

Charleston Long-Range Solid Waste Plan Input Sheet

17 South
no RRF after 2010

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 | 2009 |
| | - |
| Future Tons of MSW processed | 100,000 |
| Beginning Year | 2010 |
| Ending Year | 2010 |

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 | 2010 |

Ash Hauling Costs

| | |
|--|--------|
| Incremental Ash Hauling Cost (\$/ton) | \$5.00 |
| Ash Hauling Cost Escalation Factor (%) | 2.5% |
| Beginning Year | 2006 |
| Ending Year | 2010 |

Operations/Maintenance Costs

| | |
|-----------------------------------|-------------|
| Current O&M Costs (\$/year) | \$7,100,000 |
| Current O&M Escalation Factor (%) | 2.0% |
| Future O&M Costs (\$/year) | \$7,100,000 |
| Future O&M Escalation Factor (%) | 2.0% |
| Future Start Year | 2002 |

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Non-Routine Capital Improvement Costs

| | |
|--------------------|------|
| Description | none |
| Cost | \$0 |
| Cost Year Incurred | |

Current Debt

| | |
|---------------------------------|---------|
| Series 1997 Bond Allocation (%) | 100.00% |
|---------------------------------|---------|

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) | - |
| Beginning Year (leave blank if NA) | |
| Ending Year (leave blank if NA) | |
| Future Electric Power Sales Price (\$/MWh) | \$0.00 |
| Future Electric Power Sales Price Escalation Factor (%) | 0% |
| Future County share of electric revenue (%) | 0% |
| 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) | - |
| Merchant Waste Tip Fee (\$/ton) | \$0.00 |
| County Share of Merchant Waste Revenue (%) | 0% |
| Beginning Year | |

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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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17 South
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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 | 2010 |
| 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% |
|---------------------------------|-----|

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) | \$492,000 |
| MSW O&M Costs (\$/year) | \$492,000 |
| 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 (\$) | \$5,000,000 |
| MSW TS Construction Cost (\$) | \$5,000,000 |
| Incremental C&D TS Construction Cost (\$) | \$0 |
| Year Construction Cost Incurred | 2006 |

Revenues

| | |
|------------------------|-----|
| Tipping Fees (\$/year) | \$0 |
|------------------------|-----|

Yard Waste Composting Facility

Composting Tonnages

| | |
|--|-----|
| Amount of County MSW to Composting (%) | 11% |
|--|-----|

Operation/Maintenance Costs

| | |
|-------------------------------|-----------|
| Beginning O&M Costs (\$/year) | \$801,500 |
|-------------------------------|-----------|

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