

Blues
Stinnett
Gorton
Farmer
Martin
Henson
Lane

A G E N D A

Special Environmental Quality Committee

April 19, 2011

11:00 A.M.

1. **Waste Management Presentation** (1-29)
Refuse Collection/Recycling/Yard Waste/Composting
Revenue & Expenditures/Cost for Collection
Urban Services Fund/Landfill Fund
New Efficiencies/Future Projects
2. **Consent Decree Issues** (30-35)
Summary of Public Meetings/Updated Cost Estimates;
Conveyance Options/FY 12 Priority Construction
3. **Coldstream/Crimson King Stormwater Recommendation** (36-37)
4. **Monthly Financials** (38-41)
5. **Referred to Committee** (42)

“Environmental Quality Committee, to which shall be referred matters relating to the Department of Environmental Quality and its divisions, and any related partner agencies.”

-Council Rules & Procedures, Section 2.102(1)

Effective January 1, 2011. Adopted by Urban County Council October 14, 2010

Committee Schedule. 3:00 PM except noted

April 19 (11:00 AM)

May 3

September 20

November 29

Waste Management Update

April 19, 2011



- Refuse collection
- Recycling
- Yard waste
- Composting
- Revenues & expenditures
- Urban Services Fund
- Landfill Fund
- Costs for collection
- New efficiencies
- Future projects

Mission

To provide safe, efficient and reliable collection services for solid waste and to promote waste diversion through recycling, composting and waste reduction.

Integrated Waste Management

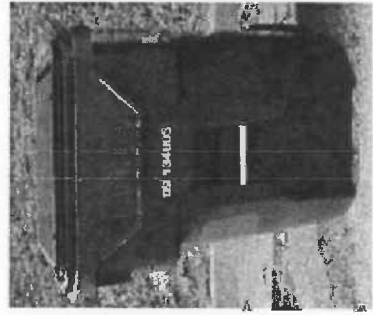
Employing a variety of methods to address the needs of waste management including recycling, composting, landfilling, and waste reduction. It also involves a variety of collection strategies, litter prevention, community education

Zero Waste Vision

Views municipal waste as a resource and seeks to recover, market and beneficially reuse as opposed to landfilling, while lowering the carbon footprint of collection and processing activities.

Background

- Landfill-bound garbage goes in Herbies (87k)
- MRF-bound recyclables go in Rosies (63k)
- Compost-bound yard waste goes in Lennies (53k)
- Once per week collection

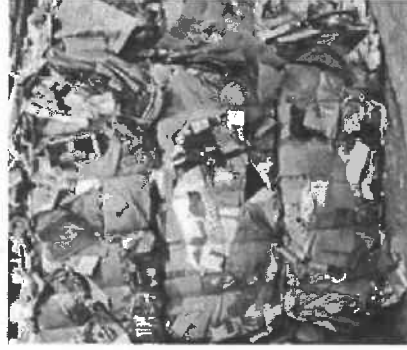


Refuse collection

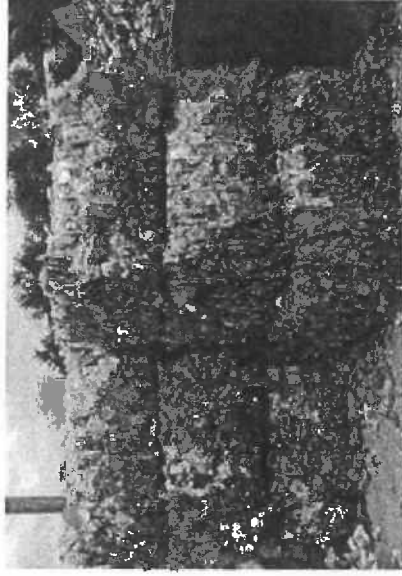
- Processing roughly 139,000 tons per year through the transfer station
- Collection and hauling to transfer station and then to disposal site – paid by Urban Services Fund.
- Disposal in an out-of-county landfill – paid by Landfill Fund –the “herbie fee”
- Loan A Box - 10 yd³ containers (~125/wk)

Recycling

Commodities processed
through the LFUCG MRF
CY2009 – 18,440 tons
CY2010 – 24,000 tons



Baled Cardboard



Baled Plastic

Yard Waste / Composting

- Lenny containers are collected weekly, with organics processed near the Haley Pike Landfill by a private company, Red River Ranch, under contract with LFUCG.
- 21,000 tons of compost in 2010; distributed to ~1,000 residents
- Yard waste bags – coupons redeemed through LFUCG
- Parks and Rec – Leaf Collection (~1,300 tons/year)

Yard Waste / Composting

- Mulch Give-Away Days – On the 2nd and 3rd Saturday of January, April, July and October, LFUCG provides residents with free mulch, produced from the yard waste collected.
- Recent give-aways on April 9th and 16th

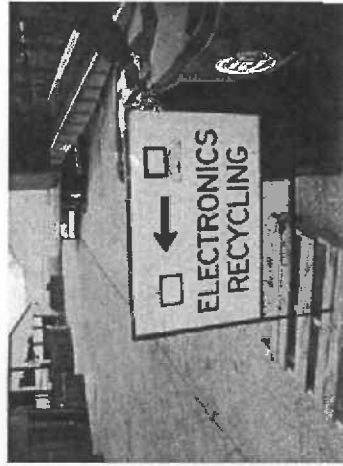


Yard Waste / Composting

- DWM is partnering with the Arboretum to conduct a home composting workshop tonight (April 19, 2011) at 6:00 pm; participants get a free “Grubby.”
- Clays Mill Road Area pilot project – 400 homes using Lenny for “anything that will rot”; separate compost area at our facility with monitoring by DWM staff; education and outreach with Bluegrass PRIDE

Recycling – Electronic Waste

The LFUCG collects residential e-waste at its collection center located at 1306 Versailles Road (the old Furrows building). E-waste includes computers and printers, handheld games, cell phones, microwave ovens, televisions, CD and DVD players, holiday lights, fluorescent light bulbs, and rechargeable batteries.



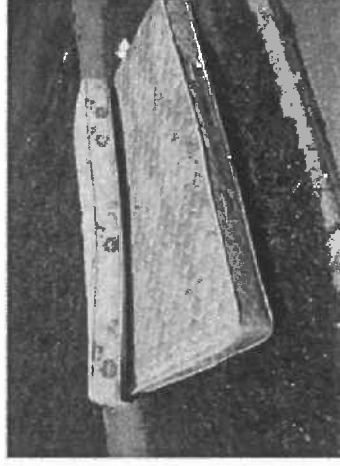
In March of 2010, our Division of Waste Management disposed of over 36,000 linear feet of fluorescent lighting tubes and over 1,500 compact fluorescent bulbs that had accumulated at the facility over the years.

Construction/Demolition Debris

- CDD Landfill operations at Haley Pike
- Funded by the Landfill Fund
- Investigating possible CDD recycling
- We need to decide on closure schedules and whether we are opening a new cell
- Air space will be exhausted in July 2012

Integrated Waste Management

- More than just garbage.....
- Recycling, composting, electronic waste, CDDL
- Bulky items, tires, appliances special events
- Environmental education – Bluegrass PRIDE
- Environmental enforcement
- Landfills – closure, remediation, monitoring, and compliance



Bulky items for pickup

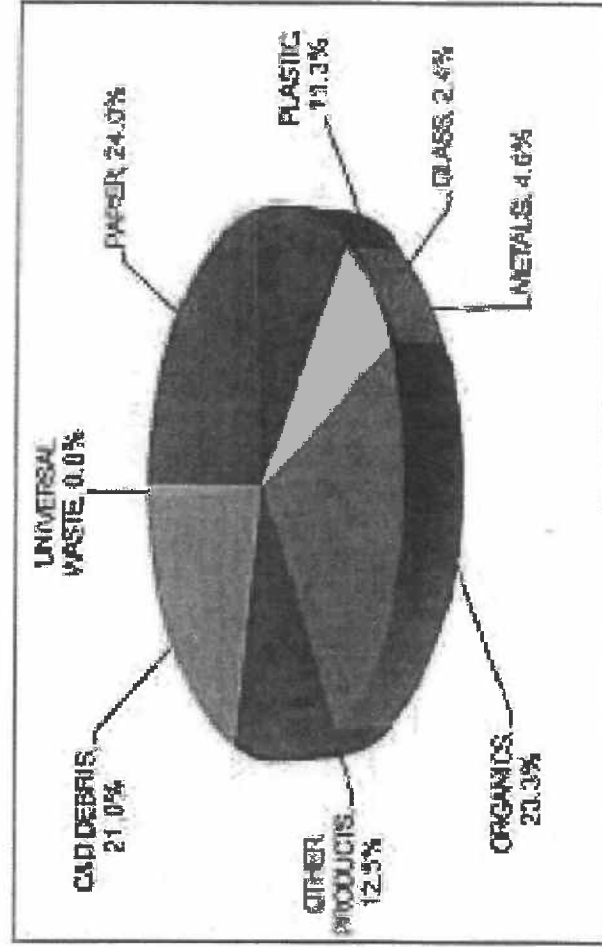
Integrated Waste Management

- Household hazardous waste collection events
- Medical waste collection event (MedToss)
- Cooking oils collection event (gobble grease toss)
- Paper shred day with Cintas (5 tons recycled)
- WEG – organics recycled (30 tons)
- Cash for Cans (58 tons of aluminum; 29 schools)
- Lexington Legends partnership

Integrated Waste Management

- Keep Lexington Beautiful Commission
- KY PRIDE litter abatement and open dump cleanups
- Adopt-a-Spot
- Inner city alley cleanups
- Dead animals collection
- EcoArts grants
- Neighborhood Sustainability Grants
- Zero Waste Vision

Aggregated Waste Composition



Source: Master Plan for the LFUCG Recycling Center, 9/30/2009

Revenues – Urban Services Fund

<u>Ad Valorem actual revenues for Urban Services Fund for FY 2011 (thru February)</u>	
●Street Cleaning (00.94¢)	\$1,527,905
●Refuse Collection (14.31¢)	\$25,363,220
●Street Lights (02.10¢)	\$3,666,972

Source: Division of Revenue; rate is annual cost per \$100 assessed value

●Total YTD <u>all</u> sources	\$33,711,933
●Total Budgeted <u>all</u> sources	\$36,199,720

Source: PeopleSoft Financials

Revenues – Urban Services Fund

Ad Valorem revenue estimates for Urban Services Fund for FY 2012.

●Street Cleaning	\$1,594,800
●Refuse Collection	\$26,473,680
●Street Lights	\$3,827,520

Source: Division of Budgeting

Revenues – Landfill Fund

Actual revenues for FY 2011 (thru February) =
\$4,767,652

Source: PeopleSoft Financials

FY 2011 Budgeted = \$6,556,900

Source: FY11 Adopted Budget

Estimated for FY 2012 = \$7,027,550

Source: Division of Budgeting

Expenditures – Urban Services Fund

	FY10
Indirect Costs	\$3,606,083
Govt Communications	\$585,497
Human Resources	\$12,475
Risk Management / Insur. / Law	\$1,078,894
Finance Admin	\$7,694
Computer Services	\$27,049
Chief Information Officer	\$51,580
Public Works Commissioner	\$5,310
Streets, Roads, & Forestry	\$1,042,967
Traffic Engineering	\$4,519,559

Expenditures – Urban Services Fund

Waste Mgt Admin	\$7,344,859
Refuse Collection	\$8,187,044
Dumpster Program	\$1,750,423
Recycling Program	\$1,167,574
Materials Recovery Facility	\$5,611,499
Composting Program	\$249,134
Yard Waste Collections	\$1,599,861
DEQ Admin	\$500,837
Environmental Policy	\$959,639
Fleet Services	\$2,593,109
Building Maintenance	\$34,943
Parks and Recreation	\$390,342

Expenditures – Landfill Fund

	FY10
Indirect Costs	\$46,175
Law Admin	\$17,876
Finance Admin	\$3,295
Revenue	\$455,627
Waste Management	\$5,343,694
DEQ Admin	\$1,251
Environmental Policy	\$1,608
Adult & Tenant Serv	\$11,221
Other	\$141,307

Costs of Collection

What does it cost to pick up a Herbie?

\$0.51 per cart service event [best case]

\$0.90 per cart service event [worst case]

Assumptions:

- best case is single driver with an automated arm on the vehicle
- worst case is 3 staff with manual lifting

Costs of Collection

What does it cost to pick up a commercial dumpster?

- \$3.38 per dumpster

New Efficiencies

- Routing software – status

Re-routed traditional commercial and residential collection services over the past year using GIS based routing systems.

Anticipate 10% reduction in trucks and staffing requirements

New Efficiencies

- Routing software – status

GPS communication system implementation: lowered response time for ancillary services through ability to generate daily customized routes.

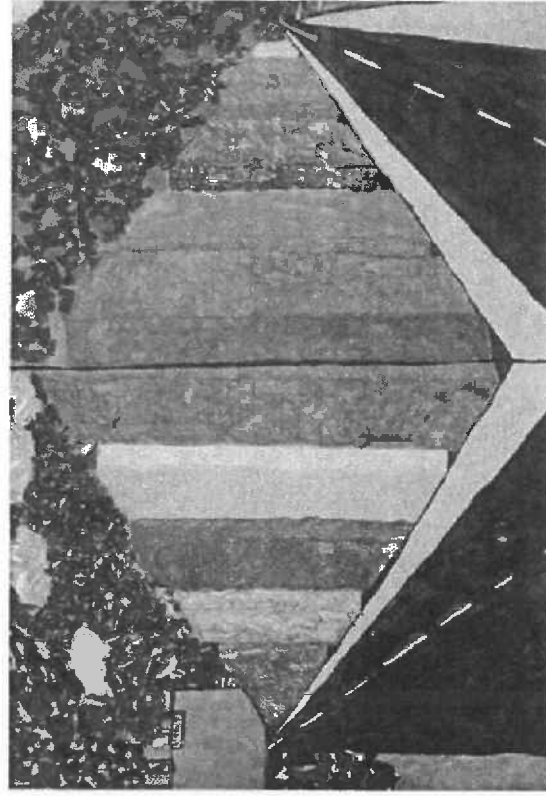
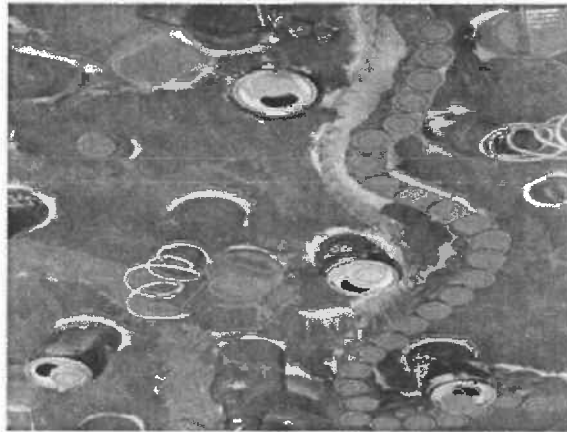
Results are quite promising

New Efficiencies

- Increased capacity, safety at current MRF
- New recycling center – status
- Cost of service study – after a month or two of data is compiled from the routing study
- CDD recycling – GBB study recommendation
- State-funded cleanup at Raven Run
- Preston-Osborne Survey - 70% support mandatory recycling
- Downtown recycling

Upcoming Events

- Home composting workshop – tonight at 6:00 pm
- Paper shred day April 26th – 11:30-1:30 at 1631 Old Frankfort Pike. 4th Tuesdays thru October.
- Great American Cleanup
- Kentucky River Clean Sweep
- EcoArt Displays Using Recycled Glass (Carnegie)
- Renew Lexington Community Workshop
- Earth Day



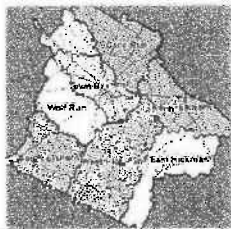
EcoArt exhibits using recycled glass from our MRF; created by middle school students at Lexington Traditional Magnet School

Remedial Measures Plans Status and Direction



Presentation to
Lexington-Fayette Urban
County Government
Environmental Quality
Committee

April 18, 2011



Agenda



- Summarize recent public involvement and input received
- Discuss impacts of illicit connections on private property
- Provide initial cost estimates for required improvements
- Address critical issues needing decisions
 - Illicit stormwater from private property
 - Magnitude of rainfall event used in designs

Recent Public Involvement



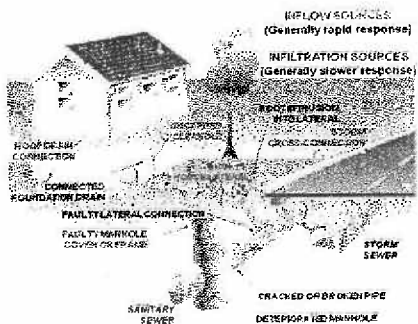
- LFUCG Council, EQC Committee, Staff
- Stakeholder groups
 - Commerce Lexington (with UK and LBAR)
 - Homebuilders Association
 - Fayette County Public Schools
- Media, GTV-3
- Fayette County Neighborhood Council
- Public Meetings
 - March 7 at Fayette County Extension Office
 - March 14 at Victory Baptist Temple
 - March 21 at Tates Creek Christian Church

Primary Concerns of Residents (as stated in public meetings)



- Portion of the wet weather problems that can be attributed to private property
 - Fixing only public system won't solve problems
 - All residents must pay for solutions
 - Eliminate illicit connections (i.e. sump pumps)
 - Those with illicit connections should pay more
- Want SSOs eliminated, but concerned about costs

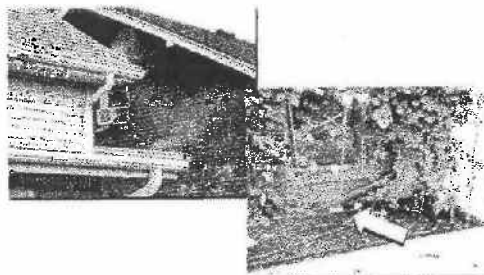
Typical Infrastructure Elements



Typical Private Property Defects



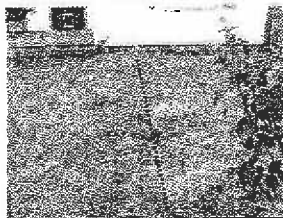
- Roof downspouts connected to sewers



Typical Private Property Defects



- Sump pumps connected to sewers - eight sump pumps can fill up an 8" sewer line
- Broken sewer laterals

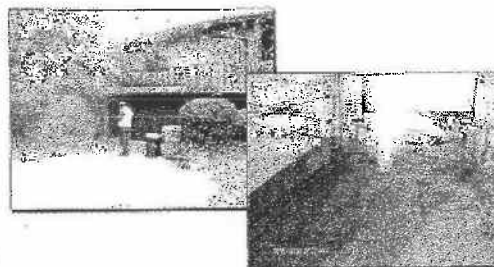


Public portion of sanitary sewer system recently rehabilitated in this area.

Typical Private Property Defects



- Area drains connected to sewers



Recent LFUCG Initiatives



- Disconnected 430 sump pumps since 2008
- Extensive repairs made to system since 2008 – approximately \$5.2 million
- Currently focused on WR-2 (Garden Springs area)
- Preparing scope for FY12 initiatives

Summary of Private Property Issues



- Need task force or subcommittee focused on developing effective program, with enabling legislation
 - Expand voluntary program (LFUCG pays for disconnections)
 - Initiate mandatory inspections during real estate transactions – property owner pays for disconnection
- Provide reasonable outlet for redirected connections – may require stormwater improvements

Primary Concerns of Residents (as stated in public meetings)



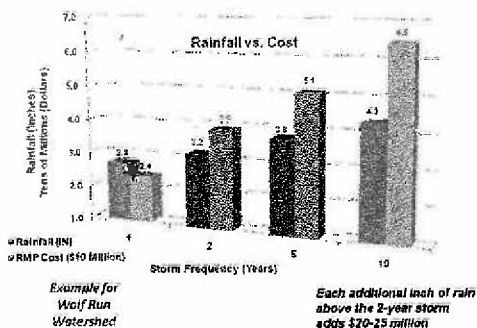
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Potential Costs for Various Storm Events

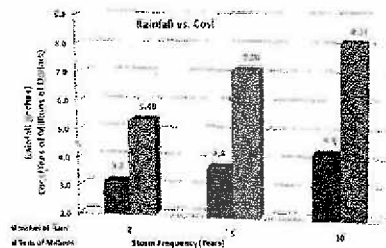


- Current estimates are based on general concepts, not detailed engineering
- Costs developed for following storm events:
 - 2-year storm (3.2 inches of rain in 24 hours)
 - 5-year storm (3.8 inches in 24 hours)
 - 10-year storm (4.3 inches in 24 hours)
- Rate impacts based on financing capital improvements for 20 years at 3%, spread to 106,000 customer accounts

Design Storm – Cost Relationship (Wolf Run Example)



Design Storm – Cost Relationship (All 7 Sewersheds)



Storm	Rainfall	Estimated Cost
2-Year	3.2"	\$540 million
5-Year	3.8"	\$718 million
10-Year	4.3"	\$814 million

Each additional inch of rain above the 2-year storm adds approx. \$200 million

Potential Monthly Rate Impacts

Storm	Rainfall	Estimated Cost	Rate Impacts *
2-Year	3.2"	\$540 million	\$28.25
5-Year	3.8"	\$718 million	\$37.57
10-Year	4.3"	\$814 million	\$42.59

*Potential monthly rate increase based on financing capital improvements for 20 years at 3%, spread to 106,000 customer accounts

Related Issues

- 2-year storm is likely the smallest storm EPA would consider
- Selection of 2-year storm would result in lowest cost and lowest rate increases
- Selection of larger storm event would have higher costs, but would have less SSOs, less residential impacts, and less regulatory fines
 - Building improvements for the 2-year storm would result in an estimated 13 SSOs during a 5-year storm, and 53 SSOs during a 10-year storm

Potential Regulatory Penalties



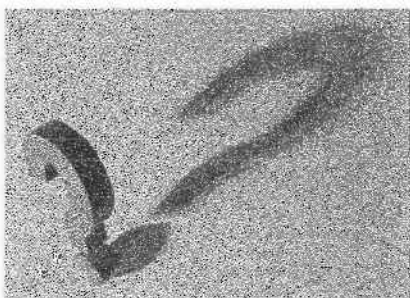
- Fines
 - Any SSO after its elimination deadline
 - \$1000 to \$5000 depending on volume
- Frame of reference: 2008-2010
 - Average 480 SSOs per year
 - Financial penalties would have ranged from \$480,000 to \$2,400,000

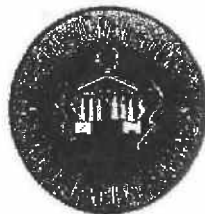
Decisions Required



- LFUCG must select design storm while considering:
 - Capital costs and rate impacts
 - Environmental protection
 - Property impacts
 - Economic development
- Unless directed otherwise by Council, DWQ will proceed with planning Remedial Measures based on the 2-year storm.

Questions?





Lexington-Fayette Urban County Government
DEPARTMENT OF ENVIRONMENTAL QUALITY

Jim Gray
Mayor

Cheryl Taylor
Commissioner

March 23, 2011

Councilmember Tom Blues
Environmental Quality Committee Chair

RE: Coldstream Ct/Crimson King Ct Stormwater Study Recommendation

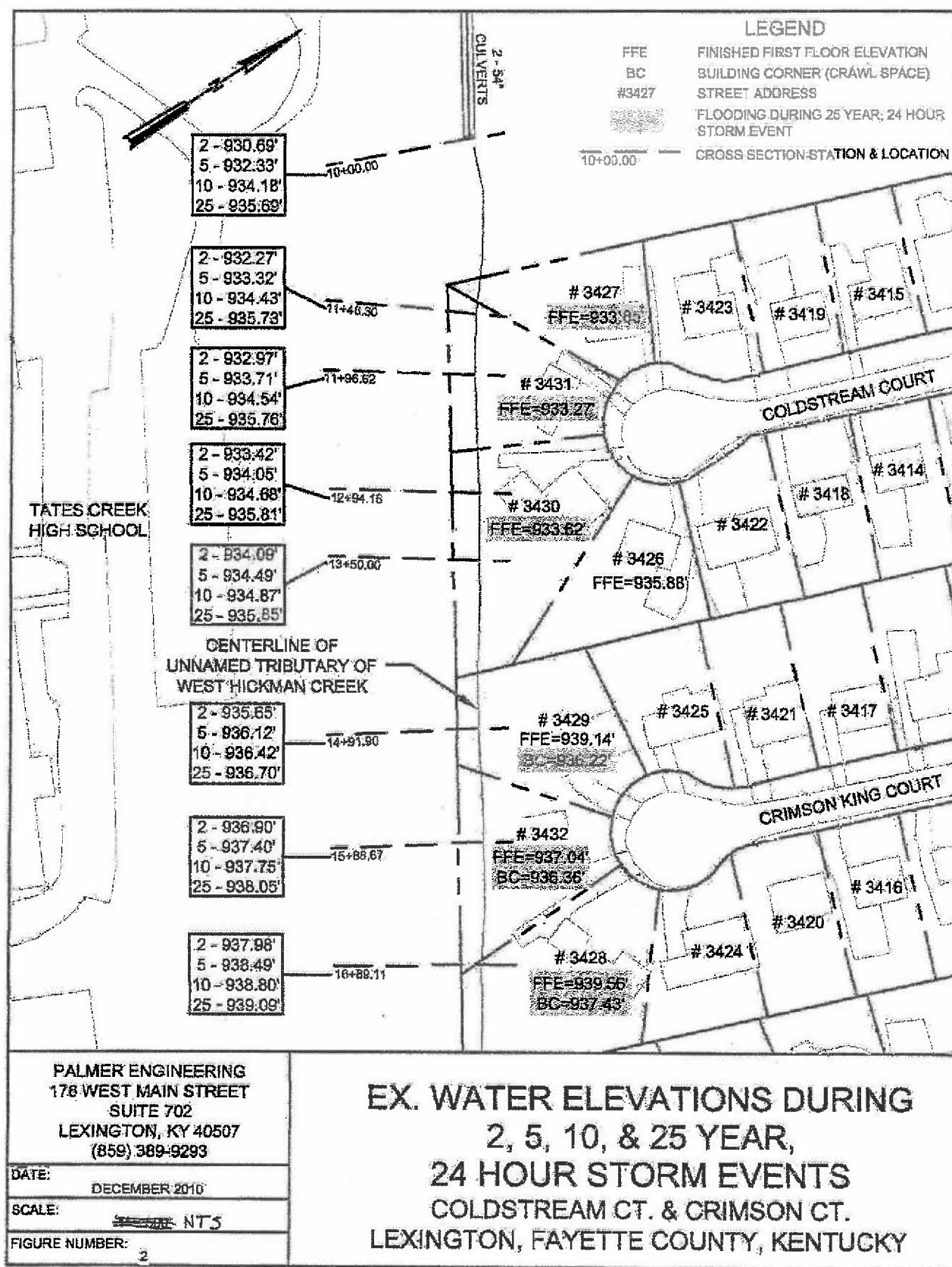
This letter is to provide recommendation for future action to resolve flooding issues at the end of Coldstream and Crimson King Courts. The recommendation for this project is based on the Stormwater Study completed by Palmer Engineering and posted for review on our website on February 2, 2011. The recommended action is to purchase and demolish six homes which are adjacent to the stream and structurally flood during the 25 year-24 hour storm event. The estimated cost for this project is \$1.2 million.

These homes, located just off of Gainesway Drive and to the north and east of Tates Creek High School, are just upstream of two parallel 54" culverts which convey flow from approximately 365 acres to a tributary of West Hickman Creek. This issue was added to the Stormwater Project Priority list and ranked as #65.5 in 2007 when a preliminary evaluation of the flooding was completed. This latest study began in July 2010 with surveying and the distribution of 43 property owner questionnaires. Palmer Engineering then completed a detailed analysis of the hydrologic/hydraulic details of the watershed to verify information reported by the homeowners in the questionnaires. After verification, multiple solution options were evaluated and presented to the affected residents during a public meeting held on December 7, 2010. Options presented for mitigation of the flooding included both property purchase and construction of new infrastructure. Residents were given opportunity then and during the past three months to consider the options presented and express their concerns or opinion and all comments have been positive for the home purchase option.

The recommended option, Option 1, is to purchase and demolish the six homes with structural flooding during the 25 year-24 hour storm event and is the only option which will eliminate all future risk of flooding of those homes. The lowest feasible cost option was Option 2 (approx \$900,000) which involved re-construction of an existing pond upstream on the Tates Creek Golf Course and the purchase of two homes. This option was shown to reduce the flooding elevation to a level below structural elements for four of the homes, but is likely to involve additional hidden costs.

Benjamin Krebs, P.E., CFM
Municipal Engineer Senior

Cc: George Myers, 8th District Council Representative
Charles Martin, P.E., Director
Darryl Bennett, P.E.



LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
STATEMENT OF NET ASSETS
PROPRIETARY FUNDS
As of February 28, 2011
-- DRAFT --

	Business-type Activities Enterprise Funds	
	Sanitary Sewer System	Landfill
ASSETS		
Current Assets:		
Cash and Cash Equivalents	9,806,002	3,305,074
Investments	19,783,117	21,195,563
Receivables:		
User Fees Receivable	2,778,458	702,935
Other Receivables	3,436,403	556,447
Less Allowance for Uncollectible Accounts	(112,713)	(755,428)
Inventories	(5,519)	-
Restricted Investments:		
Reserved for Maintenance and Operation	5,854,422	-
Reserved for Sinking Fund	9,542,567	-
Total Current Assets	51,082,738	25,004,591
Non-Current Assets:		
Restricted Investments:		
Reserved for Construction & Capital Acquisitions	5,277,346	-
Reserved for Depreciation	3,432,083	-
Reserved for Debt Service	8,612,473	-
Capital Assets:		
Land	1,539,293	5,194,637
Land Improvements	254,476	16,505,870
Buildings	2,148,289	64,815
Sewer Plants	163,269,363	-
Sewer Lines	158,052,781	-
Vehicles, Equipment, and Furniture	6,981,741	53,735
Intangibles	417,317	-
Less Accumulated Depreciation	(137,985,655)	(6,981,244)
Construction in Progress	21,238,777	4,851,207
Unamortized Bond Costs	1,349,299	-
Total Non-Current Assets	234,587,584	19,689,021
Total Assets	285,670,322	44,693,611
LIABILITIES		
Current Liabilities:		
Accounts, Contracts and Retainage Payable	467,204	25,660
Accrued Payroll	-	-
Internal Balances	9,263,217	(3,630,975)
Other	1,332,024	-
Compensated Absences	308,103	462
Landfill Closure and Postclosure Care Costs	-	401,878
Payable from Restricted Investments:		
Accounts, Contracts and Retainage Payable	212,759	-
Bonds Payable	-	-
Interest Payable	1,466,939	-
Total Current Liabilities	13,050,246	(3,202,975)
Non-Current Liabilities		
Unearned Revenues & Other	289,063	900,000
Bonds Payable	60,055,000	-
Compensated Absences	710,621	4,157
Landfill Closure and Postclosure Care Costs	-	17,854,682
Total Non-Current Liabilities	61,054,684	18,758,839
Total Liabilities	74,104,929	15,555,864
NET ASSETS		
Invested in Capital Assets, net of related debt	177,404,731	19,683,368
Restricted for:		
Capital Projects	37,453,768	-
Debt Service	7,938,633	-
Depreciation	3,228,250	-
Maintenance and Operations	5,851,295	-
Unrestricted (Deficit)	(20,311,285)	9,454,380
Total Net Assets	211,565,392	29,137,747

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET ASSETS
PROPRIETARY FUNDS
Preliminary for the eight months ended February 28, 2011
- DRAFT -

	Business-type Activities	
	Enterprise Funds	
	Sanitary Sewer	
	System	Landfill
Operating Revenues		
User Charges	\$31,591,367	\$4,526,715
Fees	609,140	113,212
Exactions	45,031	0
Other	307,174	117,080
Total Operating Revenues	32,552,712	4,757,008
Operating Expenses		
Treatment Plant		
Personnel	2,498,445	0
Operating	2,486,531	0
Capital	141,088	0
Collection System		
Personnel	1,576,430	0
Operating	1,323,038	0
Capital	109,812	0
Landfill		
Personnel	0	41,089
Operating	0	1,747,681
Capital	0	75,715
Administration		
Personnel	2,829,847	214,957
Operating	1,969,585	431,738
Capital	5,749,605	0
Depreciation	4,687,341	603,286
Total Operating Expenses	23,371,722	3,114,466
Operating Income (Loss)	9,180,990	1,642,542
Non-Operating Revenues (Expenses)		
Net Change in Fair Value of Investments	(163,771)	(2,113)
Income on Investments	327,677	12,757
Interest Expense and Fiscal Agent Fees	(2,607,597)	0
Amortization of Bond Costs	0	0
Gain (Loss) on Sale of Capital Assets	472,716	0
Total Non-Operating Revenues (Expenses)	(1,970,975)	10,644
Income (Loss) Before Contributions and Transfers	7,210,015	1,653,186
Transfers In	0	0
Transfers Out	0	(100,000)
Change in Net Assets	7,210,015	1,553,186
Net Assets - July 1	204,355,377	27,584,561
Net Assets - February 28	\$211,565,392	\$29,137,747

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
STATEMENT OF NET ASSETS
PROPRIETARY FUNDS
As of February 28, 2011
-- DRAFT --

	<u>Water Quality Mgt.</u>
ASSETS	
Current Assets:	
Cash and Cash Equivalents	1,514,861
Receivables:	
User Fees Receivable	810,311
Other Receivables	-
Less Allowance for Uncollectible Accounts	<u>(44,461)</u>
Total Current Assets	<u>2,280,711</u>
Non-Current Assets:	
Capital Assets:	
Infrastructure	270
Less Accumulated Depreciation	<u>(4)</u>
Total Non-Current Assets	<u>266</u>
Total Assets	<u>2,280,977</u>
LIABILITIES	
Current Liabilities:	
Accounts, Contracts and Retainage Payable	24,619
Internal Balances	(3,994,686)
Compensated Absences	93,116
Total Current Liabilities	<u>(3,876,951)</u>
Non-Current Liabilities	
Unearned Revenues & Other	4
Compensated Absences	93,116
Total Non-Current Liabilities	<u>93,120</u>
Total Liabilities	<u>(3,783,831)</u>
NET ASSETS	
Invested in Capital Assets, net of related debt	540
Unrestricted (Deficit)	6,064,268
Total Net Assets	<u>6,064,808</u>

**LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET ASSETS
PROPRIETARY FUNDS**

Preliminary for the eight months ended February 28, 2011

-- DRAFT --

	<u>Water Quality Mgt.</u>
Operating Revenues	
User Charges	\$7,648,579
Other	3,907
Total Operating Revenues	<u>7,652,486</u>
Operating Expenses	
Administration	
Personnel	1,476,533
Operating	1,743,805
Capital	20,640
Total Administration Expenses	<u>3,240,978</u>
Depreciation	4
Total Operating Expenses	<u>3,240,982</u>
Operating Income (Loss)	<u>4,411,505</u>
Non-Operating Revenues (Expenses)	
Income on Investments	1,872
Total Non-Operating Revenues (Expenses)	<u>1,872</u>
Income (Loss) Before Contributions and Transfers	4,413,376
Transfers In	0
Transfers Out	<u>0</u>
Change in Net Assets	4,413,376
Net Assets - July 1	1,651,431
Net Assets - February 28	<u><u>\$6,064,807</u></u>

Committee Referrals

Environmental Quality Committee

<u>Item</u>	<u>Referred By</u>
Private Solid Waste Providers	Gorton
Capacity Analysis	Blues