted a notice of interest form to CRRA 3 years ago when the authority last issued an RFP for these services.
- A classified notice regarding the availability of the RFP was advertised in the following Connecticut newspapers:
 - o Connecticut Post
 - Hartford Courant
 - o La Voz Hispana
 - o Northeast Minority News.

Responses to the RFQ For Economic Advisory Services were due by October 22, 2015. MIRA received proposals from six (6) firms:

- Alternative Resources, Inc.
- Connecticut Economic Resource Center
- Econometrica, Inc.
- Environmental Capital, LLC
- Gershman, Brickner & Bratton, Inc.
- HDR Engineering, Inc.

Evaluation of Propsoals

MIRA's President identified Mark Daley, MIRA's CFO; Virginia Raymond, MIRA's Operations Manager; Thomas Edstrom, and MIRA's Risk Manager; assisted by Roger Guzowski, MIRA's Contract and Procurement Manager (the "Evaluation Team") to evaluate the Statements of Oualifications that were received.

After reviewing the recommendations and checking references, the Evaluation Team recommends the following five (5) firms due to their extensive experience, especially in regard to solid waste facility experience and/or Connecticut economics:

- Alternative Resources, Inc.
- Connecticut Economic Resource Center
- Environmental Capital, LLC
- Gershman, Brickner & Bratton, Inc.
- HDR Engineering, Inc.

The Evaluation Team does not recommend retaining Econometrica, Inc. The Evaluation Team felt that Econometrica did not demonstrate sufficient solid-waste-related experience, nor

sufficient Connecticut-specific economic experience to envision MIRA utilizing their services during the term, given the quality and quantity of other firms evaluated.

Table 1: Overview of All RFQ Respondent's Professional-Staff Hourly Billing Rates

Table 1. Overvie	ARI	CERC	Econometrica	Environmental	GBB	HDR
	7114			Capital		
CEO/President	\$175	\$165	NA	\$295	\$254	NA
Director/Senior	\$124-170	\$135	\$180	\$195	\$149-212	\$180-255
Staff Professional Staff	\$132	\$115	\$180-\$183.75	NA	\$149-180	\$149-180
Analyst and/or Jr.	NA	\$100	\$60-93.75	NA	\$95-127	\$95-127
Professional Staff			0.05	0115 250	\$95-250	NA
Subcontractors	NA	NA	\$125	\$115-250	\$93-230	INA

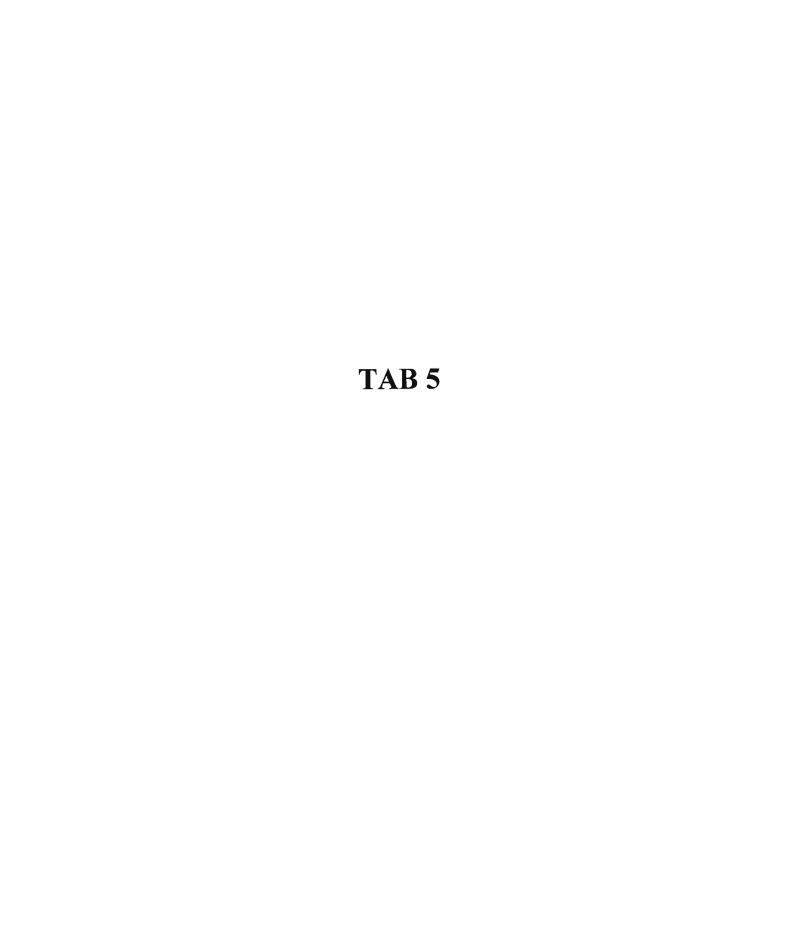
Table 2: Very brief summary of experience of SOQ respondents recommended by Evaluation Team

Environmental	Have over 30 years of solid waste experience. They serve as financial advisor to 8 solid
Environmental	waste authorities and have assisted in over \$1 billion in comparable project financing. Worked on CRRA Transition Plan. Members of the Evaluation Team felt that the additional engineering and REC expertise of the subs on their team may prove very useful as well. Subs include D&B Engineers and Architects, an engineering firm who has decades of experience with materials recovery facilities (both recycling and MSW), anaerobic digestion facilities, and other waste conversion technologies; and Environmental Attribute Advisors, a national leader in the environmental attribute marketplace who has helped clients develop the environmental attributes of their projects into marketable commodities (e.g. carbon offsets) and has placed more than three million environmental attributes (representing the equivalent of more three million metric tons of carbon dioxide).
HDR	An international engineering firm with nearly 100 years of experience and 220 locations around the world. Provides variety of economic analysis, industry information and financial analysis, and solid waste consulting services related to a variety of solid waste projects including solid waste management plans, technology assessments, procurement support for solid waste services, and facility feasibility studies.
GBB	Has over 35 years of experience as a national solid waste management consulting firm. Subs include Moore &Associates, a consulting firm with several decades of international experience regarding paper markets; Moore Recycling Associates, a firm that has provided over 25 years of research, consulting and management experience regarding packaging, especially post-consumer plastics recycling; and PFM Group, a provider of independent financial advisory services with forty years of experience.
ARI	Has over 30 years of experience providing services for solid waste management, energy generation, and wastewater treatment.
Connecticut Economic Resource Center	Is a non-profit corporation with over 20 years of experience in Connecticut economics and business, including economic development, public-private partnerships, strategic planning and research.

Financial Summary

For the firms awarded an Economic Advisory And Consulting Services Agreement, MIRA makes no financial commitment to any firm or individual in the three year services Agreements. This selection simply qualifies a firm or individual as eligible to undertake work for MIRA at a later date, when a specific need is actually identified. Any such future work would be procured through an RFS, and any RFS for more than \$50,000 per fiscal year would require prior approval by the MIRA Board of Directors.

It should be noted that the cost for any particular task specific RFS that is negotiated with any particular firm pursuant to these three year service agreements will based on the hourly rates for time (i.e., professional labor rates) and other materials (e.g., copying) that are pre-established in these three year service agreements.



RESOLUTION REGARDING 3-YEAR AGREEMENTS FOR ECONOMIC ADVISORY AND CONSULTING SERVICES.

RESOLVED: That the President is hereby authorized to execute agreements with the following firms for on-call Economic Advisory and Consulting Services, substantially as presented and discussed at this meeting:

- Alternative Resources, Inc.
- Connecticut Economic Resource Center
- Environmental Capital, LLC
- Gershman, Brickner & Bratton, Inc.
- HDR Engineering, Inc.

Agreement Summary

Economic Advisory And Consulting Services

Presented to the MIRA Board on:

January 28, 2016

Vendor/Contractor(s):

Alternative Resources, Inc.

Effective Date:

March 1, 2016

Contract Type/Subject Matter:

Economic Advisory Services

Facility(ies) Affected:

Not Applicable

Contract Dollar Value:

MIRA makes no financial commitment to any firm or individual for the on-call tasks during the three year services Agreements. The selection of a firm for the on-call tasks simply qualifies a firm or individual as eligible to undertake work for MIRA at a later date, when a specific need is actually identified. Any such future work would be procured through an RFS, and any RFS for more than \$50,000 per fiscal year would require prior approval by the MIRA Board of

Directors.

Term:

Through February 28, 2019

Amendment(s):

Not applicable

Term Extensions:

Not applicable

- Economic analysis, evaluation and support
- Industry information, analysis, advice and consultation regarding various solid waste and sustainable materials management markets and trends.
- Financial analysis and financing consultation.
- Other independent advisory services as requested by an Authorized Representative of MIRA.

Agreement Summary

Economic Advisory And Consulting Services

Presented to the MIRA Board on:

January 28, 2016

Vendor/Contractor(s):

Connecticut Economic Resource Center

Effective Date:

March 1, 2016

Contract Type/Subject Matter:

Economic Advisory Services

Facility(ies) Affected:

Not Applicable

Contract Dollar Value:

MIRA makes no financial commitment to any firm or individual for the on-call tasks during the three year services Agreements. The selection of a firm for the on-call tasks simply qualifies a firm or individual as eligible to undertake work for MIRA at a later date, when a specific need is actually identified. Any such future work would be procured through an RFS, and any RFS for more than \$50,000 per fiscal year would require prior approval by the MIRA Board of

Directors.

Term:

Through February 28, 2019

Amendment(s):

Not applicable

Term Extensions:

Not applicable

- Economic analysis, evaluation and support
- Financial analysis and financing consultation.

Agreement Summary Economic Advisory And Consulting Services

Presented to the MIRA Board on:

January 28, 2016

Vendor/Contractor(s):

Environmental Capital, LLC

Effective Date:

March 1, 2016

Contract Type/Subject Matter:

Economic Advisory Services

Facility(ies) Affected:

Not Applicable

Contract Dollar Value:

MIRA makes no financial commitment to any firm or individual for the on-call tasks during the three year services Agreements. The selection of a firm for the on-call tasks simply qualifies a firm or individual as eligible to undertake work for MIRA at a later date, when a specific need is actually identified. Any such future work would be procured through an RFS, and any RFS for more than \$50,000 per fiscal year would require prior approval by the MIRA Board of

Directors.

Term:

Through February 28, 2019

Amendment(s):

Not applicable

Term Extensions:

Not applicable

- Economic analysis, evaluation and support
- Industry information, analysis, advice and consultation regarding various solid waste and sustainable materials management markets and trends.
- Financial analysis and financing consultation.
- Other independent advisory services as requested by an Authorized Representative of MIRA.

Agreement Summary

Economic Advisory And Consulting Services

Presented to the MIRA Board on: January 28, 2016

Vendor/Contractor(s): Gershman, Brickner & Bratton, Inc.

Effective Date: March 1, 2016

Contract Type/Subject Matter: Economic Advisory Services

Facility(ies) Affected: Not Applicable

Contract Dollar Value: MIRA makes no financial commitment to any firm or

individual for the on-call tasks during the three year services Agreements. The selection of a firm for the on-call tasks simply qualifies a firm or individual as eligible to undertake work for MIRA at a later date, when a specific need is actually identified. Any such future work would be procured through an RFS, and any RFS for more than \$50,000 per fiscal year would

require prior approval by the MIRA Board of

Directors.

Term: Through February 28, 2019

Amendment(s): Not applicable

Term Extensions: Not applicable

Scope of Work: • Economic analysis, evaluation and support

 Industry information, analysis, advice and consultation regarding various solid waste and sustainable materials management markets and trends.

Financial analysis and financing consultation.

 Other independent advisory services as requested by an Authorized Representative of MIRA.

Agreement Summary

Economic Advisory And Consulting Services

Presented to the MIRA Board on: January 28, 2016

Vendor/Contractor(s): HDR Engineering, Inc.

Effective Date: March 1, 2016

Contract Type/Subject Matter: Economic Advisory Services

Facility(ies) Affected: Not Applicable

Contract Dollar Value: MIRA makes no financial commitment to any firm or

individual for the on-call tasks during the three year services Agreements. The selection of a firm for the on-call tasks simply qualifies a firm or individual as eligible to undertake work for MIRA at a later date, when a specific need is actually identified. Any such future work would be procured through an RFS, and any RFS for more than \$50,000 per fiscal year would

require prior approval by the MIRA Board of

Directors.

Term: Through February 28, 2019

Amendment(s): Not applicable

Term Extensions: Not applicable

Scope of Work: • Economic analysis, evaluation and support

• Industry information, analysis, advice and consultation regarding various solid waste and sustainable materials management markets

and trends.

Financial analysis and financing consultation.

 Other independent advisory services as requested by an Authorized Representative of MIRA.

Materials Innovation and Recycling Authority Agreement Summary Economic Advisory And Consulting Services

Board of Directors January 28, 2016

Executive Summary

This is to request that the Board of Directors authorize the President enter into agreements with the following firms to provide on-call Economic Advisory Services, as discussed herein.

- Alternative Resources, Inc.
- Connecticut Economic Resource Center
- Environmental Capital, LLC
- Gershman, Brickner & Bratton, Inc.
- HDR Engineering, Inc.

Discussion

According to section 5.3.5 of MIRA's Procurement Policies and Procedures, MIRA solicits proposals at least once every three years for professional services, including economic advisory and consulting services.

The current agreements for Economic Advisory Services expire on February 29, 2016.

MIRA issued a Request for Qualifications (RFQ) for Economic Advisory And Consulting Services on September 21, 2015.

This RFQ contemplated the following categories of services included in the Economic Advisory And Consulting Services:

- Economic analysis, evaluation and support
- Industry information, analysis, advice and consultation regarding various solid waste and sustainable materials management markets and trends.
- Financial analysis and financing consultation.
- Other independent advisory services as requested by an Authorized Representative of MIRA.

Overview of RFP

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The availability of the RFPs was advertised on the Department of Administrative Services State Contracting Portal website and on the MIRA website.

In addition:

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Responses to the RFQ For Economic Advisory Services were due by October 22, 2015. MIRA received proposals from six (6) firms:

- Alternative Resources, Inc.
- Connecticut Economic Resource Center
- Econometrica, Inc.
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- HDR Engineering, Inc.

Evaluation of Propsoals

MIRA's President identified Mark Daley, MIRA's CFO; Virginia Raymond, MIRA's Operations Manager; Thomas Edstrom, and MIRA's Risk Manager; assisted by Roger Guzowski, MIRA's Contract and Procurement Manager (the "Evaluation Team") to evaluate the Statements of Oualifications that were received.

After reviewing the recommendations and checking references, the Evaluation Team recommends the following five (5) firms due to their extensive experience, especially in regard to solid waste facility experience and/or Connecticut economics:

- Alternative Resources, Inc.
- Connecticut Economic Resource Center
- Environmental Capital, LLC
- Gershman, Brickner & Bratton, Inc.
- HDR Engineering, Inc.

The Evaluation Team does not recommend retaining Econometrica, Inc. The Evaluation Team felt that Econometrica did not demonstrate sufficient solid-waste-related experience, nor

sufficient Connecticut-specific economic experience to envision MIRA utilizing their services during the term, given the quality and quantity of other firms evaluated.

Table 1: Overview of All RFQ Respondent's Professional-Staff Hourly Billing Rates

Table 1: Overviev		CERC	Econometrica	Environmental	GBB	HDR
	ARI	CERC	Decinomenten	Capital		
GRO/D! 1t	\$175	\$165	NA	\$295	\$254	NA
CEO/President	\$173	\$135	\$180	\$195	\$149-212	\$180-255
Director/Senior	\$124-170	Ψ133	V 100			
Staff Professional Staff	\$132	\$115	\$180-\$183.75	NA	\$149-180	\$149-180
	NA	\$100	\$60-93.75	NA	\$95-127	\$95-127
Analyst and/or Jr. Professional Staff	INA	Ψ100	000 301.0			
Subcontractors	NA	NA	\$125	\$115-250	\$95-250	NA

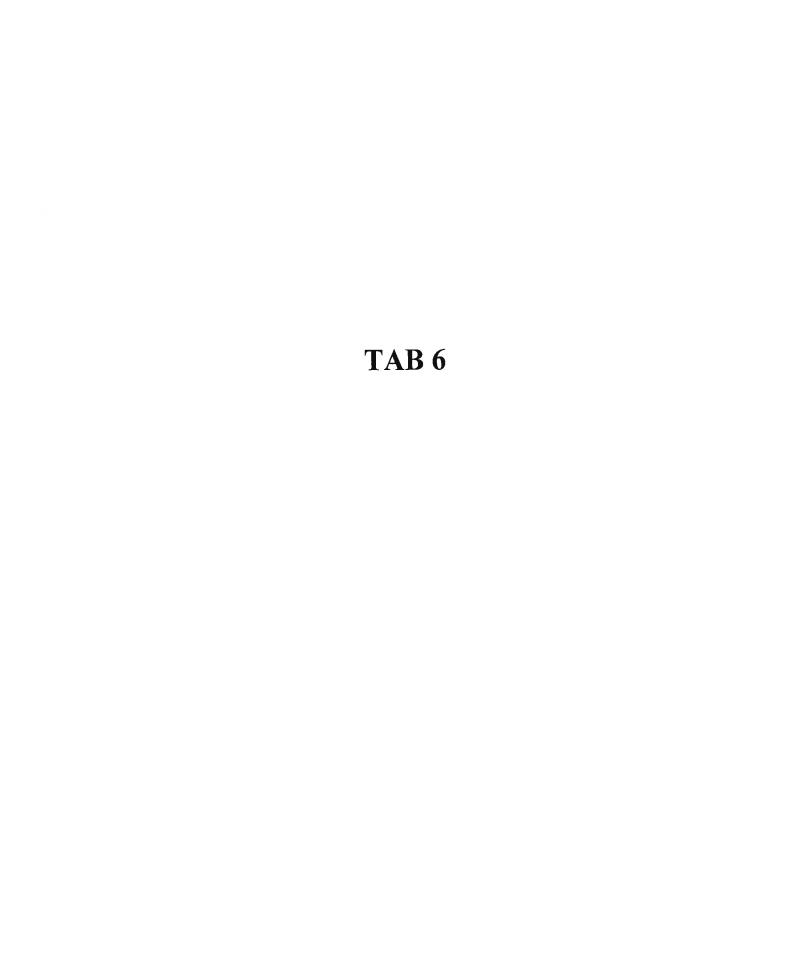
Table 2: Very brief summary of experience of SOQ respondents recommended by Evaluation Team

Environmental Capital	Have over 30 years of solid waste experience. They serve as financial advisor to 8 solid waste authorities and have assisted in over \$1 billion in comparable project financing. Worked on CRRA Transition Plan. Members of the Evaluation Team felt that the additional engineering and REC expertise of the subs on their team may prove very useful as well. Subs include D&B Engineers and Architects, an engineering firm who has decades of experience with materials recovery facilities (both recycling and MSW), anaerobic digestion facilities, and other waste conversion technologies; and Environmental Attribute Advisors, a national leader in the environmental attribute marketplace who has helped clients develop the environmental attributes of their projects into marketable commodities (e.g. carbon offsets) and has placed more than three million environmental attributes (representing the equivalent of more three million metric tons of carbon dioxide).
HDR	An international engineering firm with nearly 100 years of experience and 220 locations around the world. Provides variety of economic analysis, industry information and financial analysis, and solid waste consulting services related to a variety of solid waste projects including solid waste management plans, technology assessments, procurement support for solid waste services, and facility feasibility studies.
GBB	Has over 35 years of experience as a national solid waste management consulting firm. Subs include Moore &Associates, a consulting firm with several decades of international experience regarding paper markets; Moore Recycling Associates, a firm that has provided over 25 years of research, consulting and management experience regarding packaging, especially post-consumer plastics recycling; and PFM Group, a provider of independent financial advisory services with forty years of experience.
ARI	Has over 30 years of experience providing services for solid waste management, energy generation, and wastewater treatment.
Connecticut Economic Resource Center	Is a non-profit corporation with over 20 years of experience in Connecticut economics and business, including economic development, public-private partnerships, strategic planning and research.

Financial Summary

For the firms awarded an Economic Advisory And Consulting Services Agreement, MIRA makes no financial commitment to any firm or individual in the three year services Agreements. This selection simply qualifies a firm or individual as eligible to undertake work for MIRA at a later date, when a specific need is actually identified. Any such future work would be procured through an RFS, and any RFS for more than \$50,000 per fiscal year would require prior approval by the MIRA Board of Directors.

It should be noted that the cost for any particular task specific RFS that is negotiated with any particular firm pursuant to these three year service agreements will based on the hourly rates for time (i.e., professional labor rates) and other materials (e.g., copying) that are pre-established in these three year service agreements.



RESOLUTION REGARDING A FIRST AMENDMENT TO SEWER EASEMENT WITH THE METROPOLITAN DISTRICT AT THE SOUTH MEADOW STATION SITE

RESOLVED: That the President is hereby authorized to execute a First Amendment to Sewer Easement with the Metropolitan District (MDC) to make the existing easement subject to an Environmental Land Use Restriction (ELUR) to be recorded on the City of Hartford land records for the South Meadow Station site, substantially as presented and discussed at this meeting; and

FURTHER RESOLVED: That MIRA establish a dedicated reserve account for the accrual of funds to reimburse MDC for future out of pocket costs or expenses incurred by MDC in complying with conditions imposed by the ELUR; and

FURTHER RESOLVED: That the dedicated reserve account be funded via the transfer of \$153,300 from the Mid-Connecticut Project Operating Account.

Contract for

First Amendment to Sewer Easement at the South Meadow Station Site

Presented to the CRRA Board on: January 28, 2016

Vendor/ Contractor(s): The Metropolitan District (MDC)

Effective date: Upon Execution

Contract Type/Subject matter: Amendment to a Real Property Easement

Facility (ies) Affected: South Meadow Station Site

Original Contract: Easement Recorded on August 29, 1977

Term: Not Applicable (Runs with the Land)

Contract Dollar Value: No Aggregate Cap Specified

Amendment(s): This Would Be First Amendment

Term Extensions: Not Applicable

Scope of Services: The Metropolitan District (MDC) holds a

sewer easement across the South Meadow Station site for a sewage sludge force main. MDC agrees to irrevocably subject its easement to an Environmental Land Use Restriction (ELUR) to be recorded as part of the South Meadow Station site remediation. MIRA agrees to reimburse MDC for any out of pocket costs or expenses incurred by MDC in complying with conditions imposed

by the ELUR.

Other Pertinent Provisions: Establish a dedicated reserve account for

accrual of funds to pay potential future

reimbursement requests.

Fund the dedicated reserve account with \$153,300 from the Mid-Connecticut Project

Operating Account.

First Amendment to Sewer Easement at the South Meadow Station Site

January 28, 2016

Executive summary

This is to request approval for the President to execute a First Amendment to Sewer Easement with the Metropolitan District (MDC). Under this First Amendment, MDC agrees to irrevocably subject its easement for a sewage sludge force main at the South Meadow Station site to an Environmental Land Use Restriction (ELUR), which ELUR is to be recorded as part of the remediation of the South Meadow Station site. In exchange for MDC's agreement to enter into this First Amendment, MIRA agrees to reimburse MDC for future out of pocket costs associated with complying with the ELUR. There is no aggregate cap on the potential future reimbursement amount; however, reimbursement is specifically to cover "any out of pocket costs or expenses incurred by Grantee (MDC) in complying with the conditions imposed by the ELUR."

Background

On December 22, 2000, CRRA and TRC Companies, Inc. executed a contract entitled *Exit Strategy _{TM} Contract For South Meadow Station Site Between Connecticut Resources Recovery Authority And TRC Companies, Inc.* (the "Exit Strategy _{TM} Contract"). The Exit Strategy _{TM} Contract was a prerequisite to the transfer of the South Meadows property and the Electric Generating Facility (EGF) from Connecticut Light & Power Company (CL&P) to CRRA in early CY 2001. The purpose of the Exit Strategy _{TM} Contract was to establish TRC as the "Certifying Party" under the Connecticut Transfer Act, thereby shifting the environmental remediation responsibility to TRC following transfer of the property from CL&P to CRRA. TRC is therefore responsible for remediation of pre-existing pollution conditions at, under or migrating from the site as required by applicable law, including, but not limited to, the State of Connecticut Remediation Standard Regulations ("RSR") and the Transfer Act.

Under the Exit Strategy TM Contract, TRC is obligated to select and complete remediation activities at the site that fulfill all requirements of applicable law without materially interfering with current and future Site operations (as such operations were defined at the time the Exit Strategy TM Contract was executed). As permitted under the RSR, the Exit Strategy TM Contract allows TRC to utilize ELURs to achieve remediation goals appropriate for an industrial/commercial ("I/C") site located within a "GB" groundwater designation area (i.e., an

area where degradation of groundwater has occurred due to urbanization and where treatment would therefore be required before groundwater could be consumed). TRC has therefore remediated highly-contaminated soils and groundwater to meet I/C and GB standards. TRC has also placed appropriate minimum depths of clean cover soils and/or constructed engineered controls to render remaining contamination inaccessible and/or environmentally isolated.

Under the Exit Strategy TM Contract, MIRA is obligated to consent to appropriate ELURs, provided that TRC consults with MIRA prior to implementing each ELUR, and that such ELURs do not materially interfere with MIRA's use of the site. Additionally, it is MIRA's obligation "to ensure that... all Interest Holders consent and subordinate their interests to appropriate ELURs or other restrictions or controls required in connection with the Remediation, which are necessary to render soils inaccessible or environmentally isolated, or to restrict portions of the Site from use for residential activities, as defined in the RSRs; provided, however, that any such ELURs shall not materially interfere with... any Interest Holder's use of its interests in the site, as currently conducted or as described in Exhibit F" of the Exit Strategy TM Contract.

Discussion

On August 29, 1977, the Hartford Electric Light Company (predecessor company to CL&P) granted an easement to MDC, which easement is recorded in the City of Hartford Land Records (a copy of the Sewer Easement is attached). The easement grants MDC "a right to lay, maintain, operate, construct, use, alter, repair and replace a single sewer line and appurtenances thereto, in, through, on and over" the described easement area at the South Meadow Station site. This easement is associated with a sludge force main that conveys sewage sludge from the MDC's East Hartford water pollution control facility (WPCF) to its Hartford WPCF (located on Brainard Road in Hartford). The easement crosses the northern tip of the South Meadow Station site, and measures approximately 160' in length and 10' in width. By virtue of its easement, MDC is an "Interest Holder" in the South Meadow Station site; therefore, MDC must subordinate its easement to the proposed ELUR before the ELUR can be recorded in the City of Hartford Land Records.

In return for its agreement to subordinate its easement to the ELUR, MDC has requested that MIRA reimburse MDC for any out of pocket costs or expenses incurred by MDC as a result of compliance with the conditions imposed by the ELUR. As cited in the First Amendment to Sewer Easement (a copy of which is attached), examples of such expenses may include, but are not necessarily limited to, the following:

- MIRA will not be responsible for the costs incurred by MDC to excavate and repair or replace its sewer line, but MIRA would be responsible for the costs to dispose of any contaminated soil generated as a result of the excavation; and,
- MIRA would not be responsible for replacement of excavated soil into the excavated area
 or replacement of any bituminous pavement or existing landscaping that may be present
 at the surface of the Sewer Easement, but MIRA would be responsible for payment of the
 cost for MDC to refill the excavated area with clean soil, and reinstall the geotextile
 warning layer located below the top two feet of soil in certain areas over the Sewer
 Easement.

The First Amendment does not stipulate a maximum amount or an aggregate amount to be reimbursed by MIRA; however, MIRA's potential future liabilities are limited by the relatively small size of the sewer easement, and by the terms and conditions that specify reimbursement would be for out of pocket costs or expenses incurred by MDC as a result of compliance with the conditions imposed by the ELUR. Additionally, MIRA's future liabilities under the First Amendment will decrease each time that existing contaminated soil is replaced with clean soil when MDC performs work within the sewer easement.

It should also be noted that, in addition to reimbursing MDC for any out of pocket costs or expenses incurred by MDC as a result of compliance with the conditions imposed by the ELUR, the First Amendment to Sewer Easement also includes language whereby MIRA agrees to indemnify and hold harmless MDC for any damages and costs incurred by MDC and caused by such contamination. This indemnification shall not apply to any pollutants that are present due to the acts or omissions of MDC. The First Amendment to Sewer Easement also specifies that the indemnity set forth in subparagraph (b) of the fourth paragraph on page 2 of the existing Sewer Easement (whereby MDC indemnifies and holds MIRA harmless for any and all costs, levies, taxes, assessments, liabilities, claims, judgements and expenses, including attorney's fees that may arise out of MDC's exercise of its rights under the Sewer Easement) shall not apply to any activities by or on behalf of MDC in complying with the terms and conditions of the ELUR. While this indemnification does add potential future risks, such risks are minimized by the relatively small size of the sewer easement, and the fact that the Sewer Easement limits the allowed improvements to a single sewer line.

Given the potential future liabilities and risks associated with the First Amendment to Sewer Easement, and given that the site-wide ELUR can not be recorded until after all Interest Holders agree to subordinate their interests to the ELUR, MIRA will only execute the First Amendment to Sewer Easement if all other "Interest Holders" in the South Meadow Station site also agree to subordinate their respective interests.

Financial Summary

MDC has requested that MIRA reimburse MDC for any out of pocket costs or expenses incurred by MDC as a result of compliance with the conditions imposed by the ELUR. The First Amendment does not stipulate a maximum amount or an aggregate amount to be reimbursed by MIRA.

At MIRA's request, TRC developed a cost estimate to help identify potential future costs. The sum total of the cost estimate developed by TRC was \$63,875, and included: (1) transportation and disposal of contaminated soil to a depth of 7.5' across the entire sewer easement area; (2) purchase and installation of clean backfill material; and (3) administrative costs associated with ELUR compliance (i.e., DEEP notification; oversight, inspection and reporting by a Licensed Environmental Professional; waste characterization sampling, etc.). It should be noted that TRC limited the depth of excavation work to 7.5' because the sludge force main is located at or above this horizon; however, the RSR apply to soil within 15' of the ground surface.

Management requests authorization to establish a dedicated reserve account for the accrual of funds to reimburse MDC in the future for out of pocket costs or expenses incurred by MDC as a

result of compliance with the conditions imposed by the ELUR. Management further requests authority to transfer \$153,300 from the Mid-Connecticut Project Operating Account to fund the dedicated reserve account. The requested amount of \$153,300 is equal to the cost estimate provided by TRC (\$63,875), multiplied by two to apply the costs to the full depth (i.e., 15') of soil regulated by the RSR, plus a 20% contingency.

It should be noted that it could be many years before MDC undertakes any activities within the sewer easement that would trigger a request for reimbursement.

SEWER EASEMENT

KNOW ALL MEN BY THESE PRESENTS That THE HARTFORD ELECTRIC LIGHT COMPANY, a corporation specially chartered by the General Assembly of the State of Connecticut, and located in the Town of Berlin, County of Hartford, State of Connecticut, hereinsfter called Grantor, for the consideration of One Dollar (\$1.00) and other valuable considerations received to its full satisfaction of THE METROPOLITAN DISTRICT, a municipal corporation specially chartered by the General Assembly of the State of Connecticut and having its territorial limits within said State, hereinsfter called the Grantee, does give, grant, bargain, sell and confirm unto said Grantee, its successors and assigns forever, a right to lay, maintain, operate, construct, use, alter, repair and replace a single sewer line and appurtenances thereto, in, through, on and over a certain piece or parcel of land situated on the northeasterly side of Reserve Road in the Town of Hartford, County of Hartford and State of Connecticut, more particularly described as follows:

The aforesaid parcel is a strip of land ten (10) feet in width, the southeasterly and northeasterly limits of which are five (5) feet southeasterly and northeasterly from and parallel to the hereinafter described center line and the northwesterly and southwesterly limits of which are five (5) feet northwesterly and southwesterly from and parallel to said center line.

The center line of said strip is more particularly described as follows:

Beginning at a point in the northeasterly street line of Reserve Road which point is 92 feet, more or less, southeasterly from a CHD monument marking the southwesterly corner of land of the Grantor, as measured along said northeasterly street line of Reserve Road; thence running in a northeasterly direction a distance of 95 feet, more or less; thence running in a northwesterly direction in a line making an angla to the right with the last described line of 100° 34°, a distance of 144 feet, more or less, to a point in the northwesterly line of said land of the Grantor.

Said ten-foot strip and center line are more particularly shown on a certain map entitled, "The Metropolitan District Bureau of Public Works P.O. Box 800 Hartford, Connecticut East Hartford Sludge Force Main Exchange of Right-of-Way at The Hartford Electric Light Co. - South Meadow Generating Station Hartford Scale: 1"=20' Serial No. 16721 April 1977," to be filed in the office of the Town Clerk of Hartford.

Within said ten-foot strip, the Grantee shall have the right to construct, maintain, inspect, use, operate, repair and replace a single sewer line and its appurtenances, including manholes, embankments and sewage tanks or valves, and to enter in and upon said parcel and to pass over the same and excavate therein for said purposes. Said Grantee shall have the right within said parcel to cut trees and bushes and to alter any existing watercourse or perform other work necessary or convenient for the construction, maintenance, inspection, use, operation, repair, replacement or protection of said sewer.

The Grantor shall not erect or allow to be exected any large structures on said right-of-way and shall not plant or allow to be planted or grown any large trees thereon nor parform any work thereon within said strip which may endanger or interfere with said sewer.

The Grantor does also grant to the Grantee the right to use during the original construction of said sewer additional strips of land 30 feet in width on the northeasterly, northwesterly and southeasterly sides of the above-described permanent ten-foot right-of-way at the locations as shown on said map:

Within said additional thirty-foot strips of land, the Grantee shall have the right to cut trees and bushes as may be convenient or necessary and to pass and repass with men and equipment, to operate equipment and install material incidental to the construction of said sewer and to excavate and fill, and, if necessary, to form embankments over said sewer.

By the acceptance of this deed, the Grantee covenants and agrees for itself, its successors and assigns:

- to restore the easement areas to a neat and orderly condition subsequent to the exercise of any rights herein granted;
- to indemnify and hold the Grantor, its successors and assigns, harmless from any and all costs, levies, taxes, assessments, liabilities, claims, judgments and expenses, including attorneys' fees that may arise out of the exercise of the rights herein granted;
- not to interfere with any structures, wires, cables or other conductors that may now or hereafter be erected upon, over, under and across the above-described easement areas.

The Grantor herein reserves the right to itself, its successors and assigns, to continue to use the land within which the aforesaid easement has been granted for any uses and purposes which shall not in any way interfere with the use thereof by the Grantes, its successors and assigns, in fulfilling the purposes for which this essement is granted,

TO HAVE AND TO HOLD the above-granted right, privilege and authority unto the said Grantee and its successors and assigns forever, to it and their own proper use and behoof.

IN WITNESS WHEREOF, the Grantor has bereunto caused its hand and seal affixed this 29th day of August 1977 16 H7 to be affixed this

Signed, sealed and delivered, in presence

Page 3

In witness whereof, I have hereunto set my hand and official seal.

George W. Litchfield Notary Public My commission expires:

111

Ret 8-16-77 GWL8/25/77.

at John Joseph Sullivan Town Clerk.

FIRST AMENDMENT TO SEWER EASEMENT

This First Amendment To Sewer Easement (the "First Amendment") is made and entered into as of this ____ day of January, 2016 (the "Effective Date") by and between MATERIALS INNOVATION AND RECYCLING AUTHORITY, a political subdivision of the State of Connecticut, having a principal place of business at 200 Corporate Place, Suite 202, Rocky Hill, Connecticut 06067 ("Grantor") and THE METROPOLITAN DISTRICT, a municipal corporation specially chartered by the General Assembly of the State of Connecticut and having its territorial limits within said State and a principal place of business at 555 Main Street, Hartford, Connecticut 06103 ("Grantee").

Preliminary Statement

On August 29, 1977, Hartford Electric Light Company, predecessor-in-interest to Grantor, granted to Grantee a certain sewer easement across the northerly portion of certain real property situated on the northeasterly side of Reserve Road and known as 300 Maxim Road in Hartford, Connecticut (the "Property"), which easement is recorded in Volume 1614, at Page 271 of the Hartford Land Records (the "Sewer Easement," and the Sewer Easement together with this First Amendment are hereinafter collectively referred to as the "Agreement").

In connection with Grantor's remediation of the Property, Grantor has determined that soils below the ground surface in certain areas of the Property are contaminated with arsenic, lead, petroleum, polyaromatic hydrocarbons and asbestos above applicable standards established by the State of Connecticut's Department of Energy and Environmental Protection ("DEEP"), which areas are more particularly identified as "ELUR SUBJECT AREA 'A-1" and "ELUR SUBJECT AREA 'G-b" on the plans attached hereto as **Exhibit A** and made a part hereof (collectively, the "Contamination Area"). The entire area of the Sewer Easement that is located on the Property is situated within the Contamination Area. As a result of such contamination, Grantor intends to file an Environmental Land Use Restriction (the "ELUR") on the Hartford Land Records to ensure that any disturbance of the soils in the Contamination Area, among other areas, is performed with prior written notice to DEEP and in accordance with proper soil management practices. Accordingly, Grantor has requested that Grantee subject its Sewer Easement to the terms and conditions of the ELUR. Grantor and Grantee now desire to amend the Sewer Easement in accordance with the terms and conditions set forth below.

NOW THEREFORE, in consideration of the mutual covenants, promises, and representations contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and Grantee hereby amend the Sewer Easement as follows.

Terms And Conditions

1. <u>ELUR.</u> Grantee hereby agrees to irrevocably subject the Sewer Easement to the terms and conditions of the ELUR, and to perform all work within the Contamination Area, including but not limited to excavation, construction, paving, and installation, removal or replacement of structures, pipes, drainage facilities or other improvements, whether above or below ground on the Contamination Area, in conformance with such terms and conditions. In the event that any such work is warranted, Grantor shall in good faith cooperate with Grantee to the

extent necessary for Grantee to secure any requisite releases from DEEP for such work, and Grantor shall reimburse Grantee for any out of pocket costs or expenses incurred by Grantee in complying with the conditions imposed by the ELUR. By way of example and not limitation, Grantor shall not be responsible for the costs incurred by Grantee to excavate and repair or replace its sewer line, but Grantor would be responsible for the costs to dispose of any contaminated soil generated as a result of the excavation. By way of further example and not limitation, Grantor would not be responsible for replacement of excavated soil into the excavated area or replacement of any bituminous pavement or existing landscaping that may be present at the surface of the Sewer Easement, but Grantor would be responsible for payment of the cost for Grantee to refill the excavated area with clean soil, and reinstall the geotextile warning layer located below the top two feet of soil in certain areas over the Sewer Easement. Grantor shall provide Grantee with a copy of the ELUR that Grantor submits to DEEP for Grantee's review and approval. Upon DEEP's approval of the ELUR, Grantor shall submit such approved ELUR to Grantee for its review and approval prior to recording the same on the Hartford Land Records.

- 2. No Liability. Nothing herein contained shall be construed as an admission by Grantee that it has caused or contributed in any manner to the contamination on the Property, and Grantor shall indemnify and hold harmless Grantee for any damages and costs incurred by Grantee and caused by such contamination. The foregoing obligation shall not apply to any pollutants that are present due to the acts or omissions of Grantee. For the avoidance of doubt, the indemnity set forth in subparagraph (b) of the fourth paragraph on page 2 of the Sewer Easement shall not apply to any activities by or on behalf of Grantee in complying with the terms and conditions of the ELUR.
- 3. Governing Law. The Agreement shall be governed by, and construed, interpreted and enforced in accordance with the laws of the State of Connecticut without giving effect to conflict of laws principles.
- 4. <u>Amendments.</u> The Agreement may not be amended, modified or supplemented except by a writing signed by the parties hereto that specifically refers to the Agreement.
- 5. <u>Entire Agreement.</u> The Agreement constitutes the entire agreement and understanding between the parties hereto and concerning the subject matter hereof, and supersedes any previous agreements, written or oral, between the parties hereto and concerning the subject matter hereof.
- 6. <u>No Waiver.</u> Failure to enforce any provision of the Agreement or to require at any time performance of any provision hereof shall not be construed to be a waiver of such provision, or to affect the validity of the Agreement or the right of any party to enforce each and every provision in accordance with the terms hereof.
- 7. <u>Successors and Assigns.</u> The Agreement shall inure to the benefit of and be binding upon the heirs, personal representatives, successors and assigns of the parties hereto.
- 8. <u>Severability.</u> Grantor and Grantee understand and agree that if any part, term or provision of the Agreement is held by any court to be invalid, illegal or in conflict with any applicable law, the validity of the remaining portions of the Agreement shall not be affected, and

the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term or provision held to be invalid, illegal or in conflict with any applicable law.

- 9. <u>Notices.</u> All notices, approvals, demands, requests or other documents required or permitted under the Agreement, other than routine communications necessary for day-to-day operations, shall be deemed properly given if hand delivered or sent by United States registered or certified mail, postage prepaid, or by overnight courier, to the addresses set forth above or to such other addresses as either party hereto may supply to the other in accordance with this section.
- 10. <u>Ratification</u>. Except as specifically amended above by this First Amendment, all of the other terms and conditions of the Sewer Easement are hereby ratified and confirmed in all respects, and declared to be and remain in full force and effect.

(Signatures on following page)

IN WITNESS WHEREOF, Grantor and Grantee have caused this First Amendment to be executed and delivered by their duly authorized representatives as of the Effective Date.

Signed, Sealed and Delivered in the Presence of:	MATERIALS INNOVATION AND RECYCLING AUTHORITY			
Witness			Ву:	Name: Title:
Witness				
STATE OF CONNECTICUT))	ss:		
COUNTY OF HARTFORD)			
On this day of Janu, person of identification, which was (circle or be the person whose name is signed on he/she signed it voluntarily for its state INNOVATION AND RECYCLING.	nally ie of n the ed po	appe the fo prece urpose	ared, prove llowing) D eding documents the TTY.	ed to me through satisfactory evidence briver's License/Personal Knowledge, to ment and acknowledged to me that of MATERIALS
				ness Whereof, I hereunto set my and official seal.
			Notary	nissioner of the Superior Court y Public commission Expires:

Signed, Sealed and Delivered in the Presence of:	THE METROPOLITAN DISTRICT
Witness	By: Name: Title:
Witness	
STATE OF CONNECTICUT)	ss:
COUNTY OF HARTFORD)	
of identification, which was (circle one of t be the person whose name is signed on the	2016, before, me the undersigned, y appeared, proved to me through satisfactory evidence the following) Driver's License/Personal Knowledge, preceding document and acknowledged to me that prose as the of THE
	In Witness Whereof, I hereunto set my hand and official seal.
	Name: Commissioner of the Superior Court Notary Public My Commission Expires: