

# Charleston Long-Range Solid Waste Plan Input Sheet

Bees Ferry  
RRF through 2030

## General Information

MSW Generated in Beginning Year (tons/year)	310,271
MSW Generation Escalation Factor (%)	0.80%
C&D Waste Managed by County (tons/year)	100,000
C&D Waste Escalation Factor (%)	0.00%
Discount Rates	5.00%
Inflation Rate / General Escalation	2.50%
Start Year (will become "year 1" of proforma)	1
Beginning Fiscal Year	2002

## Resource Recovery Facility

### MSW Tonnages

Current Tons of MSW processed	200,000
Beginning Year	2002
Ending Year	2010
Future Tons of MSW processed	175,550
Beginning Year	2011
Ending Year	2030

### Ash Residue

Ash Residue Generation Rate (% of MSW)	27%
Current Ferrous Metal Recovery Rate (% of Ash)	0.5%
Future Ferrous Metal Recovery Rate (% of Ash)	0.5%
Future Start Year	2002
Beginning Ferrous Metal Sale Price (\$/ton)	\$0.00
Ferrous Metal Sale Price Escalation Factor (%)	0.0%
Out of county ash disposal	
Beginning Ash Disposal Cost (\$/ton)	\$27.00
Ash Disposal Cost Escalation Factor (%)	2.5%
Beginning Year	2002
Ending Year	2006
Is Ending Year Cost split between County and out-of-County? (yes/no)	yes
In county ash disposal	
Beginning Year	2006
Ending Year	2030

### Ash Hauling Costs

Incremental Ash Hauling Cost (\$/ton)	\$0.00
Ash Hauling Cost Escalation Factor (%)	0.0%
Beginning Year	
Ending Year	

### Operations/Maintenance Costs

Current O&M Costs (\$/year)	\$7,100,000
Current O&M Escalation Factor (%)	2.0%
Future O&M Costs (\$/year)	\$6,770,000
Future O&M Escalation Factor (%)	2.0%
Future Start Year	2011

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## Non-Routine Capital Improvement Costs

Description	none
Cost	\$0
Cost Year Incurred	

## Current Debt

Series 1997 Bond Allocation (%)	100.00%
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## Energy Revenues

Current Electric Power Sold (MWh)	48,000
Beginning Year	2002
Ending Year	2010
Contractual electric power sales price (\$/MWh)	
FY 2002	\$60.24
FY 2003	\$63.74
FY 2004	\$67.40
FY 2005	\$71.45
FY 2006	\$75.93
FY 2007	\$80.90
FY 2008	\$86.44
FY 2009	\$89.36
FY 2010	\$89.36
County share of electric revenue (%)	90%
Future Electric Power Sold (MWh)	86,000
Beginning Year (leave blank if NA)	2010
Ending Year (leave blank if NA)	2030
Future Electric Power Sales Price (\$/MWh)	\$25.00
Future Electric Power Sales Price Escalation Factor (%)	1%
Future County share of electric revenue (%)	90%
Current Steam Sold (mlbs)	500,000
Beginning Year	2002
Ending Year (half year)	2010
Current Steam Price (\$/mlbs)	\$6.59
Current Steam Price Escalation Factor	0.5%
Current County share of steam revenue (%)	93%
Future Steam Sold (mlbs)	0
Beginning Year (half year, leave blank if NA)	
Ending Year (leave blank if NA)	
Future Steam Price (\$/mlbs)	\$0.00
Future Steam Price Escalation Factor	0.0%
Future County share of steam revenue (%)	0%

## Merchant Waste Revenues

Tons Merchant Waste Processed (tpy)	24,450
Merchant Waste Tip Fee (\$/ton)	\$85.00
County Share of Merchant Waste Revenue (%)	50%
Beginning Year	2011

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## Landfill

### Existing Landfill Operations

Bees Ferry Unlined MSW Landfill

calculated on proforma as  
balance of MSW not  
disposed of elsewhere

Amount MSW Disposed at Landfill	
Ending Year	2006
Is Ending Year a half-year? (yes/no)	yes
Annual O&M Costs (\$/ton)	\$11
Closure Cost (\$/acre)	\$110,000
Number of Acres	72
Year Closure Cost Incurred (half cost occurs in subsequent year)	2006
Annual Post-Closure Care Cost (\$/year)	\$85,000
Year Post-Closure Care Costs Begin	2007
Number of Years for Post-Closure Costs	30

Romney Street Post-Closure Care

Annual Post-Closure Care (\$/year)	\$45,208
Ending Year	2025

Bees Ferry Ash Monofill

Annual Post-Closure Care (\$/year)	\$15,040
Ending Year	2026

Bees Ferry Tire Recycling

Amount of Tires Recycled (% of County MSW)	1%
Ending Year	2030
Annual O&M Costs (\$/year)	\$175,000

Bees Ferry C&D Landfill

Amount of C&D Managed at Landfill (% of C&D Managed by County)	100%
Ending Year	2009
Annual O&M Costs (\$/ton)	\$11
Closure Cost (\$/acre)	\$50,000
Number of Acres	44
Year Closure Cost Incurred	2010
Annual Post-Closure Care Cost (\$/year)	\$22,000
Year Post-Closure Care Costs Begin	2011
Number of Years for Post-Closure Costs	30

Revenues

C&D Waste Tipping Fees, Private Customers (\$/ton)	\$25
C&D Tonnage from Private Customers (%)	35%
Tire Tipping Fee (\$/year)	\$325,000
C&D and Tire Tipping Fee Escalation Factor (%)	3%
DHEC Tire Refunds (\$/year)	\$135,000
Tire Refund Escalation Factor (%)	0%

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## Future Landfill Operations

Where is future MSW disposed? (county, out-of-county)	county
If County, which location? (Bees Ferry or 17 South)	Bees Ferry
Where is future ash disposed? (county, out-of-county)	county
If County, which location? (Bees Ferry or 17 South)	Bees Ferry
Where is future C&D disposed? (county, out-of-county)	out-of-county
Final Year	2030
In-place density MSW (tons/yd3)	0.6
In-place density ash (tons/yd3)	1.2
In-place density C&D (tons/yd3)	0.5

## New County Landfill(s)

calculated on proforma as  
balance of MSW not  
disposed of elsewhere

Amount MSW Disposed at County Landfill	
Are MSW and ash co-disposed? (yes/no)	yes
Is ash used for daily cover? (yes/no)	yes
Savings factor for using ash as cover (\$/year)	\$80,000
Ending year for savings factor	2030
O&M Costs for FIRST County Landfill (\$/year)	\$1,550,000
Personnel (\$/year)	\$500,000
General Operating Costs (\$/year)	\$500,000
Leachate Treatment Costs (\$/year)	\$450,000
Gas Collection System Cost (\$/year)	\$0
Cover Material Costs (\$/year)	\$100,000

Adjustment to O&M Costs for SECOND County Landfill (\$/yr)  
Year Adjustment begins  
Adjustment to O&M Costs for NEW County C&D Landfill (\$/yr)  
Year Adjustment begins

### **FIRST LANDFILL**

Initial Construction Cost (\$)	\$3,390,000
Year Initial Construction Cost Incurred	2005
Average size of cell (acres)	6
Average cell capacity (yd3)	545,500
Cell Construction Cost (\$/acre)	\$300,000
Cell Closure Cost (\$/acre)	\$150,000
Annual Post-Closure Care Cost (\$/year)	\$100,000
Final Operating Year	2030
Year Post-Closure Care Costs Begin (leave blank if NA)	2032
Number of Years for Post-Closure Costs (leave blank if NA)	30

### **SECOND LANDFILL**

Initial Construction Cost (\$)	
Year Initial Construction Cost Incurred	
Average size of cell (acres)	
Average cell capacity (yd3)	
Cell Construction Cost (\$/acre)	
Cell Closure Cost (\$/acre)	
Annual Post-Closure Care Cost (\$/year)	
Final Operating Year	
Year Post-Closure Care Costs Begin (leave blank if NA)	
Number of Years for Post-Closure Costs (leave blank if NA)	
C&D Closure Cost Allowance	

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## Out-of-County Landfill

Amount MSW Disposed at Out-of-County Landfill (tons/year)	None
MSW Disposal Cost at Out-of-County Landfill (\$/ton)	\$0.00
Ash Disposal Amount & Costs at Out-of-County Landfill	included under RRF module
Amount of C&D to Out-of-County Landfill (%)	65%
C&D Disposal Cost at Out-of-County Landfill (\$/ton)	\$25.00
Year Out-of-County C&D Disposal Begins	2010

## Current Debt

Series 1994 Bond Allocation (%)	78%
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## Recycling

### Recyclables Tonnages

Current Amount of County MSW to MRF (%)	4.2%
Future Amount of County MSW to MRF (%)	4.2%
Future Start Year	2002
Out-of-County Recyclables to MRF (tons/year)	3,200
Out-of-County Recyclables Escalation Factor (%)	0.5%

### Recycling Curbside Collection

Current Cost (\$/year)	\$981,000
Future Cost (\$/year)	\$981,000
Future Start Year	2002

### Recycling Drop Sites

O&M Cost per Drop Site (\$/site)	\$11,000
Current Number of Drop Sites	47
Future Number of Drop Sites	47
Future Start Year	2002

### MRF

Current O&M Cost (\$/year)	\$1,360,000
Future O&M Cost (\$/year)	\$1,360,000
Future Start Year	2002

### Recycling Revenues

Recyclables Sales (\$/ton)	\$69.00
Recyclables Sales Escalation Factor (%)	0.0%
Out-of-County Tipping Fees (\$/ton)	\$12.00
Tipping Fee Escalation Factor (%)	1.0%

## Current Debt

Series 1994 Bond Allocation (%)	19%
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## MSW Transfer Station

### Transfer Station Tonnages

Amount of Landfill MSW to Transfer Station (%)	0%
Amount of C&D to Transfer Station (%)	0%
Transfer Station Start Year (specify year or NA)	NA
Is Start Year a half-year? (yes/no)	no

### Operation/Maintenance Costs

Total O&M Costs (\$/year)	\$0.00
MSW O&M Costs (\$/year)	\$0
Incremental C&D O&M Costs (\$/year)	\$0

### Hauling Costs

MSW Hauling Costs (\$/ton/mile)	\$0.50
C&D Hauling Costs (\$/ton/mile)	\$0.50
Distance to Landfill (miles)	13
17 South: 25 miles	
Out-of-County: 37 miles	
Fennell or Collins: 13 miles	

### Construction Costs

Total Construction Cost, Including Initial Equipment (\$)	\$0
MSW TS Construction Cost (\$)	\$0
Incremental C&D TS Construction Cost (\$)	\$0
Year Construction Cost Incurred	

### Revenues

Tipping Fees (\$/year)	\$0
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## Yard Waste Composting Facility

### Composting Tonnages

Amount of County MSW to Composting (%)	11%
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### Operation/Maintenance Costs

Beginning O&M Costs (\$/year)	\$801,500
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### Composting, Mulch, Firewood Revenues

Annual Composting Sales (\$/year)	\$61,000
Composting Sales Escalation Factor (%)	0.0%

### Current Debt

Series 1994 Bond Allocation (%)	3%
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## Other System Components

### Solid Waste Administration

Beginning Year Cost \$1,640,000

### Rural Convenience Centers

Beginning Annual Cost per Center (\$/center/year) \$221,800

Number of Centers 7

### Household Hazardous Wastes

Beginning Annual Cost (\$/year) \$227,300

### Litter Program

Beginning Annual Cost (\$/year) \$111,900