

## COUNTY COUNCIL OF BEAUFORT COUNTY

ADMINISTRATION BUILDING

100 RIBAUT ROAD

POST OFFICE DRAWER 1228

BEAUFORT, SOUTH CAROLINA 29901-1228

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STEWART H. RODMAN  
VICE CHAIRMAN

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BRYAN J. HILL  
DEPUTY COUNTY ADMINISTRATOR

JOSHUA A. GRUBER  
COUNTY ATTORNEY

SUZANNE M. RAINEY  
CLERK TO COUNCIL

### AGENDA

#### FINANCE COMMITTEE

Tuesday, January 21, 2014

12:00 Noon

Conference Room, Building 2

Beaufort Industrial Village

102 Industrial Village Road, Beaufort

#### Staff Support

Alicia Holland, Chief Financial Officer

1. CALL TO ORDER – 12:00 P.M.
2. CONSIDERATION OF CONTRACT AWARD
  - A. On-Airport Tree Mitigation Runway 21 Approach Project for Hilton Head Island Airport/HXD ([backup](#))
3. CAPITAL IMPROVEMENT BOND CAPACITY / FINANCIAL PRESENTATION FOR THE COUNTY'S CAPITAL IMPROVEMENTS PROGRAM FISCAL YEAR 2014 ([backup](#))
  - A. Mr. Tony Criscitiello – Planning Director, Comprehensive Plan Update and Information
  - B. Mr. Mark Roseneau, Facilities Director, Current County Facility Needs – 12:15 P.M.
  - C. Mr. Jon Rembold, Airports Director, Current Airport Needs
  - D. Fiscal Year 2014 Capital Budget Requests – 1:30 P.M.
    - Captain Neil Baxley, Sheriff's Office – Emergency Management
    - Mr. Dan Morgan, Director, MIS
    - Mrs. Donna Ownby, Director, EMS
    - Mr. Colin Kinton, Director, Traffic Engineering
    - Lt. Quandara Grant, Detention Center
    - Ms. Tallulah Trice, Director, Animal Control
    - Mr. Gregg Hunt, Director, Mosquito Control
    - Mr. Eddie Bellamy, Public Works Director
    - Mr. Scott Marshall, Director Parks and Leisure Services
    - Mr. Mark Roseneau, Director, Facilities Management
      - Mr. David Coleman, Project Manager, Facilities Management
      - Ms. Tallulah Trice, Director, Animal Control
      - Mrs. Mitzi Wagner, Director, Disabilities and Special Needs
  - E. Mrs. Alicia Holland, Chief Financial Officer / Millage Overview
4. MS. AMY VITNER, SENIOR VICE PRESIDENT AT FIRST SOUTHWEST COMPANY ([backup](#))
5. FY 2015 BUDGET PREPARATION SCHEDULE ([backup](#))
6. ADJOURNMENT





**COUNTY COUNCIL OF BEAUFORT COUNTY  
PURCHASING DEPARTMENT**

102 Industrial Village Road, Bldg 3—Post Office Drawer 1228  
Beaufort, South Carolina 29901-1228

**TO:** Councilman Gerald Dawson, Chairman, Public Facilities Committee  
**FROM:** Dave Thomas, CPPO, Purchasing Director *DT*  
**SUBJ:** Recommendation of Contract Award for IFB# 120914 On-Airport Tree Mitigation Runway 21 Approach Project for the Hilton Head Island Airport  
**DATE:** January 21, 2014

**BACKGROUND:** On January 9, 2014, Beaufort County received bids for the On-Airport Tree Mitigation Runway 21 Approach Project for the Hilton Head Island Airport. The services include mobilization, surveying, replanting, bush hogging, pine straw mulching, removal of old fencing, replacement of new fencing, grass sprigging, and a 15 foot-wide utility easement to be planted with native grasses. Please see below the three firms that submitted bids for this project.

**BIDDERS:**

**TOTAL BID**

Newtech, Inc., Bluffton, SC	\$449,174
Carolina Tree Care, Summerton, SC	\$719,998
The Greenery, Inc., Hilton Head Island, SC	\$738,839

Engineer's estimate: \$419,825

Newtech, Inc. submitted the lowest qualified/responsible bid of \$449,174. Their bid is in compliance with the FAA procurement guidelines for this federally funded project. There is no apparent cause to reject their bid.

**FUNDING:** Expenditure Code 54020011-54302 (Tree Removal Mitigation) – FAA Grant #30-2010 (95%), SCAC Grant 11-002 (2.5%). The remaining 2.5% will come from the Hilton Head Island Airport's operating budget.

**FY 2013 COST:** NA

**FOR ACTION:** Public Facilities Committee meeting occurring January 21, 2014.

**RECOMMENDATION:** The Purchasing Department recommends that the Public Facilities Committee approve, and recommend to County Council the contract award to Newtech, Inc., in the amount of \$449,174 for the On-Airport Tree Mitigation Project from the funding source listed above.

**CC:** Gary Kubic, County Administrator  
Bryan Hill, Deputy Administrator  
Alicia Holland, Chief Financial Officer *AH*  
Jon Rembold, Airports Director *JR*  
Monica Spells, Compliance Officer *MS*

Attachment: Bid Tab

# TALBERT & BRIGHT

January 10, 2014

Mr. Dave Thomas, CPPO, CPPB  
Purchasing Director  
Beaufort County Purchasing Dept.  
Post Office Drawer 1228  
Beaufort, SC 29901-1228

Re: Recommendation of Award  
On-Airport Tree Mitigation  
Runway 21 Approach  
Hilton Head Island Airport  
Hilton Head, South Carolina  
TBI Project No. 2119-1307  
Beaufort County IFB No. 140914

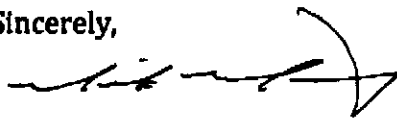
Dear Mr. Thomas:

We have reviewed the bids that were received on January 9, 2014 for the above referenced project and offer the following general comments:

- Three (3) bids were received ranging from a low bid of \$449,174.50 to a high bid of \$738,839.58.
- The apparent low bidder was Newtech, Inc. of Bluffton, South Carolina and the second low bidder was Carolina Tree Care of Summerton, South Carolina.
- The bid received from Newtech, Inc. outlines the subcontractors that will be used on the project. The bidder's total committal for this contract meets the minimum contract DBE goal. The proposed DBE subcontractor meets the requirements of the contract documents.
- The prime contractor intends on performing 26.5% of the work. This amount exceeds the 25% minimum requirement.
- All bid forms have been completed and the apparent low bid is considered responsive.

Based on our review of the bids, discussions with the apparent low bidder and concurrence with the DBE good faith efforts, we recommend that a contract be awarded to Newtech Inc., in the amount of \$449,174.50.

Sincerely,



Mick Metcalf, P.E.  
Senior Project Manager

cc: Jon Rembold, Airports Director  
Judy Elder, Talbert, Bright & Ellington, Inc.

ENGINEERING & PLANNING CONSULTANTS

4944 PARKWAY PLAZA BOULEVARD SUITE 350 CHARLOTTE, NORTH CAROLINA 28217 704.426.6070 FAX 704.426.6080

CHARLOTTE, NORTH CAROLINA · WILMINGTON, NORTH CAROLINA · RICHMOND, VIRGINIA · COLUMBIA, SOUTH CAROLINA · ATLANTA, GEORGIA

**BID SUMMARY FOR  
HILTON HEAD ISLAND AIRPORT  
BEAUFORT COUNTY IFB NO. 140914  
ON AIRPORT TREE MITIGATION\_RUNWAY 21 APPROACH**

Thursday, January 09, 2014  
2:00 PM

		BID AMOUNT	
CONTRACTOR	BID SECURITY	BID SCHEDULE ADDENDUM NO. 1	REMARKS
<b>Newtech, Inc.</b> 6 Ghost Pony Road Bluffton, SC 29910 843.706.3760	✓	\$449,174.50	
<b>Carolina Tree Care</b> 3259 Rowe Drive Summerton, SC 29148 803.478.8299	✓	\$719,998.98	
<b>The Greenery, Inc.</b> 960 William Hilton Parkway Hilton Head Island, SC 29928 843.686.9042	✓	\$738,839.58	

This Bid Summary is certified to be true and correct to the best of my knowledge.

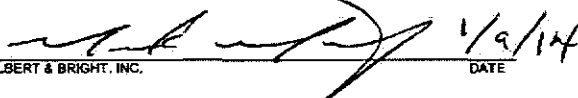
  
 Mick Metcalf, P.E., Senior Project Engineer  
 Talbert, Bright & Ellington, Inc.

BID TABULATION  
 ON-AIRPORT TREE MITIGATION - RUNWAY 21 APPROACH  
 HILTON HEAD ISLAND AIRPORT  
 BEAUFORT COUNTY IFB NO. 140914  
 Thursday, January 09, 2014

PAGE 1 OF 1

ITEM NO.	SPEC NO.	DESCRIPTION	QTY	UNIT	ENGINEER'S ESTIMATE 0109H4		NEWTECH, INC. BLUFFTON, SC		CAROLINA TREE CARE SUMMERTON, SC		THE GREENERY, INC. HILTON HEAD ISLAND, SC	
					UNIT PRICE	EXT TOTAL	UNIT PRICE	EXT TOTAL	UNIT PRICE	EXT TOTAL	UNIT PRICE	EXT TOTAL
1	S-101	MOBILIZATION	1	LS	\$15,500.00	\$15,500.00	\$15,000.00	\$15,000.00	\$120,000.00	\$120,000.00	\$35,500.00	\$35,500.00
2	S-103	SURVEYING	1	LS	\$8,000.00	\$8,000.00	\$7,700.00	\$7,700.00	\$8,500.00	\$8,500.00	\$5,000.00	\$5,000.00
3	S-2950.1	PLANTING OF LITTLE GEM MAGNOLIA	565	EA	\$185.00	\$104,525.00	\$210.00	\$118,650.00	\$325.00	\$183,625.00	\$407.30	\$230,124.50
4	S-2950.2	PLANTING OF WAX MYRTLE	231	EA	\$181.00	\$41,811.00	\$200.00	\$46,200.00	\$325.00	\$75,075.00	\$385.48	\$89,425.88
5	S-2950.3	PLANTING OF YAUPON HOLLY	219	EA	\$182.00	\$39,858.00	\$205.00	\$44,895.00	\$325.00	\$71,175.00	\$407.30	\$89,196.70
6	S-2950.4	PLANTING OF SOUTHERN RED CEDAR	107	EA	\$185.00	\$19,795.00	\$213.00	\$22,791.00	\$325.00	\$34,775.00	\$295.00	\$31,565.00
7	S-2950.5	PLANTING OF AMERICAN HOLLY	225	EA	\$187.00	\$42,075.00	\$210.00	\$47,250.00	\$325.00	\$73,125.00	\$517.30	\$116,392.50
8	S-2950.6	PINESTRAW MULCH (For plants in S-2950.1 thru S-2950.5)	2,694	BALE	\$11.50	\$30,981.00	\$11.00	\$29,634.00	\$7.00	\$18,858.00	\$6.00	\$16,164.00
9	S-2950.7	ONE-YEAR WARRANTY AND MAINTENANCE PERIOD	1	LS	\$13,800.00	\$13,800.00	\$15,000.00	\$15,000.00	\$40,000.00	\$40,000.00	\$40,800.00	\$40,800.00
10	F-162-6.1	8-FOOT HIGH CHAIN LINK FENCE (Black Vinyl Coated)	1,750	LF	\$25.00	\$43,750.00	\$24.00	\$42,000.00	\$21.75	\$38,062.50	\$26.29	\$46,007.50
11	T-903-5.2	REMOVAL AND DISPOSAL OF EXISTING FENCE	1,050	LF	\$8.80	\$9,050.00	\$8.25	\$8,662.50	\$7.56	\$7,838.00	\$3.00	\$3,150.00
12	T-903-5.1	AREA 1 TO BE SPRIGGED WITH BERMUDA GRASS	1.7	ACRE	\$4,200.00	\$7,140.00	\$4,000.00	\$6,800.00	\$3,530.00	\$6,001.00	\$2,613.00	\$4,442.10
13	T-903-5.2	AREA 2 TO BE SPRIGGED WITH BERMUDA GRASS	5.8	ACRE	\$4,200.00	\$24,360.00	\$4,000.00	\$23,200.00	\$3,104.00	\$18,003.20	\$2,613.00	\$15,155.40
14	T-903-5.3	15 FOOT WIDE UTILITY EASEMENT TO BE PLANTED WITH NATIVE GRASSES (15 FOOT SPACING)	0.4	ACRE	\$600.00	\$240.00	\$550.00	\$220.00	\$2,500.00	\$1,000.00	\$2,910.00	\$1,164.00
15	P-151	BUSH HOGGING	7.9	ACRE	\$2,400.00	\$18,960.00	\$2,680.00	\$21,172.00	\$3,273.58	\$25,861.28	\$2,500.00	\$19,750.00
TOTAL BID AMOUNT						\$419,825.00		\$449,174.50		\$719,998.98		\$738,839.58

I HEREBY CERTIFY THIS TABULATION OF BIDS TO BE CORRECT.

  
 TALBERT & BRIGHT, INC. DATE 1/9/14

# CIP Bond Capacity

Financial Presentation for the County's  
Capital Improvements Program  
Fiscal Year 2014

January 21, 2014



# Presentation Format

- **Comprehensive Plan Adopted in 2010**
  - **Priority Investment**
- **Current Capital Improvement Needs**
- **Airport CIP and Master Plan**
- **Fiscal Year 2014 Budget (Capital Items)**
- **Debt Capacity and Millage Overview**
- **Financial Advisor – County Fiscal Health**

# Tony Criscitiello Planning Director

- **Comprehensive Plan Adopted in 2010**
  - **Priority Investment**
  - **Projected Revenue Sources**
  - **Recommendations**



# Projected Revenue Sources

- General Obligation Bonds (GO Bonds):
  1. State limits GO bonds to 8% of assessed value (\$39 million)
  2. \$10 million freed up annually due to debt service and growth in tax base.
- Impact Fees: Roads, Parks and Libraries
- Capital Projects Sales Tax: \$152 million for road projects
- Other Revenue Sources: Federal and State grants, SCDOT Guideshare, Admissions Tax, Federal Earmarks, etc.



# Projected Revenue Sources

- \$990,500,000 in County facilities, infrastructure, parks, and transportation needs were identified for FY09 through FY 18

	Projected Revenue <sup>1</sup>	Projected Cost <sup>1</sup>	Funding Gap <sup>1</sup>
County Capital Projects	\$229,400	\$365,800	\$136,400
Road Projects	\$360,200	\$624,700	\$264,500
<b>Total</b>	<b>\$589,600</b>	<b>\$990,500</b>	<b>\$400,900</b>

<sup>1</sup> in thousands

# Recommendations

- Further prioritize project list to match revenue projections
- Develop a strategy to create new funding sources
- Develop a five-year CIP that plans for needed capital facilities that are within the fiscal capability of the County.
- Prepare as part of the annual budget process a Capital Improvements Budget that lists appropriations for the capital improvements projects in the first year of the CIP.
- Amend Priority Investment Element as needed, revisit every 5 years.

# Why Update is Needed

- Project list was never refined to reflect actual revenue (\$400 million shortfall).
- Project list was developed during a period of high growth and therefore very ambitious. Didn't anticipate economic downturn.
- Many projects are not being discussed anymore (e.g. Northern Bypass, US 21 widening, 4 new library branches).
- Other projects were not anticipated in 2007 (e.g. Bluffton flyover).

# Mark Roseneau Facilities Director

- 17 Facilities Needing Improvements
- 10 Departmental Requests
- Amount Needed \$6,280,000

# Beaufort Library

- Minor Interior Renovations (1992)
  - Carpet
  - Painting
  - Acoustical Tile Replacement
    - \$145,000
- 20 Ton HVAC
  - Energy Management System
    - \$220,000

# Beaufort Library - 1992

- Carpet
- Painting
- HVAC
- Acoustical Tiles



# Bluffton Library

- Roof Replacement (2001)
  - \$255,000
- HVAC System (2001)
- DDC Energy Management System
  - \$333,000



# Bluffton Library - 2001

- Roof Replacement



- HVAC



# Hilton Head Library

- HVAC System (1995)
- DDC Energy Management System
  - \$615,000



# Detention Center

- Roof Replacement (1991)
  - \$750,000
- VCT Flooring \$80,000 (1991)
- Fire Alarms \$50,000
- Stucco Repairs
- Painting \$318,000 (Interior and Exterior)
- Security Door Replacement

# Detention Center - 1991

- Roof Replacement



- Flooring



# Detention Center - 1991

## Security Door Replacement



# Detention Center

- Replace:
  - Heating Boiler (1991)
  - Water Heater (1991)
  - \$135,000



## Disabilities and Special Needs

- Replacement Residential Unit Ivey Lane:
  - Remodel Kitchen \$50,000
  - Replacement Wall Boards \$25,000
  - 1990 HVAC Unit \$8,000



# EMS

- Roof Replacement \$350,000
- HVAC Replacement (1995) \$36,000
- Lighting Upgrade \$8,000



# Hilton Head Government Center

- HVAC Unit Replacement (2000)
- DDC Energy Management System
  - \$115,000



# Human Services Building

- 100 Ton VAV System (1988)
- DDC Energy Management System
  - \$390,000



# Law Enforcement Center

- Roof Replacement (1989) \$110,000
- Dispatch Flooring \$55,000
- DDC Energy Management System
  - \$120,000

# Courthouse

- Interior Renovations (1991)
  - Lobby, Restrooms, Flooring
  - Acoustical Panels and Wall Coverings
  - \$675,000



# Parks and Leisure Services

## Broomfield Center

- HVAC Replacement (1975)
- Major Interior and Exterior Renovations
  - \$75,000



## Parks and Leisure Services Burton Wells Regional Park

- Date of Installation (1975)
- Ball Field Light Pole Replacement
- Light Fixtures Replacement
  - \$185,000



# Parks and Leisure Services

## Lind Brown Center

- Replace HVAC (1993)
  - \$180,000
- Replace Roof (1978)
  - \$230,000

- HVAC (1993)



- Roof (1978)





**County Pools (2000):**  
**Battery Creek**  
**Beaufort**  
**Bluffton**

- **Installed Gas Fired Heaters (6/2000)**
  - **Energy Efficient Heat Pumps**
    - **\$50,000 (Beaufort and Battery Creek)**
  - **Salt Water Conversion**
  - **Enclosure Improvements**
    - **\$180,000**

# Gas Fired Heater



# Parks and Leisure Services

## Port Royal Center

- Replace Roof (1988) \$70,000
- Replace HVAC (1988) \$17,000

- EPDM Roof (1988)



- HVAC (1988)



# Parks and Leisure Services

## Port Royal Senior Center

- Replace Roof (2002)
  - \$72,000



# Parks and Leisure Services

## Southside Park

- Replace Roof (1997)
  - \$22,000



# Parks and Leisure Services

## Various Locations

- **Install New Water Fountains**
  - **\$56,000**



# Records Management

- Realign Shelving BIV 5 (2008)
  - \$190,000





# Airports

## Jon Rembold

- CIP Projects \$45,955,000
  - County Match 5% \$2,297,750
- FAA Compliance & Master Plan
- Land Acquisition

County contribution varies between 5% & 10%  
based on the State Aeronautic Commission



# Airport – CIP

PROJECT	FY CIP	FULL COST	GRANT (90%)	COUNTY (5%)
RWY 03 LAND ACQUISITION	14	\$3,600,000.00	\$3,240,000.00	\$180,000.00
RWY 03 LAND ACQUISITION (T&B)	14	\$200,000.00	\$180,000.00	\$10,000.00
TAXIWAY A & F CATEGORICAL EXC	14	\$65,014.00	\$58,512.60	\$3,250.70
TAXIWAY A DESIGN & BIDDING	14	\$228,020.00	\$205,218.00	\$11,401.00
TAXIWAY F DESIGN & BIDDING	14	\$132,883.00	\$119,594.70	\$6,644.15
TAXIWAY A CONSTRUCTION	15	\$2,825,000.00	\$2,542,500.00	\$141,250.00
TAXIWAY F CONSTRUCTION	15	\$920,000.00	\$828,000.00	\$46,000.00
CONTINGENCY	14	\$229,083.00	\$206,174.70	\$11,454.15
RWY 21 LAND ACQUISITION	14	\$5,100,000.00	\$4,590,000.00	\$255,000.00
RWY 21 LAND ACQUISITION (T&B)	14	\$300,000.00	\$270,000.00	\$15,000.00
700' RWY 03 & 21 EXTENSION D&B	15	\$1,500,000.00	\$1,350,000.00	\$75,000.00
RWY EMAS & DRAINAGE				
CONSTRUCTION RWY 03 & 21	15	\$10,000,000.00	\$9,000,000.00	\$500,000.00
EMAS & DRAINAGE				
TERMINAL CONSTRUCTION	14	\$5,000,000.00	\$4,500,000.00	\$250,000.00
GENERAL CONTINGENCY - LEGAL		\$500,000.00	\$450,000.00	\$25,000.00
<b>TOTAL</b>		<b>\$30,600,000.00</b>	<b>\$27,540,000.00</b>	<b>\$1,530,000.00</b>

County and State match equal 10%



PROJECT	FY CIP	FULL COST	GRANT (90%)	COUNTY (5%)
RWY 03 LAND ACQUISITION	14	\$3,600,000.00	\$3,240,000.00	\$180,000.00
RWY 03 LAND ACQUISITION (T&B)	14	\$200,000.00	\$180,000.00	\$10,000.00
TAXIWAY A & F CATEGORICAL EXC	14	\$65,014.00	\$58,512.60	\$3,250.70
TAXIWAY A DESIGN & BIDDING	14	\$228,020.00	\$205,218.00	\$11,401.00
TAXIWAY F DESIGN & BIDDING	14	\$132,883.00	\$119,594.70	\$6,644.15
CONTINGENCY	14	\$229,083.00	\$206,174.70	\$11,454.15
RWY 21 LAND ACQUISITION	14	\$5,100,000.00	\$4,590,000.00	\$255,000.00
RWY 21 LAND ACQUISITION (T&B)	14	\$300,000.00	\$270,000.00	\$15,000.00
TERMINAL CONSTRUCTION	14	\$5,000,000.00	\$4,500,000.00	\$250,000.00
GENERAL CONTINGENCY - LEGAL		\$500,000.00	\$450,000.00	\$25,000.00
<b>TOTAL</b>		<b>\$15,355,000.00</b>	<b>\$13,819,500.00</b>	<b>\$767,750.00</b>



# Capital Items FY 2014

- Emergency Management (Sheriff)
- Management Information Systems (MIS)
- Emergency Medical Services (EMS)
- Traffic Engineering
- Detention Center
- Animal Control
- Mosquito Control

# Capital Items FY 2014

- General Support
- Roads and Drainage
- Solid Waste & Recycling
- Parks and Leisure Services
- Facilities Management
- Building Maintenance
- Grounds Maintenance

# Emergency Management

## Neil Baxley

- Facility Relocation \$600,000
- Replace Microwaves (6) \$1,500,000
- Dynamic Messaging (3) \$300,000
- HAR-Gardens Corner \$45,000
- Flashing Beacons \$37,515
  - Total Request = \$2,482,520

# Management Information Systems

Dan Morgan

- 10G Bandwidth Upgrade Project \$50,000
- Palo-Alto \$11,200
- Fax Server Upgrade Project \$45,000
- Security Upgrades \$30,000
- Server Upgrade/WLAN \$56,132

Total = \$192,332



# Emergency Medical Services

Donna Ownby

- Vehicle Purchases \$345,000
- Computers (5 Year Cycle) \$20,000
- Cardiac Monitors \$156,000
- Lucas Devices \$40,000
  - Total = \$561,000

# EMS

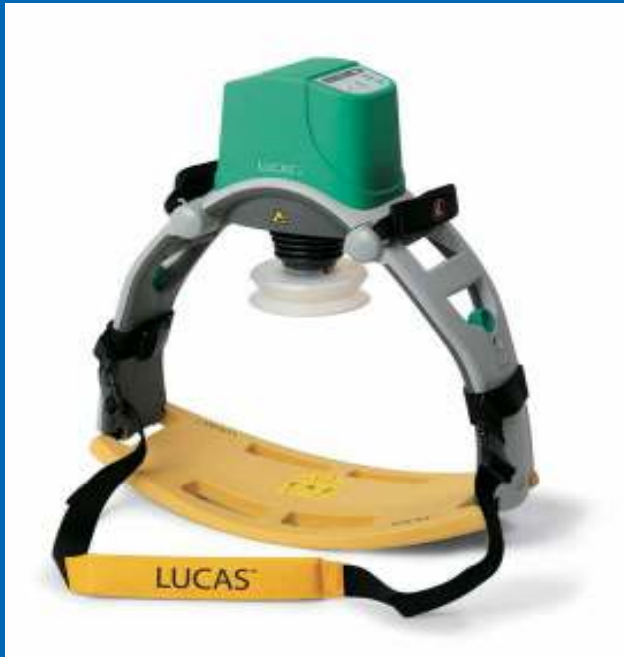


Front Line Ambulance



Depot Road

# EMS



Improved safety during transport

# Traffic and Communication

## Colin Kinton

- Traffic Signal Upgrades \$61,000
  - Trask Parkway/Parris Island Gateway
  - SC 170 @ W.K. Alston Road

# Traffic and Communication

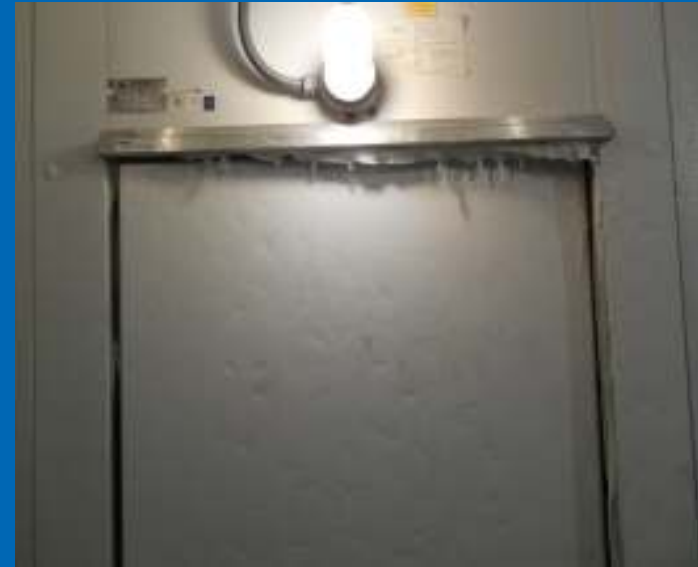
## Colin Kinton



## Detention Center Quandara Grant

- Camera Replacement \$125,500
- Radio Upgrades \$3,000
- Food Service Equipment \$40,000
- Walk-In Cooler/Freezer \$161,000
  - Total Request = \$329,500

# Detention Center Quandara Grant Walk-In Cooler/Freezer



## Animal Shelter Tallulah Trice

- Specialized Capital Equipment \$120,000
- Vehicle Purchase \$78,000
  - Total Request = \$198,000



# Mosquito Control

## Gregg Hunt

- Vehicle Purchases (2) \$49,500
- Truck Mounted Sprayers \$29,900
- Lab Ultra Low Temp Freezer \$7,179
- Lab Autoclave \$6,394
- Helicopter Skid Assembly \$22,000
  - Total Request = \$114,973

# Mosquito Control Gregg Hunt

- Vehicle Purchases (2) \$49,500
- Truck Mounted Sprayers \$29,900



**Mosquito Control**

**Gregg Hunt**

**Helicopter Skid Assembly \$22,000**



## Public Works Eddie Bellamy

- General Support
- Vehicle Purchases (2) \$65,298
- Bull Dozer \$133,700 (1996)
- Boat \$77,527 (2003)
- Rubber Tired Front End Loader \$148,125 (2000)
  - Total Request = \$424,650

# Public Works Eddie Bellamy

- General Support
  - D12 Dozer



# Public Works Eddie Bellamy

- General Support
  - Munson Packman Work Boat



## Public Works

### Eddie Bellamy

- General Support
  - Rubber Tire Front End Loader



# Public Works

## Eddie Bellamy

- Roads and Drainage (North)
- Vehicle Purchases \$35,298
  - JD 670 Motor Grader (2) \$291,800
    - 2000 6500 Operating Hours
    - 2001 6750 Operating Hours
  - TrucKat \$178,000 (Replace Tractor)
    - Total Request = \$505,098



# Public Works Eddie Bellamy

- Roads and Drainage North
  - JD 670 Motor Graders (2)



# Public Works Eddie Bellamy

- Roads and Drainage North
  - TrucKat



## Public Works

### Eddie Bellamy

- Roads and Drainage (South)
- Vehicle Purchases \$30,000
- Dump Truck \$145,000
- 20 Ton Tag Along Trailer \$23,332
- JD 670 Motor Grader \$145,599
- Street Sweeper \$170,000
- Tracked Skid Loader \$70,000
  - Total Request = \$583,931

# Public Works

## Eddie Bellamy

- Roads and Drainage (South)
  - Dump Truck (1996)



## Public Works

### Eddie Bellamy

- Roads and Drainage (South)
  - Replace 1999 Tag Along Trailer



## Public Works

### Eddie Bellamy

- Roads and Drainage (South)
  - JD 670 Series 1984



# Public Works Eddie Bellamy

- Roads and Drainage (South)
  - Street Sweeper



## Public Works

### Eddie Bellamy

- Roads and Drainage (South)
  - Tracked Skid Loader





# Solid Waste and Recycling

## Jim Minor

- Vehicle Purchases (3) \$240,000
- Compactors for DOCs \$180,000
  - Total Request = \$420,000

# Solid Waste and Recycling

**Jim Minor**

- **Tire Truck (2005) \$180,000**
- **Current Mileage 253,373**
- **Pickup Trucks (2) \$60,000**
- **Current Mileage 195,419 & 196,569**



# Solid Waste and Recycling

## Jim Minor

- Compactors for DOCs \$180,000
  - St. Helena (includes electrical upgrades)



# Parks and Leisure Services

## Scott Marshall

- Resurface Bluffton Pool \$40,000
- Vehicle Purchase \$25,000
- Recreation Workout Equipment \$15,000
  - Total Request = \$80,000

# Parks and Leisure Services

## Scott Marshall

- Resurface Bluffton Pool \$40,000
  - Pool Opened 2001
  - Never Resurfaced (Life Cycle is 10 yrs.)

*Pictures of bottom of pool representative of damage throughout pool.  
Note in some cases the rebar is exposed and oxidized.*



Lane line anchor is rusted through

# Parks and Leisure Services

## Scott Marshall

- **Vehicle Purchase \$25,000**
  - Replaces 2000 model Dodge Maxivan 3500 used to transport summer camp participants and after school participants, as needed



# Parks and Leisure Services

## Scott Marshall

- **Recreation Workout Equipment \$15,000**
  - Funds to refurbish worn equipment and replace smaller items, as needed



# Buildings Maintenance

## Mark Roseneau

- Vehicle Purchases (2) \$44,000
- Specialized Capital Equipment \$14,895
  - Total Request = \$58,895



# Grounds Maintenance

## Mark Roseneau

- Vehicle Purchases (3) \$54,000
- Specialized Capital Equipment \$29,800
  - Total Request = \$83,800

## Facilities Management

- Renovations to Existing Buildings \$6,867,400
- MIS Relocation \$3,500,000
- Buckwalter Park Expansion \$2,000,000
- Animal Shelter Complex \$3,500,000
- DSN Facility South of the Broad \$450,000
  - Total Request = \$16,317,400

# Facilities Management

David Coleman

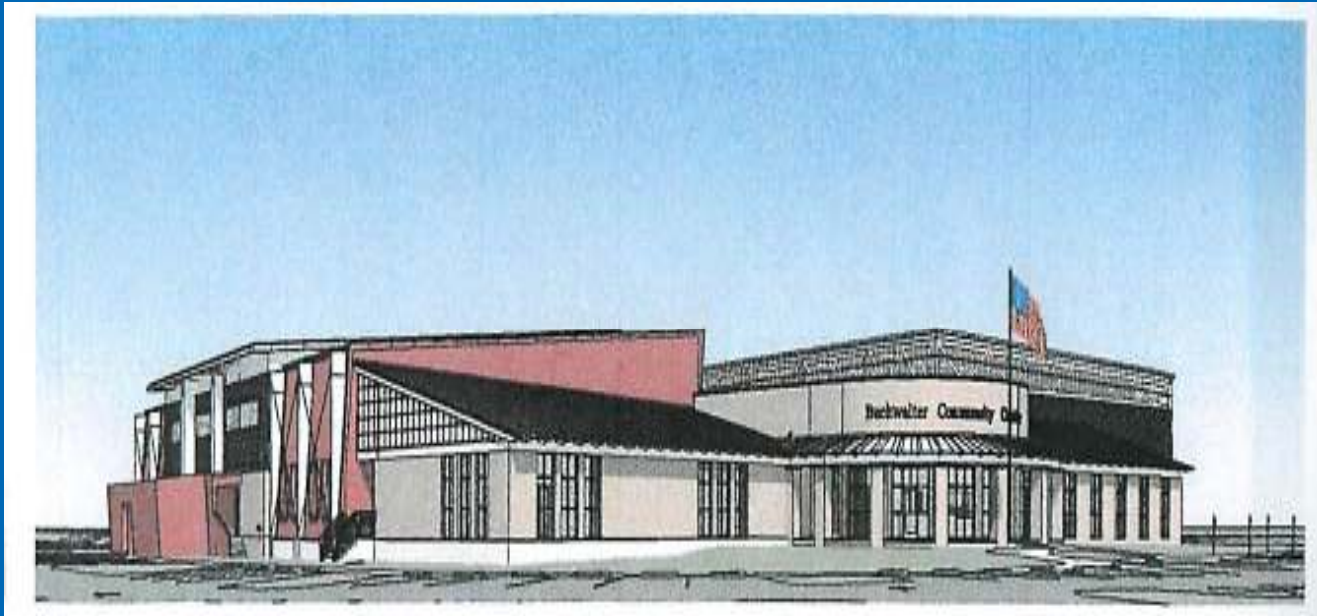
Buckwalter Park Expansion \$2,000,000



# Facilities Management

David Coleman

Buckwalter Park Expansion \$2,000,000



# Facilities Management

## Tallulah Trice

- **Animal Shelter Complex \$3,500,000**
- **Administrative Building 1980**



# Facilities Management

## Tallulah Trice

- Animal Shelter Complex \$3,500,000
- Dog Holding Area 1978



**Facilities Management**  
**Mitzi Wagner**  
**DSN Old Miller Rd. \$450,000**



## Cost Summary

- Comprehensive Plan \$6,280,000
- Airport Match \$2,297,750
- Fiscal Year 14 Capital Requests \$5,980,226
- Renovation to Building \$16,317,400
- Total Funding Request \$30,875,376



# Millage Overview

Alicia Holland

- Total County Assessed Value (net of TIFs)
  - \$1,824,698,184
- Constitutional Debt Limit (8%)
  - \$145,975,855
- Outstanding Debt subject to limit
  - \$92,854,427
- Legal Debt Limit Remaining
  - \$53,121,428





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Charlotte, NC 28209  
Fax 704.731.2086

Amy Vitner  
Senior Vice President  
Direct 704.654.3451  
[amy.vitner@firstsw.com](mailto:amy.vitner@firstsw.com)

Presentation to



January 21, 2014

**Beaufort County, South Carolina**

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# County Fiscal Health Overview

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Tab I



BEAUFORT COUNTY, SOUTH CAROLINA

# County Fiscal Health Overview

- Beaufort County is viewed by both Moody's and Standard & Poor's as financially strong and stable as demonstrated by assignment of their Aa1/AA+ ratings – the second highest rating category
- For FY 2013, Beaufort County saw financial trends either stable or improving – improvement in fund balance levels and general fund cash balance since FY 2011 a very positive trend
- FY 2013 outperformed budgeted revenues and expenses
- Pay down of significant portion of TIF debt a credit positive, taking advantage of refunding opportunities and rapid amortization demonstrate prudent approach to debt

Rating Categories			
	Standard &		
	Moody's	Poor's	Fitch
Prime rating	Aaa	AAA	AAA
Excellent	<b>Aa1</b>	<b>AA+</b>	AA+
	Aa2	AA	AA
	Aa3	AA-	AA-
Upper Medium	A1	A+	A+
	A2	A	A
	A3	A-	A-
Lower Medium	Baa1	BBB+	BBB+

Target for GO Ratings

# Key Rating Metrics

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Tab II



BEAUFORT COUNTY, SOUTH CAROLINA

## Key Rating Metrics

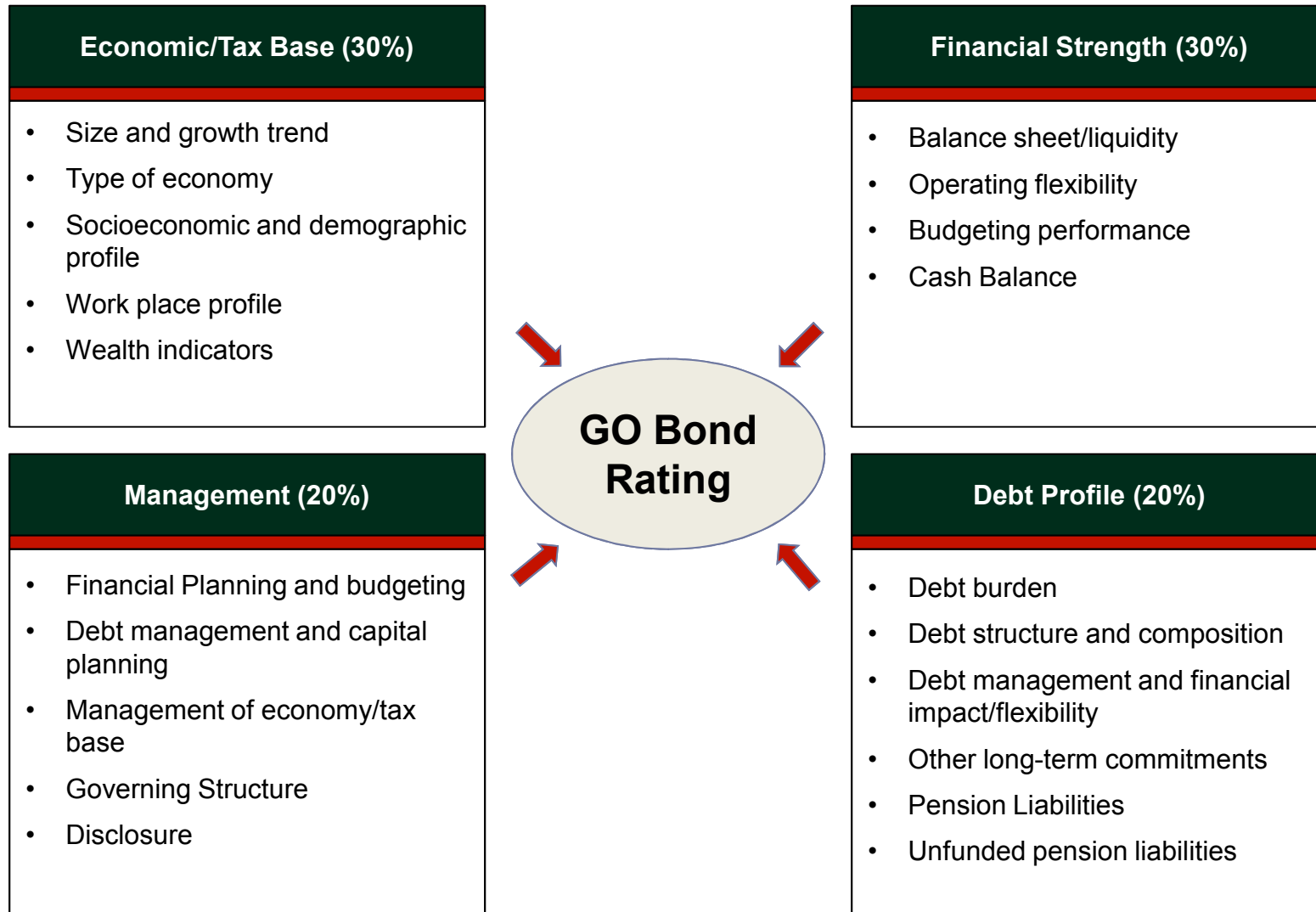
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### Introduction to Rating Methodology

- Both Moody's and Standard & Poor's recently finalized their rating methodology approach for general obligation credits
  
- Both rating agencies developed a set of quantitative (measurable) rating criteria that result in an base rating that serves as a starting point for discussions
  - Standard and Poor's – Analytical Framework
  - Moody's – Scorecard
  
- These quantitative criteria are then adjusted by more subjective or qualitative factors that could move rating upward or downward
  
- Final rating is ultimately determined by a rating committee. The scorecard provides an excellent reference tool for issuers to measure key metrics and establish benchmarks, but Moody's states "the scorecard is a summary that does not include every rating consideration....As a result we would not expect the scorecard-indicated rating to match the actual rating in every case."

# Key Rating Metrics

General Obligation Rating Criteria (based on Moody's Scorecard approach)

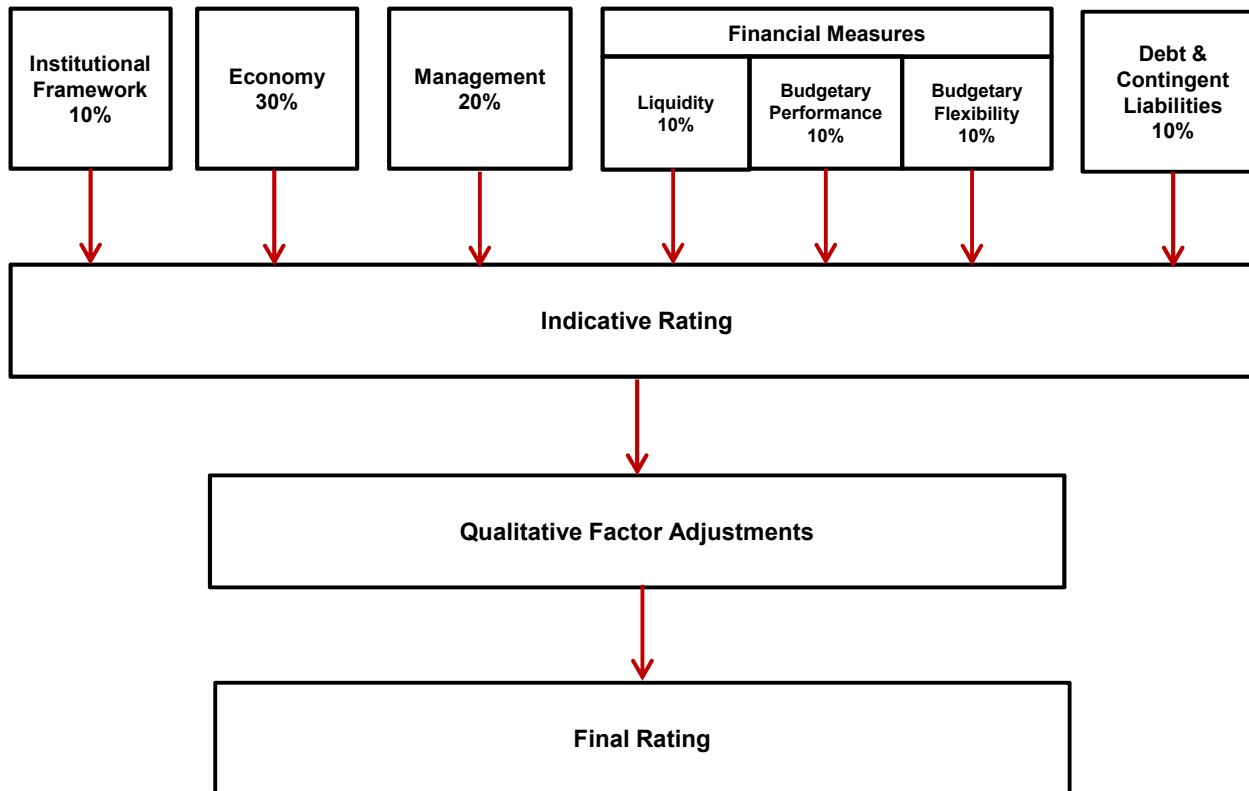


BEAUFORT COUNTY, SOUTH CAROLINA



# Key Rating Metrics

## Standard and Poor's Analytical Framework for Local General Obligation Ratings



# Key Rating Metrics

## Moody's Scorecard 2013

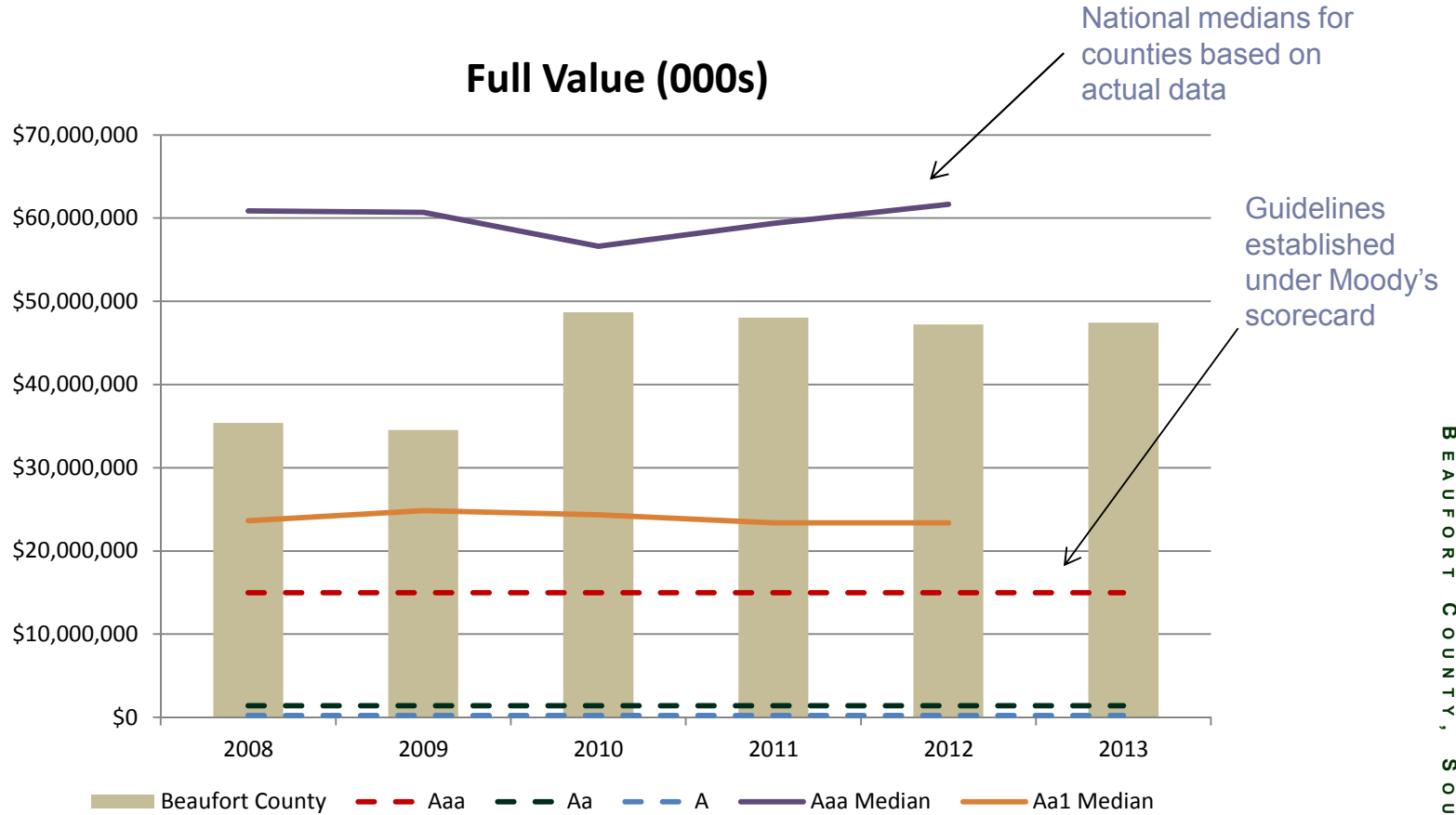
	Weight	Value	Rating	Scale	Weighted Scale
<b>Economy/Tax Base</b>	<b>30%</b>				
Tax Base Size (Full Value in thousands)	10%	\$47,428,421	Aaa	1.00	0.10
Full Value per Capita	10%	\$287,997	Aaa	1.00	0.10
Wealth (Median Family Income)	10%	106.7%	Aa3	2.33	0.23
<b>Finances</b>	<b>30%</b>				
Fund Balance (as a % of Revenue)	10%	22.9%	Aa1	1.67	0.17
Fund Balance Trend (5-year change)	5%	3.3%	A3	3.33	0.17
Cash Balance (% of Revenues)	10%	22.3%	Aa1	1.50	0.15
Cash Balance Trend (5-year change)	5%	4.3%	A2	3.00	0.15
<b>Debt/Pensions</b>	<b>20%</b>				
Debt to Full Value	5%	0.45%	Aaa	1.00	0.05
Debt to Revenue	5%	2.21	A2	3.00	0.15
Moody's adjusted Net Pension Liability (3-year average) to Full Value	5%	0.00%	Aaa	1.00	0.05
Moody's adjusted Net Pension Liability (3-year average) to Revenue	5%	0.00%	Aaa	1.00	0.05
<b>Management</b>	<b>10%</b>				
Institutional Framework	5%	SC	Aa2	2.00	0.10
Operating History: 5 Year Avg of Op Revs/Op Exp	5%	1.04	Aa2	2.00	0.10
				<b>Score</b>	<b>1.57</b>

Scale: 1 = Aaa, 2=Aa, 3=A, 4=BBB

- Based on FirstSouthwest's calculations, the County maps to a Aa1 rating according to Moody's Scorecard Methodology
- The Scorecard does not predict the rating but serves as a starting point for discussion

# Credit Medians Comparison

Economy – Full Value (Desired Trend ↑)



- The County's Full Value remains stable and strong
- According to Moody's Scorecard, the County is well above the minimum threshold for Aaa Counties
- County remains below the Aaa median for counties but well above the Aa1 median

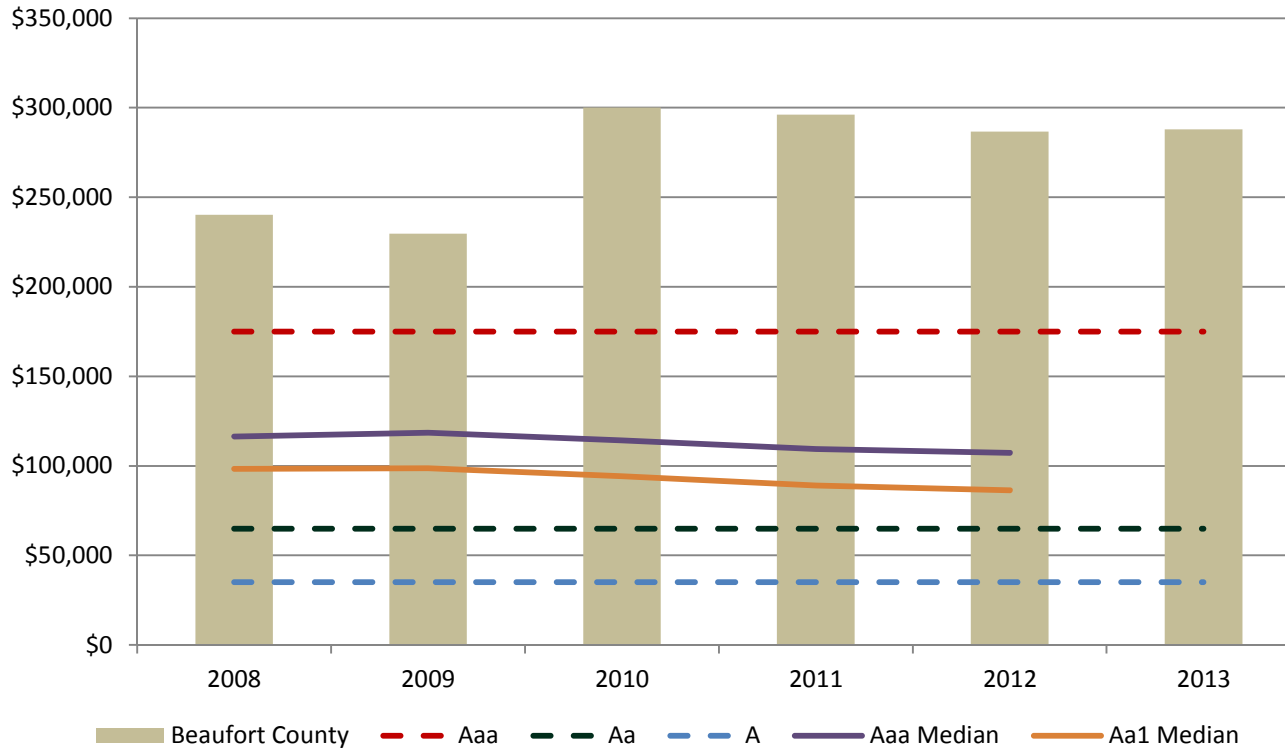
Sources: Moody's Municipal Financial Ratio Analysis Summary as of January 14, 2013  
 \*Reflects 2012 Data

BEAUFORT COUNTY, SOUTH CAROLINA

# Credit Medians Comparison

Economy – Full Value per Capita (Desired Trend ↑)

### Full Value Per Capita



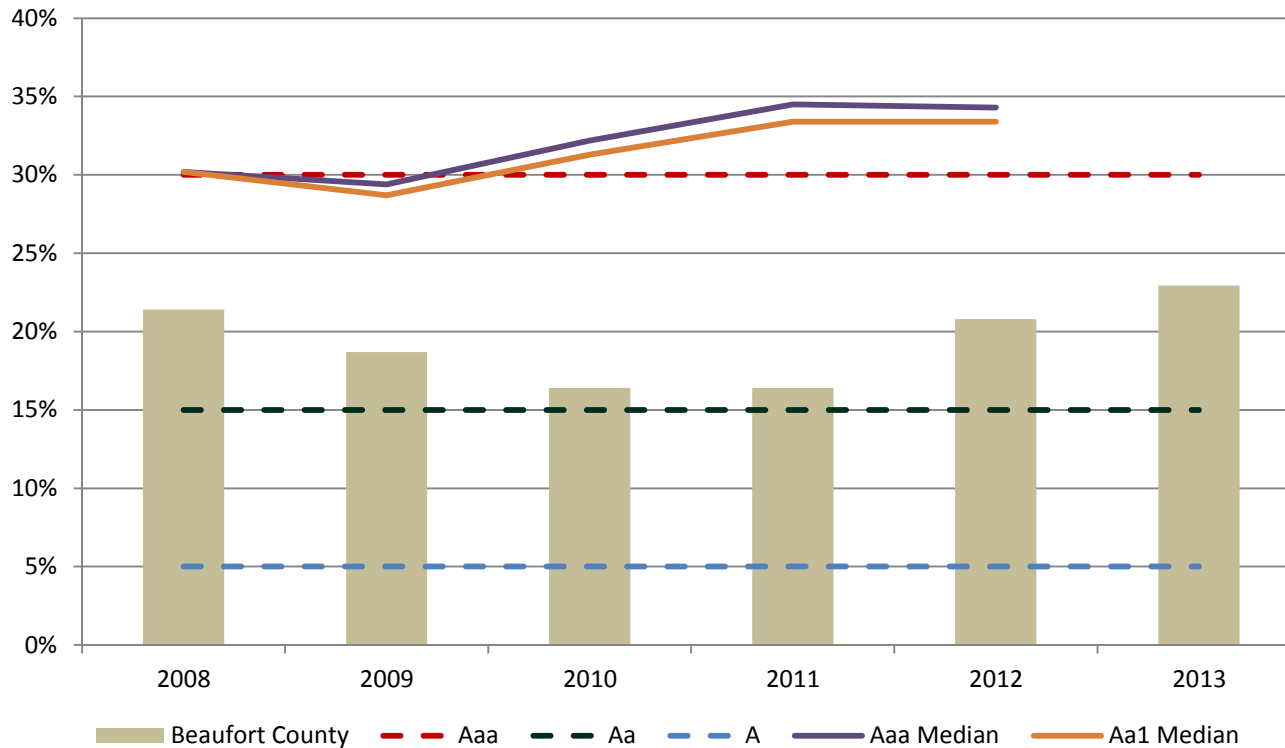
- **The County's Full Value Per Capita remains stable and strong**
- **According to Moody's Scorecard, the County is well above the minimum threshold for Aaa Counties**
- **County remains well above the Aaa median**

Sources: Moody's Municipal Financial Ratio Analysis Summary as of January 14, 2013  
\*Reflects 2012 Data

# Credit Medians Comparison

Finances – Fund Balance as % of Revenues (Desired Trend ↑)

### Fund Balance as % of Revenues



- The County’s Fund Balance as a % of Revenues increased from 16% to 23% from 2011-2013, returning to 2008 levels
- According to Moody’s Scorecard, the County is firmly in the middle of the Aa category
- County has historically been below the Aaa and Aa1 medians

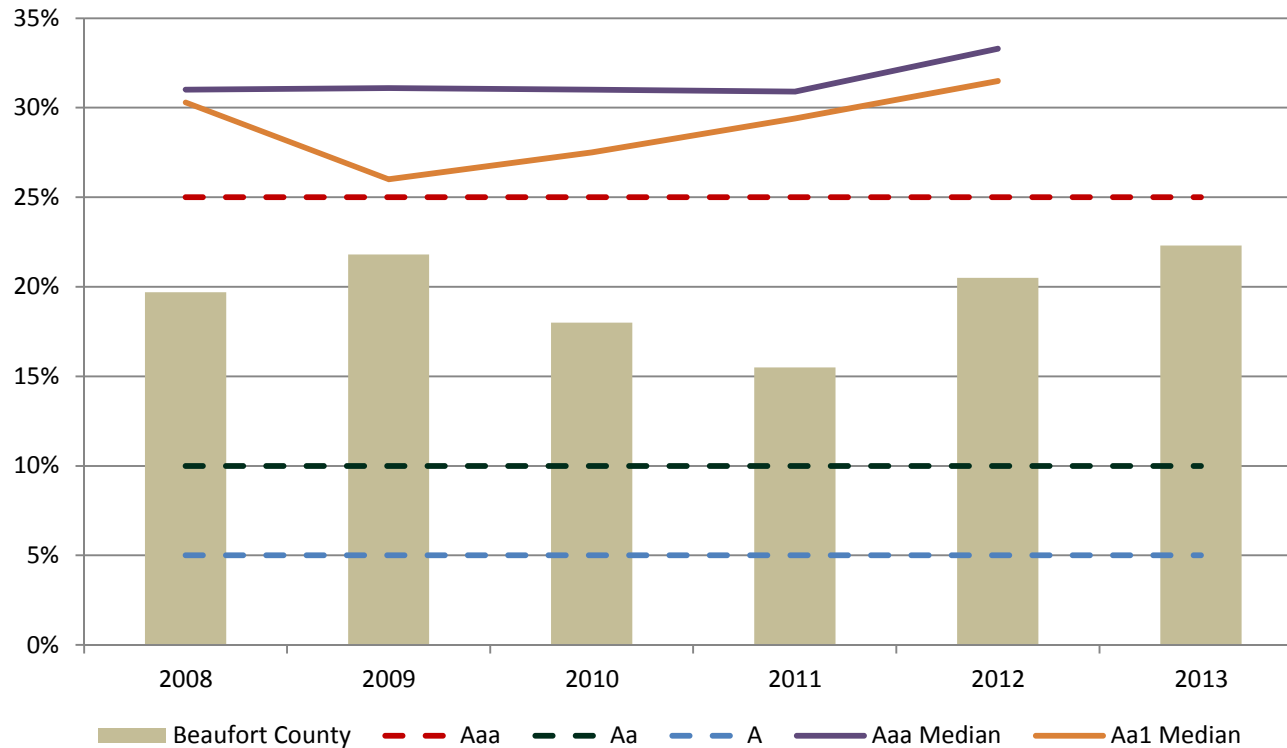
Sources: Moody’s Municipal Financial Ratio Analysis Summary as of January 14, 2013  
 \*Reflects 2012 Data

BEAUFORT COUNTY, SOUTH CAROLINA

# Credit Medians Comparison

Finances – Cash Balance as % of Revenues (Desired Trend ↑)

### Cash Balance as % of Revenues



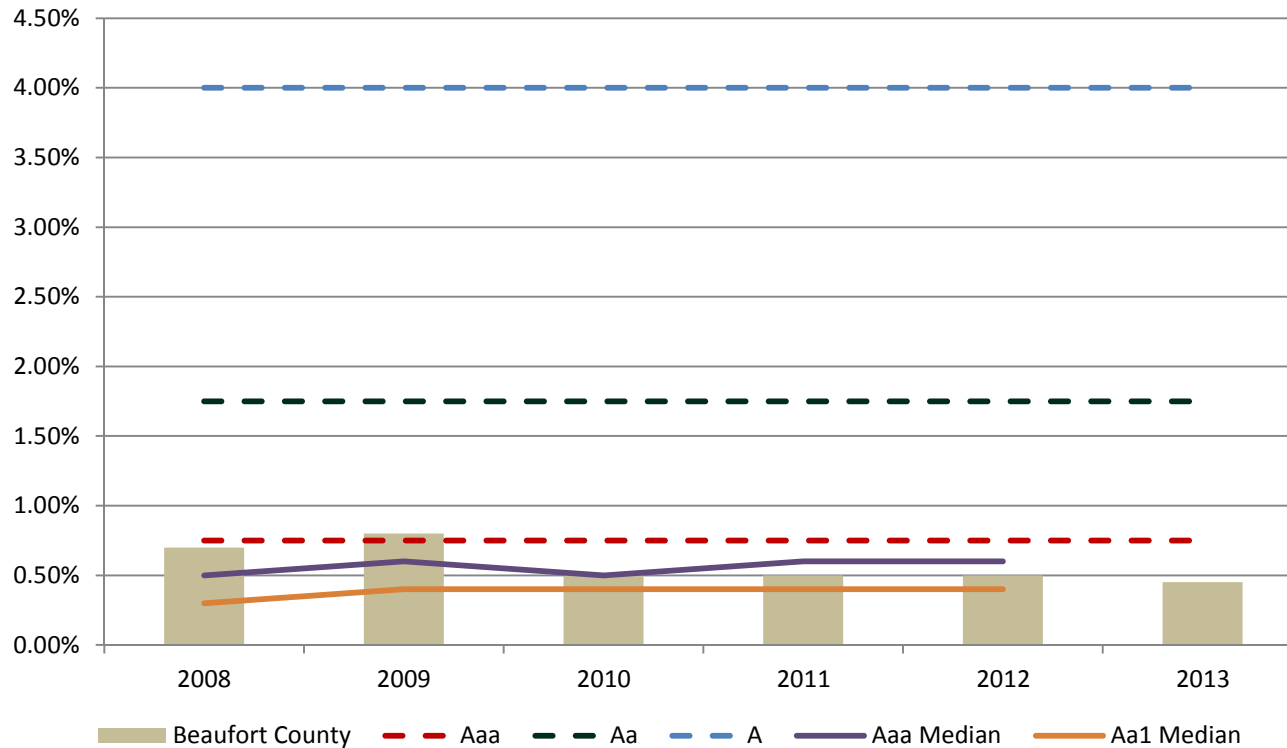
- The County's Cash Balance as a % of Revenues increased over the past two years
- According to Moody's Scorecard, the County is firmly in the middle of the Aa category
- County has historically been below the Aaa and Aa1 medians

Sources: Moody's Municipal Financial Ratio Analysis Summary as of January 14, 2013  
\*Reflects 2012 Data

# Credit Medians Comparison

Debt – Debt to Full Value (Desired Trend ↓)

## Debt to Full Value



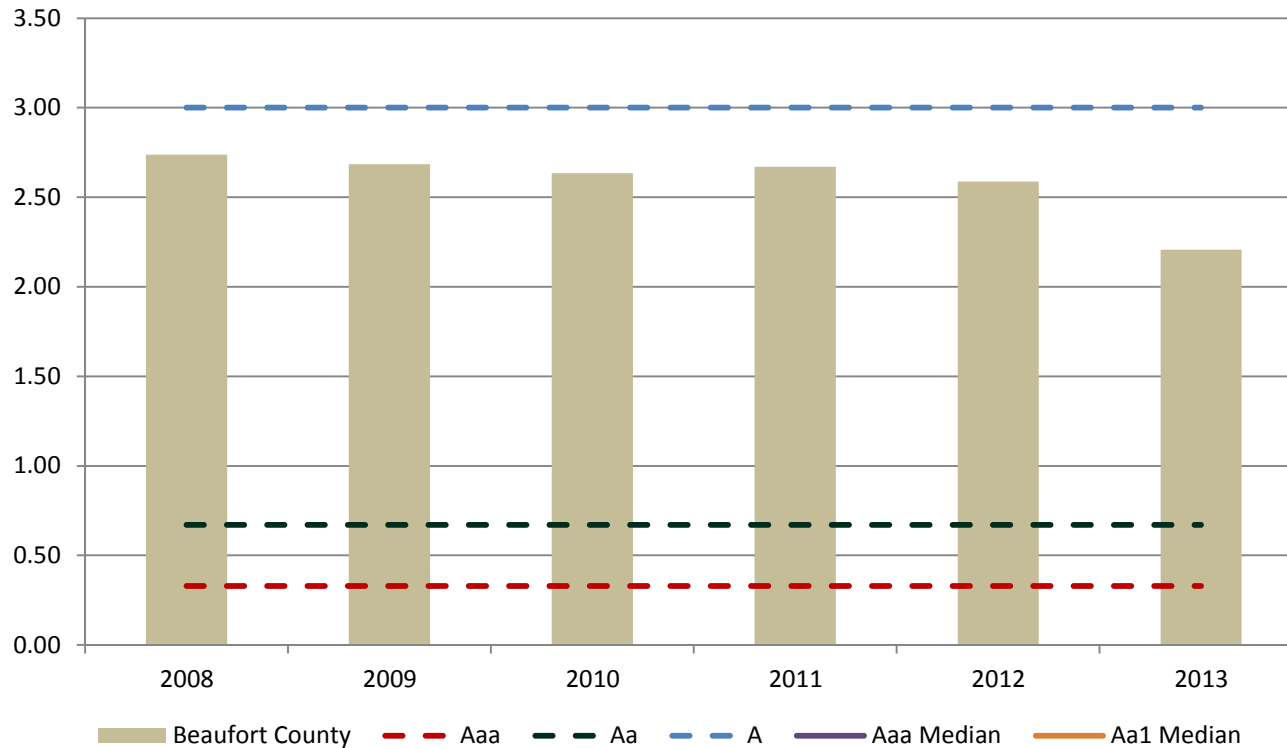
- The County's Debt to Full Value has decreased substantially since peaking in 2009
- According to Moody's Scorecard, the County is comfortably within the Aaa category
- County has historically tracked closely with the Aaa and Aa1 medians

Sources: Moody's Municipal Financial Ratio Analysis Summary as of January 14, 2013  
 \*Reflects 2012 Data

# Credit Medians Comparison

Debt – Debt to Revenues (Desired Trend ↓)

## Debt to Revenues



- The County’s Debt to Revenues has decreased substantially since 2008
- According to Moody’s Scorecard, the County is in the A category
- Median data not available for Debt to Revenue metric

Sources: Moody’s Municipal Financial Ratio Analysis Summary as of January 14, 2013  
 \*Reflects 2012 Data

BEAUFORT COUNTY, SOUTH CAROLINA



# Comparisons to Other Counties (Aa2, Aa1 and AAA)

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Tab III



BEAUFORT COUNTY, SOUTH CAROLINA

# Comparisons to Other Counties (Aa2, Aa1 and AAA)

Selected Financials and other Datapoints	Beaufort County				National Aa1 Medians	Charleston County	Richland County	Lexington County	Berkeley County	Dorchester County	Colleton County	Greenville County
General Entity Information	2010	2011	2012	2013*	2012	2012	2012	2012	2012	2012	2012	2012
Current Rating	Aa1	Aa1	Aa1	Aa1	Aa1	Aaa	Aa1	Aa1	Aa2	Aa2	Aa3	Aaa
Statistics and Ratios												
General Fund Balance as % of Revenues	↑ 18.4	19.3	23.1	25.1	29.2	32	38.8	66.4	25.1	46.3	30.8	40.8
Total General Fund Balance (\$000)	↑ 18,241	18,720	22,342	24,221	53,323	56,459	52,193	66,490	13,811	19,070	9,187	52,219
Available GF Fund Balance as % of Revenue	↑ 16.4	16.4	20.8	22.9	27.6	31.5	38	63.6	24.6	45.7	30.1	40.7
Unassigned Fund Balance (General Fund)	↑ N/A	14,930	19,940	20,208	25,223	42,944	31,669	63,661	12,937	12,681	8,976	48,558
Total Full Value (\$000)	↑ 48,670,063	48,058,029	47,214,322	47,428,421	23,395,494	58,596,836	28,218,358	21,761,197	14,462,034	9,702,811	N/A	37,312,569
Full Value Per Capita (\$)	↑ 300,001	296,228	286,696	287,997	87,708	166,783	72,519	79,775	78,801	68,867	N/A	81,234
Direct Net Debt as % of Full Value	↓ 0.5	0.5	0.5	0.5	0.5	1.1	0.2	0.2	0.5	1.4	0.5	0.4
Debt Burden (Overall Net Debt as % Full Value)	↓ 1.7	1.8	1.7	N/A	2.4	1.5	4	2.8	N/A	1.8	0.6	3.6
Overall Net Debt Per Capita (\$)	↓ 5,231	5,288	5,010	N/A	2,282	2,451	2,917	2209	N/A	1,225	907	2,921
Debt Service as % of Operating Expenditures	↓ 3.2	18.9	20.7	N/A	8.7	12.2	10.2	3.9	6.4	5.8	23.3	17.2
Operating Surplus (Deficit) (\$000)	↑ -16,548	33,758	23,665	N/A	-2,951	-60,463	-729	13,097	22,932	5,678	2,217	-24,826
Cash & Investments (\$000)	↑ 155,497	136,306	136,316	128,072	132,421	345,166	146,641	125,177	107,146	40,685	21,133	95,611
Long-Term Debt as % of Operating Revenues	↓ 149.7	147.8	141.3	N/A	69.2	222.7	28.5	28.4	82.8	48.6	45.7	86.6
Actual/Estimated Population, Annual Value	↑ 155,215	162,233	164,684	164,684	270,851	351,336	389,116	272,781	N/A	N/A	38,153	459,324
Population Change 2000-2010 (%)	↑ 34.1	34.1	34.1	34.1	12	13	19.9	21.5	24.7	41.6	1.6	18.9

\*Estimated based on the 2013 Draft CAFR

# Summary of Strengths and Challenges

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Tab IV



BEAUFORT COUNTY, SOUTH CAROLINA

## Summary of Strengths and Challenges

---

### Observations and Focus Areas

- Demographics, local economy and wealth Indicators remain strong – clearly articulate impact (if any) of sequestration on local economy or offsetting economic developments
- Finances – Fund Balance, while noted as strong, is below both national medians and comparable peers within South Carolina. Fund balance is one of the most important key factors – particularly in coastal communities.
- Management – Measured by consistent operating performance, institutional framework (legal/legislative framework) and fiscal and debt policies (ex. Setting fund balance targets, regular capital planning, establishing best practices with respect to debt issuance)
  - Establishing a formal fund balance policy
- Debt/Liabilities – Rapid debt amortization is a positive, monitor debt ratios as new debt is issued, Moody's in particular considering unfunded pension liabilities into analysis ahead of GASB implementation

# Appendix A

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Debt Book



BEAUFORT COUNTY, SOUTH CAROLINA

# Debt Book

Beaufort County, South Carolina												
All Outstanding General Obligation Debt												
As of June 30, 2013												
(000's)												
Year Ending June 30	\$33,150,000 General Obligation Refunding Bonds Series 2013C		\$25,000,000 General Obligation Bonds Series 2013B		\$7,580,000 General Obligation Bonds Series 2013A		\$25,185,000 General Obligation Refunding Bonds Series 2012C		\$15,295,000 General Obligation Refunding Bonds Series 2012A		\$10,000,000 General Obligation Bonds Series 2011	
	Principal	Coupon	Principal	Coupon	Principal	Coupon	Principal	Coupon	Principal	Coupon	Principal	Coupon
2014	275	4.000%	2,500	1.500%	755	1.500%			1,275	2.000%	90	2.000%
2015	60	4.000%	805	2.000%	255	3.000%	805	2.000%	1,360	2.000%	65	2.000%
2016	65	4.000%	825	3.000%	260	3.000%	785	3.000%	1,425	3.000%	35	2.000%
2017	2,365	4.000%	850	4.000%	270	4.000%	1,070	3.000%	1,440	3.000%	60	2.000%
2018	2,620	1.500%	880	4.000%	280	4.000%	1,055	4.000%	1,455	4.000%	205	2.000%
2019	2,805	1.500%	915	5.000%	290	4.000%	1,350	5.000%	1,555	4.000%	245	2.000%
2020	2,985	4.000%	965	5.000%	300	4.000%	1,730	5.000%	1,635	4.000%	270	2.000%
2021	3,225	5.000%	1,010	5.000%	315	4.000%	2,120	4.000%	1,660	4.000%	1,105	3.000%
2022	3,485	5.000%	1,060	5.000%	325	4.000%	3,590	4.000%	1,700	4.000%	660	3.000%
2023	3,655	4.000%	1,115	5.000%	340	4.000%	4,295	4.000%	1,790	4.000%	215	3.000%
2024	3,800	3.000%	1,170	5.000%	355	4.000%	5,740	4.000%			55	3.000%
2025	3,905	3.000%	1,230	4.000%	365	4.000%	2,645	3.000%			50	3.000%
2026	3,905	3.500%	1,275	4.000%	380	4.000%					135	3.000%
2027			1,330	4.000%	395	4.000%					115	3.000%
2028			1,380	4.000%	415	4.000%					1,245	3.250%
2029			1,435	4.000%	430	3.000%					1,265	3.250%
2030			1,495	3.000%	440	3.000%					2,005	3.500%
2031			1,540	3.000%	455	3.000%					2,075	3.500%
2032			1,585	3.125%	470	3.125%						
2033			1,635	3.125%	485	3.125%						
<b>TOTALS</b>	<b>33,150</b>		<b>25,000</b>		<b>7,580</b>		<b>25,185</b>		<b>15,295</b>		<b>9,895</b>	
Next Call	3/1/2023 @ 100%		5/1/2023 @ 100%		5/1/2023 @ 100%		Non-Callable		Non-Callable		3/1/2021 @ 100%	
Dated Date	5/10/2013		5/10/2013		5/10/2013		9/5/2012		2/7/2012		12/28/2011	
Coupon Dates Maturity Dates	March 1 September 1 March 1	September 1 March 1	May 1 November 1 May 1	November 1 May 1	May 1 November 1 May 1	November 1 May 1	March 1 September 1 March 1	September 1 March 1	March 1 September 1 March 1	September 1 March 1	March 1 September 1 March 1	September 1 March 1
Insurance	None		None		None		None		None		None	
Paying Agent	Wells Fargo		Wells Fargo		Wells Fargo		Wells Fargo		Wells Fargo		Wells Fargo	
Purpose	Refunding Advance Refunded Series 2006B and Series 2006		New Money Referendum projects		New Money Retired Series 2012B BANS and Series 2012D BANS		Refunding Advance Refunded Series 2004		Refunding Advance Refunded Series 2003		New Money Funded 2006 referendum projects for the County Rural and Critical Land Preservation Program	
Color Legend												
Non-Callable	Callable and Advance Refundable											
Callable and Partially Advance Refundable	Callable and Non Advance Refundable											

BEAUFORT COUNTY, SOUTH CAROLINA

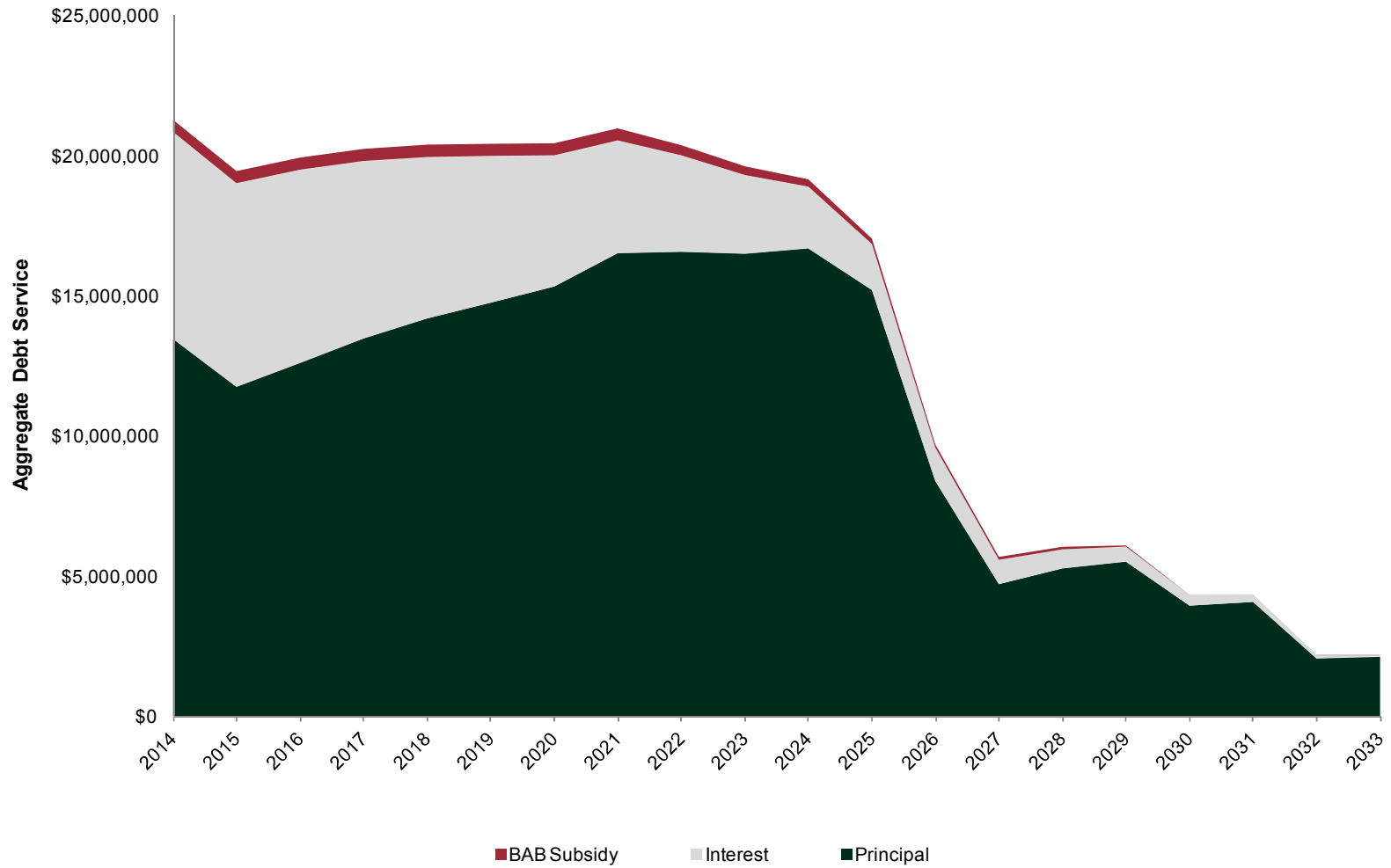






# Debt Book

**Beaufort County, South Carolina  
All Outstanding General Obligation Debt  
As of June 30, 2013**



\*Does not include Series 2013E GO USDA Bonds, which will require an annual payment of \$280,000 through fiscal year 2053.

BEAUFORT COUNTY, SOUTH CAROLINA

# Appendix B

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Refunding Update



BEAUFORT COUNTY, SOUTH CAROLINA

## Refunding Update

---

### Opportunities

- 2010 B Build America Bonds
  - Due to sequestration, the Federal Government has been withholding partial subsidy payments of Build America Bonds
  - County's Bonds were structured with an extraordinary call provision allowing prepayment with no penalty if any portion of subsidy is withheld.
  - The extraordinary redemption was triggered in September providing an opportunity to refund these bonds to traditional tax exempt
  - Current net present value savings of \$1,050,000 or 4.28% of refunded bonds
  
- General Obligation Bonds, Series 2007
  - No savings at this time

# Refunding Update

## Refunding Summary – Series 2010 Build America Bonds

### BEAUFORT COUNTY, SOUTH CAROLINA Refunding of General Obligation Build America Bonds, Series 2010

	September 10, 2013	September 10, 2013	September 10, 2013	October 2, 2013	October 2, 2013	October 1, 2013	January 9, 2014
<b>Refunded Bonds (1)</b>	<i>Full Subsidy (35%)</i>	<i>Current (27.3%)</i>	<i>Tax Exempt</i>	<i>Full Subsidy (35%)</i>	<i>Current (27.3%)</i>	<i>Tax Exempt</i>	<i>Current (27.3%)</i>
Par Amount	\$24,550,000	\$24,550,000	\$24,550,000	\$24,550,000	\$24,550,000	\$24,550,000	\$24,550,000
Maturities	March 1, 2021-2029	March 1, 2021-2029	March 1, 2021-2029	March 1, 2021-2029	March 1, 2021-2029	March 1, 2021-2029	March 1, 2021-2029
Avg. Coupon	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%
Optional Redemption	Current	Current	Current	Current	Current	Current	Current
<b>Refunding Bonds</b>							
Par Amount	\$22,335,000	\$22,420,000	\$22,420,000	\$21,595,000	\$21,615,000	\$21,695,000	\$21,475,000
Yields	0.26% - 4.15%	0.26% - 4.15%	0.26% - 4.15%	0.28% - 3.63%	0.28% - 3.63%	0.28% - 3.63%	0.25% - 3.62%
Cost of Issuance TIC)	3.65%	3.64%	3.62%	3.21%	3.21%	3.19%	3.16%
All-In TIC	3.72%	3.72%	3.70%	3.29%	3.28%	3.26%	3.24%
Negative Arbitrage	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Savings Results</b>							
Net PV Savings-\$	(\$831,625)	\$18,756	\$3,037,742	\$114,185	\$985,918	\$4,078,533	\$1,050,502
Net PV Savings-%	-3.39%	0.08%	12.37%	0.47%	4.02%	16.61%	4.28%
Annual Savings							
2014	\$68,273	\$95,719	\$198,925	\$118,984	\$146,509	\$239,969	\$0
2015	(296,818)	(204,459)	123,063	(262,576)	(169,674)	159,527	(35,860)
2016	(286,876)	(197,620)	118,967	(254,989)	(164,779)	154,950	(163,765)
2017	(277,266)	(191,010)	115,007	(247,622)	(160,026)	150,503	(159,053)
2018	(267,979)	(184,621)	111,179	(240,468)	(155,409)	146,185	(154,476)
2019	(259,003)	(178,445)	107,479	(233,521)	(150,926)	141,990	(150,031)
2020	(250,328)	(174,476)	103,901	(226,774)	(146,572)	137,916	(145,714)
2021	94,042	134,220	272,614	180,551	222,114	365,043	230,731
2022	87,726	127,311	265,356	177,264	214,496	357,816	222,669
2023	86,887	125,516	256,426	171,420	208,167	344,755	215,923
2024	85,521	118,508	245,686	165,253	203,985	337,362	211,363
2025	81,548	114,767	239,834	160,146	199,004	327,239	206,010
2026	79,419	111,999	230,354	156,778	191,361	316,956	201,517
2027	75,571	108,478	222,866	151,472	186,573	308,554	196,112
2028	75,249	105,057	214,831	149,771	181,726	299,360	187,340
2029	71,387	102,659	206,490	144,121	177,813	289,648	183,130

BEAUFORT COUNTY, SOUTH CAROLINA

# Refunding Update

## Refunding Summary – Series 2007 General Obligation Bonds

### BEAUFORT COUNTY, SOUTH CAROLINA Refunding of Series 2007 General Obligation Bonds

	May 29, 2013	July 15, 2013	January 9, 2014
<b>Refunded Bonds</b>			
Par Amount	\$18,375,000	\$18,375,000	\$18,375,000
Maturities	March 1, 2018 - 2027	March 1, 2018 - 2027	March 1, 2018 - 2027
Average Coupon	4.49%	4.49%	4.49%
Optional Redemption	3/1/2017	3/1/2017	3/1/2017
<b>Refunding Bonds</b>			
Par Amount	\$19,160,000	\$18,305,000	\$18,105,000
Yields	0.20% - 2.88%	0.26% - 3.53%	0.25% - 3.37%
Total Interest Cost (TIC)	2.44%	3.15%	2.97%
All-In TIC	2.53%	3.25%	3.07%
Negative Arbitrage	\$1,162,667	\$1,377,399	\$1,323,657
<b>Savings Results</b>			
Net PV Savings - \$	\$534,837	(\$444,777)	(\$156,049)
Net PV Savings - %	2.91%	-2.42%	-0.85%
Average Annual Savings	\$43,000	N/A	N/A

BEAUFORT COUNTY, SOUTH CAROLINA

## **FY 2015 BUDGET PREPARATION SCHEDULE**

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October 4 .....	Departmental Top 5 Achievement Project Due
October - November .....	Budget Parameters Detailed
November .....	Budget Meetings Parameters Detailed
November - March .....	Budget Preparation and Continued Discussion
February 3 .....	Goals and Objectives Due
February 3 .....	Description of Services Due
February 17-March 14 .....	Budget Preparation/Revised Goals and Objectives
February 10, 12 & 14 .....	Budget Training
February (TBD) .....	Council Retreat
March 10 .....	New Personnel Request Forms Submitted to Employee Services
March 10 .....	Vehicle Replacement Requests Due
March 10 .....	Capital Item Requests Due
March 10 .....	Departmental Revenue Estimates Submitted to Finance
March 10 .....	Departmental Expenditure Requests Submitted to Finance
March 11-28 .....	Review of Departmental Requests
March 17 .....	Finance Committee Meeting
April 7 .....	Finance Committee Meeting (TCL & USCB)
April 14 .....	Finance Committee Meeting (School District & Elected)
April 21 .....	Finance Committee Meeting (Elected Officials)
April 28 .....	Possible Finance Committee Meeting (Sheriff & Fire Dept.)
May 5.....	Finance Committee Meeting
May 19.....	Finance Committee Meeting
May 19.....	First Reading of FY 2015 Budget (Bluffton)
June 9 .....	Finance Committee Meeting
June 9.....	Public Hearing
June 9 .....	Second Reading of FY 2015 Budget
June 23.....	Possible Finance Committee Meeting (if needed)
June 23 .....	Third Reading and Adoption of FY 2015 Budget
July 1 .....	Implementation of FY 2015 Budget

# ADD-ONS

The document(s) herein were provided to Council for information and/or discussion after release of the official agenda and backup items.

Topic: General Obligation Bonds, Series 2014,  
Market as of January 16, 2014

Date Submitted: January 21, 2014

Submitted by: Alicia Holland

Venue: Finance Committee



SOURCES AND USES OF FUNDS

BEAUFORT COUNTY, SOUTH CAROLINA  
 General Obligation Bonds, Series 2014  
 Market as of January 16, 2014 plus 0.25%

Dated Date 03/26/2014  
 Delivery Date 03/26/2014

Sources:	PI	AIR	BLDG	EQUIP	Total
Bond Proceeds:					
Par Amount	6,460,000.00	2,320,000.00	16,325,000.00	6,160,000.00	31,265,000.00
Premium	420,038.70	150,920.65	1,061,706.15	305,867.80	1,938,533.30
	<u>6,880,038.70</u>	<u>2,470,920.65</u>	<u>17,386,706.15</u>	<u>6,465,867.80</u>	<u>33,203,533.30</u>
Uses:	PI	AIR	BLDG	EQUIP	Total
Project Fund Deposits:					
Project Fund	6,393,000.00	2,297,750.00	16,167,400.00	6,095,694.00	30,953,844.00
Other Fund Deposits:					
Debt Service Fund	420,038.70	150,920.65	1,061,706.15	305,867.80	1,938,533.30
Delivery Date Expenses:					
Cost of Issuance	30,993.12	11,130.66	78,322.41	29,553.81	150,000.00
Underwriter's Discount	32,300.00	11,600.00	81,625.00	30,800.00	156,325.00
	<u>63,293.12</u>	<u>22,730.66</u>	<u>159,947.41</u>	<u>60,353.81</u>	<u>306,325.00</u>
Other Uses of Funds:					
Rounding	3,706.88	-480.66	-2,347.41	3,952.19	4,831.00
	<u>6,880,038.70</u>	<u>2,470,920.65</u>	<u>17,386,706.15</u>	<u>6,465,867.80</u>	<u>33,203,533.30</u>

## BOND DEBT SERVICE

BEAUFORT COUNTY, SOUTH CAROLINA  
General Obligation Bonds, Series 2014  
Market as of January 16, 2014 plus 0.25%

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
10/01/2014	-	-	604,898.62	604,898.62	-
04/01/2015	1,600,000	2.000%	588,550.00	2,188,550.00	2,793,448.62
10/01/2015	-	-	572,550.00	572,550.00	-
04/01/2016	1,655,000	2.000%	572,550.00	2,227,550.00	2,800,100.00
10/01/2016	-	-	556,000.00	556,000.00	-
04/01/2017	1,690,000	2.000%	556,000.00	2,246,000.00	2,802,000.00
10/01/2017	-	-	539,100.00	539,100.00	-
04/01/2018	1,720,000	3.000%	539,100.00	2,259,100.00	2,798,200.00
10/01/2018	-	-	513,300.00	513,300.00	-
04/01/2019	1,765,000	3.000%	513,300.00	2,278,300.00	2,791,600.00
10/01/2019	-	-	486,825.00	486,825.00	-
04/01/2020	1,825,000	3.000%	486,825.00	2,311,825.00	2,798,650.00
10/01/2020	-	-	459,450.00	459,450.00	-
04/01/2021	1,870,000	3.000%	459,450.00	2,329,450.00	2,788,900.00
10/01/2021	-	-	431,400.00	431,400.00	-
04/01/2022	1,930,000	4.000%	431,400.00	2,361,400.00	2,792,800.00
10/01/2022	-	-	392,800.00	392,800.00	-
04/01/2023	1,130,000	4.000%	392,800.00	1,522,800.00	1,915,600.00
10/01/2023	-	-	370,200.00	370,200.00	-
04/01/2024	1,175,000	4.000%	370,200.00	1,545,200.00	1,915,400.00
10/01/2024	-	-	346,700.00	346,700.00	-
04/01/2025	1,225,000	4.000%	346,700.00	1,571,700.00	1,918,400.00
10/01/2025	-	-	322,200.00	322,200.00	-
04/01/2026	1,265,000	4.000%	322,200.00	1,587,200.00	1,909,400.00
10/01/2026	-	-	296,900.00	296,900.00	-
04/01/2027	1,320,000	4.000%	296,900.00	1,616,900.00	1,913,800.00
10/01/2027	-	-	270,500.00	270,500.00	-
04/01/2028	1,375,000	4.000%	270,500.00	1,645,500.00	1,916,000.00
10/01/2028	-	-	243,000.00	243,000.00	-
04/01/2029	1,430,000	5.000%	243,000.00	1,673,000.00	1,916,000.00
10/01/2029	-	-	207,250.00	207,250.00	-
04/01/2030	1,500,000	5.000%	207,250.00	1,707,250.00	1,914,500.00
10/01/2030	-	-	169,750.00	169,750.00	-
04/01/2031	1,575,000	5.000%	169,750.00	1,744,750.00	1,914,500.00
10/01/2031	-	-	130,375.00	130,375.00	-
04/01/2032	1,655,000	5.000%	130,375.00	1,785,375.00	1,915,750.00
10/01/2032	-	-	89,000.00	89,000.00	-
04/01/2033	1,735,000	5.000%	89,000.00	1,824,000.00	1,913,000.00
10/01/2033	-	-	45,625.00	45,625.00	-
04/01/2034	1,825,000	5.000%	45,625.00	1,870,625.00	1,916,250.00
	31,265,000		14,079,298.62	45,344,298.62	45,344,298.62

BOND DEBT SERVICE BREAKDOWN  
 BEAUFORT COUNTY, SOUTH CAROLINA  
 General Obligation Bonds, Series 2014  
 Market as of January 16, 2014 plus 0.25%

Period Ending	Priority Investment	Airport	New or Building Renovations	Equipment	Total
04/01/2015	492,293.06	179,190.28	1,243,032.64	878,932.64	2,793,448.62
04/01/2016	494,100.00	176,200.00	1,247,350.00	882,450.00	2,800,100.00
04/01/2017	494,300.00	179,500.00	1,245,250.00	882,950.00	2,802,000.00
04/01/2018	494,400.00	177,700.00	1,247,950.00	878,150.00	2,798,200.00
04/01/2019	491,900.00	175,000.00	1,244,050.00	880,650.00	2,791,600.00
04/01/2020	494,250.00	177,300.00	1,244,700.00	882,400.00	2,798,650.00
04/01/2021	491,300.00	174,450.00	1,244,750.00	878,400.00	2,788,900.00
04/01/2022	493,200.00	176,600.00	1,244,200.00	878,800.00	2,792,800.00
04/01/2023	492,000.00	177,600.00	1,246,000.00	-	1,915,600.00
04/01/2024	490,400.00	178,400.00	1,246,600.00	-	1,915,400.00
04/01/2025	493,400.00	179,000.00	1,246,000.00	-	1,918,400.00
04/01/2026	490,800.00	174,400.00	1,244,200.00	-	1,909,400.00
04/01/2027	492,800.00	174,800.00	1,246,200.00	-	1,913,800.00
04/01/2028	494,200.00	175,000.00	1,246,800.00	-	1,916,000.00
04/01/2029	495,000.00	175,000.00	1,246,000.00	-	1,916,000.00
04/01/2030	491,500.00	178,500.00	1,244,500.00	-	1,914,500.00
04/01/2031	492,250.00	176,500.00	1,245,750.00	-	1,914,500.00
04/01/2032	492,000.00	179,250.00	1,244,500.00	-	1,915,750.00
04/01/2033	490,750.00	176,500.00	1,245,750.00	-	1,913,000.00
04/01/2034	493,500.00	178,500.00	1,244,250.00	-	1,916,250.00
	9,854,343.06	3,539,390.28	24,907,832.64	7,042,732.64	45,344,298.62

BOND PRICING

BEAUFORT COUNTY, SOUTH CAROLINA  
 General Obligation Bonds, Series 2014  
 Market as of January 16, 2014 plus 0.25%

Bond Component	Maturity Date	Amount	Rate	Yield	Price	Yield to Maturity	Call Date	Call Price	Premium (-Discount)
Bond Component:									
	04/01/2015	1,600,000	2.000%	0.520%	101.494	-	-	-	23,904.00
	04/01/2016	1,655,000	2.000%	0.690%	102.615	-	-	-	43,278.25
	04/01/2017	1,690,000	2.000%	0.940%	103.142	-	-	-	53,099.80
	04/01/2018	1,720,000	3.000%	1.260%	106.789	-	-	-	116,770.80
	04/01/2019	1,765,000	3.000%	1.590%	106.769	-	-	-	119,472.85
	04/01/2020	1,825,000	3.000%	2.020%	105.523	-	-	-	100,794.75
	04/01/2021	1,870,000	3.000%	2.440%	103.589	-	-	-	67,114.30
	04/01/2022	1,930,000	4.000%	2.740%	109.010	-	-	-	173,893.00
	04/01/2023	1,130,000	4.000%	2.960%	108.174	-	-	-	92,366.20
	04/01/2024	1,175,000	4.000%	3.110%	107.607	-	-	-	89,382.25
	04/01/2025	1,225,000	4.000%	3.250%	106.366 C	3.306%	04/01/2024	100.000	77,983.50
	04/01/2026	1,265,000	4.000%	3.380%	105.229 C	3.464%	04/01/2024	100.000	66,146.85
	04/01/2027	1,320,000	4.000%	3.520%	104.020 C	3.610%	04/01/2024	100.000	53,064.00
	04/01/2028	1,375,000	4.000%	3.640%	102.997 C	3.724%	04/01/2024	100.000	41,208.75
	04/01/2029	1,430,000	5.000%	3.740%	110.443 C	4.064%	04/01/2024	100.000	149,334.90
	04/01/2030	1,500,000	5.000%	3.840%	109.567 C	4.175%	04/01/2024	100.000	143,505.00
	04/01/2031	1,575,000	5.000%	3.930%	108.786 C	4.268%	04/01/2024	100.000	138,379.50
	04/01/2032	1,655,000	5.000%	4.020%	108.012 C	4.354%	04/01/2024	100.000	132,598.60
	04/01/2033	1,735,000	5.000%	4.090%	107.415 C	4.419%	04/01/2024	100.000	128,650.25
	04/01/2034	1,825,000	5.000%	4.140%	106.991 C	4.468%	04/01/2024	100.000	127,585.75
		31,265,000							1,938,533.30

Dated Date	03/26/2014	
Delivery Date	03/26/2014	
First Coupon	10/01/2014	
Par Amount	31,265,000.00	
Premium	1,938,533.30	
Production	33,203,533.30	106.200330%
Underwriter's Discount	-156,325.00	-0.500000%
Purchase Price	33,047,208.30	105.700330%
Accrued Interest	-	
Net Proceeds	33,047,208.30	

BOND SUMMARY STATISTICS

BEAUFORT COUNTY, SOUTH CAROLINA  
 General Obligation Bonds, Series 2014  
 Market as of January 16, 2014 plus 0.25%

Dated Date	03/26/2014
Delivery Date	03/26/2014
Last Maturity	04/01/2034
Arbitrage Yield	3.188118%
True Interest Cost (TIC)	3.580958%
Net Interest Cost (NIC)	3.794646%
All-In TIC	3.636562%
Average Coupon	4.344601%
Average Life (years)	10.365
Duration of Issue (years)	8.338
Par Amount	31,265,000.00
Bond Proceeds	33,203,533.30
Total Interest	14,079,298.62
Net Interest	12,297,090.32
Total Debt Service	45,344,298.62
Maximum Annual Debt Service	2,802,000.00
Average Annual Debt Service	2,265,641.57
Underwriter's Fees (per \$1000)	
Average Takedown	-
Other Fee	5.000000
Total Underwriter's Discount	5.000000
Bid Price	105.700330

Bond Component	Par Value	Price	Average Coupon	Average Life	PV of 1 bp change
Bond Component	31,265,000.00	106.200	4.345%	10.365	21,068.55
	31,265,000.00			10.365	21,068.55

	TIC	All-In TIC	Arbitrage Yield
Par Value	31,265,000.00	31,265,000.00	31,265,000.00
+ Accrued Interest	-	-	-
+ Premium (Discount)	1,938,533.30	1,938,533.30	1,938,533.30
- Underwriter's Discount	-156,325.00	-156,325.00	
- Cost of Issuance Expense		-150,000.00	
- Other Amounts	-	-	-
Target Value	33,047,208.30	32,897,208.30	33,203,533.30
Target Date	03/26/2014	03/26/2014	03/26/2014
Yield	3.580958%	3.636562%	3.188118%

NET DEBT SERVICE

BEAUFORT COUNTY, SOUTH CAROLINA  
 General Obligation Bonds, Series 2014  
 Market as of January 16, 2014 plus 0.25%

Date	Principal	Interest	Total Debt Service	General Fund	Net Debt Service	Annual Net D/S
03/26/2014	-	-	-	-	-	-
04/01/2014	-	-	-	-	-	-
10/01/2014	-	604,898.62	604,898.62	604,898.62	-	-
04/01/2015	1,600,000	588,550.00	2,188,550.00	1,333,634.68	854,915.32	854,915.32
10/01/2015	-	572,550.00	572,550.00	-	572,550.00	-
04/01/2016	1,655,000	572,550.00	2,227,550.00	-	2,227,550.00	2,800,100.00
10/01/2016	-	556,000.00	556,000.00	-	556,000.00	-
04/01/2017	1,690,000	556,000.00	2,246,000.00	-	2,246,000.00	2,802,000.00
10/01/2017	-	539,100.00	539,100.00	-	539,100.00	-
04/01/2018	1,720,000	539,100.00	2,259,100.00	-	2,259,100.00	2,798,200.00
10/01/2018	-	513,300.00	513,300.00	-	513,300.00	-
04/01/2019	1,765,000	513,300.00	2,278,300.00	-	2,278,300.00	2,791,600.00
10/01/2019	-	486,825.00	486,825.00	-	486,825.00	-
04/01/2020	1,825,000	486,825.00	2,311,825.00	-	2,311,825.00	2,798,650.00
10/01/2020	-	459,450.00	459,450.00	-	459,450.00	-
04/01/2021	1,870,000	459,450.00	2,329,450.00	-	2,329,450.00	2,788,900.00
10/01/2021	-	431,400.00	431,400.00	-	431,400.00	-
04/01/2022	1,930,000	431,400.00	2,361,400.00	-	2,361,400.00	2,792,800.00
10/01/2022	-	392,800.00	392,800.00	-	392,800.00	-
04/01/2023	1,130,000	392,800.00	1,522,800.00	-	1,522,800.00	1,915,600.00
10/01/2023	-	370,200.00	370,200.00	-	370,200.00	-
04/01/2024	1,175,000	370,200.00	1,545,200.00	-	1,545,200.00	1,915,400.00
10/01/2024	-	346,700.00	346,700.00	-	346,700.00	-
04/01/2025	1,225,000	346,700.00	1,571,700.00	-	1,571,700.00	1,918,400.00
10/01/2025	-	322,200.00	322,200.00	-	322,200.00	-
04/01/2026	1,265,000	322,200.00	1,587,200.00	-	1,587,200.00	1,909,400.00
10/01/2026	-	296,900.00	296,900.00	-	296,900.00	-
04/01/2027	1,320,000	296,900.00	1,616,900.00	-	1,616,900.00	1,913,800.00
10/01/2027	-	270,500.00	270,500.00	-	270,500.00	-
04/01/2028	1,375,000	270,500.00	1,645,500.00	-	1,645,500.00	1,916,000.00
10/01/2028	-	243,000.00	243,000.00	-	243,000.00	-
04/01/2029	1,430,000	243,000.00	1,673,000.00	-	1,673,000.00	1,916,000.00
10/01/2029	-	207,250.00	207,250.00	-	207,250.00	-
04/01/2030	1,500,000	207,250.00	1,707,250.00	-	1,707,250.00	1,914,500.00
10/01/2030	-	169,750.00	169,750.00	-	169,750.00	-
04/01/2031	1,575,000	169,750.00	1,744,750.00	-	1,744,750.00	1,914,500.00
10/01/2031	-	130,375.00	130,375.00	-	130,375.00	-
04/01/2032	1,655,000	130,375.00	1,785,375.00	-	1,785,375.00	1,915,750.00
10/01/2032	-	89,000.00	89,000.00	-	89,000.00	-
04/01/2033	1,735,000	89,000.00	1,824,000.00	-	1,824,000.00	1,913,000.00
10/01/2033	-	45,625.00	45,625.00	-	45,625.00	-
04/01/2034	1,825,000	45,625.00	1,870,625.00	-	1,870,625.00	1,916,250.00
	31,265,000	14,079,298.62	45,344,298.62	1,938,533.30	43,405,765.32	43,405,765.32

Topic: General Obligation Bonds - Debt Millage / Capacity  
Date Submitted: January 21, 2014  
Submitted by: Alicia Holland  
Venue: Finance Committee

2014 General Obligation Bonds  
 Estimated Effect on Future Debt Millage

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
County Debt Millage	5.48	5.25	5.26	5.08	5.08	5.09	5.09	5.22	5.08	4.89	4.78
2014 GO Bonds additional millage required	-	1.67	1.67	1.67	1.67	1.66	1.67	1.66	1.66	1.14	1.14
	5.48	6.92	6.93	6.75	6.75	6.75	6.76	6.88	6.74	6.03	5.92

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Current Airport Debt Service	126,535	126,535	126,535	126,535	126,535	126,535	126,535	126,535	126,535	126,535	126,535
2014 GO Bonds Additional Airport Debt Service	-	179,190	176,200	179,500	177,700	175,000	177,300	174,450	176,600	177,600	178,400
	\$ 126,535	\$ 305,725	\$ 302,735	\$ 306,035	\$ 304,235	\$ 301,535	\$ 303,835	\$ 300,985	\$ 303,135	\$ 304,135	\$ 304,935

Estimate net value of mil = \$1,677,376



Beaufort County General Obligation Debt

DEBT ISSUE	MATURITY	TOTAL GO DEBT	PREMIUMS*	% of non-8% debt	RURAL & CRITICAL	TAG	PARK	BALANCE SUBJECT TO 8%
2005 Bonds	2025	600,000	14,470	65.57%	402,931	-	-	211,539
2006A Bonds	2026	2,400,000	41,963		-	-	-	2,441,963
2006B Bonds	2026	3,600,000	32,582		-	-	3,632,582	-
2007 Bonds	2027	22,725,000	305,629	78.43%	18,063,238	-	-	-
				21.57%	-	-	4,967,391	
2007 REF Bonds	2020	13,850,000	340,039	33.33%	4,730,013	-	-	9,460,026
2010A and 2010B Bonds	2029	45,830,000	2,128,873	41.02%	19,673,417	-	-	28,285,456
2010 REF Bonds	2022	8,125,000	454,696		-	-	-	8,579,696
2011 Bonds	2031	9,895,000	197,185	100.00%	10,092,185	-	-	-
2012A REF Bonds	2023	15,295,000	1,940,163	39.22%	6,758,887	-	-	7,096,832
				19.61%	-	3,379,444	-	
2012C REF (2005) Bonds	2025	25,185,000	3,649,232	65.57%	18,907,693	-	-	9,926,539
2012E Bonds	2052	6,000,000			-	-	-	6,000,000
2013A Bonds	2033	7,580,000	624,056		-	-	-	8,204,056
2013B Bonds	2029	25,000,000	2,727,113	100.00%	27,727,113	-	-	-
2013C REF (2006AB) Bonds	2026	<u>33,150,000</u>	<u>4,120,385</u>	66.06%	<u>-</u>	<u>-</u>	<u>24,622,064</u>	<u>12,648,321</u>
		<b>\$ 219,235,000</b>	<b>\$ 16,576,386</b>		<b>\$ 106,355,478</b>	<b>\$ 3,379,444</b>	<b>\$ 33,222,037</b>	<b>\$ 92,854,428</b>

\* - The bond premiums affect the County's debt capacity as they increase the face value of the bond. These premiums are amortized over the life of the bond as interest expense.

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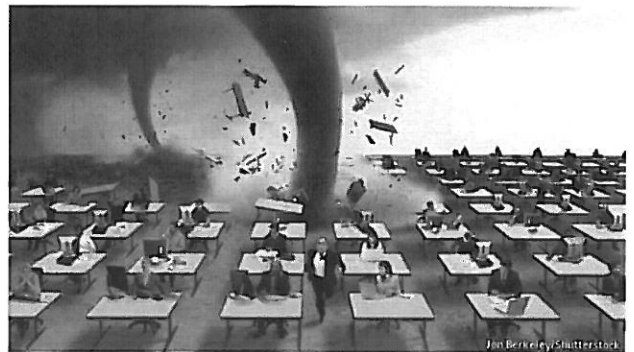
## Technology and jobs

# Coming to an office near you

**The effect of today's technology on tomorrow's jobs will be immense—and no country is ready for it**

Jan 18th 2014 | From the print edition

INNOVATION, the elixir of progress, has always cost people their jobs. In the Industrial Revolution artisan weavers were swept aside by the mechanical loom. Over the past 30 years the digital revolution has displaced many of the mid-skill jobs that underpinned 20th-century middle-class life. Typists, ticket agents, bank tellers and many production-line jobs have been dispensed with, just as the weavers were.



For those, including this newspaper, who believe that technological progress has made the world a better place, such churn is a natural part of rising prosperity. Although innovation kills some jobs, it creates new and better ones, as a more productive society becomes richer and its wealthier inhabitants demand more goods and services. A hundred years ago one in three American workers was employed on a farm. Today less than 2% of them produce far more food. The millions freed from the land were not consigned to joblessness, but found better-paid work as the economy grew more sophisticated. Today the pool of secretaries has shrunk, but there are ever more computer programmers and web designers.

### Remember Ironbridge

Optimism remains the right starting-point, but for workers the dislocating effects of technology may make themselves evident faster than its benefits (see article (<http://www.economist.com/news/briefing/21594264-previous-technological-innovation-has-always-delivered-more-long-run-employment-not-less>)). Even if new jobs and wonderful products emerge, in the short term income gaps will widen, causing huge social dislocation and perhaps even changing politics. Technology's impact will feel like a tornado, hitting the rich

world first, but eventually sweeping through poorer countries too. No government is prepared for it.

Why be worried? It is partly just a matter of history repeating itself. In the early part of the Industrial Revolution the rewards of increasing productivity went disproportionately to capital; later on, labour reaped most of the benefits. The pattern today is similar. The prosperity unleashed by the digital revolution has gone overwhelmingly to the owners of capital and the highest-skilled workers. Over the past three decades, labour's share of output has shrunk globally from 64% to 59%. Meanwhile, the share of income going to the top 1% in America has risen from around 9% in the 1970s to 22% today. Unemployment is at alarming levels in much of the rich world, and not just for cyclical reasons. In 2000, 65% of working-age Americans were in work; since then the proportion has fallen, during good years as well as bad, to the current level of 59%.

Worse, it seems likely that this wave of technological disruption to the job market has only just started. From driverless cars to clever household gadgets (see article (<http://www.economist.com/news/business/21594259-string-deals-internet-giant-has-positioned-itself-become-big-inventor-and>) ), innovations that already exist could destroy swathes of jobs that have hitherto been untouched. The public sector is one obvious target: it has proved singularly resistant to tech-driven reinvention. But the step change in what computers can do will have a powerful effect on middle-class jobs in the private sector too.

Until now the jobs most vulnerable to machines were those that involved routine, repetitive tasks. But thanks to the exponential rise in processing power and the ubiquity of digitised information ("big data"), computers are increasingly able to perform complicated tasks more cheaply and effectively than people. Clever industrial robots can quickly "learn" a set of human actions. Services may be even more vulnerable. Computers can already detect intruders in a closed-circuit camera picture more reliably than a human can. By comparing reams of financial or biometric data, they can often diagnose fraud or illness more accurately than any number of accountants or doctors. One recent study by academics at Oxford University suggests that 47% of today's jobs could be automated in the next two decades.

At the same time, the digital revolution is transforming the process of innovation itself, as our special report (<http://www.economist.com/news/special-report/21593580-cheap-and-ubiquitous-building-blocks-digital-products-and-services-have-caused>) explains. Thanks to off-the-shelf code from the internet and platforms that host services (such as Amazon's cloud computing), provide distribution (Apple's app store) and offer marketing (Facebook), the number of digital startups has exploded. Just as computer-games designers invented a product that humanity never knew it needed but now cannot do without, so these firms will no doubt

dream up new goods and services to employ millions. But for now they are singularly light on workers. When Instagram, a popular photo-sharing site, was sold to Facebook for about \$1 billion in 2012, it had 30m customers and employed 13 people. Kodak, which filed for bankruptcy a few months earlier, employed 145,000 people in its heyday.

The problem is one of timing as much as anything. Google now employs 46,000 people. But it takes years for new industries to grow, whereas the disruption a startup causes to incumbents is felt sooner. Airbnb may turn homeowners with spare rooms into entrepreneurs, but it poses a direct threat to the lower end of the hotel business—a massive employer.

No time to be timid

If this analysis is halfway correct, the social effects will be huge. Many of the jobs most at risk are lower down the ladder (logistics, haulage), whereas the skills that are least vulnerable to automation (creativity, managerial expertise) tend to be higher up, so median wages are likely to remain stagnant for some time and income gaps are likely to widen.

Anger about rising inequality is bound to grow, but politicians will find it hard to address the problem. Shunning progress would be as futile now as the Luddites' protests against mechanised looms were in the 1810s, because any country that tried to stop would be left behind by competitors eager to embrace new technology. The freedom to raise taxes on the rich to punitive levels will be similarly constrained by the mobility of capital and highly skilled labour.

The main way in which governments can help their people through this dislocation is through education systems. One of the reasons for the improvement in workers' fortunes in the latter part of the Industrial Revolution was because schools were built to educate them—a dramatic change at the time. Now those schools themselves need to be changed, to foster the creativity that humans will need to set them apart from computers. There should be less rote-learning and more critical thinking. Technology itself will help, whether through MOOCs (massive open online courses) or even video games that simulate the skills needed for work.

The definition of “a state education” may also change. Far more money should be spent on pre-schooling, since the cognitive abilities and social skills that children learn in their first few years define much of their future potential. And adults will need continuous education. State education may well involve a year of study to be taken later in life, perhaps in stages.

Yet however well people are taught, their abilities will remain unequal, and in a world which is increasingly polarised economically, many will find their job prospects dimmed and wages squeezed. The best way of helping them is not, as many on the left seem to think, to push up minimum wages. Jacking up the floor too far would accelerate the shift from human workers

to computers. Better to top up low wages with public money so that anyone who works has a reasonable income, through a bold expansion of the tax credits that countries such as America and Britain use.

Innovation has brought great benefits to humanity. Nobody in their right mind would want to return to the world of handloom weavers. But the benefits of technological progress are unevenly distributed, especially in the early stages of each new wave, and it is up to governments to spread them. In the 19th century it took the threat of revolution to bring about progressive reforms. Today's governments would do well to start making the changes needed before their people get angry.

From the print edition: Leaders