



COUNTY of FREDERICK

Finance Department
Cheryl B. Shiffler
Director

540/665-5610

Fax: 540/667-0370

E-mail: cshiffle@co.frederick.va.us

TO: Board of Supervisors

FROM: Finance Committee

DATE: August 17, 2011

SUBJECT: Finance Committee Report and Recommendations

The Finance Committee met in the First Floor Conference Room at 107 North Kent Street on Wednesday, August 17, 2011 at 8:00 a.m. Members Gary Lofton, Stephen Swiger and Richie Wilkins were absent. (b) Items 1, 2 and 4 were approved on consent agenda.

1. (b) The Sheriff requests an FY12 General Fund Supplemental Appropriation in the amount of \$1,000. This amount represents two reimbursements from the Army Corp of Engineers. No local funds required. See attached memos, p. 1 – 2.
2. (b) The Sheriff requests an FY12 General Fund Supplemental Appropriation in the amount of \$296.65. This amount represents donations to the DARE program. No local funds required. See attached memos, p. 3 – 4.
3. The Public Works Director requests the following FY12 Supplemental Appropriations. These amounts represent carry forwards of unspent FY11 funds for various projects. See attached memos, p. 5 – 9. The committee recommends approval.
 - a. General Fund (10) - \$18,000
 - b. Landfill Fund (12) - \$380,000
 - c. Shawneeland Fund (16) - \$150,000
4. (b) The Public Safety Communications Director requests an FY12 General Fund Supplemental Appropriation in the amount of \$2,000. This amount represents a grant from the Virginia E-911 Wireless Education Program. No local funds required. See attached memo, p. 10 – 11.

5. The Commonwealth's Attorney requests an FY12 General Fund Budget Transfer from a personnel line item in the amount of \$13,000. This amount represents savings from staff turnover and will be used to fund an electronic document imaging system. No local funds required. See attached letter, p. 12 – 15. The committee recommends approval.
6. The IT Director requests an FY12 General Fund Supplemental Appropriation in the amount of \$23,115. This amount represents a carry forward of unspent FY11 funds to be used for the support of a 50 Mb Internet service. See attached memo, p. 16. The committee recommends approval.
7. The County Administrator requests an FY12 General Fund Supplemental Appropriation in the amount of \$10,688 for the purchase of (13) Apple I-Pad 2s to be used by the Board of Supervisors for paperless agendas. Local funds required. See attached memo, p. 17. The committee recommends approval.
8. The Assistant County Administrator requests an FY12 Lake Holiday Sanitary District Fund Supplemental Appropriation in the amount of \$46,056.63. This amount represents a carry forward of remaining FY11 funds for the construction of a temporary access road. See attached memo, p. 18. The committee recommends approval.
9. The Assistant County Administrator requests an FY12 General Fund Supplemental Appropriation in the amount of \$83,000. This amount represents a carry forward of FY11 funds proffered for the Bowman Library for the installation of an overflow parking lot. See attached memo, p. 18. The committee recommends approval.
10. The Assistant County Administrator requests the use of proffer funds and an FY12 General Fund Supplemental Appropriation in the amount of \$65,905.03 on behalf of the Greenwood Volunteer Fire & Rescue Company for upgrades to the fire station. See attached information, p. 19 – 21. The committee recommends approval.

11. The Assistant County Administrator requests an FY12 Lake Holiday Sanitary District Fund Supplemental Appropriation in the amount of \$402,985 for the October 2011 and April 2012 debt service payments. No local funds required. See attached memo, p. 22 – 23. The committee recommends approval.
12. The Finance Director presents the June 2011 Quarterly Financial Newsletter and requests discussion. See attached, p. 24 – 34. The committee recommends expanding the distribution.
13. The Zoning Administrator requests an FY12 Fund 27 Supplemental Appropriation in the amount of \$5,653.45. This amount represents a carry forward of unspent bond funds for Whitacre Farms. No local funds required. See attached memo, p. 35. The committee recommends approval.

INFORMATION ONLY

1. A letter of appreciation from the Youth Development Center is attached. See attached letter, p. 36.
2. The IT Director provides the July 2011 Information Technology Assessment Report for your review. The report will be a discussion item at the next Finance Committee meeting. See attached report, p. 37 – 68.
3. The Finance Director provides a Fund 10 Transfer report for FY12. See attached, p. 69.
4. The Finance Director provides the FY11 year end Open PO Report. See attached, p. 70 – 73.

Respectfully submitted,

FINANCE COMMITTEE

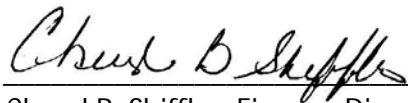
Bill Ewing

Richard Shickle

Charles DeHaven

Ron Hottle

By

A handwritten signature in cursive script, reading "Cheryl B. Shiffler", written in black ink.

Cheryl B. Shiffler, Finance Director

Frederick County Sheriff's Office

ROBERT T. WILLIAMSON
Sheriff



MAJOR R. C. ECKMAN
Chief Deputy

1080 Coverstone Drive
Winchester, Virginia 22602

(540) 662-6168
Fax (540) 504-6400

TO : Finance Department

FROM : Sheriff Robert T. Williamson *RTW*

SUBJECT : Payment – Range Use

DATE : June 13, 2011

10FL
3-10-19110-0058

Attached please find a check in the amount of \$500.00 from US Army Corps of Engineers. This represents the quarterly amount due for use of the firing range.

We are requesting this amount be posted to 3-010-019110-0058 and then appropriated into 3102-5409-00.

Thank you.

C.S. 6/17/11 FY11 @

RTW/asw

CC: finance committee

Frederick County Sheriff's Office

ROBERT T. WILLIAMSON
Sheriff



MAJOR R. C. ECKMAN
Chief Deputy

1080 Coverstone Drive
Winchester, Virginia 22602

(540) 662-6168
Fax (540) 504-6400

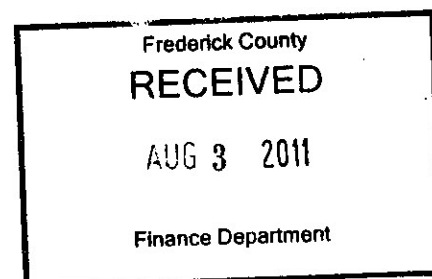
TO : Finance Department
FROM : Sheriff R. T. Williamson *RTW*
SUBJECT : Reimbursement – Corps Of Engineers
DATE : August 3, 2011

We are requesting the \$500.00 check posted to revenue line: 3-010-019110-0058 (10FL) – copy of memo attached - for quarterly reimbursement from the Corps Of Engineers for the use of our range be appropriated into our operating budget line of 3102-5409-000.

Thank you.

C.S. 8/3/11 @ FY12

RTW/asw



Frederick County Sheriff's Office

ROBERT T. WILLIAMSON
Sheriff



MAJOR R. C. ECKMAN
Chief Deputy

1080 Coverstone Drive
Winchester, Virginia 22602

(540) 662-6168
Fax (540) 504-6400

TO : Finance Department
FROM : Sheriff Robert T. Williamson *RTW*
SUBJECT : Donations – DARE Program
DATE : June 13, 2011

1005
3-10-18990-0015

Attached please find checks made payable to the DARE Program totaling \$200.00. These checks represent donations to the DARE Program. We are requesting this amount be posted to 3010-018990-0015 and then appropriated to the DARE operating budget line of 3102-5413-001.

Thank you.

C.S. 6/17/11 FY11

RTW/asw

cc. finance committee

Frederick County Sheriff's Office

ROBERT T. WILLIAMSON
Sheriff



MAJOR R. C. ECKMAN
Chief Deputy

1080 Coverstone Drive
Winchester, Virginia 22602

(540) 662-6168
Fax (540) 504-6400

TO : Finance Department
FROM : Sheriff R. T. Williamson *RTW*
SUBJECT : Revenue – DARE Program
DATE : July 13, 2011

100J
3-010-18990-0015

Attached please find a copy of a memo sent to Angela Whitacre, Treasurer's Office, in reference to donations received at a DARE fundraiser.

We are requesting a supplemental appropriation in the total amount of donations received, \$94.65, to our DARE program budget line of 3102-5413-001.

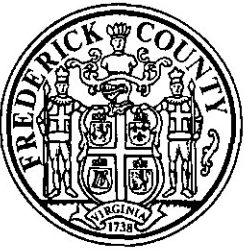
\$96.65
Thank you,

C.S. 7/20/11 @ FY12

RTW/asw

Attachment





COUNTY of FREDERICK

Department of Public Works

540/665-5643

FAX: 540/678-0682

MEMORANDUM

Frederick County
RECEIVED

JUL 06 2011

Finance Department

TO: Cheryl B. Shiffler, Director of Finance

FROM: Harvey E. Strawsnyder, Jr., P.E., Director of Public Works *HES*

SUBJECT: Carry Forward Requests Fiscal Year Budget 2010/2011 to Fiscal Year Budget 2011/2012

DATE: July 6, 2011

During a regularly scheduled meeting on June 28, 2011 the public works committee unanimously endorsed the carry forward requests highlighted in the attached memoranda. I am requesting that these carry forward items be included in the agenda of the next scheduled finance committee meeting.

HES/rls

Attachments: as stated

cc: file



COUNTY of FREDERICK

Department of Public Works

540/665-5643

FAX: 540/678-0682

MEMORANDUM

TO: Public Works Committee

FROM: Joe C. Wilder, Deputy Director of Public Works

SUBJECT: Carry Forward Request Fiscal Year Budget 2010/2011 to Fiscal Year Budget 2011/2012 *JCW*

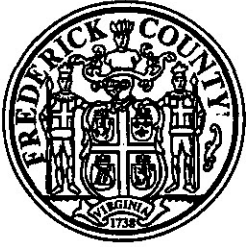
DATE: June 15, 2011

During Fiscal Year 2009/2010, we received a grant in the amount of \$7,600 from the Chesapeake Bay Restoration Fund through the State of Virginia. The grant was obtained for the purpose of developing an educational and outreach program associated with the new stormwater regulations and program recently approved by the Commonwealth. ✓


The main stipulation for receiving the grant funding was that it be used solely for the purposes listed above; otherwise, the county will be required to return the money. The stormwater law will be approved in October, 2011. It is anticipated that the program will be developed during 2012. Therefore we are requesting that the funds in the amount of \$7,600 be carried forward from Fiscal Year 2010/2011 budget line item 10-4201-5412-00 – Educational Supplies and be placed in the same line item in the Fiscal Year 2011/2012 budget.


JCW/rls

cc: file



MEMORANDUM

TO: Harvey E. Strawsnyder, Jr., P.E. 
Director of Public Works

FROM: Gloria M. Puffinburger 
Solid Waste Manager

RE: Carryforward Request; FY 10/11

DATE: June 28, 2011

The purpose of this memo is to request that a total of \$10,400 be carried forward from the FY 10/11 Refuse Collection (4203) budget to the upcoming FY 11/12 budget. The breakdown and justifications are as follows:

- **\$4,000** from 10-4203-3004-03 (*Repair and Maintenance/Buildings and Grounds*) in the FY 10/11 budget to 10-4203-3004-03 in the FY 11/12 budget in order to complete drainage improvements at the Middletown citizens' convenience site.
- **\$2,200** from 10-4203-9001-00 (*Lease/Rental of Equipment*) in the FY 10/11 budget to the FY 11/12 budget in order to complete drainage improvements at Middletown.
- **\$4,200** from Revenue Line Item 100 G (3-010-024040-0017) in the FY 10/11 budget to 100 G (3-010-024040-0017) in the FY 11/12 budget in order to fund school assemblies on water quality during the upcoming school year. A transfer request will be made later in order to expend funds. No local funds are required.

If you have any questions, please do not hesitate to contact me at Extension 8219.

/gmp

cc: file



COUNTY of FREDERICK

Department of Public Works

540/665-5643

FAX: 540/678-0682

MEMORANDUM

TO: Public Works Committee

FROM: Steve Frye, Landfill Manager *CSF*

THROUGH: Harvey E. Strawsnyder, Director of Public Works *HES*

SUBJECT: Carry Forwards to 2011/2012

DATE: June 16, 2011

We are requesting that the following funds be carried over from the 2010/2011 budget into the new 2011/2012 budget. The total amount of this request is \$380,000 and is itemized as follows:

- **12-4204-3002-00 Professional Services**

We are requesting that \$300,000 be carried forward and allocated to line item 12-4204-3002-00 for professional services. These funds were allocated for construction management of the landfill gas to energy project, the development of a debris management plan. It will also be used to improve on the Permit 40 storm water infiltration design. These projects are ongoing and will require funding in the 11/12 budget.

- **12-4204-8006-00 Construction Equipment**

We are requesting that \$30,000 be carried forward and allocated to line item 12-4204-8006-00 for construction equipment. We are anticipating the purchase of a used sky crane. This equipment will be used for maintenance and cleaning at the gas to energy plant (radiators, filters, etc.), along with roadway clearing. This purchase is being made in lieu of constructing permanent catwalks for access at the gas to energy plant.

- **12-4204-8900-00 Improvements Other Than**

We are requesting that \$50,000 be carried forward and allocated to line item 12-4204-8900-00. This funding will be used to minimize storm water infiltration in the old permit 40 landfill.



COUNTY of FREDERICK

Sanitary District of Shawneeland

Kevin Alderman
District Manager

Office: 540/877-1035
Fax: 540/877-1361

MEMORANDUM

TO: Harvey E. Strawsnyder Jr., P.E., Director of Public Works

FROM: Kevin C. Alderman, District Manager, Shawneeland Sanitary District *KCA*

SUBJECT: Carry forward of funds FY 2010-2011

DATE: June 1, 2011

The Shawneeland Sanitary District Advisory Committee has requested that the unused funds from line item 16-8108-8800-00-Buildings in the amount of \$150,000.00 be carried over into the FY2011/2012 budget. The carryover will make it possible to replace the existing mail house structure at Rosenberger Lane entrance.

If you have any questions, do not hesitate to contact me.



COUNTY of FREDERICK, VIRGINIA

DEPARTMENT OF PUBLIC SAFETY COMMUNICATIONS
5 North Kent Street, Winchester, VA 22601

LeeAnna Pyles
Director

TO: Finance Committee

FROM: LeeAnna Pyles, Director
Public Safety Communications

DATE: July 27, 2011

REF: August Committee Agenda

I would like be placed on the Finance Committee's August agenda for grant appropriations for the Department of Public Safety Communications. The grant, from the Virginia E-911 Wireless Education Program, is in the amount of \$2,000 for training and education. There is no match for this grant.

If you have any questions please call me at your convenience.

3-10-24040-042 10DB
4-010-035060-5566-000-000



Sharon Kibler

From: Leeanna Pyles
Sent: Tuesday, August 09, 2011 1:47 PM
To: Sharon Kibler
Subject: RE: FinComm Agenda

It was a grant awarded to my department for 911 Public Safety Communications education/training. The grant is for lodging and registration. We would pay the costs for the education/training, submit receipts to the Wireless 911 Services Board and will be reimbursed. There is no match and it is for any type of training or education for communications personnel.

Respectfully,
LeeAnna Pyles-Director
Frederick Co. Public Safety Communications
1080 Coverstone Drive Winchester VA 22602
Phone 1-540-665-6356 Fax 1-540-723-8848

email lpyles@co.frederick.va.us

"I took the one less traveled by and that made all the difference."

From: Sharon Kibler
Sent: Tuesday, August 09, 2011 1:39 PM
To: Leeanna Pyles
Subject: FinComm Agenda

LeeAnna,
I am preparing the August Finance Committee agenda and you have a request regarding a \$2K grant. Do you have any additional information that you would like to include?

Sharon Kibler
Assistant Director
County of Frederick, VA
Finance Department
107 North Kent Street
Winchester, VA 22601
540-722-8286 phone
540-667-0370 fax
skibler@co.frederick.va.us
www.co.frederick.va.us/Finance/finance.htm

Commonwealth of Virginia

COUNTY OF FREDERICK

GLENN R. WILLIAMSON
Commonwealth's Attorney

ROSS P. SPICER
Deputy Commonwealth's Attorney

ANDREW M. ROBBINS
Assistant Commonwealth's Attorney

DENNIS J. MCLOUGHLIN, JR.
Assistant Commonwealth's Attorney



C. TODD GILBERT
Assistant Commonwealth's Attorney

ERIC W. HEFLIN
Investigator

MELISSA D. RICE
Victim/Witness Director – 665-6369

**OFFICE OF THE
COMMONWEALTH'S ATTORNEY**

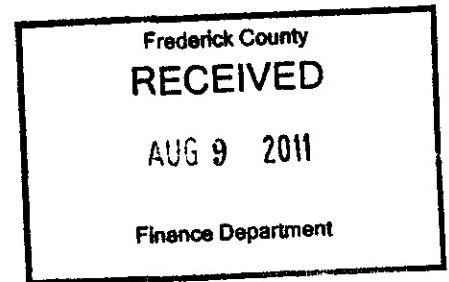
107 NORTH KENT STREET WINCHESTER, VIRGINIA 22601
(540) 665-6383 FAX (540) 667-3454

August 4, 2011

BT - \$13K per Dan Hoopes

Mr. John Riley, County Administrator
Members of the Finance Committee
Frederick County
107 N. Kent Street
Winchester, VA 22601

Re: Proposal to Reassign Budgeted Funds



Dear Mr. Riley and Members of the Finance Committee:

With the departure of C. Todd Gilbert from his position as an Assistant Commonwealth's Attorney for Frederick County, certain funds allocated in our current budget for the payment of his salary are now available for re-staffing of the position, and potentially to fund other specific needs of this office. As you may be aware, Mrs. Fahnda Hashish has accepted an offer of employment with my office and will assume Mr. Gilbert's duties beginning Monday, August 8, 2011. Under the terms of her employment, a percentage of Mr. Gilbert's budgeted salary will be available for other specific uses.

In recent years, the caseload of this office has increased significantly, which has resulted in an exponential growth in the number of "closed" files that must be securely maintained by this office. Our current office space can no longer contain this number of "closed" files. I have attached three photographs to support this contention. It is my desire to establish a digital system for the collection and secure retention of this material. Specifically, I have obtained an estimate from Unity Business Systems for the implementation of their "Laserfiche" document management system. As you may know, many of our Frederick County departments are already using this system, which will greatly reduce the cost of implementing it in our office. The attached estimate will detail the initial set-up costs as well as the annual renewal and

maintenance fees associated with the "Laserfiche" system. In addition to the Seven Thousand, Sixty five dollar (\$7,065.00) estimate, the acquisition of a high-capacity digital document scanner will also be required. The addition of this hardware will add approximately Five Thousand dollars (\$5,000.00) to the set-up cost, bringing the total outlay for this project to just over Twelve Thousand dollars (\$12,000.00).

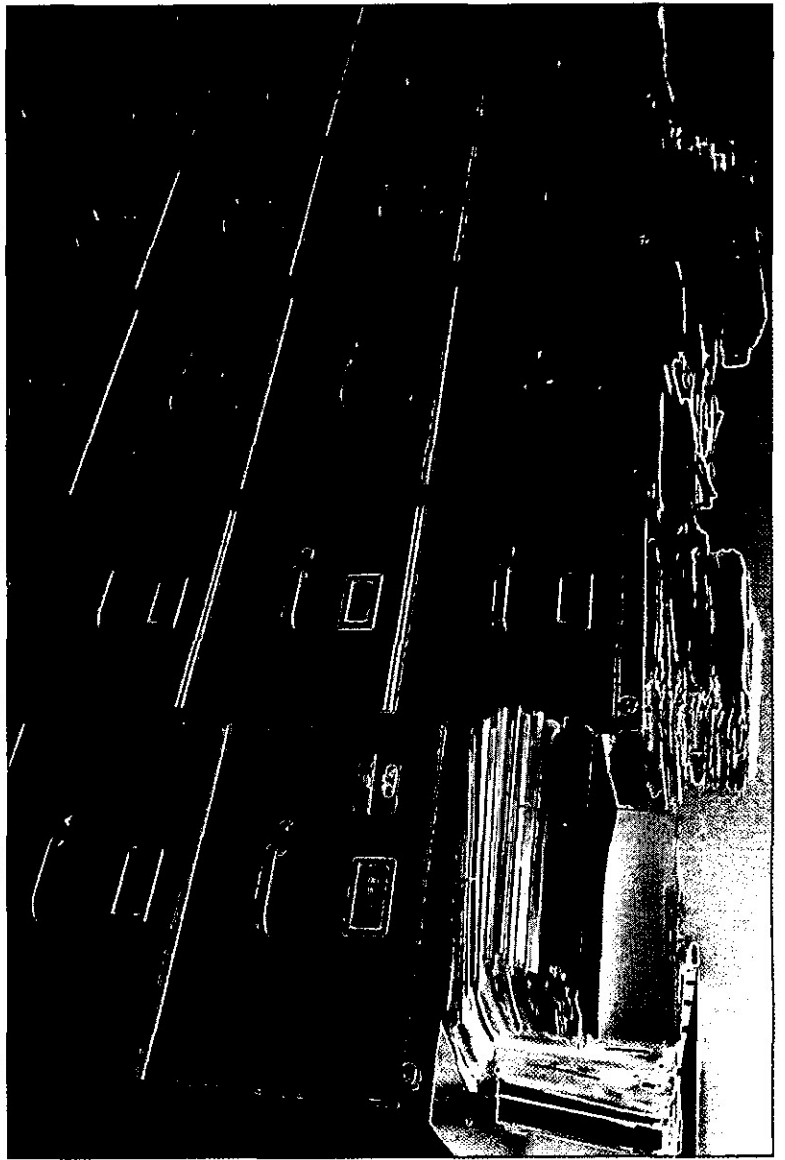
As the salary requirements of Mrs. Hashish will not exhaust the funds currently budgeted for her position, I propose that all excess funds in that budget line not earmarked for the payment of her salary be transferred to a budget line that will allow them to be expended on this project. As I indicated, our need to control the "closed" file problem in a time, cost and space efficient manner has become a significant priority for this office. The transfer of the requested funds from the salary line to another appropriate budget line will allow us to implement a long-term solution to this problem.

Thank you for your consideration of this proposal.

Sincerely,

A handwritten signature in black ink that reads "Glenn R. Williamson". The signature is written in a cursive, flowing style.

Glenn R. Williamson,
Commonwealth's Attorney





Prepared by: **Barry Weinstein**
 Account Rep Phone: **240-405-9132**
 Barry.Weinstein@UnitySystems.Biz

374 Wythe Creek Rd, Poquoson, VA 23662, Phone (757) 873-0233 Fax (757) 873-0894

Quotation For:

Account Frederick County Virginia

Contact Patrick Fly

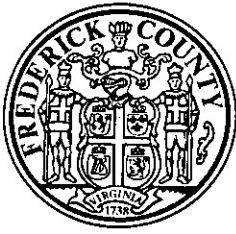
Phone 540-665-5614

Email pfly@co.frederick.va.us

Quote Title: Attorney
 Quote #: 061411bw

Date: 6/14/2011
 Valid through: 7/14/2011
 Terms: Net 20

| Product Description | Amount | Quantity | Total | SubTotal |
|--|-------------|----------|--------------------|--------------------|
| Software: | | | | |
| Laserfiche Additional Repository RME for MS SQL | \$ 3,000.00 | 1 | \$ 3,000.00 | |
| Laserfiche Quick Fields | \$ 595.00 | 1 | \$ 595.00 | |
| Laserfiche Real Time Look up with Validation Package | \$ 595.00 | 1 | \$ 595.00 | |
| Laserfiche Bar Code with Validation Package | \$ 1,695.00 | 1 | \$ 1,695.00 | |
| <i>Sub-Total of software</i> | | | | <u>\$ 5,885.00</u> |
| Annual Software Maintenance & Support | | | | |
| Laserfiche Additional Repository RME for MS SQL | \$ 600.00 | 1 | \$ 600.00 | |
| Laserfiche Quick Fields | \$ 120.00 | 1 | \$ 120.00 | |
| Laserfiche Real Time Look up with Validation Package | \$ 120.00 | 1 | \$ 120.00 | |
| Laserfiche Bar Code with Validation Package | \$ 1,695.00 | 1 | \$ 340.00 | |
| <i>Sub-Total of software</i> | | | | <u>\$ 1,180.00</u> |
| Sub Total | | | \$ 7,065.00 | |
| UBS Turn-key Solution Total | | | <u>\$ 7,065.00</u> | |



COUNTY OF FREDERICK

Information Technologies
(540) 665-5614

MEMORANDUM

To: Finance Committee Members
From: Walter Banks
Subject: Carry forward of FY10-11 funds
Date: July 11, 2011

I am requesting to carry forward funds in the amount of \$23,115.00 from the account 04-010-012200-5299-000-000 (Internet Access) into the 2011-2012 Fiscal Year.

The funds are needed to support the 50Mb Internet service provided by Comcast Business Systems. These funds were realized as a result of savings from reducing costs of equipment and project contracts in the 2010-2011 FY.

If there are any questions please feel free to contact me.
540-722-8261, wbanks@co.frederick.va.us

Respectfully,

A handwritten signature in cursive script, appearing to read "Walter Banks".





COUNTY of FREDERICK

John R. Riley, Jr.
County Administrator

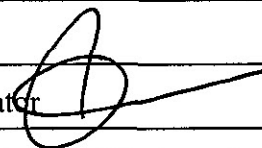
540/665-5666

Fax 540/667-0370

E-mail:

jriley@co.frederick.va.us

MEMORANDUM

| | |
|-----------------|---|
| TO: | Finance Committee |
| FROM: | John R. Riley, Jr., County Administrator  |
| SUBJECT: | Request for Supplemental Appropriation for I-Pad purchases |
| DATE: | August 9, 2011 |

I am providing the Board of Supervisors, through the Finance Committee, a paperless solution for Board meeting agendas. If the Finance Committee concurs with this solution then I would respectfully request Finance Committee approval for a supplemental appropriation in the amount of \$10,687.40 for the purchase of thirteen (13) Apple I-Pad 2s with WI-FI and 3G capabilities for use by the Board of Supervisors. The I-Pads will allow the Board agendas to become paperless, which will save an average of \$2,400 per year in paper and copying charges. Additional savings will be recognized through a reduction in the amount of staff time needed to assemble and deliver the agendas.

The 3G data plans for the I-Pads will be approximately \$477 per month. In reviewing various budget line items, staff believes sufficient funds are available in the budget to cover the cost of the monthly data plans. The I.T. Director is inquiring of the service provider to see if, based on the number of users, we would qualify for a group or discounted data plan.

Should you have any questions, please do not hesitate to contact me.

JRR/jet



COUNTY of FREDERICK


MEMORANDUM

Kris C. Tierney
Assistant County Administrator

540/665-5666
Fax 540/667-0370

E-mail:
ktierney@co.frederick.va.us

TO: Finance Committee

FROM: Kris C. Tierney, Assistant County Administrator 

RE: Carry Forward Request - LHSD Access Road and Bowman Library Overflow Parking

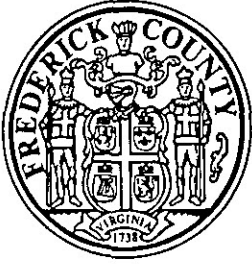
DATE: August 8, 2011

Staff is requesting a carry forward in the amount of \$46,056.63 in line item number 29-1229-8900-02 – Improvements Other than Buildings and \$83,000 in line item number 4-010-073020-5605-000-004 for the Bowman Library.

The \$46,056.63 is funding for the construction of a temporary road to provide access to residents of the south side of Lake Holiday during the period that the dam spillway is under construction. The access road construction began in late May and is nearing completion with the surface treatment scheduled to take place this week. Final completion should be accomplished prior to the end of August.

The \$83,000 was funding proffered for the Bowman Library. The funds were recently appropriated to cover the cost of installation of overflow parking at the library. Staff is still finalizing details of the surface parking implementation and hopes to have the project completed this fall.

Please let me know if I can answer any questions.



Frederick County
RECEIVED

JUL 06 2011

Finance Department

MEMORANDUM

COUNTY of FREDERICK

Kris C. Tierney
Assistant County Administrator

540/665-5666

Fax 540/667-0370

E-mail:

ktierney@co.frederick.va.us

TO: Finance Committee

FROM: Kris C. Tierney, Assistant County Administrator *KCT*

RE: Request from Greenwood Volunteer Fire and Rescue Company

DATE: July 6, 2011

Attached is a letter from the Greenwood Volunteer Fire and Rescue Company requesting to access proffer funds to be utilized for upgrades to the Greenwood Fire Station. Based on the County's adopted proffer policy (copy attached) and the information provided, the project would be considered a capital project (cost in excess of \$5,000 and a useful life in excess of five years). The project is also listed in the County's CIP.

As of July 1, 2011 the total proffer funds available for Greenwood Fire and Rescue was \$65,905.03.

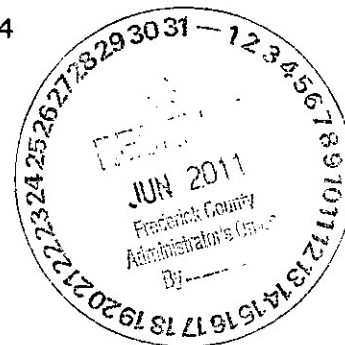
In accordance with the policy, the request is being brought to the Finance Committee for a recommendation to the Board of Supervisors on the appropriateness of the use of the funds for the requested purpose.

Please let me know if I can answer any questions.



Greenwood Vol. Fire & Rescue Company, Inc.

PO BOX 3023
Winchester, VA 22604
(540)667-9417



June 28, 2011

Mr. John Riley
Frederick County Administrator
107 N. Kent St.
Winchester, Va. 22601

Dear Mr. Riley:

Greenwood Vol. Fire and Rescue is requesting the release of the proffer money to use on our CIP project. This will be partial replacement of apparatus bay floor, construction of a concrete apron, and the installation of storm water drainage system. This project is expected to be \$92,321.00 by Pine Knoll Construction.

This is number one on our CIP plan projection.

Sincerely,

Daniel Cunningham
President

William Schuller Sr.
Building Chairman

Frederick County
Cash Proffer Policy

As approved by the Board of Supervisors on January 28, 2009.

Proffered funds received by Frederick County will be held for the use specified by the proffer language. In the case of funds proffered to offset impacts to fire and rescue services, in the absence of other proffered specifications, the funds will be earmarked for the first due company in the area of the subject rezoning at the time the proffered funds are received. All proffered funds will be collected, held, and will accumulate until such time as a capital project funding request is received from a qualifying County department, agency, or volunteer fire and rescue company.

Qualifying agency or departmental **requests to access proffered funds shall be submitted to the County's Finance Department** for processing. In order to qualify as a capital project the following criteria must be met:

- 1) the item or project must have a minimum value of five thousand dollars (\$5,000), and;*
- 2) the item/project must have an anticipated useful life of at least five (5) years.*

The Finance Department will forward requests to the Finance Committee for a recommendation to the Board of Supervisors on the appropriateness of the use of proffered funds for the requested purpose. To assist the Finance Committee and Board in their deliberations requests to utilize proffered funds should include the following: 1) the amount of funds requested, 2) the total project cost, 3) a detailed description of the desired capital project or purchase including a discussion of how recent or anticipated development contributes to the need for the expenditure, and, 4) indicate whether or not the item or project is listed on the County's Capital Improvements Plan (CIP).

In order to comply with State Code §15.2-2-2298 (A) the Planning staff, working in conjunction with the County Attorney, will attempt to insure that cash proffers associated with future rezonings are appropriately addressed through inclusion of relevant capital projects in the County's CIP prior to acceptance of the proffered funds.

For the purpose of determining whether a project or item is appropriate for individual listing on the CIP only, a threshold value of \$100,000 and useful life of at least five year shall be utilized. (This would not preclude the purchase of capital items valued at less than \$100,000 utilizing proffered funds, where other relevant criteria are met and procedures followed.)



COUNTY of FREDERICK

MEMORANDUM

Kris C. Tierney
Assistant County Administrator

540/665-5666
Fax 540/667-0370

E-mail:
ktierney@co.frederick.va.us

TO: Finance Committee

FROM: Kris C. Tierney, Assistant County Administrator *KCT*

RE: Request from Lake Holiday Sanitary District Supplemental Appropriation for Debt Service Payment

DATE: August 5, 2011

The first (interest only) debt service payment on the Lake Holiday Sanitary District (LHSD) bond financing for reconstruction of the Lake Holiday dam spillway will be due October 1, 2011. As Committee members will recall, the LHSD was established primarily as a financing mechanism in order to fund the required reconstruction of the spillway at Lake Holiday. The project budget (shown below) will be paid for through a tax on Lake Holiday property owners. The first half of the 2011 LHSD tax billing that took place in June, to date, has yielded \$456,867; the second half payment will be due in December.

Staff is requesting an appropriation of \$402,985.02 in line item number 4-029-091010-9201-000-001 to cover the \$182,506.89, October 1, 2011 interest payment and \$220,478.13 for the second payment due April 1, 2012.

Break Down of LH Spillway Project Cost

| | |
|------------------------------|--------------------|
| Construction Bid | \$6,451,710 |
| 15% contingency | \$ 967,756 |
| Debt Service Reserve Fund | \$ 729,888 |
| Underwriter/insurance/fees | \$ 200,000 |
| Construction Administration | \$ 170,000 |
| Inspections/testing | \$ 100,000 |
| Geo-tech Services | \$ 300,000 |
| Access road Construction | \$ 250,000 |
| Financial Advisory Services | \$ 25,000 |
| Bond Counsel | \$ 50,000 |
| Total Amount Financed | \$9,250,000 |

An amortization table is also attached for your information.

Please let me know if I can answer any questions.

DEBT SERVICE
Virginia Pooled Financing Program
Lake Holiday Sanitary District
Final Numbers

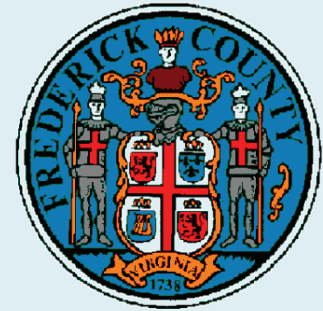
| Period Ending | Principal | Coupon (1) | Yield (1) | Interest | Total Debt Service | Annual Debt Service |
|------------------|--------------|------------|-----------|--------------|-----------------------|------------------------|
| 10/1/2011 | | | | 182,506.89 | 182,506.89 | |
| 4/1/2012 | | | | 220,478.13 | 220,478.13 | 402,985.02 |
| 10/1/2012 | 295,000.00 | 3.971% | 3.971% | 220,478.13 | 515,478.13 | |
| 4/1/2013 | | | | 214,621.25 | 214,621.25 | 730,099.38 |
| 10/1/2013 | 310,000.00 | 3.969% | 3.969% | 214,621.25 | 524,621.25 | |
| 4/1/2014 | | | | 208,470.00 | 208,470.00 | 733,091.25 |
| 10/1/2014 | 320,000.00 | 3.972% | 3.972% | 208,470.00 | 528,470.00 | |
| 4/1/2015 | | | | 202,115.00 | 202,115.00 | 730,585.00 |
| 10/1/2015 | 335,000.00 | 3.970% | 3.970% | 202,115.00 | 537,115.00 | |
| 4/1/2016 | | | | 195,465.63 | 195,465.63 | 732,580.63 |
| 10/1/2016 | 345,000.00 | 3.971% | 3.971% | 195,465.63 | 540,465.63 | |
| 4/1/2017 | | | | 188,616.25 | 188,616.25 | 729,081.88 |
| 10/1/2017 | 360,000.00 | 3.971% | 3.971% | 188,616.25 | 548,616.25 | |
| 4/1/2018 | | | | 181,468.75 | 181,468.75 | 730,085.00 |
| 10/1/2018 | 375,000.00 | 3.971% | 3.971% | 181,468.75 | 556,468.75 | |
| 4/1/2019 | | | | 174,023.13 | 174,023.13 | 730,491.88 |
| 10/1/2019 | 390,000.00 | 3.971% | 3.971% | 174,023.13 | 564,023.13 | |
| 4/1/2020 | | | | 166,279.38 | 166,279.38 | 730,302.51 |
| 10/1/2020 | 405,000.00 | 3.971% | 3.971% | 166,279.38 | 571,279.38 | |
| 4/1/2021 | | | | 158,237.50 | 158,237.50 | 729,516.88 |
| 10/1/2021 | 425,000.00 | 3.969% | 3.969% | 158,237.50 | 583,237.50 | |
| 4/1/2022 | | | | 149,803.13 | 149,803.13 | 733,040.63 |
| 10/1/2022 | 445,000.00 | 5.269% | 5.275% | 149,803.13 | 594,803.13 | |
| 4/1/2023 | | | | 138,080.00 | 138,080.00 | 732,883.13 |
| 10/1/2023 | 465,000.00 | 5.270% | 5.276% | 138,080.00 | 603,080.00 | |
| 4/1/2024 | | | | 125,826.88 | 125,826.88 | 728,906.88 |
| 10/1/2024 | 495,000.00 | 5.270% | 5.277% | 125,826.88 | 620,826.88 | |
| 4/1/2025 | | | | 112,782.50 | 112,782.50 | 733,609.38 |
| 10/1/2025 | 520,000.00 | 5.270% | 5.276% | 112,782.50 | 632,782.50 | |
| 4/1/2026 | | | | 99,081.25 | 99,081.25 | 731,863.75 |
| 10/1/2026 | 550,000.00 | 5.270% | 5.276% | 99,081.25 | 649,081.25 | |
| 4/1/2027 | | | | 84,588.75 | 84,588.75 | 733,670.00 |
| 10/1/2027 | 575,000.00 | 5.271% | 5.277% | 84,588.75 | 659,588.75 | |
| 4/1/2028 | | | | 69,435.63 | 69,435.63 | 729,024.38 |
| 10/1/2028 | 610,000.00 | 5.269% | 5.275% | 69,435.63 | 679,435.63 | |
| 4/1/2029 | | | | 53,364.38 | 53,364.38 | 732,800.01 |
| 10/1/2029 | 640,000.00 | 5.271% | 5.225% | 53,364.38 | 693,364.38 | |
| 4/1/2030 | | | | 36,498.13 | 36,498.13 | 729,862.51 |
| 10/1/2030 | 675,000.00 | 5.271% | 5.225% | 36,498.13 | 711,498.13 | |
| 4/1/2031 | | | | 18,710.00 | 18,710.00 | 730,208.13 |
| 10/1/2031 | 710,000.00 | 5.270% | 5.225% | 18,710.00 | 728,710.00 | |
| 4/1/2032 | | | | - | - | 728,710.00 |
| | 9,245,000.00 | | | 5,778,398.23 | 15,023,398.23 | 15,023,398.23 |

(1) Includes Annual Administrative Charge.

County of Frederick

Financial Newsletter

June 30, 2011



FY11 revenue and expenditures have not been finalized at this time. Final year end information will be provided at a later date.

Performance At A Glance

Special points of interest:

- Gas to Energy Project Update
- Regional Electronics Recycling
- Treasurer's Office
- NW WORKS
- Commissioner's Office

Inside this issue:

| | |
|--------------------------------|----|
| Gas to Energy Project Update | 2 |
| Regional Electronics Recycling | 3 |
| HR Employment Activity | 4 |
| Unemployment Data | 5 |
| Proffer Collections | 6 |
| Treasurer | 7 |
| Parks & Rec Usage | 8 |
| NW Works | 9 |
| Commissioner of the Revenue | 10 |
| Vision & Headlines | 11 |

| | Year to Date | Page Reference |
|--|--------------|----------------|
| Gas to Energy Project | Positive | 2 |
| Regional Electronics Recycling Program | Positive | 3 |
| Staffing Level | Neutral | 4 |
| Unemployment Data | Positive | 5 |
| Proffer Collections | Neutral | 6 |
| Treasurer | Positive | 7 |
| Parks and Recreation | Positive | 8 |
| NW Works | Positive | 9 |
| Commissioner of the Revenue | Positive | 10 |

Gas to Energy Project Update

The second quarter of 2011 has proven to be a time of learning for landfill staff operating the gas to energy plant. During this time period, we have experienced several periods of down time for the generators. These down times were caused by several factors including interferences due to construction of new gas piping associated with the cap installation of Phase 1 cells B and C. Another issue discovered during this time period was the affect that siloxanes have on the engines. Siloxanes are organic based silica compounds that are found in landfill gas which can have a detrimental effect on internal combustion engines. They contaminate the engine oil and cause a build up on pistons and cylinder walls increasing maintenance schedules.

We have issued a change

order in the amount of \$300,000 to the original contractor to install a treatment process in front of the engines that will help remove the siloxanes and allow for a more routine maintenance schedule. The additional infrastructure for this process is scheduled to be completed by the end of September 2011. Removal efficiencies will be closely monitored and updates will be provided in future newsletters.

Financially, the power plant is averaging \$47.39 per megawatt hour of brown power since start up. This is higher than the original estimates of \$42.50 per megawatt hour. Staff continue to work on generating renewable energy credits and anticipate being accepted into several programs by the fourth quarter of

2011. These credits could add an additional \$1.50 per megawatt hour of power produced. In addition, we have started the process to become members of PJM (the regional transmission authority) in order to represent ourselves in the market. This will allow us to realize a \$7,500.00 monthly increase in revenue.

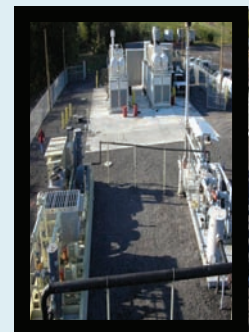
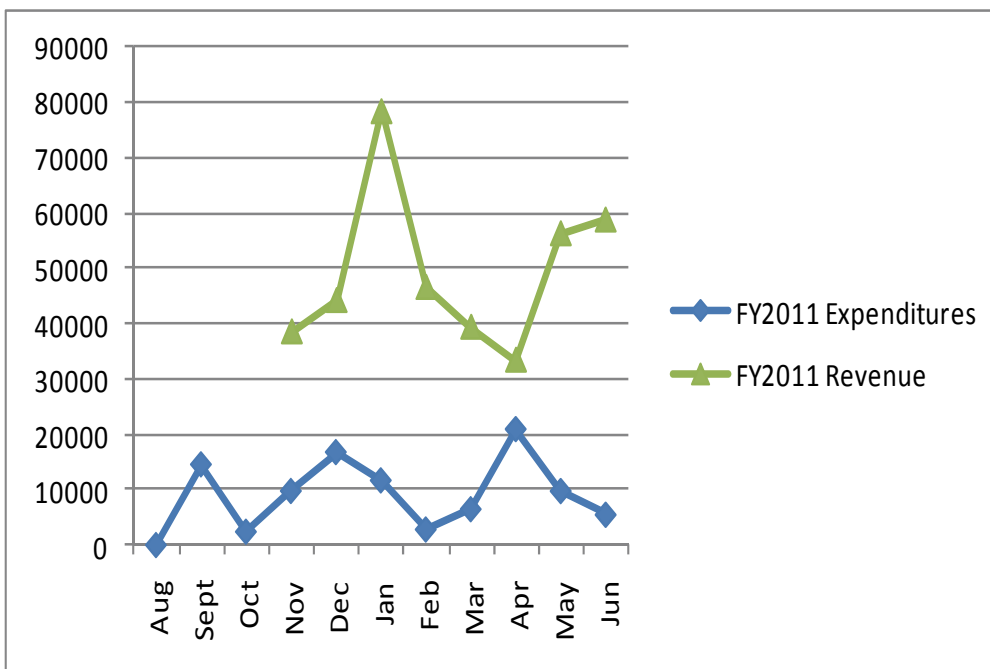
Overall, the project continues to be successful. The issues that we have faced during this past quarter will help us to better understand, prepare and operate the plant in the future. We have an excellent operator who is learning quickly and continues to monitor the engines for potential issues. This position has proven to be critical to our success. Knowledge that he is gaining will surely benefit the County as we continue forward in this endeavor.



Power Plant

Monthly revenue is impacted by seasonal fluctuation along with plant output. Historically, July and August provide the highest price per megawatt hour. The operating expenses for the project at 6/30/11 are \$120,215 compared to \$395,441 in gross revenue.

Gas to Energy Revenue and Expenses FY2011



Facility Overview

Regional Electronics Recycling Program

Frederick County's Regional Electronics Recycling Program, initiated in 2001, is one of the state's oldest permanent electronics diversion efforts. Serving as a model for numerous programs across Virginia, it remains one of the most successful. Each month, eCycle sends approximately 18 tons of broken and obsolete televisions, computers, printers, copiers, cell phones, stereos and the like off for recycling, diverting this material from the local landfill.

Discarded electronics are the fastest growing portion of the U.S. waste stream. Based on this fact, and the presence of potentially harmful substances such as lead, mercury, cadmium, chromium and barium, the U.S. Environmental Protection Agency and Virginia Department of Environmental Quality recommended that television and computer screens be diverted from landfills. With the support of the Public

Works Committee, Landfill Oversight Committee and the Board of Supervisors, a well-received pilot was conducted in September of 2001. Building on this success, an on-going collection program was established and a ban prohibiting the landfilling of these items was instituted.

Although subsequent legislation has forced manufacturers to institute take-back programs generally operated through retailers, eCycle's twice-monthly collection events at the landfill's citizens' center are frequented by about 150 participants eager to recycle "nearly anything with a cord". During FY10, 218 tons of e-waste was collected.

Events are manned by a combination of landfill staff and members of the Community Inmate Workforce. Events are open to residents and businesses in the landfill service area.

Outside of logistical support from the landfill, eCycle operates as a fee-sustaining program, collecting end user fees for televisions, computer screens and battery backups. All other items are accepted free of charge.

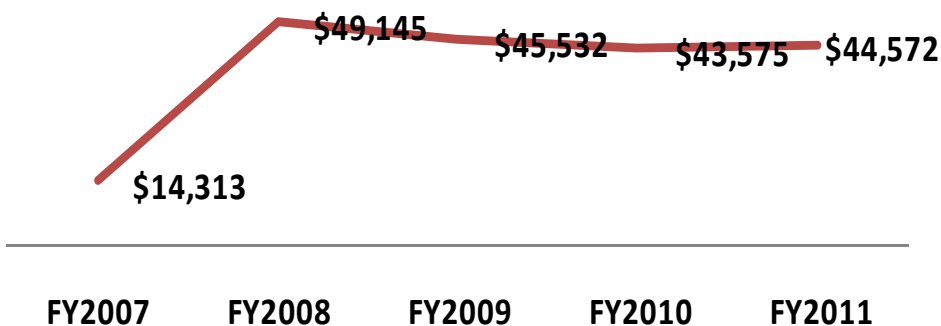
Once transported by the county's vendor, information is wiped from hard drives, and some items are packaged for refurbishment. Most, however, are dismantled into their various components—metals, glass, plastic— and remanufactured. Computers are about 95% recyclable and the county's vendor either reuses or recycles 100% of the e-waste it receives. Plastics and metals are sold as scrap and used in the manufacture of new products. Glass is marketed and used to make new television and computer screens.



Jason Breen of the landfill loads electronics for shipment

E-Cycle operates as a fee-sustaining program, collecting end user fees for televisions, computer screens and battery backups. All other items are accepted free of charge.

Regional Electronics Recycling Program Revenue





Raymond Clarke sorts and bags used shoes collected through the County's Save-a-Sole program.

Department of Human Resources

The main focus of the Human Resources Department ("HR") is people. The County government survives and thrives because of the capabilities and performance of its people. HR uses the very best practices to effectively recruit, develop, and retain the outstanding people who serve Frederick County's citizens.

HR is responsible for matching skilled, qualified individuals and the capabilities of the current workforce with the County's ongoing and future business plans and requirements. Bringing out the best in its employees vastly contrib-

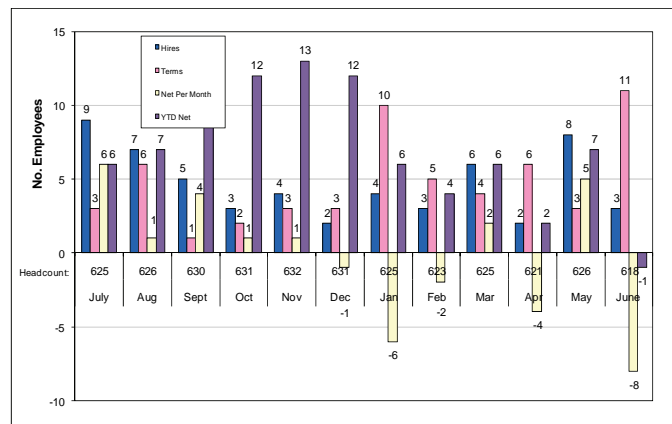
utes to the success of the County government. Thus, HR works diligently to create an atmosphere where people are given the resources to perform meaningful work to the best of their ability in order to achieve career goals.

HR develops and implements policies, standards, systems, and processes that carry out the strategies set by the County. We are tasked with ensuring that personnel and management practices confirm to federal, state and local labor laws and regulations as well as ethical business practices.

We recognize the importance of a quality work life by offering excellent benefits, health insurance, flexible spending accounts, an Employee Assistance Program, ample paid leave time, many holidays, and other programs that enhance employee well-being as well as maximize employee motivation, commitment, and productivity.

HR is committed to ensure the continued improvement and growth of both the individual employees and the County, thus securing its future success.

Employment Activity 2010-2011



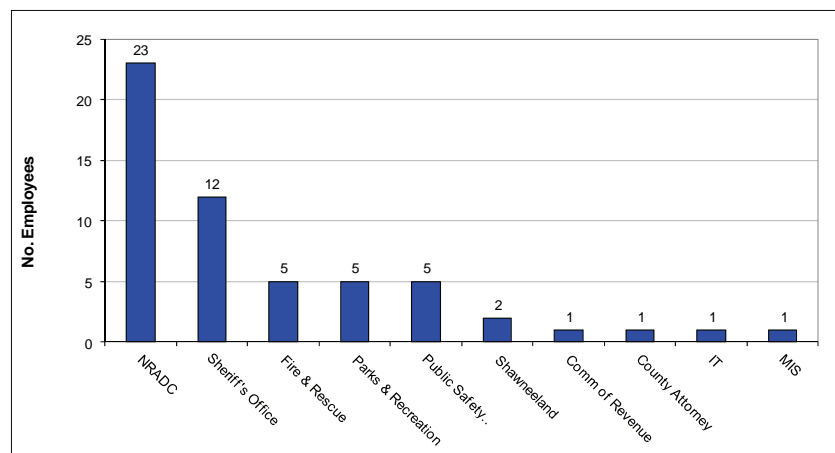
Go online for the Human Resources website for employment opportunities.

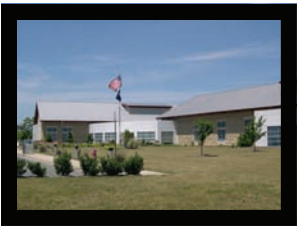
http://www.co.frederick.va.us/human_resources/vacancies.aspx



Tom Cooper mulches cut trees during the County's annual Tree-Cycle program.

Essential Positions Filled 2010-2011





Bowman Library

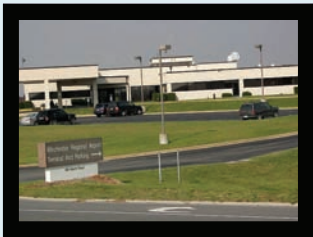
Frederick County's Reduced Workforce

For the past two years, all county positions that became vacant were considered frozen. Only positions that were emergency service critical, or were in a department that had already been reduced in size were given consideration by the County Administrator. Seventy-eight positions have been frozen. Of that

number, sixty-three positions have been eliminated from the budget. This equates to a 9 percent workforce reduction.

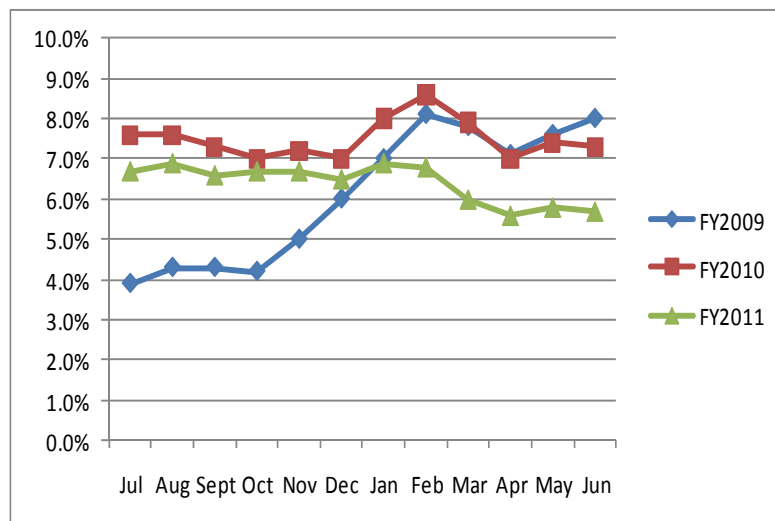
Savings related to eliminated positions have resulted in gross savings of \$3.2 million. This amount includes the fringe benefit costs associated with those positions.

Not all positions that were eliminated were vacant. When the county reduced its workforce through layoffs, those employees were eligible for unemployment benefits that are directly reimbursed by the County to the Virginia Employment Commission.

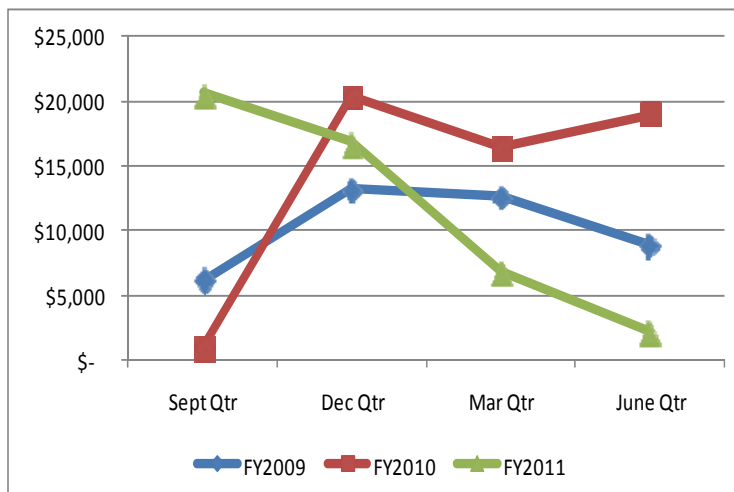


Winchester Regional Airport

Unemployment Rate—Frederick County, VA



Unemployment Claims (reported quarterly)



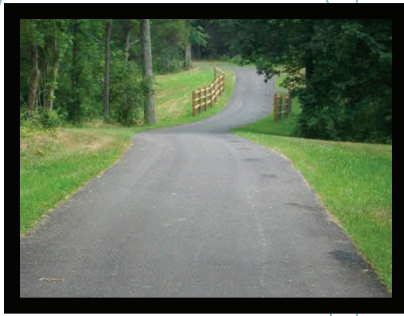
Frederick County Unemployment Claims:

June 2009 \$8,827

June 2010 \$19,000

June 2011 \$2,249

Frederick County is billed by the VEC for actual claims paid.



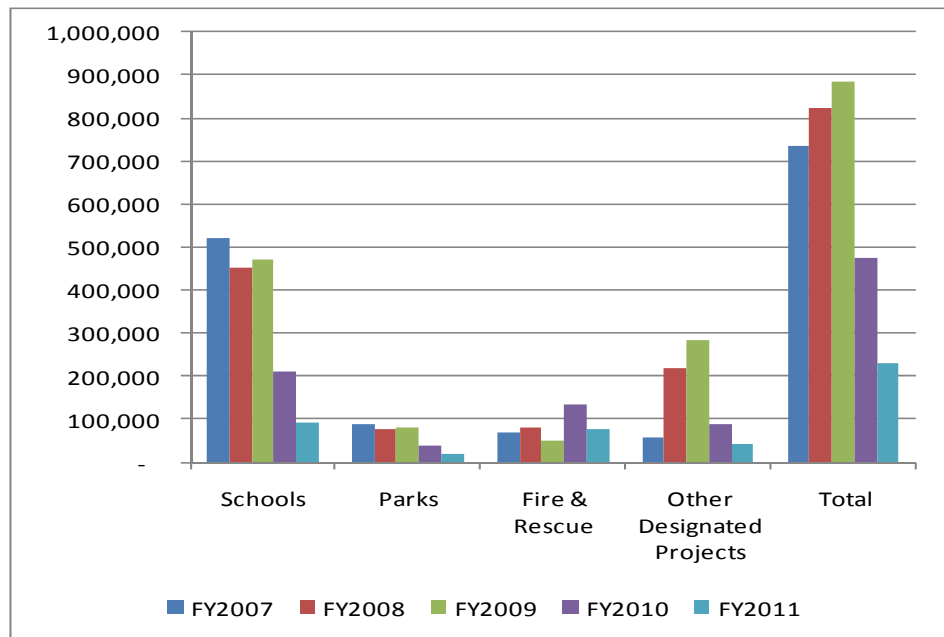
**SHERANDO PARK
Bike/Pedestrian Trail
Proffer Project**



A proffer is an offer of cash or property. This usually refers to property, cash or structural improvements offered by developers in land development projects.

PROFFER COLLECTIONS FIVE YEAR COMPARISON

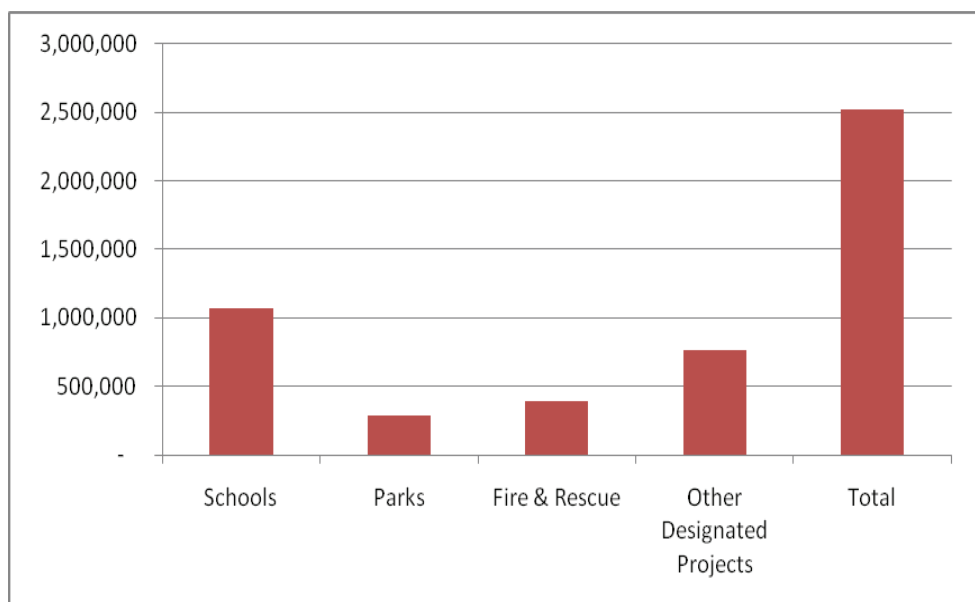
| | Schools | Parks | Fire & Rescue | Other Designated Projects | Total |
|--------|-----------|---------|---------------|---------------------------|-----------|
| FY2007 | 521,472 | 88,241 | 68,499 | 56,496 | 734,708 |
| FY2008 | 451,309 | 77,281 | 79,210 | 217,163 | 824,963 |
| FY2009 | 469,160 | 81,673 | 50,426 | 281,663 | 882,922 |
| FY2010 | 210,378 | 40,161 | 133,566 | 89,585 | 473,690 |
| FY2011 | 90,876 | 21,033 | 76,086 | 43,638 | 231,633 |
| Total | 1,743,195 | 308,389 | 407,787 | 688,545 | 3,147,916 |



PROFFER BALANCE AT June 30, 2011

6/30/11 Balance

| | |
|----------------|------------------|
| Schools | \$1,067,746 |
| Parks | \$284,661 |
| Fire&Rescue | \$394,824 |
| Other Projects | <u>\$767,572</u> |
| Total | \$2,514,803 |





**County
Administration
Complex**

FREDERICK COUNTY TREASURER'S OFFICE

One of the duties of this office is tax collection. The two primary taxes collected are real estate and personal property. These are billed semi-annually and due in June and December. The amount of each of these taxes has steadily increased over the past three years (see chart below).

One of the performance measures of the Treasurer's Office is its collection rate. This calculation is based on the standard

used by the Virginia Compensation Board, which oversees the workload studies of all constitutional offices. As noted, the current delinquent balances in comparison to the charges billed over a five year period show a collection rate of over ninety-nine percent for both taxes.

Methods used to collect delinquent taxes include bank liens, employer liens, distress warrants, DMV registration stops, and tax sales. Since

2008, the office has issued 17,322 DMV registration stops. We do encourage payment plans for those that have payment difficulties. Please do not hesitate to contact the Treasurer's office for payment plan information.

The Frederick County Treasurer's Office works diligently to ensure that everyone pays their portion, so that uncollectible balances are not an issue that causes everyone's taxes to increase.

Collection Rate at 6/30/11:

REAL ESTATE 99.2%

**PERSONAL PROPERTY
99.1%**

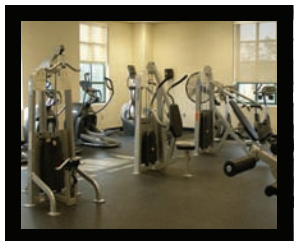
FIVE YEAR COMPARISON OF REAL ESTATE AND PERSONAL PROPERTY CHARGES AND DELINQUENCY

| CALENDAR YEAR | REAL ESTATE CHARGES | PERSONAL PROPERTY CHARGES | Real Estate 5 Year Delinquency | Personal Property 5 Year Delinquency |
|------------------|------------------------|------------------------------|-----------------------------------|---|
| 2006 | \$ 36,511,311.21 | \$ 39,016,955.46 | \$ 56,168.55 | \$ 112,583.42 |
| 2007 | \$ 38,469,683.55 | \$ 39,981,387.66 | \$ 76,202.55 | \$ 173,884.65 |
| 2008 | \$ 40,073,054.27 | \$ 40,769,730.18 | \$ 129,247.64 | \$ 259,273.68 |
| 2009 | \$ 40,493,111.37 | \$ 40,889,623.70 | \$ 267,648.38 | \$ 392,985.13 |
| 2010 | \$ 40,995,446.34 | \$ 42,206,912.05 | \$ 566,499.74 | \$ 799,295.68 |
| TOTAL* | \$ 196,542,606.74 | \$ 202,864,609.05 | \$ 1,095,766.86 | \$ 1,738,022.56 |

*at 6/30/11

Visit the Treasurer's website for personal property and real estate tax information and payment.

www.fredtax.com



**Fitness Room at
Greenwood Mill**



Sherando Park

Community Center attendance peaks in the winter; however, we are seeing steady summer usage in fiscal 2011 with new programming initiatives.

Last summer, 1,456 participants enrolled in group swim lessons with FCPRD. As of June 30, 2011, there is a slight increase over last year.

Frederick County Parks and Recreation

The Frederick County Parks and Recreation Department (FCPRD) continues its effort to maintain the highest standard in the provision of affordable parks and recreation services for Frederick County residents. FCPRD maintains two district parks, three neighborhood parks, and five community centers. The community centers are located at four Frederick County Public School elementary schools and Sherando High School. These centers are part of the Cooperative Use Agreement with Frederick County Public Schools.

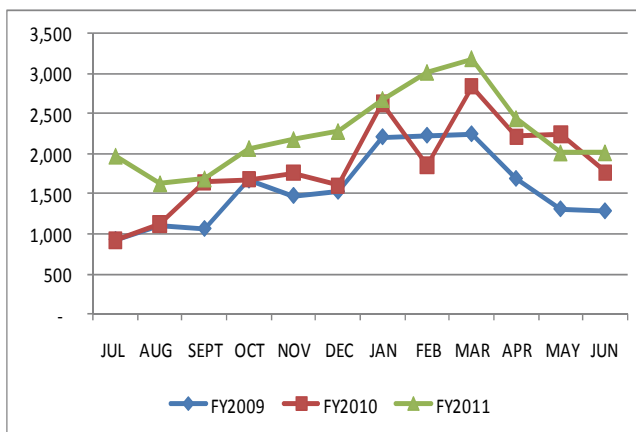
You will find below two charts outlining attendance from the last three fiscal years at the community cen-

ters, pools and paddleboats. Community Center attendance includes the fitness rooms, racquetball/wallyball courts, and gymnasium and meeting room use by FCPRD and all other users. As expected, Community Center attendance peaks in the winter. We are seeing, however, steady summer usage in fiscal 2011 with new programming initiatives such as a new youth summer basketball league and the increase in the number of fitness enthusiasts at Greenwood Mill continues to climb.

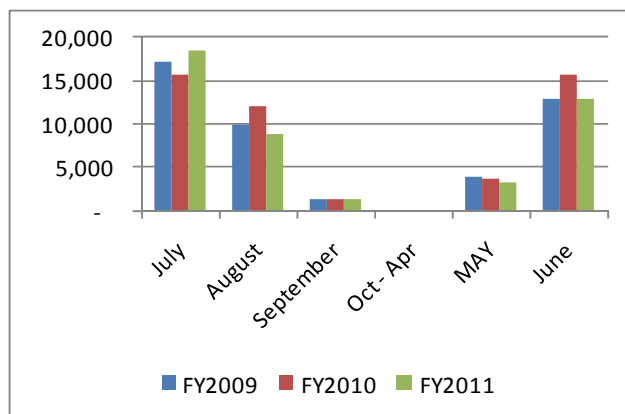
Pool attendance, aquatic program enrollment, and paddleboats make up the swimming and paddle-

boat usage. Weather plays a vital role in pool admissions, as seen by incredible June numbers from 2010. Weather will sometimes have an effect on aquatic programming, but it is not as large a factor as it is in general pool admissions. Last summer, 1,456 participants enrolled in group swim lessons with FCPRD. As of June 30, 2011, there is a slight increase over last year. There has been a surge in swim team enrollment for the departments' two teams with 239 participants, an all time high! Some of this is attributable to the Youth Development Swim Team which prepares swimmers for competitive swimming.

COMMUNITY CENTERS USAGE FY11



SWIMMING POOL AND PADDLEBOAT USAGE



N W Works Relocation

Frederick County is proud to be a partner in the completion and celebration of the new NW Works building. The non-profit, which gives people with disabilities a chance to work again, moved into the 58,660 square foot building on January 3, 2011.

While NW Works can be commended for its 40 years of longevity, the most recent relocation hit a snag when the agency changed gears from new construction along Shady Elm Road to a renovated, former Melnor building,

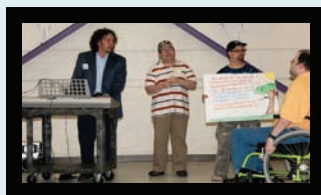
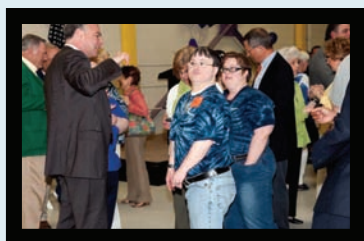
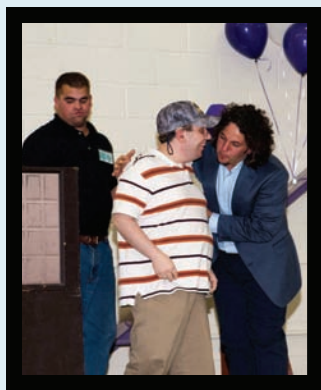
on Shawnee Drive. NW Works received a \$1,000,000 Community Development Block Grant in 2009. These funds were funded through federal stimulus dollars and attached to the Frederick County site on Shady Elm Road. With the help of former Governor Timothy Kaine and former state Senator Russell Potts, the funds were transferred. In a partnership, Frederick County officially oversaw a project that was located in the City of Winchester.



NW Works, Inc.

Open House April 11,2011

Photos by IDS, LLS





COR promotes "Going Green!" Use online forms & programs. It's simple and quick as a click!



County Administration Complex

Frederick County Commissioner of the Revenue's Office

Business Division

Businesses are required to obtain a business license within 30 days of opening and to renew it annually thereafter. The Business Division assesses or adjusts approximately 7,000 businesses in Frederick County yearly. COR (Commissioner of the Revenue) staff guides licensees through the multi-step application process and then issues business licenses after receipt of all applicable documentation payment of the business license tax. Business licenses must be renewed by March 1 and paid for by April 1 each year. Businesses can range from food service, contractors, merchants and retailers to those providing financial, real estate, repair and professional services.

Frederick County was the only locality in the Commonwealth to test, over

several years, the software system for online business license application and renewals as it was being developed and refined by Bright & Associates Inc. This system is now used by multiple jurisdictions in Virginia.

The Business Division has been at the forefront of promoting "going green" by using online forms and programs. Every Business Division form is available on our website at

www.frederickcountyva.gov/biztax.

Also provides easy, step-by-step instructions. In 2010, we offered the availability of online business license renewal and received approximately 1,000 online filings. As a result of the encouragement and assistance of COR

staff, that number more than doubled with 2,524 online renewals in 2011.

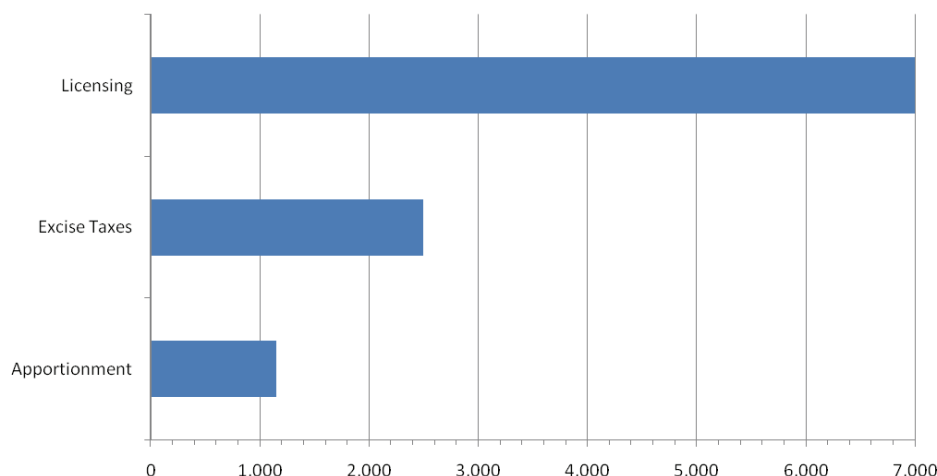
Businesses are also required to annually file returns for their tangible personal property business equipment, machinery & tools, and processing equipment. Thus far in 2011, COR staff has processed approximately 5,292 business equipment returns, 160 machinery and tools returns, and 5 processor returns. This includes approximately 1200 online filings made by licensees and 405 filings entered by COR staff to encourage use of our online program.

COR staff also handles an average of 227 monthly filings of meals and lodging taxes (almost half of which are filed online), 18 quarterly filings of short-term rental property tax (all of which are filed online), and 3 semi-monthly filings of public utility tax.

The Virginia Department of Business Assistance has launched and maintains the Virginia Business One-Stop website that was created to be a quick one-stop source for information related to business in Virginia. Frederick County has been asked to participate in a pilot program when Virginia Business One-Stop is enhanced with direct links to localities.

BUSINESS DIVISION

Average Number of Items Processed or Adjusted Annually



County of Frederick

Department of Finance
107 North Kent Street
Winchester, Virginia 22601

Phone: 540-665-5610
Fax: 540-667-0370
E-mail: bwaybrig@co.frederick.va.us

WE'RE ON THE WEB!

FREDERICKCOUNTYVA.GOV

Frederick County's Vision Statement and Core Values were adopted on December 9, 2009. It states:

Insuring the quality of life of all Frederick County citizens by preserving the past and planning for the future through sound fiscal management.

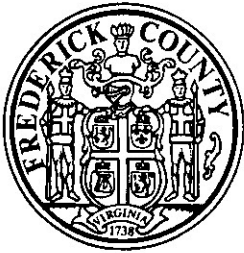
- A government that is accountable and dedicated to providing responsible stewardship for county funds and to insure the citizens receive the best services possible for the funds expended.
- A government concerned with long range planning that protects our rural heritage and directs its future growth through planned infrastructure.
- A government concerned with expanding commercial and industrial tax base in order to insure a viable and thriving economy.
- A government that looks to the future and implements plans to insure that the quality of life for future generations is preserved.
- A government that emphasizes a quality education through a cooperative effort with the school board.
- A government that recognizes the importance of maintaining a highly trained public safety program to provide efficient services and protections to county citizens.
- A government that promotes the spirit of cooperation with its regional local government partners.
- A government unit based on honesty, trust, integrity, and respect that understands the importance of clear communication and a willingness to listen.

News Headlines

- Italian automaker Fiat purchased the U.S. government's remaining stake in Chrysler for \$560 million.
- Wells Fargo's 2nd quarter profit rose 29% to \$3.9 billion from a year earlier.
- Harley-Davidson's 2nd quarter earnings more than doubled to \$190 million.
- General Electric's 2nd quarter profit increased 21.6% to \$3.69 billion.
- McDonald's 2nd quarter earnings rose 15% to \$1.41 billion.
- Amazon.com reached a licensing deal with CBS that will allow Amazon Prime customers access to the network's TV library at no additional cost.
- U.S. home prices rose 0.7% in June, the third consecutive monthly increase, according to CoreLogic.
- GM's U.S. vehicle sales rose 7.6%, Ford's increased 9% and Chrysler's surged 20% in July.
- Back to school spending is expected to reach \$68.8 billion this year, up from \$55.12 billion last year.
- UPS reported quarterly profit jumped 26% to \$1.06 billion.
- Unemployment rates rose in more than 90% of U.S. cities in June, mirroring a national slowdown in hiring.



**Millwood Station
Fire Company**



COUNTY of FREDERICK

Department of Planning and Development

540/665-5651

FAX: 540/665-6395

MEMORANDUM

TO: Finance Department

FROM: Mark R. Cheran, Zoning Administrator *MRC*

RE: Request to Carry Forward Funds from Fiscal Year Budget 2010/2011 to Fiscal year Budget 2012/2013

DATE: August 11, 2011

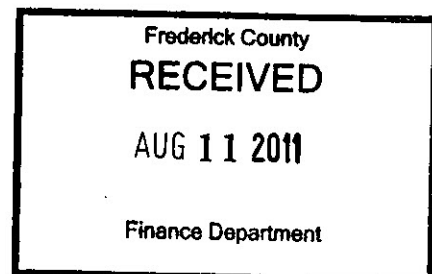
I am requesting that the following 2010/2011 Budget line item be carried forward into the ^{2011/2012}~~2012/2013~~ budget. This request is in the amount of \$5,653.45 and is itemized below.

Whitacre Farms-4027-12270-5413-000-005

The request is for the for the amount of \$5,653.45 to be carried forward and allocated to line item 4027-12270-5413-000-005 for professional services. These services were allocated to complete the Whitacre Farms subdivision. This is an ongoing project and will require funding in Fiscal Year ~~2012/2013~~ budget.

MRC/dlw

cc: James M. Stewart, Erosion and Sediment Control Program Administrator, Dept. of Public Works



Dear Cheryl,

Thanks so much to
Frederick County for the
support of the YDC. The
funds are very helpful
and will be put to good
use in all of our youth
programs. Best Regards,
Regina



Information Technology Assessment Report July 2011

Information technology is a critical component of providing modern government IT services. This is reflected in the growing investment and proposed investments by Frederick County into its acquisition of information technology assets, including personnel, systems and bandwidth to support operational IT services. Frederick County provides many Information Technology (IT) support services to its internal departments and the community we serve. These services include informational services, billing, payment collection, data collection/warehousing and reporting which are critical to the day to day operation of the county. As the request for IT services and information access has grown, the County has acknowledged the need for an ongoing comprehensive Information Technology Strategic Plan. This IT Strategic Plan should continue to provide guidance for all future IT acquisitions, deliver the best services at the lowest possible cost and allow us to explore opportunities to advance "our better to our best" for supporting our community.

"Managing your problems can only make you good, whereas building your opportunities is the only way to become great."~ Jim Collins

Documentation Order

- I. Current Mission and vision statements**
- II. Staff Assessments**
- III. Equipment Assessments**
- IV. Applications and Services**
- V. SWOT**
- VI. Appendixes**

I. **Mission, Vision and Core values** (from the current IT plan set to expire 2012)

MISSION STATEMENT

"The mission of Information Technologies (IT) is to lead in the development and management of an Enterprise technology system - central to all Frederick County departments; ensuring that information and geographic data can be shared across all functional levels and management hierarchies; and eliminating information fragmentation, caused by networking multiple information systems, through creating a centralized data warehouse and a standardized software/ hardware infrastructure, while protecting assets through intensified network security."

VISION STATEMENT

"The Vision of Frederick County, Virginia, Information Technologies is to provide a secure and fully operational county-wide electronic information system that - supports every county employee or citizen that needs and uses county digital data; improves organization operations and efficiency; that exceeds the high accuracy and standards required by today's State and Federal guidelines; stays current with state and national trends in electronic technology and data management; encourages participating users to excel in seeking out new standardized technologies; and build expertise and teamwork to improve data storage and distribution required in decision making within the County of Frederick."

CORE VALUES

The IT Director, in coordination with IT staff, will strive to ensure that all employees of the department recognize and adhere to Frederick County's Core Values:

1. To understand the importance of clear communication and the willingness to listen through respect, honesty, trust, and integrity.
2. To respect the County's cultural diversity and provide effective and efficient service with dependability, a willingness to accept change and dedication to cost effectiveness.
3. To formulate and apply regulations, policies and procedures that are fair, consistent, and flexible.
4. To provide a safe and secure working environment for our professional employees.

5. To work diligently to provide county citizens with an accurate and efficient structure numbering system that will ensure timely response during emergencies and times of need.
6. To be accountable and dedicated in responsibly conducting county business and properly managing funds appropriated for the IT budget.
7. To work diligently to provide options and future planning for IT advancement.
8. To provide an IT support system that promotes equality, freedom, and genuine concern for all of Frederick County's employees and citizens.

II. Staff Assessment

Previous to May 2011 the IT department essentially consisted of two components; they were Management Information Systems (MIS-AS400 operations) and Information Technology ("IT- technical PC windows environment"). These two areas functioned as two separate entities which at times were in direct conflict with one another. The plan to merge the two divisions into a single operational department brought about my arrival in late May, of this year. Over the last 6 weeks, I have had the opportunity to meet with department administrators, IT staff and some end-users in an effort to get a feel for both the technology and service environments. I was impressed with the perception of service and encouraged by the building administrators at Kent, Public Safety (PSB) and NRADC in my quest to learn about the IT infrastructure, capabilities and culture. The technical staff that provides the day-to-day support is as follows (appendix B- IT Organizational Chart):

County-wide resources:

- 1- IT Director
- 1 -Network Analyst
- 1 - GIS Manager
- 1 - Web Manager
- 1- MIS Director
- 1 - GIS Technician
- 1 - Assistant MIS Director
- 1 - Network Technician
- 1 - GIS Analyst
- 3 -PC Technician
- 1 - Secretary
- 3- Technicians
- 1 – AS400/dotNet Programmer

provided by buildings

GIS assigned staff

- 1 – Planning
- 1 – Revenue

Non-Technical Staff

- 1 – PC/Network Tech
- 1 – PC/ Network Tech

1 – PC Tech

Total 22 -Supporting 619 + workstations in three main locations (not including all of our remote locations which we provide various levels of support. (See appendix -A)

Staff report and recommendations -

Overall, the IT department seems to have a great service philosophy and reputation. I am very impressed with the condition of the service environment, particularly at the network level, GIS and data delivery divisions (MIS). The remote sites, NRADC and PSB (Including Fire and Rescue), maintain a technical staff. This staff has had no formal training in the area of deploying computers within a *network environment* but has done a good job managing local IT resources. Experience aside, ALL staff remains motivated and excited about formal and informal training opportunities. It was communicated to me that there have been very few opportunities to receive training.

1. Recommendation: Develop a strong training plan/ standards and encourage offsite visits to seminars and other county agencies to engage the IT staff members. Cost - \$10-15K

Responsible –IT Director

2. Recommendation: Develop strong internal relationships that allow the county-wide resources to assist the remote sites in acquisition, support and implementation of critical systems. Back-up and redundancy should never be an afterthought when developing key IT systems. This is an area we can improve easily and at no additional cost. – Cost \$0

Responsible – IT department staff

3. Recommendation: Establish service level needs and agreements, both internally and externally, to ensure systems remain operational and expectations are met. – Cost TBD

Responsible – IT department staff

Desktop acquisition has been consistently researched and recommended through a county purchasing policy for IT (appendix –B). However, the procurement of servers, switching and routing equipment has demonstrated a gap in equitable technologies. Examples of identified opportunities are the capacity for “Gigabit (GB) to the desktop” and a low capacity for wireless networking.

4. Recommendation: Look to centralize the purchase of necessary enterprise licensing and equipment (Microsoft, anti-virus, Laser file...etc.) –Cost TBD

Responsible –IT Director, IT Steering committee and IT Managers

5. Recommendations: Continue to support centralizing all purchases (whenever possible) to create an environment that can result in a standard for technology at the county level. Cost \$0 – Process commitment.

Responsible –IT Director and internal managers

6. Recommendation: Publicize all IT goals that will directly impact end-users.

Responsible –IT Director and internal managers

III. Equipment Assessment:

Inventory – Kent - 214 computers

Inventory- PSB – 280 computers

Inventory-NRADC -105 computers

Quick facts-

- Desktops and Servers standardized (Dell some “white-boxes”)
- Windows platform
- MS Office Suite-word processing
- TrendMicro virus protection (transitioning to AVG anti-virus –due to cost and level of coverage)
- Outlook and Outlook web access for email
- AS400 – data warehouse structure
- Document imaging – Laserfiche in most areas
- Nortel PBX phone systems
- Various backup systems in place

The majority of the workstations are on an informal refreshment plan –very successful. The server environment at all three locations is stable however there are some immediate needs in the areas **data recovery and disaster recovery (referencing COOP)**. I have had the opportunity to meet with key administrators about the present server environment. During these meetings we discussed the potential of minimizing recovery risks by developing strategies which addressed the AS400 (which serve as the foundation for most of our key functionality) and the standard Microsoft server environment (application services, email...etc.). At this time, we have multiple points of failure in regards to servers nearing end-of-life and critical equipment that cannot be easily repaired/replaced in the event of an outage. In short, we have “data recovery” and very limited capacity for disaster recovery.

7. Recommendation: To develop an entry plan into virtual technologies which allows the county to meet COOP guidelines and be less dependent on physical hardware. This technology would also allow the county to have development areas for testing in GIS and patch requirements for critical systems. This would potentially be phased-in over three years-
 - Year 1- initial virtual environment at Kent location
 - Year 2- Establish mirror at second location-using existing 1GB link
 - Year 3 – 10GB link between two locations

“Reasons for Moving to Virtualization”

- ***It saves money:*** Virtualization reduces the number of servers you have to run, which means savings on hardware costs and also on the total amount of energy needed to run hardware and provide cooling.
- ***It's good for the environment:*** Virtualization is a green technology through and through. Energy savings brought on by widespread adoption of virtualization technologies would negate the need to build so many power plants and would thus conserve our earth's energy resources.
- ***It reduces system administration work:*** With virtualization in place, system administrators would not have to support so many machines and could then move from firefighting to more strategic administration tasks.
- ***It gets better use from hardware:*** Virtualization enables higher utilization rates of hardware because each server supports enough virtual machines to increase its utilization from the typical 15% to as much as 80%.
- ***It makes software installation easier:*** With software vendors tending more and more towards delivering their products preinstalled in virtual machines (also known as virtual appliances), much of the traditional installation and configuration work associated with software will disappear.

Referenced from: <http://www.dummies.com/how-to/content/virtualization-for-dummies-cheat-sheet.html#ixzz1T8KFQfmf>

Resources video - <http://youtu.be/p11JOnALS4>

Responsible –IT Director, internal managers, IT steering Committee

8. Recommendation: To seek a feasible warm/hot site to allow for office space and technical equipment for our AS400 i5 series capability- site duplication (business continuity). Cost TBD

Responsible –IT Director, internal managers, IT steering Committee

Current Network infrastructure and capacity (appendix-C WAN diagram)-

KENT -1000Mb / 1GB to desktop

Some wireless capacity

Connected via fiber 1000Mb

PSB – 10/100Mb

Limited wireless capacity

Connected via fiber 1000Mb

PSB – 10/100Mb

Connected via fiber 1000Mb

Phone System- currently (Kent location) we have digital PBX based system which controls the telephony access between the three locations. The base system is a Nortel (BCM400) call manager and is capable of 4 digit routing. The concerns with the current system surround the calling features and the 4 “tree” limit for automated call-in menus. Based on several requests, I have had the service provider research the system and prepare options for possibly upgrading or replacing the system. Based on the cost associated with either option we may need to wait until sufficient funds are available before committing to this initiative.

9. Recommendation: Investigate possible upgrade or replacement of current system. Cost TBD

Responsible: IT Director and IT steering committee

Server base – AS400

The AS400 hardware is stable at this time and the core departments (Treasury, Revenue and Finance) are satisfied with its performance. The county's investment in both financial and human resources to this point have resulted in great achievements in data usage and access capability (online data access, payment information, financial data, GIS...etc.). There has been an identified need to provide other departments with alternative systems to allow them to access and manage operational data through more “user-friendly “ systems/interfaces; which are common in mixed environments for ease of data entry and reporting. The county currently maintains a manager, assistant, and an off-site programmer to support these data warehousing services. Going forward, there may be opportunities to begin access programming suited to mobile devices and broadband wireless technologies- as service needs begin to increase. The county may wish to examine alternative data warehousing technologies to continue to meet expectations for both internal and external organizational needs.

10. Recommendation: Ensure that training is provided to internal staff for cross-training (report access, query and data retrieval). Cost TBD

Responsible: MIS and IT Director

11. Recommendation: continue developing creative ways to extend the performance and life of the existing AS400 platform and /or develop a transition plan to address current limitations and future needs reflected in the RHJ analysis.

Responsible –IT Director, internal managers, IT steering Committee

12. Recommendation: possibly investigate systems which integrate with the current AS400 technology and allow departments to acquire applications that are able to co-exist within the data warehouse structure.

Responsible –IT Director, internal managers, IT steering Committee

IV. Applications and Services

The county supports many applications and services. The core areas of the county's financial and data collection/ reporting are supported by modules/ applications developed by Bright and Associates (BAI) for the AS400. This strategy translates to the libraries and objects which are formed and stored within the AS400. Connections are established by applications/ services to this data which provides standard data to applications and systems. At this time, the county has acquired systems that require manual/ automated/semi-automated data collection to avoid data duplication between systems. This practice called data warehousing is well-known in IT environments and should continue. Additionally, the county's server and desktop environment functions on a Windows platform – operating system, enterprise email, web services, data collection SQL, Internet access and monitoring. Again, this is a strategy that has worked well and presents opportunities for improvement.

GIS is a major benefit /service within our portfolio. This system is used by almost every department and provides valuable information to the public. Standard GIS data is supplied by the state and links to our AS400 via ARCGIS services. The county recently released a much anticipated GIS service which allows the general public to research the county's geography through a user friendly web service. We have also provided a service called pictometry, oblique 45 degree aerial imagines, that renders a "curb-side" view of any location within the county. Internally, this has been beneficial to our public safety and planning departments.

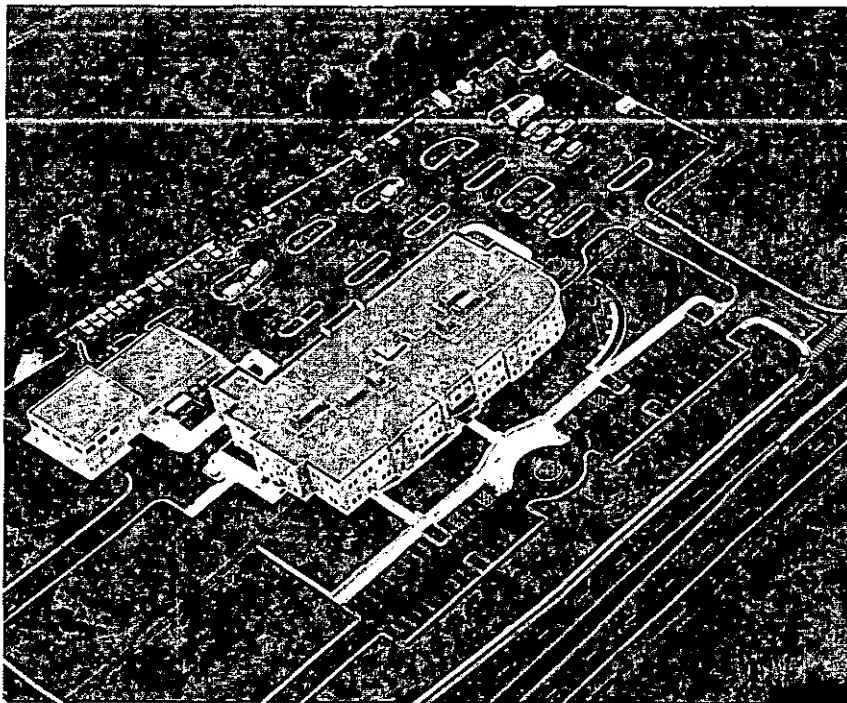


Figure 1-Pictometry Example

13. Recommendation: The consolidation of services and platforms. Identifying systems that require expanded capability or “resources on demand” (Processors, memory, disk space...etc.) Investigating desktop virtualization would be an option to expand our need to replace desktop equipment and secure network data. By adopting this strategy there may be opportunities to reduce hardware costs, provide high availability of systems and address the need for disaster recovery of key systems. Cost TBD

Responsible -IT Director, internal managers, IT steering Committee

14. Recommendation: Expand wireless capacity and kiosk options to increase public access to useful data and services. Cost TBD

Responsible -IT Director, internal managers, IT steering Committee

15. Recommendation: Continue to support our GIS initiatives with data, development and training resources. Cost TBD

Responsible – GIS manager, internal directors, IT steering Committee

V. SWOT- Strengths, weaknesses, opportunities and threats

| Internal | |
|---|---|
| Strengths | Weaknesses |
| <ol style="list-style-type: none"> 1. Outstanding attitude/ internal perception to customer service 2. Departments have managed computer inventory with a reasonable refresh schedule (3-5 year max) 3. Strong library of relevant software titles 4. Good management of assurance and maintenance contracts 5. System failure rate managed well 6. Knowledgeable staff members- real team focus 7. Leadership open to reviewing current processes and ownership practices- key for change management 8. AS/400 MIS section is experienced and service driven 9. AS/400 and Bright working well with internal county processes 10. Negotiated solid Internet service contract (50 Mb bandwidth for lead strategy) 11. WAN Infrastructure 1Gb fiber links with option to increase to 10Gb 12. Stable website presence 13. AS/400 programmer resource –county “owned” 14. Solid data recovery capacity at KENT location 15. Consolidated ordering- good communication to IT for IT purchases 16. Centralized email (exchange 2003) 17. Active Directory is current utilized at KENT location 18. Implemented document imaging system -available | <ol style="list-style-type: none"> 1. Limited technical documentation 2. Multiple single points of failure within the server infrastructure 3. No established training plan for technical and non-technical staff 4. Limited Disaster Recovery Plan(DRP) 5. History of communication issues resulting in bad internal relationships 6. Key project bench marks not met – as per IT Work Plan 7. No IT Strategic Plan 8. Learning curve for new IT director – environment /culture 9. Hardware spec and procurement practices 10. IT policies outdated – Acceptable Use Policy – need AUP based on new technologies 11. Change management practices not defined within IT 12. Highest OS domain windows 2003 13. No Active Directory structure at PSB nor NRADC |

| External | |
|--|---|
| Opportunities | Threats |
| <ol style="list-style-type: none"> 1. Training opportunities will lift IT staff spirits and continue to engage staff members 2. Virtualization will enhance data recovery capacity and add disaster recovery expectations 3. Potential to program in our current MIS format as we look to possibly adapting an Enterprise Resource Planning strategy – universal plan/ application for all facets of our enterprise applications 4. Selection and implementation of a feature rich content management system to supplant our current web infrastructure – adding content storage and workflows 5. Consolidate service approach to IT through the implementation of an operational framework –i.e. ITIL...continuous improvement model 6. Development of activity kiosk to serve our communities 7. Wireless implementation technologies 8. Mobile web-based application development as we seek to take advantage of broad-band technologies 9. Implementation of disaster recovery plan 10. Implementation of multi-tiered security plan 11. Development of technical documentation and cross-training practices 12. The opportunity to reach out to establish relationships with internal and external entities for better IT services 13. Upgrade to windows 2008 R 2 AD at all locations 14. Upgrade to exchange 2010 email/ messaging platform 15. Video conferencing and social networking for better public exposure by advertise available county services 16. Social medium 17. Staffing turn-over – GIS tech, Split business manager position to add 2 technical support staff 18. Opportunity to explore cloud computing | <ol style="list-style-type: none"> 1. Equipment failure 2. Relationship with FCPS for internet connectivity 3. NO Disaster Recovery Plan- some data recovery 4. AS/400 limitation and staffing concerns – retirement(cross trained staff) 5. Lack of mobile technology access 6. IT policies out dated 7. No consolidated purchasing plan –individual departments budget for IT needs 8. Security 9. Need for documented plans 10. AS/400 identified as a data structure with potential high Total Cost of ownership -TCO and limited capacity to support full Enterprise Resource Planning- ERP philosophy |

| | |
|--|--|
| | |
|--|--|

| SWOT Analysis Summary |
|--|
| <p>The services provided by the members of the IT staff have been exemplary to this point. Moving forward the county has the opportunity to develop an IT strategic plan that addresses current needs (disaster recovery, portfolio development and staff training) as well as the provision for future county services/ capacity.</p> |

VI. Conclusion

Over the next 6 months I propose we work to develop a second 3-5 year plan with the intent of supporting the county's IT mission. We will look to use the current creative structure (IT steering committee, department administration and central administration group) to collect input and organize the county's diverse stakeholders to focus on the concept of what IT services need to "look-like" over the next 3-5 years. They will be centered on the concept of proactively seeking out new solutions to information technology opportunities and challenges.

Vision: "I see a world where IT is..."

Mission: "In that world, IT intends to..."

Strategy: "We will achieve this mission by..."

This includes internal process support as well as providing citizens with the means to conduct business with county departments through the Internet, as well as providing constituents with information about County activities and services. In the development of the Strategic Plan, I recommend we address six common IT principles, against which each goal and objective will be measured. These information technology guiding principles are:

- ✓ Support the operational objectives and policy initiatives of the County Board of Supervisors.
- ✓ Treat information as a valued strategic resource and establish priorities.
- ✓ View ALL technology investments from an enterprise perspective.
- ✓ Seek to take advantage of "access" technologies (i.e. conducting county business online).
- ✓ Provide the public secure access to identified County information and services via the web.
- ✓ Support value based budgeting for future IT procurement.

An IT strategic plan guided by these principles will provide a foundation for an enterprise wide approach to the development and management of information technology. This is not intended to limit department or agency creativity but to provide a stable infrastructure and environment in which to solve common business problems faced by many agencies and to allow the agencies to collaborate on significant efforts.

A Continuous Process Improvement strategy is a key part of the Strategic Plan. The Plan is a living document—IT Department and its steering committee will review the Plan periodically, and update it as needed.

Appendix A

Entry Plan Data Collection Process Steps

Data collection

- Meet with IT staff, various IT groups and committees
- Meet with leadership at each facility to gain an understanding of culture and operational roles
- Interview users
- Collect inventory data
- Review policies and IT documentation

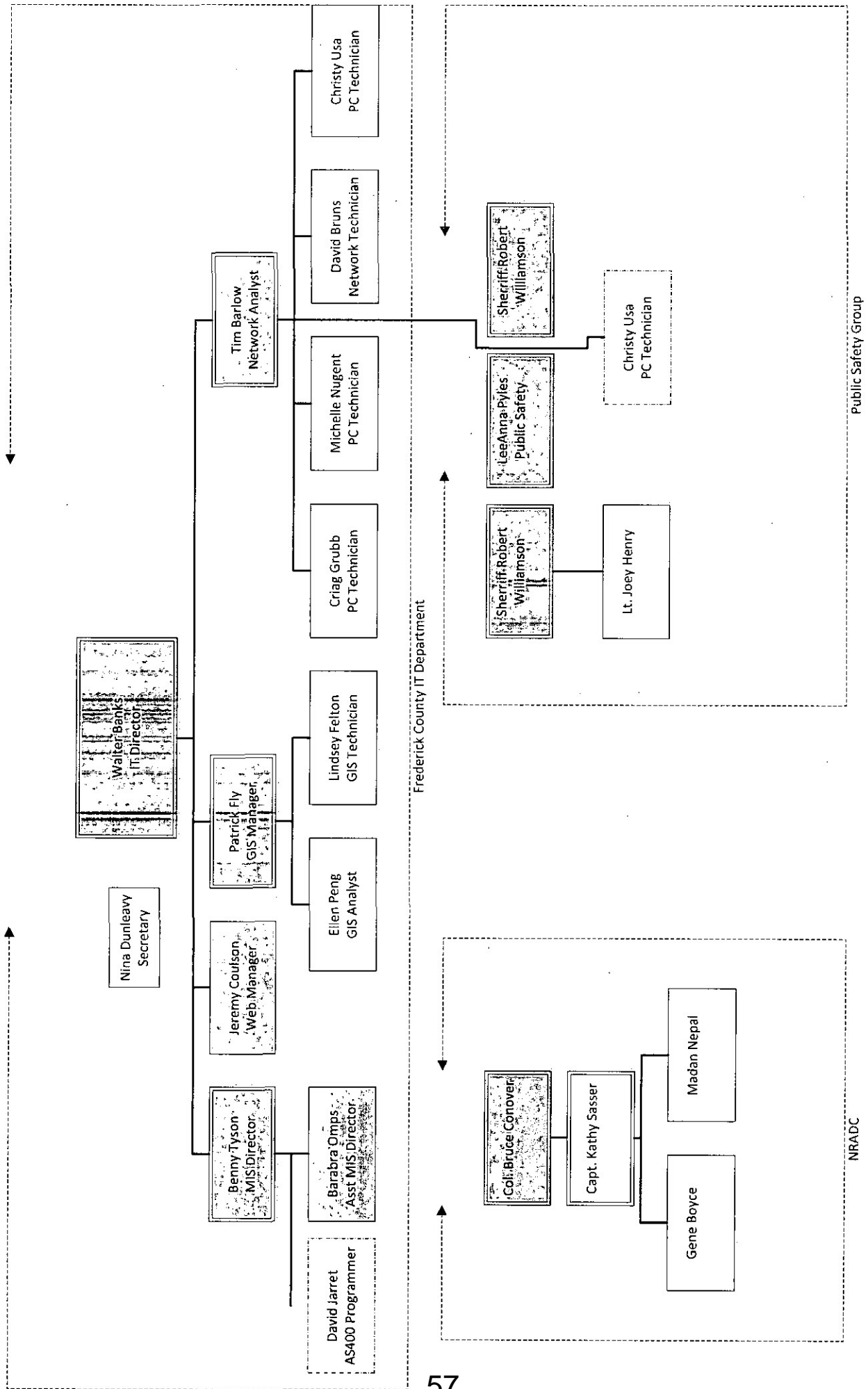
Recommendations

- Strengths, Weaknesses, Opportunities, and Threats analysis
- Plan Development- for 2012-2013 FY

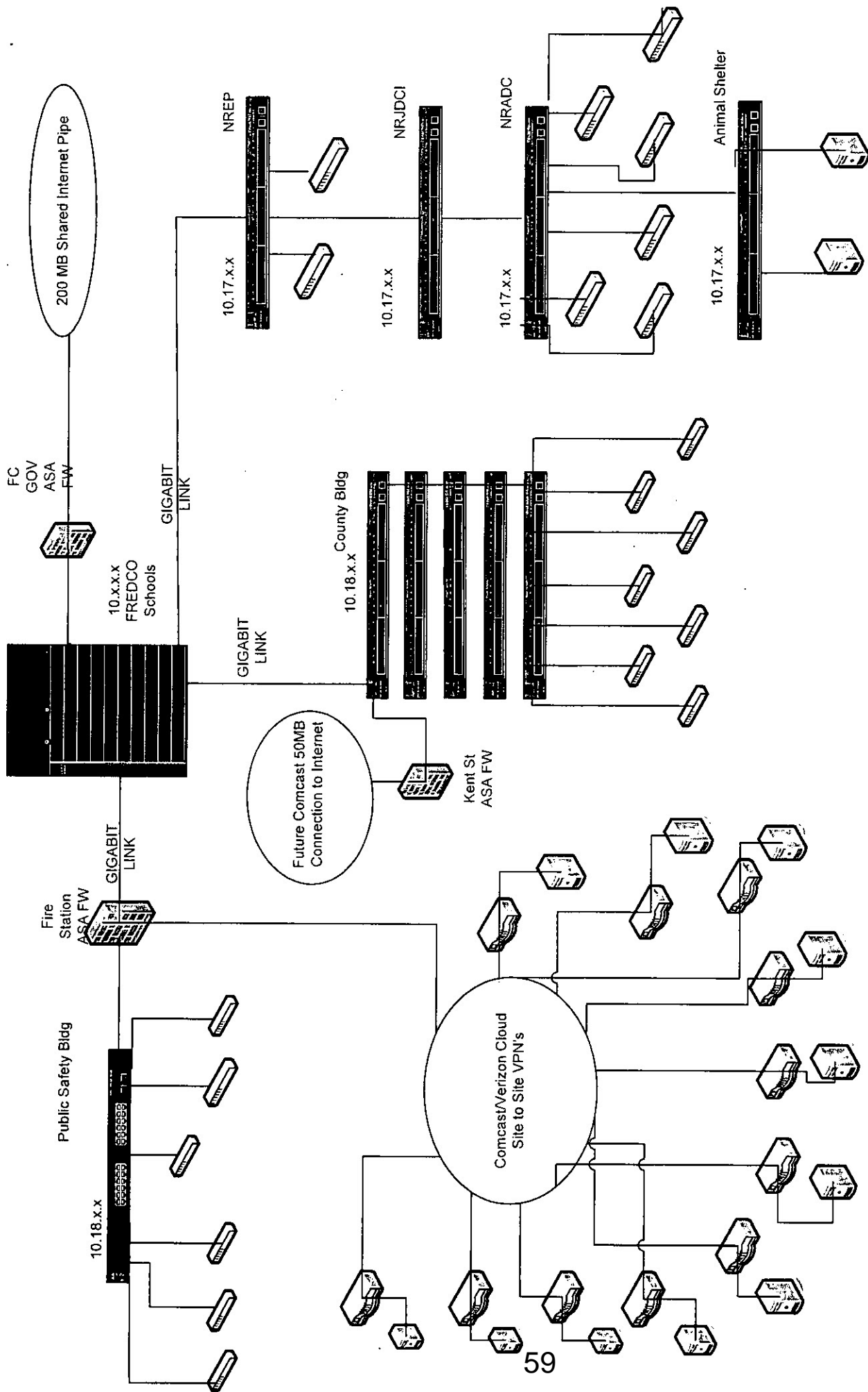
Follow-up for continuous improvement assessment

- Ongoing through process review and policy update

Appendix B –Organizational Chart



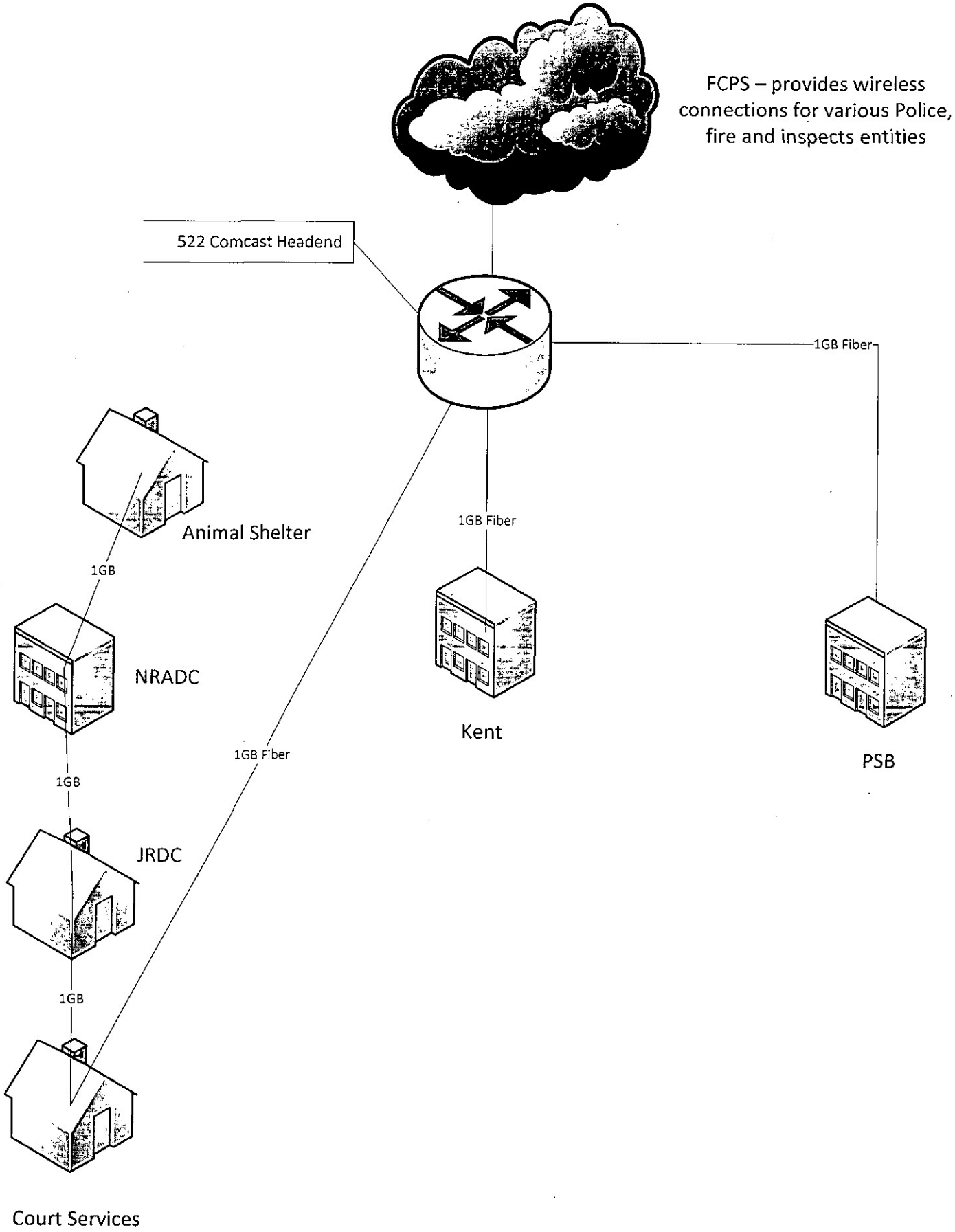
Appendix C- WAN Connectivity



Frederick County FireStations

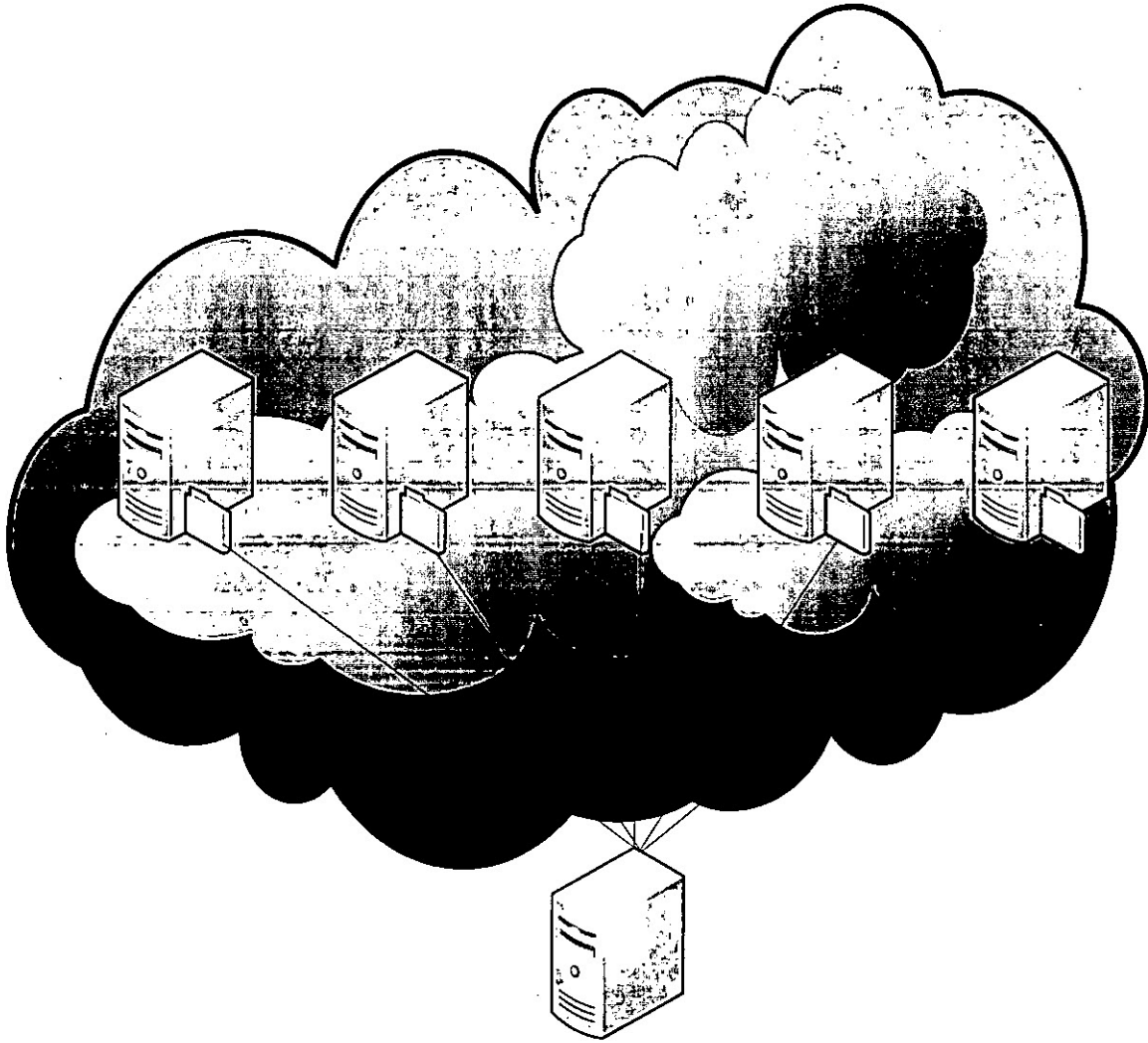
SUMMER 2011 WAN SCHEMATIC

County WAN Summary



Appendix D- Virtualization Opportunities

Virtualization 101



High-Availability Virtualization

*Deep
Dive*



Using virtualization to improve reliability

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Sponsored by



IRON MOUNTAIN®



Virtualization for high availability and disaster recovery

Use server virtualization to duplicate resources and create failover capabilities at lower cost—without compromising on reliability

We build our infrastructures not just in case of failure, but because we know failure will eventually occur. That's why a tremendous portion of the money IT spends on infrastructure goes to maintaining high availability and business continuity.

Server virtualization can play a huge role in delivering the high levels of reliability that today's enterprises demand, often at a lower cost and with less complexity than traditional non-virtualized methods. The key advantage, frequently, is that virtualization enables you to design one high-availability scheme and apply it to many situations, regardless of the applications involved.

Virtualization is not the answer to every reliability problem, of course. (Some applications, for example, may be better served by their own faster-acting high-availability functionality.) But over the last few years, virtualization has improved data center efficiency more than any other new technology—and high-availability solutions typically benefit substantially.

THE ADVANTAGES OF VIRTUAL OVER PHYSICAL

Traditional high availability and disaster recovery often involve physical server clustering or agent-based host replication. These frequently require complex software and application-specific infrastructure.

If you implement this functionality in the virtualization stack, however, you don't need to design and invest for each separate application. Instead, you can invest in those technologies once and reap the benefit for all virtualized applications. Moreover, many applications lack built-in high-availability functionality entirely. For these applications, using tools offered by modern virtualization hypervisors may be the only way to ensure comprehensive reliability.

Take the example of a small-business network

consisting of a few application servers, an email server, two database servers, and a file server. To deliver high availability, you'd need to start by doubling the number of servers. Then you'd need to buy fairly expensive host-based replication software that can keep the pairs of servers in sync. That software, however, might not be supported on the database servers. So on one or both of the database servers, you might have to use the database vendor's clustering software (potentially a significant expense) and implement costly shared storage just to make the clusters work.

In other words, you've just duplicated your server hardware budget, added to your software budget, and given yourself the chore of monitoring and managing five different active pieces of replication software, two clusters, and a SAN. That's why you almost never see this configuration in the real world: It's expensive and complicated.

Faced with this cost and complexity, most companies opt to protect only the most important parts of their infrastructures rather than attempting to protect all of it. But what good is a clustered database platform if users can't log in to their desktops because the file server isn't available?

Using server virtualization, you could consolidate those seven original servers down to two high-performance virtualization hosts, add some third-party, virtualization-aware host replication software, and provide high availability to the entire server farm in one fell swoop. This configuration is arguably less complex and possibly less expensive than the original and offers similar redundancy capabilities.

There will still be occasions when high-availability functionality built into an application is preferable to a virtualization-based solution. Sometimes this is simply because the application has more effective or consistent failover capabilities. More often, however, the



application vendor simply fails to support virtualization-based high availability.

ASSESSING YOUR RISKS

If implemented properly, virtualization-based high availability and disaster recovery can protect your organization from almost any kind of failure. But the cost of covering everything sometimes outweighs the potential value. That's why, before deciding how far your implementation should go, you should start by examining the types of possible failures and the level of risk for each one.

Infrastructure risks range from high-probability, low-impact failures (such as disk or power supply failures) all the way to low-probability, high-impact failures (such as losing an entire data center to fire or natural disaster). Protecting your infrastructure from remote risks may seem prohibitively expensive. But when the alternative is a core infrastructure that could go down for days, the extra insurance is worth buying—especially if you can get it cheaper through virtualization.

COMPONENT FAILURE

The most common type of failure is a hardware component that dies, such as a disk drive, power supply, or networking/storage device. Most of these failures never rise to a level that demands a virtualization-specific approach. Proper server, storage, and network hardware design stipulate the use of fully redundant hardware components and dual-core meshed switching and storage fabric architectures that render most of these risks moot.

Nonetheless, virtualization can decrease the cost of implementing these basic reliability measures. Take the example of providing redundant network connectivity to 100 physical servers. In this scenario, you'd generally require at least two independently redundant server aggregation switches with enough port density to attach to each server.

In a virtualized server environment, the number of physical servers might be decreased to as little as 5 or 6 high-end servers. Though these virtualization hosts would each require more network connectivity than any one physical server they replace, the net decrease in redundant network switching for a datacenter this size is usually somewhere around 80 percent. This same decrease in overall infrastructural requirements plays out in many other areas, including the storage fabric.

PHYSICAL SERVER FAILURE

In traditional, non-virtualized environments, it's common to see the use of host-based replication tools such as Neverfail or NSI's DoubleTake to provide high availability. These tools install on the operating system of a physical server and synchronize that server to another piece of standby hardware that acts as a backup. Obviously, if you implement failover in this way across a large number of servers, you're talking about massive, costly duplication of hardware resources.

Fortunately, these same software packages can also be configured to utilize a virtual machine as a replication target. This kind of hybridized, physical-to-virtual failover capability can be one of the only high-availability solutions available to enterprises that operate applications that will run in a virtual environment but aren't supported by the software vendors (sadly, there are still many of these).

VIRTUAL HOST FAILOVER

A number of methods provide redundancy for clusters of virtualized hosts to ensure uptime in the face of total host failure. Some are provided by third parties and can be bolted onto an existing virtualization environment; others can be implemented using the native functionality of the hypervisor.

Popular third-party host redundancy software packages include Vizioncore's vReplicator and NSI's DoubleTake for Virtual Infrastructure. These tools integrate with the virtualization host at the hypervisor level and provide the ability to continuously synchronize the local storage of one virtual host with that of another.

One benefit of using this kind of tool is that shared storage (usually in the form of a SAN) isn't required. Unfortunately, due to the amount of integration required for these tools to interoperate with the hypervisor, there is often a lag in the tools' ability to support new hypervisor releases. This dependency may delay upgrades to the newest or most feature-rich version of the hypervisor. Additionally, using this approach also results in inefficient duplication of the amount of direct-attached storage you'll require.

Using the built-in high availability features within the hypervisor usually yields the best outcome—if you can afford it. Almost all of those features—whether you're talking about VMware vSphere's high-availability (HA) feature or clustering Microsoft Hyper-V servers—require



shared storage. Though the cost of entry-level, enterprise-class SANs has fallen like a stone over the past few years, they still aren't cheap. Small organizations with modest storage requirements may find that third-party host replication tools are more cost-effective.

Though you'll find variations in the way virtualization vendors implement virtual host high availability, the general concept is simple: Two or more virtual hosts are built in a cluster and attached to a single shared storage device. The clustered hosts keep a record of the virtual machine inventory and continuously monitor each other.

When one host fails or becomes isolated from the network or storage, the remaining hosts restart the virtual machines that the failed host had been running. Depending upon the implementation, this usually takes a few minutes and results in the loss of user sessions and any unsaved data—essentially as if the original host had been rebooted after an unexpected power failure.

As compared to traditional physical server clustering, the response time of virtualized clustering can be significantly slower. However, the ability to apply this failover capability to literally any type of application that can run in a virtual machine usually outweighs the extra minute or two the failover might take.

If seconds of downtime make a difference, VMware's Fault Tolerance (FT) feature may be of interest. In VMware FT, the virtual machine's entire active memory image is kept synchronized across two virtual hosts. If the host that is actively operating the virtual machine fails, the second host can pick up the processing of that virtual machine almost immediately—usually far faster than most application-specific failover technologies.

As you might expect, implementing FT comes at a cost, both in terms of limits on the specification of the virtual machine and load on the virtual hosts. Like VMware HA, FT requires shared storage and has a limited hardware compatibility list. Unlike HA, FT has a very long list of virtual host and guest limitations, including the lack of support for more than one vCPU that may make FT inappropriate for use in many of the cases where it would be most desirable.

SITE FAILURES AND CONTINUATION SOLUTIONS

The risk of complete site failure is both remote and expensive to defend against. Site failure comes in

several unpleasant flavors. The most dramatic involves an extreme event where the datacenter succumbs to fire or natural disaster—resulting in a collapse in WAN connectivity, a power (and backup power) failure, or destruction of the disaster movie variety.

More typically, site failure results from less obvious risks, such as power surges, vandalism, or catastrophic SAN failure. The last, of course, is less severe than a total site failure. But most organizations put SAN failure in the same category because it has the same catastrophic effect (unless a redundant on-site SAN is in place—rare, because the cost is too high).

WARM OR HOT SITES

The most common approach to dealing with the risk of site failure is to construct a redundant data center at a different physical location. This may be either a warm or a hot site. The line between the two is blurry, but in general, a hot site involves the full duplication of all of the infrastructure located at the primary data center, which is generally kept in sync with the primary through some form of data replication.

A warm site is a scaled-down version of the primary data center—often with a minimum complement of compute resources that together can run only the most critical subset of the primary data center's production load. In addition, most warm sites lack the level of internal failover capability found in either the primary data center or in a hot site.

Using virtualization in combination with a secondary warm or hot site data center can result in significant efficiencies, mainly due to reduced hardware and software requirements. In fact, virtualization has led to a significant increase in the number of enterprises that can afford to implement site redundancy.

The largest challenge involved in implementing a secondary data center is replicating the underlying data from one site to another. Virtualization itself can't help you with that (although it can potentially make the site failover process faster and easier to test). Instead, most virtualization software vendors leave the task of moving business data to third-party hardware or software.

This can be approached in two different ways—either through the use of SAN-to-SAN replication or third-party virtual machine replication tools. In fact, many of the same third-party host replication tools used locally



can also be used over a WAN to replicate the storage of one virtual host to a second host at a remote site.

SAN REPLICATION

Most enterprises contemplating a redundant data center will opt to implement a second SAN with block-level SAN-to-SAN replication. This solution is the most robust, because it is generally very reliable and scales easily. Of course, it also doubles your investment in SAN hardware—plus, many storage vendors charge a premium for the software licensing required to enable replication.

Then there's the cost of the bandwidth required to keep an entire production data center in sync with a remote data center. In some cases, this dwarfs the cost of the storage hardware over its lifetime.

If both sites are located within the footprint of an inexpensive, fiber-based telecom provider, bandwidth costs may not be a huge deal. But if one or both sites are located in a rural area with only leased-line services available as connectivity options, the cost may be prohibitive. Using a WAN accelerator such as Riverbed's Steelhead or Citrix's Branch Repeater can lighten the burden to some degree, but remember that in many cases bandwidth may be a showstopper.

It's also important to consider the load that the replication will place on the storage infrastructure, both in terms of additional capacity requirements and transactional performance.

SAN replication comes in two distinctly different flavors: synchronous and asynchronous. Synchronous replication keeps the two storage infrastructures in second-to-second lockstep with one another. Write requests issued to the primary SAN are not acknowledged as complete until the secondary SAN has received and successfully committed the write. As such, synchronous replication demands very low latency between sites, which generally means a fiber connection with a maximum distance of approximately 200 miles.

Such high-end requirements ensure that all but the largest enterprises opt for asynchronous replication. Rather than maintain full synchronization, the SANs periodically synchronize with each other. In exchange for a much lower cost, you introduce the possibility that, in the event of a failover, the redundant datacenter might not represent an up-to-the-minute version of the primary one.

SITE FAILOVER CHALLENGES

Along with setting up and synchronizing a warm or hot site, you also need to automate the required storage and networking changes necessary when failover actually occurs.

The process varies depending on the storage vendor, but usually, it involves promoting replica volumes on the secondary SAN to active volumes (usually discontinuing any active replication in the process). For the redundant virtualization hosts at the secondary site to see and use the storage, this process must be repeated for all replicated volumes, and the hosts must be made aware of the storage.

In a virtual environment, the individual virtual machine configurations must be imported into the virtual hosts, reconfigured to use the secondary site's network resources, and brought online.

These processes are time consuming to do by hand in a large environment, which is why you should script the storage failover and virtualization reconfiguration process. To this end, VMware offers its vCenter Site Recovery Manager (SRM) add-on to its vCenter host management framework.

SRM automates site failover by generating and maintaining a failover script that handles the reprovisioning of storage at the secondary site, reconfiguration of the secondary site virtual hosts, and ultimately powering on the virtual machines at the secondary site. SRM can also change the network configurations of the virtual machines.

SRM also allows administrators to test the failover process without affecting the operation of the primary data center. This testing capability is invaluable to enterprises that must be able to demonstrate their failover capability to auditors for regulatory compliance reasons.

WHEN YOU SHOULD AVOID VIRTUALIZATION-SPECIFIC HIGH AVAILABILITY

Virtualized high availability combined with SAN-based replication to a warm or hot site yields a highly robust and efficient system. But this solution isn't always better than the reliability features native to some modern applications. Microsoft's Exchange 2010 is a great example of this.

Microsoft Exchange 2010 offers several layers of built-in redundancy centering on its DAG (distributed



availability group) feature. Basically, DAG boils down to automated transaction log shipping, which many database platform administrators will find familiar.

When configured in a DAG group, two Exchange servers can be configured to automatically ship each other copies of all of the writes that have taken place to each of their mailbox databases—essentially providing both servers with a complete copy of the other's database.

When a failure occurs on one host, the other host can very quickly take over for the first—often much faster than a hypervisor-based high-availability solution might be able to. This is because the hypervisor must restart the virtual machine to recover it, while the Exchange server needs only to mount the secondary copy of the database and start offering it to end-users. Moreover, when replicating to a secondary site, this type of transaction log shipping is almost always more bandwidth efficient than block-level SAN replication of a complete database.

Of course, applications with excellent availability schemes such as Exchange can still be virtualized. There are many other benefits to server virtualization, such as hardware portability and consolidation. But in some

situations, you may want to create a hybrid and use both the reliability features of the hypervisor and those natively present in the application. In so doing, you may be able to shorten failover response time (increasing reliability) or decrease the amount of data that needs to be shipped across the WAN (decreasing RPO and WAN expenses).

VIRTUALIZATION'S RELIABILITY BENEFITS

Virtualization provides massive amounts of flexibility to IT administrators. Whether that flexibility comes from quickly and easily moving virtual machines from one piece of hardware to another—or the luxury of testing the failover of an entire data center with the click of a button—many of those flexibility enhancements translate directly to increased reliability.

You simply can't get those features without using virtualization. Although server virtualization does not apply in every case—and in some instances the native high-availability features of individual applications work better—no other technology can be applied so broadly and with such economy of scale across the data center to deliver high availability and disaster recovery. 🐼

FUND 10

| DATE | DEPARTMENT | REASON FOR TRANSFER | FROM | TO | ACCT CODE | DESCRIPTION | AMOUNT |
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| 2011-07-01 | ECONOMIC DEVELOPMENT COMMISSION ECONOMIC DEVELOPMENT COMMISSION | CORR BUDGET P/T HELP | 81020 1005 000 000 81020 1003 000 000 | 000 000 000 000 | 000 000 | OVERTIME PART TIME/EXTRA HELP | 36,592.00- 36,592.00 |
| 2011-07-15 | GENERAL OPERATING FUND GENERAL OPERATING FUND | INCREASE IN VACO DUES | 11010 3005 000 000 11010 5801 000 000 | 000 000 000 000 | 000 000 000 000 | MAINTENANCE SERVICE CONTRACTS DUES AND ASSOC. MEMBERSHIPS | 227.00- 227.00 |
| 2011-07-27 | INFORMATION TECHNOLOGY INFORMATION TECHNOLOGY INFORMATION TECHNOLOGY INFORMATION TECHNOLOGY | IT RESTRUCTURING | 12200 1001 000 027 12200 1001 000 021 12200 2005 000 000 12200 1001 000 058 | 000 027 000 021 000 000 000 058 | 000 027 000 021 000 000 000 058 | PC TECHNICIAN NETWORK TECHNICIAN HOSPITAL/MEDICAL PLANS BUSINESS ANALYST | 28,132.00 41,582.00 5,605.00 75,319.00- |
| 2011-07-28 | ELECTORAL BOARD AND OFFICIALS ELECTORAL BOARD AND OFFICIALS | MAINTENANCE WARRANTY CONT | 13010 3004 000 001 13010 3005 000 000 | 000 001 000 000 | 000 001 000 000 | REPAIR AND MAINTENANCE-EQUIP MAINTENANCE SERVICE CONTRACTS | 67.99- 67.99 |
| 2011-08-02 | OTHER OTHER | POSTAGE MACHINE RENTAL | 12240 5415 000 000 12240 9001 000 000 | 000 000 000 000 | 000 000 000 000 | OTHER EXPENSES LEASE/RENT OF EQUIPMENT | 600.00- 600.00 |

*** END OF REPORT ***

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| 21119 | 004696 | SCS ENGINEERS | 4012-042040-8900-000-000- | 12/08/2009 | 986,447.70- | | | |
| 21119 | 004696 | SCS ENGINEERS | 4012-042040-8900-000-000- | 4/06/2010 | 138,817.80- | | | |
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| 21119 | 004696 | SCS ENGINEERS | 4012-042040-8900-000-000- | 6/25/2010 | 630,990.00- | | | |
| 21119 | 004696 | SCS ENGINEERS | 4012-042040-8900-000-000- | 7/29/2010 | 235,569.60- | | | |
| 21119 | 004696 | SCS ENGINEERS | 4012-042040-8900-000-000- | 10/26/2010 | 1,051,650.00- | | | |
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| 21237 | 005267 | HETZER, INC. C. WILLIAM | 4012-042040-8900-000-000- | 11/18/2010 | 10,958.00 | | | Regarding Northeast Side of |
| 21237 | 005396 | HB & T FINANCIAL, FSB | 4012-042040-8900-000-000- | 11/23/2010 | 65,000.00- | | | |
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| 21255 | 004390 | ALBAN TRACTOR COMPANY | 4012-042040-8006-000-000- | 12/16/2010 | 71,777.00 | 71,777.00 | | DSN w/CAS |
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| 21256 | 004390 | ALBAN TRACTOR COMPANY | 4012-042040-8006-000-000- | 12/16/2010 | 540,330.00 | 540,330.00 | | New 2011 Caterpillar 82GH |
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| 21258 | 005268 | CEDAR MOUNTAIN STONE CORP | 4012-042040-8900-000-000- | 12/28/2010 | 329,250.00 | | | LANDFILL EXPANSION LEAKAGE |
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| 21259 | 007542 | DECATUR ELECTRONICS | 4010-031020-5409-000-000- | 1/25/2011 | 2,400.00 | | | Installation Charge |
| 21259 | 007542 | DECATUR ELECTRONICS | 4010-031020-5409-000-000- | 1/25/2011 | 400.00 | | | Domestic Shipping Charges |
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| 21267 | 005769 | MUNICIPAL EMERGENCY SERVI | 4010-035050-5410-000-000- | 3/03/2011 | 12,044.20 | | | GLOBE GACEL TROUSERS |
| 21267 | 005769 | MUNICIPAL EMERGENCY SERVI | 4010-035050-5410-000-000- | 3/03/2011 | 189.00 | | | BLACK FBI LETTER PATCH, ARCHED |
| 21267 | 005769 | MUNICIPAL EMERGENCY SERVI | 4010-035050-5410-000-000- | 3/03/2011 | 114.75 | | | SCOTCHLITE LETTERS |
| 21267 | 005769 | MUNICIPAL EMERGENCY SERVI | 4010-035050-5410-000-000- | 3/03/2011 | .00 | 25,568.85 | | SHIPPING |
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| 21279 | 007277 | CPS | 4010-071090-5413-000-000- | 5/04/2011 | 675.00 | | | MURIATIC ACID MISC 135 LB. |
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| | | | | | | 15,830.00 * | | |
| 21282 | 003454 | APPLIED CONCEPTS INC | 4010-031020-5409-000-000- | 5/05/2011 | 8,970.00 | | | RADAR UNITS |
| 21282 | 003454 | APPLIED CONCEPTS INC | 4010-031020-5409-000-000- | 5/05/2011 | 140.00 | 9,110.00 | | FREIGHT CHARGE |
| | | | | | | 9,110.00 * | | |
| 21283 | 007783 | KICKIN ASPHALT PAVING & | 4029-012290-8900-000-002- | 5/20/2011 | 147,230.00 | | | LAKE HOLIDAY SS ACCESS ROAD |
| 21283 | 007783 | KICKIN ASPHALT PAVING & | 4029-012290-8900-000-002- | 6/27/2011 | 18,388.00- | 128,842.00 | | STATE ROUTE 705 IMPROVEMENTS |
| | | | | | | 128,842.00 * | | |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 120.00 | | | T-SHIRT WHITE SZ XL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 297.60 | | | T-SHIRT, WHITE 60 2XL, 36 3XL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 70.20 | | | STENCIL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 219.60 | | | T-SHIRT ORANGE 20M, 20L, 50 XL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 147.00 | | | T-SHIRT ORANGE 2XL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 68.80 | | | T-SHIRT ORANGE 4XL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 84.80 | | | T-SHIRT ORANGE 6XL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 81.00 | | | STENCIL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 199.20 | | | T-SHIRT 100% COTTON WHITE SZ X |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 220.00 | | | T-SHIRT 100 % COTTON WHITE SZ |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 230.00 | | | T-SHIRT 100% COTTON WHITE SZ 3 |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 142.20 | | | TROUSERS ORANGE SZ SMALL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 448.20 | | | TROUSERS ORANGE SZ M X |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 312.00 | | | TROUSERS ORANGE 30 2X, 30 3X |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 112.00 | | | TROUSERS ORANGE 4XL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 119.60 | | | TROUSERS ORANGE 5XL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 133.60 | | | TROUSERS ORANGE 6XL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 237.00 | | | TROUSERS WHITE SIZE S |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 597.60 | | | TROUSERS WHITE 50 EA M 2XL 4XL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 1,020.00 | | | TROUSERS GREEN 100 EA L XL |

| PO# | VENDOR | NAME | FUND-DEPT-LOC-ACCT | DATE | \$ AMOUNT \$ | \$ TOTAL \$ | APPROV BY | PO Description |
|-------|--------|---------------------------|---------------------------|-----------|--------------|-------------|-----------|--------------------------------|
| --- | ----- | ---- | ----- | ---- | ----- | ----- | | ----- |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 254.80 | | | SHIRT WHITE 20 M 50 L |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 210.00 | | | SHIRT WHITE SZ XL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 124.00 | | | SHIRT WHITE 6XL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 64.90 | | | SHIRT WHITE SZ XXL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 157.50 | | | STENCIL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 390.00 | | | SHIRT GREEN L |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 420.00 | | | SHIRT XL |
| 21284 | 001867 | BOB BARKER COMPANY, INC. | 4011-033010-5410-000-001- | 5/20/2011 | 2,292.00 | 8,773.60 | | SHOES BLUE |
| | | | | | | ----- | | |
| | | | | | | 8,773.60 * | | |
| 21285 | 004559 | CAPITAL GMC TRUCKS, INC./ | 4013-021120-8005-000-000- | 5/27/2011 | 34,502.50 | 34,502.50 | | 2011 CHEVROLET IMPALA |
| | | | | | | ----- | | |
| | | | | | | 34,502.50 * | | |
| 21287 | 003097 | JUDY EXCAVATING & | 4027-012270-5413-000-005- | 5/31/2011 | 74,200.00 | 74,200.00 | | EST @ WHITMORE FARMS SLED PROJ |
| | | | | | | ----- | | |
| | | | | | | 74,200.00 * | | |
| 21289 | 007789 | BOOKWORM CENTRAL | 4010-035050-5411-000-000- | 6/01/2011 | 1,968.00 | | | A.C.L.S. PROVIDER TEXTBOOK |
| 21289 | 007789 | BOOKWORM CENTRAL | 4010-035050-5411-000-000- | 6/01/2011 | 412.00 | | | A.C.L.S. INSTRUCTOR MANUAL |
| 21289 | 007789 | BOOKWORM CENTRAL | 4010-035050-5411-000-000- | 6/01/2011 | 376.40 | | | A.C.L.S. INSTRUCTOR PACKAGE |
| 21289 | 007789 | BOOKWORM CENTRAL | 4010-035050-5411-000-000- | 6/01/2011 | 140.20 | | | A.C.L.S. DVD |
| 21289 | 007789 | BOOKWORM CENTRAL | 4010-035050-5411-000-000- | 6/01/2011 | 92.20 | | | A.C.L.S. POSTER SET |
| 21289 | 007789 | BOOKWORM CENTRAL | 4010-035050-5411-000-000- | 6/01/2011 | 80.00 | 3,068.80 | | SHIPPING |
| | | | | | | ----- | | |
| | | | | | | 3,068.80 * | | |
| 21290 | 005833 | MODURFORM, INC. | 4011-033010-5401-000-000- | 6/07/2011 | 3,265.16 | | | CHAIRS FOR INEP WAITING AREA |
| 21290 | 005833 | MODURFORM, INC. | 4011-033010-5401-000-000- | 6/07/2011 | 629.38 | | | 2 SEAT STRAIGHT UNIT VINYL ARM |
| 21290 | 005833 | MODURFORM, INC. | 4011-033010-5401-000-000- | 6/07/2011 | 845.50 | 4,740.04 | | 3 SEAT STRAIGHT UNIT VINYL ARM |
| | | | | | | ----- | | |
| | | | | | | 4,740.04 * | | |
| 21293 | 007123 | TEKSAVERS INC | 4010-012220-5401-000-000- | 6/15/2011 | 362.00 | | | IT NETWORKING EQUIPMENT |
| 21293 | 007123 | TEKSAVERS INC | 4010-012220-5401-000-000- | 6/15/2011 | 5,720.00 | | | IT NETWORK EQUIPMENT |
| 21293 | 007123 | TEKSAVERS INC | 4010-012220-5401-000-000- | 6/15/2011 | 4,680.00 | | | IT NETWORK EQUIPMENT |
| 21293 | 007123 | TEKSAVERS INC | 4010-012220-5401-000-000- | 6/15/2011 | 85.00 | 10,847.00 | | SHIPPING |
| | | | | | | ----- | | |
| | | | | | | 10,847.00 * | | |
| 21294 | 005991 | BEARCOM | 4010-035060-8003-000-000- | 6/15/2011 | 6,596.46 | | | KENWOOD BASE STATION REPEATERS |
| 21294 | 005991 | BEARCOM | 4010-035060-8003-000-000- | 6/15/2011 | 19,920.00 | 26,516.46 | | RAYDIEN VOTER WITH CARDS |
| | | | | | | ----- | | |
| | | | | | | 26,516.46 * | | |
| 21295 | 003945 | JAMES RIVER EQUIPMENT LLC | 4012-042040-8006-000-000- | 6/20/2011 | 30,340.00 | 30,340.00 | | USED JOHN DEERE 500 MINI |
| | | | | | | ----- | | |
| | | | | | | 30,340.00 * | | |
| 21296 | 006980 | FAST SIGNS | 4011-033010-3004-000-003- | 6/20/2011 | 1,077.37 | | | SINGLE SIDED SIGNS |
| 21296 | 006980 | FAST SIGNS | 4011-033010-3004-000-003- | 6/20/2011 | 1,648.84 | | | SINGLE SIDED SIGN |
| 21296 | 006980 | FAST SIGNS | 4011-033010-3004-000-003- | 6/20/2011 | 340.00 | 3,066.21 | | INSTALLATION |
| | | | | | | ----- | | |
| | | | | | | 3,066.21 * | | |
| 21297 | 004394 | SOUTHERN AIR, INC. | 4010-043040-8011-000-000- | 6/20/2011 | 49,110.00 | 49,110.00 | | A/C CLIMATE CONTROL IN IT |
| | | | | | | ----- | | |
| | | | | | | 49,110.00 * | | |
| 21298 | 003172 | NATIONAL POOLS OF | 4010-071100-5407-000-000- | 6/23/2011 | 4,998.50 | 4,998.50 | | POOL PUMP & MOTOR, 15 HP |
| | | | | | | ----- | | |
| | | | | | | 4,998.50 * | | |

AP240 6/08/2011

COUNTY OF FREDERICK VA.

OPEN PURCHASE ORDERS

* OPEN *

PAGE 4

| PO# | VEND# | NAME | FUND-DEPT-LOC-ACCT | DATE | \$ AMOUNT \$ | \$ TOTAL \$ | APPROV BY | PO Description |
|-------|--------|---------------------------|---------------------------|-----------|--------------|------------------|-----------|---------------------------------|
| --- | ---- | ---- | ----- | ---- | ----- | ----- | | ----- |
| 21299 | 003172 | NATIONAL POOLS OF | 4010-071090-3004-000-003- | 6/23/2011 | 6,999.00 | 6,999.00 | | REPLACEMENT OF TILE AND COPING |
| | | | | | | 6,999.00 * | | |
| 21300 | 005769 | MUNICIPAL EMERGENCY SERVI | 4010-035050-5407-000-000- | 6/27/2011 | 3,698.28 | 3,698.28 | | IN HOUSE REPAIR CENTER PARTS |
| | | | | | | 3,698.28 * | | |
| 21301 | 006651 | NAFECO, INC. | 4010-035050-5410-000-000- | 6/27/2011 | 7,311.95 | 7,311.95 | | NOVEX PAINTS |
| | | | | | | 7,311.95 * | | |
| 21302 | 005769 | MUNICIPAL EMERGENCY SERVI | 4010-035050-5410-000-000- | 6/27/2011 | 3,777.40 | | | GLORIE GACEL JACKET #012611-30 |
| 21302 | 005769 | MUNICIPAL EMERGENCY SERVI | 4010-035050-5410-000-000- | 6/27/2011 | 3,441.20 | | | GLORIE GACEL TROUSERS #012611-3 |
| 21302 | 005769 | MUNICIPAL EMERGENCY SERVI | 4010-035050-5410-000-000- | 6/27/2011 | 54.00 | | | BLACK FBI LETTER PATCH |
| 21302 | 005769 | MUNICIPAL EMERGENCY SERVI | 4010-035050-5410-000-000- | 6/27/2011 | 31.05 | 7,303.65 | | SCOTCHMATE LETTERS 3" LIME/YEL |
| | | | | | | 7,303.65 * | | |
| 21303 | 005006 | DELTA AIRPORT CONSULTANTS | 4085-081030-8801-000-065- | 6/27/2011 | 600,195.00 | 600,195.00 | | REPAIR R/W 14-32 CONSTR PHASE |
| | | | | | | 600,195.00 * | | |
| 21304 | 007820 | RIFENBURG CONSTRUCTION | 4085-081030-8801-000-065- | 6/27/2011 | 6,962,376.00 | 6,962,376.00 | | REPAIR R/W 14-32 CONSTRUCTION |
| | | | | | | 6,962,376.00 * | | |
| 21305 | 000515 | S & S WORLDWIDE, INC. | 4010-071040-8001-000-000- | 6/29/2011 | 5,250.00 | | | WII DOUBLE PLAY GAME |
| 21305 | 000515 | S & S WORLDWIDE, INC. | 4010-071040-8001-000-000- | 6/29/2011 | 270.00 | | | DDR TOUGH MULTI SYSTEM |
| 21305 | 000515 | S & S WORLDWIDE, INC. | 4010-071040-8001-000-000- | 6/29/2011 | 100.00 | 5,620.00 | | DDR DISNEY CHANNEL ED |
| | | | | | | 5,620.00 * | | |
| 21306 | 007821 | PLANET ACCESS LLC | 4010-071090-5413-000-000- | 6/29/2011 | 4,995.00 | | | TRAVELER II XRC 500 POOL LIFT |
| 21306 | 007821 | PLANET ACCESS LLC | 4010-071090-5413-000-000- | 6/29/2011 | 368.00 | 5,363.00 | | FREIGHT |
| 21306 | 007821 | PLANET ACCESS LLC | 4010-071100-5413-000-000- | 6/29/2011 | 4,995.00 | | | TRAVELER II XRC 500 POOL LIFT |
| 21306 | 007821 | PLANET ACCESS LLC | 4010-071100-5413-000-000- | 6/29/2011 | 368.00 | 5,363.00 | | FREIGHT |
| | | | | | | 10,726.00 * | | |
| 21307 | 000378 | WINCHESTER PRINTERS, INC. | 4010-061020-3006-000-000- | 6/29/2011 | 5,280.00 | 5,280.00 | | QUALITY OF LIFE BOOKLETS |
| | | | | | | 5,280.00 * | | |
| 21308 | 006820 | CAS SEVERN | 4010-012220-5413-000-000- | 6/29/2011 | 2,195.00 | | | INSTALLATION SERVICES |
| 21308 | 006820 | CAS SEVERN | 4010-012220-5413-000-000- | 6/30/2011 | 2,988.00 | 5,183.00 | | GX730 HARD DRIVES, RACK, CABLE |
| | | | | | | 5,183.00 * | | |
| | | | | | | 10,520,467.18 ** | | |