



Florida Department of Environmental Protection

Waste Reduction/Recycling

Completing Solid Waste Management Report in Re-TRAC

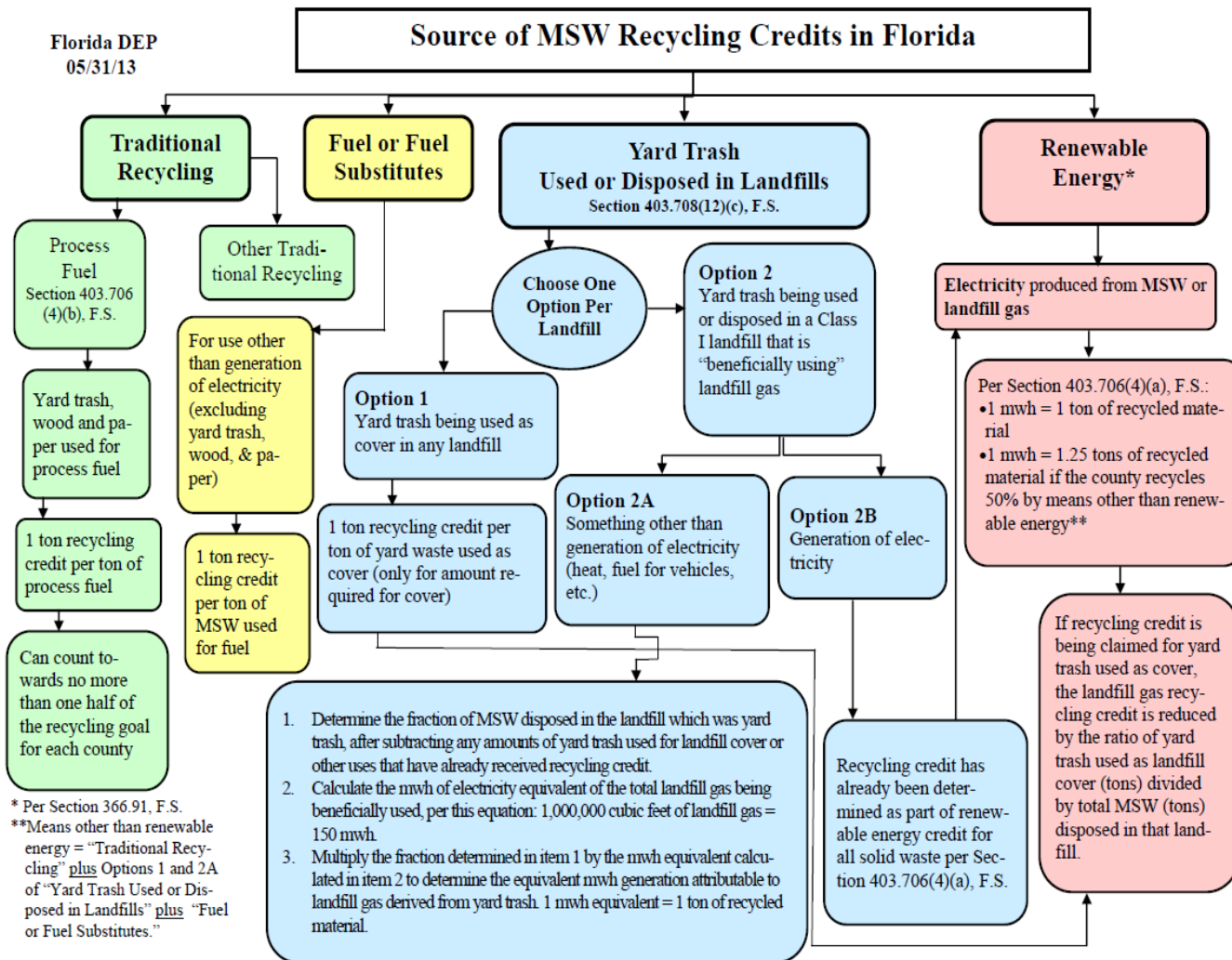
June 13, 2016





Calculating the Recycling Rate

50% by 2015
60% by 2017
70% by 2019
75% by 2020





County Solid Waste Management Data

Reynolds County, Florida

MSW Managed

Total Population – 250,000

Total MSW Collected – 300,000 Tons

- 150,000 Disposed at Landfill A Generating Landfill Gas used for Electricity
- 20,000 Tons Yard Trash used as Landfill Cover at Landfill A
 - Total Tons Received at Landfill
 - Total Tons Used as Landfill Cover
- 2,000 Tons Other MSW used as Landfill Cover at Landfill A
 - Total Tons Received at Landfill
 - Total Tons Used as Landfill Cover
- 29,250 Tons sent to Waste-To-Energy Facility A
 - Total MSW Received at Waste-To-Energy Facility A – 100,000 Tons
 - Total MWH Generated at Waste-To-Energy Facility A – 50,000 MWH
 - County Tons of Ash Generated and Used as Landfill Cover – 5,000 Tons
- 5,000 Tons MSW sent to Waste-To-Energy Facility B
 - Total MSW Received at Waste-To-Energy Facility B – 60,000 Tons
 - Total MWH Generated at Waste-To-Energy Facility B – 30,000 MWH
 - County Tons of Ash Generated and Used as Landfill Cover – 500 Tons
- 2,250 Tons MSW sent to Renewable Energy Facility A (Other than WTE)
 - Total MSW Received at Renewable Energy Facility A - 40,000 Tons
 - Total MWH Generated at Renewable Energy Facility A – 20,000 MWH
 - County Tons of Ash Generated and Used as Landfill Cover – 250 Tons
- 5,000 Tons Yard Trash Used as Process Fuel
- 2,500 Tons Used Cooking Oil Tons Used as Fuel or Fuel Substitute
- 2,500 Tons Used as Fuel or Fuel Substitute
- 15,000 Tons C&D Used for Land/Road Reclamation Project
- 15,000 Tons Disposed at Landfill B Generating Landfill Gas used for something other than electricity
- 5,000 of Thermally Treated Contaminated Soil Reused



County SWMR Data: *Recycled Tons*

Recycled Tonnage

Certified Tons: Recovered Materials Dealer Report (Grand Totals)

Reported to DEP by Certified Recovered Materials Dealers

Material	Recycled Tons	Material	Recycled Tons
Newspaper	3,000	Other Plastics	4,000
Glass	1,500	Ferrous Metals	7,000
Aluminum Cans	850	Non-Ferrous Metals	2,000
Plastic Bottles	900	Other Paper	4,500
Steel Cans	850	Textiles	1,000
Corrugated Paper	3,000		
Office Paper	2,500	C&D	10,000

Non-Certified Recycled Tons

Material	Recycled Tons	Material	Recycled Tons
Yard Trash	25,000	Miscellaneous	
White Goods	1,120	<i>electronics</i>	1,500
Food	5,000	<i>Used auto oil</i>	1,000
		<i>paint</i>	500



Estimating “Collected Tons”



Option A

Recent County Waste Composition Study

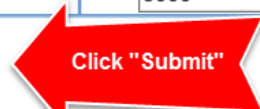
Option B

WasteCalc

Note: For training purposes we are using WasteCalc.

1	Select the Data Year	2015 ▾
2	Select Your County	Leon ▾
3	Enter County Population	250000
4	Enter MSW Landfilled (in tons)	160000
5	Enter MSW Combusted (if any) (in tons)	28500
Enter your most recent recycling data (in tons)		
6	Newspapers	3000
7	Glass	1500
8	Aluminum Cans	850
9	Plastic Bottles	900
10	Steel Cans	850
11	C&D Debris	25000
12	Yard Trash	5000
13	White Goods	1120
14	Tires	200
15	Other Plastics	4000
16	Ferrous Metals	5580
17	Nonferrous Metals	2000
18	Corrugated Boxes	3000
19	Office Paper	2500
20	Other Paper	4500
21	Food Waste	5000
22	Textiles	1000
23	Miscellaneous	3000

Print Submit





Estimating “Collected Tons”



An estimate of the percent composition by weight of municipal solid waste collected/generated in Leon County in 2015 is provided below.

Material	% of Total MSW Collected
Newspapers	4.0%
Glass	3.4%
Aluminum Cans	0.8%
Plastic Bottles	1.7%
Steel Cans	1.0%
C&D Debris	22.1%
Yard Trash	13.5%
White Goods	1.1%
Tires	1.4%
Other Plastics	6.7%
Ferrous Metals	3.4%
Nonferrous Metals	1.1%
Corrugated Boxes	14.7%
Office Paper	2.3%
Other Paper	10.3%
Food Waste	7.9%
Textiles	2.5%
Miscellaneous	2.2%
<i>Total</i>	100.0%

To estimate the collected tonnage of individual commodities, the “% of Total MSW Collected” should be multiplied by the “Total Tons MSW Collected”

Because **WasteCalc** is partially based on "typical" waste generation in previous years, an unusual change in your waste stream could skew the results. For example, a change in the way you manage yard waste or an unusual construction or demolition project in your county would not be reflected in the model. Other major activities or events (such as natural or man-made disasters, establishment of new tourism attractions, or the arrival of a significant new corporate resident) could also affect the results.



Municipal Solid Waste Collection and Recycling

Municipal Solid Waste Collection and Recycling

MATERIAL	COLLECTED TONS	DEP CERTIFIED #'S	NON-CERTIFIED RECYCLING #'S	RECYCLED TONS (DEP CERTIFIED #'S + NON-CERTIFIED RECYCLING #'S) [b]
Newspaper [c]	12,000	3,000		3,000
Glass [c]	10,200	1,500		1,500
Aluminum Cans [c]	2,400	850		850
Plastic Bottles [c]	5,100	900		900
Steel Cans [c]	3,000	850		850
Corrugated Paper [c]	44,100	3,000		3,000
Office Paper [c]	6,900	2,500		2,500
Yard Trash [c]	40,500		25,000	25,000
Other Plastics	20,100	4,000		4,000
Ferrous Metals [d]	10,200	5,580	500	6,080
White Goods [d]	3,300		1,120	1,120
Non Ferrous Metal	3,300	2,000		2,000
Other Paper	30,900	4,500		4,500
Textiles	7,500	1,000		1,000
C&D Debris [g]	50,000	10,000	15,000	25,000
Food	23,700		5,000	5,000
Miscellaneous	23,000		18,250	18,250
Tires	3,800		200	200
Process Fuel [e][f]			5,000	5,000
Total Tons MSW Collected	300,000	39,680	70,070	109,750



MSW Management

MSW Management

Landfilled (including Landfilled Combustor Ash): *

160,000 tons



Gross Combusted (WTE Input): *

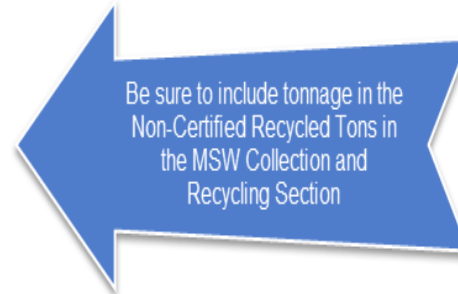
34,250 tons

Landfilled Combustor Ash [g]: *

5,750 tons

Combustor Material Recycled [h]:

500 tons



Renewable Energy (other than WTE) [ww]:

2,250 tons

Net Combusted Tons:

30,250 = (Gross Combusted + Renewable Energy - Landfilled Combustor Ash - Combustor Material Recycled)

Recycled Tons [b]:

109,750 tons

Stockpiled [i]:

tons



MSW Management

Tons MSW Collected

Total Tons MSW Collected

300,000 *(Landfilled + Recycled + Net Combusted + Stockpiled)*

NOTE:
Tons MSW Collected should match the Total Tons Collected that is displayed in the Municipal Solid Waste Collection and Recycling Section

Municipal Solid Waste Collection and Recycling				
Food	23,700		5,000	5,000
Miscellaneous	23,000		18,250	18,250
Tires	3,800		200	200
Process Fuel [e][f]			5,000	5,000
Total Tons MSW Collected	300,000	39,680	70,070	109,750



Landfill Cover Recycling Credits

Recycling Credits for Landfill Cover [j]

Select the material(s) used to receive landfill cover recycling credits:

- Yard Trash used as landfill cover
- Treated Contaminated Soil (must meet approved levels)
- Other MSW used as landfill cover (excluding yard trash)

Recycling Credits for Yard Trash used as Landfill Cover

	NAME OF LANDFILL	DISPOSED COUNTY YARD TRASH (TONS) [k]	TOTAL DISPOSED YARD TRASH AT LANDFILL (TONS) [l]	YARD TRASH DISPOSAL RATIO [m]	TOTAL YARD TRASH USED AS LANDFILL COVER (TONS) [n]	YARD TRASH/LANDFILL COVER RECYCLING CREDITS FOR COUNTY (TONS) [o]	
1	Landfill A	20,000	60,000	0.333333	60,000	20,000.00	Remove

Add

Recycling Credits for Other MSW used as Landfill Cover

	NAME OF LANDFILL	DISPOSED COUNTY MSW (EXCLUDING YARD TRASH) (TONS) [p]	TOTAL DISPOSED MSW AT LANDFILL (EXCLUDING YARD TRASH)(TONS) [q]	MSW DISPOSAL RATIO [r]	TOTAL OTHER MSW USED AS LANDFILL COVER (TONS) [s]	OTHER MSW/LANDFILL COVER RECYCLING CREDITS FOR COUNTY (TONS) [t]	
1	Landfill A	125,000	125,000	1.000000	2,000	2,000.00	Remove

Add

Total Recycling Credits for Yard Trash used as Landfill Cover [u]:

20,000.00

Total Recycling Credits for Other MSW used as Landfill Cover [v]:

2,000.00

1. Include Landfill Cover Recycling Credits in the Municipal Solid Waste Collection and Recycling Section
2. Include as Non-Certified Recycled Tons
3. Include in the appropriate material category



Renewable Energy Recycling Credits – WTE Energy

Recycling Credits for Renewable Energy

Select the method/s used to receive renewable energy recycling credits:

- Waste-to-Energy
- Landfill Gas Used to Generate Electricity
- Renewable Energy (other than WTE)

Include in the MSW
Management Section

Recycling Credits for Waste-to-Energy

	NAME OF FACILITY	COUNTY GROSS MSW COMBUSTED (TONS) [w]	TOTAL GROSS COMBUSTED MSW AT FACILITY (TONS) [x]	GROSS COMBUSTED RATIO [y]	GROSS MWH GENERATED AT FACILITY [z]	WASTE-TO-ENERGY RECYCLING CREDITS FOR COUNTY (TONS) [aa]	
1	WTE Facility A	25,000	100,000	0.250000	50,000	12,500.00	<input type="button" value="Remove"/>
2	WTE Facility B	5,000	60,000	0.083333	30,000	2,500.00	<input type="button" value="Remove"/>

MSW Management

Landfilled (including Landfilled Combustor Ash): *

160,000 tons

Gross Combusted (WTE Input): *

34,250 tons

Landfilled Combustor Ash [g]: *

5,750 tons

Combustor Material Recycled [h]:

500 tons

Renewable Energy (other than WTE) [ww]:

2,250 tons



Renewable Energy Recycling Credits – *Renewable Energy (Other than WTE)*

Renewable Energy (other than WTE) Recycling Credits

	NAME OF FACILITY	COUNTY GROSS MSW COMBUSTED- OTHER THAN WTE (TONS) [W]	TOTAL GROSS COMBUSTED MSW- OTHER THAN WTE AT FACILITY (TONS) [X]	GROSS COMBUSTED RATIO [Y]	GROSS MWH GENERATED AT FACILITY [Z]	RENEWABLE ENERGY (OTHER THAN WTE) RECYCLING CREDITS FOR COUNTY (TONS) [AA]	
1	RE Facility C	2,500	40,000	0.06	20,000	1,250.00	Remove

Add

Include in MSW Management Section

MSW Management

Landfilled (including Landfilled Combustor Ash): *

160,000 tons

Gross Combusted (WTE Input): *

34,250 tons

Landfilled Combustor Ash [g]: *

5,750 tons

Combustor Material Recycled [h]:

500 tons

Renewable Energy (other than WTE) [ww]:

2,250 tons

Don't forget to account for ash generated.



Renewable Energy Recycling Credits – Landfill Gas

Recycling Credits for Landfill Gas Used to Generate Electricity:

- Yard Trash Only
- Other MSW - not including Yard Trash

Recycling Credits for Landfill Gas Used to Generated Electricity - Other MSW (not including Yard Trash)

	NAME OF LANDFILL	DISPOSED COUNTY MSW - EXCLUDING YARD TRASH (TONS) [ff]	TOTAL DISPOSED MSW AT LANDFILL (TONS) [gg]	DISPOSAL RATIO [hh]	GROSS MWH GENERATED AT LANDFILL [dd]	OTHER MSW/LANDFILL GAS RENEWABLE ENERGY RECYCLING CREDITS FOR COUNTY (TONS) [ii]	
1	Landfill A	123,000	125,000	0.984000	25,000	24,600.00	Remove

Add

Should be included in the Landfilled Tons Field in the MSW Management

MSW Management

Landfilled (including Landfilled Combustor Ash): *

160,000 tons

Gross Combusted (WTE Input): *

34,250 tons

Landfilled Combustor Ash [g]: *

5,750 tons

Combustor Material Recycled [h]:

500 tons

Renewable Energy (other than WTE) [ww]:

2,250 tons

Includes MSW receiving landfill gas recycling credits.



Renewable Energy Recycling Credits Recycling Credits

Total Recycling Credits for Waste-to-Energy [jj]:

15,000.00

Total Recycling Credits for Landfill Gas Used to Generated Electricity - Other MSW [ll]:

24,600.00

Total Recycling Credits for Renewable Energy (other than WTE) [xx]:

1,250.00



Yard Trash Receiving Landfill Gas (Generating Something Other than Electricity Recycling Credits

Yard Trash Receiving Landfill Gas (Generating something Other than Electricity) Recycling Credits

The information provided below will be used to determine recycling credits from yard trash used or disposed in a class I landfill beneficially using landfill gas for something other than the generation of electricity.

The following information must be provided on a per landfill basis.

Yard Trash used or disposed in a Class 1 landfill beneficially using landfill gas for something other than the generation of electricity.

	NAME OF LANDFILL	DISPOSED COUNTY YARD TRASH (TONS) [nn]	TOTAL DISPOSED MSW AT LANDFILL (TONS) [oo]	YARD TRASH DISPOSAL RATIO [m]	MWH EQUIVALENT OF BENEFICIAL USE [pp]	MWH EQUIVALENT FROM YARD TRASH [qq]	
1	Landfill B	15,000	200,000	0.075000	183	13.7250	Remove

Add

Should be included in the landfilled tons in the MSW Management Section

Total Recycling Credits for Landfill Gas used to Generate Something Other than E

13.7250

MSW Management

Landfilled (including Landfilled Combustor Ash): *

160,000 tons

Gross Combusted (WTE Input): *

34,250 tons

Landfilled Combustor Ash [g]: *

5,750 tons

Combustor Material Recycled [h]:

500 tons

Renewable Energy (other than WTE) [ww]:

2,250 tons

Includes MSW receiving landfill gas recycling credits.



Fuel or Fuel Substitute Recycling Credits

Fuel or Fuel Substitute Recycling Credits

MSW (excluding yard trash, wood and paper) used as fuel or fuel substitute.

Fuel or Fuel Substitute Recycling Credits

	NAME OF FACILITY	GROSS MSW TONS USED AS A FUEL OR FUEL SUBSTITUTE	TOTAL TONS BYPRODUCT WASTE DISPOSED	TOTAL TONS BYPRODUCT RECYCLED	NET MSW TONS USED AS A FUEL OR FUEL SUBSTITUTE [mm]	
1	City Facility (used cooking oil)	2,500	0	0	2,500	Remove

Add

Total Net MSW Ton used as a Fuel or Fuel Substitute:

2,500

If the material is known, include it in the appropriate category's NON-CERTIFIED Recycled Tons in the Municipal Solid Waste Collection and



Recycling Credits for Processed Fuel

Recycling Credits for Process Fuel

Waste Processed at Facility

NAME OF FACILITY	TONS PROCESSED	
Process Fuel Facility D	5,000	Remove

Add

Total Waste Processed at Facility

5,000.00

Should be included in the
Municipal Solid Waste
Collection and Recycling
Section

Municipal Solid Waste Collection and Recycling

Food	23,700		5,000	5,000
Miscellaneous	23,000		18,250	18,250
Tires	3,800		200	200
Process Fuel [e][f]			5,000	5,000
Total Tons MSW Collected	300,000	39,680	70,070	109,750



Recycling Credits for Tires

Recycling Credits for Tires

A. Tires Collected (tons) [rr]

B. Recycling Credits:

i. Energy Use:

Energy Recycling Credits section

Used as a supplemental energy use by WTE facilities. This tonnage should have already been included in the Waste-to-Energy Recycling Credits section.

ii. Recycling:

Recycling Section.

Crumb rubber applications and civil engineering uses. This tonnage should have been included in the MSW Collection and Recycling Section.

iii. Other:

Should have been included in the Renewable Energy Recycling Credits Section

Should be included in the Municipal Solid Waste Collection and Recycling Section

Municipal Solid Waste Collection and Recycling

Food	23,700		5,000	5,000
Miscellaneous	23,000		18,250	18,250
Tires	3,800		200	200
Process Fuel [e][f]			5,000	5,000
Total Tons MSW Collected	300,000	39,680	70,070	109,750



Land/Road Reclamation Projects Recycling Credits

Land/Road Reclamation Projects

(ex: road base, fill materials)

Processed C&D Used for Land/Road Reclamation Projects (Tons):

15,000

This tonnage should have also been included in the C&D and/or Miscellaneous categories in the MSW Collection and

Recycling Table.

Treated Contaminated Soil Used for Land/Road Reclamation Projects (Tons)

Thermally Treated

Aerated

Other

Thermally Treated:

5,000 tons

Should be included in the
Municipal Solid Waste
Collection and Recycling

Total Tons, Treated Contaminated Soil Used for Land/Road Reclamation Projects

5,000

This tonnage should have also been included in the Miscellaneous category in the MSW Collection and

Recycling Table.

Municipal Solid Waste Collection and Recycling

Other Paper	30,900	4,500		4,500
Textiles	7,500	1,000		1,000
C&D Debris [g]	50,000	10,000	15,000	25,000
Food	23,700		5,000	5,000
Miscellaneous	23,000		18,250	18,250
Tires	3,800		200	200
Process Fuel [e][f]			5,000	5,000
Total Tons MSW Collected	300,000	39,680	70,070	109,750



Collection and Recycling By Generator Type

Residential Single Family

Total Units in County: *	25,000	
Residents Per Unit [tt]: *	2.33	
Collected Tons from Residential Single Family Units [uu] *	125,000	Does NOT include Renewable Energy Recycling Credits
Recycled Tons from Residential Single Family Units *	33,750	
Total Tons MSW Collected	300,000	
Total Recycled Tons	109,750	

Residential Single-Family Participation in Recycling

Select the service(s) that are available to county units: *

- Curbside Collection
- Drop-off Stations
- Mobile Drop-off
- Buy Back Centers

Curbside Collection: *	25,000	# units with service available
Curbside Collection: *	12,500	# units participating in available service
Drop-off Stations: *	25,000	# units with service available
Drop-off Stations: *	7,500	# units participating in available service



Collection and Recycling By Generator Type

Residential Multi-Family

Total Units in County: *

Residents Per Unit [tt]: *

Collected Tons from Residential Multi-Family Units [uu] *

Recycled Tons from Residential Multi-Family Units *

Total Tons MSW Collected

Total Recycled Tons

Does NOT include
Renewable Energy
Recycling Credits

Residential Multi-Family Participation in Recycling

Select the service(s) that are available to county units: *

- Curbside Collection
- Drop-off Stations
- Mobile Drop-off
- Buy Back Centers

Curbside Collection: * # units with service available

Curbside Collection: * # units participating in available service

Drop-off Stations: * # units with service available

Drop-off Stations: * # units participating in available service



Collection and Recycling By Generator Type

Commercial

Total Units in County: *

10,000

Collected Tons from Commercial Units [uu] *

160,000

Recycled Tons from Commercial Units *

70,000

Total Tons MSW Collected

300,000

Total Recycled Tons

109,750

Scheduled Recycling Service Collection: *

10,000

units with service available

Scheduled Recycling Service Collection: *

5,000

units participating with available service

On Call Recycling Service Collection: *

10,000

units with service available

On Call Recycling Service Collection: *

1,000

units participating with available service

Does NOT include
Renewable Energy
Recycling Credits



Check for Consistency!

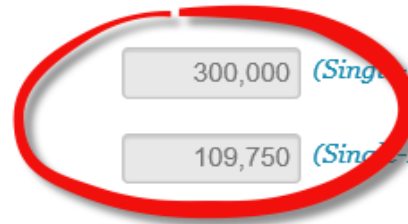
Generator Totals

Total Tons Collected:

300,000 (Single-Family + Multi-Family + Commercial)

Total Tons Recycled:

109,750 (Single-Family + Multi-Family + Commercial)



Tons MSW Collected

Total Tons MSW Collected

300,000 (Landfilled + Recycled + Net Combusted + Stockpiled)



Municipal Solid Waste Collection and Recycling

Food	23,700		5,000	5,000
Miscellaneous	23,000		18,250	18,250
Tires	3,800		200	200
Process Fuel [e][f]			5,000	5,000
Total Tons MSW Collected	300,000	39,680	70,070	109,750





Solid Waste Disposal Fees

County Average Solid Waste Disposal Fees (dollars per ton) (vv)

Select the material(s) and/or services that are collected or provided in your county.

- Class 1
- White Goods
- Asbestos
- WTE Facility
- C&D
- Out of County
- Yard Trash
- Passenger Tires
- Petroleum Contaminated Soils

Class 1: *	<input type="text" value="35.00"/>	<i>Dollar per ton</i>
WTE Facility: *	<input type="text" value="35.00"/>	<i>Dollar per ton</i>
Yard Trash: *	<input type="text" value="35.00"/>	<i>Dollar per ton</i>
White Goods: *	<input type="text" value="35.00"/>	<i>Dollar per ton</i>
C&D: *	<input type="text" value="35.00"/>	<i>Dollar per ton</i>
Passenger Tires: *	<input type="text" value="35.00"/>	<i>Dollar per ton</i>
Petroleum Contaminated Soils: *	<input type="text" value="35.00"/>	<i>Dollar per ton</i>



Your All Done!

Save

Submit to Program

Delete Response

Shannan Reynolds

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