

Capital Improvement Plan
Solid Waste Summary Sheet
Fiscal Year 2011/12 through Fiscal Year 2018/19

Solid Waste Projects	Funding in FY 2011/12	Funding in FY 2012/13	Funding in FY 2013/14	Funding in FY 2014/15	Funding in FY 2015/16	Funding in FY 2016/17	Funding in FY 2017/18	Funding in FY 2018/19	Total
Projects to be Debt Financed									
Wood Gasification Energy Facility	100,000	0	0	0	0	0	0	0	100,000
Pay as Go									
Crop Processing Facility	150,000	0	0	0	0	0	0	0	150,000
EcoComplex Development	200,000	0	0	0	0	0	0	0	200,000
Heat Exchange Facility	75,000	0	0	0	0	0	0	0	75,000
Subtitle D Cell Construction	284,359	0	2,000,000	2,500,000	2,500,000	3,000,000	3,000,000	1,750,000	15,034,359
Rubber Tire Loader	155,000	0	0	0	0	160,000	0	0	315,000
Bulldozer	0	300,000	0	300,000	0	0	0	0	600,000
Compactor	0	450,000	600,000	0	0	0	0	650,000	1,700,000
GPS Elevations/Grade Control System-	0	50,000	0	0	0	0	0	0	50,000
Methane Gas Perimeter Infrastructure	0	125,000	0	100,000	0	0	0	100,000	325,000
Semi-Road Tractor	0	65,000	0	0	0	0	0	0	65,000
Topographic Update	0	18,700	0	19,000	0	19,000	0	20,000	76,700
Lawnmower & Bush Hog	0	0	20,000	0	20,000	0	0	23,000	63,000
Master & Management Plans update	0	0	50,000	0	0	55,000	0	0	105,000
Mechanic Truck and/or Service Fuel Truck	0	0	0	130,000	50,000	0	0	0	180,000
Diesel Storage Tank	0	0	0	0	0	0	0	50,000	50,000
Dump Truck On-Road	0	0	0	0	100,000	0	0	0	100,000
Excavator	0	0	0	0	0	0	350,000	0	350,000
Farm Tractor.	0	0	0	0	100,000	0	0	0	100,000
Off-Road Dump Truck	0	0	0	0	0	0	400,000	0	400,000
Pickup Truck 3/4 Ton and/or 1/2 Ton	0	0	0	0	35,000	0	0	35,000	70,000
Semi-Road Tractor	0	0	0	0	0	0	65,000	0	65,000
Tub Grinder	0	0	0	0	0	650,000	0	0	650,000
Total Pay As Go	864,359	1,008,700	2,670,000	3,049,000	2,805,000	3,884,000	3,815,000	2,628,000	20,724,059
Total Projects	964,359	1,008,700	2,670,000	3,049,000	2,805,000	3,884,000	3,815,000	2,628,000	20,824,059
Revenue: Solid Waste Fund	964,359	1,008,700	2,670,000	3,049,000	2,805,000	3,884,000	3,815,000	2,628,000	20,824,059

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Solid Waste Projects 1st 4 Years	Funding in FY 2011/12	Funding in FY 2012/13	Funding in FY 2013/14	Funding in FY 2014/15	Total	Funding Notes
Projects to be Debt Financed						
Wood Gasification Energy Facility- The Wood Gasification Energy Facility will use sawdust, shavings, bark and chips to generate electricity, heat and steaam energy being developed through partnerships with GE Energy; University of NC Charlotte and University of British Columbia will have reserch activities centered on this facility.	100,000	0	0	0	100,000	Funding from installment purchase obligations, terms to be determined when Purchase Power Agreement is finalized with Duke Energy.
Pay as Go						
Crop Processing Facility- The Crop Processing Facility works in cooperation with the Biodiesel Research Facility to process crops grown on idle landfill property and buffer areas. It will process harvested crops into two products (oil and seed meal) that have a higher value than seed alone. The seed meal has many potential uses that are being investigated. The design of the Crop Processing Facility is complete and is in the process of being bid for construction. Funding in this project will be applied to the construction and/or millwork of equipment.	150,000	0	0	0	150,000	Funding from the Solid Waste Enterprise Fund

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Solid Waste Projects 1st 4 Years	Funding in FY 2011/12	Funding in FY 2012/13	Funding in FY 2013/14	Funding in FY 2014/15	Total	Funding Notes
<p>EcoComplex Development- Provides for improved economics for delivering waste management services by facilitating the conversion of the Blackburn Landfill into a Resource Recovery Facility. Project includes these facilities: Biosolids Processing, Wood Gasification-Energy, greenhouse and brick/pottery, and a University Research. Facilities will use the heat energy from the existing Co-Generation facility and from the Wood Gasification-Energy Facility for the processing of biosolids, and to provide heat to G&G Lumber, Pallet One, and the brick/pottery facility. The University research facility will use heat and property in biodiesel crop research and its conversion into biodiesel. Project will coordinate with County EDC to investigate, analyze, and attract potential companies focused on "green" energy.</p>	200,000	0	0	0	200,000	Funding from the Solid Waste Enterprise Fund
<p>Heat Exchange Facility- will transfer heat from the engines to the biodiesel facility to be used for heating the facility and utilized in the biodiesel production. This "green" use of an otherwise wasted heat source will further the Biodiesel Facility being LEED certified. The funding in this project will be applied to the construction of the facility.</p>	75,000	0	0	0	75,000	Funding from the Solid Waste Enterprise Fund
<p>Subtitle D Cell Construction- The project funds the continuum of the Subtitle D Cell Construction. The next cell is Phase 2 of Unit 3.</p>	284,359	0	2,000,000	2,500,000	4,784,359	Funding from the Solid Waste Enterprise Fund

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Solid Waste Projects 1st 4 Years	Funding in FY 2011/12	Funding in FY 2012/13	Funding in FY 2013/14	Funding in FY 2014/15	Total	Funding Notes
Rubber Tire Loader- Replace existing loader, new loader is needed to maintain grinding area, load materials in grinders, load mulch for customers, load gravel, turn compost, and general duties at the landfill.	155,000	0	0	0	155,000	Funding from the Solid Waste Enterprise Fund
Bulldozer- Bulldozers are scheduled for replacement in Fiscal Years 2011/12 and 2014/15. Replacements are scheduled according to Solid Waste financial analysis and planning.	0	300,000	0	300,000	600,000	Funding from the Solid Waste Enterprise Fund
Compactor- Compactors are scheduled for replacement in various years based on hours of operation and according to Solid Waste financial analysis and planning. Compactor costing \$450,000 in 12/13 is a C&D compactor; Compactor costing \$600,000 in 13/14 is a MSW compactor.	0	450,000	600,000	0	1,050,000	Funding from the Solid Waste Enterprise Fund
GPS Elevations/Grade Control System- New GPS unit connects to compactor, software, and a base system. System will be used for grade control of waste placement, check waste density as it is compacted, and locating areas where special waste is buried. This will assist landfill operators in maintaining grades per State permit regulations.	0	50,000	0	0	50,000	Funding from the Solid Waste Enterprise Fund

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Solid Waste Projects 1st 4 Years	Funding in FY 2011/12	Funding in FY 2012/13	Funding in FY 2013/14	Funding in FY 2014/15	Total	Funding Notes
Methane Gas Perimeter Infrastructure- New Methane gas extraction wells and purchase associated piping, fittings, heads, etc. in completed waste areas of Unit 2 & Unit 3 landfill cells. This will allow landfill to start extracting needed methane from these areas to increase gas flow to the co-generation facility.	0	125,000	0	100,000	225,000	Funding from the Solid Waste Enterprise Fund
Semi-Road Tractor- Tractor is used to haul tankers and trailers in landfill daily operations. Replacement is scheduled according to the Solid Waste Analysis.	0	65,000	0	0	65,000	Funding from the Solid Waste Enterprise Fund
Topographic Update- As required by NC-DENR Division of Solid Waste.	0	18,700	0	19,000	37,700	Funding from the Solid Waste Enterprise Fund
Lawnmower & Bush Hog- Lawn mowers and bush hogs are used to maintain property associated with the Landfill and Solid Waste Management.	0	0	20,000	0	20,000	Funding from the Solid Waste Enterprise Fund
Master & Management Plans update- Update to the Solid Waste Master Plan and the Solid Waste Management Plan as mandated by the State every 3 years.	0	0	50,000	0	50,000	Funding from the Solid Waste Enterprise Fund
Mechanic Truck and/or Service Fuel Truck- Replacement mechanics truck and service fuel trucks are scheduled according to Solid Waste financial analysis and planning.	0	0	0	130,000	130,000	Funding from the Solid Waste Enterprise Fund
Total Pay As Go	864,359	1,008,700	2,670,000	3,049,000	7,592,059	
Total Projects	964,359	1,008,700	2,670,000	3,049,000	7,692,059	
Revenue Solid Waste Fund	964,359	1,008,700	2,670,000	3,049,000	7,692,059	

Capital Improvement Plan
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Fiscal Year 2015/16 through 2018/19

Solid Waste Projects 2nd 4 Years	Funding in FY 2015/16	Funding in FY 2016/17	Funding in FY 2017/18	Funding in FY 2018/19	Total	Funding Notes
Pay as Go						
Compactor- Compactors are scheduled for replacement in various years based on hours of operation and according to Solid Waste financial analysis and planning. Compactor costing \$450,000 in 12/13 is a C&D compactor; Compactor costing \$600,000 in 13/14 is a MSW compactor.	0	0	0	650,000	650,000	Funding from the Solid Waste Enterprise Fund
Diesel Storage Tank- Used to store biodiesel produced by the Biodiesel Production Facility until it's used in landfill equipment.	0	0	0	50,000	50,000	Funding from the Solid Waste Enterprise Fund
Dump Truck On-Road- Replace existing truck.	100,000	0	0	0	100,000	Funding from the Solid Waste Enterprise Fund
Excavator- scheduled for replacement in Fiscal Year 2017/18. Replacements are scheduled according to Solid Waste financial analysis and planning.	0	0	350,000	0	350,000	Funding from the Solid Waste Enterprise Fund
Farm Tractor- used to cultivate crops for the biodiesel production facility that are grown on the buffer areas around the landfill.	100,000	0	0	0	100,000	Funding from the Solid Waste Enterprise Fund
Methane Gas Perimeter Infrastructure- New Methane gas extraction wells and purchase associated piping, fittings, heads, etc. in completed waste areas of Unit 2 & Unit 3 landfill cells. This will allow landfill to start extracting needed methane from these areas to increase gas flow to the co-generation facility.	0	0	0	100,000	100,000	Funding from the Solid Waste Enterprise Fund

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Solid Waste Projects 2nd 4 Years	Funding in FY 2015/16	Funding in FY 2016/17	Funding in FY 2017/18	Funding in FY 2018/19	Total	Funding Notes
Off-Road Dump Truck- Off Road Dump Trucks are scheduled for replacement according to Solid Waste financial analysis and planning.	0	0	400,000	0	400,000	Funding from the Solid Waste Enterprise Fund
Pickup Truck 3/4 Ton and/or 1/2 Ton- 3/4 ton or 1/2 ton pickups are replaced as necessary according to the Solid Waste Financial Analysis and planning.	35,000	0	0	35,000	70,000	Funding from the Solid Waste Enterprise Fund
Rubber Tire Loader- Replace existing loader, new loader is needed to maintain grinding area, load materials in grinders, load mulch for customers, load gravel, turn compost, and general duties at the landfill.	0	160,000	0	0	160,000	Funding from the Solid Waste Enterprise Fund
Semi-Road Tractor- Tractor is used to haul tankers and trailers in landfill daily operations. Replacement is scheduled according to the Solid Waste Analysis.	0	0	65,000	0	65,000	Funding from the Solid Waste Enterprise Fund
Subtitle D Cell Construction- The project funds the continuum of the Subtitle D Cell Construction. The next cell is Phase 2 of Unit 3.	2,500,000	3,000,000	3,000,000	1,750,000	10,250,000	Funding from the Solid Waste Enterprise Fund
Topographic Update- New Methane gas extraction wells and purchase associated piping, fittings, heads, etc. in completed waste areas of Unit 2 & Unit 3 landfill cells. This will allow landfill to start extracting needed methane from these areas to increase gas flow to the co-generation facility.	0	19,000	0	20,000	39,000	Funding from the Solid Waste Enterprise Fund

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Solid Waste Projects 2nd 4 Years	Funding in FY 2015/16	Funding in FY 2016/17	Funding in FY 2017/18	Funding in FY 2018/19	Total	Funding Notes
Tub Grinder- Replace tub grinder in C&D Landfill area in accordance with Solid Waste Financial Plan.	0	650,000	0	0	650,000	Funding from the Solid Waste Enterprise Fund
Lawnmower & Bush Hog- Lawn mowers and bush hogs are used to maintain property associated with the Landfill and Solid Waste Management.	20,000	0	0	23,000	43,000	Funding from the Solid Waste Enterprise Fund
Master & Management Plans update- Update to the Solid Waste Master Plan and the Solid Waste Management Plan as mandated by the State every 3 years.	0	55,000	0	0	55,000	Funding from the Solid Waste Enterprise Fund
Mechanic Truck and/or Service Fuel Truck- Replacement mechanics truck and service fuel trucks are scheduled according to Solid Waste financial analysis and planning.	50,000	0	0	0	50,000	Funding from the Solid Waste Enterprise Fund
Total Pay as Go	2,805,000	3,884,000	3,815,000	2,628,000	13,132,000	
Revenue: Solid Waste Fund	2,805,000	3,884,000	3,815,000	2,628,000	13,132,000	