



Local Government Council

Local Government Council Meeting Region 2000 Partnership's Large Conference Room 828 Main Street, 12th Floor Lynchburg, VA

July 17, 2014 ~ 5:00 p.m.

Agenda

1. Welcome and moment of silence.....Mike Mattox, *Chair*
2. Resolutions of Appreciation.....Mike Mattox, *Chair*
3. Minutes of April 17, 2014 and May 15, 2014 LGC meetings.....Mike Mattox, *Chair*
4. Finance report.....Rosalie Majerus
5. Center for Advanced Engineering & Research.....Bob Bailey
6. Presentation on Agriculture Strategic Plan.....
.....Jonathan Faris, *Thomas P. Miller and Associates*
7. Introduction of Ben Bowman, Region 2000 Workforce Development Director.....
.....Gary Christie
8. Introduction of Megan Lucas, CEO, Region 2000 Business & Economic Development Alliance.....Gary Christie
9. Items from Council.....All
10. Next meeting:

August 21st, 2014
12:00 – 4:00 p.m.
Strategic Planning Meeting
828 Main Street, 20th Floor
Bank of the James
Lynchburg, Virginia

Virginia's Region 2000 Local Government Council Meeting
July 17, 2014

Agenda Summary

1. Welcome and moment of silence

2. Resolutions of Appreciation:

- a. Joan Foster
- b. David Laurell

3. Minutes of April 17, 2014 and May 15, 2014 LGC meetings:

(See Attachments 3a and 3b)

Recommended Action: Approve minutes as presented subject to revisions noted by members of Council.

4. Finance report:

(See Attachment 4)

Deputy Director of Finance, Rosalie Majerus, will present the year-to-date financial report through June 30, 2014.

Recommended Action: For Council's information, review and discussion.

5. Resolution of Support for the Center for Advanced Engineering and Research's Spectrum Management Research Testbed (SMART) Grant Application:

(See Attachments 5a and 5b)

CAER will be submitting a grant application to the U.S. Economic Development Administration for funding to support its Spectrum Management Research Testbed (SMART) initiative. To complete the application the Council, as a political subdivision of the Commonwealth, must show support for the effort. This resolution does not financially obligate the Council in any way.

This initiative was identified as a project within the Region 2000 Comprehensive Economic Development Strategy, supporting the region's efforts to implement innovation led economic development programs. A companion grant application has been submitted to the Tobacco Commission for funding, also.

Attached is a synopsis of the SMART initiative (5a). Also attached is a supporting resolution (5b).

Recommended Action: Staff recommends adoption of the Resolution.

6. Presentation and Approval of the “Strategic Plan for the Agriculture and Forestry Economy in Virginia’s Region 2000”:

(See Attachment 6a, 6b and click [HERE](#) to view entire document)

Over the course of the past year staff members, along with a steering committee composed of our local economic development officials and Virginia Cooperative Extension agents, have been working to develop the region’s first agriculture and forestry strategic plan. Thomas P. Miller and Associates consulting firm has been assisting with this effort. The intent of this plan is to provide the Region 2000 community with a framework for action to promote regional growth in the agriculture and forestry industries.

The “Strategic Plan for the Agriculture and Forestry Economy in Virginia’s Region 2000” will be presented to the Council for its consideration and adoption. Attached is a summary “Plan on a Page” document (6a).

Additionally, the entire document can be viewed at “[Strategic Plan for the Agriculture and Forestry Economy in Virginia’s Region 2000](#)”. A resolution adopting the plan is also attached (6b).

Recommendation Action: Staff recommends approval of the Resolution and authorization from the Council for the executive director to use council budgeted agriculture funds to support the development of the “Regional Agriculture and Forestry Website” and completing “Regional Food Hub Feasibility Study” priority projects.

**Note: We will be pleased to provide you a printed copy of the Plan upon request.*

7. Introduction of Ben Bowman, Region 2000 Workforce Development Director

8. Introduction of Megan Lucas, CEO, Region 2000 Business & Economic Development Alliance

9. Items from Council:

10. Next meeting:

August 21st, 2014
12:00 – 4:00 p.m. *(Lunch begins at 12:00 p.m.)*
Strategic Planning Meeting
828 Main Street, 20th Floor
Bank of the James
Lynchburg, Virginia

11. Adjourn



Virginia's Region 2000 Local Government Council Meeting

Partnership Conference Room
Lynchburg, Virginia
April 17, 2014, 5:00 pm

Members Present:

Kenneth Bumgarner, Town of Amherst Council
Waverly Coggsdale, Altavista Town Manager
Aileen Ferguson, Appomattox County Administrator
Mayor Paul Harvey, Town of Appomattox
Jack Hobbs, Amherst Town Manager
R. David Laurrell, Campbell County Administrator
L. Kimball Payne, Lynchburg City Manager
Mark Reeter, Bedford County Administrator
John Sharp, Bedford County Board of Supervisors
Gary Tanner, Appomattox County Board of Supervisors

Absent:

Mayor Phyllis Campbell, Town of Brookneal
Joan Foster, City of Lynchburg, *Chair*
Delegate Scott Garrett, Virginia House of Delegates
Sen. Tom Garrett, Senate of Virginia
Bill Gillespie, Appomattox Town Manager
Stanley Goldsmith, Campbell County Board of Supervisors
Stacey Hailey, Bedford Town Council
Charles Kolakowski, Bedford Town Manager
Mayor Mike Mattox, Town of Altavista, *Vice-Chair*
Clarence Monday, Amherst County Administrator
Russell Thurston, Brookneal Town Manager
Claudia Tucker, Amherst County Board of Supervisors

Others Present:

Emmie Boley, Local Government Council, Financial Services Professional
Gary Christie, Local Government Council, Executive Director
Philipp Gabathuler, Local Government Council, Senior Planner
Rosalie Majerus, Local Government Council, Deputy Finance Director
Matt Perkins, Local Government Council, Administrative Program Coordinator
Alicia Petske, News and Advance
Bob White, Local Government Council, Deputy Director of Core Services

Meeting Minutes

1. **Welcome and moment of silence:** Gary Tanner, acting as Chair, called the meeting to Order at 5:00 p.m. by members of the Local Government Council welcomed and opened with a moment of silence.
2. **Approval of Minutes of March 20, 2014:** Upon a motion by David Laurell, seconded by Jack Hobbs, the meeting minutes from the March 20, 2014 Local Government Council meeting were unanimously approved as presented.
3. **Finance report, budget, and FY15 Work Plan:** Rosalie Majerus, Deputy Director of Finance, presented the year-to-date financial report through March 31, 2014. Rosalie noted that there were no unexpected revenues or expenditures.

Additionally, Rosalie and Gary Christie presented the proposed FY15 budget and Work Plan. Rosalie detailed certain aspects of the budget, referencing specifically the two-percent cost of living increase adjustment, the increase in health insurance premiums and the addition of money to support part-time help as the need may arise. Gary noted that expenditures and revenues for the FY15 budget balances and noted the projected funds in the reserve fund.

Both Gary Christie and Bob White spoke to the specific aspects of the FY15 Local Government Council Work Plan. Bob made special note of various transportation projects slated for FY15, most notably, the corridor studies throughout the region.

Gary recommended to the Council, for their consideration, setting aside in FY15 funds totaling \$100,000 and earmarking them for matching grants (\$50,000 each) for a tourism project and agriculture project from the reserves to be included into the FY15 budget. Gary noted that in the July 2014 meeting that the Council will be receiving a report on the regional agriculture study and expects that that report will identify proposals or initiatives to work on in the future. He would like to be able to extend to the agriculture community the support of the Council in offering this \$50,000 match to a grant that they may identify and apply for to move a specific project forward. Additionally, Gary noted that he would like to also extend an invitation to the region's tourism stakeholders to come together and work on a regional tourism project where these earmarked funds could be used to match a grant that they may receive. Gary noted that any grant proposals would come back to the Council for final approval.

Council members discussed the trends and expectations in each of their localities regarding cost of living adjustments or raises.

Upon a motion from Kim Payne to approve the FY15 budget, with the use of \$100,000 for agriculture and tourism matching grants from the reserve funds and approving the FY15 Local Government Council Work Plan, seconded by David Laurell, this motion was carried unanimously.

4. **FY 2015 Rural Transportation Planning Work Program:** Bob White reviewed the FY2015 Rural Transportation Planning Work Program and noted specific program elements such as alternative transportation planning activities and assistance in developing comprehensive plan transportation elements for Campbell County and the Town of Appomattox. Bob also noted in further detail projects related to corridor and intersection

analysis for safety improvements. Further, he noted that the Transportation Technical Committee has recommended approval of the Plan.

Upon a motion of Aileen Ferguson to approve and adopt the resolution of the FY2015 Rural Transportation Planning Work Program, seconded by Jack Hobbs, this motion carried unanimously.

5. **CEDS Dashboard:** Gary Christie presented the current project for measuring and monitoring the region's economy and economic performance by creating a website using funds from a two year grant received from the Federal Economic Development Administration. Gary presented to the Council for their consideration and comments the focus areas from which the data will be built. Gary and Bob White noted that the local economic developers are and have been fully engaged in this dashboard development process.

Kim Payne noted that he was not in favor of an ongoing project where consultants were needed to update the information and asked if the dashboard would be able to be updated at the local level. Also, he mentioned that a measure that would be beneficial and increasingly beneficial is "Capital Investment" data for communities. Lastly, he noted that it would be important that the local level stories not be lost in the big picture of the measures and data.

6. **Davenport Incorporated, LLC financial advisory services extension:** Gary Christie noted that the contract for financial advisor services expired in March 2014. Gary requests that the Council approve that the contract be renewed/extended for an additional three years. Council was notified that there would be no changes in the terms from the initial contract.

Upon a motion from David Laurrell to approve staff to renew the contract for three years with Davenport Incorporated, LLC for financial advisory services, seconded by Mark Reeter, this motion was carried unanimously.

7. **Strategic Planning Session:** Gary Christie noted that at the March Executive Committee meeting that a discussion was held regarding the concept of a Local Government Council strategic planning session, though no date was set. Gary requested that the Council determine a date for this session to discuss the future direction and future project for the Council with a facilitator. He suggested the third Thursday in August, that being the 21st.

The Council came to a consensus on August 21st, 2014 from 12 p.m. to 4:00 or 5:00 p.m.

- 7a. **(Added to Agenda) Election of Officers:** Gary Christie presented to the Council the nominations for officers which he noted are done on a rotating alphabetical basis by jurisdiction. Gary noted that Mike Mattox has served as Vice-Chair in FY14 and that he has agreed to serve as Chair for FY15. Gary mentioned that the nomination for Vice-Chair would be tabled until a future time after he has had an opportunity to speak with the representative from Amherst.

Upon a motion from David Laurrell to approve appointment of Mike Mattox as Chair and Waverly Coggsdale as Treasurer of the Local Government Council for FY15, seconded by Kim Payne, this motion was carried unanimously.

8. **Items from Staff:** No additional matters from Staff were presented.

9. **Items from Council:** Kim Payne recognized and commented that he felt it was important to begin to have discussions on what is happening at the Central Virginia Training Center. He noted that he felt this issue was greater than a local matter of importance but one of regional importance. He expressed concern that if the region did not address the issue and have an agenda moving forward for its idea of the best use for CVTC than the State may act without consultation of the region's stakeholders and without community input.

Gary Christie noted that that is was an important issue and a good aspect to incorporate into the Work Plan.

Kenneth Bumgarner reinforced what Kim Payne mentioned and also mentioned that it was an opportunity that needs to be discussed and acted upon in collaboration with Amherst County.

10. **Adjourn:** With no further business and on a motion by David Laurell, seconded by Kenneth Bumgarner, Gary Tanner adjourned the Council at 5:47 p.m.

Signed: _____

By: _____, _____ (title)



Virginia's Region 2000 Local Government Council Executive Committee Meeting

Partnership Conference Room
Lynchburg, Virginia
May 15, 2014, 5:15 pm

Members Present:

Kenneth Bumgarner, Town of Amherst Council
Joan Foster, City of Lynchburg, *Chair*
Stanley Goldsmith, Campbell County Board of Supervisors
Jack Hobbs, Amherst Town Manager
R. David Laurrell, Campbell County Administrator
Clarence Monday, Amherst County Administrator
L. Kimball Payne, Lynchburg City Manager
John Spencer for Aileen Ferguson, Appomattox County Administrator

Others Present:

Gary Christie, Local Government Council, Executive Director
Matt Perkins, Local Government Council, Administrative Program Coordinator
Bob White, Local Government Council, Deputy Director of Core Services

Meeting Minutes

1. **Welcome:** Joan Foster, Chair, called the meeting to order at 5:15 p.m.
2. **Consideration and Approval of the Resolution addressing the Employer Retirement contribution Rate Election for VRS:**

Upon a motion by David Laurrell, seconded by Clarence Monday, to approve the Resolution indicating the Local Government Council's selection of the certified rate option as the employer contribution for the defined benefit retirement plan in the biennium beginning July 1, 2014, was unanimously approved.

3. **Adjourn:**

There being no further business to discuss, the meeting was brought to a close on motion by the Committee at 5:25 p.m.

Signed: _____

By: _____, _____ (title)

VIRGINIA'S REGION 2000 LOCAL GOVERNMENT COUNCIL

Budget for FY15 and Budget to Actual for FY14

Draft as of June 30, 2014

Attachment 4

pp 9 - 12

	<u>FY14 Budget</u>	<u>Draft Actual Through 6/30/14</u>	<u>Diff Between Budget & Actual</u>	<u>% of Budget Used</u>	<u>Budget for FY15</u>
<u>OPERATIONS FUND (EXPENDITURES)</u>					
<u>SALARY</u>					
ADMINISTRATION	159,842	159,842	0	100.00%	163,039
FINANCE	125,780	125,780	0	100.00%	128,296
OPERATIONS	218,966	219,834	(868)	100.40%	223,345
WIA	110,001	89,668	20,333	81.52%	112,201
Salary Study					15,000
	614,589	595,124	19,465	96.83%	641,881
PART TIME HELP	10,000	3,320	6,680	33.20%	15,000
Total Salaries & Wages	624,589	598,444	26,145	95.81%	656,881
EMPLOYER COST FICA	47,781	44,140	3,641	92.38%	50,251
EMPLOYER COST V R S	67,113	64,918	2,195	96.73%	48,269
EMPLOYER COST HEALTH INS	64,821	58,757	6,064	90.65%	67,791
EMPLOYER COST LIFE INS	7,314	7,071	243	96.68%	8,473
UNEMPLOYMENT COMPENSATION		54			
WORKERS COMP	1,000	472	528	47.20%	600
Total Fringe Benefits	188,029	175,412	12,617	93.29%	175,384
<u>OFFICE EXPENSES</u>					
AUDITING SERVICES	4,750	4,900	(150)	103.16%	5,000
PAYROLL ACCOUNTING SERVICES	8,100	8,337	(237)	102.93%	8,250
LEGAL SERVICES	3,000	825	2,175	27.50%	3,000
LIABILITY INSURANCE	1,700	1,036	664	60.94%	1,200
CONTRACTUAL SERVICES	24,000	16,935	7,065	70.56%	22,000
ADVERTISING	1,000	1,547	(547)	154.70%	1,000
POSTAGE	1,500	772	728	51.47%	1,500
TELEPHONE	4,200	4,757	(557)	113.26%	4,200
INTERNET SERVICES	300	284	16	94.67%	300
OFFICE SUPPLIES	6,000	3,678	2,322	61.30%	6,000
PRINTING & BINDING	2,000		2,000	0.00%	7,000
TRAVEL	7,500	4,013	3,487	53.51%	7,500
SPECIAL MEETINGS	9,500	8,767	733	92.28%	9,500
EDUCATION & TRAINING	6,000	3,370	2,630	56.17%	6,000
DUES, SUBSCRIPTIONS	8,800	8,099	701	92.03%	10,800
PUBLICATIONS	700	181	519	25.86%	700
MISCELLANEOUS EXPENSES	1,000	659	341	65.90%	1,000
FURNITURE & FIXTURES	1,000		1,000	0.00%	1,000
RENTAL OFFICE EQUIPMENT	6,844	2,940	3,904	42.96%	4,800
OFFICE RENT	48,976	48,573	403	99.18%	50,984
PARKING	4,500	3,205	1,295	71.22%	4,500
COMPUTER EQUIP/SOFTWARE	10,000	5,420	4,580	54.20%	10,000
Total Office Expenses	161,370	128,298	33,072	79.51%	166,234
Total Operations Expenses	973,988	902,154	71,888	92.62%	998,499

VIRGINIA'S REGION 2000 LOCAL GOVERNMENT COUNCIL

Budget for FY15 and Budget to Actual for FY14

Draft as of June 30, 2014

	<u>FY14 Budget</u>	<u>Draft Actual Through 6/30/14</u>	<u>Diff Between Budget & Actual</u>	<u>% of Budget Used</u>	<u>Budget for FY15</u>
Total Operations Expenses (from Page 1)	973,988	902,154	71,888	92.62%	998,499
Grant Expenses					
Agriculture Strategic Planning Grant	70,000	49,184	20,816	70.26%	0
Agriculture Project - From Fund Balance					50,000
Appomattox Enhancement Grant	150	180	(30)	120.00%	150
Brookneal Enhancement	2,000	504	1,496	25.20%	1,000
CDBG - Altavista		89	(89)	#DIV/0!	
CDBG-Appomattox Town	750	256	494	34.13%	500
CDBG - Madison Heights	1,000	832	168	83.20%	500
CDBG - Madison Heights Plannning Grant					250
CDBG - Pamplin	750	995	(245)	132.67%	
DHCD	2,500	874	1,626	34.96%	2,500
DRPT / FTA	2,500	2,894	(394)	115.76%	2,500
EDA - CEDS	9,000	2,589	6,411	28.77%	
Regional Radio Board	912,267	862,366	49,901	94.53%	1,169,988
Regional Library		60,782	(60,782)	#DIV/0!	
Regional Tourism - From Fund Balance					50,000
RideSolutions	29,000	20,892	8,108	72.04%	22,414
Small Business Development Center	30,000	30,000	0	100.00%	
Storm water	39,500	50,883	(11,383)	128.82%	
TMDL Redevelopment					100
Town of Amherst Waterline	50	33	17	66.00%	
Town of Amherst Comp Plan					200
Town of Appomattox Comp Plan					
VDOT - PL	97,500	131,904	(34,404)	135.29%	137,212
VDOT - Rural	2,500	2,875	(375)	115.00%	2,500
WIA	897,035	967,986	(70,951)	107.91%	896,000
Total Direct Project Expenses	2,096,502	2,186,118	(89,616)	104.27%	2,335,814
Contingency	0	0	0	0.00%	
TOTAL EXPENDITURES	\$3,070,490	\$3,088,272	(\$17,728)	100.58%	\$3,334,313

VIRGINIA'S REGION 2000 LOCAL GOVERNMENT COUNCIL

Budget for FY15 and Budget to Actual for FY14

Draft as of June 30, 2014

	<u>FY14 Budget</u>	<u>Draft Actual Through 6/30/14</u>	<u>Diff Between Budget & Actual</u>	<u>% of Budget Received</u>	<u>Budget for FY15</u>
Revenues					
OPERATIONS FUND (REVENUE)					
Dues Town of Appomattox	1,045	1,045	0	100.00%	1,045
Dues Town of Brookneal	1,045	1,045	0	100.00%	1,045
Dues Town of Amherst	1,045	1,045	0	100.00%	1,045
Dues Town of Altavista	1,045	1,045	0	100.00%	1,045
Dues Town of Bedford	1,045	1,045	0	100.00%	1,045
Dues Lynchburg	43,958	43,958	0	100.00%	44,392
Dues Bedford County	43,422	43,422	0	100.00%	43,590
Dues Campbell County	31,486	31,487	(1)	100.00%	31,642
Dues Amherst County	18,685	18,685	0	100.00%	18,706
Dues Appomattox County	8,637	8,637	0	100.00%	8,731
Miscellaneous Revenue	18,500	24,226	(5,726)	130.95%	18,000
Total Operations Revenue	169,913	175,640	(5,727)	103.37%	170,286
Grant Revenues					
Appomattox Enhancement Grant	1,500		1,500	0.00%	1,500
Agriculture Strategic Planning Grant	35,000	26,250	8,750	75.00%	
Funding from Fund Balance for Agriculture Grant	35,000		35,000	0.00%	
Brookneal Enhancement	15,000		15,000	0.00%	9,000
CDBG- Altavista		2,648	(2,648)	#DIV/0!	
CDBG- Appomattox Town	3,000		3,000	0.00%	5,000
CDBG - Brookneal		6,000	(6,000)	#DIV/0!	
CDBG-Madison Heights	27,200	16,956	10,244	62.34%	12,500
CDBG - Madison Heights Plannning Grant					5,000
CDBG - Pamplin		3,751	(3,751)	#DIV/0!	
DHCD	75,971	75,971	0	100.00%	72,471
DRPT / FTA	98,819	98,819	0	100.00%	107,558
EDA - CEDS	25,000	12,024	12,976	48.10%	
Regional Radio Board	959,267	1,020,154	(60,887)	106.35%	1,204,988
Regional Library		63,990	(63,990)	#DIV/0!	
Region 2000 Services Authority	154,796	149,649	5,147	96.67%	154,796
RideSolutions	52,800	42,943	9,857	81.33%	44,214
Funding from Fund Balance for Ride Share	10,000		10,000	0.00%	0
Funding from Fund Balance for SBDC	30,000		30,000	0.00%	0
Storm water	42,000	51,453	(9,453)	122.51%	
TMDL Redevelopment					3,000
Town of Amherst Waterline	700	777	(77)	111.00%	
Town of Amherst Comp Plan		2,750		%	2,750
Town of Appomattox Comp Plan					25,000
VDOT-PL	197,064	231,763	(34,699)	117.61%	250,582
VDOT-Rural	58,000	57,729	271	99.53%	58,000
Virginia's Region 2000	6,000	6,000	0	100.00%	7,200
WIA	1,100,000	1,139,373	(39,373)	103.58%	1,100,000
Funding from Fund Balance for Tourism					50,000
Funding from Fund Balance for Agriculture Grant					50,000
Total Grant Revenue	2,927,117	3,009,000	(79,133)	102.80%	3,163,559
TOTAL REVENUE - OPERATIONS & GRANT	3,097,030	3,184,640	(84,860)	102.83%	3,333,845
Interest	900	636	264	70.67%	900
Total Revenue	3,097,930	3,185,276	(84,596)	102.82%	3,334,745
Surplus/(Use of Fund) Balance	\$27,440	\$97,004			\$432

LOCAL GOVERNMENT COUNCIL

Budget to Actual for FY14

Draft as of June 30, 2014

CASH ON HAND

Sun Trust Checking

LGC Funds

288,318

WIA Trainit Funds

4,159

Local Govt Invest Pool

470,831

Petty Cash

200

Cash on Hand

\$ 763,508

CALCULATION OF ESTIMATED YEAR-END FUND BALANCE

Cash on Hand

\$ 763,508

Less Expenditures Remaining (and Current Liabilities)

\$ (236,275)

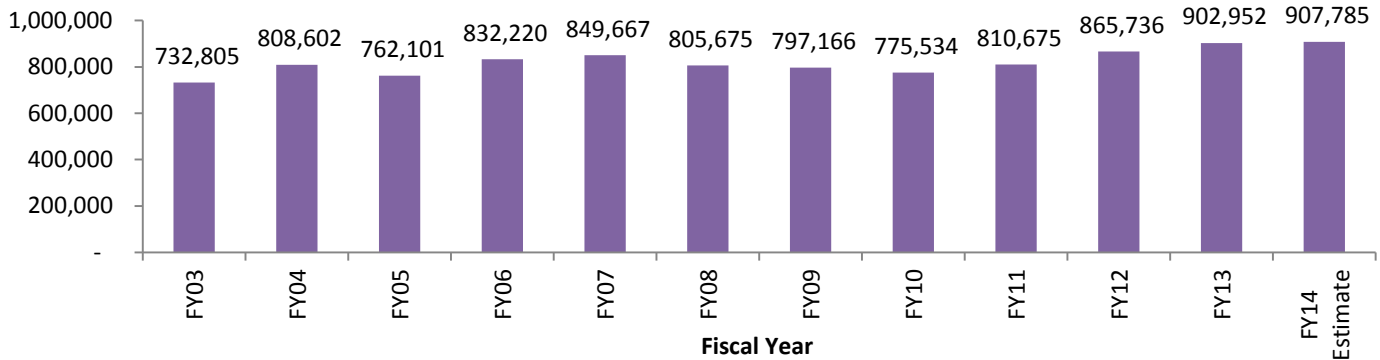
Plus Revenues Remaining (and Current Assets)

\$ 380,552

Estimated Year-end Fund Balance

\$ 907,785

Year-end Fund Balance





Spectrum Management Research Testbed (SMART)

In the coming years, access to wireless spectrum will be an increasingly important foundation for America's economic growth and technological leadership. (*"Realizing the Full Potential of Government Held Spectrum to Spur Economic Growth"*, PCAST, July 2012). Access to mobile information through wireless smartphones, tablets, and other devices is increasingly essential to daily life, and commercial wireless applications for healthcare, energy, homes, and transportation are a major driver of economic growth. At the same time, U.S. Federal spectrum needs are rising for a range of activities including maritime mobile satellite, radio navigation, space and satellite communications, missile detection and surveillance radar, Forest Service communication for law enforcement and wildfire tracking.

In a report released in July 2012 titled *"Realizing the Full Potential of Government Held Spectrum to Spur Economic Growth"*, the President's Council of Advisors on Science and Technology (PCAST)—an independent council of experts from industry and academia—concluded that the traditional practice of clearing and reallocating portions of the spectrum used by Federal agencies is not a sustainable model for spectrum policy. PCAST finds, instead, that the best way to increase capacity is to leverage new technologies that enable larger blocks of spectrum to be shared. Their report goes on to propose several specific and immediate actions toward implementing this recommendation. One of these specific actions is the creation of the capability for a Mobile Test Service that can relocate to urban, rural, and Federal facilities as needed to support rapid experimentation in spectrum management technology and practice. The federal government is looking for innovative partnerships to carry out these recommendations. This proposal seeks to build the initial infrastructure and organization needed to establish the CAER in Bedford County as the base location and southside and southwest Virginia as a preferred region for the spectrum sharing test service capabilities called for in these recommendations.



Project Description: Spectrum Management Research Testbed (SMART)

The Need – Improved Access to Wireless Spectrum Through Spectrum Sharing

The growth of wireless technology in the past few years has been nothing short of astonishing. The advent of smartphones, tablets, and many other devices has made mobile information access a central feature of our lives. In the coming years, access to spectrum will be an increasingly important foundation for America's economic growth and technological leadership. (*"Realizing the Full Potential of Government Held Spectrum to Spur Economic Growth"*, PCAST, July 2012). Access to mobile information through wireless smartphones, tablets, and other devices is increasingly essential to daily life, and commercial wireless applications for healthcare, energy, homes, and transportation are a major driver of economic growth. At the same time, U.S. Federal spectrum needs are rising for a range of activities including maritime mobile satellite, radio navigation, space and satellite communications, missile detection and surveillance radar, Forest Service communication for law enforcement and wildfire tracking.

In a report released in July 2012 titled *"Realizing the Full Potential of Government Held Spectrum to Spur Economic Growth"*, the President's Council of Advisors on Science and Technology (PCAST)—an independent council of experts from industry and academia—concluded that the traditional practice of clearing and reallocating portions of the spectrum used by Federal agencies is not a sustainable model for spectrum policy. PCAST finds, instead, that the best way to increase capacity is to leverage new technologies that enable larger blocks of spectrum to be shared. One advantage of sharing is that it does not require licensed businesses and government entities to fully clear certain wavelengths already in use—a process that can be time consuming and expensive. "The norm for spectrum use should be sharing, not exclusivity," the PCAST report concludes, noting that a new spectrum architecture and a corresponding shift in practices could multiply the effective capacity of the spectrum by several orders of magnitude. "Spectrum should be managed not by fragmenting it into ever more finely divided exclusive frequency assignments, but by specifying large frequency bands that can accommodate a wide variety of compatible uses."

Their report goes on to propose several specific and immediate actions toward implementing their recommendations. One of these specific recommendations is the creation of the capability for a Mobile Test Service that can relocate to urban, rural, and Federal facilities as needed to support rapid experimentation in spectrum management technology and practice. The federal government is looking for innovative partnerships to carry out these recommendations. This proposal seeks to build the initial infrastructure and organization needed to establish southside and southwest Virginia as a preferred location for the spectrum sharing test service capabilities called for in these recommendations.

Both government and industry have a critical need for a scalable and deployable testbed for spectrum sharing. Incumbent government users need to develop confidence that their systems will work without interference. Secondary users (industry) need to have a well-defined and streamlined process for testing and approval of new devices. Therefore, the U.S. needs to develop the ability to support rapid experimentation with new technology, collect operational data, establish the dependability of new technology, establish dependability of the management techniques and architecture and study emergent behavior that cannot be understood through analysis.

Our Objective – Build a scalable, deployable and reconfigurable testbed that can be used to develop, test and commercialize new spectrum sharing technologies

We propose to design, build and operate a new testbed for spectrum sensing, access, sharing, and management experimentation and research to test the potential interference and the operational characteristics of dynamic sharing systems in the presence of incumbent Federal systems. It will include a base center at the Center for Advanced Education and Research (CAER) in Bedford County, Virginia that will include a master control radio mounted on the CAER's tower and multiple servers to collect, process, visualize and analyze data collected from a fleet of Test Service Vehicles (TSV's). The TSV's will be constructed such that they are easily deployed to locations where relevant incumbent systems are located. These may be remote rural locations where specific legacy military systems are in operation, or

coastal areas with ready access to specific naval platforms. This infrastructure can also be used to investigate rural applications such as communications for rural transportation systems, smart agriculture or environmental monitoring. The TSV's may also be sent to complement existing testbeds in any other geographic region. The infrastructure we envisage will be similar to a fleet of "cells on wheels," or COWS, as they are known in the cellular industry. The TSV's would be outfitted with equipment shelters, power generation, telescoping antenna masts, backhaul network interface equipment, and instrumentation to monitor and measure the dynamic spectrum sharing experiments.

Impact: The Economic Benefits of R&D for a Technology Based Economy

One of the most critical elements in a technology-based economy is the strength of its research and development infrastructure. Numerous studies have shown that anchors of fast-growing, technology-oriented economies are major research organizations interacting with a robust technology oriented private sector. For example, a study prepared for the U.S. Small Business Administration (SBA) found, "Research universities and investment in R&D at these universities are major factors contributing to economic growth in the labor market areas in which the universities are situated." Studies by the U.S. Department of Commerce's Office of Technology Policy and others have found that all areas of technology-based economic development in the U.S. have strong concentrations of both university and private research. A Milken Institute study found that research centers and institutes are "undisputedly the most important factor in incubating high-tech industries."

There are a number of reasons why the presence of research centers is critical for regions seeking to grow technology-based knowledge economies. First, the research conducted at the center generates new knowledge and technology that form the basis for creating new firms and introducing new products in the marketplace. Second, these centers both attract and produce highly trained personnel who provide the technically educated workforce needed by technologically advanced companies. The presence of such a workforce, in turn, attracts technology companies to locate in proximity to research centers. Third, these centers generate intellectual property that can lead to new products and processes and the creation of new companies.

The impact of the CAER over the last five years can be seen in over \$100 million in public and private investment, over 100 new jobs, research and education partnerships with nine universities, and the development of three specific research programs supporting regional technology clusters. This proposed testbed would continue to add to this impact. Prior to an award, the CAER will conduct a formal Economic Impact Analysis on this proposed R&D program to evaluate and document the economic impacts of the project.

Outcome – A Valuable R&D Resource for Both Industry and Government in the Tobacco Region

The proposed testbed has potential benefits to a wide range of both government and industry users. With the increase in the number of wireless networks and the corresponding increase in the number of wireless devices hitting the marketplace, the spectrum environment is becoming increasingly cluttered. Understanding the RF limitations for these environments will be important in planning and deploying future wireless systems. Given these facts, it is anticipated that proper spectrum management in these environments will hasten the deployment of future wireless devices and reduce the operating costs of managing a large number of these devices. The primary goal of this work is to demonstrate the practical need for, and feasibility of, spectrum management solutions in this increasingly cluttered spectrum environment. Potential outcomes exist in any application that utilizes wireless technologies and an increasing use of RF spectrum. Some of the more immediate examples include the military, public safety, health care, unmanned aerial systems, and wireless broadband access.

Ultimately, products and services developed with these new technologies would be exported by the companies in our region to emerging markets around the world. These innovative spectrum access technologies are critical for the evolution of 4G technology and other types of wireless systems and for facilitating the integration of emerging technologies into the wireless ecosystem we envisage. The proposed R&D infrastructure and capabilities will

- Create a unique resource in southside and southwest Virginia for R&D in spectrum sharing
- Strengthen the environment for economic development in the region
- Position the area for future large scale test bed services as the federal government expands spectrum sharing implementation
- Provide a "Best Practice" model for government/industry/university collaboration

Tasks/Timetable and Budget

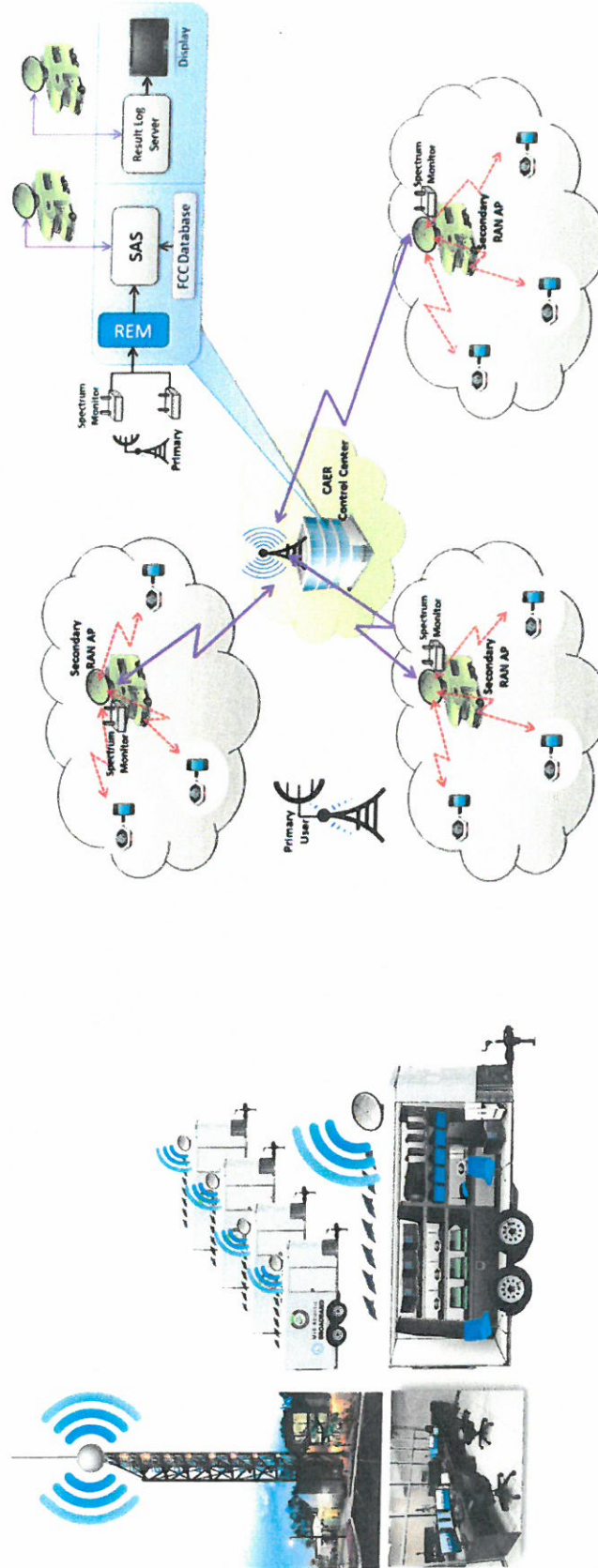
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Phase 1 - R&D and technology development										
Phase 2 - Build Out • Procure, receive and test equipment and training										
Phase 3 - Business Development • Marketing, Demos, Presentations										
Phase 4 - Operations • Conduct projects for government and industry										
Phase 5 - Technology Commercialization • Startup companies and new products										

The major budget categories are described in the table below and include the following activities

- Contract services with Wireless@VT for the research and technology development
- Contract services for marketing, business development consulting services and related travel
- CAER staff to include a Project Manager, Lead Engineer, and technician
- CAER general and administrative functions including marketing activities, facility costs, and the CAER Executive Director and staff for grant administration
- Materials and supplies for the testbed
- Equipment for the testbed

	TICRC Funds	Matching Funds		Total
Personnel	\$300,007	\$300,007		\$600,014
Contract Services	\$885,000	\$885,000		\$1,770,000
Supplies/Materials	\$10,500	\$10,500		\$21,000
Equipment	\$307,500	\$212,500		\$520,000
Continuous Charges	\$40,000	\$0		\$40,000
Indirect		\$135,000	9.6%	\$135,000
Total	\$1,543,007	\$1,543,007		\$3,086,014

Spectrum Management Research Testbed (SMART)





**Resolution Supporting the Spectrum Management Research Testbed
(SMART) Grant Application**

WHEREAS, the Virginia's Region2000 Local Government Council established the Region 2000 Comprehensive Economic Development Strategy (CEDS) to strengthen the region's economy; and,

WHEREAS, the CEDS established the project, Develop and Equip a Cognitive Radio Testbed, to address the CEDS goal of developing and implementing innovation led economic development (ILED) programs in Region 2000; and,

WHEREAS, the Center for Advanced Engineering and Research and Wireless @ Virginia Tech are proposing the Spectrum Management Testbed (SMART) project to advance the CEDS Cognitive Radio Testbed effort; and,

WHEREAS, the Center for Advanced Engineering and Research and Wireless @ Virginia Tech are preparing a grant application to the U.S. Economic Development Administration (USEDA) for funding support for the SMART project.

NOW THEREFORE, BE IT RESOLVED, the Virginia's Region 2000 Local Government Council does support the Center for Advanced Engineering and Research and Wireless @ Virginia Tech's grant application to the USED A seeking funding support for its SMART project.

ADOPTED this 17th day of **July, 2014**, by the Virginia's Region 2000 Local Government Council.

ATTESTED BY:

CERTIFIED BY:

Gary F. Christie, Secretary
Region 2000 Local Government Council

Mike Mattox, Chair
Region 2000 Local Government Council



VIRGINIA'S REGION 2000 – STRATEGIC PLAN FOR THE AGRICULTURE AND FORESTRY ECONOMY

Vision :

We recognize and promote the agriculture and forestry industries to strengthen regional economic development and future sustainability.

Guiding Principles:

- Leaders within economic development and the Virginia Cooperative Extension (VCE) collaborate to leverage resources and engage partners to actively target opportunities for business attraction and expansion.
- Elected officials and residents increasingly understand the significance of agriculture and forestry to the regional economy and value the preservation of its heritage.
- Locally grown foods are readily accessible and incorporated into local food systems.
- Forestry is a viable industry embracing the principles of sustainability and creates jobs in the region.
- Value-added agriculture increases profitability on farms, helps retain and attract young producers, and enhances regional identity.

GOALS	PROJECTS
#1 Coordinate Regional Marketing and Outreach	<ul style="list-style-type: none">• Project 1.1 Develop a regional agriculture and forestry website• Project 1.2 Prepare and update regional and local data profiles of the agriculture and forestry industries• Project 1.3 Promote locally grown foods working with producers, local governments, community organizations, school districts, and farmers markets• Project 1.4 Work with existing convenience stores in the City of Lynchburg to improve access to fresh and healthy produce
#2 Strengthen Resources for Producers	<ul style="list-style-type: none">• Project 2.1 Complete a regional food hub feasibility study• Project 2.2 Coordinate with county cattleman's associations to discuss direct marketing opportunities within and outside of the region
#3 Promote Career and Small Business Development Opportunities	<ul style="list-style-type: none">• Project 3.1 Convene meetings to connect producers with food service professionals and other larger buyers interested in making local food purchases• Project 3.2 Coordinate agriculture and forestry career awareness activities for high school and colleges students in Region 2000• Project 3.3 Develop a regional young farmers institute to provide ongoing workshops and technical assistance

Attachment 6a

**RESOLUTION BY VIRGINIA'S REGION 2000 LOCAL GOVERNMENT COUNCIL
FOR THE ADOPTION OF THE STRATEGIC PLAN FOR THE AGRICULTURE AND
FORESTRY ECONOMY IN VIRGINIA'S REGION 2000**

WHEREAS, the localities of Region 2000 are committed to thinking strategically about how they can better support and integrate agriculture and forestry-based industries into their community's overall economic development efforts; and,

WHEREAS, the *Strategic Plan for the Agriculture and Forestry Economy in Virginia's Region 2000* is the result of a collaboration between Region 2000 localities and represents collective input from locality staff and their citizenry; and ,

WHEREAS, the *Strategic Plan for the Agriculture and Forestry Economy in Virginia's Region 2000* represents completion of the planning process funded in part by Virginia's Department of Agriculture and Consumer Sciences "Agriculture and Forestry Industries Development (AFID)" grant program; and,

WHEREAS, the *Strategic Plan for the Agriculture and Forestry Economy in Virginia's Region 2000* is a regional plan that provides immediate and long-term action items to facilitate support and integration of agriculture and forestry-based industries into the overall economic development efforts in Region 2000 communities.

NOW, THEREFORE, BE IT RESOLVED that the Virginia's Region 2000 Local Government Council does hereby approve the *Strategic Plan for the Agriculture and Forestry Economy in Virginia's Region 2000*.

AND, BE IT FURTHER RESOLVED that the Virginia's Region 2000 Local Government Council recommends this plan to be endorsed by the local governments within Region 2000.

AND, BE IT FURTHER RESOLVED that the Virginia's Region 2000 Local Government Council does hereby authorize the executive director to use council budgeted agriculture funds to support the development of the "Regional Agriculture and Forestry Website" and completing "Regional Food Hub Feasibility Study" priority projects.

ADOPTED this 17th day of **July, 2014**, by the Virginia's Region 2000 Local Government Council.

ATTESTED BY:

CERTIFIED BY:

Gary F. Christie, *Secretary*
Region 2000 Local Government Council

Mike Mattox, *Chair*
Region 2000 Local Government Council