



SOLID WASTE ENTERPRISE FUND

SUMMARY OF IMPACTS TO SOLID WASTE DEPARTMENT

- Electronic Recycling
- Tire Recycling
- White Goods Recycling
- Used Oil Recycling
- MSW Contract Increase
- Capital Facilities & Equipment/Vehicle Plan
- Post Closure



A graphic for an electronics recycling program. It features a dark background with silhouettes of electronic devices: a laptop on the left, a desktop monitor in the center, and a smartphone on the right. A vibrant, multi-colored wavy line (yellow, orange, red, green, blue) arches across the top. The text "ELECTRONICS RECYCLING PROGRAM" is centered in white, bold, sans-serif capital letters.

ELECTRONICS RECYCLING PROGRAM

ELECTRONICS PROPOSAL REVIEW



CRT TV



CRT monitors



Computers



Miscellaneous e-waste

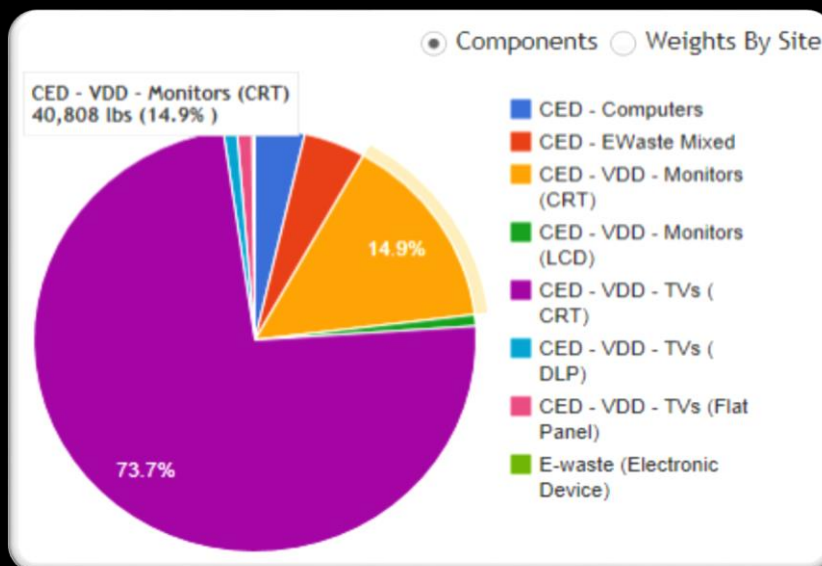


Flat screen monitors



Ready for shipping

In 2014-2015 we recycled
284,030 pounds of electronics
 the figures on the next slide were composed
 using these figures for calculations



**88.6 %
 CRT
 Devices**

	ALL GREEN	SYNERGY	POWERHOUSE	GEEP	ERI
CRT TV'S	\$0.20 PER LB.	\$0.35 PER LB	\$0.30 PER LB. IF >10% OF LOAD NO CHARGE IF <10% OF LOAD	\$0.20 PER LB.	\$0.30 PER LB.
CRT MONITORS	\$0.20 PER LB.	\$0.25 PER LB.	\$0.20 PER LB. IF > 10 % OF LOAD NO CHARGE IF <10% OF LOAD	\$0.20 PER LB.	\$0.30 PER LB.
LCD TV'S	\$0.20 PER LB.	\$0.35 PER LB.	NO CHARGE	\$0.20 PER LB.	\$0.15 PER LB.
LCD MONITORS	NO CHARGE	\$0.25 PER LB.	\$2.00 PER UNIT	\$0.20 PER LB.	\$0.30 PER LB.
COMPUTERS	NO CHARGE	\$0.20 PER LB.	\$0.30 PER LB. WHOLE \$0.15 PER LB. PARTS MISSING	\$0.25 PER LB. WHOLE \$0.15 PARTS MISSING	\$0.05 PER LB.
MISC.	NO CHARGE	NO CHARGE	\$0.01 PER LB.	\$0.01 PER LB.	\$0.16 PER LB.
SHIPPING	\$500.00 PER TRIP 26 FOOT TRUCK	\$450.00 PER LOAD 53 FOOT TRAILER	NO CHARGE	\$750.00 PER LOAD 53 FOOT TRAILER	NO CHARGE
ANNUAL COST	\$65,084.00	\$92,355.50	\$68,969.29	\$61,309.89	\$79,700.96

COUNTY COMPARISONS

What we are doing:

- Currently accept all electronics at convenience centers.
- Free of charge due to no cost associated with the recycling of these electronics.

Counties that do not participate:

- Ashe, Avery, Beaufort, Bertie, Caldwell, Duplin, Greene, Hoke, Montgomery, Surry, Union, Watauga, Yancey

What other counties are doing:

- **Polk:** No charge has a Solid Waste User Fee for **all** county residents
- **McDowell:** No charge not mandating recycling has an Availability Fee for **all** county residents
- **Henderson:** \$10.00 per CRT
- **Buncombe:** \$10.00 per CRT
- **Cleveland:** No charge has a Solid Waste User Fee for **all** county residents
- **Madison:** Charges **all** residents a Solid Waste User Fee. also trying to get rate of \$15.00 per CRT and \$5.00 per item on other electronics.

A scrap tire is the central focus, positioned slightly to the right of the center. The tire is black with a visible tread pattern. The background is a dark, abstract composition with vibrant, flowing bands of color: yellow and orange at the top left, transitioning into green and blue at the bottom right. The text "SCRAP TIRES PROGRAM" is overlaid in white, bold, sans-serif capital letters across the middle of the image.

SCRAP TIRES PROGRAM

COMPARISON

April –Sept. Grant 2015

- These grants were cut by at least 20%.
- The county applied for the amount of \$26,391.62.
- The county received \$19,793.86
- Total revenue lost \$6,597.76.

Oct. 2015-March 2016 Grant

- 40-50% cut expected in the next cycle of grants
- Impact to County: A loss of approx. \$20,000.00 in revenue.



White Goods

- Reduction in funding per Session Law 2013-360
- White Goods grant funding will cease entirely beginning June 30, 2017

Estimate of Revenue Loss

- Our cost to run the white goods program is roughly \$51,000.00 per year.
- On a bad year with low scrap metal prices it will cost the county \$12,000.00 to \$15,000.00 (this revenue depends on the price of scrap metal at the time the county bids the metal out for sale).



USED MOTOR OIL

- No cost in the past to dispose of used oil, oil filters and anti-freeze.
- We now pay for disposal
- Driven by the decline in oil prices.

MSW CONTRACT

- MSW hauling contract increases by 2% each year until the contract expires.
- Estimated cost this year is \$1,524,564.00 for the hauling and disposal.
- 2017/2018 budget estimated at \$1,555,055.28.
- 2018/2019 budget estimated at \$1,586,156.39.



VEHICLE/EQUIPMENT REPLACEMENT PLAN

- Objective is to replace each item every 12 years.
- Covers all vehicles.
- Covers all equipment.
- Helps reduce maintenance costs.
- Increased productivity due to lack of equipment down time.
- Increase safety.



CAPITAL FACILITIES PLAN

- Upkeep on all convenience centers including huts, asphalt, concrete, fences, drains and gravel.
- Upkeep of central landfill including major asphalt repaving, concrete, fences, drainage and additional lighting.
- Additional security measures and expansion of offices.



POST-CLOSURE PLAN

- Future land purchases for landfill space.
- Money to build a lined landfill in the future when it becomes necessary.
- Maintaining the close landfills.
Financially and operational by state requirements.
- Closure of landfills when they are full.

Vehicle-Equipment Replacement Needs				
EQUIPMENT DESCRIPTION	YEAR	MODEL	SERIAL NUMBER	REPLACEMENT COST
INTERNATIONAL TRUCK	2005	7600 Roll-off	1HTWYAHT55J006789	\$160,000.00
INTERNATIONAL TRUCK	2009	7600-Roll-off	1HTWYAHT19J130466	\$160,000.00
KENWORTH TRUCK	2013	T800 Roll-off	1NKDL70X8DJ38486	\$160,000.00
FORD EXPLORER	2001	Explorer 4x4	1FMZU72E61ZA76120	\$25,000.00
FORD TRUCK	1997	F250 4X4	1FTHF26FIVEB42229	\$30,000.00
FORD TRUCK	2003	F150 4X4	1FTRX18W63NA57053	\$26,000.00
FORD SHOP TRUCK	1989	F350 UTILITY BODY	1FDKF37M3KNB18384	\$35,000.00
JOHN DEERE LOADER	2014	544K	1DW544KZPEE660634	\$185,000.00
JOHN DEERE LOADER	2004	544J	DW544JZ595158	\$185,000.00
JOHN DEERE TRACK LOADER	2006	755C	8568	\$308,000.00
JOHN DEERE DOZER	2005	750J	T0750JX149263	\$290,000.00
KOMATSU EXCAVATOR	2011	PC200LC8	6PBY1A/T11642689	\$170,000.00
JOHN DEERE SKID STEER	2015	333E	1T0333EMEFE290794	\$75,000.00
MASSEY TRACTOR	1986	M230	9A318614	\$30,000.00
KUBOTA TRACTOR	2012	M6040	87811	\$35,000.00
REX COMPACTOR	2002	REX375	HF253	\$575,000.00
SCALES TRANSFER STATION	1997	12-87Z		\$90,000.00
SCALES MAIN OFFICE	1994	90-9201		\$90,000.00
RECEIVERS (5)				\$29,875.00
RECEIVERS (5)				\$29,875.00
RECEIVERS (5)				\$29,875.00
40 YARD OPEN TOPS (9)				\$40,887.00
40 YARD OPEN TOPS (8)				\$36,334.00
40 YARD OPEN TOPS (8)				\$36,334.00
FORD CAR	1999	CROWN VIC	2FAFP73WYX142204	\$0.00
FORD CAR	2003	CROWN VIC	2FAFP71W34X130837	\$0.00
WHITE TRACTOR	1988	YARD DOG	1WUADCJE8JN126849	\$10,000.00
INTERNATIONAL TRUCK	1989	YARD DOG	1HSHKG2R0LH210001	\$10,000.00
KENWORTH TRUCK	1993	T800 Dump truck	1XKDD69X5PJ594974	\$90,000.00
PAST DUE (1-2 YEARS)	\$1,175,762.00			
3-5 YEARS	\$965,209.00			
6-10 YEARS	\$691,209.00			

Solid Waste Capital Facilities Inventory

Repair Need Timeline and Information					
Immediate (next 1-2 years)					
Next 3-5 years					
Next 6-10 years					
Proposed Facilities Expansion.					
Building Name	Address	Sq. Ft.	Year Built	Request/Needs	Est. Cost
Solid Waste					
Landfill and Transfer Station	656 Laurel Hill Drive Rutherfordon		6/1/1991		
				Replace entire parking lot and driveway and add additional parking area-Heavy Duty (83,864sqft. @ \$54.40 SY)	\$507,377.00
				Replace floor tile in office area	\$1,500.00
				Paint interior walls in office area	\$2,000.00
				Update kitchen appliances	\$2,000.00
				(3) Garage door motors	\$3,000.00
				Upgrade lighting throughout office, transfer station, and garage	\$8,800.00
				Office furniture replacement	\$2,000.00
				Repair 5 ton crane in garage	\$1,000.00
				Office addition at front of office building towards scales (~750 sqft @ \$150 per sqft.).	\$112,500.00
				New security system for office.	\$5,000.00
				New rolling up door on left side of transfer station	\$5,000.00
				Add (2) windows to both sides of transfer station.	\$2,000.00
				Compactor replacement of old side of transfer station	\$25,000.00
				Replace (3) vent fans in transfer station (4'X4')	\$3,600.00
				New gate at main entrance	\$2,500.00
				Construction of new entrance road due to the 221 expansion project. Entrance will be off Thunder Rd.	
				Continued property acquisition on Laurel Hill Dr. as property become available.	
					\$516,477.00
					\$38,500.00
					\$123,300.00
					\$0.00
				Grand Total:	\$678,277.00

Avondale Conv. Center	Ellenboro/ Henrietta Henrietta	240	6/1/1993		
				Replace (2) trash compactors	\$50,000.00
				Replace asphalt with heavy duty asphalt up to front gate (4,200 sqft. @ \$54.40 SY)	\$25,410.00
				Replace slab at recycling container	\$5,000.00
				Replace (2) 20' sections of perimeter fencing.	\$5,000.00
				Gravel (3) loads	\$750.00
				Pave side entrances to inside the gate (2,200 sqft.)	\$12,232.00
					\$93,392.00
				Total:	\$0.00
					\$5,000.00
				Grand Total:	\$98,392.00
Bills Creek Conv. Center	Bills Creek Rd Rutherfordton	240	6/1/1998		
				Replace slab at recycling contain and trash compactor	\$10,000.00
				Replace asphalt with heavy duty asphalt up to front gate (4,700 sqft. @ \$54.40 SY)	\$28,435.00
				Asphalt resurfacing and crack fill for the (2) side entrances(4,500 sqft.)	\$2,385.00
				Gravel (3) loads	\$750.00
				Replace (2) trash compactors	\$50,000.00
					\$10,750.00
				Total:	\$50,000.00
					\$28,435.00
				Grand Total:	\$89,185.00
Colfax Conv. Center	1676 US Highway 74 Bus. Ellenboro	240	6/1/1995		
				Replace asphalt with heavy duty asphalt up to front gate (5,000 sqft. @ \$54.40 SY)	\$30,250.00
				Repair damaged portion of retaining wall at recycling container	\$7,000.00
				Repair multiple areas of the retaining wall with large cracks.	\$10,000.00
				Gravel (3) loads	\$750.00
				Asphalt resurfacing and crack fill for the (2) side entrances (3,600 sqft.)	\$1,910.00
				Exterior lighting improvements	Duke Power
				Replace slab in (2) areas	\$10,000.00
				Replace (2) trash compactors	\$50,000.00
					\$27,750.00
				Total:	\$50,000.00
					\$32,160.00
				Grand Total:	\$109,910.00

Danieltown Conv. Center	1381 Bethany Church Rd. Rutherfordton	240	6/1/1992		
				Replace asphalt with heavy duty asphalt up to front gate (5,500 sqft. @ \$54.40 SY)	\$33,220.00
				Replace (2) trash compactors	\$50,000.00
				Repair ruts at (2) trash compactors	\$8,600.00
				Gravel (3) loads	\$750.00
				Relocate fence on 221 side, remove trees, grade, and retaining wall.	\$15,000.00
				Exterior lighting improvements	Duke Power
					\$92,570.00
				Total:	\$15,000.00
					\$0.00
				Grand Total:	\$107,570.00
Gilkey Conv. Center	US 221 Rutherfordton	240	6/1/1995		
				Replace slab in (3) areas	\$15,000.00
				Replace ~20' of safety fence	\$1,000.00
				Replace (2) trash compactors	\$50,000.00
				Replace asphalt with heavy duty asphalt up to front gate (4,600 sqft. @ \$54.40 SY)	\$27,830.00
				Gravel (3) loads	\$750.00
				Convenience center relocation due to NCDOT's 221 widening project. Site acquisition and construction of new facility.	\$617,000.00
					\$16,750.00
				Total:	\$77,830.00
					\$0.00
					\$617,000.00
				Grand Total:	\$711,580.00
Golden Valley Conv. Center	Bostic Sunshine Hwy. Bostic	240	6/1/2006		
				Replace slab in (2) areas	\$10,000.00
				Replace asphalt with heavy duty asphalt up to front gate (5,400 sqft. @ \$4.40 SY)	\$32,670.00
				Gravel (3) loads	\$750.00
				Replace (2) trash compactors	\$50,000.00
					\$750.00
				Total:	\$10,000.00
					\$82,670.00
				Grand Total:	\$93,420.00

Green Box Conv. Center	4480 Hollis Rd. Ellenboro	72	6/1/2000		
				Gravel (3) loads	\$750.00
				Replace (1) trash compactor	\$28,000.00
					\$750.00
				Total:	\$0.00
					\$28,000.00
				Grand Total:	\$28,750.00
Green Hill Conv. Center	204 Rainbow Rapids Rd. Rutherford	240	6/1/1995		
				Replace slab at trash compactor	\$5,000.00
				Replace asphalt with heavy duty asphalt up to front gate (4,900 sqft. @ \$54.40 SY)	\$29,645.00
				Gravel (3) loads	\$750.00
				Replace (2) trash compactors	\$50,000.00
					\$750.00
				Total:	\$29,645.00
					\$55,000.00
				Grand Total:	\$85,395.00
Pea Ridge Conv. Center	3892 Pea Ridge Rd. Rutherford	240	6/1/1997		
				Replace slab in (3) areas	\$15,000.00
				Replace asphalt with heavy duty asphalt up to front gate (5,100 sqft. @ \$54.40 SY)	\$30,855.00
				Gravel (3) loads	\$750.00
				Repair ruts at (2) trash compactors	\$8,600.00
				Replace (2) trash compactors	\$50,000.00
					\$15,750.00
				Total:	\$100,395.00
					\$136,605.00
				Grand Total:	\$275,995.00
Shiloh Conv. Center	152 Richland Drive Forest City	240	6/1/2003		
				Replace asphalt with heavy duty asphalt up to front gate (5,000 sqft. @ \$54.40 SY)	\$30,250.00
				Exterior lighting improvements	Duke Power
				Gravel (3) loads	\$750.00
					\$750.00
				Total:	\$0.00
					\$30,250.00
				Grand Total:	\$31,000.00
				Total:	\$776,439.00
				Total:	\$371,370.00
				Total:	\$521,420.00
				Total:	\$617,000.00
				Grand Total:	\$2,286,229.00



EQUIPMENT/VEHICLE REPLACEMENT PLAN

- The total for the ten year equipment/vehicle replacement plan is \$2,832,180.00.
- Estimated yearly budget to include 10 year vehicle/equipment replacement plan would be \$283,218.00.



CAPITAL FACILITIES PLAN

- The total for the 10 year capital facilities plan is \$2,286,229.00
- Estimated yearly budget for 10 year facilities maintenance plan is \$228,622.90 per year

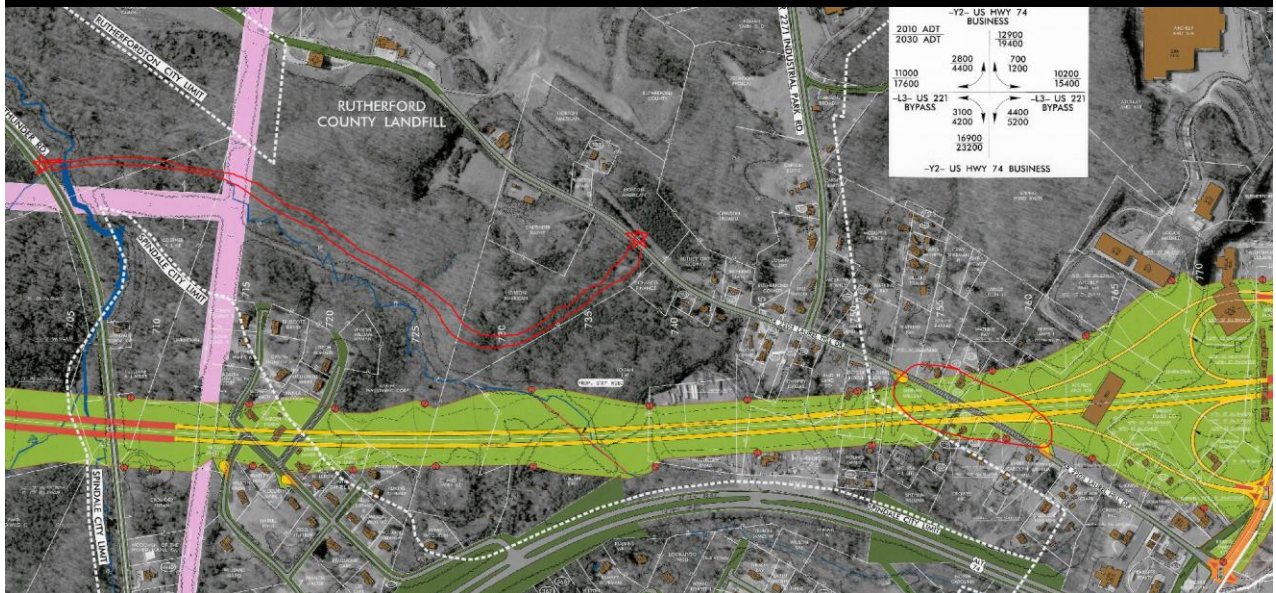
Post closure/Future landfill

This estimated yearly budget is

\$210,000 per year

(\$2.1million every ten years)

FUTURE IMPACT OF HWY 221 PROJECT



CURRENT FEE STRUCTURE

- Non Municipal residents pay \$120.00 per year.
- MSW tipping fee is \$57.00 per ton.
- C&D tipping fee is \$37.00 per ton.
- Metal tipping fee is \$45.00 per ton.
- Brush tipping fee is \$35.00 per ton.
- Electronics are a set fee of \$5.00 or \$15.00 per unit.

COMPARISON OF SURROUNDING COUNTIES AVAILABILITY FEE

- Polk County \$35.00 Per Household plus \$70 permit fee to dispose waste at the landfill (no convenience centers)
- Lincoln County \$99.00 Per Household
- Cleveland County \$43.40 Solid Waste Fee Per Household for county residents, \$18.60 Recycling Fee Per Household for all residents
- Madison County \$160.00 Per Household
- Burke County \$65.00 Per Household
- McDowell County \$48.00 Per Year Fee and \$5.00 Per Vehicle at Transfer Station

LINCOLN COUNTY STUDY

- Lincoln County just recently performed a review of the North Carolina solid waste availabilities fees.
- The average fee across NC is \$104.00 per county.
- Fee is called Solid Waste User Fee or Availability Fee
- Fees range over the state from no fee to as much as \$250.00 per year in Currituck County.

ALL RESIDENTIAL UNITS

- What do surrounding counties do on apartments, mobile home parks, condos, time shares and other rental units?
- The following counties charge each residential unit a solid waste fee:
 - Cleveland, Polk, Macon, Lincoln, McDowell, Burke, Madison.
- Henderson and Gaston counties do not charge the yearly fee. Gaston is pay as you throw.

OPERATING EXPENSES

Current Operating Expenses Needed:

\$4,140,000.00

SUMMARY

Total operating amount needed a year to include the equipment/vehicle plan, capital facilities plan, post closure and operating expenses.

\$4,861,840.90



OPTION #1

- Continue to operate as we currently do.
- Current funding would inhibit our ability to implement a capital facilities/equipment/vehicle plan.
- All above items continue to age without money for upkeep, replacement and maintenance.
- Some services and hours of operations may have to be modified/reduced in the future to ensure that we can meet projected operating costs.



OPTION #2

- Raise tipping fees by a large amount.
- This will put us well above the rates that surrounding counties are charging.
- This method works the best when you receive high volumes of trash.
- Still possibly would have to cut services in the future.
- Still would be difficult to implement the capital facilities/equipment /vehicle plan.

OPTION #3

- Charge all residential units a *Solid Waste Availability Fee* (prorated for municipal citizens in consideration of their portion of municipal tipping fee)
- This includes all homes, apartments, condos, rental units, trailers, etc.
- Revisit and reduce the exemptions list at the revenue department.
- Most surrounding counties have this method in place.
- Adjust the current tipping fee to ensure that commercial/industrial is absorbing some of the increase in operations costs
- Would not have to cut services and could implement a capital facilities/equipment vehicle plan.



OPTION #4

- Start a “Pay as you Throw” program.
- Would be hard to monitor.
- Would require attendants to collect money at each collection center site, creating more liability.
- Would require extra staff at busiest centers.
- More work for revenue department.
- Would create a lot of confusion to our citizens.
- More citizens may choose to illegally burn or dump their trash.

OPTION #5

- Charge each residential unit in the municipalities and the county a solid waste availability fee.
 - This includes all homes, apartments, condos, rental units, trailers, etc.
- Landfill would accept the residential trash from the municipalities for free (commercial trash from inside municipalities will be charged based on tipping fees per ton).
- This would save municipalities the cost of the tipping fees coming out of their budget and the municipal citizens would not be charged from two separate fee systems (i.e., Tipping Fee and Availability Fee) to cover their portion of the Solid Waste Department operating costs.
- Municipal demolition will be charged a tipping fee per ton.
- Revisit and reduce the exemptions list at the revenue department.
- Would not have to cut services and could implement a capital facilities/equipment vehicle plan.



OPTION #6

- Work with an outside firm to complete a cost analysis and financial impact study to assist the county with setting the Solid Waste fee structure and review the exemptions list
- Make temporary adjustments to the current fee structure as needed for FY2017-2018 in consideration of necessary operational and critical capital facility & equipment needs



RECOMMENDATION

- Go with Option #6
- Contract with an outside firm to complete a solid waste fee structure study
- Implement a temporary adjusted fee structure and include in the proposed FY 2017-2018 budget
- Present the results of the study to the Board of Commissioners prior to the budget process for FY2018-2019

QUESTIONS?

