

Charleston Long-Range Solid Waste Plan Input Sheet

17 South
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
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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)	\$5.00
Ash Hauling Cost Escalation Factor (%)	2.5%
Beginning Year	2006
Ending Year	2030

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	2030
Annual O&M Costs (\$/ton)	\$11
Closure Cost (\$/acre)	\$50,000
Number of Acres	99
Year Closure Cost Incurred	2031
Annual Post-Closure Care Cost (\$/year)	\$50,000
Year Post-Closure Care Costs Begin	2032
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)	17 South
Where is future ash disposed? (county, out-of-county)	county
If County, which location? (Bees Ferry or 17 South)	17 South
Where is future C&D disposed? (county, out-of-county)	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 (\$)	\$5,580,000
Year Initial Construction Cost Incurred	2005
Average size of cell (acres)	10
Average cell capacity (yd3)	1,037,000
Cell Construction Cost (\$/acre)	\$240,000
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 (%)	0%
C&D Disposal Cost at Out-of-County Landfill (\$/ton)	\$0.00
Year Out-of-County C&D Disposal Begins	NA

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 (%)	75%
Amount of C&D to Transfer Station (%)	0%
Transfer Station Start Year (specify year or NA)	2006
Is Start Year a half-year? (yes/no)	yes

Operation/Maintenance Costs

Total O&M Costs (\$/year)	\$310,000
MSW O&M Costs (\$/year)	\$310,000
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)	25
17 South: 25 miles	
Out-of-County: 37 miles	
Fennell or Collins: 13 miles	

Construction Costs

Total Construction Cost, Including Initial Equipment (\$)	\$3,200,000
MSW TS Construction Cost (\$)	\$3,200,000
Incremental C&D TS Construction Cost (\$)	\$0
Year Construction Cost Incurred	2006

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