

Environment Committee

Wednesday, April 9, 2:00 – 3:00 p.m.
Charlotte-Mecklenburg Government Center
Room CH-14

Committee Members: John Autry, Chair
Ed Driggs, Vice Chair
David Howard
Claire Fallon
Kenny Smith

Staff Resource: Hyong Yi, Assistant City Manager

AGENDA

I. **Solid Waste Services Review and Recommendation Briefing**

Staff Resources: Victoria Johnson, Solid Waste Services

Staff will review the recent Solid Waste Management Consultant Study and staff recommendations.

Action: None requested.

Attachment: 1. Solid Waste Consultant Review.ppt

II. **Coal Ash Due Diligence Review**

Staff Resources: Hyong Yi, City Manager's Office and Rob Phocas, Neighborhood & Business Services

Staff will brief the Committee on the proposed due diligence process seeking input from the Committee. The content of this discussion is dependent on the results of the March 24 Council Dinner Briefing.

Action: None requested.

Attachment: 2. Coal Ash Project Team Matrix.pdf

3. Due Diligence Questions.pdf

Next Meeting

Wednesday, May 14 at 2:00 p.m., Room CH-14

Distribution: City Council Ron Carlee, City Manager Executive Team
Bob Hagemann Stephanie Kelly Environmental Cabinet



Solid Waste Consultant Review and
Recommendations

Environment Committee

April 9, 2014



Presentation Summary

- Review of Current State
- Consultant review and recommendations
- Staff recommendations
- Future considerations
- Next steps

2



Fast Facts

- 320K residences served weekly
- SWS consistently ranks below the state average in collection costs and complaints
- Collected in FY2013
 - .5 **billion** lbs of garbage
 - **96 million** lbs of recycling
 - **98 million** lbs of yard waste



Current Collection Services

Single-family - curbside rollout carts

(includes multi-family < 30 units in complex)

- Weekly garbage, bulk waste and yard waste (City crews)
- Bi-weekly recycling (Inland Waste Solutions)
- Includes more than 16,000 units in 475 complexes

Multi-family - dumpster or compactor

(>=30 units in complex)

- Weekly garbage, bulk waste, no yard waste (Republic)
- Weekly recycling and annual Christmas tree collection

Small businesses - curbside rollout carts

(up to 512 gallons of garbage per week)

- Weekly (or more frequent) garbage

4



Current Fees

Solid Waste Fee (Residential Solid Waste Disposal Fee)

City levies the following amounts through County Tax Assessor:

- Single Family (\$47/year)
- Multi-Family (\$24/year)
- Small Business (\$0/year)

Solid Waste Fees fund 25% of total SWS budget, and General Fund provides 75% of total SWS budget.

5



Current Contracted Services

Multi-family collections - Republic Services

- Weekly garbage - dumpster or compactor
- Recycling, bulk waste and Christmas trees
- Contract expires June 30, 2015
 - no optional one-year extensions

Single-family bi-weekly recycling collections - Inland Waste Solutions

- Contract expires June 30, 2015
 - two optional one-year extensions

6



GBB Consultant Engagement

To provide consulting services including:

- Analysis of the cost and fee structure of the City solid waste management program
- Analysis of the multi-family collection program
- Provide recommendations on cost allocation methodology, fee structure, and billing and collections

7



Consultant Recommendations

1. Eliminate collection for multi-family dwellings of more than four units and small businesses outside the Municipal Service District No. 1 (uptown - inside 277 loop)
2. Revise the City Code to define four property classifications
 - a) Single Family dwelling
 - b) Multi-family dwelling (five units or more)
 - c) Non-residential units
 - d) Municipal Service District No. 1
3. Develop a new fee structure to be assessed on all improved properties to recover fully allocated costs of services (collection and disposal)

8



Staff Short Term (FY16) Recommendations

A. Short Term Recommendations

1. Multi-family

a) Approve revised multi-family definition (5 units or more) & stop providing City rollout service to them

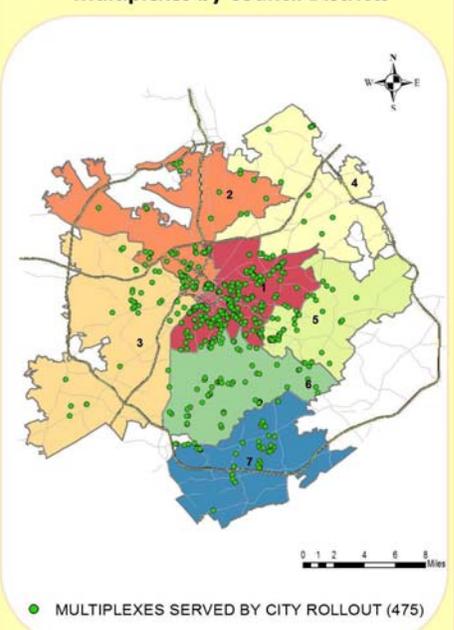
- i. Benefits
 - Potential annual City savings of \$600K (\$340K if units move to dumpster/compactor contract)
 - Uniformity of locations streamlines operations and simplifies administration
 - City serves only small-scale waste generators (rollout carts)
- ii. Drawbacks
 - Elimination of City-provided rollout service for 16,000+ units and 475 complexes
 - Increased costs may be passed on to residents
 - Possible reduction of City staff

9

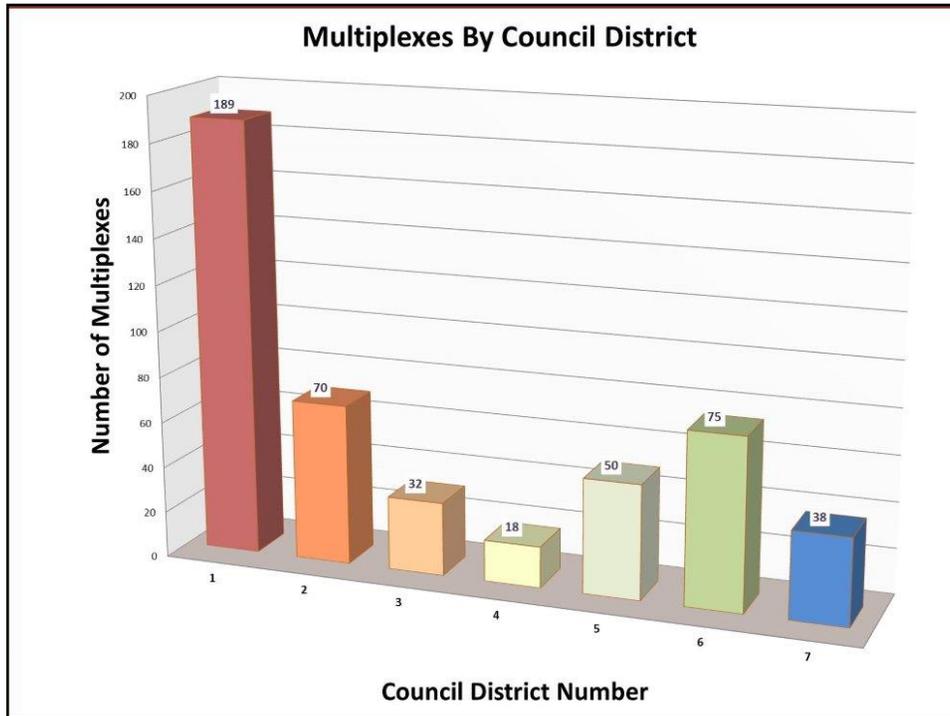


Multiplexes by Council Districts

Multiplexes > 4 units currently served on City rollout service



● MULTIPLEXES SERVED BY CITY ROLLOUT (475)





Staff Short Term (FY16) Recommendations

1. Multi-family

b) Stop City-funded dumpster and compactor service for multi-family complexes; franchise the service (at least two different haulers)

- i) Benefits
 - Potential City annual savings of \$1.5M
 - Franchising mitigates risks of price escalation and performance issues
 - City serves only small-scale waste generators (rollout carts)
- ii) Drawbacks
 - Impacts more than 750 complexes and 111,000 units

12



Staff Short Term Recommendations (FY16)

2. Small business

Continue City service, add recycling collection and assess a Solid Waste Fee on small businesses

- i) Benefits
 - Supports clean neighborhoods by serving businesses in residential dwellings on thoroughfares
 - Incentives for small business recycling
 - City serves only small-scale waste generators
- ii) Drawbacks
 - Not a standard best practice per consultant

13



Staff Short Term Recommendations

3. Modify the City Code

- a) Modify the City Code according to policy changes for:
 - i. Designate rollout service for single family homes and dwellings of four units or less
 - ii. Change description of multi-family service from city contractor to franchise
 - iii. Change definition of the Solid Waste Fee to include collection costs
 - iv. Modification of the Solid Waste Fee ordinance to assign responsibility for assessing properties for Solid Waste Fee to Solid Waste Services Director

14



Future Considerations

1. Alternate Collection Methods
 - a) Pay as You Throw
 - b) Bi-weekly garbage, weekly recycling
 - c) Other options

2. Solid Waste Funding/Fee Structure
 - a) Collection costs
 - b) Capital equipment

15



Next Steps

- Review implementation strategies with the Privatization / Competition Advisory Committee (PCAC)

16



Summary of FY16 Recommendations

1. Change provision of multi-family service
 - (a) Approve revised definition for **multi-family** (5 units or more) and stop providing City rollout service to them
 - (b) Stop City-funded dumpster and compactor service for **multi-family** complexes; franchise the service (at least two different haulers)
2. Continue City service to **small businesses**, add recycling collection and assess a Solid Waste Fee on small businesses
3. Modify the **City Code** to support policy changes

17



Questions

Questions?

18

Coal Ash Strike Team												
Core Team												
City Manager's Office	Hyong Yi											
N&BS	Rob Phocas											
E&PM	David Wolfe											
	Steve Gucciardi											
Due Diligence Review Team		Social Work Team			Economic Work Team	Environment Work Team					Legal	
Department	Name	Public Safety	Communication	Community Outreach	Quantify Benefits/Costs	Water Quality	Air Quality	Transportation	Land	Science & Engineering	Regulatory	Contractual
N&BS	Randy Harris											
	Katie Sparrow											
	Ashley Ford											
	Chae Pak											
E&PM	Jeb Blackwell					Y	Y	Y	Y	Y		
	Gina Hodges								Y			
Aviation	Jack Christine	Y	Y	Y	Y						Y	Y
	Jeff McSwain				Y	Y	Y	Y	Y	Y		
	Lee Davis		Y									
	Leilah Lahbabi										Y	Y
Utilities	Barry Gullet					Y						
	Barry Shearin					Y						
Legal	Bob Hagemann										Y	Y
	Karen Weatherly										Y	Y
	Cindy White										Y	Y
Planning	Shad Spencer		Y									
Community Relations	Willie Ratchford		Y	Y								
Risk Management	Dan Pliszka							Y		Y		Y
Corp. Comm	Keith Richardson		Y	Y								
	Cass Bonfiglio		Y	Y								
Police	Deputy Chief Eddie Levins	Y						Y				
Fire	Deputy Chief Rob Kinniburgh	Y						Y				
CDOT	Keith Hines	Y						Y				
Mecklenburg County	Leslie Johnson											
LUESA	Rusty Rozzelle					Y			Y			
LUESA	Dave Canaan					Y		Y				
LUESA	Corey Priddy								Y			
LUESA	David Caldwell					Y						
LUESA	Lisa Corbitt					Y						
LUESA	Jason Rayfield						Y					
LUESA	Leslie Rhodes						Y					
BSA - Public Information	Bill Carroll		Y									
Health Department	Dr. Plescia									Y		
Health Department	Dr. Keener									Y		

**CAST –
Environmental
Work Team**

Duke / Charah Charlotte Airport Coal Ash Proposal

Land / Water Quality

CMUD / Aviation / E&PM / Meck. County

a. Monitoring
b. Receptors/streams
c. Drinking Water Wells
d. NPDES Compliance
e. Erosion/Sediment control

Requirements:

Plans, Permits, additional City Requirements

Recommendations:

Questions:

- Sedimentation and erosion control
 - How many inches of rain will the sediment detention system be designed to handle?
 - How will run-off from partially constructed cells be handled?
 - Will there be pre-construction and post-construction measurement of sediment levels in receiving waters?
- Leachate collection
 - How will leachate and run-off be collected during construction? How will it be treated?
 - How will leachate be collected and treated after fill material is sealed?

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- On-site treatment and discharge to creek?
 - Municipal sewer?
 - **Monitoring**
 - Scope of monitoring program?
 - Groundwater
 - Inorganics (e.g., metals associated with coal ash)
 - Organics (e.g., other chemicals dumped into ash ponds)
 - Surface water
 - Air
 - Frequency?
 - Duration of monitoring program?
 - Responsibility to do monitoring?
 - What happens if monitoring wells are damaged or eliminated due to new construction?
Who is responsible for installing new wells?
 - **Will the Riverbend Steam Station ash ponds and other disposal sites be cleaned up?**
 - What will be done to clean up contaminated soil under the ash ponds?
 - What will be done to clean up contaminated groundwater in and around the ash ponds?

Airport Feasibility / Air Quality

Aviation / E&PM / Meck. County

a. Dust Control
b. Monitoring
C. Reporting
d. Geotechnical
e. Site Feasibility / Needs Analysis
f. Shear Stress, liquefaction

Requirements:

Plans, Permits, additional City Requirements

Recommendations:

Questions:

- **What are the other options to the one proposed?**
- Does this use meet EPA Beneficial Reuse rules?
- What is our desired Schedule? How much flexibility?
- Final elevations would appear to be critical – (to avoid liner cuts in future)
- City CBI / Federal SBE / WBE / DBE requirements?
- Is Airport EIS affected by this action?

- **Where will coal ash waste be placed at the airport?**
 - Will the waste material be staged at any locations before final disposal?
 - How will discharges from the temporary staging locations be controlled?
 - Where will the waste material be placed at the airport for final disposal and what will be placed over the waste materials?
 - Proximity to:
 - Surface water?
 - Residences?

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- Surface water flows
 - Dust
 - Groundwater
 - Schools?
 - Day care facilities?
 - Other sensitive receptors?
 - Groundwater receptors (e.g., drinking water wells)?
 - Disruptions to normal groundwater flow (e.g., irrigation wells, geothermal heat pumps)?
 - Unloading vehicles, movement of ash, and drying of ash at the airport?
 - What will be done to control dust and ash emissions at the airport during unloading and movement of the ash?
 - If it is necessary to dry the ash, what will be done to dry the ash and how will dust be controlled during the drying process?
 - Other air emissions?
 - Will equipment and transport vehicles be “clean diesel”?
 - What can be done to reduce net emissions of fine and very fine particles?
 - What will be placed on top of the coal ash waste?
 - Will there be settling over the earthen berms between cells?
 - What will be the impact of the static and dynamic loads on the waste material and landfill system? (Planes / earthquakes)

Transportation

CDOT / Fire / Police / E&PM /

a. Establish safe route
b. Incident response
c. Dust control during transport

Requirements:

Plans, Permits, additional City Requirements

Recommendations:

Questions:

- **How will ash be removed, transported and contained during transport & staging?**
 - Method of transportation? (Rail? Truck?)
 - How much traffic will be created by moving the ash (if using trucks, how many trips per day)?
 - What will be done to control dust and other air emissions?
 - Dust control during removal from ponds, drying and staging?
 - Wash vehicles before leaving Riverbend?
 - Burrito liners or just standard tarp over the ash?
 - Will vehicles be washed before leaving airport?
 - Will beds of vehicles be washed or covered before the return trip?
 - Speed of transport vehicles? Will the transport vehicles be allowed to travel on the highway?
 - Will operations be suspended during certain weather conditions or at certain wind speeds?

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- **Route of transport?**
 - **How will route of transport vehicles be determined?**
 - **Who is responsible for damage to roads?**
 - **Who is responsible for ash that accumulates on and around the route of transport?**
 - **Will the ash and dust along the route be monitored? If so, how often and by whom?**

Science of Coal Ash

E&PM / Aviation

a. Properties of Coal Ash
b. Risks Liquid, Dry
c. Exposure to workers
d. Research liners

Requirements:

Plans, Permits, additional City Requirements

Recommendations:

Questions:

- How often do Sub D landfills fail?
- Is radiation a concern?
- **What are the characteristics of the waste material that will be disposed in a structural fill at the Charlotte airport?**
 - Is coal ash waste from any power plant other than Riverbend coming to the airport?
 - What wastes were disposed of in the ash ponds other than coal ash?
 - What are the chemical characteristics of those additional wastes?
 - Should the additional waste materials affect the design of the landfill?
 - Should chemicals in non-coal ash waste be added to the monitoring schedule?

What other uses has coal ash been used for?

Miscellaneous

- Can we partner with UNC-Charlotte?

- **Details of landfill / structural fill design**

- **Bottom Liners**

- Single or double liners?
 - Type of material?
 - Thickness of liners?
 - Method of joining different sections of liners?

- **Top liner (Cap)**

- Type and thickness of top liner?

- **Cover material?**